



In cooperation with the Bureau of Reclamation

# **Statistical Summaries of Water-Quality Data for Selected Streamflow-Gaging Stations in the Red River of the North Basin, North Dakota, Minnesota, and South Dakota**

Open-File Report 02-390

**U.S. Department of the Interior  
U.S. Geological Survey**

# **Statistical Summaries of Water-Quality Data for Selected Streamflow-Gaging Stations in the Red River of the North Basin, North Dakota, Minnesota, and South Dakota**

**By Kathleen M. Macek-Rowland and Valerie M. Dressler**

**Open-File Report 02-390**

**In cooperation with the Bureau of Reclamation**

**Bismarck, North Dakota  
2002**

U.S. DEPARTMENT OF THE INTERIOR  
GALE A. NORTON, Secretary

U.S. GEOLOGICAL SURVEY  
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For additional information write to:

District Chief  
U.S. Geological Survey  
Water Resources Division  
821 East Interstate Avenue  
Bismarck, ND 58503-1199

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# Statistical Summaries of Water-Quality Data for Selected Streamflow-Gaging Stations in the Red River of the North Basin, North Dakota, Minnesota, and South Dakota

By K. M. Macek-Rowland and V. M. Dressler

## Abstract

The quantity and quality of current and future water resources in the Red River of the North Basin in North Dakota, Minnesota, and South Dakota are concerns of people who reside within the basin. Additional water resources are needed because of recent growth in population, industry, and agriculture. How the management of current and future water-resources will impact water quality within the basin is a critical issue. Water-quality data, particularly for surface-water sources, will help water-resources managers make decisions about current and future water resources in the Red River of the North Basin. Statistical summaries of water-quality data for 43 streamflow-gaging stations in the Red River of the North Basin in North Dakota, Minnesota, and South Dakota are presented in this report. Statistical summaries include sample size, maximum, minimum, mean, and values for the 95th, 75th, 50th, 25th, and 5th percentiles.

## INTRODUCTION

The Red River of the North, located in the north-central plains of the United States, plays an important role in regional development. The Red River of the North and its tributaries are used for water supply, irrigation, industry, livestock, and recreation. Additional water resources are needed because of recent growth in population, industry, and agriculture in the basin. The Red River of the North and its tributaries are affected by the quantity and quality of water within the basin. Therefore, the quantity and quality of current and future water resources in the Red River of the North Basin in North Dakota, Minnesota, and South Dakota are concerns of people who reside within the basin. How the management of current and future water-resources will impact water quality within the basin is a critical issue.

The Dakota Water Resources Act was passed by the U.S. Congress on December 15, 2000. The Act authorized the Secretary of the Interior to conduct a comprehensive study of the future water-quantity and quality needs of the Red River of the North Basin in North Dakota and the possible options to meet those needs. To provide needed information for the comprehensive study, the U.S. Geological Survey (USGS) conducted a study in cooperation with the Bureau of Reclamation. The study will provide water-quantity and quality information needed for the comprehensive study.

This report presents statistical summaries of water-quality data collected at selected USGS streamflow-gaging stations in the Red River of the North Basin in North Dakota, Minnesota, and South Dakota. Statistical summaries are provided for 43 streamflow-gaging stations (table 1). The data will help water-resources managers make decisions about current and future water resources in the Red River of the North Basin.

## DESCRIPTION OF THE RED RIVER OF THE NORTH BASIN

The Red River of the North begins at the confluence of the Ottertail and Bois de Sioux Rivers in Wahpeton, N. Dak., and Breckenridge, Minn. (fig. 1). The river flows northward for about 394 miles to the United States-Canadian boundary. From the international boundary, the Red River of the North flows north about 155 miles and discharges into Lake Winnipeg. Drainage area at the Emerson, Manitoba, gaging station, which is about 0.8 mile downstream from the international boundary, is about 40,200 square miles (U.S. Geological Survey, 2002, p. 184). Excluding the Assiniboine River Basin, an additional 5,000 square miles of drainage area is located in Canada. The basin is relatively flat and has a shallow river channel. The flat portions of the basin were caused by sediment deposition from an ancient glacial lake, Lake Agassiz, that existed between 7,000 to 12,000 years ago.

**Table 1.** Selected streamflow-gaging stations in the Red River of the North Basin, North Dakota, Minnesota, and South Dakota

[End dates are considered preliminary; water-quality data may not have been collected continuously for each station]

| Map and supplement number | Gaging station number | Gaging station name                                       | Water-quality period of record   | Drainage area (square miles) | Latitude and longitude (degrees, minutes, and seconds) |
|---------------------------|-----------------------|---|--|------------------------------|--|
| 1                         | 05046000              | Ottertail River below Orwell Dam near Fergus Falls, Minn. | October 1960 through August 1995 <sup>1</sup>  | 1,740                        | 4612350961105  |
| 2                         | 05050000              | Bois de Sioux River near White Rock, S. Dak.              | November 1963 through November 1966 <sup>1</sup><br>June 1989 through November 1995 <sup>2</sup> | 1,160                        | 4551450963425  |
| 3                         | 05051300              | Bois de Sioux River near Doran, Minn.                     | March 1993 through August 1995 <sup>1</sup>  | 1,880                        | 4609080963444  |
| 4                         | 05051500              | Red River of the North at Wahpeton, N. Dak.               | October 1971 through April 2001 <sup>3</sup><br>August 1992 through August 1997 <sup>1</sup>     | 4,010                        | 4615550963540  |
| 5                         | 05051522              | Red River of the North at Hickson, N. Dak.                | November 1975 through April 2001 <sup>3</sup>  | 4,300                        | 4639350964744  |
| 6                         | 05053000              | Wild Rice River near Abercrombie, N. Dak.                 | June 1966 through April 2001 <sup>3</sup>  | 2,080                        | 4628050964700  |
| 7                         | 05054000              | Red River of the North at Fargo, N. Dak.                  | May 1949 through July 2001 <sup>3</sup>  | 6,800                        | 4651400964700  |
| 8                         | 05054020              | Red River of the North below Fargo, N. Dak.               | July 1969 through September 1986 <sup>3</sup><br>August 1992 through July 2001 <sup>1</sup>      | 6,820                        | 4655500964705  |
| 9                         | 05054500              | Sheyenne River above Harvey, N. Dak.                      | October 1971 through July 2001 <sup>3</sup>  | 424                          | 4742100995655  |
| 10                        | 05056000              | Sheyenne River near Warwick, N. Dak.                      | January 1951 through July 2001 <sup>3</sup>  | 2,070                        | 4748200984257  |
| 11                        | 05057000              | Sheyenne River near Cooperstown, N. Dak.                  | October 1959 through April 2001 <sup>3</sup>   | 6,470                        | 4725580980138  |
| 12                        | 05057200              | Baldhill Creek near Dazey, N. Dak.                        | October 1971 through April 2001 <sup>3</sup>   | 691                          | 4713450980728  |
| 13                        | 05057500              | Lake Ashtabula at Baldhill Dam, N. Dak.                   | February 1960 through March 2001 <sup>3</sup>  | 7,470                        | 4702000980500  |
| 14                        | 05058000              | Sheyenne River below Baldhill Dam, N. Dak.                | June 1959 through July 2001 <sup>3</sup>   | 7,470                        | 4701560980508  |
| 15                        | 05058500              | Sheyenne River at Valley City, N. Dak.                    | November 1971 through April 2001 <sup>3</sup>  | 7,810                        | 4654500980030  |
| 16                        | 05058700              | Sheyenne River at Lisbon, N. Dak.                         | August 1956 through April 2001 <sup>3</sup>  | 8,190                        | 4626490974044  |
| 17                        | 05059000              | Sheyenne River near Kindred, N. Dak.                      | October 1971 through April 2001 <sup>3</sup>   | 8,800                        | 4637540970001  |
| 18                        | 05059500              | Sheyenne River at West Fargo, N. Dak.                     | September 1969 through July 2001 <sup>3</sup>  | 8,870                        | 4653280965424  |
| 19                        | 05059700              | Maple River near Enderlin, N. Dak.                        | October 1971 through April 2001 <sup>3</sup>   | 843                          | 4637180973425  |
| 20                        | 05060100              | Maple River below Mapleton, N. Dak.                       | March 1995 through April 2001 <sup>3</sup>   | 1,480                        | 4654190970338  |
| 21                        | 05060500              | Rush River at Amenia, N. Dak.                             | November 1971 through August 2000 <sup>3</sup>   | 116                          | 4701000971250  |
| 22                        | 05062000              | Buffalo River near Dilworth, Minn.                        | April 1962 through March 1991 <sup>1</sup>   | 975                          | 4657400963940  |
| 23                        | 05062200              | Elm River near Kelso, N. Dak.                             | February 1981 through April 1989 <sup>3</sup>  | 194                          | 4717300970650  |

**Table 1.** Selected streamflow-gaging stations in the Red River of the North Basin, North Dakota, Minnesota, and South Dakota--Continued

[End dates are considered preliminary; water-quality data may not have been collected continuously for each station]

| Map and supplement number | Gaging station number | Gaging station name                                  | Water-quality period of record   | Drainage area (square miles) | Latitude and longitude (degrees, minutes, and seconds) |
|---------------------------|-----------------------|--|--|------------------------------|--|
| 24                        | 05062500              | Wild Rice River at Twin Valley, Minn.                | September 1974 through August 1998 <sup>1</sup>  | 934                          | 4716000961440  |
| 25                        | 05064000              | Wild Rice River at Hendrum, Minn.                    | July 1978 through September 1999 <sup>1</sup>  | 1,560                        | 4716050964750  |
| 26                        | 05064500              | Red River of the North at Halstad, Minn.             | July 1961 through July 2001 <sup>3</sup><br>October 1992 through June 1995 <sup>1</sup>    | 21,800                       | 4721100965050  |
| 27                        | 05066500              | Goose River at Hillsboro, N. Dak.                    | September 1969 through April 2001 <sup>3</sup>   | 1,203                        | 4724340970339  |
| 28                        | 05067500              | Marsh River near Shelly, Minn.                       | July 1975 through September 2000 <sup>3</sup>  | 220                          | 4724450964550  |
| 29                        | 05069000              | Sand Hill River at Climax, Minn.                     | November 1966 through September 2000 <sup>3</sup>  | 420                          | 4736430964852  |
| 30                        | 05074000              | Lower Red Lake near Red Lake, Minn.                  | May 1962 through April 1965 <sup>3</sup>   | 1,950                        | 4757270951634  |
| 31                        | 05075000              | Red Lake River at High Landing near Goodridge, Minn. | April 1979 through September 2000 <sup>1</sup>   | 2,300                        | 4802340954828  |
| 32                        | 05078500              | Clearwater River at Red Lake Falls, Minn.            | August 1992 through March 2001 <sup>1</sup>  | 1,380                        | 4753150961625  |
| 33                        | 05079000              | Red Lake River at Crookston, Minn.                   | April 1962 through September 2000 <sup>1</sup>   | 5,270                        | 4746320963633  |
| 34                        | 05082500              | Red River of the North at Grand Forks, N. Dak.       | June 1949 through July 2001 <sup>2</sup><br>September 1992 through April 1997 <sup>1</sup> | 30,100                       | 4755380970134  |
| 35                        | 05083000              | Turtle River at Manvel, N. Dak.                      | October 1971 through October 1991 <sup>3</sup>   | 613                          | 4804430971103  |
| 36                        | 05085000              | Forest River at Minto, N. Dak.                       | October 1971 through April 2001 <sup>3</sup>   | 740                          | 4816100972210  |
| 37                        | 05085500              | Snake River at Warren, Minn.                         | April 1979 <sup>1</sup>  | 175                          | 4811500964645  |
| 38                        | 05087500              | Middle River at Argyle, Minn.                        | April 1968 through September 2000 <sup>1</sup>   | 255                          | 4820270964902  |
| 39                        | 05090000              | Park River at Grafton, N. Dak.                       | September 1969 through April 2001 <sup>3</sup>   | 695                          | 4825290972442  |
| 40                        | 05092000              | Red River of the North at Drayton, N. Dak.           | October 1971 through April 2001 <sup>3</sup>   | 34,800                       | 4834200970850  |
| 41                        | 05100000              | Pembina River at Neche, N. Dak.                      | October 1971 through April 2001 <sup>3</sup>   | 3,410                        | 4859200973305  |
| 42                        | 05101000              | Tongue River at Akra, N. Dak.                        | October 1971 through April 2001 <sup>3</sup>   | 160                          | 4846420974443  |
| 43                        | 05102500              | Red River of the North at Emerson, Manitoba          | July 1974 through July 2001 <sup>3</sup><br>October 1992 through March 2000 <sup>1</sup>   | 40,200                       | 4900300971240  |

<sup>1</sup>Water-quality data from U.S. Geological Survey data base at Mounds View, Minn.<sup>2</sup>Water-quality data from U.S. Geological Survey data base at Rapid City, S. Dak.,<sup>3</sup>Water-quality data from U.S. Geological Survey data base at Bismarck, N. Dak.

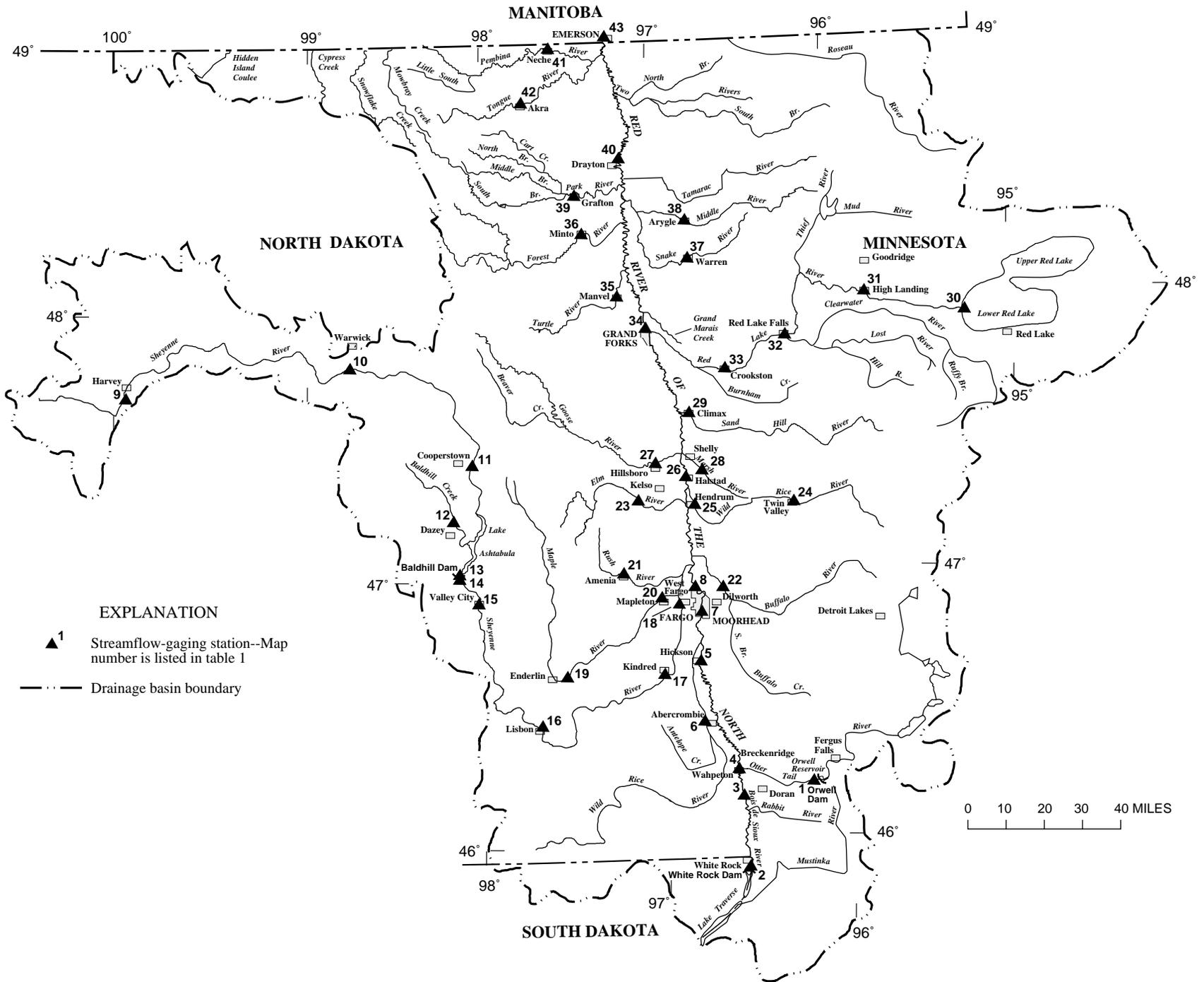


Figure 1. Location of selected streamflow-gaging stations in the Red River of the North Basin, North Dakota, Minnesota, and South Dakota.

In the Red River of the North Basin, streamflow is composed of base flow from ground-water seepage and of runoff from within the basin. Streamflow throughout the basin can vary from virtually no flow in dry years to extensive flooding in wet years. During the most recent dry period, 1988-92, smaller tributaries to the Red River of the North had no flow and the Red River of the North had daily mean flows of less than 100 cubic feet per second at Fargo, N. Dak. Daily mean flows for the Red River of the North at Emerson, Manitoba, ranged from 0.97 cubic feet per second in 1937 to 133,000 cubic feet per second in the spring of 1997. The variability of flows, particularly during extremely dry and wet periods, can impact the quantity and quality of surface-water resources within the Red River of the North Basin. During extremely dry and wet periods, water-quality monitoring is critical to water-resources managers.

Water quality in surface-water sources is affected by the combination of ground water and runoff and by the stream channel composition. The water quality also is affected by water lost through evaporation and through transpiration from vegetation. The natural factors that affect water quality may be coupled with anthropogenic factors caused by people living and working within the basin. Some anthropogenic factors include the use of agricultural chemicals, the release of wastewater into rivers or streams by industries or water treatment facilities, and the changes made to land surface topography.

## **STATISTICAL SUMMARIES**

Statistical summaries were compiled for water-quality data that were collected at 43 streamflow-gaging stations in North Dakota, Minnesota, and South Dakota. Streamflow-gaging stations were selected on the basis of their location, availability of data, and period of record. Selected streamflow-gaging stations, corresponding map numbers, gaging-station numbers, water-quality periods of record, drainage areas, and latitudes and longitudes are listed in table 1. An eight-digit number (e.g., 05051500) has been assigned to each streamflow-gaging station using the downstream-order numbering system of the USGS. The downstream-order number is unique to each station and is used to enter, store, and retrieve data from USGS data bases. The statistical summaries are given in supplemental format at the end of this report (supp. 1-43).

Statistical summaries were developed from water-quality data stored in the U.S. Geological Survey's National Water Information System (NWIS) data base as of October 2001. Water-quality data reported in the statistical tables were collected by USGS personnel and analyzed by USGS laboratories according to established data collection and analysis standards and methodologies of the USGS. Water-quality data for selected streamflow-gaging stations in this report may be obtained from the USGS district office in the state that the streamflow-gaging station is located in or from the NWIS data base maintained on each district's individual web site (table 2). Because of various data-collection programs and projects, additional water-quality data collected by USGS personnel or personnel from other agencies and analyzed by non-USGS laboratories may be included in the USGS water-quality data base. However, the water-quality data analyzed by non-USGS laboratories were not retrieved for this report but may be obtained at the USGS offices in North Dakota, Minnesota, and South Dakota or at other offices and agencies involved in water-resources monitoring in the Red River of the North Basin (table 2).

Descriptive statistics include: (1) the five-digit parameter code that is used to identify the corresponding parameter or constituent in the USGS National Water Information System and the U.S. Environmental Protection Agency Data Storage and Retrieval System; (2) the sample size, which is the number of data values from samples used in computing the statistics for a property or constituent; (3) the maximum, which is the largest data value in a group of data values from the sample; (4) the minimum, which is the smallest data value in a group of data values from the sample; and (5) the mean, which is the sum of individual data values in a sample size divided by the sample size number. Sample size will vary for each property and constituent depending on the data collection programs or projects involved with the station. Because the properties and constituents vary from station to station, a full descriptive term for each property and constituent is in a list at the beginning of the statistical summaries. Reference to this list may be needed when reviewing the individual properties and constituents for each station in order to get a better understanding of the type of data collected at each location. Several of the more common properties and constituents are the same at many streamflow-gaging stations. Common sources and environmental significance of the selected water-quality properties and constituents are given in table 3 (Berkas, W.R., 1993, p. 429-436).

**Table 2.** Selected sources for water-quality data in the Red River of the North Basin, North Dakota, Minnesota, and South Dakota

[Internet addresses accessed on October 2, 2002; USGS, U.S. Geological Survey; STORET, storage and retrieval; NWIS; National Water Information System]

| Name of agency or contact   | Type of water-quality data available   |
|---|--|
| <b>North Dakota</b>   |  |
| U.S. Geological Survey<br>North Dakota District<br>821 East Interstate Avenue<br>Bismarck, ND 58503-1199                              | USGS water-quality data for surface- and ground-water resources in North Dakota is stored on a data base accessed through the Internet. Contact the USGS office in Bismarck, N. Dak., for more site-specific data information.   |
| <a href="http://nd.water.usgs.gov/">http://nd.water.usgs.gov/</a>   | <a href="http://waterdata.usgs/nd/nwis/qw">http://waterdata.usgs/nd/nwis/qw</a>  |
| North Dakota Department of Health<br>1200 Missouri Avenue<br>Bismarck, ND 58502-5520  | State water-quality standards and water-quality data from various surface- and ground-water monitoring programs. Contact agency for more site-specific data information.   |
| <a href="http://www.health.state.nd.us/ndhd/enviro/wq/index.htm">http://www.health.state.nd.us/ndhd/enviro/wq/index.htm</a>           |  |
| North Dakota State Water Commission<br>900 East Boulevard Avenue<br>Bismarck, ND 58505-0850   | Provides access to well data that is available in North Dakota. This includes site information, lithologic data, water-level data, and water chemistry. Contact agency for more site-specific data information.                  |
| <a href="http://www.swc.state.nd.us/dataresources.html">http://www.swc.state.nd.us/dataresources.html</a>                             |  |
| <b>Minnesota</b>  |  |
| U.S. Geological Survey<br>Minnesota District<br>2280 Woodale Drive<br>Mounds View, MN 55112   | USGS water-quality data for surface- and ground-water resources in Minnesota is stored on a data base accessed through the Internet. Contact the USGS office in Mounds View, Minn., for more site-specific data information.     |
| <a href="http://mn.usgs.gov/">http://mn.usgs.gov/</a>   | <a href="http://waterdata.usgs/mn/nwis/qw">http://waterdata.usgs/mn/nwis/qw</a>  |
| Minnesota Pollution Control Agency<br>520 Lafayette Road<br>St. Paul, MN 55155-4194   | Water-quality standards and classifications, watershed stream water-quality assessments, and water quality for lakes. Contact agency for more site-specific data information.  |
| <a href="http://www.pca.state.mn.us/water/basins/redriver/index.html">http://www.pca.state.mn.us/water/basins/redriver/index.html</a> |  |
| <b>South Dakota</b>   |  |
| U.S. Geological Survey<br>South Dakota District<br>1608 Mt. View Road<br>Rapid City, SD 57702   | USGS water-quality data for surface- and ground-water resources in South Dakota is stored on a data base accessed through the Internet. Contact the USGS office in Rapid City, S. Dak., for more site-specific data information. |
| <a href="http://sd.water.usgs.gov/">http://sd.water.usgs.gov/</a>   | <a href="http://waterdata.usgs/sd/nwis/qw">http://waterdata.usgs/sd/nwis/qw</a>  |
| <b>Canada</b>   |  |
| Manitoba Conservation<br>Water Quality Management Section<br>123 Main Street, Suite 160<br>Winnipeg, MB, Canada R3C 1A5               | Manitoba water-quality standards. Contact agency for type of water-quality data available at Canadian sites.   |
| <a href="http://www.gov.mb.ca/natres/watres/water_quality.html">http://www.gov.mb.ca/natres/watres/water_quality.html</a>             |  |
| Environment Canada<br>Chief, Ecological Research Division<br>Room 300, 2365 Albert Street<br>Regina, SK, Canada S4P 4K1               | Information on water-quality monitoring and aquatic-quality science. Contact agency for more site-specific data information.   |
| <a href="http://www.pnr-rpn.ec.gc.ca/water/science">http://www.pnr-rpn.ec.gc.ca/water/science</a>                                     |  |

**Table 2.** Selected sources for water-quality data in the Red River of the North Basin, North Dakota, Minnesota, and South Dakota--Continued  
 [Internet addresses accessed on October 2, 2002; USGS, U.S. Geological Survey; STORET, storage and retrieval; NWIS; National Water Information System]

| Name of agency or contact   | Type of water-quality data available   |
|---|--|
| <b>Colorado</b>   |  |
| Environmental Protection Agency<br>Region 8<br>999 18th Street, Suite 300<br>Denver, CO 80202-2466<br><br><a href="http://www.epa.gov/region08/water/">http://www.epa.gov/region08/water/</a> | Maintains two data bases populated by field water monitoring results from various offices and agencies in the United States. STORET Legacy Data Center holds data prior to 1999 and Modernized STORET receives new data on a regular basis.<br><br><a href="http://www.epa.gov/STORET/dbtop.html">http://www.epa.gov/STORET/dbtop.html</a><br><br>Note: USGS data have been removed from STORET files and are maintained on the USGS NWIS data base. |

**Table 3.** Common sources and environmental significance of selected water-quality properties and constituents

[Modified from Berkas, W.R., 1993, p. 429-436]

| Property or constituent      | Common sources   | Environmental significance   |
|------------------------------|--|--|
| Specific conductance         | A measure of the electrical conductivity of water; varies with the quantity of dissolved solids and is used to approximate the dissolved-solids content.   | Dissolved solids can cause water to be unsuitable for public supply, agriculture, and industry; can harm aquatic organisms.  |
| pH                           | A measure of hydrogen-ion activity (acidity or alkalinity); can be affected by geologic setting, biological activity, municipal and industrial wastewater discharge, and atmospheric deposition. | Acidic water can corrode pipes and equipment; can cause the release of lead and other metals from distribution systems to drinking water; can affect wastewater-treatment processes and taste of water. Alkaline water also can be adverse to use through scale-deposition, particularly in hot water heaters and boilers. |
| Turbidity                    | Caused by natural or human-induced suspended matter; components include clay, silt, fine organic and inorganic matter, soluble colored organic compounds, and microscopic aquatic organisms.     | Can be detrimental to aquatic organisms; can cause water to be unsuitable for recreation, industry, and public supply.   |
| Dissolved oxygen             | Introduced from the atmosphere; also a by-product of aquatic plants.   | Necessary for aquatic life; deficiency can result from assimilation of organic wastes of rapid growth and decay of algae.  |
| Fecal coliform bacteria      | Sources include effluent from sewage-treatment plants and runoff from pastures, feedlots, and urban areas.   | Presence indicates contamination of water by wastes from humans or other warm-blooded animals.   |
| Fecal streptococcal bacteria | Sources include effluent from sewage-treatment plants and runoff from pastures, feedlots, and urban areas.   | Presence indicates contamination of water by wastes from humans or other warm-blooded animals.   |
| Hardness                     | A characteristic of water primarily related to the concentrations of calcium and magnesium.  | Hardness causes the formation of an insoluble residue when used with soap and also causes scale in vessels in which water has been allowed to evaporate.   |
| Sodium                       | Occurs in some igneous rocks, evaporite deposits, and sediment; also occurs in oil-field mines, road deicers, and irrigation return flow.  | Can cause water to be unsuitable for public supply, agriculture, and industry.   |
| Alkalinity                   | A measure of the quantity of acid-neutralizing substances; can be affected by geologic setting, industrial wastewater discharge, waste gases, and runoff from surface mining.                    | Sufficiently alkaline water can be unsuitable for drinking and some agricultural and industrial uses.  |
| Sulfate                      | Occurs in some rocks; also occurs in mine runoff, industrial wastewater discharge, and atmospheric deposition.   | Concentrations exceeding a natural, background level indicate contamination from human activity; in excess, can cause water to be unsuitable for public supply; can harm aquatic organisms.  |
| Chloride                     | Occurs in some rocks and ground-water discharge; also occurs in road deicers, industrial and urban wastewater discharge, and atmospheric deposition.   | Concentrations exceeding a natural, background level indicate contamination from human activities; can cause water to be unsuitable for public supply, agriculture, and industry; can harm aquatic organisms.  |
| Silica                       | Is derived from the decomposition of silicate minerals.  | Can cause water to be unsuitable for some industrial applications such as boiler feed water; forms hard scale.   |

**Table 3.** Common sources and environmental significance of selected water-quality properties and constituents--Continued

[Modified from Berkas, W.R., 1993, p. 429-436]

| Property or constituent       | Common sources   | Environmental significance  |
|-------------------------------|--|---|
| Dissolved solids              | A result of rock weathering; also in agricultural runoff and industrial discharge.   | In excess, can cause water to be unsuitable for public supply, agriculture, and industry; can harm aquatic organisms.   |
| Nitrite plus nitrate          | Nonpoint sources are agricultural and urban runoff; a major point source is wastewater discharge.  | Plant nutrient that, in excess, can cause algal blooms and excessive growth of higher aquatic plants in bodies of water; can cause water to be unsuitable for public supply.  |
| Total nitrate                 | Nonpoint sources are agricultural and urban runoff; a major point source is wastewater discharge.  | Plant nutrient that, in excess, can cause algal blooms and excessive growth of higher aquatic plants in bodies of water; can cause water to be unsuitable for public supply.  |
| Ammonia                       | Nonpoint sources are agricultural and urban runoff; a major point source is wastewater discharge.  | Plant nutrient that, in excess, can cause algal blooms and excessive growth of higher aquatic plants in bodies of water; can cause water to be unsuitable for public supply. Toxic to fish and other forms of aquatic life. |
| Ammonia plus organic nitrogen | Nonpoint sources are agricultural and urban runoff; a major point source is wastewater discharge.  | Plant nutrient that, in excess, can cause algal blooms and excessive growth of higher aquatic plants in bodies of water; can cause water to be unsuitable for public supply.  |
| Phosphorus                    | Occurs in some rocks and sediments; also occurs in runoff and seepage from phosphate-rock mines, agricultural and urban runoff, and industrial and municipal wastewater discharge. | Plant nutrient that, in excess quantity, can cause algal blooms and excessive growth of higher aquatic plants in bodies of water.   |
| Phosphate                     | Occurs in some rocks and sediments; also occurs in runoff and seepage from phosphate-rock mines, agricultural and urban runoff, and industrial and municipal wastewater discharge. | Plant nutrient that, in excess quantity, can cause algal blooms and excessive growth of higher aquatic plants in bodies of water.   |
| Barium                        | Occurs in some rocks; also occurs in mine runoff and wastewater discharge.   | Toxic in larger than trace concentrations; can cause water to be unsuitable for public supply.  |
| Iron                          | Occurs from the decomposition of some rocks; also occurs in mine runoff.   | Can affect the suitability of water for public and industrial water supply and can harm aquatic organisms.  |
| Arsenic                       | Occurs in some rocks and soils; used in some pesticides; associated with geothermal activities; can be leached from arid lands by irrigation.                                      | Toxic in larger than trace concentrations; can cause water to be unsuitable for public supply; can harm aquatic organisms.  |
| Selenium                      | Occurs in some rocks and soils; can be leached from arid lands by irrigation.  | Toxic in larger than trace concentrations; can cause water to be unsuitable for public supply; can harm aquatic organisms.  |
| Suspended sediment            | A result of rock erosion; also induced by disturbances of land cover because of fires, floods, and human activities such as mining, logging, construction, and agriculture.        | Can be detrimental to aquatic organisms; can fill reservoirs and impair recreational use of water.  |

Values for the 95th, 75th, 50th (median), 25th, and 5th percentiles also are included in the statistical tables. The percentiles are the percentage of samples in which the values were less than or equal to those shown in the statistical table. The 50th percentile, or median, represents the middle value of an uneven sample number or the mean of two middle values of an even sample number. Only maximum and minimum values are given when there is more than one but less than five values for a property or constituent. A property or constituent may have more than five samples but no other statistics because the data for that property or constituent are calculated values, not actual values collected at a station. Calculated values need actual values from certain properties and/or constituents in order to be calculated. The calculated value cannot be computed and will show only the number of samples if one or more of the properties or constituents needed for the calculation are missing values, if one or more of the constituents are censored (less than a predetermined value), or if a property or constituent is missing or was not collected. USGS water-quality data may be obtained from the USGS Water-Quality Home Page on the Internet at <http://nwql.usgs.gov> (accessed on September 23, 2002).

## REFERENCES

- Berkas, W.R., 1993, North Dakota Stream Water Quality *in* Paulson, R.W., Chase, E.B., Williams, J.S., and Moody, D.W., comp., National Water Summary 1990-91, Hydrologic Events and Stream Water Quality: U.S. Geological Survey Water-Supply Paper 2400, p. 429-436.
- U.S. Geological Survey, 2002, Water resources data for North Dakota, water year 2001: U.S. Geological Survey Water Data Report, ND-01-1, 467 p.

List of parameter codes and corresponding property or constituent

| Parameter code | Property or constituent  |
|----------------|--|
| 00010          | Temperature, water (degrees Celsius)   |
| 00020          | Temperature, air (degrees Celsius)   |
| 00025          | Barometric pressure (millimeters of Hg)  |
| 00060          | Discharge (cubic feet per second)  |
| 00061          | Discharge, instantaneous (cubic feet per second)   |
| 00065          | Gage height (feet)   |
| 00070          | Turbidity (Jackson candle unit)  |
| 00076          | Turbidity (nephelometric turbidity unit)   |
| 00077          | Transparency, secchi disk (inches)   |
| 00080          | Color (platinum cobalt scale)  |
| 00094          | Specific conductance, field (microsiemens per centimeter at 25 degrees Celsius)  |
| 00095          | Specific conductance (microsiemens per centimeter at 25 degrees Celsius)   |
| 00120          | Precipitation, cumulative at given time, location 4 (inches)   |
| 00300          | Oxygen, dissolved (milligrams per liter)   |
| 00301          | Oxygen, dissolved (percent of saturation)  |
| 00310          | Biochemical oxygen demand, 5-day at 20 degrees Celsius (milligrams per liter)  |
| 00340          | Chemical oxygen demand, high level (milligrams per liter)  |
| 00400          | pH, water, whole, field (standard units)   |
| 00403          | pH, water, whole, laboratory (standard units)  |
| 00405          | Carbon dioxide, dissolved (milligrams per liter as CO <sub>2</sub> )   |
| 00410          | Acid neutralizing capacity (alkalinity), fixed endpoint titration, field (milligrams per liter as CaCO <sub>3</sub> )                  |
| 00417          | Acid neutralizing capacity (alkalinity), water, unfiltered, fixed endpoint titration, lab (milligrams per liter as CaCO <sub>3</sub> ) |
| 00418          | Alkalinity, water, dissolved, total, fixed (milligrams per liter as CaCO <sub>3</sub> )  |
| 00419          | Acid neutralizing capacity (alkalinity), water, unfiltered, incremental titration, field (milligrams per liter as CaCO <sub>3</sub> )  |
| 00431          | Acid neutralizing capacity (alkalinity), water, unfiltered (milligrams per liter as CaCO <sub>3</sub> )                                |
| 00435          | Acidity, total (milligrams per liter as CaCO <sub>3</sub> )  |
| 00440          | Bicarbonate, water, whole, fixed endpoint titration, field (milligrams per liter as CaCO <sub>3</sub> )                                |
| 00445          | Carbonate, water, whole, fixed endpoint titration, field (milligrams per liter as CaCO <sub>3</sub> )                                  |
| 00447          | Carbonate, water, unfiltered, incremental titration, field (milligrams per liter as CaCO <sub>3</sub> )                                |
| 00450          | Bicarbonate, water, unfiltered, incremental titration, field (milligrams per liter as CaCO <sub>3</sub> )                              |
| 00452          | Carbonate, water, dissolved, incremental (milligrams per liter as CaCO <sub>3</sub> )  |
| 00453          | Bicarbonate, water, dissolved, incremental, field (milligrams per liter as HCO <sub>3</sub> )  |
| 00515          | Residue, total filterable, dried at 105 degrees Celsius (milligrams per liter)   |
| 00520          | Residue, volatile, filterable (milligrams per liter)   |
| 00530          | Residue, total, nonfilterable (milligrams per liter)   |
| 00540          | Residue, fixed, nonfilterable (milligrams per liter)   |
| 00572          | Biomass, periphyton, ash weight (grams per square meter)   |
| 00573          | Biomass, periphyton, dry weight, total (grams per square meter)  |
| 00600          | Nitrogen, total (milligrams per liter as N)  |
| 00602          | Nitrogen, dissolved (milligrams per liter as N)  |
| 00603          | Nitrogen, total, in bottom material (milligrams per kilogram as N)   |
| 00605          | Nitrogen, organic, total (milligrams per liter as N)   |
| 00607          | Nitrogen, organic, dissolved (milligrams per liter as N)   |
| 00608          | Nitrogen, ammonia, dissolved (milligrams per liter as N)   |
| 00610          | Nitrogen, ammonia, total (milligrams per liter as N)   |
| 00613          | Nitrogen, nitrite, dissolved (milligrams per liter as N)   |
| 00615          | Nitrogen, nitrite, total (milligrams per liter as N)   |
| 00618          | Nitrogen, nitrate, dissolved (milligrams per liter as N)   |
| 00620          | Nitrogen, nitrate, total (milligrams per liter as N)   |
| 00621          | Nitrogen, nitrate, total, in bottom material (milligrams per kilogram as N)  |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent  |
|----------------|--|
| 00623          | Nitrogen, ammonia plus organic, dissolved (milligrams per liter as N)                                |
| 00624          | Nitrogen, ammonia plus organic, suspended, total (milligrams per liter as N)                         |
| 00625          | Nitrogen, ammonia plus organic, total (milligrams per liter as N)                                    |
| 00626          | Nitrogen, ammonia plus organic, total, in bottom material, dry weight (milligrams per kilogram as N) |
| 00630          | Nitrogen, nitrite plus nitrate, total (milligrams per liter as N)                                    |
| 00631          | Nitrogen, nitrite plus nitrate, dissolved (milligrams per liter as N)                                |
| 00633          | Nitrogen, nitrite plus nitrate, total, in bottom material, dry weight (milligrams per kilogram as N) |
| 00650          | Phosphate, total (milligrams per liter as PO <sub>4</sub> )  |
| 00660          | Phosphate, orthophosphate, dissolved (milligrams per liter as PO <sub>4</sub> )                      |
| 00665          | Phosphorus, total (milligrams per liter as P)  |
| 00666          | Phosphorus, dissolved (milligrams per liter as P)  |
| 00668          | Phosphorus, total, in bottom material, dry weight (milligrams per kilogram as P)                     |
| 00669          | Phosphorus, hydrolyzable, total (milligrams per liter as P)  |
| 00670          | Phosphorus, organic, total (milligrams per liter as P)   |
| 00671          | Phosphorus, orthophosphate, dissolved (milligrams per liter as P)                                    |
| 00672          | Phosphorus, hydrolyzable, dissolved (milligrams per liter as P)                                      |
| 00673          | Phosphorus, organic, dissolved (milligrams per liter as P)   |
| 00677          | Phosphorus, hydrolyzable plus ortho, dissolved (milligrams per liter as P)                           |
| 00678          | Phosphorus, hydrolyzable plus ortho, total (milligrams per liter as P)                               |
| 00680          | Carbon, organic, total (milligrams per liter as C)   |
| 00681          | Carbon, organic, dissolved (milligrams per liter as C)   |
| 00687          | Carbon, organic, total, in bottom material (milligrams per liter as C)                               |
| 00689          | Carbon, organic, suspended, total (milligrams per liter as C)  |
| 00690          | Carbon, inorganic plus organic, total (milligrams per liter as C)                                    |
| 00720          | Cyanide, total (milligrams per liter as Cn)  |
| 00723          | Cyanide, dissolved (milligrams per liter as Cn)  |
| 00900          | Hardness, total (milligrams per liter as CaCO <sub>3</sub> )   |
| 00902          | Noncarbonate hardness, water, whole, total, field (milligrams per liter as CaCO <sub>3</sub> )       |
| 00903          | Noncarbonate hardness, water, whole, total, laboratory (milligrams per liter as CaCO <sub>3</sub> )  |
| 00904          | Hardness, noncarbonate water dissolved, field (milligrams per liter as CaCO <sub>3</sub> )           |
| 00905          | Hardness, noncarbonate water dissolved, laboratory (milligrams per liter as CaCO <sub>3</sub> )      |
| 00915          | Calcium, dissolved (milligrams per liter as Ca)  |
| 00918          | Calcium, total, recoverable (milligrams per liter as Ca)   |
| 00921          | Magnesium, total, recoverable (milligrams per liter as Mg)   |
| 00923          | Sodium, total, recoverable (milligrams per liter as Na)  |
| 00925          | Magnesium, dissolved (milligrams per liter as Mg)  |
| 00930          | Sodium, dissolved (milligrams per liter as Na)   |
| 00931          | Sodium adsorption ratio (SAR)  |
| 00932          | Sodium (percent)   |
| 00933          | Sodium plus potassium, dissolved (milligrams per liter as Na)  |
| 00935          | Potassium, dissolved (milligrams per liter as K)   |
| 00939          | Potassium, total, recoverable (milligrams per liter as K)  |
| 00940          | Chloride, dissolved (milligrams per liter as Cl)   |
| 00945          | Sulfate, dissolved (milligrams per liter as SO <sub>4</sub> )  |
| 00950          | Fluoride, dissolved (milligrams per liter as F)  |
| 00951          | Fluoride, total (milligrams per liter as F)  |
| 00955          | Silica, dissolved (milligrams per liter as SiO <sub>2</sub> )  |
| 00998          | Beryllium, total, recoverable (micrograms per liter as Be)   |
| 00999          | Boron, total, recoverable (micrograms per liter as B)  |
| 01000          | Arsenic, dissolved (micrograms per liter as As)  |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent  |
|----------------|--|
| 01001          | Arsenic, suspended, total (micrograms per liter as As)           |
| 01002          | Arsenic, total (micrograms per liter as As)                      |
| 01003          | Arsenic, total, in bottom material (micrograms per gram as As)   |
| 01005          | Barium, dissolved (micrograms per liter as Ba)                   |
| 01006          | Barium, suspended, recoverable (micrograms per liter as Ba)      |
| 01007          | Barium, total (micrograms per liter as Ba)                       |
| 01009          | Barium, total, recoverable (micrograms per liter as Ba)          |
| 01010          | Beryllium, dissolved (micrograms per liter as Be)                |
| 01012          | Beryllium, total (micrograms per liter as Be)                    |
| 01020          | Boron, dissolved (micrograms per liter as B)                     |
| 01022          | Boron, total (micrograms per liter as B)                         |
| 01025          | Cadmium, dissolved (micrograms per liter as Cd)                  |
| 01026          | Cadmium, suspended (micrograms per liter as Cd)                  |
| 01027          | Cadmium, total (micrograms per liter as Cd)                      |
| 01028          | Cadmium, total, in bottom material (micrograms per gram as Cd)   |
| 01029          | Chromium, total, in bottom material (micrograms per gram as Cr)  |
| 01030          | Chromium, dissolved (micrograms per liter as Cr)                 |
| 01031          | Chromium, suspended (micrograms per liter as Cr)                 |
| 01032          | Chromium, hexavalent (micrograms per liter as Cr)                |
| 01034          | Chromium, total (micrograms per liter as Cr)                     |
| 01035          | Cobalt, dissolved (micrograms per liter as Co)                   |
| 01036          | Cobalt, suspended (micrograms per liter as Co)                   |
| 01037          | Cobalt, total (micrograms per liter as Co)                       |
| 01038          | Cobalt, total, in bottom material (micrograms per gram as Co)    |
| 01040          | Copper, dissolved (micrograms per liter as Cu)                   |
| 01041          | Copper, suspended (micrograms per liter as Cu)                   |
| 01042          | Copper, total (micrograms per liter as Cu)                       |
| 01043          | Copper, total, in bottom material (micrograms per gram as Cu)    |
| 01044          | Iron, suspended (micrograms per liter as Fe)                     |
| 01045          | Iron, total (micrograms per liter as Fe)                         |
| 01046          | Iron, dissolved (micrograms per liter as Fe)                     |
| 01049          | Lead, dissolved (micrograms per liter as Pb)                     |
| 01050          | Lead, suspended (micrograms per liter as Pb)                     |
| 01051          | Lead, total (micrograms per liter as Pb)                         |
| 01052          | Lead, total, in bottom material (micrograms per gram as Pb)      |
| 01053          | Manganese, total, in bottom material (micrograms per gram as Mn) |
| 01054          | Manganese, suspended (micrograms per liter as Mn)                |
| 01055          | Manganese, total (micrograms per liter as Mn)                    |
| 01056          | Manganese, dissolved (micrograms per liter as Mn)                |
| 01060          | Molybdenum, dissolved (micrograms per liter as Mo)               |
| 01062          | Molybdenum, total (micrograms per liter as Mo)                   |
| 01065          | Nickel, dissolved (micrograms per liter as Ni)                   |
| 01066          | Nickel, suspended (micrograms per liter as Ni)                   |
| 01067          | Nickel, total (micrograms per liter as Ni)                       |
| 01074          | Nickel, total, recoverable in water (micrograms per liter as Ni) |
| 01075          | Silver, dissolved (micrograms per liter as Ag)                   |
| 01076          | Silver, suspended (micrograms per liter as Ag)                   |
| 01077          | Silver, total (micrograms per liter as Ag)                       |
| 01079          | Silver, total, recoverable (micrograms per liter as Ag)          |
| 01080          | Strontium, dissolved (micrograms per liter as Sr)                |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent  |
|----------------|--|
| 01082          | Strontium, total (micrograms per liter as Sr)  |
| 01085          | Vanadium, dissolved (micrograms per liter as V)  |
| 01087          | Vanadium, total (micrograms per liter as V)  |
| 01090          | Zinc, dissolved (micrograms per liter as Zn)   |
| 01091          | Zinc, suspended (micrograms per liter as Zn)   |
| 01092          | Zinc, total (micrograms per liter as Zn)   |
| 01093          | Zinc, total, in bottom material (micrograms per gram as Zn)                            |
| 01094          | Zinc, total, recoverable in water (micrograms per liter as Zn)                         |
| 01097          | Antimony, total (micrograms per liter as Sb)   |
| 01104          | Aluminum, total, recoverable (micrograms per liter as Al)                              |
| 01105          | Aluminum, total (micrograms per liter as Al)   |
| 01106          | Aluminum, dissolved (micrograms per liter as Al)                                       |
| 01113          | Cadmium, total, recoverable in water (micrograms per liter as Cd)                      |
| 01114          | Lead, total, recoverable (micrograms per liter Pb)                                     |
| 01118          | Chromium, total, recoverable in water (micrograms per liter as Cr)                     |
| 01119          | Copper, total, recoverable in water (micrograms per liter as Cu)                       |
| 01123          | Manganese, total, recoverable in water (micrograms per liter as Mn)                    |
| 01128          | Thallium, total, recoverable (micrograms per liter as Tl)                              |
| 01130          | Lithium, dissolved (micrograms per liter as Li)  |
| 01132          | Lithium, total (micrograms per liter as Li)  |
| 01145          | Selenium, dissolved (micrograms per liter as Se)                                       |
| 01146          | Selenium, suspended (micrograms per liter as Se)                                       |
| 01147          | Selenium, total (micrograms per liter as Se)   |
| 01148          | Selenium, total, in bottom material (micrograms per gram as Se)                        |
| 01170          | Iron, total, sediment, bed material (micrograms per gram as Fe)                        |
| 01515          | Alpha, gross, dissolved (picocuries per liter as U natural)                            |
| 01516          | Alpha, gross, suspended (picocuries per liter as U natural)                            |
| 03515          | Beta, gross, dissolved (picocuries per liter as CS-137)                                |
| 03516          | Beta, gross, suspended (picocuries per liter as CS-137)                                |
| 04024          | Propachlor, water, dissolved, recoverable (micrograms per liter)                       |
| 04028          | Butylate, water, dissolved, recoverable (micrograms per liter)                         |
| 04029          | Bromacil, water, dissolved, recoverable (micrograms per liter)                         |
| 04035          | Simazine, water, dissolved, recoverable (micrograms per liter)                         |
| 04037          | Prometon, water, dissolved, recoverable (micrograms per liter)                         |
| 04040          | Deethyl atrazine, water, dissolved, recoverable (micrograms per liter)                 |
| 04041          | Cyanazine, water, dissolved, recoverable (micrograms per liter)                        |
| 04095          | Fonofos, water, dissolved, recoverable (micrograms per liter)                          |
| 04126          | Alpha, radioactivity, water, dissolved (picocuries per liter as TH-230)                |
| 04127          | Alpha, radioactivity, sediment, suspended, dry weight (picocuries per liter as TH-230) |
| 07000          | Tritium, total (picocuries per liter)  |
| 07060          | Iron 59, dissolved (picocuries per liter)  |
| 09510          | Radium 226, dissolved, planchet count (picocuries per liter)                           |
| 09511          | Radium 226, dissolved, radon method (picocuries per liter)                             |
| 22703          | Uranium, natural, water, dissolved (micrograms per liter)                              |
| 30192          | MCPA, water, unfiltered, recoverable (micrograms per liter)                            |
| 30201          | Chloromethane, water, whole, recoverable (micrograms per liter)                        |
| 30202          | Bromomethane, water, whole, recoverable (micrograms per liter)                         |
| 30217          | Dibromomethane, water, whole, recoverable (micrograms per liter)                       |
| 30282          | Methiocarb, water, whole, recoverable (micrograms per liter)                           |
| 30296          | Propoxur, water, whole, recoverable (micrograms per liter)                             |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent  |
|----------------|--|
| 31501          | Total coliform, water, (colonies per 100 milliliters)                                    |
| 31616          | Fecal coliform, water (colonies per 100 milliliters)                                     |
| 31625          | Fecal coliform, 0.7 micrometer-membrane filter (colonies per 100 milliliters)            |
| 31673          | Streptococci, fecal, membrane filter (colonies per 100 milliliters)                      |
| 31679          | Streptococci, fecal, membrane filter (colonies per 100 milliliters)                      |
| 32101          | Bromodichloromethane, water, unfiltered, recoverable (micrograms per liter)              |
| 32102          | Carbon tetrachloride, water, unfiltered, recoverable (micrograms per liter)              |
| 32103          | 1,2-Dichloroethane, total (micrograms per liter)   |
| 32104          | Bromoform, total (micrograms per liter)  |
| 32105          | Chlorodibromomethane, total (micrograms per liter)                                       |
| 32106          | Chloroform, total (micrograms per liter)   |
| 32226          | Chlorophyll b, periphyton, spectrophotometric, uncorrected (milligrams per square meter) |
| 32228          | Chlorophyll a, periphyton, spectrophotometric, uncorrected (milligrams per square meter) |
| 32230          | Chlorophyll a, phytoplankton, spectrophotometric, uncorrected (micrograms per liter)     |
| 32231          | Chlorophyll b, phytoplankton, spectrophotometric (micrograms per liter)                  |
| 32730          | Phenols, total (micrograms per liter)  |
| 34010          | Toluene, total (micrograms per liter)  |
| 34030          | Benzene, total (micrograms per liter)  |
| 34210          | Acrolein, total (micrograms per liter)   |
| 34215          | Acrylonitrile, total (micrograms per liter)  |
| 34253          | Alpha BHC (micrograms per liter)   |
| 34301          | Chlorobenzene, total (micrograms per liter)  |
| 34311          | Chloroethane, total (micrograms per liter)   |
| 34351          | Endosulfan sulfate, total (micrograms per liter)   |
| 34356          | Endosulfan II, water, unfiltered, recoverable (micrograms per liter)                     |
| 34361          | Endosulfan I, water, whole, recoverable (micrograms per liter)                           |
| 34366          | Endrin aldehyde, total (micrograms per liter)  |
| 34371          | Ethylbenzene, total (micrograms per liter)   |
| 34396          | Ethane, hexachloro-, water, unfiltered, recoverable (micrograms per liter)               |
| 34413          | Methylbromide, total (micrograms per liter)  |
| 34418          | Methylchloride, total (micrograms per liter)   |
| 34423          | Methylene chloride, water, unfiltered, recoverable (micrograms per liter)                |
| 34475          | Tetrachloroethylene, total (micrograms per liter)  |
| 34488          | Trichlorofluoromethane, total (micrograms per liter)                                     |
| 34496          | 1,1-Dichloroethane, total  |
| 34501          | 1,1-Dichloroethylene, total (micrograms per liter)                                       |
| 34506          | 1,1,1-Trichloroethane, total (micrograms per liter)                                      |
| 34511          | 1,1,2-Trichloroethane, total (micrograms per liter)                                      |
| 34516          | Ethane, 1,1,2,2-Tetrachloro-, water, unfiltered, recoverable (micrograms per liter)      |
| 34536          | Benzene, o-dichloro-, water, unfiltered, recoverable (micrograms per liter)              |
| 34541          | 1,2-Dichloropropane, total (micrograms per liter)  |
| 34546          | Trans-1, 2-Dichloroethene, total, in water (micrograms per liter)                        |
| 34551          | Benzene, 1,2,4-Trichloro-, water, unfiltered, recoverable (micrograms per liter)         |
| 34566          | Benzene, 1,3-Dichloro-, water, unfiltered, recoverable (micrograms per liter)            |
| 34571          | Benzene, 1,4-Dichloro-, water, unfiltered, recoverable (micrograms per liter)            |
| 34653          | P,P'-DDE dissolved (micrograms per liter)  |
| 34668          | Dichlorodifluoromethane, total (micrograms per liter)                                    |
| 34696          | Naphthalene, total (micrograms per liter)  |
| 34699          | Trans-1,3-dichloropropene, total (micrograms per liter)                                  |
| 34704          | CIS-1, 3-Dichloropropene, total (micrograms per liter)                                   |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent  |
|----------------|--|
| 34757          | Triazine, screen by enzyme linked immuno sorbent assay, water, whole, recoverable (micrograms per liter) |
| 38260          | Methylene, blue active substance (milligrams per liter)  |
| 38442          | Dicamba, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                                  |
| 38478          | Linuron, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                                  |
| 38482          | MCPA, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                                     |
| 38487          | MCPB, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                                     |
| 38501          | Methiocarb, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                               |
| 38538          | Propoxur, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                                 |
| 38710          | Bentazon, water, unfiltered, recoverable (micrograms per liter)  |
| 38711          | Bentazon, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                                 |
| 38746          | 2,4-DB, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                                   |
| 38787          | Ethalfuralin, water, whole, recoverable (micrograms per liter)   |
| 38811          | Fluometuron, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                              |
| 38866          | Oxamyl, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                                   |
| 38933          | Chlorpyrifos, dissolved (micrograms per liter)   |
| 39025          | Simazine, total, coulson cond. (micrograms per liter)  |
| 39030          | Trifluralin, total, recoverable (micrograms per liter)   |
| 39032          | Pentachlorophenol, total (micrograms per liter)  |
| 39034          | Perthane, total (micrograms per liter)   |
| 39051          | Methomyl, total (micrograms per liter)   |
| 39052          | Propham, total (micrograms per liter)  |
| 39055          | Simazine, total (micrograms per liter)   |
| 39086          | Alkalinity, water, dissolved, total, incremental, field (milligrams per liter as CaCO <sub>3</sub> )     |
| 39175          | Vinyl chloride, total (micrograms per liter)   |
| 39180          | Trichloroethylene, total (micrograms per liter)  |
| 39250          | PCNS, water, unfiltered, recoverable (micrograms per liter)  |
| 39251          | PCN, total, in bottom material, dry weight (micrograms per kilogram)                                     |
| 39330          | Aldrin, total (micrograms per liter)   |
| 39331          | Aldrin, dissolved (micrograms per liter)   |
| 39332          | Aldrin, suspended, total (micrograms per liter)  |
| 39333          | Aldrin, in bottom material (micrograms per kilogram)   |
| 39337          | Alpha BHC, total (micrograms per liter)  |
| 39340          | Lindane, total (micrograms per liter)  |
| 39341          | Lindane, dissolved (micrograms per liter)  |
| 39342          | Lindane, suspended, total (micrograms per liter)   |
| 39343          | Lindane, in bottom material (micrograms per kilogram)  |
| 39348          | Chlordane, alpha, water, whole, recoverable (micrograms per liter)                                       |
| 39350          | Chlordane, technical, total (micrograms per liter)   |
| 39351          | Chlordane, technical, in bottom material (micrograms per kilogram)                                       |
| 39352          | Chlordane, technical, dissolved (micrograms per liter)   |
| 39353          | Chlordane, suspended, total (micrograms per liter)   |
| 39360          | P,P'-DDD, water, unfiltered, recoverable (micrograms per liter)  |
| 39361          | P,P'-DDD, water, filtered, recoverable (micrograms per liter)  |
| 39362          | DDD, suspended, total (micrograms per liter)   |
| 39363          | P,P'-DDD, sediment, bed material, dry weight, recoverable (micrograms per kilogram)                      |
| 39366          | P,P'-DDE, water, filtered, recoverable (micrograms per liter)  |
| 39365          | P,P'-DDE, total (micrograms per liter)   |
| 39367          | DDE, suspended, total (micrograms per liter)   |
| 39368          | P,P'-DDE, sediment, bed material, dry weight, recoverable (micrograms per kilogram)                      |
| 39370          | P,P'-DDT, water, unfiltered, recoverable (micrograms per liter)  |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent   |
|----------------|---|
| 39371          | P,P'-DDT, water, filtered, recoverable (micrograms per liter)                       |
| 39372          | DDT, suspended, total (micrograms per liter)  |
| 39373          | P,P'-DDT, sediment, bed material, dry weight, recoverable (micrograms per kilogram) |
| 39380          | Dieldrin, total (micrograms per liter)  |
| 39381          | Dieldrin, dissolved (micrograms per liter)  |
| 39382          | Dieldrin, suspended, total (micrograms per liter)                                   |
| 39383          | Dieldrin, in bottom material (micrograms per kilogram)                              |
| 39388          | Endosulfan I, total (micrograms per liter)  |
| 39389          | Endosulfan I, total, in bottom material, dry wt (micrograms per kilogram)           |
| 39390          | Endrin, water, unfiltered, recoverable (micrograms per liter)                       |
| 39391          | Endrin, dissolved (micrograms per liter)  |
| 39392          | Endrin, suspended, total (micrograms per liter)                                     |
| 39393          | Endrin, in bottom material (micrograms per kilogram)                                |
| 39398          | Ethion, total (micrograms per liter)  |
| 39399          | Ethion, in bottom material (micrograms per kilogram, dry solids)                    |
| 39400          | Toxaphene, total (micrograms per liter)   |
| 39410          | Heptachlor, total (micrograms per liter)  |
| 39411          | Heptachlor, dissolved (micrograms per liter)  |
| 39412          | Heptachlor, suspended, total (micrograms per liter)                                 |
| 39413          | Heptachlor, in bottom material (micrograms per kilogram)                            |
| 39415          | Metolachlor, water, dissolved (micrograms per liter)                                |
| 39420          | Heptachlor epoxide, total (micrograms per liter)                                    |
| 39421          | Heptachlor epoxide, dissolved (micrograms per liter)                                |
| 39422          | Heptachlor epoxide, suspended, total (micrograms per liter)                         |
| 39423          | Heptachlor epoxide, in bottom material (micrograms per kilogram)                    |
| 39480          | Methoxychlor, total (micrograms per liter)  |
| 39481          | Methoxychlor, in bottom material (micrograms per kilogram, dry solids)              |
| 39504          | Aroclor. 1254 PCB, total (micrograms per liter)                                     |
| 39516          | PCB, total (micrograms per liter)   |
| 39517          | PCB, dissolved (micrograms per liter)   |
| 39518          | PCB, suspended, total (micrograms per liter)  |
| 39519          | PCB, in bottom material (micrograms per kilogram)                                   |
| 39530          | Malathion, total (micrograms per liter)   |
| 39531          | Malathion, in bottom material (micrograms per kilogram, dry solids)                 |
| 39532          | Malathion, dissolved (micrograms per liter)   |
| 39533          | Malathion, suspended, total (micrograms per liter)                                  |
| 39540          | Parathion, total (micrograms per liter)   |
| 39541          | Parathion, in bottom material (micrograms per kilogram, dry solids)                 |
| 39542          | Parathion, dissolved (micrograms per liter)   |
| 39543          | Parathion, suspended, total (micrograms per liter)                                  |
| 39570          | Diazinon, total (micrograms per liter)  |
| 39571          | Diazinon, in bottom material (micrograms per kilogram, dry solids)                  |
| 39572          | Diazinon, dissolved (micrograms per liter)  |
| 39573          | Diazinon, suspended, total (micrograms per liter)                                   |
| 39600          | Methyl parathion, total (micrograms per liter)                                      |
| 39601          | Methyl parathion, in bottom material (micrograms per kilogram, dry solids)          |
| 39602          | Methyl parathion, dissolved (micrograms per liter)                                  |
| 39603          | Methyl parathion, suspended, total (micrograms per liter)                           |
| 39630          | Atrazine, water, unfiltered, recoverable (micrograms per liter)                     |
| 39632          | Atrazine, water, dissolved, recoverable (micrograms per liter)                      |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent   |
|----------------|---|
| 39702          | Hexachlorobutadiene, total (micrograms per liter)                                   |
| 39720          | Picloram, water, unfiltered, recoverable (micrograms per liter)                     |
| 39730          | 2,4-D, total (micrograms per liter)   |
| 39731          | 2,4-D, in bottom material (micrograms per kilogram, dry solids)                     |
| 39732          | 2,4-D, dissolved (micrograms per liter)   |
| 39733          | 2,4-D, suspended, total (micrograms per liter)                                      |
| 39740          | 2,4,5-T, total (micrograms per liter)   |
| 39741          | 2,4,5-T, in bottom material (micrograms per kilogram, dry solids)                   |
| 39742          | 2,4,5-T, dissolved (micrograms per liter)   |
| 39743          | 2,4,5,-T, suspended, total (micrograms per liter)                                   |
| 39750          | Carbaryl, water, unfiltered, recoverable (micrograms per liter)                     |
| 39755          | Mirex, total (micrograms per liter)   |
| 39758          | Mirex, total, in bottom materials, dry weight (micrograms per kilogram)             |
| 39760          | Silvex, total (micrograms per liter)  |
| 39761          | Silvex, in bottom material (micrograms per kilogram, dry solids)                    |
| 39762          | Silvex, dissolved (micrograms per liter)  |
| 39763          | Silvex, suspended, total (micrograms per liter)                                     |
| 39782          | Lindane, total (micrograms per liter)   |
| 39786          | Carbophenothion, water, unfiltered (micrograms per liter)                           |
| 39787          | Triithion, in bottom material (micrograms per kilogram, dry solids)                 |
| 39790          | Methyl trithion, total (micrograms per liter)                                       |
| 39791          | Methyl trithion, in bottom material (micrograms per kilogram, dry solids)           |
| 39810          | Chlordane, gamma, water, whole, recoverable (micrograms per liter)                  |
| 46342          | Alachlor, water, dissolved, recoverable (micrograms per liter)                      |
| 49235          | Triclopyr, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)           |
| 49236          | Propham, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)             |
| 49260          | Acetochlor, water, filtered, recoverable (micrograms per liter)                     |
| 49291          | Icloram, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)             |
| 49292          | Oryzalin, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)            |
| 49293          | Norflurazon, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)         |
| 49294          | Neburon, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)             |
| 49295          | 1-Naphthol, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)          |
| 49296          | Methomyl, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)            |
| 49297          | Fenuron, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)             |
| 49298          | Esfenvalerate, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)       |
| 49299          | DNOC, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                |
| 49300          | Diuron, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)              |
| 49301          | Dinoseb, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)             |
| 49302          | Dichlorprop, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)         |
| 49303          | Dichlobenil, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)         |
| 49304          | Dacthal, mono-acid, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)  |
| 49305          | Clopyralid, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)          |
| 49306          | Chlorothalonil, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)      |
| 49307          | Chloramben, water, filtered, GF, 0.7 u., recoverable (micrograms per liter)         |
| 49308          | 3-Hydroxycarbofuran, water, filtered, GF, 0.7 u, recoverable (micrograms per liter) |
| 49309          | Carbofuran, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)          |
| 49310          | Carbaryl, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)            |
| 49311          | Bromoxynil, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)          |
| 49312          | Aldicarb, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)            |
| 49313          | Aldicarb sulfone, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)    |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent   |
|----------------|---|
| 49314          | Aldicarb sulfoxide, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)          |
| 49315          | Acifluorfen, water, filtered, GF, 0.7 u, recoverable (micrograms per liter)                 |
| 49991          | Methyl acrylate, water, unfiltered, recoverable (micrograms per liter)                      |
| 49999          | Benzene, 1,2,3,4-tetramethyl, water, unfiltered, recoverable (micrograms per liter)         |
| 50000          | Isodurene, water, unfiltered, recoverable (micrograms per liter)                            |
| 50002          | Bromoethene, water, unfiltered, recoverable (micrograms per liter)                          |
| 50004          | Ether, Tert-butyl Ethyl, water, unfiltered, recoverable (micrograms per liter)              |
| 50005          | Ether, Tert-pentyl Methyl, water, unfiltered, recoverable (micrograms per liter)            |
| 60050          | Phytoplankton, total (cells per milliliter)   |
| 61028          | Turbidity, field, water, unfiltered (nephelometric turbidity unit)                          |
| 61188          | Chloramben, methyl ester, water, filtered, recoverable (micrograms per liter)               |
| 70299          | Suspended solids at 110 degrees Celsius (milligrams per liter)                              |
| 70300          | Dissolved solids, residue at 180 degrees Celsius (milligrams per liter)                     |
| 70301          | Dissolved solids, calculated, sum of constituents (milligrams per liter)                    |
| 70302          | Dissolved solids (tons per day)   |
| 70303          | Dissolved solids (tons per acre-foot)   |
| 70331          | Sediment, suspended, sieve diameter (percent finer than 0.062 millimeter)                   |
| 70332          | Sediment, suspended, sieve diameter (percent finer than 0.125 millimeter)                   |
| 70333          | Sediment, suspended, sieve diameter (percent finer than 0.250 millimeter)                   |
| 70334          | Sediment, suspended, sieve diameter (percent finer than 0.500 millimeter)                   |
| 70335          | Sediment, suspended, sieve diameter (percent finer than 1.00 millimeter)                    |
| 70336          | Sediment, suspended, sieve diameter (percent finer than 2.00 millimeters)                   |
| 70337          | Sediment, suspended, fall diameter, distilled water (percent finer than 0.002 millimeter)   |
| 70338          | Sediment, suspended, fall diameter, distilled water (percent finer than 0.004 millimeter)   |
| 70339          | Sediment, suspended, fall diameter, distilled water (percent finer than 0.008 millimeter)   |
| 70340          | Sediment, suspended, fall diameter, distilled water (percent finer than 0.016 millimeter)   |
| 70341          | Sediment, suspended, fall diameter, distilled water (percent finer than 0.031 millimeter)   |
| 70342          | Sediment, suspended, fall diameter, distilled water (percent finer than 0.062 millimeter)   |
| 70343          | Sediment, suspended, fall diameter, distilled water (percent finer than 0.125 millimeter)   |
| 70344          | Sediment, suspended, fall diameter, distilled water (percent finer than 0.250 millimeter)   |
| 70345          | Sediment, suspended, fall diameter, distilled water, percent finer than 0.500 millimeter)   |
| 70346          | Sediment, suspended, fall diameter, distilled water, percent finer than 1.00 millimeter)    |
| 70347          | Sediment, suspended, fall diameter, distilled water, percent finer than 2.00 millimeters)   |
| 70507          | Phosphorus, orthophosphate, total (milligrams per liter as P)                               |
| 70949          | Biomass-chlorophyll ratio, plankton (units)   |
| 70950          | Biomass-chlorophyll ratio, periphyton (units)   |
| 70953          | Chlorophyll a, phytoplankton, chromatographic-fluorometric (micrograms per liter)           |
| 70954          | Chlorophyll b, phytoplankton, chromatographic-fluorometric (micrograms per liter)           |
| 70955          | Chlorophyll a, periphyton, chromatographic-spectrophotometric (milligrams per square meter) |
| 70956          | Chlorophyll b, periphyton, chromatographic-spectrophotometric (milligrams per square meter) |
| 70957          | Chlorophyll a, periphyton, chromatographic-fluorometric (milligrams per square meter)       |
| 70958          | Chlorophyll b, periphyton, chromatographic-fluorometric (milligrams per square meter)       |
| 71830          | Hydroxide, water, whole, fixed endpoint titration, field (milligrams per liter as OH)       |
| 71845          | Nitrogen, ammonia, total (milligrams per liter as NH <sub>4</sub> )                         |
| 71846          | Nitrogen, ammonia, dissolved (milligrams per liter as NH <sub>4</sub> )                     |
| 71850          | Nitrogen, nitrate, total (milligrams per liter as NH <sub>3</sub> )                         |
| 71851          | Nitrogen, nitrate, dissolved (milligrams per liter as NH <sub>3</sub> )                     |
| 71855          | Nitrogen, nitrite, total (milligrams per liter as NO <sub>2</sub> )                         |
| 71856          | Nitrogen, nitrite, dissolved (milligrams per liter as NO <sub>2</sub> )                     |
| 71865          | Iodide, dissolved (milligrams per liter as I)   |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent   |
|----------------|---|
| 71870          | Bromide, dissolved (milligrams per liter as Br)   |
| 71883          | Manganese (milligrams per liter as Mn)  |
| 71885          | Iron (micrograms per liter as Fe)   |
| 71886          | Phosphorus, total (milligrams per liter as PO <sub>4</sub> )  |
| 71887          | Nitrogen, total (milligrams per liter as NO <sub>3</sub> )  |
| 71890          | Mercury, dissolved (micrograms per liter as Hg)   |
| 71895          | Mercury, suspended, recoverable (micrograms per liter as Hg)  |
| 71900          | Mercury, total, recoverable (micrograms per liter as Hg)  |
| 71921          | Mercury, recoverable from bottom material (micrograms per gram as Hg)   |
| 73547          | 2-Butene, Trans-1, ,4-Dichloro-, water, unfiltered, recoverable (micrograms per liter)                                    |
| 73570          | Methacrylate, ethyl-, water, unfiltered, recoverable (micrograms per liter)   |
| 75985          | Tritium, 2 sigma precision estimate, water, whole, total (picocuries per liter)   |
| 75986          | Alpha, radioactivity, 2 sigma precision estimate, water, dissolved (micrograms per liter as U natural)                    |
| 75987          | Alpha, radioactivity, 2 sigma precision estimate, water, dissolved (picocuries per liter as TH-230)                       |
| 75988          | Beta, radioactivity, 2 sigma precision estimate, water, dissolved (picocuries per liter as SR-90/y-90)                    |
| 75989          | Beta, radioactivity, 2 sigma precision estimate, water, dissolved (picocuries per liter as CS-137)                        |
| 75990          | Uranium, natural, 2 sigma precision estimate, water, dissolved (micrograms per liter)                                     |
| 76001          | Radium-226, 2 sigma precision estimate, water, dissolved (picocuries per liter)   |
| 76004          | Alpha, radioactivity, 2 sigma precision estimate, sediment suspended, total, dry weight (picocuries per liter as TH-230)  |
| 76005          | Beta, radioactivity, 2 sigma precision estimate, sediment, suspended, total, dry weight, (picocuries per liter as CS-137) |
| 77041          | Carbon disulfide, water, whole, total (micrograms per liter)  |
| 77057          | Acetate, vinyl, water, unfiltered, recoverable (micrograms per liter)   |
| 77093          | CIS-1, 2-Dichloroethene, water, whole, total (micrograms per liter)   |
| 77103          | 2-Hexanone, water, whole, total (micrograms per liter)  |
| 77128          | Styrene, total (micrograms per liter)   |
| 77135          | O-xylene, water, whole, total (micrograms per liter)  |
| 77168          | 1,1-Dichloropropene, water, whole, total (micrograms per liter)   |
| 77170          | 2,2-Dichloropropane, water, whole, total (micrograms per liter)   |
| 77173          | Propane, 1,3-dichloro-, water, whole, total (micrograms per liter)  |
| 77220          | Toluene, o-ethyl-, water, unfiltered, recoverable (micrograms per liter)  |
| 77221          | Benzene, 1,2,3-Trimethyl-, water, unfiltered, recoverable (micrograms per liter)  |
| 77222          | Benzene, 1,2,4-Trimethyl-, water, unfiltered, recoverable (micrograms per liter)  |
| 77223          | Benzene, isopropyl-, water, whole, recoverable (micrograms per liter)   |
| 77224          | Benzene, n-propyl-, water, unfiltered, recoverable (micrograms per liter)   |
| 77226          | Benzene, 1,3,5-Trimethyl-, water, unfiltered, recoverable (micrograms per liter)  |
| 77275          | O-chlorotoluene, water, whole, total (micrograms per liter)   |
| 77277          | Toluene, p-chloro-, water, unfiltered, recoverable (micrograms per liter)   |
| 77297          | Methane, bromochloro-, water, unfiltered, recoverable (micrograms per liter)  |
| 77342          | Benzene, n-butyl-, water, unfiltered, recoverable (micrograms per liter)  |
| 77350          | Benzene, sec-butyl-, water, unfiltered, recoverable (micrograms per liter)  |
| 77353          | Benzene, tert-butyl-, water, unfiltered, recoverable (micrograms per liter)   |
| 77356          | P-isopropyltoluene, water, whole, recoverable (micrograms per liter)  |
| 77424          | Methyl iodide, water, unfiltered, recoverable (micrograms per liter)  |
| 77441          | 1-Naphthol, water, whole (micrograms per liter)   |
| 77443          | 1,2,3-Trichloropropane, water, whole, total (micrograms per liter)  |
| 77562          | Ethane, 1,1,1,2-Tetrachloro-, water, unfiltered, recoverable (micrograms per liter)                                       |
| 77613          | Benzene, 1,2,3-Trichloro-, water, whole, recoverable (micrograms per liter)   |
| 77651          | 1,2-Dibromoethane, water, whole, total (micrograms per liter)   |
| 77652          | Freon 113, water, unfiltered, recoverable (micrograms per liter)  |
| 77825          | Alachlor, total, recoverable (micrograms per liter)   |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent  |
|----------------|--|
| 78032          | Methyl Tertiary-butyl Ether (MTBE), water, unfiltered, recoverable (micrograms per liter)    |
| 78109          | Propene, 3-chloro-, water, unfiltered, recoverable (micrograms per liter)                    |
| 78133          | Methyl isobutyl ketone, water, whole, total (micrograms per liter)                           |
| 79190          | Pendimethalin, total (micrograms per liter)  |
| 79193          | Acifluorfen, water, unfiltered, recoverable (micrograms per liter)                           |
| 80010          | Uranium, dissolved, direct fluorometric (picocuries per liter)                               |
| 80030          | Alpha, gross, dissolved (micrograms per liter as U natural)                                  |
| 80040          | Alpha, gross, radioactivity, suspended total (micrograms per liter as U natural)             |
| 80050          | Beta, gross, dissolved as strontium/yttrium-90 (picocuries per liter)                        |
| 80060          | Beta, gross, radioactivity, suspended, total (picocuries per liter as SR/Y-90)               |
| 80154          | Sediment, suspended concentration (milligrams per liter)                                     |
| 80155          | Sediment discharge, suspended (tons per day)   |
| 80156          | Sediment discharge, total, suspended plus bed material (tons per day)                        |
| 80157          | Sediment, bed material, fall diameter, distilled water (percent finer than 0.004 millimeter) |
| 80158          | Sediment, bed material, fall diameter, distilled water (percent finer than 0.062 millimeter) |
| 80159          | Sediment, bed material, fall diameter, distilled water (percent finer than 0.125 millimeter) |
| 80160          | Sediment, bed material, fall diameter, distilled water (percent finer than 0.250 millimeter) |
| 80161          | Sediment, bed material, fall diameter, distilled water (percent finer than 0.500 millimeter) |
| 80162          | Sediment, bed material, fall diameter, distilled water (percent finer than 1.00 millimeter)  |
| 80164          | Sediment, bed material, sieve diameter (percent finer than 0.062 millimeter)                 |
| 80165          | Sediment, bed material, sieve diameter (percent finer than 0.125 millimeter)                 |
| 80166          | Sediment, bed material, sieve diameter (percent finer than 0.250 millimeter)                 |
| 80167          | Sediment, bed material, sieve diameter (percent finer than 0.500 millimeter)                 |
| 80168          | Sediment, bed material, sieve diameter (percent finer than 1.00 millimeter)                  |
| 80169          | Sediment, bed material, sieve diameter (percent finer than 2.00 millimeters)                 |
| 80170          | Sediment, bed material, sieve diameter (percent finer than 4.00 millimeters)                 |
| 80171          | Sediment, bed material, sieve diameter (percent finer than 8.00 millimeters)                 |
| 80172          | Sediment, bed material, sieve diameter (percent finer than 16.0 millimeters)                 |
| 80173          | Sediment, bed material, sieve diameter (percent finer than 32.0 millimeters)                 |
| 80184          | Sediment, total, fall diameter, distilled water (percent finer than 0.016 millimeter)        |
| 80282          | Bed material, fall diameter, distilled water (percent finer than 0.016 millimeter)           |
| 80283          | Bed material, fall diameter, distilled water (percent finer than 0.031 millimeter)           |
| 80293          | Bed material, fall diameter, distilled water (percent finer than 0.008 millimeter)           |
| 80294          | Bed material, fall diameter, distilled water (percent finer than 0.002 millimeter)           |
| 81403          | Chlorpyrifos, total (micrograms per liter)   |
| 81408          | Metribuzin (sencor) in whole water sample (micrograms per liter)                             |
| 81551          | Xylene, water, unfiltered, recoverable (micrograms per liter)                                |
| 81552          | Acetone, water, whole, total (micrograms per liter)  |
| 81555          | Bromobenzene, water, whole, total (micrograms per liter)                                     |
| 81576          | Ether, Ethyl, water, unfiltered, recoverable (micrograms per liter)                          |
| 81577          | Di-isopropylether, water, unfiltered, recoverable (micrograms per liter)                     |
| 81593          | Methacrylonitrile, water, unfiltered, recoverable (micrograms per liter)                     |
| 81595          | Methylethylketone, water, whole, total (micrograms per liter)                                |
| 81597          | Methacrylate, methyl, water, unfiltered, recoverable (micrograms per liter)                  |
| 81607          | Furan, tetrahydro-, water, unfiltered, recoverable (micrograms per liter)                    |
| 81757          | Cyanazine, total (micrograms per liter)  |
| 81886          | Perthane, in bottom material (micrograms per kilogram)                                       |
| 82052          | Dicamba, total (micrograms per liter)  |
| 82068          | Potassium 40, dissolved (picocuries per liter as K40)  |
| 82079          | Turbidity, lab (nephelometric turbidity unit)  |

## List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent   |
|----------------|---|
| 82082          | Hydrogen (2 to 1 ratio per million)   |
| 82085          | Oxygen (18 to 16 ratio per million)   |
| 82183          | 2,4-DP, total (micrograms per liter)  |
| 82226          | Dinoseb, water, unfiltered, recoverable (micrograms per liter)  |
| 82584          | 3-Hydroxy carbofuran, water, whole, total recoverable (micrograms per liter)  |
| 82586          | Aldicarb sulfoxide, water, whole, total, recoverable (micrograms per liter)   |
| 82587          | Aldicarb sulfone, water, whole, total, recoverable (micrograms per liter)   |
| 82612          | Metolachlor, water, whole, total, recoverable (micrograms per liter)  |
| 82613          | Oxyamyl, water, whole, total, recoverable (micrograms per liter)  |
| 82615          | Carbofuran, water, whole, total, recoverable (micrograms per liter)   |
| 82618          | Carbaryl, water, whole, total, recoverable (micrograms per liter)   |
| 82619          | Aldicarb, water, whole, total, recoverable (micrograms per liter)   |
| 82625          | Dibromochloropropane, water, whole, total, recoverable (micrograms per liter)   |
| 82630          | Metribuzin, (sencor), water, dissolved (micrograms per liter)   |
| 82660          | 2, 6-Diethylaniline, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82661          | Trifluralin, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82663          | Ethalfuralin, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82664          | Phorate, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82665          | Terbacil, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82666          | Linuron, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82667          | Methyl parathion, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82668          | EPTC, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82669          | Pebulate, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82670          | Tebuthiuron, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82671          | Molinate, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82672          | Ethoprop, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82673          | Benfluralin, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82674          | Carbofuran, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82675          | Terbufos, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82676          | Pronamide, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82677          | Disulfoton, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82678          | Triallate, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82679          | Propanil, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82680          | Carbaryl, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82681          | Thiobencarb, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82682          | DCPA, water, filtered, lass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82683          | Pendimethalin, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82684          | Napropamide, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82685          | Propargite, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)   |
| 82686          | Methyl azinphos, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 82687          | Permethrin, cis, water, filtered, glass fiber, 0.7 u, recoverable (micrograms per liter)  |
| 85795          | M-xylene/P-xylene, water, unfiltered, recoverable (micrograms per liter)  |
| 90095          | Specific conductance (microsiemens per centimeter at 25 degrees Celsius)  |
| 90410          | Acid neutralizing capacity (alkalinity), titration to pH 4.5, laboratory (milligrams per liter as CaCO <sub>3</sub> )               |
| 95410          | Acid neutralizing capacity (anc), water, unfiltered, titration to pH 4.5, laboratory (milligrams per liter as CaCO <sub>3</sub> )   |
| 95440          | Bicarbonate, titration to pH 4.5, laboratory (milligrams per liter as CaCO <sub>3</sub> )   |
| 95445          | Carbonate, titration to pH 8.3, laboratory (milligrams per liter as CaCO <sub>3</sub> )   |
| 95902          | Hardness, noncarbonate (milligrams per liter as CaCO <sub>3</sub> )   |
| 99430          | Acid neutralizing capacity, water, unfiltered, carbonate, incremental titration, field (milligrams per liter as CaCO <sub>3</sub> ) |
| 99440          | Bicarbonate, incremental titration, field (mg/L as HCO <sub>3</sub> )   |

List of parameter codes and corresponding property or constituent--Continued

| Parameter code | Property or constituent  |
|----------------|--|
| 99445          | Carbonate, incremental titration, field (mg/L as CO <sub>3</sub> )                                     |
| 99891          | Phosphorus, total, water, whole, modified jirka method, total (milligrams per liter as P)              |
| 99892          | Nitrogen, ammonia plus organic, water, whole, modified jirka method, total (milligrams per liter as N) |
| 99893          | Phosphorus, total, water, dissolved, modified jirka method (milligrams per liter as P)                 |
| 99894          | Nitrogen, ammonia plus organic, water, dissolved, modified jirka method (milligrams per liter as N)    |

**Supplement 1.** Statistical summary of water-quality data for the Otter Tail River below Orwell Dam near Fergus Falls, Minn., gaging station 05046000, October 1960 through August 1995

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>Minnesota data, October 1960 through August 1995</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00060   | DISCHARGE CFS                   | 9           | 1040.000               | 85.000  | 429.444 | 1040.000   | 578.500 | 382.000   | 231.000 | 85.000  |
| 00061   | DISCHARGE, INST. CFS            | 26          | 1210.000               | 85.000  | 649.692 | 1154.000   | 909.500 | 681.000   | 363.250 | 112.650 |
| 00080   | COLOR PLATINUM-COBAL            | 8           | 15.000                 | 5.000   | 8.125   | 15.000   | 9.500   | 7.000     | 6.250   | 5.000   |
| 00540   | RESIDUE FIXED (MG/L)            | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/5C-FT        | 47          | 0.410                  | 0.000   | 0.265   | 0.380  | 0.360   | 0.330     | 0.310   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 47          | 830.000                | 0.000   | 217.104 | 750.000  | 470.000 | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 40          | 299.000                | 225.000 | 254.525 | 280.900  | 266.750 | 253.000   | 243.000 | 226.150 |
| 70301   | DISSOLVED SOLIDS MG/L           | 47          | 290.000                | 0.000   | 182.553 | 268.800  | 243.000 | 231.000   | 214.000 | 0.000   |
| 00025   | AIR PRESSURE (MM OF HG)         | 35          | 761.000                | 720.000 | 738.914 | 758.600  | 749.000 | 737.000   | 733.000 | 720.000 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 37          | 15.400                 | 3.500   | 10.081  | 14.320   | 12.200  | 9.500     | 8.250   | 3.770   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 47          | 119.000                | 0.000   | 64.851  | 111.800  | 105.000 | 90.000    | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 46          | 8.800                  | 7.200   | 8.163   | 8.600  | 8.400   | 8.200     | 7.975   | 7.435   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 33          | 8.400                  | 7.700   | 7.973   | 8.260  | 8.050   | 8.000     | 7.900   | 7.700   |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 33          | 489.000                | 379.000 | 431.939 | 484.100  | 450.000 | 426.000   | 412.000 | 381.800 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 44          | 505.000                | 367.000 | 423.523 | 489.000  | 442.000 | 418.000   | 399.000 | 368.500 |
| 00020   | AIR TEMPERATURE DEGREES C       | 25          | 27.000                 | -30.000 | 9.260   | 25.800   | 19.000  | 11.500    | 1.000   | -23.250 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 39          | 24.500                 | 0.000   | 12.992  | 23.500   | 20.000  | 14.500    | 4.000   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 47          | 38.000                 | 0.000   | 7.979   | 29.800   | 17.000  | 0.000     | 0.000   | 0.000   |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 47          | 22.000                 | 0.000   | 1.681   | 15.800   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 47          | 260.000                | 0.000   | 175.745 | 240.000  | 220.000 | 210.000   | 190.000 | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 39          | 47.000                 | 32.000  | 38.513  | 45.000   | 41.000  | 39.000    | 36.000  | 33.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 39          | 35.000                 | 25.000  | 28.077  | 32.000   | 29.000  | 28.000    | 27.000  | 25.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 39          | 5.800                  | 0.100   | 4.044   | 5.300  | 4.600   | 4.100     | 3.600   | 1.800   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 47          | 0.300                  | 0.000   | 0.211   | 0.300  | 0.300   | 0.200     | 0.200   | 0.000   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 39          | 11.000                 | 6.500   | 8.585   | 11.000   | 9.200   | 8.300     | 7.900   | 6.900   |
| 00932   | SODIUM, PERCENT PERCENT         | 47          | 10.000                 | 0.000   | 6.426   | 9.600  | 8.000   | 8.000     | 7.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 99430   | ANC, CARB, IT, F MG/L           | 5           | 218.000                | 186.000 | --      | --   | --      | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 29          | 232.000                | 186.000 | 203.759 | 230.500  | 209.500 | 201.000   | 195.000 | 188.000 |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 24          | 222.000                | 172.000 | 193.875 | 220.000  | 200.750 | 191.500   | 186.000 | 173.250 |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 3           | 196.000                | 191.000 | --      | --   | --      | --        | --      | --      |
| 99440   | BICARBONATE MG/L AS HCO3        | 1           | 246.000                | --      | --      | --   | --      | --        | --      | --      |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 24          | 271.000                | 193.000 | 231.042 | 268.500  | 244.750 | 228.000   | 220.250 | 196.250 |

**Supplement 1.** Statistical summary of water-quality data for the Otter Tail River below Orwell Dam near Fergus Falls, Minn., gaging station 05046000, October 1960 through August 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>Minnesota data, October 1960 through August 1995--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 8           | 300.000                | 220.000 | 251.250 | 300.000  | 275.000 | 245.000   | 230.000 | 220.000 |
| 99445  | CARBONATE MG/L AS CO3           | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)  | 24          | 17.000                 | 0.000   | 3.500   | 16.750   | 5.750   | 0.000     | 0.000   | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 8           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 41          | 14.000                 | 2.700   | 8.349   | 12.900   | 10.500  | 9.000     | 6.850   | 3.310   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 41          | 0.300                  | 0.100   | 0.151   | 0.300  | 0.200   | 0.100     | 0.100   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 39          | 19.000                 | 9.300   | 14.144  | 18.000   | 17.000  | 15.000    | 11.000  | 9.500   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 41          | 32.000                 | 9.300   | 16.805  | 27.000   | 20.500  | 16.000    | 12.000  | 9.310   |
| 00608  | NITROGEN AMMONIA (MG/L AS N)    | 28          | 0.190                  | --      | *0.051  | *0.185   | *0.075  | *0.025    | *0.020  | *0.006  |
| 00623  | NITRO AMN & ORG (MG/L AS N)     | 33          | 1.600                  | 0.300   | 0.639   | 1.320  | 0.700   | 0.600     | 0.500   | 0.370   |
| 00624  | NITROGEN SUSPEND (MG/L AS N)    | 5           | 0.700                  | 0.100   | --      | --   | --      | --        | --      | --      |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)    | 33          | 1.700                  | 0.500   | 0.794   | 1.560  | 0.900   | 0.700     | 0.600   | 0.500   |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 47          | 0.240                  | 0.000   | 0.040   | 0.214  | 0.040   | 0.030     | 0.000   | 0.000   |
| 00610  | NITROGEN AMMONIA (MG/L AS N)    | 9           | 0.150                  | --      | *0.069  | *0.150   | *0.125  | *0.050    | *0.021  | *0.011  |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 47          | 0.190                  | 0.000   | 0.016   | 0.164  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 47          | 1.800                  | 0.000   | 0.311   | 1.480  | 0.760   | 0.000     | 0.000   | 0.000   |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 47          | 0.480                  | 0.000   | 0.051   | 0.420  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 47          | 3.500                  | 0.000   | 0.523   | 2.648  | 0.974   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71850  | N, NITRATE TOTAL MG/L AS NO3    | 6           | 3.500                  | 0.000   | 1.633   | 3.500  | 3.125   | 1.600     | 0.075   | 0.000   |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)    | 37          | 0.580                  | --      | *0.125  | *0.508   | *0.150  | *0.053    | *0.023  | *0.007  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 47          | 0.099                  | 0.000   | 0.012   | 0.086  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N      | 28          | 0.030                  | --      | *0.009  | *0.030   | *0.010  | *0.006    | *0.003  | *0.001  |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 47          | 1.000                  | 0.000   | 0.260   | 0.704  | 0.550   | 0.000     | 0.000   | 0.000   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 47          | 1.600                  | 0.000   | 0.443   | 1.420  | 0.680   | 0.520     | 0.000   | 0.000   |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 47          | 1.900                  | 0.000   | 0.345   | 1.600  | 0.830   | 0.000     | 0.000   | 0.000   |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 47          | 0.123                  | 0.000   | 0.023   | 0.122  | 0.031   | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)    | 33          | 0.070                  | --      | *0.023  | *0.056   | *0.030  | *0.020    | *0.010  | *0.006  |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 1.** Statistical summary of water-quality data for the Otter Tail River below Orwell Dam near Fergus Falls, Minn., gaging station 05046000, October 1960 through August 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |        | Percentage of samples in which values were less than or equal to those shown |        |           |        |        |
|--|--------------------------------|-------------|------------------------|---------|--------|--|--------|-----------|--------|--------|
|  |                                |             | Maximum                | Minimum | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>Minnesota data, October 1960 through August 1995--Continued</b> |                                |             |                        |         |        |  |        |           |        |        |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 28          | 0.040                  | --      | *0.01  | *0.040   | *0.020 | *0.010    | *0.004 | *0.002 |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 37          | 0.290                  | 0.020   | 0.051  | 0.128  | 0.060  | 0.040     | 0.030  | 0.020  |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 5           | 0.210                  | 0.180   | --     | --   | --     | --        | --     | --     |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 47          | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 47          | 23.000                 | 0.000   | 3.579  | 14.600   | 3.700  | 2.000     | 1.000  | 0.000  |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 18          | 9.700                  | 6.700   | 8.072  | 9.700  | 8.525  | 7.900     | 7.675  | 6.700  |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 18          | 4.400                  | 0.300   | 0.867  | 4.400  | 0.925  | 0.550     | 0.475  | 0.300  |
| 00680  | CARBON ORGANIC T (MG/L AS C)   | 1           | 7.200                  | --      | --     | --   | --     | --        | --     | --     |
| 00690  | CARBON INORG + O (MG/L AS C)   | 47          | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 47          | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 70950  | BIO CHL RATIO PE UNITS         | 47          | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 70949  | BIO CHL RATIO PL UNITS         | 47          | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 01105  | ALUMINUM TOTAL UG/L AS AL      | 3           | 500.000                | 0.000   | --     | --   | --     | --        | --     | --     |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 8           | 80.000                 | 40.000  | 53.750 | 80.000   | 57.500 | 50.000    | 50.000 | 40.000 |
| 01022  | BORON TOTAL (UG/L AS B)        | 6           | 80.000                 | 50.000  | 56.667 | 80.000   | 65.000 | 50.000    | 50.000 | 50.000 |
| 00999  | BORON TOTAL REC. (UG/L)        | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 71885  | IRON UG/L AS FE                | 8           | 50.000                 | 10.000  | 27.500 | 50.000   | 50.000 | 20.000    | 10.000 | 10.000 |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 24          | 60.000                 | 10.000  | 19.583 | 55.000   | 27.500 | 15.000    | 10.000 | 10.000 |
| 01045  | IRON TOTAL (UG/L AS FE)        | 6           | 50.000                 | 10.000  | 20.000 | 50.000   | 27.500 | 15.000    | 10.000 | 10.000 |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 24          | 46.000                 | 1.000   | 13.333 | 43.250   | 22.750 | 7.000     | 3.250  | 1.250  |
| 01055  | MANGANESE TOTAL (UG/L AS MN)   | 8           | 100.000                | 0.000   | 30.000 | 100.000  | 80.000 | 0.000     | 0.000  | 0.000  |
| 49295  | 1-NAPHTHOL FLTRD (UG/L)        | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39742  | 2,4,5-T DISSOLVE UG/L          | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39732  | 2,4-D DISSOLVED UG/L           | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38746  | 2,4-DB FLTRD (UG/L)            | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82660  | 26DIETHYLANILINE (UG/L)        | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49308  | 3HYDRXYCARBOFURA (UG/L)        | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49260  | ACETOCHLOR FLTRD (UG/L)        | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49315  | ACIFLUORFEN FLTR (UG/L)        | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 46342  | ALACHLOR, DISS, UG/L           | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49313  | ALDICARB SULFONE (UG/L)        | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49314  | ALDICARB SULFOXI (UG/L)        | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49312  | ALDICARB FLTRD (UG/L)          | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 34253  | ALPHA BHC UG/L                 | 3           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39632  | ATRAZINE, DISS, UG/L           | 3           | 0.053                  | 0.030   | --     | --   | --     | --        | --     | --     |

**Supplement 1.** Statistical summary of water-quality data for the Otter Tail River below Orwell Dam near Fergus Falls, Minn., gaging station 05046000, October 1960 through August 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent  | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|--------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                          |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, October 1960 through August 1995--Continued</b> |                          |             |                        |         |      |  |    |           |    |    |
| 82673  | BENFLURALIN FIL (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38711  | BENTAZON, FLTRD (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04029  | BROMACIL DISS RE (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49311  | BROMOXYNIL FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04028  | BUTYLATE DISS RE (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49310  | CARBARYL FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82680  | CARBARYL FIL 0.7 (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49309  | CARBOFURAN FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82674  | CARBOFURAN FIL. (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49307  | CHLORAMBEN FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49306  | CHLOROTHALONIL F (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38933  | CHLORPYRIFOS, DI UG/L    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49305  | CLOPYRALID FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04041  | CYANAZINE DISS R (UG/L)  | 3           | 0.035                  | 0.014   | --   | --   | -- | --        | -- | -- |
| 49304  | DACTHAL MONO-ACI (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82682  | DCPA FIL 0.7 REC (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04040  | DEETHYL ATRAZINE (UG/L)  | 3           | 0.008                  | 0.005   | --   | --   | -- | --        | -- | -- |
| 39572  | DIAZINON DISSOLV UG/L    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38442  | DICAMBA FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49303  | DICHLORBENIL FLTR (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49302  | DICHLORPRO FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39381  | DIELDRIN DISSOLV UG/L    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49301  | DINOSEB FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677  | DISULFOTON FIL. (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49300  | DIURON FLTRD (UG/L)      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49299  | DNOC FLTD (UG/L)         | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82668  | EPTC FIL 0.7 REC (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49298  | ESFENVALERATE FL (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82663  | ETHALFLURALIN FI (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82672  | ETHOPROP FIL 0.7 (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49297  | FENURON FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38811  | FLUOMETURON FLT (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04095  | FONOFOX DISS REC (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39341  | LINDANE DISSOLVE UG/L    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38478  | LINURON FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 1.** Statistical summary of water-quality data for the Otter Tail River below Orwell Dam near Fergus Falls, Minn., gaging station 05046000, October 1960 through August 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, October 1960 through August 1995--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 82666  | LINURON FIL 0.7 (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39532  | MALATHION DISSOL UG/L   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38482  | MCPA FLTRD (UG/L)       | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38487  | MCPB FLTRD (UG/L)       | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38501  | METHIOCARB FLTRD (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49296  | METHOMYL FLTRD (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82686  | METHYL AZINPHOS (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82667  | METHYL PARATHION (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39415  | METOLACHLOR,WAT. UG/L   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82630  | METRIBUZIN,WAT.D UG/L   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82671  | MOLINATE FIL 0.7 (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82684  | NAPROPAMIDE FIL (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49294  | NEBURON FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49293  | NORFLURAZON FLTR (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49292  | ORYZALIN FLTRD (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38866  | OXAMYL FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34653  | P,P' DDE DISSOLV (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39542  | PARATHION DISSOL UG/L   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82669  | PEBULATE FIL 0.7 (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82683  | PENDIMETHALIN F. (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82687  | PERMETHRIN FIL. (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82664  | PHORATE FIL 0.7 (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49291  | PICLORAM FLTRD (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04037  | PROMETON DISS RE (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82676  | PRONAMIDE FIL .7 (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04024  | PROPACHLOR DISS (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82679  | PROPANIL FIL 0.7 (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82685  | PROPARGITE FIL. (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49236  | PROPHAM FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38538  | PROPOXUR FLTRD (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39762  | SILVEX DISSOLVED UG/L   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04035  | SIMAZINE DISS RE (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82670  | TEBUTHIURON FIL (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82665  | TERBACIL FIL 0.7 (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82675  | TERBUFOS FIL 0.7 (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 1.** Statistical summary of water-quality data for the Otter Tail River below Orwell Dam near Fergus Falls, Minn., gaging station 05046000, October 1960 through August 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent | Sample size | Descriptive statistics |         |        | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|--|-------------------------|-------------|------------------------|---------|--------|--|---------|-----------|--------|--------|
|  |                         |             | Maximum                | Minimum | Mean   | 95   | 75      | Median 50 | 25     | 5      |
| <b>Minnesota data, October 1960 through August 1995--Continued</b> |                         |             |                        |         |        |  |         |           |        |        |
| 82681  | THIOBENCARB FIL (UG/L)  | 3           | --                     | --      | --     | --   | --      | --        | --     | --     |
| 82678  | TRIALATE FIL .7 (UG/L)  | 3           | --                     | --      | --     | --   | --      | --        | --     | --     |
| 49235  | TRICLOPYR FLTRD (UG/L)  | 3           | --                     | --      | --     | --   | --      | --        | --     | --     |
| 82661  | TRIFLURALIN FIL (UG/L)  | 3           | --                     | --      | --     | --   | --      | --        | --     | --     |
| 70331  | SED-SUSP-SIEVE-. %      | 26          | 100.000                | 86.000  | 95.308 | 100.000  | 100.000 | 97.000    | 92.000 | 86.000 |
| 80156  | SUS-SED DISCH + T/DAY   | 47          | 0.000                  | --      | --     | --   | --      | --        | --     | --     |
| 80154  | CONCENTRATION,S. MG/L   | 26          | 40.000                 | 1.000   | 12.346 | 35.800   | 16.000  | 11.500    | 5.000  | 1.000  |
| 80155  | DISCHARGE,SUSP.S T/DAY  | 47          | 95.000                 | 0.000   | 10.911 | 63.400   | 11.000  | 0.000     | 0.000  | 0.000  |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 2.** Statistical summary of water-quality data for the Bois de Sioux River near White Rock, S. Dak., gaging station 05050000, November 1963 through November 1995

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data; multiple detection limits during the period of record may result in varying values flagged with a <]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>Minnesota data, November 1963 through November 1966</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00060  | DISCHARGE CFS                   | 14          | 872.000                | 0.200   | 147.221  | 872.000  | 175.250  | 10.300    | 0.900   | 0.200   |
| 00061  | DISCHARGE, INST. CFS            | 6           | 872.000                | 1.200   | 326.533  | 872.000  | 649.250  | 245.500   | 15.300  | 1.200   |
| 00080  | COLOR PLATINUM-COBAL            | 15          | 35.000                 | 20.000  | 28.267   | 35.000   | 30.000   | 30.000    | 25.000  | 20.000  |
| 00540  | RESIDUE FIXED (MG/L)            | 15          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 15          | 3.220                  | 0.720   | 1.399    | 3.220  | 1.440    | 1.320     | 0.950   | 0.720   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 15          | 1330.000               | 1.110   | 248.785  | 1330.000   | 172.000  | 15.000    | 2.860   | 1.110   |
| 70300  | RESIDUE DIS 180C MG/L           | 15          | 2370.000               | 529.000 | 1024.467 | 2370.000   | 1060.000 | 970.000   | 698.000 | 529.000 |
| 70301  | DISSOLVED SOLIDS MG/L           | 15          | 2360.000               | 0.000   | 926.467  | 2360.000   | 1050.000 | 828.000   | 641.000 | 0.000   |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 15          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 15          | 8.400                  | 7.000   | 7.713    | 8.400  | 8.000    | 7.700     | 7.500   | 7.000   |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 15          | 2860.000               | 754.000 | 1360.000 | 2860.000   | 1450.000 | 1270.000  | 952.000 | 754.000 |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 7           | 22.200                 | 0.000   | 9.443    | 22.200   | 18.900   | 8.900     | 1.100   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 15          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 15          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 15          | 1200.000               | 25.000  | 395.000  | 1200.000   | 450.000  | 330.000   | 240.000 | 25.000  |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 15          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 15          | 1600.000               | 350.000 | 667.333  | 1600.000   | 740.000  | 590.000   | 450.000 | 350.000 |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 14          | 300.000                | 68.000  | 127.000  | 300.000  | 136.000  | 111.500   | 91.000  | 68.000  |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)   | 14          | 212.000                | 44.000  | 86.643   | 212.000  | 98.250   | 75.500    | 52.750  | 44.000  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 14          | 21.000                 | 7.900   | 14.021   | 21.000   | 18.000   | 14.000    | 9.750   | 7.900   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 15          | 2.000                  | 0.600   | 1.107    | 2.000  | 1.000    | 1.000     | 0.900   | 0.600   |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 14          | 135.000                | 25.000  | 64.857   | 135.000  | 83.500   | 57.000    | 41.500  | 25.000  |
| 00932  | SODIUM, PERCENT PERCENT         | 15          | 21.000                 | 0.000   | 15.533   | 21.000   | 18.000   | 17.000    | 14.000  | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 15          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3  | 5           | 390.000                | 184.000 | --       | --   | --       | --        | --      | --      |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 14          | 480.000                | 220.000 | 305.714  | 480.000  | 395.000  | 260.000   | 235.000 | 220.000 |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 14          | 12.000                 | 0.000   | 0.857    | 12.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 71870  | BROMIDE DISSOLVE MG/L AS BR     | 10          | 0.210                  | 0.130   | 0.173    | 0.210  | 0.192    | 0.175     | 0.150   | 0.130   |
| 00940  | CHLORIDE DISSOLV (MG/L AS Cl)   | 14          | 35.000                 | 6.800   | 17.029   | 35.000   | 21.750   | 17.000    | 10.000  | 6.800   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 14          | 0.600                  | 0.200   | 0.336    | 0.600  | 0.400    | 0.300     | 0.300   | 0.200   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2) | 14          | 34.000                 | 6.800   | 18.286   | 34.000   | 25.250   | 19.000    | 8.775   | 6.800   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 14          | 1400.000               | 203.000 | 513.571  | 1400.000   | 607.750  | 415.500   | 313.250 | 203.000 |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 15          | 2.200                  | 0.000   | 0.273    | 2.200  | 0.000    | 0.000     | 0.000   | 0.000   |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 15          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 15          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |

**Supplement 2.** Statistical summary of water-quality data for the Bois de Sioux River near White Rock, S. Dak., gaging station 05050000, November 1963 through November 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data; multiple detection limits during the period of record may result in varying values flagged with a <]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|--------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>Minnesota data, November 1963 through November 1966--Continued</b> |                                |             |                        |         |         |  |         |           |         |         |
| 00618   | NITROGEN NITRATE (MG/L AS N)   | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3   | 15          | 7.300                  | 0.700   | 2.933   | 7.300  | 4.700   | 2.100     | 1.200   | 0.700   |
| 00620   | NITROGEN NITRATE MG/L AS N     | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71850   | N, NITRATE TOTAL MG/L AS NO3   | 6           | 5.800                  | 0.700   | 2.017   | 5.800  | 3.025   | 1.250     | 0.925   | 0.700   |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)    | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2   | 15          | 6.000                  | 0.000   | 0.467   | 6.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00607   | NITROGEN ORGANIC (MG/L AS N)   | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00605   | NITROGEN ORGANIC (MG/L AS N)   | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600   | NITROGEN TOTAL (MG/L AS N)     | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71887   | NITROGEN, TOTAL MG/L AS NO3    | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4) | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)  | 15          | 1.000                  | 0.000   | 0.377   | 1.000  | 0.640   | 0.320     | 0.060   | 0.000   |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)   | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)   | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)    | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 15          | 38.000                 | 0.000   | 11.387  | 38.000   | 14.000  | 8.900     | 6.000   | 0.000   |
| 00690   | CARBON INORG + O (MG/L AS C)   | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70950   | BIO CHL RATIO PE UNITS         | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70949   | BIO CHL RATIO PL UNITS         | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 01105   | ALUMINUM TOTAL UG/L AS AL      | 12          | 800.000                | 100.000 | 366.667 | 800.000  | 400.000 | 400.000   | 225.000 | 100.000 |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 15          | 320.000                | 90.000  | 226.667 | 320.000  | 290.000 | 220.000   | 190.000 | 90.000  |
| 01022   | BORON TOTAL (UG/L AS B)        | 6           | 320.000                | 100.000 | 218.333 | 320.000  | 297.500 | 205.000   | 167.500 | 100.000 |
| 71885   | IRON UG/L AS FE                | 13          | 950.000                | 30.000  | 132.308 | 950.000  | 90.000  | 60.000    | 30.000  | 30.000  |
| 01045   | IRON TOTAL (UG/L AS FE)        | 6           | 950.000                | 30.000  | 198.333 | 950.000  | 290.000 | 55.000    | 30.000  | 30.000  |
| 01055   | MANGANESE TOTAL (UG/L AS MN)   | 13          | 310.000                | 10.000  | 123.077 | 310.000  | 190.000 | 100.000   | 50.000  | 10.000  |
| 80156   | SUS-SED DISCH + T/DAY          | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80155   | DISCHARGE,SUSP.S T/DAY         | 15          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 2.** Statistical summary of water-quality data for the Bois de Sioux River near White Rock, S. Dak., gaging station 05050000, November 1963 through November 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data; multiple detection limits during the period of record may result in varying values flagged with a <]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>South Dakota data, June 1989 through November 1995</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 1           | 9.060                  | --      | --      | --   | --      | --        | --      | --      |
| 00061   | DISCHARGE, INST. CFS            | 1           | 790.000                | --      | --      | --   | --      | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 1           | 1.150                  | --      | --      | --   | --      | --        | --      | --      |
| 70300   | RESIDUE DIS 180C MG/L           | 1           | 844.000                | --      | --      | --   | --      | --        | --      | --      |
| 70301   | DISSOLVED SOLIDS MG/L           | 1           | 759.000                | --      | --      | --   | --      | --        | --      | --      |
| 00025   | AIR PRESSURE (MM OF HG)         | 1           | 731.000                | --      | --      | --   | --      | --        | --      | --      |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 1           | 13.300                 | --      | --      | --   | --      | --        | --      | --      |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 1           | 95.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 1           | 7.500                  | --      | --      | --   | --      | --        | --      | --      |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 1           | 7.400                  | --      | --      | --   | --      | --        | --      | --      |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 1           | 1110.000               | --      | --      | --   | --      | --        | --      | --      |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 1           | 1130.000               | --      | --      | --   | --      | --        | --      | --      |
| 00020   | AIR TEMPERATURE DEGREES C       | 1           | -3.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 1           | 300.000                | --      | --      | --   | --      | --        | --      | --      |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 1           | 510.000                | --      | --      | --   | --      | --        | --      | --      |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 1           | 100.000                | --      | --      | --   | --      | --        | --      | --      |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 1           | 62.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 1           | 11.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 1           | 0.700                  | --      | --      | --   | --      | --        | --      | --      |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 1           | 38.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00932   | SODIUM, PERCENT PERCENT         | 1           | 14.000                 | --      | --      | --   | --      | --        | --      | --      |
| 90410   | ANC. TIT. 4.5, L MG/L AS CaCO3  | 1           | 192.000                | --      | --      | --   | --      | --        | --      | --      |
| 00418   | ALKALINITY,DIS,F (MG/L AS CaCO3 | 1           | 206.000                | --      | --      | --   | --      | --        | --      | --      |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 1           | 206.000                | --      | --      | --   | --      | --        | --      | --      |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 1           | 251.000                | --      | --      | --   | --      | --        | --      | --      |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)  | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00940   | CHLORIDE DISSOLV (MG/L AS Cl)   | 1           | 17.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 1           | 0.200                  | --      | --      | --   | --      | --        | --      | --      |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 1           | 23.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 6           | 740.600                | 361.000 | 515.867 | 740.600  | 641.150 | 502.800   | 375.250 | 361.000 |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 4           | 0.200                  | 0.080   | --      | --   | --      | --        | --      | --      |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)    | 1           | 1.600                  | --      | --      | --   | --      | --        | --      | --      |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 4           | 0.260                  | 0.100   | --      | --   | --      | --        | --      | --      |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 1           | 0.720                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 2.** Statistical summary of water-quality data for the Bois de Sioux River near White Rock, S. Dak., gaging station 05050000, November 1963 through November 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data; multiple detection limits during the period of record may result in varying values flagged with a <]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|--------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                                |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>South Dakota data, June 1989 through November 1995--Continued</b> |                                |             |                        |         |      |  |    |           |    |    |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3   | 1           | 3.190                  | --      | --   | --   | -- | --        | -- | -- |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)   | 1           | 0.740                  | --      | --   | --   | -- | --        | -- | -- |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)    | 3           | 0.100                  | <0.040  | --   | --   | -- | --        | -- | -- |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2   | 1           | 0.066                  | --      | --   | --   | -- | --        | -- | -- |
| 00613  | NITROGEN,NITRITE MG/L AS N     | 1           | 0.020                  | --      | --   | --   | -- | --        | -- | -- |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 1           | 1.400                  | --      | --   | --   | -- | --        | -- | -- |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 4           | 2.650                  | 1.870   | --   | --   | -- | --        | -- | -- |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 1           | 0.491                  | --      | --   | --   | -- | --        | -- | -- |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 4           | 0.575                  | 0.134   | --   | --   | -- | --        | -- | -- |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 1           | 0.160                  | --      | --   | --   | -- | --        | -- | -- |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 4           | 0.450                  | 0.256   | --   | --   | -- | --        | -- | -- |
| 00633  | NO2 + NO3 BOT. M (MG/KG AS N)  | 1           | 0.110                  | --      | --   | --   | -- | --        | -- | -- |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 1           | 12.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00680  | CARBON ORGANIC T (MG/L AS C)   | 3           | 19.100                 | 15.400  | --   | --   | -- | --        | -- | -- |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 1           | 29.000                 | --      | --   | --   | -- | --        | -- | -- |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 1           | 120.000                | --      | --   | --   | -- | --        | -- | -- |
| 70953  | CHL-A PHY CHROMA UG/L          | 1           | 51.100                 | --      | --   | --   | -- | --        | -- | -- |
| 01106  | ALUMINUM DISSOLV (UG/L AS AL)  | 1           | <10.000                | --      | --   | --   | -- | --        | -- | -- |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)  | 1           | 6.000                  | --      | --   | --   | -- | --        | -- | -- |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 1           | 130.000                | --      | --   | --   | -- | --        | -- | -- |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 1           | 8.000                  | --      | --   | --   | -- | --        | -- | -- |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 1           | 22.000                 | --      | --   | --   | -- | --        | -- | -- |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)  | 1           | 1.000                  | --      | --   | --   | -- | --        | -- | -- |
| 80154  | CONCENTRATION,S. MG/L          | 3           | 19.100                 | 10.100  | --   | --   | -- | --        | -- | -- |

**Supplement 3.** Statistical summary of water-quality data for the Bois de Sioux River near Doran, Minn., gaging station 05051300, March 1993 through August 1995

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>Minnesota data, March 1993 through August 1995</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00060   | DISCHARGE CFS                   | 10          | 3300.000               | 4.500   | 705.280  | 3300.000   | 1292.500 | 250.000   | 5.675   | 4.500   |
| 00061   | DISCHARGE, INST. CFS            | 16          | 3420.000               | 2.700   | 947.669  | 3420.000   | 1492.500 | 903.500   | 192.250 | 2.700   |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 24          | 2.500                  | 0.300   | 1.200    | 2.450  | 1.650    | 1.050     | 0.700   | 0.350   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 17          | 2680.000               | 8.900   | 1420.935 | 2680.000   | 2170.000 | 1660.000  | 647.500 | 8.900   |
| 70300   | RESIDUE DIS 180C MG/L           | 26          | 1860.000               | 250.000 | 859.423  | 1804.000   | 1152.500 | 760.000   | 528.000 | 282.550 |
| 70301   | DISSOLVED SOLIDS MG/L           | 24          | 1680.000               | 233.000 | 801.208  | 1640.000   | 1090.000 | 690.500   | 487.750 | 253.500 |
| 00025   | AIR PRESSURE (MM OF HG)         | 23          | 747.000                | 722.000 | 736.130  | 745.800  | 740.000  | 737.000   | 734.000 | 723.600 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 23          | 13.400                 | 2.800   | 8.696    | 13.280   | 11.800   | 8.800     | 5.400   | 3.160   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 22          | 134.000                | 31.800  | 79.455   | 132.350  | 93.425   | 81.200    | 61.875  | 31.980  |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 25          | 8.900                  | 6.800   | 8.000    | 8.870  | 8.250    | 7.900     | 7.750   | 6.980   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 26          | 8.300                  | 7.100   | 7.658    | 8.230  | 8.000    | 7.600     | 7.300   | 7.135   |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 26          | 2280.000               | 383.000 | 1129.615 | 2213.500   | 1427.500 | 1014.500  | 759.250 | 423.950 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 25          | 2270.000               | 384.000 | 1105.280 | 2162.000   | 1440.000 | 985.000   | 740.000 | 417.600 |
| 00020   | AIR TEMPERATURE DEGREES C       | 26          | 24.500                 | -20.500 | 9.858    | 23.800   | 18.750   | 12.750    | 1.000   | -14.200 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 26          | 24.000                 | 0.000   | 11.327   | 23.300   | 20.125   | 12.250    | 1.000   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 24          | 690.000                | 81.000  | 321.917  | 663.500  | 452.750  | 291.000   | 207.250 | 92.500  |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 25          | 1130.000               | 146.000 | 544.760  | 1121.000   | 722.500  | 497.000   | 354.500 | 162.500 |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 25          | 220.000                | 32.000  | 105.120  | 217.000  | 130.000  | 95.000    | 76.500  | 36.200  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 25          | 140.000                | 16.000  | 68.480   | 140.000  | 96.500   | 63.000    | 40.000  | 17.500  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 25          | 25.000                 | 0.100   | 11.620   | 23.500   | 15.000   | 10.000    | 8.200   | 1.990   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 25          | 1.500                  | 0.458   | 0.807    | 1.431  | 1.014    | 0.794     | 0.574   | 0.462   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 25          | 100.000                | 15.000  | 45.200   | 99.400   | 62.500   | 42.000    | 23.500  | 15.300  |
| 00932   | SODIUM, PERCENT PERCENT         | 24          | 20.000                 | 10.500  | 14.542   | 19.375   | 15.875   | 14.500    | 13.400  | 10.825  |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 26          | 582.000                | 62.000  | 223.962  | 542.800  | 268.000  | 197.000   | 140.750 | 70.400  |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 25          | 546.000                | 65.000  | 212.880  | 507.600  | 262.500  | 185.000   | 134.000 | 68.000  |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 25          | 666.000                | 79.000  | 253.400  | 619.200  | 320.000  | 222.000   | 156.000 | 82.600  |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)  | 25          | 29.000                 | 0.000   | 3.200    | 28.400   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00940   | CHLORIDE DISSOLV (MG/L AS Cl)   | 26          | 47.000                 | 7.400   | 19.212   | 44.550   | 22.500   | 17.000    | 11.000  | 7.540   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 26          | 0.500                  | 0.100   | 0.231    | 0.430  | 0.300    | 0.200     | 0.200   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 25          | 37.000                 | 0.500   | 13.828   | 34.300   | 16.500   | 12.000    | 8.400   | 1.340   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 26          | 790.000                | 85.000  | 389.808  | 779.500  | 585.000  | 350.000   | 220.000 | 100.750 |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 26          | 1.600                  | 0.010   | 0.228    | 1.495  | 0.255    | 0.080     | 0.030   | 0.013   |
| 00623   | NITRO AMN & ORG (MG/L AS N)     | 26          | 3.100                  | 0.600   | 1.327    | 3.065  | 1.400    | 1.200     | 1.000   | 0.670   |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)    | 26          | 3.300                  | 0.900   | 1.612    | 3.230  | 1.900    | 1.400     | 1.200   | 0.935   |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 25          | 2.060                  | 0.026   | 0.305    | 1.943  | 0.335    | 0.103     | 0.039   | 0.026   |

**Supplement 3.** Statistical summary of water-quality data for the Bois de Sioux River near Doran, Minn., gaging station 05051300, March 1993 through August 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|--|--------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|  |                                |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>Minnesota data, March 1993 through August 1995--Continued</b> |                                |             |                        |         |         |  |         |           |        |        |
| 00602  | NITROGEN DISSOLV (MG/L AS N)   | 17          | 6.600                  | 0.976   | 2.704   | 6.600  | 4.030   | 1.840     | 1.325  | 0.976  |
| 00618  | NITROGEN NITRATE (MG/L AS N)   | 15          | 4.890                  | 0.041   | 1.438   | 4.890  | 3.550   | 0.550     | 0.130  | 0.041  |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3   | 15          | 21.600                 | 0.181   | 6.359   | 21.600   | 15.700  | 2.430     | 0.575  | 0.181  |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)   | 26          | 5.200                  | --      | *0.887  | *5.165   | *0.880  | *0.098    | *0.015 | *0.001 |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2   | 18          | 1.020                  | 0.033   | 0.245   | 1.020  | 0.271   | 0.099     | 0.058  | 0.033  |
| 00613  | NITROGEN,NITRITE MG/L AS N     | 26          | 0.310                  | --      | *0.052  | *0.299   | *0.050  | *0.020    | *0.005 | *0.001 |
| 00607  | NITROGEN ORGANIC (MG/L AS N)   | 25          | 1.800                  | 0.570   | 1.107   | 1.749  | 1.220   | 1.070     | 0.980  | 0.615  |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 25          | 2.280                  | 0.810   | 1.363   | 2.136  | 1.660   | 1.270     | 1.170  | 0.858  |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 17          | 6.900                  | 1.180   | 2.957   | 6.900  | 4.230   | 2.040     | 1.620  | 1.180  |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 26          | 2.270                  | 0.031   | 0.741   | 2.270  | 1.328   | 0.536     | 0.207  | 0.031  |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 26          | 0.810                  | 0.030   | 0.267   | 0.778  | 0.460   | 0.200     | 0.070  | 0.034  |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 26          | 0.740                  | 0.010   | 0.242   | 0.740  | 0.433   | 0.175     | 0.068  | 0.010  |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 26          | 1.300                  | 0.070   | 0.365   | 1.181  | 0.510   | 0.295     | 0.168  | 0.077  |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 25          | 38.700                 | 0.400   | 7.772   | 37.950   | 7.600   | 3.300     | 1.850  | 0.460  |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 12          | 18.000                 | 11.000  | 13.417  | 18.000   | 15.000  | 13.000    | 12.000 | 11.000 |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 12          | 5.000                  | 0.300   | 1.475   | 5.000  | 1.850   | 1.050     | 0.400  | 0.300  |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 25          | 870.000                | 0.000   | 60.000  | 648.001  | 40.000  | 20.000    | 10.000 | 0.000  |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 25          | 4700.000               | 11.000  | 372.880 | 3890.002   | 160.000 | 60.000    | 29.500 | 11.300 |
| 49295  | 1-NAPHTHOL FLTRD (UG/L)        | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39742  | 2,4,5-T DISSOLVE UG/L          | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39732  | 2,4-D DISSOLVED UG/L           | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 38746  | 2,4-DB FLTRD (UG/L)            | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 82660  | 26DIETHYLANILINE (UG/L)        | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49308  | 3HYDRXYCARBOFURA (UG/L)        | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49260  | ACETOCHLOR FLTRD (UG/L)        | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49315  | ACIFLUORFEN FLTR (UG/L)        | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 46342  | ALACHLOR, DISS, UG/L           | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49313  | ALDICARB SULFONE (UG/L)        | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49314  | ALDICARB SULFOXI (UG/L)        | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49312  | ALDICARB FLTRD (UG/L)          | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 34253  | ALPHA BHC UG/L                 | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39632  | ATRAZINE, DISS, UG/L           | 3           | 0.230                  | 0.120   | --      | --   | --      | --        | --     | --     |
| 82673  | BENFLURALIN FIL (UG/L)         | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 38711  | BENTAZON, FLTRD (UG/L)         | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 04029  | BROMACIL DISS RE (UG/L)        | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |

**Supplement 3.** Statistical summary of water-quality data for the Bois de Sioux River near Doran, Minn., gaging station 05051300, March 1993 through August 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent  | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|--------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                          |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, March 1993 through August 1995--Continued</b> |                          |             |                        |         |      |  |    |           |    |    |
| 49311  | BROMOXYNIL FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04028  | BUTYLATE DISS RE (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49310  | CARBARYL FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82680  | CARBARYL FIL 0.7 (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49309  | CARBOFURAN FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82674  | CARBOFURAN FIL. (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 61188  | CHLORAMBEN, METH (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49306  | CHLOROTHALONIL F (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38933  | CHLORPYRIFOS, DI UG/L    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49305  | CLOPYRALID FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04041  | CYANAZINE DISS R (UG/L)  | 3           | 0.160                  | 0.025   | --   | --   | -- | --        | -- | -- |
| 49304  | DACTHAL MONO-ACI (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82682  | DCPA FIL 0.7 REC (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04040  | DEETHYL ATRAZINE (UG/L)  | 3           | 0.034                  | 0.016   | --   | --   | -- | --        | -- | -- |
| 39572  | DIAZINON DISSOLV UG/L    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38442  | DICAMBA FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49303  | DICHOLOBENIL FLTR (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49302  | DICHLORPRO FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39381  | DIELDRIN DISSOLV UG/L    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49301  | DINOSEB FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677  | DISULFOTON FIL. (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49300  | DIURON FLTRD (UG/L)      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49299  | DNOC FLTD (UG/L)         | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82668  | EPTC FIL 0.7 REC (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49298  | ESFENVALERATE FL (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82663  | ETHALFLURALIN FI (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82672  | ETHOPROP FIL 0.7 (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49297  | FENURON FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38811  | FLUOMETURON FLT (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04095  | FONOFOX DISS REC (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39341  | LINDANE DISSOLVE UG/L    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38478  | LINURON FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82666  | LINURON FIL 0.7 (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39532  | MALATHION DISSOL UG/L    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38482  | MCPA FLTRD (UG/L)        | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 3.** Statistical summary of water-quality data for the Bois de Sioux River near Doran, Minn., gaging station 05051300, March 1993 through August 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent    | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|----------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                            |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, March 1993 through August 1995--Continued</b> |                            |             |                        |         |      |  |    |           |    |    |
| 38487  | MCPB FLTRD (UG/L)          | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38501  | METHIOCARB FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49296  | METHOMYL FLTRD (UG/L)      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82686  | METHYL AZINPHOS (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82667  | METHYL PARATHION (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39415  | METOLACHLOR,WAT. UG/L      | 3           | 0.160                  | 0.008   | --   | --   | -- | --        | -- | -- |
| 82630  | METRIBUZIN,WAT.D UG/L      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82671  | MOLINATE FIL 0.7 (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82684  | NAPROPAMIDE FIL (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49294  | NEBURON FLTRD (UG/L)       | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49293  | NORFLURAZON FLTR (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49292  | ORYZALIN FLTRD (UG/L)      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38866  | OXAMYL FLTRD (UG/L)        | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34653  | P,P' DDE DISSOLV (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39542  | PARATHION DISSOL UG/L      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82669  | PEBULATE FIL 0.7 (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82683  | PENDIMETHALIN F. (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82687  | PERMETHRIN FIL. (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82664  | PHORATE FIL 0.7 (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49291  | PICLORAM FLTRD (UG/L)      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04037  | PROMETON DISS RE (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82676  | PRONAMIDE FIL .7 (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04024  | PROPACHLOR DISS (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82679  | PROPANIL FIL 0.7 (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82685  | PROPARGITE FIL. (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49236  | PROPHAM FLTRD (UG/L)       | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38538  | PROPOXUR FLTRD (UG/L)      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39762  | SILVEX DISSOLVED UG/L      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04035  | SIMAZINE DISS RE (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82670  | TEBUTHIURON FIL (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82665  | TERBACIL FIL 0.7 (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82675  | TERBUFOS FIL 0.7 (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 91064  | TERBUTHYLAZINE S (PERCENT) | 3           | 112.000                | 85.600  | --   | --   | -- | --        | -- | -- |
| 82681  | THIOBENCARB FIL (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82678  | TRIALATE FIL .7 (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 3.** Statistical summary of water-quality data for the Bois de Sioux River near Doran, Minn., gaging station 05051300, March 1993 through August 1995--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|--|-------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|  |                         |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>Minnesota data, March 1993 through August 1995--Continued</b> |                         |             |                        |         |         |  |         |           |        |        |
| 49235  | TRICLOPYR FLTRD (UG/L)  | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 82661  | TRIFLURALIN FIL (UG/L)  | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 70331  | SED-SUSP-SIEVE-. %      | 24          | 100.000                | 76.000  | 95.833  | 100.000  | 99.000  | 97.500    | 93.750 | 78.000 |
| 80154  | CONCENTRATION,S. MG/L   | 24          | 159.000                | 7.000   | 41.042  | 142.500  | 66.000  | 32.000    | 13.500 | 7.000  |
| 80155  | DISCHARGE,SUSP.S T/DAY  | 18          | 648.000                | 0.150   | 124.374 | 648.000  | 135.250 | 61.000    | 10.275 | 0.150  |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 4.** Statistical summary of water-quality data for the Red River of the North at Wahpeton, N. Dak., gaging station 05051500, October 1971 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 1           | 5.910                  | --      | --       | --   | --       | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 28          | 2780.000               | 74.000  | 765.393  | 2442.500   | 968.000  | 511.000   | 322.250 | 102.350 |
| 00061   | DISCHARGE, INST. CFS            | 278         | 10800.000              | 1.700   | 1107.728 | 4852.999   | 1197.500 | 482.000   | 232.000 | 38.800  |
| 00540   | RESIDUE FIXED (MG/L)            | 308         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 308         | 287.000                | 0.000   | 1.005    | 0.470  | 0.000    | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 308         | 8280.000               | 0.000   | 209.624  | 1132.498   | 0.000    | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 55          | 601.000                | 177.000 | 305.673  | 464.200  | 344.000  | 293.000   | 252.000 | 202.600 |
| 70301   | DISSOLVED SOLIDS MG/L           | 308         | 563.000                | 0.000   | 52.721   | 328.400  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00025   | AIR PRESSURE (MM OF HG)         | 2           | 775.000                | 738.000 | --       | --   | --       | --        | --      | --      |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 2           | 13.600                 | 13.000  | --       | --   | --       | --        | --      | --      |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 308         | 93.000                 | 0.000   | 0.302    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 57          | 8.800                  | 7.200   | 8.068    | 8.620  | 8.300    | 8.100     | 7.850   | 7.390   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 31          | 9.100                  | 6.600   | 7.906    | 8.860  | 8.200    | 8.000     | 7.700   | 6.720   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 19          | 615.000                | 271.000 | 475.947  | 615.000  | 542.000  | 479.000   | 408.000 | 271.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 18          | 866.000                | 416.000 | 553.333  | 866.000  | 607.000  | 543.500   | 467.000 | 416.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 297         | 1050.000               | 123.000 | 536.343  | 777.300  | 608.500  | 520.000   | 449.000 | 365.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 170         | 31.000                 | -28.500 | 9.322    | 27.225   | 19.125   | 10.250    | 1.000   | -12.225 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 303         | 30.000                 | 0.000   | 9.778    | 25.500   | 19.000   | 7.500     | 0.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 308         | 14.000                 | 0.000   | 0.045    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 308         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 308         | 110.000                | 0.000   | 2.049    | 2.750  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 308         | 21.000                 | 0.000   | 0.127    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 308         | 390.000                | 0.000   | 42.532   | 260.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 55          | 70.000                 | 27.000  | 46.164   | 64.400   | 54.000   | 45.000    | 38.000  | 33.600  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 55          | 51.000                 | 10.000  | 29.709   | 40.000   | 33.000   | 30.000    | 28.000  | 14.600  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 55          | 15.000                 | 1.700   | 5.236    | 8.320  | 6.300    | 5.000     | 3.800   | 2.580   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 308         | 0.700                  | 0.000   | 0.067    | 0.400  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 55          | 33.000                 | 4.500   | 13.313   | 22.000   | 16.000   | 13.000    | 10.000  | 5.940   |
| 00932   | SODIUM, PERCENT PERCENT         | 308         | 16.000                 | 0.000   | 1.847    | 11.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 308         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 38          | 240.000                | 70.000  | 186.605  | 222.900  | 210.750  | 199.500   | 167.500 | 110.850 |
| 00418   | ALKALINITY,DIS,F (MG/L AS CaCO3 | 1           | 232.000                | --      | --       | --   | --       | --        | --      | --      |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 1           | 238.000                | --      | --       | --   | --       | --        | --      | --      |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 16          | 235.000                | 85.000  | 177.125  | 235.000  | 220.250  | 197.000   | 129.250 | 85.000  |
| 95440   | BICARBONATE MG/L AS CaCO3       | 24          | 290.000                | 86.000  | 230.250  | 287.500  | 267.500  | 245.000   | 195.000 | 104.500 |

**Supplement 4.** Statistical summary of water-quality data for the Red River of the North at Wahpeton, N. Dak., gaging station 05051500, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00453  | BICARBONATE,DIS. (MG/L AS HCO3) | 1           | 290.000                | --      | --      | --   | --      | --        | --      | --      |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 16          | 290.000                | 100.000 | 215.625 | 290.000  | 270.000 | 240.000   | 155.000 | 100.000 |
| 95445  | CARBONATE MG/L AS CO3           | 24          | 9.000                  | 0.000   | 1.167   | 8.750  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)  | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 16          | 5.000                  | 0.000   | 0.500   | 5.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 55          | 22.000                 | 1.700   | 10.465  | 19.000   | 13.000  | 11.000    | 7.000   | 3.980   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 55          | 0.700                  | 0.100   | 0.151   | 0.220  | 0.200   | 0.100     | 0.100   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 44          | 21.000                 | 1.100   | 11.755  | 18.750   | 15.750  | 13.000    | 7.600   | 2.000   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 55          | 230.000                | 15.000  | 68.800  | 156.000  | 95.000  | 60.000    | 32.000  | 15.800  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)    | 1           | 0.210                  | --      | --      | --   | --      | --        | --      | --      |
| 00623  | NITRO AMN & ORG (MG/L AS N)     | 1           | 1.100                  | --      | --      | --   | --      | --        | --      | --      |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 308         | 0.270                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 308         | 1.500                  | 0.000   | 0.005   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 308         | 1.700                  | 0.000   | 0.021   | 0.088  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 308         | 7.400                  | 0.000   | 0.099   | 1.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)    | 1           | 0.430                  | --      | --      | --   | --      | --        | --      | --      |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 308         | 0.066                  | 0.000   | 0.000   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N      | 1           | 0.020                  | --      | --      | --   | --      | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 308         | 0.890                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 308         | 1.100                  | 0.000   | 0.011   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)    | 1           | 0.060                  | --      | --      | --   | --      | --        | --      | --      |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)    | 5           | 0.100                  | 0.029   | --      | --   | --      | --        | --      | --      |
| 00621  | NITROGEN NITRATE (MG/KG AS N)   | 308         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2)  | 308         | 27.000                 | 0.000   | 0.688   | 3.955  | 0.000   | 0.000     | 0.000   | 0.000   |

**Supplement 4.** Statistical summary of water-quality data for the Red River of the North at Wahpeton, N. Dak., gaging station 05051500, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|-------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                               |             |                        |         |          |  |          |           |         |         |
| 00681  | CARBON ORGANIC D (MG/L AS C)  | 1           | 8.800                  | --      | --       | --   | --       | --        | --      | --      |
| 00689  | CARBON ORGANIC P (MG/L AS C)  | 1           | 0.800                  | --      | --       | --   | --       | --        | --      | --      |
| 00690  | CARBON INORG + O (MG/L AS C)  | 308         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C) | 308         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS        | 308         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS        | 308         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS) | 38          | 7.000                  | 1.000   | 3.447    | 5.100  | 5.000    | 3.000     | 2.000   | 1.000   |
| 01005  | BARIUM DISSOLVED (UG/L AS BA) | 1           | 76.000                 | --      | --       | --   | --       | --        | --      | --      |
| 01010  | BERYLLIUM DISSOL (UG/L AS BE) | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01020  | BORON DISSOLVED (UG/L AS B)   | 44          | 1600.000               | --      | *116.396 | *277.500   | *107.500 | *60.000   | *42.500 | *13.282 |
| 01025  | CADMIUM DISSOLVE (UG/L AS CD) | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01030  | CHROMIUM DISSOLV (UG/L AS CR) | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01035  | COBALT DISSOLVED (UG/L AS CO) | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01040  | COPPER DISSOLVED (UG/L AS CU) | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01046  | IRON DISSOLVED (UG/L AS FE)   | 55          | 220.000                | 10.000  | 42.909   | 124.000  | 50.000   | 30.000    | 20.000  | 10.000  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)   | 38          | 3.000                  | --      | *0.625   | *2.050   | *1.000   | *0.472    | *0.283  | *0.132  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI) | 38          | 50.000                 | 8.000   | 20.737   | 40.500   | 25.250   | 20.000    | 13.000  | 9.900   |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 55          | 110.000                | --      | *30.677  | *102.000   | *40.000  | *20.000   | *10.000 | *3.700  |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 38          | 1.000                  | --      | *0.140   | *0.715   | *0.125   | *0.100    | *0.036  | *0.012  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 37          | 8.000                  | --      | *1.294   | *5.300   | *1.000   | *1.000    | *0.525  | *0.239  |
| 01065  | NICKEL DISSOLVED (UG/L AS NI) | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 38          | 2.000                  | --      | *0.631   | *2.000   | *0.837   | *0.490    | *0.299  | *0.143  |
| 01075  | SILVER DISSOLVED (UG/L AS AG) | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 38          | 400.000                | 85.000  | 214.079  | 362.000  | 262.500  | 205.000   | 175.000 | 89.750  |
| 01085  | VANADIUM DISSOLV (UG/L AS V)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01090  | ZINC DISSOLVED (UG/L AS ZN)   | 1           | 8.000                  | --      | --       | --   | --       | --        | --      | --      |
| 82082  | HYDROGEN 2/1 R RATIO PER MIL  | 1           | -58.000                | --      | --       | --   | --       | --        | --      | --      |
| 07060  | IRON 59 DISSOLVE (PCI/L)      | 2           | 2.000                  | 1.000   | --       | --   | --       | --        | --      | --      |
| 82085  | OXYGEN 18/16 R RATIO PER MIL  | 1           | -6.800                 | --      | --       | --   | --       | --        | --      | --      |
| 07000  | TRITIUM TOTAL (PCI/L)         | 1           | 64.000                 | --      | --       | --   | --       | --        | --      | --      |
| 75985  | TRITIUM PREC EST PCI/L        | 1           | 6.400                  | --      | --       | --   | --       | --        | --      | --      |
| 80156  | SUS-SED DISCH + T/DAY         | 308         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY        | 308         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |

**Supplement 4.** Statistical summary of water-quality data for the Red River of the North at Wahpeton, N. Dak., gaging station 05051500, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|---------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                                 |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, August 1992 through August 1997</b> |                                 |             |                        |         |      |  |    |           |    |    |
| 80294  | BED MAT FD DW<.0 PERCENT <.002M | 1           | 15.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80157  | SED-BED-FALL-D-. %              | 1           | 17.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80293  | BED MAT FD DW<.0 PERCENT> .008M | 1           | 18.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80282  | BED MAT FD DW<.0 PERCENT <.016M | 1           | 21.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80283  | BED MAT FD DW<.0 PERCENT <.031M | 1           | 30.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80158  | SED-BED-FALL-D-. %              | 1           | 52.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80159  | SED-BED-FALL-D-. %              | 1           | 86.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80160  | SED-BED-FALL-D-. %              | 1           | 98.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80161  | SED-BED-FALL-D-. %              | 1           | 100.000                | --      | --   | --   | -- | --        | -- | -- |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 5.** Statistical summary of water-quality data for the Red River of the North at Hickson, N. Dak., gaging station 05051522, November 1975 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, November 1975 through April 2001</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 6           | 12.040                 | --      | *10.745  | *12.040  | *11.530  | *10.639   | *9.932  | *9.820  |
| 00060  | DISCHARGE CFS                   | 14          | 6000.000               | 483.000 | 1556.143 | 6000.000   | 1895.000 | 929.500   | 714.500 | 483.000 |
| 00061  | DISCHARGE, INST. CFS            | 265         | 14100.000              | 2.900   | 1461.276 | 6854.000   | 1565.000 | 524.000   | 250.000 | 65.300  |
| 00310  | BOD 5-DAY AT 20 (MG/L)          | 21          | 3.000                  | --      | *1.663   | *2.900   | *2.000   | *2.000    | *1.000  | *0.773  |
| 00340  | COD HIGH LEVEL M (MG/L)         | 1           | 19.000                 | --      | --       | --   | --       | --        | --      | --      |
| 00080  | COLOR PLATINUM-COBAL            | 71          | 320.000                | 1.000   | 25.451   | 90.000   | 25.000   | 13.000    | 10.000  | 4.200   |
| 00540  | RESIDUE FIXED (MG/L)            | 281         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 281         | 1.600                  | 0.000   | 0.197    | 0.580  | 0.410    | 0.000     | 0.000   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 281         | 6530.000               | 0.000   | 359.717  | 1696.000   | 307.000  | 0.000     | 0.000   | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 95          | 1180.000               | 168.000 | 358.032  | 598.000  | 391.000  | 329.000   | 287.000 | 244.400 |
| 70301  | DISSOLVED SOLIDS MG/L           | 281         | 1150.000               | 0.000   | 140.050  | 417.500  | 298.500  | 0.000     | 0.000   | 0.000   |
| 00070  | TURBIDITY (JCU)                 | 32          | 70.000                 | 3.000   | 20.750   | 63.500   | 31.500   | 17.500    | 5.000   | 3.000   |
| 00076  | TURBIDITY (NTU)                 | 38          | 120.000                | 1.900   | 27.405   | 89.600   | 42.500   | 18.000    | 3.475   | 1.995   |
| 00025  | AIR PRESSURE (MM OF HG)         | 35          | 775.000                | 718.000 | 739.600  | 771.000  | 742.000  | 738.000   | 734.000 | 724.400 |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 83          | 18.600                 | 0.600   | 9.490    | 15.140   | 11.600   | 9.200     | 7.200   | 5.080   |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 281         | 116.000                | 0.000   | 15.943   | 95.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 117         | 9.400                  | 7.200   | 8.126    | 8.600  | 8.400    | 8.200     | 7.950   | 7.400   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 59          | 9.100                  | 6.700   | 7.986    | 8.500  | 8.300    | 8.100     | 7.800   | 6.900   |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 68          | 909.000                | 261.000 | 539.029  | 712.950  | 623.500  | 521.000   | 461.250 | 371.650 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 271         | 1590.000               | 47.000  | 554.720  | 752.600  | 610.000  | 540.000   | 480.000 | 377.200 |
| 00020  | AIR TEMPERATURE DEGREES C       | 188         | 34.000                 | -25.000 | 11.054   | 29.775   | 21.500   | 11.050    | 2.125   | -9.650  |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 274         | 32.000                 | -1.000  | 10.575   | 25.500   | 20.000   | 9.000     | 0.650   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 281         | 68.000                 | 0.000   | 0.242    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 281         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 281         | 210.000                | 0.000   | 10.964   | 86.800   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 281         | 55.000                 | 0.000   | 0.594    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 281         | 800.000                | 0.000   | 114.100  | 329.000  | 250.000  | 0.000     | 0.000   | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 118         | 140.000                | 21.000  | 52.164   | 72.150   | 58.250   | 50.000    | 43.000  | 36.950  |
| 00925  | MAGNESIUM DISSOL (MG/L AS MG)   | 118         | 110.000                | 9.500   | 34.235   | 46.100   | 37.000   | 33.000    | 29.000  | 25.000  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 118         | 24.000                 | 1.300   | 6.225    | 14.290   | 6.625    | 5.450     | 4.600   | 3.700   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 281         | 1.000                  | 0.000   | 0.175    | 0.600  | 0.400    | 0.000     | 0.000   | 0.000   |
| 00933  | SODIUM+POTASSIUM (MG/L AS Na)   | 9           | 33.000                 | 13.000  | 20.444   | 33.000   | 26.500   | 18.000    | 15.000  | 13.000  |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 118         | 92.000                 | 6.800   | 16.359   | 26.300   | 19.000   | 15.000    | 11.000  | 7.595   |
| 00932  | SODIUM, PERCENT PERCENT         | 281         | 20.000                 | 0.000   | 4.651    | 14.000   | 10.000   | 0.000     | 0.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 281         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |

**Supplement 5.** Statistical summary of water-quality data for the Red River of the North at Hickson, N. Dak., gaging station 05051522, November 1975 through April 2001--Continued

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|---|----------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, November 1975 through April 2001--Continued</b> |                                  |             |                        |         |         |  |         |           |         |         |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3   | 68          | 290.000                | 70.000  | 201.235 | 251.100  | 218.750 | 203.500   | 188.500 | 116.650 |
| 00418   | ALKALINITY,DIS,F (MG/L AS CaCO3) | 1           | 207.000                | --      | --      | --   | --      | --        | --      | --      |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3) | 1           | 208.000                | --      | --      | --   | --      | --        | --      | --      |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3)  | 49          | 645.000                | 76.000  | 229.490 | 391.000  | 248.000 | 220.000   | 185.000 | 145.000 |
| 00417   | ANC, FET, LAB (MG/L AS CaCO3)    | 2           | 237.000                | 194.000 | --      | --   | --      | --        | --      | --      |
| 95440   | BICARBONATE MG/L AS CaCO3        | 12          | 350.000                | 85.000  | 237.917 | 350.000  | 260.000 | 245.000   | 215.000 | 85.000  |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3)  | 1           | 254.000                | --      | --      | --   | --      | --        | --      | --      |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3)  | 33          | 790.000                | 150.000 | 290.606 | 643.000  | 300.000 | 270.000   | 250.000 | 178.000 |
| 95445   | CARBONATE MG/L AS CO3            | 12          | 11.000                 | 0.000   | 0.917   | 11.000   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)   | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)   | 30          | 5.000                  | 0.000   | 0.433   | 4.450  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)    | 118         | 44.000                 | 1.000   | 11.118  | 23.050   | 13.450  | 9.950     | 7.625   | 4.550   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)     | 97          | 0.600                  | 0.100   | 0.180   | 0.300  | 0.200   | 0.200     | 0.100   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2)  | 87          | 21.000                 | 0.100   | 11.866  | 19.000   | 16.000  | 12.000    | 7.900   | 3.680   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)   | 118         | 340.000                | 5.400   | 79.062  | 200.000  | 110.750 | 64.000    | 34.500  | 17.760  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)     | 1           | 0.150                  | --      | --      | --   | --      | --        | --      | --      |
| 00623   | NITRO AMN & ORG (MG/L AS N)      | 1           | 1.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)     | 92          | 4.800                  | 0.060   | 1.175   | 2.070  | 1.400   | 1.200     | 0.740   | 0.293   |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4     | 281         | 0.190                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00610   | NITROGEN AMMONIA (MG/L AS N)     | 91          | 0.660                  | --      | *0.116  | *0.514   | *0.140  | *0.050    | *0.010  | *0.003  |
| 71845   | NITROGEN, NH4, T MG/L AS NH4     | 281         | 0.850                  | 0.000   | 0.048   | 0.330  | 0.010   | 0.000     | 0.000   | 0.000   |
| 00602   | NITROGEN DISSOLV (MG/L AS N)     | 281         | 1.500                  | 0.000   | 0.005   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618   | NITROGEN NITRATE (MG/L AS N)     | 281         | 0.510                  | 0.000   | 0.002   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3     | 281         | 2.260                  | 0.000   | 0.008   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N       | 281         | 1.240                  | 0.000   | 0.011   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)     | 71          | 2.200                  | --      | *0.211  | *0.746   | *0.280  | *0.100    | *0.021  | *0.010  |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)      | 258         | 2.300                  | --      | *0.103  | *0.400   | *0.078  | *0.024    | *0.007  | *0.001  |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2     | 281         | 0.033                  | 0.000   | 0.000   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613   | NITROGEN,NITRITE MG/L AS N       | 1           | 0.010                  | --      | --      | --   | --      | --        | --      | --      |
| 00615   | NITROGEN,NITRITE MG/L AS N       | 21          | 0.060                  | --      | *0.017  | *0.060   | *0.020  | *0.010    | *0.005  | *0.002  |
| 00607   | NITROGEN ORGANIC (MG/L AS N)     | 281         | 0.850                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605   | NITROGEN ORGANIC (MG/L AS N)     | 281         | 3.700                  | 0.000   | 0.312   | 1.400  | 0.605   | 0.000     | 0.000   | 0.000   |
| 00600   | NITROGEN TOTAL (MG/L AS N)       | 281         | 4.800                  | 0.000   | 0.433   | 1.800  | 0.780   | 0.000     | 0.000   | 0.000   |
| 71887   | NITROGEN, TOTAL MG/L AS NO3      | 281         | 21.000                 | 0.000   | 1.849   | 7.990  | 3.250   | 0.000     | 0.000   | 0.000   |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)   | 281         | 0.061                  | 0.000   | 0.000   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |

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|---|--------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|----------|----------|
|   |                                |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25       | 5        |
| <b>North Dakota data, November 1975 through April 2001--Continued</b> |                                |             |                        |         |          |  |          |           |          |          |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)  | 281         | 2.730                  | 0.000   | 0.072    | 0.368  | 0.000    | 0.000     | 0.000    | 0.000    |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)   | 92          | 0.840                  | 0.010   | 0.097    | 0.240  | 0.120    | 0.078     | 0.050    | 0.016    |
| 00678   | PHOSPHORUS HYDRO (MG/L AS P)   | 58          | 1.100                  | 0.000   | 0.147    | 0.361  | 0.190    | 0.120     | 0.070    | 0.030    |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)   | 281         | 0.000                  | --      | --       | --   | --       | --        | --       | --       |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)   | 281         | 0.240                  | 0.000   | 0.014    | 0.110  | 0.000    | 0.000     | 0.000    | 0.000    |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)    | 281         | 0.000                  | --      | --       | --   | --       | --        | --       | --       |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 281         | 0.800                  | 0.000   | 0.010    | 0.060  | 0.000    | 0.000     | 0.000    | 0.000    |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)   | 1           | 0.020                  | --      | --       | --   | --       | --        | --       | --       |
| 70507   | PHOS ORTHO TOT A (MG/L AS P)   | 68          | 0.890                  | 0.010   | 0.095    | 0.228  | 0.110    | 0.070     | 0.043    | 0.020    |
| 00665   | PHOSPHORUS TOTAL (MG/L AS P)   | 91          | 1.200                  | 0.031   | 0.194    | 0.390  | 0.229    | 0.170     | 0.110    | 0.050    |
| 71886   | PHOSPHORUS TOT P (MG/L AS PO4) | 24          | 1.200                  | 0.150   | 0.488    | 1.200  | 0.550    | 0.460     | 0.210    | 0.150    |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 281         | 0.000                  | --      | --       | --   | --       | --        | --       | --       |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 281         | 40.000                 | 0.000   | 1.805    | 7.940  | 2.200    | 0.000     | 0.000    | 0.000    |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 69          | 27.000                 | 6.500   | 11.191   | 20.500   | 12.500   | 9.700     | 8.700    | 7.650    |
| 00689   | CARBON ORGANIC P (MG/L AS C)   | 61          | 14.000                 | 0.200   | 1.685    | 5.000  | 2.000    | 1.100     | 0.600    | 0.210    |
| 00690   | CARBON INORG + O (MG/L AS C)   | 281         | 0.000                  | --      | --       | --   | --       | --        | --       | --       |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 281         | 0.000                  | --      | --       | --   | --       | --        | --       | --       |
| 70950   | BIO CHL RATIO PE UNITS         | 281         | 0.000                  | --      | --       | --   | --       | --        | --       | --       |
| 70949   | BIO CHL RATIO PL UNITS         | 281         | 0.000                  | --      | --       | --   | --       | --        | --       | --       |
| 31625   | COLIFORM FECAL 0 COLS./100 ML  | 19          | 740.000                | --      | *103.715 | *740.000   | *100.000 | *42.000   | *12.000  | *2.732   |
| 31673   | FECAL STREP,KF M COLS./100 ML  | 19          | 3700.000               | 4.000   | 425.211  | 3700.000   | 410.000  | 88.000    | 40.000   | 4.000    |
| 70953   | CHL-A PHY CHROMA UG/L          | 15          | 39.000                 | --      | *9.072   | *39.000  | *13.000  | *3.399    | *1.500   | *0.394   |
| 70954   | CHLOROPHYLL-B, P UG/L          | 12          | --                     | --      | --       | --   | --       | --        | --       | --       |
| 01106   | ALUMINUM DISSOLV (UG/L AS AL)  | 9           | --                     | --      | --       | --   | --       | --        | --       | --       |
| 01104   | ALUMINUM TOTAL R (UG/L)        | 21          | 8900.000               | 130.000 | 2251.905 | 8880.000   | 2800.000 | 1800.000  | 480.000  | 133.000  |
| 01097   | ANTIMONY TOTAL (UG/L AS SB)    | 21          | --                     | --      | --       | --   | --       | --        | --       | --       |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 34          | 6.000                  | 1.000   | 3.529    | 6.000  | 4.250    | 3.000     | 3.000    | 1.750    |
| 01002   | ARSENIC TOTAL (UG/L AS AS)     | 21          | 7.000                  | 1.000   | 4.095    | 7.000  | 5.000    | 4.000     | 3.000    | 1.100    |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)  | 10          | 200.000                | --      | *84.460  | *200.000   | *91.717  | *80.000   | *52.498  | *40.000  |
| 01009   | BARIUM TOTAL REC (UG/L)        | 21          | 160.000                | 1.000   | 99.000   | 159.000  | 120.000  | 97.000    | 80.500   | 7.800    |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE)  | 5           | --                     | --      | --       | --   | --       | --        | --       | --       |
| 00998   | BERYLLIUM TOT. R (UG/L)        | 20          | --                     | --      | --       | --   | --       | --        | --       | --       |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 85          | 530.000                | 10.000  | 94.235   | 181.000  | 110.000  | 80.000    | 60.000   | 26.000   |
| 00999   | BORON TOTAL REC. (UG/L)        | 21          | 100.000                | --      | *100.000 | *100.000   | *100.000 | *100.000  | *100.000 | *100.000 |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD)  | 9           | --                     | --      | --       | --   | --       | --        | --       | --       |

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|   |                               |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, November 1975 through April 2001--Continued</b> |                               |             |                        |         |          |  |          |           |         |         |
| 01113   | CADMIUM TOTAL RE (UG/L)       | 19          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR) | 10          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01118   | CHROMIUM TOTAL R (UG/L)       | 21          | 12.000                 | --      | *3.609   | *11.900  | *4.500   | *3.000    | *1.477  | *0.681  |
| 01035   | COBALT DISSOLVED (UG/L AS CO) | 10          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01040   | COPPER DISSOLVED (UG/L AS CU) | 10          | 15.000                 | --      | *4.482   | *15.000  | *5.000   | *3.411    | *2.000  | *2.000  |
| 01119   | COPPER TOTAL REC (UG/L)       | 21          | 23.000                 | 1.000   | 6.143    | 22.600   | 7.000    | 5.000     | 3.500   | 1.000   |
| 00720   | CYANIDE TOTAL (MG/L AS CN)    | 9           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01046   | IRON DISSOLVED (UG/L AS FE)   | 35          | 300.000                | --      | *44.281  | *260.000   | *40.000  | *20.000   | *10.000 | *3.128  |
| 01045   | IRON TOTAL (UG/L AS FE)       | 21          | 11900.000              | 200.000 | 3123.810 | 11760.000  | 3980.000 | 2540.000  | 685.000 | 209.000 |
| 01049   | LEAD DISSOLVED (UG/L AS PB)   | 33          | 7.000                  | --      | *1.658   | *7.000   | *2.500   | *0.774    | *0.302  | *0.076  |
| 01114   | LEAD TOTAL REC. (UG/L)        | 21          | 7.000                  | --      | *2.181   | *6.800   | *3.000   | *2.000    | *0.843  | *0.364  |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI) | 35          | 50.000                 | --      | *21.020  | *42.000  | *24.000  | *20.000   | *14.000 | *8.747  |
| 01056   | MANGANESE DISSOL (UG/L AS MN) | 35          | 90.000                 | --      | *21.346  | *66.000  | *30.000  | *20.000   | *10.000 | *2.371  |
| 01123   | MANGANESE TOTAL (UG/L)        | 21          | 370.000                | 10.000  | 143.333  | 369.000  | 215.000  | 140.000   | 40.000  | 11.000  |
| 71890   | MERCURY DISSOLVE UG/L AS HG   | 34          | 11.000                 | --      | *0.399   | *3.275   | *0.100   | *0.016    | *0.003  | *0.000  |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO) | 35          | 6.000                  | --      | *1.383   | *3.600   | *2.000   | *1.000    | *0.642  | *0.306  |
| 01065   | NICKEL DISSOLVED (UG/L AS NI) | 10          | 11.000                 | --      | *3.570   | *11.000  | *3.750   | *2.351    | *2.000  | *2.000  |
| 01074   | NICKEL TOTAL REC (UG/L)       | 21          | 12.000                 | 2.000   | 6.095    | 11.900   | 8.000    | 6.000     | 3.500   | 2.000   |
| 01145   | SELENIUM DISSOLV (UG/L AS SE) | 34          | 1.000                  | --      | *1.000   | *1.000   | *1.000   | *1.000    | *1.000  | *1.000  |
| 01147   | SELENIUM TOTAL (UG/L AS SE)   | 20          | 9.000                  | --      | *1.114   | *8.750   | *1.000   | *0.223    | *0.054  | *0.007  |
| 01075   | SILVER DISSOLVED (UG/L AS AG) | 5           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01079   | SILVER TOTAL REC (UG/L)       | 21          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01080   | STRONTIUM DISSOL (UG/L AS SR) | 35          | 370.000                | 10.000  | 217.429  | 346.000  | 250.000  | 210.000   | 190.000 | 90.000  |
| 01128   | THALLIUM TOTAL R (UG/L AS TL) | 21          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01085   | VANADIUM DISSOLV (UG/L AS V)  | 8           | 4.000                  | --      | *1.830   | *4.000   | *2.750   | *1.747    | *0.761  | *0.462  |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)   | 10          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01094   | ZINC TOTAL REC. (UG/L)        | 20          | 40.000                 | 10.000  | 18.500   | 39.500   | 20.000   | 20.000    | 10.000  | 10.000  |
| 39740   | 2,4,5-T TOTAL(WA UG/L         | 17          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 39730   | 2,4-D TOTAL (WA UG/L          | 17          | 0.210                  | --      | *0.060   | *0.210   | *0.070   | *0.050    | *0.017  | *0.006  |
| 39330   | ALDRIN TOTAL (WA UG/L         | 16          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 39786   | CARBOPHENOTHION UG/L          | 16          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 39350   | CHLORDANE TOT(WA UG/L         | 16          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 39570   | DIAZINON TOT (WA UG/L         | 16          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 39380   | DIELDRIN TOT (WA UG/L         | 16          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 39388   | ENDOSULFAN I TOT UG/L         | 11          | --                     | --      | --       | --   | --       | --        | --      | --      |

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|---|---------------------------------|-------------|------------------------|---------|--------|--|--------|-----------|--------|--------|
|   |                                 |             | Maximum                | Minimum | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>North Dakota data, November 1975 through April 2001--Continued</b> |                                 |             |                        |         |        |  |        |           |        |        |
| 39390   | ENDRIN UNF REC (UG/L)           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39398   | ETHION TOTAL (WA UG/L           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39420   | HEPT EPOX TOT(WA UG/L           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39410   | HEPTACHLOR T.(WA UG/L           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39340   | LINDANE TOTAL(WA UG/L           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39530   | MALATHION TOT(WA UG/L           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39480   | METHOXYCHLOR T.( UG/L           | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39600   | MET PARTH TOT(WA UG/L           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39790   | MET TRITH TOT(WA UG/L           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39755   | MIREX TOTAL UG/L                | 5           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39360   | P,P'-DDD UNFLT R UG/L           | 15          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39365   | P,P'-DDE, TOTAL UG/L            | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39370   | P,P'-DDT UNFILT UG/L            | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39540   | PARATHION TOT(WA UG/L           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39516   | PCB TOTAL (WA UG/L              | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39250   | PCN TOTAL (WA UG/L              | 12          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39034   | PERTHANE TOTAL UG/L             | 4           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 32730   | PHENOLS, TOTAL UG/L             | 65          | 16.000                 | --      | *2.711 | *6.000   | *3.000 | *2.000    | *1.000 | *0.606 |
| 39760   | SILVEX TOTAL (WA UG/L           | 17          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39400   | TOXAPHENE TOT(WA UG/L           | 16          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82082   | HYDROGEN 2 / 1 R RATIO PER MIL  | 1           | -56.000                | --      | --     | --   | --     | --        | --     | --     |
| 82085   | OXYGEN 18 / 16 R RATIO PER MIL  | 1           | -6.600                 | --      | --     | --   | --     | --        | --     | --     |
| 82068   | POTSSSIUM 40 DIS (PCI/L AS K40) | 2           | 7.500                  | 2.300   | --     | --   | --     | --        | --     | --     |
| 07000   | TRITIUM TOTAL (PCI/L)           | 1           | 62.000                 | --      | --     | --   | --     | --        | --     | --     |
| 75985   | TRITIUM PREC EST PCI/L          | 1           | 6.400                  | --      | --     | --   | --     | --        | --     | --     |
| 70337   | SED-SUSP-FALL-D- %              | 3           | 69.000                 | 51.000  | --     | --   | --     | --        | --     | --     |
| 70338   | SED-SUSP-FALL-D- %              | 10          | 87.000                 | 60.000  | 73.200 | 87.000   | 80.000 | 73.500    | 66.750 | 60.000 |
| 70339   | SED-SUSP-FALL-D- %              | 3           | 86.000                 | 53.000  | --     | --   | --     | --        | --     | --     |
| 70340   | SED-SUSP-FALL-D- %              | 10          | 98.000                 | 89.000  | 93.800 | 98.000   | 96.500 | 93.500    | 91.750 | 89.000 |
| 70341   | SED-SUSP-FALL-D- %              | 3           | 99.000                 | 96.000  | --     | --   | --     | --        | --     | --     |
| 70342   | SED-SUSP-FALL-D- %              | 3           | 100.000                | 100.000 | --     | --   | --     | --        | --     | --     |
| 70331   | SED-SUSP-SIEVE-. %              | 36          | 100.000                | 40.000  | 90.917 | 100.000  | 99.000 | 98.000    | 92.000 | 48.500 |
| 70332   | SED-SUSP-SIEVE-. %              | 2           | 99.000                 | 95.000  | --     | --   | --     | --        | --     | --     |
| 70333   | SED-SUSP-SIEVE-. %              | 2           | 99.000                 | 98.000  | --     | --   | --     | --        | --     | --     |
| 70334   | SED-SUSP-SIEVE-. %              | 2           | 99.000                 | 98.000  | --     | --   | --     | --        | --     | --     |

**Supplement 5.** Statistical summary of water-quality data for the Red River of the North at Hickson, N. Dak., gaging station 05051522, November 1975 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|---|-------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|   |                         |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, November 1975 through April 2001--Continued</b> |                         |             |                        |         |         |  |         |           |        |        |
| 70336   | SED-SUSP-SIEVE-2 %      | 1           | 100.000                | --      | --      | --   | --      | --        | --     | --     |
| 70335   | SED-SUSP-SIEVE-1 %      | 2           | 100.000                | 99.000  | --      | --   | --      | --        | --     | --     |
| 80156   | SUS-SED DISCH + T/DAY   | 281         | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 80154   | CONCENTRATION,S. MG/L   | 93          | 379.000                | 3.000   | 83.247  | 226.600  | 122.500 | 64.000    | 16.500 | 4.700  |
| 80155   | DISCHARGE,SUSP.S T/DAY  | 281         | 3310.000               | 0.000   | 102.867 | 656.900  | 6.900   | 0.000     | 0.000  | 0.000  |
| 80157   | SED-BED-FALL-D-. %      | 2           | 46.000                 | 32.000  | --      | --   | --      | --        | --     | --     |
| 80158   | SED-BED-FALL-D-. %      | 2           | 83.000                 | 63.000  | --      | --   | --      | --        | --     | --     |
| 80159   | SED-BED-FALL-D-. %      | 2           | 85.000                 | 64.000  | --      | --   | --      | --        | --     | --     |
| 80160   | SED-BED-FALL-D-. %      | 2           | 89.000                 | 66.000  | --      | --   | --      | --        | --     | --     |
| 80161   | SED-BED-FALL-D-. %      | 2           | 93.000                 | 76.000  | --      | --   | --      | --        | --     | --     |
| 80162   | SED-BED-FALL-D-1 %      | 2           | 94.000                 | 82.000  | --      | --   | --      | --        | --     | --     |
| 80164   | SED-BED-SIEVE-.0 %      | 6           | 68.000                 | 2.000   | 19.000  | 68.000   | 37.250  | 6.000     | 4.250  | 2.000  |
| 80165   | SED-BED-SIEVE-.1 %      | 6           | 69.000                 | 8.000   | 24.333  | 69.000   | 38.250  | 15.000    | 10.250 | 8.000  |
| 80166   | SED-BED-SIEVE-.2 %      | 6           | 72.000                 | 18.000  | 35.500  | 72.000   | 45.000  | 29.500    | 25.500 | 18.000 |
| 80167   | SED-BED-SIEVE-.5 %      | 6           | 84.000                 | 31.000  | 57.833  | 84.000   | 76.500  | 60.000    | 36.250 | 31.000 |
| 80168   | SED-BED-SIEVE-1. %      | 6           | 99.000                 | 47.000  | 74.833  | 99.000   | 93.750  | 78.000    | 53.000 | 47.000 |
| 80169   | SED-BED-SIEVE-2. %      | 8           | 99.000                 | 65.000  | 88.500  | 99.000   | 98.750  | 92.500    | 80.500 | 65.000 |
| 80170   | SED-BED-SIEVE-4. %      | 8           | 100.000                | 82.000  | 94.125  | 100.000  | 100.000 | 98.000    | 85.750 | 82.000 |
| 80171   | SED-BED-SIEVE-8. %      | 5           | 100.000                | 89.000  | --      | --   | --      | --        | --     | --     |
| 80172   | SED-BED-SIEVE-16 %      | 4           | 100.000                | 93.000  | --      | --   | --      | --        | --     | --     |
| 80173   | SED-BED-SIEVE-32 %      | 2           | 100.000                | 100.000 | --      | --   | --      | --        | --     | --     |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 6.** Statistical summary of water-quality data for the Wild Rice River near Abercrombie, N. Dak., gaging station 05053000, June 1966 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1966 through April 2001</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 3           | 2.510                  | 0.250   | --       | --   | --       | --        | --      | --      |
| 00060  | DISCHARGE CFS                   | 169         | 9260.000               | 0.010   | 184.933  | 679.500  | 87.500   | 14.000    | 1.950   | 0.065   |
| 00061  | DISCHARGE, INST. CFS            | 278         | 7360.000               | 0.010   | 521.403  | 2945.996   | 483.250  | 30.000    | 4.450   | 0.088   |
| 00080  | COLOR PLATINUM-COBAL            | 160         | 180.000                | 3.000   | 34.800   | 75.000   | 40.000   | 30.000    | 22.000  | 8.100   |
| 00540  | RESIDUE FIXED (MG/L)            | 448         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 448         | 769.000                | 0.000   | 3.633    | 2.591  | 1.370    | 0.700     | 0.000   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 448         | 5600.000               | 0.000   | 122.959  | 690.850  | 57.550   | 2.955     | 0.000   | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 270         | 2840.000               | 83.000  | 976.863  | 2024.500   | 1230.000 | 914.000   | 582.500 | 290.800 |
| 70301  | DISSOLVED SOLIDS MG/L           | 448         | 2660.000               | 0.000   | 448.998  | 1596.500   | 867.750  | 0.000     | 0.000   | 0.000   |
| 00025  | AIR PRESSURE (MM OF HG)         | 4           | 769.000                | 735.000 | --       | --   | --       | --        | --      | --      |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 2           | 6.600                  | 4.800   | --       | --   | --       | --        | --      | --      |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 448         | 78.000                 | 0.000   | 0.299    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 263         | 8.600                  | 6.800   | 7.865    | 8.400  | 8.100    | 7.900     | 7.700   | 7.300   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 41          | 8.400                  | 6.500   | 7.888    | 8.300  | 8.200    | 8.000     | 7.700   | 6.730   |
| 00094  | FIELD CONDUCTIVI US/CM @ 25C    | 1           | 1060.000               | --      | --       | --   | --       | --        | --      | --      |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 48          | 2740.000               | 142.000 | 1079.104 | 2105.000   | 1420.000 | 984.500   | 760.000 | 369.550 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 430         | 3430.000               | 125.000 | 1235.981 | 2459.000   | 1620.000 | 1180.000  | 762.750 | 299.100 |
| 00020  | AIR TEMPERATURE DEGREES C       | 174         | 35.500                 | -18.000 | 10.588   | 27.000   | 21.000   | 9.500     | 1.500   | -8.625  |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 340         | 29.500                 | -1.000  | 10.234   | 25.475   | 19.500   | 9.000     | 0.500   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CACO3 | 448         | 330.000                | 0.000   | 0.737    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00905  | HARDNESS NC. DIS (MG/L AS CACO3 | 448         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CACO3 | 448         | 570.000                | 0.000   | 101.020  | 355.500  | 200.000  | 2.000     | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CACO3 | 448         | 300.000                | 0.000   | 2.750    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900  | HARDNESS TOTAL (MG/L AS CAO3)   | 448         | 1300.000               | 0.000   | 307.355  | 901.000  | 530.000  | 280.000   | 0.000   | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS CA)   | 246         | 290.000                | 13.000  | 108.049  | 221.300  | 130.000  | 100.000   | 70.000  | 38.000  |
| 00925  | MAGNESIUM DISSOL (MG/L AS MG)   | 246         | 150.000                | 4.500   | 57.767   | 120.000  | 74.000   | 56.000    | 34.000  | 15.350  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 253         | 47.000                 | 1.900   | 14.932   | 22.000   | 18.000   | 15.000    | 12.000  | 8.870   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 448         | 5.000                  | 0.000   | 1.281    | 4.000  | 2.000    | 1.000     | 0.000   | 0.000   |
| 00933  | SODIUM+POTASSIUM (MG/L AS NA)   | 15          | 300.000                | 43.000  | 121.533  | 300.000  | 140.000  | 100.000   | 60.000  | 43.000  |
| 00930  | SODIUM DISSOLVED (MG/L AS NA)   | 271         | 420.000                | 5.300   | 116.499  | 274.600  | 157.000  | 100.000   | 60.000  | 18.600  |
| 00932  | SODIUM, PERCENT PERCENT         | 448         | 57.000                 | 0.000   | 18.243   | 40.000   | 32.000   | 24.000    | 0.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CACO3    | 448         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CACO3  | 48          | 750.000                | 42.000  | 264.875  | 425.500  | 337.250  | 278.500   | 180.000 | 95.400  |
| 39086  | ALKALINITY,DIS,I (MG/L AS CACO3 | 1           | 295.000                | --      | --       | --   | --       | --        | --      | --      |
| 00410  | ANC, FET, FIELD (MG/L AS CACO3  | 223         | 809.000                | 45.000  | 326.628  | 652.000  | 387.000  | 310.000   | 210.000 | 108.000 |

**Supplement 6.** Statistical summary of water-quality data for the Wild Rice River near Abercrombie, N. Dak., gaging station 05053000, June 1966 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1966 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 95440   | BICARBONATE MG/L AS CaCO3       | 21          | 520.000                | 51.000  | 281.000 | 519.000  | 405.000 | 230.000   | 195.000 | 56.900  |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 1           | 360.000                | --      | --      | --   | --      | --        | --      | --      |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 201         | 980.000                | 55.000  | 388.960 | 720.000  | 460.000 | 380.000   | 260.000 | 131.000 |
| 95445   | CARBONATE MG/L AS CO3           | 21          | 3.000                  | 0.000   | 0.143   | 2.700  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)  | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)  | 190         | 45.000                 | 0.000   | 0.974   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)   | 217         | 180.000                | 2.300   | 45.023  | 120.000  | 60.500  | 36.000    | 23.000  | 8.140   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 217         | 1.500                  | 0.100   | 0.364   | 0.700  | 0.400   | 0.300     | 0.200   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 206         | 51.000                 | 2.600   | 20.901  | 39.650   | 27.000  | 20.000    | 14.000  | 5.905   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 233         | 1200.000               | 11.000  | 378.639 | 773.000  | 501.000 | 355.000   | 209.000 | 62.700  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 3           | 0.700                  | 0.100   | --      | --   | --      | --        | --      | --      |
| 00623   | NITRO AMN & ORG (MG/L AS N)     | 2           | 1.200                  | 1.100   | --      | --   | --      | --        | --      | --      |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)    | 2           | 1.400                  | 1.300   | --      | --   | --      | --        | --      | --      |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 448         | 0.900                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 448         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 448         | 1.300                  | 0.000   | 0.006   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 448         | 1.900                  | 0.000   | 0.030   | 0.160  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3    | 448         | 8.600                  | 0.000   | 0.364   | 1.910  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N      | 448         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)    | 93          | 1.900                  | --      | *0.193  | *0.824   | *0.170  | *0.070    | *0.030  | *0.010  |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)     | 448         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2    | 448         | 0.200                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613   | NITROGEN,NITRITE MG/L AS N      | 18          | 0.060                  | --      | *0.009  | *0.060   | *0.010  | *0.003    | *0.001  | *0.000  |
| 00607   | NITROGEN ORGANIC (MG/L AS N)    | 448         | 1.100                  | 0.000   | 0.005   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605   | NITROGEN ORGANIC (MG/L AS N)    | 448         | 1.300                  | 0.000   | 0.006   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00600   | NITROGEN TOTAL (MG/L AS N)      | 448         | 1.500                  | 0.000   | 0.007   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71887   | NITROGEN, TOTAL MG/L AS NO3     | 448         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)  | 448         | 1.200                  | 0.000   | 0.009   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)   | 448         | 0.810                  | 0.000   | 0.004   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)    | 104         | 2.000                  | 0.010   | 0.404   | 1.525  | 0.447   | 0.275     | 0.183   | 0.100   |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)    | 448         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)    | 448         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)     | 448         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)    | 448         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)    | 2           | 0.140                  | 0.120   | --      | --   | --      | --        | --      | --      |

**Supplement 6.** Statistical summary of water-quality data for the Wild Rice River near Abercrombie, N. Dak., gaging station 05053000, June 1966 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |           | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|--------------------------------|-------------|------------------------|---------|-----------|--|----------|-----------|---------|---------|
|   |                                |             | Maximum                | Minimum | Mean      | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1966 through April 2001--Continued</b> |                                |             |                        |         |           |  |          |           |         |         |
| 00665   | PHOSPHORUS TOTAL (MG/L AS P)   | 2           | 0.210                  | 0.180   | --        | --   | --       | --        | --      | --      |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 448         | 0.000                  | --      | --        | --   | --       | --        | --      | --      |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 448         | 117.000                | 0.000   | 6.412     | 20.000   | 7.775    | 3.250     | 0.000   | 0.000   |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 2           | 15.000                 | 15.000  | --        | --   | --       | --        | --      | --      |
| 00689   | CARBON ORGANIC P (MG/L AS C)   | 1           | 2.700                  | --      | --        | --   | --       | --        | --      | --      |
| 00690   | CARBON INORG + O (MG/L AS C)   | 448         | 0.000                  | --      | --        | --   | --       | --        | --      | --      |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 448         | 0.000                  | --      | --        | --   | --       | --        | --      | --      |
| 70950   | BIO CHL RATIO PE UNITS         | 448         | 0.000                  | --      | --        | --   | --       | --        | --      | --      |
| 70949   | BIO CHL RATIO PL UNITS         | 448         | 0.000                  | --      | --        | --   | --       | --        | --      | --      |
| 01106   | ALUMINUM DISSOLV (UG/L AS AL)  | 15          | 400.000                | --      | *108.141  | *400.000   | *300.000 | *10.000   | *10.000 | *1.000  |
| 01105   | ALUMINUM TOTAL UG/L AS AL      | 1           | 200.000                | --      | --        | --   | --       | --        | --      | --      |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 53          | 18.000                 | 1.000   | 6.849     | 15.300   | 10.000   | 6.000     | 3.500   | 1.000   |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)  | 17          | --                     | --      | --        | --   | --       | --        | --      | --      |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE)  | 10          | --                     | --      | --        | --   | --       | --        | --      | --      |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 204         | 840.000                | 30.000  | 300.750   | 597.500  | 400.000  | 290.000   | 190.000 | 80.000  |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD)  | 17          | --                     | --      | --        | --   | --       | --        | --      | --      |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR)  | 18          | --                     | --      | --        | --   | --       | --        | --      | --      |
| 01035   | COBALT DISSOLVED (UG/L AS CO)  | 17          | --                     | --      | --        | --   | --       | --        | --      | --      |
| 01040   | COPPER DISSOLVED (UG/L AS CU)  | 17          | 35.000                 | --      | *7.656    | *35.000  | *8.000   | *6.000    | *3.000  | *0.992  |
| 00720   | CYANIDE TOTAL (MG/L AS CN)     | 14          | --                     | --      | --        | --   | --       | --        | --      | --      |
| 71885   | IRON UG/L AS FE                | 3           | 70.000                 | 30.000  | --        | --   | --       | --        | --      | --      |
| 01046   | IRON DISSOLVED (UG/L AS FE)    | 76          | 1100.000               | --      | *83.587   | *351.500   | *80.000  | *40.000   | *20.000 | *4.959  |
| 01045   | IRON TOTAL (UG/L AS FE)        | 4           | --                     | --      | --        | --   | --       | --        | --      | --      |
| 01049   | LEAD DISSOLVED (UG/L AS PB)    | 53          | 10.000                 | --      | *1.033    | *6.600   | *1.000   | *0.273    | *0.087  | *0.020  |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI)  | 53          | 310.000                | 10.000  | 67.377    | 127.100  | 90.000   | 50.000    | 40.000  | 10.000  |
| 01056   | MANGANESE DISSOL (UG/L AS MN)  | 66          | 2290.000               | --      | *241.733  | *1091.500  | *242.500 | *110.000  | *50.000 | *9.663  |
| 01055   | MANGANESE TOTAL (UG/L AS MN)   | 17          | 8000.000               | --      | *1179.485 | *8000.000  | *335.000 | *40.000   | *5.746  | *0.154  |
| 71890   | MERCURY DISSOLVE UG/L AS HG    | 50          | 9.000                  | --      | *0.370    | *1.520   | *0.250   | *0.061    | *0.018  | *0.003  |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO)  | 51          | 9.000                  | --      | *2.839    | *7.400   | *4.000   | *2.000    | *1.000  | *0.408  |
| 01065   | NICKEL DISSOLVED (UG/L AS NI)  | 17          | 15.000                 | --      | *5.192    | *15.000  | *7.500   | *4.000    | *2.500  | *0.970  |
| 01145   | SELENIUM DISSOLV (UG/L AS SE)  | 53          | 13.000                 | --      | *1.470    | *10.300  | *1.000   | *0.345    | *0.097  | *0.015  |
| 01075   | SILVER DISSOLVED (UG/L AS AG)  | 7           | --                     | --      | --        | --   | --       | --        | --      | --      |
| 01080   | STRONTIUM DISSOL (UG/L AS SR)  | 53          | 790.000                | 100.000 | 424.792   | 742.000  | 585.000  | 420.000   | 255.000 | 117.000 |
| 01085   | VANADIUM DISSOLV (UG/L AS V)   | 16          | 5.000                  | --      | *2.039    | *5.000   | *3.000   | *2.000    | *1.000  | *0.409  |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)    | 17          | 30.000                 | --      | *17.769   | *30.000  | *21.500  | *20.000   | *11.247 | *8.000  |

**Supplement 6.** Statistical summary of water-quality data for the Wild Rice River near Abercrombie, N. Dak., gaging station 05053000, June 1966 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1966 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 07060   | IRON 59 DISSOLVE (PCI/L)        | 2           | 8.000                  | 2.000   | --      | --   | --      | --        | --      | --      |
| 82068   | POTSSSIUM 40 DIS (PCI/L AS K40) | 5           | 12.000                 | 6.100   | --      | --   | --      | --        | --      | --      |
| 70338   | SED-SUSP-FALL-D- %              | 7           | 89.000                 | 59.000  | 74.143  | 89.000   | 80.000  | 76.000    | 65.000  | 59.000  |
| 70340   | SED-SUSP-FALL-D- %              | 7           | 100.000                | 71.000  | 92.429  | 100.000  | 99.000  | 96.000    | 89.000  | 71.000  |
| 70342   | SED-SUSP-FALL-D- %              | 3           | 100.000                | 100.000 | --      | --   | --      | --        | --      | --      |
| 70331   | SED-SUSP-SIEVE-. %              | 5           | 100.000                | 77.000  | --      | --   | --      | --        | --      | --      |
| 70332   | SED-SUSP-SIEVE-. %              | 2           | 94.000                 | 78.000  | --      | --   | --      | --        | --      | --      |
| 70333   | SED-SUSP-SIEVE-. %              | 2           | 94.000                 | 80.000  | --      | --   | --      | --        | --      | --      |
| 70334   | SED-SUSP-SIEVE-. %              | 2           | 96.000                 | 88.000  | --      | --   | --      | --        | --      | --      |
| 70336   | SED-SUSP-SIEVE-2 %              | 2           | 100.000                | 100.000 | --      | --   | --      | --        | --      | --      |
| 70335   | SED-SUSP-SIEVE-1 %              | 2           | 99.000                 | 98.000  | --      | --   | --      | --        | --      | --      |
| 80156   | SUS-SED DISCH + T/DAY           | 448         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80154   | CONCENTRATION,S. MG/L           | 61          | 540.000                | 4.000   | 60.721  | 149.400  | 86.500  | 42.000    | 17.500  | 8.100   |
| 80155   | DISCHARGE,SUSP.S T/DAY          | 448         | 1650.000               | 0.000   | 12.779  | 2.730  | 0.000   | 0.000     | 0.000   | 0.000   |
| 80164   | SED-BED-SIEVE-.0 %              | 10          | 80.000                 | 2.000   | 25.200  | 80.000   | 51.750  | 10.500    | 4.000   | 2.000   |
| 80165   | SED-BED-SIEVE-.1 %              | 10          | 81.000                 | 6.000   | 30.100  | 81.000   | 53.000  | 17.000    | 8.500   | 6.000   |
| 80166   | SED-BED-SIEVE-.2 %              | 10          | 84.000                 | 13.000  | 37.400  | 84.000   | 61.000  | 25.000    | 15.000  | 13.000  |
| 80167   | SED-BED-SIEVE-.5 %              | 10          | 87.000                 | 15.000  | 47.400  | 87.000   | 78.000  | 38.500    | 27.750  | 15.000  |
| 80168   | SED-BED-SIEVE-1. %              | 10          | 90.000                 | 21.000  | 58.400  | 90.000   | 84.000  | 55.500    | 45.750  | 21.000  |
| 80169   | SED-BED-SIEVE-2. %              | 10          | 91.000                 | 33.000  | 68.500  | 91.000   | 87.000  | 70.500    | 58.250  | 33.000  |
| 80170   | SED-BED-SIEVE-4. %              | 10          | 97.000                 | 49.000  | 77.100  | 97.000   | 91.500  | 78.000    | 67.500  | 49.000  |
| 80171   | SED-BED-SIEVE-8. %              | 10          | 100.000                | 70.000  | 86.100  | 100.000  | 94.000  | 86.000    | 76.750  | 70.000  |
| 80172   | SED-BED-SIEVE-16 %              | 8           | 100.000                | 90.000  | 95.750  | 100.000  | 99.750  | 96.000    | 91.250  | 90.000  |
| 80173   | SED-BED-SIEVE-32 %              | 6           | 100.000                | 100.000 | 100.000 | 100.000  | 100.000 | 100.000   | 100.000 | 100.000 |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 7.** Statistical summary of water-quality data for the Red River of the North at Fargo, N. Dak., gaging station 05054000, May 1949 through July 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code                                       | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, May 1949 through July 2001</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00060  | DISCHARGE CFS                   | 500         | 24300.000              | 14.000  | 1113.714 | 4619.000   | 1072.500 | 474.500   | 204.500 | 75.100  |
| 00061  | DISCHARGE, INST. CFS            | 294         | 25200.000              | 9.100   | 2384.531 | 11025.000  | 2792.500 | 698.500   | 256.000 | 44.750  |
| 00080  | COLOR PLATINUM-COBAL            | 113         | 100.000                | 1.000   | 13.681   | 31.300   | 17.500   | 10.000    | 6.500   | 3.000   |
| 00540  | RESIDUE FIXED (MG/L)            | 797         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00515  | RESIDUE DISSOLVE (MG/L)         | 12          | 460.000                | 260.000 | 350.833  | 460.000  | 410.000  | 350.000   | 292.500 | 260.000 |
| 00530  | RESIDUE TOTAL (MG/L)            | 12          | 210.000                | 5.000   | 67.833   | 210.000  | 90.250   | 66.500    | 9.250   | 5.000   |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 797         | 0.880                  | 0.000   | 0.271    | 0.590  | 0.450    | 0.360     | 0.000   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 797         | 15100.000              | 0.000   | 617.829  | 3288.998   | 556.500  | 132.000   | 0.000   | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 484         | 650.000                | 134.000 | 329.066  | 460.750  | 375.750  | 317.000   | 278.250 | 219.000 |
| 70301  | DISSOLVED SOLIDS MG/L           | 797         | 609.000                | 0.000   | 90.327   | 386.600  | 240.500  | 0.000     | 0.000   | 0.000   |
| 61028  | TURBIDITY, FIELD (NTU)          | 1           | 270.000                | --      | --       | --   | --       | --        | --      | --      |
| 00025  | AIR PRESSURE (MM OF HG)         | 3           | 782.000                | 726.000 | --       | --   | --       | --        | --      | --      |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 6           | 13.300                 | 5.800   | 8.883    | 13.300   | 13.150   | 7.250     | 6.400   | 5.800   |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 797         | 89.000                 | 0.000   | 0.307    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 524         | 8.800                  | 0.000   | 7.744    | 8.300  | 8.000    | 7.700     | 7.600   | 7.200   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 25          | 8.800                  | 6.700   | 7.784    | 8.650  | 8.200    | 7.900     | 7.350   | 6.730   |
| 00094  | FIELD CONDUCTIVI US/CM @ 25C    | 3           | 443.000                | 236.000 | --       | --   | --       | --        | --      | --      |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 32          | 804.000                | 236.000 | 553.219  | 795.550  | 673.750  | 539.500   | 467.500 | 298.400 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 771         | 1400.000               | 180.000 | 542.717  | 754.400  | 610.000  | 526.000   | 465.000 | 337.600 |
| 00020  | AIR TEMPERATURE DEGREES C       | 183         | 33.500                 | -27.000 | 10.352   | 28.900   | 22.000   | 11.000    | 1.500   | -13.600 |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 417         | 32.000                 | -0.500  | 10.339   | 25.500   | 20.000   | 8.500     | 0.850   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 797         | 17.000                 | 0.000   | 0.021    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 797         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 797         | 200.000                | 0.000   | 27.310   | 100.000  | 43.000   | 15.000    | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 797         | 65.000                 | 0.000   | 0.152    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 797         | 420.000                | 0.000   | 156.223  | 310.000  | 260.000  | 220.000   | 0.000   | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 260         | 82.000                 | 21.000  | 47.315   | 65.950   | 53.000   | 46.000    | 41.000  | 32.050  |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)   | 260         | 52.000                 | 8.000   | 31.892   | 43.950   | 36.750   | 32.000    | 29.000  | 15.050  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 227         | 18.000                 | 1.700   | 5.657    | 8.800  | 6.300    | 5.300     | 4.600   | 3.700   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 797         | 0.900                  | 0.000   | 0.263    | 0.600  | 0.400    | 0.300     | 0.000   | 0.000   |
| 00933  | SODIUM+POTASSIUM (MG/L AS Na)   | 3           | 22.000                 | 2.500   | --       | --   | --       | --        | --      | --      |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 497         | 43.000                 | 5.200   | 15.390   | 26.000   | 19.000   | 14.000    | 11.000  | 8.290   |
| 00932  | SODIUM, PERCENT PERCENT         | 797         | 23.000                 | 0.000   | 6.619    | 15.000   | 12.000   | 9.000     | 0.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 797         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3  | 34          | 245.000                | 70.000  | 183.206  | 242.000  | 217.750  | 200.000   | 154.500 | 87.250  |

**Supplement 7.** Statistical summary of water-quality data for the Red River of the North at Fargo, N. Dak., gaging station 05054000, May 1949 through July 2001--Continued

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|---|----------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, May 1949 through July 2001--Continued</b> |                                  |             |                        |         |         |  |         |           |         |         |
| 00418   | ALKALINITY,DIS,F (MG/L AS CaCO3) | 1           | 243.000                | --      | --      | --   | --      | --        | --      | --      |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3) | 1           | 248.000                | --      | --      | --   | --      | --        | --      | --      |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3)  | 459         | 364.000                | 62.000  | 203.118 | 272.000  | 228.000 | 206.000   | 182.000 | 120.000 |
| 95440   | BICARBONATE MG/L AS CaCO3        | 23          | 270.000                | 85.000  | 218.043 | 270.000  | 260.000 | 240.000   | 190.000 | 94.000  |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3)  | 1           | 303.000                | --      | --      | --   | --      | --        | --      | --      |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3)  | 466         | 380.000                | 76.000  | 246.573 | 330.000  | 280.000 | 250.000   | 220.000 | 143.500 |
| 95445   | CARBONATE MG/L AS CO3            | 23          | 22.000                 | 0.000   | 0.957   | 17.600   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)   | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)   | 441         | 17.000                 | 0.000   | 0.295   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)    | 228         | 39.000                 | 0.010   | 7.144   | 17.550   | 8.000   | 6.200     | 4.500   | 1.725   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)     | 223         | 0.800                  | 0.100   | 0.213   | 0.300  | 0.300   | 0.200     | 0.200   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2)  | 219         | 24.000                 | 1.500   | 11.777  | 18.000   | 15.000  | 12.000    | 9.000   | 3.800   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)   | 432         | 267.000                | 13.000  | 74.324  | 163.050  | 100.750 | 60.500    | 39.000  | 27.000  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)     | 1           | 0.140                  | --      | --      | --   | --      | --        | --      | --      |
| 00623   | NITRO AMN & ORG (MG/L AS N)      | 1           | 1.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4     | 797         | 0.180                  | 0.000   | 0.000   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71845   | NITROGEN, NH4, T MG/L AS NH4     | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602   | NITROGEN DISSOLV (MG/L AS N)     | 797         | 1.500                  | 0.000   | 0.002   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618   | NITROGEN NITRATE (MG/L AS N)     | 797         | 12.000                 | 0.000   | 0.127   | 0.500  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3     | 797         | 53.000                 | 0.000   | 0.684   | 4.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N       | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71850   | N, NITRATE TOTAL MG/L AS NO3     | 69          | 14.000                 | 0.000   | 1.341   | 6.950  | 1.400   | 0.400     | 0.200   | 0.000   |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)     | 18          | 2.100                  | --      | *0.298  | *2.100   | *0.385  | *0.160    | *0.050  | *0.020  |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)      | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2     | 797         | 0.130                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613   | NITROGEN,NITRITE MG/L AS N       | 17          | 0.040                  | --      | *0.008  | *0.040   | *0.010  | *0.004    | *0.002  | *0.001  |
| 00607   | NITROGEN ORGANIC (MG/L AS N)     | 797         | 0.860                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605   | NITROGEN ORGANIC (MG/L AS N)     | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600   | NITROGEN TOTAL (MG/L AS N)       | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71887   | NITROGEN, TOTAL MG/L AS NO3      | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)   | 797         | 31.000                 | 0.000   | 0.046   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)    | 797         | 0.620                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)     | 36          | 2.400                  | 0.010   | 0.174   | 0.649  | 0.148   | 0.095     | 0.062   | 0.010   |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)     | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)     | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 7.** Statistical summary of water-quality data for the Red River of the North at Fargo, N. Dak., gaging station 05054000, May 1949 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |        |
|---|--------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|--------|
|   |                                |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5      |
| <b>North Dakota data, May 1949 through July 2001--Continued</b> |                                |             |                        |         |         |  |         |           |         |        |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)    | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)   | 1           | 0.060                  | --      | --      | --   | --      | --        | --      | --     |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 797         | 142.000                | 0.000   | 5.604   | 18.000   | 8.500   | 3.800     | 0.000   | 0.000  |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 1           | 8.400                  | --      | --      | --   | --      | --        | --      | --     |
| 00689   | CARBON ORGANIC P (MG/L AS C)   | 1           | 0.600                  | --      | --      | --   | --      | --        | --      | --     |
| 00690   | CARBON INORG + O (MG/L AS C)   | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 70950   | BIO CHL RATIO PE UNITS         | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 70949   | BIO CHL RATIO PL UNITS         | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 31625   | COLIFORM FECAL 0 COLS./100 ML  | 1           | 77.000                 | --      | --      | --   | --      | --        | --      | --     |
| 31673   | FECAL STREP,KF M COLS./100 ML  | 1           | 3200.000               | --      | --      | --   | --      | --        | --      | --     |
| 01106   | ALUMINUM DISSOLV (UG/L AS AL)  | 7           | 300.000                | 0.000   | 125.714 | 300.000  | 287.000 | 100.000   | 0.000   | 0.000  |
| 01105   | ALUMINUM TOTAL UG/L AS AL      | 1           | 200.000                | --      | --      | --   | --      | --        | --      | --     |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 40          | 13.000                 | --      | *3.567  | *8.000   | *5.000  | *3.000    | *2.000  | *0.880 |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)  | 7           | 76.000                 | 0.000   | 10.857  | 76.000   | 0.000   | 0.000     | 0.000   | 0.000  |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE)  | 6           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 218         | 590.000                | 20.000  | 92.890  | 180.000  | 103.000 | 80.000    | 61.500  | 30.000 |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD)  | 8           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR)  | 7           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01032   | CHROMIUM HEXAVAL (UG/L AS CR)  | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 01035   | COBALT DISSOLVED (UG/L AS CO)  | 7           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01040   | COPPER DISSOLVED (UG/L AS CU)  | 8           | 27.000                 | --      | *11.308 | *27.000  | *21.000 | *7.414    | *4.336  | *3.292 |
| 71885   | IRON UG/L AS FE                | 97          | 250.000                | 0.000   | 58.969  | 141.000  | 80.000  | 50.000    | 25.000  | 0.000  |
| 01046   | IRON DISSOLVED (UG/L AS FE)    | 69          | 1000.000               | --      | *66.430 | *195.000   | *80.000 | *40.000   | *20.000 | *5.040 |
| 01045   | IRON TOTAL (UG/L AS FE)        | 98          | 200.000                | --      | *25.584 | *111.000   | *22.500 | *10.000   | *10.000 | *1.972 |
| 01049   | LEAD DISSOLVED (UG/L AS PB)    | 40          | 6.000                  | --      | *0.947  | *5.850   | *1.000  | *0.400    | *0.154  | *0.037 |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI)  | 40          | 100.000                | --      | *26.137 | *40.000  | *30.000 | *20.000   | *17.000 | *8.135 |
| 01056   | MANGANESE DISSOL (UG/L AS MN)  | 56          | 150.000                | --      | *27.389 | *103.000   | *40.000 | *12.000   | *6.874  | *2.128 |
| 01055   | MANGANESE TOTAL (UG/L AS MN)   | 22          | 140.000                | --      | *34.696 | *134.000   | *60.000 | *11.026   | *5.783  | *1.432 |
| 71890   | MERCURY DISSOLVE UG/L AS HG    | 35          | 0.700                  | --      | *0.141  | *0.620   | *0.100  | *0.064    | *0.026  | *0.007 |
| 71900   | MERCURY, TOT.REC UG/L AS HG    | 1           | 0.800                  | --      | --      | --   | --      | --        | --      | --     |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO)  | 37          | 6.000                  | --      | *1.484  | *3.300   | *2.000  | *1.000    | *1.000  | *0.472 |
| 01065   | NICKEL DISSOLVED (UG/L AS NI)  | 8           | --                     | --      | --      | --   | --      | --        | --      | --     |

**Supplement 7.** Statistical summary of water-quality data for the Red River of the North at Fargo, N. Dak., gaging station 05054000, May 1949 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |        |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|--------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5      |
| <b>North Dakota data, May 1949 through July 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |        |
| 01145   | SELENIUM DISSOLV (UG/L AS SE)   | 39          | 14.000                 | --      | *1.141  | *9.200   | *1.000  | *0.195    | *0.055  | *0.008 |
| 01075   | SILVER DISSOLVED (UG/L AS AG)   | 6           | 4.000                  | 0.000   | 0.833   | 4.000  | 1.750   | 0.000     | 0.000   | 0.000  |
| 01080   | STRONTIUM DISSOL (UG/L AS SR)   | 40          | 650.000                | 69.000  | 238.350 | 379.500  | 297.500 | 225.000   | 170.000 | 81.050 |
| 01085   | VANADIUM DISSOLV (UG/L AS V)    | 8           | 4.000                  | --      | *1.967  | *4.000   | *2.750  | *1.869    | *1.000  | *1.000 |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)     | 8           | 30.000                 | 0.000   | 14.125  | 30.000   | 24.750  | 10.000    | 9.000   | 0.000  |
| 80030   | GROSS ALPHA DIS. UG/L AS U-NAT  | 12          | 8.600                  | --      | *5.453  | *8.600   | *6.800  | *4.635    | *4.053  | *4.053 |
| 80050   | GROS-B,D,SR-90-P PCI/L SR/Y-90  | 12          | 14.000                 | 10.000  | 11.500  | 14.000   | 12.000  | 11.500    | 11.000  | 10.000 |
| 01515   | GROSS ALPHA DISS (PCI/L AS U-NA | 12          | 2.900                  | --      | *1.845  | *2.900   | *2.275  | *1.545    | *1.390  | *1.390 |
| 80040   | GROSS ALPHA SUS. UG/L AS U-NAT  | 12          | 6.100                  | --      | *2.733  | *6.100   | *3.500  | *2.750    | *1.314  | *0.799 |
| 01516   | G.ALPHA SUS.U-N PCI/L AS U-NAT  | 12          | 2.000                  | --      | *0.900  | *2.000   | *1.150  | *0.900    | *0.430  | *0.257 |
| 03515   | GROSS BETA DISSO PCI/L AS CS-13 | 12          | 17.000                 | 12.000  | 14.167  | 17.000   | 15.000  | 14.000    | 14.000  | 12.000 |
| 80060   | GROS-B,S,SR-90 P PCI/L SR/Y-90  | 12          | 9.700                  | 0.600   | 2.958   | 9.700  | 3.800   | 2.800     | 0.850   | 0.600  |
| 03516   | GROSS BETA SUSPE PCI/L AS CS-13 | 12          | 11.000                 | 0.700   | 3.425   | 11.000   | 4.425   | 3.250     | 0.950   | 0.700  |
| 07060   | IRON 59 DISSOLVE (PCI/L)        | 2           | 2.000                  | 1.000   | --      | --   | --      | --        | --      | --     |
| 09510   | RADIUM 226 DISS. (PCI/L)        | 2           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 09511   | RADIUM 226 DISS. (PCI/L)        | 10          | 0.120                  | 0.050   | 0.088   | 0.120  | 0.102   | 0.090     | 0.070   | 0.050  |
| 22703   | URANIUM,NATURAL, UG/L AS U      | 11          | 4.000                  | --      | *1.859  | *4.000   | *3.000  | *1.000    | *1.000  | *0.445 |
| 70331   | SED-SUSP-SIEVE-. %              | 1           | 98.000                 | --      | --      | --   | --      | --        | --      | --     |
| 80156   | SUS-SED DISCH + T/DAY           | 797         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 80154   | CONCENTRATION,S. MG/L           | 1           | 141.000                | --      | --      | --   | --      | --        | --      | --     |
| 80155   | DISCHARGE,SUSP.S T/DAY          | 797         | 4760.000               | 0.000   | 5.972   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000  |

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\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 8.** Statistical summary of water-quality data for the Red River of the North below Fargo, N. Dak., gaging station 05054020, July 1969 through July 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1969 through September 1986</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 7           | 15.000                 | 14.090  | 14.334  | 15.000   | 14.450  | 14.200    | 14.140  | 14.090  |
| 00060  | DISCHARGE CFS                   | 64          | 4150.000               | 23.000  | 556.500 | 2102.500   | 633.250 | 347.000   | 142.500 | 41.250  |
| 00061  | DISCHARGE, INST. CFS            | 119         | 17300.000              | 2.000   | 838.369 | 3390.000   | 756.000 | 310.000   | 186.000 | 12.000  |
| 00310  | BOD 5-DAY AT 20 (MG/L)          | 45          | 34.000                 | 2.700   | 7.638   | 24.100   | 8.500   | 6.800     | 4.150   | 2.890   |
| 00080  | COLOR PLATINUM-COBAL            | 77          | 350.000                | 1.000   | 30.442  | 102.000  | 30.000  | 20.000    | 10.000  | 4.600   |
| 00540  | RESIDUE FIXED (MG/L)            | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00515  | RESIDUE DISSOLVE (MG/L)         | 19          | 810.000                | 260.000 | 353.684 | 810.000  | 410.000 | 300.000   | 270.000 | 260.000 |
| 00530  | RESIDUE TOTAL (MG/L)            | 19          | 130.000                | 6.000   | 45.684  | 130.000  | 70.000  | 38.000    | 12.000  | 6.000   |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 185         | 1.050                  | 0.000   | 0.492   | 0.745  | 0.560   | 0.480     | 0.415   | 0.340   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 185         | 8550.000               | 0.000   | 610.276 | 2307.000   | 588.500 | 299.000   | 141.500 | 12.550  |
| 70300  | RESIDUE DIS 180C MG/L           | 180         | 769.000                | 183.000 | 371.778 | 556.100  | 414.500 | 356.000   | 307.250 | 255.050 |
| 70301  | DISSOLVED SOLIDS MG/L           | 185         | 741.000                | 0.000   | 258.908 | 519.300  | 367.500 | 300.000   | 0.000   | 0.000   |
| 00070  | TURBIDITY (JCU)                 | 67          | 120.000                | 1.000   | 24.000  | 86.000   | 39.000  | 15.000    | 7.000   | 3.000   |
| 00025  | AIR PRESSURE (MM OF HG)         | 19          | 780.000                | 725.000 | 741.895 | 780.000  | 745.000 | 740.000   | 732.000 | 725.000 |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 68          | 16.100                 | 4.000   | 9.451   | 13.910   | 11.675  | 9.350     | 7.025   | 5.015   |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 185         | 114.000                | 0.000   | 29.816  | 96.000   | 77.000  | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 170         | 8.900                  | 7.200   | 8.014   | 8.500  | 8.200   | 8.000     | 7.800   | 7.455   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 45          | 8.900                  | 7.400   | 8.053   | 8.600  | 8.250   | 8.000     | 7.900   | 7.460   |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 45          | 828.000                | 399.000 | 576.600 | 787.700  | 647.500 | 564.000   | 497.500 | 415.900 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 181         | 1140.000               | 290.000 | 588.652 | 931.900  | 638.500 | 561.000   | 500.000 | 405.300 |
| 00020  | AIR TEMPERATURE DEGREES C       | 55          | 32.000                 | -31.500 | 7.836   | 31.600   | 20.000  | 11.000    | -1.000  | -23.500 |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 181         | 28.000                 | 0.000   | 10.019  | 24.950   | 19.500  | 9.000     | 0.250   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 185         | 260.000                | 0.000   | 28.400  | 98.100   | 43.500  | 16.000    | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 185         | 57.000                 | 0.000   | 3.551   | 34.400   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 185         | 510.000                | 0.000   | 255.568 | 340.000  | 290.000 | 260.000   | 230.000 | 183.000 |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 169         | 98.000                 | 30.000  | 49.574  | 68.500   | 54.000  | 48.000    | 43.000  | 37.000  |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)   | 169         | 70.000                 | 11.000  | 33.396  | 43.000   | 36.000  | 33.000    | 30.000  | 24.500  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 139         | 20.000                 | 3.700   | 6.922   | 12.000   | 7.800   | 6.200     | 5.300   | 4.200   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 185         | 3.000                  | 0.000   | 0.515   | 1.000  | 0.600   | 0.500     | 0.300   | 0.000   |
| 00933  | SODIUM+POTASSIUM (MG/L AS Na)   | 16          | 45.000                 | 14.000  | 23.438  | 45.000   | 26.500  | 22.000    | 18.000  | 14.000  |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 149         | 110.000                | 6.800   | 24.275  | 63.500   | 24.500  | 20.000    | 15.000  | 11.000  |
| 00932  | SODIUM, PERCENT PERCENT         | 185         | 45.000                 | 0.000   | 11.735  | 28.400   | 15.000  | 12.000    | 8.500   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 8.** Statistical summary of water-quality data for the Red River of the North below Fargo, N. Dak., gaging station 05054020, July 1969 through July 2001--Continued

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| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1969 through September 1986--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 46          | 270.000                | 105.000 | 208.674 | 267.550  | 240.500 | 208.500   | 190.750 | 119.250 |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 111         | 390.000                | 62.000  | 220.036 | 291.200  | 240.000 | 211.000   | 200.000 | 159.600 |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 88          | 470.000                | 140.000 | 267.273 | 340.000  | 287.500 | 260.000   | 250.000 | 190.000 |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)  | 82          | 15.000                 | 0.000   | 0.305   | 0.850  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)   | 168         | 96.000                 | 4.400   | 14.858  | 50.300   | 14.750  | 11.000    | 8.625   | 6.200   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 148         | 0.900                  | 0.100   | 0.266   | 0.600  | 0.300   | 0.200     | 0.200   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 133         | 46.000                 | 0.100   | 12.437  | 20.000   | 15.500  | 13.000    | 8.800   | 3.210   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 180         | 330.000                | 19.000  | 83.133  | 190.000  | 100.000 | 69.000    | 49.000  | 24.050  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 40          | 11.800                 | 0.010   | 1.300   | 4.722  | 1.475   | 0.925     | 0.415   | 0.040   |
| 00623   | NITRO AMN & ORG (MG/L AS N)     | 4           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)    | 51          | 4.200                  | 0.500   | 1.755   | 3.860  | 2.200   | 1.500     | 1.200   | 0.892   |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 185         | 15.000                 | 0.000   | 0.361   | 2.119  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00610   | NITROGEN AMMONIA (MG/L AS N)    | 12          | 1.300                  | 0.100   | 0.560   | 1.300  | 0.905   | 0.495     | 0.208   | 0.100   |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 185         | 1.670                  | 0.000   | 0.049   | 0.328  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 185         | 3.500                  | 0.000   | 0.113   | 0.676  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3    | 185         | 16.000                 | 0.000   | 0.504   | 3.010  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N      | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)    | 101         | 2.700                  | --      | *0.402  | *1.490   | *0.500  | *0.280    | *0.130  | *0.040  |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)     | 182         | 4.600                  | 0.000   | 0.208   | 1.385  | 0.100   | 0.000     | 0.000   | 0.000   |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2    | 185         | 0.160                  | 0.000   | 0.008   | 0.077  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613   | NITROGEN,NITRITE MG/L AS N      | 22          | 0.040                  | 0.000   | 0.008   | 0.039  | 0.012   | 0.000     | 0.000   | 0.000   |
| 00607   | NITROGEN ORGANIC (MG/L AS N)    | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00605   | NITROGEN ORGANIC (MG/L AS N)    | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600   | NITROGEN TOTAL (MG/L AS N)      | 185         | 6.900                  | 0.000   | 0.680   | 4.140  | 1.400   | 0.000     | 0.000   | 0.000   |
| 71887   | NITROGEN, TOTAL MG/L AS NO3     | 185         | 31.000                 | 0.000   | 3.016   | 18.700   | 6.200   | 0.000     | 0.000   | 0.000   |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)  | 185         | 2.400                  | 0.000   | 0.061   | 0.238  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)   | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)    | 93          | 2.200                  | 0.010   | 0.258   | 1.100  | 0.255   | 0.160     | 0.090   | 0.047   |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)    | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)    | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)     | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)    | 185         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)    | 9           | 0.780                  | 0.110   | 0.411   | 0.780  | 0.595   | 0.370     | 0.260   | 0.110   |
| 00665   | PHOSPHORUS TOTAL (MG/L AS P)    | 102         | 11.000                 | 0.110   | 0.880   | 3.000  | 0.990   | 0.480     | 0.340   | 0.221   |

**Supplement 8.** Statistical summary of water-quality data for the Red River of the North below Fargo, N. Dak., gaging station 05054020, July 1969 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |           | Percentage of samples in which values were less than or equal to those shown |           |           |          |         |
|---|--------------------------------|-------------|------------------------|---------|-----------|--|-----------|-----------|----------|---------|
|   |                                |             | Maximum                | Minimum | Mean      | 95   | 75        | Median 50 | 25       | 5       |
| <b>North Dakota data, July 1969 through September 1986--Continued</b> |                                |             |                        |         |           |  |           |           |          |         |
| 00626   | NITROGEN AMMONIA (MG/KG AS N)  | 1           | 1100.000               | --      | --        | --   | --        | --        | --       | --      |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 185         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00633   | NO2 + NO3 BOT. M (MG/KG AS N)  | 1           | 1.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00668   | PHOSPHORUS BOT. (MG/KG AS P)   | 1           | 130.000                | --      | --        | --   | --        | --        | --       | --      |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 185         | 30.000                 | 0.000   | 4.055     | 12.000   | 5.100     | 3.100     | 1.500    | 0.000   |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 3           | 10.000                 | 8.900   | --        | --   | --        | --        | --       | --      |
| 00689   | CARBON ORGANIC P (MG/L AS C)   | 2           | 0.700                  | 0.600   | --        | --   | --        | --        | --       | --      |
| 00680   | CARBON ORGANIC T (MG/L AS C)   | 19          | 22.000                 | 7.000   | 12.989    | 22.000   | 16.000    | 12.000    | 10.000   | 7.000   |
| 00690   | CARBON INORG + O (MG/L AS C)   | 185         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 185         | 12.000                 | 0.000   | 0.065     | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00572   | BIOMASS, PERIPHY (G/SQ M)      | 9           | 48.200                 | 0.079   | 10.658    | 48.200   | 15.500    | 3.540     | 2.300    | 0.079   |
| 00573   | BIOMASS PERIPHYT (G/SQ M)      | 8           | 61.800                 | 0.157   | 12.130    | 61.800   | 10.500    | 5.140     | 2.750    | 0.157   |
| 70950   | BIO CHL RATIO PE UNITS         | 185         | 14000.000              | 0.000   | 152.054   | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 70949   | BIO CHL RATIO PL UNITS         | 185         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 60050   | PHYTO TYPE-I CELLS/ML          | 37          | 53000.000              | 200.000 | 11377.297 | 51199.996  | 16500.000 | 7000.000  | 1150.000 | 245.000 |
| 31501   | TOT COLI,MENDO M COLS./100 ML  | 5           | 55000.000              | 100.000 | --        | --   | --        | --        | --       | --      |
| 31625   | COLIFORM FECAL 0 COLS./100 ML  | 15          | 75000.000              | 77.000  | 5985.800  | 75000.000  | 2800.000  | 450.000   | 290.000  | 77.000  |
| 31616   | FECAL COLI,MFC M COLS./100 ML  | 30          | 24000.000              | --      | *2166.881 | *17500.000   | *2250.000 | *180.000  | *8.500   | *0.403  |
| 31673   | FECAL STREP,KF M COLS./100 ML  | 15          | 13000.000              | 58.000  | 1960.533  | 13000.000  | 2200.000  | 660.000   | 250.000  | 58.000  |
| 31679   | FECAL STRPT MF M COLS./100 ML  | 32          | 10000.000              | 1.000   | 1211.469  | 8050.001   | 1500.000  | 225.000   | 74.250   | 2.950   |
| 70957   | CHL-A PR CH-FL M MG/M2         | 3           | 0.400                  | 0.000   | --        | --   | --        | --        | --       | --      |
| 70955   | CHLORO-A PERI CS MG/M2         | 1           | 5.040                  | --      | --        | --   | --        | --        | --       | --      |
| 32228   | CHLORO-A-PERI-SU MG/SQ M       | 7           | 97.500                 | 0.000   | 15.314    | 97.500   | 7.600     | 0.500     | 0.100    | 0.000   |
| 32230   | CHLORO-A-PHY-SUC UG/L          | 1           | 1.000                  | --      | --        | --   | --        | --        | --       | --      |
| 70958   | CHL-B PR CH-FL M MG/M2         | 1           | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 70956   | CHL-B PR CH-FL M MG/M2         | 1           | 3.850                  | --      | --        | --   | --        | --        | --       | --      |
| 32226   | CHLORO-B-PERI-SU MG/SQ M       | 7           | 3.000                  | 0.000   | 0.722     | 3.000  | 1.400     | 0.200     | 0.000    | 0.000   |
| 32231   | CHLORO-B-PHY-S UG/L            | 1           | 1.000                  | --      | --        | --   | --        | --        | --       | --      |
| 01106   | ALUMINUM DISSOLV (UG/L AS AL)  | 17          | 211.000                | --      | *30.625   | *211.000   | *26.942   | *20.000   | *10.000  | *2.461  |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 47          | 10.000                 | 0.000   | 3.915     | 8.600  | 5.000     | 4.000     | 2.000    | 0.000   |
| 01001   | ARSENIC SUSPENDE (UG/L AS AS)  | 16          | 96.000                 | --      | *6.980    | *96.000  | *1.750    | *1.000    | *0.132   | *0.021  |
| 01002   | ARSENIC TOTAL (UG/L AS AS)     | 19          | 100.000                | 2.000   | 10.211    | 100.000  | 8.000     | 4.000     | 4.000    | 2.000   |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)  | 20          | 230.000                | --      | *97.931   | *228.500   | *107.500  | *83.363   | *62.734  | *30.486 |
| 01006   | BARIUM SUSPENDE (UG/L AS BA)   | 1           | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 01007   | BARIUM TOTAL (UG/L AS BA)      | 1           | --                     | --      | --        | --   | --        | --        | --       | --      |

**Supplement 8.** Statistical summary of water-quality data for the Red River of the North below Fargo, N. Dak., gaging station 05054020, July 1969 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent       | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|-------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                               |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1969 through September 1986--Continued</b> |                               |             |                        |         |          |  |          |           |         |         |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE) | 10          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01020   | BORON DISSOLVED (UG/L AS B)   | 90          | 421.000                | 40.000  | 102.500  | 199.900  | 110.000  | 85.000    | 70.000  | 60.000  |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD) | 48          | 26.000                 | --      | *1.163   | *2.550   | *1.000   | *0.364    | *0.156  | *0.045  |
| 01026   | CADMIUM SUSPENDE (UG/L AS CD) | 17          | 19.000                 | --      | *6.684   | *19.000  | *9.000   | *5.354    | *4.040  | *2.588  |
| 01027   | CADMIUM TOTAL (UG/L AS CD)    | 18          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR) | 48          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01032   | CHROMIUM HEXAVAL (UG/L AS CR) | 1           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01031   | CHROMIUM SUSPEND (UG/L AS CR) | 15          | 20.000                 | --      | *7.100   | *20.000  | *10.000  | *5.727    | *3.636  | *2.025  |
| 01034   | CHROMIUM TOTAL (UG/L AS CR)   | 18          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01035   | COBALT DISSOLVED (UG/L AS CO) | 40          | 40.000                 | --      | *1.936   | *20.150  | *0.482   | *0.078    | *0.016  | *0.001  |
| 01036   | COBALT SUSPENDE (UG/L AS CO)  | 18          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01037   | COBALT TOTAL (UG/L AS CO)     | 19          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01040   | COPPER DISSOLVED (UG/L AS CU) | 47          | 140.000                | 0.000   | 12.064   | 83.600   | 9.000    | 5.000     | 4.000   | 0.000   |
| 01041   | COPPER SUSPENDE (UG/L AS CU)  | 18          | 35.000                 | --      | *6.875   | *35.000  | *11.500  | *3.000    | *1.580  | *0.605  |
| 01042   | COPPER TOTAL (UG/L AS CU)     | 19          | 120.000                | --      | *18.396  | *120.000   | *20.000  | *11.000   | *6.152  | *2.361  |
| 00720   | CYANIDE TOTAL (MG/L AS CN)    | 24          | 0.060                  | --      | *0.008   | *0.056   | *0.006   | *0.001    | *0.000  | *0.000  |
| 01046   | IRON DISSOLVED (UG/L AS FE)   | 39          | 70.000                 | --      | *27.891  | *60.000  | *50.000  | *20.000   | *10.757 | *6.528  |
| 01045   | IRON TOTAL (UG/L AS FE)       | 18          | 2900.000               | 230.000 | 1078.333 | 2900.000   | 1450.000 | 860.000   | 467.500 | 230.000 |
| 01049   | LEAD DISSOLVED (UG/L AS PB)   | 47          | 15.000                 | --      | *2.788   | *10.800  | *4.000   | *1.297    | *0.613  | *0.213  |
| 01050   | LEAD SUSPENDE (UG/L AS PB)    | 17          | 100.000                | --      | *43.795  | *100.000   | *48.184  | *32.585   | *27.288 | *17.000 |
| 01051   | LEAD TOTAL (UG/L AS PB)       | 18          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI) | 16          | 49.000                 | 17.000  | 26.438   | 49.000   | 31.750   | 21.500    | 20.000  | 17.000  |
| 01056   | MANGANESE DISSOL (UG/L AS MN) | 47          | 190.000                | --      | *37.434  | *166.000   | *50.000  | *30.000   | *6.000  | *2.000  |
| 01054   | MANGANESE SUSPEN (UG/L AS MN) | 18          | 260.000                | 0.000   | 91.111   | 260.000  | 150.000  | 65.000    | 40.000  | 0.000   |
| 01055   | MANGANESE TOTAL (UG/L AS MN)  | 20          | 260.000                | 20.000  | 144.900  | 259.000  | 212.500  | 145.000   | 90.000  | 21.500  |
| 71890   | MERCURY DISSOLVE UG/L AS HG   | 42          | 8.000                  | --      | *0.295   | *1.620   | *0.100   | *0.012    | *0.002  | *0.000  |
| 71895   | MERCURY SUSPENDE UG/L AS HG   | 17          | 3.600                  | 0.000   | 0.265    | 3.600  | 0.150    | 0.000     | 0.000   | 0.000   |
| 71900   | MERCURY, TOT.REC UG/L AS HG   | 20          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO) | 27          | 18.000                 | --      | *4.159   | *16.000  | *5.599   | *2.095    | *1.263  | *0.464  |
| 01065   | NICKEL DISSOLVED (UG/L AS NI) | 27          | 43.000                 | 0.000   | 5.852    | 30.200   | 7.000    | 4.000     | 2.000   | 0.000   |
| 01145   | SELENIUM DISSOLV (UG/L AS SE) | 44          | 135.000                | --      | *4.124   | *7.500   | *1.000   | *0.133    | *0.019  | *0.001  |
| 01146   | SELENIUM SUSPEND (UG/L AS SE) | 16          | 3.000                  | 0.000   | 0.250    | 3.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 01147   | SELENIUM TOTAL (UG/L AS SE)   | 18          | 6.000                  | --      | *1.643   | *6.000   | *2.250   | *0.704    | *0.266  | *0.067  |
| 01075   | SILVER DISSOLVED (UG/L AS AG) | 13          | 2.000                  | --      | *0.876   | *2.000   | *1.000   | *0.698    | *0.450  | *0.267  |
| 01076   | SILVER SUSPENDE (UG/L AS AG)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |

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|---|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1969 through September 1986--Continued</b> |                               |             |                        |         |         |  |         |           |         |         |
| 01077   | SILVER TOTAL (UG/L AS AG)     | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01080   | STRONTIUM DISSOL (UG/L AS SR) | 20          | 356.000                | 110.000 | 192.600 | 353.000  | 237.500 | 160.000   | 160.000 | 111.500 |
| 01085   | VANADIUM DISSOLV (UG/L AS V)  | 18          | 7.000                  | --      | *2.858  | *7.000   | *5.000  | *2.500    | *0.956  | *0.384  |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)   | 48          | 194.000                | --      | *22.809 | *76.500  | *25.000 | *13.339   | *8.000  | *3.110  |
| 01091   | ZINC SUSPENDED (UG/L AS ZN)   | 18          | 330.000                | 0.000   | 34.444  | 330.000  | 30.000  | 20.000    | 0.000   | 0.000   |
| 01092   | ZINC TOTAL (UG/L AS ZN)       | 19          | 420.000                | --      | *49.790 | *420.000   | *40.000 | *30.000   | *20.000 | *6.920  |
| 01003   | ARSENIC BOT. MAT (UG/G AS AS) | 1           | 8.000                  | --      | --      | --   | --      | --        | --      | --      |
| 01028   | CADMIUM BOT. MAT (UG/G AS CD) | 2           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01029   | CHROMIUM TOTAL B (UG/G AS CR) | 1           | 10.000                 | --      | --      | --   | --      | --        | --      | --      |
| 01038   | COBALT BOT. MAT. (UG/G AS CO) | 2           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01043   | COPPER BOT. MAT. (UG/G AS CU) | 1           | 40.000                 | --      | --      | --   | --      | --        | --      | --      |
| 01170   | IRON,SED,BED MAT (UG/G AS FE) | 1           | 28000.000              | --      | --      | --   | --      | --        | --      | --      |
| 01052   | LEAD TOTAL BOT. (UG/G AS PB)  | 1           | 25.000                 | --      | --      | --   | --      | --        | --      | --      |
| 01053   | MANGANESE BOT.MA (UG/G AS MN) | 1           | 180.000                | --      | --      | --   | --      | --        | --      | --      |
| 71921   | MERCURY BTM UG/G AS HG        | 1           | 0.080                  | --      | --      | --   | --      | --        | --      | --      |
| 01148   | SELENIUM BOT. MA (UG/G AS SE) | 1           | 1.000                  | --      | --      | --   | --      | --        | --      | --      |
| 01093   | ZINC BOTTOM MATE (UG/G AS ZN) | 1           | 60.000                 | --      | --      | --   | --      | --        | --      | --      |
| 39740   | 2,4,5-T TOTAL(WA UG/L         | 12          | 0.020                  | 0.000   | 0.004   | 0.020  | 0.010   | 0.000     | 0.000   | 0.000   |
| 39730   | 2,4-D TOTAL (WA UG/L          | 12          | 0.400                  | 0.000   | 0.151   | 0.400  | 0.295   | 0.060     | 0.027   | 0.000   |
| 39330   | ALDRIN TOTAL (WA UG/L         | 12          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 39350   | CHLORDANE TOT(WA UG/L         | 10          | 0.100                  | 0.000   | 0.020   | 0.100  | 0.025   | 0.000     | 0.000   | 0.000   |
| 39570   | DIAZINON TOT (WA UG/L         | 3           | 0.260                  | 0.000   | --      | --   | --      | --        | --      | --      |
| 39380   | DIELDRIN TOT (WA UG/L         | 12          | 0.030                  | 0.000   | 0.011   | 0.030  | 0.020   | 0.010     | 0.000   | 0.000   |
| 39390   | ENDRIN UNF REC (UG/L)         | 12          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 39420   | HEPT EPOX TOT(WA UG/L         | 12          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 39410   | HEPTACHLOR T.(WA UG/L         | 12          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 39340   | LINDANE TOTAL(WA UG/L         | 12          | 0.010                  | 0.000   | 0.001   | 0.010  | 0.000   | 0.000     | 0.000   | 0.000   |
| 39530   | MALATHION TOT(WA UG/L         | 2           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 39600   | MET PARTH TOT(WA UG/L         | 3           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 38260   | DETERGENTS (MBAS MG/L         | 12          | 0.320                  | 0.000   | 0.098   | 0.320  | 0.190   | 0.050     | 0.022   | 0.000   |
| 39360   | P,P'-DDD UNFLT R UG/L         | 12          | 0.040                  | 0.000   | 0.011   | 0.040  | 0.027   | 0.000     | 0.000   | 0.000   |
| 39365   | P,P'-DDE, TOTAL UG/L          | 12          | 0.020                  | 0.000   | 0.002   | 0.020  | 0.000   | 0.000     | 0.000   | 0.000   |
| 39370   | P,P'-DDT UNFILT UG/L          | 12          | 0.080                  | 0.000   | 0.026   | 0.080  | 0.065   | 0.005     | 0.000   | 0.000   |
| 39540   | PARATHION TOT(WA UG/L         | 3           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 39760   | SILVEX TOTAL (WA UG/L         | 12          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 8.** Statistical summary of water-quality data for the Red River of the North below Fargo, N. Dak., gaging station 05054020, July 1969 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |        | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|---|---------------------------------|-------------|------------------------|---------|--------|--|---------|-----------|--------|--------|
|   |                                 |             | Maximum                | Minimum | Mean   | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, July 1969 through September 1986--Continued</b> |                                 |             |                        |         |        |  |         |           |        |        |
| 80030   | GROSS ALPHA DIS. UG/L AS U-NAT  | 19          | 9.200                  | --      | *4.093 | *9.200   | *5.200  | *3.370    | *2.679 | *2.441 |
| 80050   | GROS-B,D,SR-90-P PCI/L SR/Y-90  | 19          | 13.000                 | 4.500   | 9.232  | 13.000   | 11.000  | 8.500     | 7.800  | 4.500  |
| 80040   | GROSS ALPHA SUS. UG/L AS U-NAT  | 19          | 7.900                  | --      | *2.520 | *7.900   | *3.500  | *1.400    | *0.600 | *0.144 |
| 03515   | GROSS BETA DISSO PCI/L AS CS-13 | 19          | 15.000                 | 5.600   | 11.132 | 15.000   | 13.000  | 11.000    | 9.700  | 5.600  |
| 80060   | GROS-B,S,SR-90 P PCI/L SR/Y-90  | 19          | 7.800                  | 0.900   | 2.658  | 7.800  | 4.400   | 1.900     | 1.200  | 0.900  |
| 03516   | GROSS BETA SUSPE PCI/L AS CS-13 | 19          | 9.000                  | 0.900   | 3.100  | 9.000  | 5.000   | 2.100     | 1.400  | 0.900  |
| 82068   | POTSSSIUM 40 DIS (PCI/L AS K40) | 6           | 8.200                  | 3.700   | 5.533  | 8.200  | 6.925   | 5.250     | 4.150  | 3.700  |
| 09511   | RADIUM 226 DISS. (PCI/L)        | 19          | 0.130                  | 0.030   | 0.081  | 0.130  | 0.100   | 0.080     | 0.060  | 0.030  |
| 80010   | U DISS DFLUORO PCI/L            | 2           | 2.200                  | 1.600   | --     | --   | --      | --        | --     | --     |
| 22703   | URANIUM,NATURAL, UG/L AS U      | 16          | 3.000                  | 1.000   | 1.375  | 3.000  | 2.000   | 1.000     | 1.000  | 1.000  |
| 70342   | SED-SUSP-FALL-D- %              | 2           | 97.000                 | 96.000  | --     | --   | --      | --        | --     | --     |
| 70331   | SED-SUSP-SIEVE-. %              | 50          | 98.000                 | 42.000  | 80.640 | 98.000   | 94.000  | 84.500    | 68.750 | 46.650 |
| 80156   | SUS-SED DISCH + T/DAY           | 185         | 0.000                  | --      | --     | --   | --      | --        | --     | --     |
| 80154   | CONCENTRATION,S. MG/L           | 56          | 436.000                | 4.000   | 82.107 | 330.650  | 114.250 | 43.000    | 16.000 | 5.850  |
| 80155   | DISCHARGE,SUSP.S T/DAY          | 185         | 5890.000               | 0.000   | 77.800 | 289.700  | 2.900   | 0.000     | 0.000  | 0.000  |
| 80157   | SED-BED-FALL-D-. %              | 1           | 27.000                 | --      | --     | --   | --      | --        | --     | --     |
| 80158   | SED-BED-FALL-D-. %              | 1           | 69.000                 | --      | --     | --   | --      | --        | --     | --     |
| 80159   | SED-BED-FALL-D-. %              | 1           | 81.000                 | --      | --     | --   | --      | --        | --     | --     |
| 80160   | SED-BED-FALL-D-. %              | 1           | 86.000                 | --      | --     | --   | --      | --        | --     | --     |
| 80161   | SED-BED-FALL-D-. %              | 1           | 89.000                 | --      | --     | --   | --      | --        | --     | --     |
| 80162   | SED-BED-FALL-D-1 %              | 1           | 92.000                 | --      | --     | --   | --      | --        | --     | --     |
| 80169   | SED-BED-SIEVE-2. %              | 1           | 93.000                 | --      | --     | --   | --      | --        | --     | --     |
| 80170   | SED-BED-SIEVE-4. %              | 1           | 96.000                 | --      | --     | --   | --      | --        | --     | --     |
| 80171   | SED-BED-SIEVE-8. %              | 1           | 100.000                | --      | --     | --   | --      | --        | --     | --     |
| <b>Minnesota data, August 1992 through July 2001</b>                  |                                 |             |                        |         |        |  |         |           |        |        |
| 00061   | DISCHARGE, INST. CFS            | 1           | 400.000                | --      | --     | --   | --      | --        | --     | --     |
| 00025   | AIR PRESSURE (MM OF HG)         | 3           | 744.000                | 732.000 | --     | --   | --      | --        | --     | --     |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 3           | 11.000                 | 6.200   | --     | --   | --      | --        | --     | --     |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 3           | 101.000                | 77.000  | --     | --   | --      | --        | --     | --     |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 3           | 8.200                  | 7.900   | --     | --   | --      | --        | --     | --     |

**Supplement 8.** Statistical summary of water-quality data for the Red River of the North below Fargo, N. Dak., gaging station 05054020, July 1969 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|---|---------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                                 |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, August 1992 through July 2001--Continued</b> |                                 |             |                        |         |      |  |    |           |    |    |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 3           | 731.000                | 315.000 | --   | --   | -- | --        | -- | -- |
| 00020   | AIR TEMPERATURE DEGREES C       | 3           | 33.000                 | 10.000  | --   | --   | -- | --        | -- | -- |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 3           | 25.400                 | 2.200   | --   | --   | -- | --        | -- | -- |
| 00681   | CARBON ORGANIC D (MG/L AS C)    | 1           | 7.200                  | --      | --   | --   | -- | --        | -- | -- |
| 80294   | BED MAT FD DW<.0 PERCENT <.002M | 1           | 48.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80157   | SED-BED-FALL-D-. %              | 1           | 54.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80293   | BED MAT FD DW<.0 PERCENT> .008M | 1           | 60.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80282   | BED MAT FD DW<.0 PERCENT <.016M | 1           | 69.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80283   | BED MAT FD DW<.0 PERCENT <.031M | 1           | 83.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80158   | SED-BED-FALL-D-. %              | 1           | 92.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80159   | SED-BED-FALL-D-. %              | 1           | 97.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80160   | SED-BED-FALL-D-. %              | 1           | 99.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80161   | SED-BED-FALL-D-. %              | 1           | 100.000                | --      | --   | --   | -- | --        | -- | -- |
| 80162   | SED-BED-FALL-D-1 %              | 1           | 100.000                | --      | --   | --   | -- | --        | -- | -- |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 9.** Statistical summary of water-quality data for the Sheyenne River above Harvey, N. Dak., gaging station 05054500, October 1971 through July 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |          |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|----------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25       | 5       |
| <b>North Dakota data, October 1971 through July 2001</b> |                                 |             |                        |         |          |  |          |           |          |         |
| 00065  | GAGE HEIGHT (FEET)              | 10          | 8.770                  | 3.730   | 5.572    | 8.770  | 7.488    | 5.120     | 3.912    | 3.730   |
| 00060  | DISCHARGE CFS                   | 24          | 25.000                 | 0.180   | 5.850    | 24.500   | 7.075    | 3.600     | 1.150    | 0.300   |
| 00061  | DISCHARGE, INST. CFS            | 271         | 500.000                | 0.160   | 37.037   | 187.200  | 32.000   | 5.200     | 1.600    | 0.492   |
| 00080  | COLOR PLATINUM-COBAL            | 149         | 250.000                | 2.000   | 65.201   | 150.000  | 80.000   | 55.000    | 44.000   | 12.000  |
| 00540  | RESIDUE FIXED (MG/L)            | 296         | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 296         | 2.160                  | 0.000   | 0.730    | 1.551  | 1.295    | 1.005     | 0.000    | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 296         | 330.000                | 0.000   | 17.932   | 110.300  | 10.950   | 2.515     | 0.000    | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 181         | 1590.000               | 152.000 | 881.989  | 1230.000   | 1025.000 | 921.000   | 804.000  | 388.000 |
| 70301  | DISSOLVED SOLIDS MG/L           | 296         | 1610.000               | 0.000   | 525.169  | 1133.000   | 930.500  | 718.500   | 0.000    | 0.000   |
| 00025  | AIR PRESSURE (MM OF HG)         | 77          | 795.000                | 714.000 | 759.870  | 779.000  | 772.000  | 766.000   | 758.500  | 716.900 |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 70          | 16.600                 | 0.000   | 8.286    | 13.140   | 10.525   | 8.750     | 6.575    | 2.010   |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 296         | 133.000                | 0.000   | 17.081   | 93.150   | 0.000    | 0.000     | 0.000    | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 179         | 9.200                  | 7.400   | 8.204    | 8.900  | 8.500    | 8.200     | 7.900    | 7.600   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 120         | 9.000                  | 7.000   | 8.187    | 8.800  | 8.400    | 8.200     | 8.000    | 7.600   |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 122         | 2300.000               | 322.000 | 1312.639 | 1895.500   | 1540.000 | 1365.000  | 1180.000 | 380.800 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 290         | 2300.000               | 50.000  | 1190.245 | 1750.000   | 1480.000 | 1280.000  | 927.500  | 352.150 |
| 00020  | AIR TEMPERATURE DEGREES C       | 172         | 35.000                 | -20.000 | 10.934   | 29.000   | 21.875   | 10.000    | 2.125    | -5.525  |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 293         | 28.500                 | -0.500  | 9.065    | 24.860   | 17.000   | 7.000     | 0.500    | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 296         | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 296         | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 296         | 110.000                | 0.000   | 0.372    | 0.000  | 0.000    | 0.000     | 0.000    | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 296         | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 296         | 550.000                | 0.000   | 120.676  | 331.500  | 197.500  | 120.000   | 0.000    | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 181         | 140.000                | 13.000  | 35.309   | 56.900   | 42.000   | 33.000    | 27.500   | 18.000  |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)   | 181         | 69.000                 | 3.200   | 26.420   | 58.800   | 36.000   | 22.000    | 15.000   | 8.400   |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 180         | 20.000                 | 4.200   | 8.803    | 15.000   | 11.000   | 7.900     | 6.225    | 4.900   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 296         | 19.000                 | 0.000   | 4.929    | 14.000   | 9.000    | 4.000     | 0.000    | 0.000   |
| 00933  | SODIUM+POTASSIUM (MG/L AS Na)   | 15          | 380.000                | 100.000 | 274.000  | 380.000  | 320.000  | 300.000   | 250.000  | 100.000 |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 181         | 480.000                | 20.000  | 239.122  | 370.000  | 300.000  | 250.000   | 180.000  | 63.700  |
| 00932  | SODIUM, PERCENT PERCENT         | 296         | 91.000                 | 0.000   | 42.064   | 86.150   | 76.000   | 54.000    | 0.000    | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 296         | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00431  | ANC, (MG/L AS CaCO3             | 1           | 770.000                | --      | --       | --   | --       | --        | --       | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3  | 122         | 834.000                | 96.000  | 479.516  | 691.850  | 577.500  | 506.000   | 414.750  | 136.650 |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3  | 59          | 746.000                | 58.000  | 515.186  | 680.000  | 600.000  | 550.000   | 490.000  | 217.000 |
| 00417  | ANC, FET, LAB (MG/L AS CaCO3    | 3           | 607.000                | 370.000 | --       | --   | --       | --        | --       | --      |

**Supplement 9.** Statistical summary of water-quality data for the Sheyenne River above Harvey, N. Dak., gaging station 05054500, October 1971 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through July 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 35          | 910.000                | 260.000 | 603.714 | 830.000  | 730.000 | 640.000   | 520.000 | 292.000 |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)  | 32          | 87.000                 | 0.000   | 7.219   | 61.000   | 3.000   | 0.000     | 0.000   | 0.000   |
| 71870   | BROMIDE DISSOLVE MG/L AS BR     | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)   | 181         | 54.000                 | 2.200   | 17.400  | 28.900   | 21.000  | 17.000    | 14.000  | 6.950   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 181         | 0.700                  | 0.100   | 0.295   | 0.400  | 0.400   | 0.300     | 0.200   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SIO2) | 174         | 52.000                 | 2.200   | 24.397  | 47.000   | 32.000  | 24.500    | 14.000  | 6.675   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 181         | 560.000                | 37.000  | 216.547 | 340.000  | 250.000 | 210.000   | 170.000 | 82.200  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 42          | 0.670                  | --      | *0.110  | *0.375   | *0.153  | *0.050    | *0.020  | *0.007  |
| 00623   | NITRO AMN & ORG (MG/L AS N)     | 22          | 1.600                  | 0.200   | 1.045   | 1.600  | 1.400   | 1.100     | 0.675   | 0.200   |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 296         | 0.860                  | 0.000   | 0.020   | 0.131  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 296         | 2.500                  | 0.000   | 0.064   | 0.592  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 296         | 1.210                  | 0.000   | 0.043   | 0.324  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3    | 296         | 5.360                  | 0.000   | 0.189   | 1.422  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N      | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)    | 152         | 2.000                  | --      | *0.128  | *0.441   | *0.148  | *0.051    | *0.020  | *0.008  |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)     | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2    | 296         | 0.296                  | 0.000   | 0.005   | 0.033  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613   | NITROGEN,NITRITE MG/L AS N      | 42          | 0.090                  | --      | *0.013  | *0.047   | *0.020  | *0.007    | *0.003  | *0.001  |
| 00607   | NITROGEN ORGANIC (MG/L AS N)    | 296         | 1.600                  | 0.000   | 0.058   | 0.554  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605   | NITROGEN ORGANIC (MG/L AS N)    | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600   | NITROGEN TOTAL (MG/L AS N)      | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71887   | NITROGEN, TOTAL MG/L AS NO3     | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)  | 296         | 1.700                  | 0.000   | 0.122   | 0.744  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)   | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)    | 133         | 0.750                  | 0.010   | 0.234   | 0.495  | 0.340   | 0.200     | 0.140   | 0.067   |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)    | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)    | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)     | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)    | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)    | 57          | 0.550                  | 0.007   | 0.194   | 0.493  | 0.240   | 0.170     | 0.105   | 0.040   |
| 00621   | NITROGEN NITRATE (MG/KG AS N)   | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2)  | 296         | 48.000                 | 0.000   | 4.669   | 20.150   | 6.250   | 2.100     | 0.000   | 0.000   |
| 00690   | CARBON INORG + O (MG/L AS C)    | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)   | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 9.** Statistical summary of water-quality data for the Sheyenne River above Harvey, N. Dak., gaging station 05054500, October 1971 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|--------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through July 2001--Continued</b> |                                |             |                        |         |         |  |         |           |         |         |
| 70950   | BIO CHL RATIO PE UNITS         | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70949   | BIO CHL RATIO PL UNITS         | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 01106   | ALUMINUM DISSOLV (UG/L AS AL)  | 46          | 1000.000               | --      | *61.464 | *176.500   | *60.000 | *20.000   | *10.000 | *3.384  |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 53          | 8.000                  | 1.000   | 3.038   | 6.000  | 4.000   | 3.000     | 2.000   | 1.000   |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)  | 45          | 400.000                | --      | *70.066 | *182.000   | *75.000 | *52.358   | *42.209 | *28.000 |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 172         | 1200.000               | 10.000  | 655.808 | 993.500  | 860.000 | 730.000   | 520.000 | 96.500  |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD)  | 46          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR)  | 45          | 10.000                 | --      | *1.127  | *8.800   | *1.000  | *0.328    | *0.112  | *0.024  |
| 01035   | COBALT DISSOLVED (UG/L AS CO)  | 45          | 3.000                  | --      | *0.637  | *1.094   | *0.846  | *0.528    | *0.360  | *0.218  |
| 01040   | COPPER DISSOLVED (UG/L AS CU)  | 46          | 8.000                  | --      | *1.617  | *6.950   | *2.000  | *1.000    | *0.959  | *0.297  |
| 00720   | CYANIDE TOTAL (MG/L AS CN)     | 42          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01046   | IRON DISSOLVED (UG/L AS FE)    | 71          | 1000.000               | 20.000  | 191.690 | 946.000  | 210.000 | 100.000   | 50.000  | 30.000  |
| 01049   | LEAD DISSOLVED (UG/L AS PB)    | 53          | 11.000                 | --      | *0.719  | *3.600   | *0.584  | *0.194    | *0.070  | *0.014  |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI)  | 52          | 190.000                | 10.000  | 87.615  | 143.500  | 120.000 | 90.000    | 53.750  | 15.950  |
| 01056   | MANGANESE DISSOL (UG/L AS MN)  | 71          | 380.000                | 20.000  | 78.169  | 198.000  | 100.000 | 69.000    | 40.000  | 20.000  |
| 71890   | MERCURY DISSOLVE UG/L AS HG    | 52          | 0.800                  | --      | *0.159  | *0.735   | *0.200  | *0.062    | *0.024  | *0.006  |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO)  | 53          | 4.000                  | --      | *0.730  | *2.000   | *1.000  | *0.561    | *0.342  | *0.171  |
| 01065   | NICKEL DISSOLVED (UG/L AS NI)  | 45          | 7.000                  | --      | *1.984  | *4.700   | *2.500  | *2.000    | *1.000  | *0.492  |
| 01145   | SELENIUM DISSOLV (UG/L AS SE)  | 53          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01080   | STRONTIUM DISSOL (UG/L AS SR)  | 52          | 460.000                | 50.000  | 204.635 | 420.500  | 237.500 | 190.000   | 142.500 | 81.300  |
| 01085   | VANADIUM DISSOLV (UG/L AS V)   | 42          | 14.000                 | 0.000   | 4.190   | 13.100   | 5.000   | 3.500     | 2.000   | 1.000   |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)    | 46          | 130.000                | --      | *9.776  | *58.950  | *8.000  | *4.000    | *1.448  | *0.400  |
| 34757   | TRIAZINE SCREEN UG/L           | 2           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 82068   | POTSSSIUM 40 DIS (PCIL AS K40) | 4           | 10.000                 | 7.500   | --      | --   | --      | --        | --      | --      |
| 80156   | SUS-SED DISCH + T/DAY          | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80155   | DISCHARGE,SUSP.S T/DAY         | 296         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 10.** Statistical summary of water-quality data for the Sheyenne River near Warwick, N. Dak., gaging station 05056000, January 1951 through July 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent          | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|----------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, January 1951 through July 2001</b> |                                  |             |                        |         |         |  |         |           |         |         |
| 00065  | GAGE HEIGHT (FEET)               | 3           | 3.120                  | 2.730   | --      | --   | --      | --        | --      | --      |
| 00060  | DISCHARGE CFS                    | 428         | 2050.000               | 0.100   | 83.627  | 328.550  | 62.750  | 15.000    | 3.500   | 1.145   |
| 00061  | DISCHARGE, INST. CFS             | 287         | 3160.000               | 0.100   | 190.537 | 1044.000   | 96.000  | 19.000    | 5.400   | 1.080   |
| 00080  | COLOR PLATINUM-COBAL             | 95          | 75.000                 | 1.000   | 25.242  | 60.000   | 40.000  | 20.000    | 9.000   | 3.800   |
| 00540  | RESIDUE FIXED (MG/L)             | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT         | 715         | 433.000                | 0.000   | 1.084   | 1.000  | 0.740   | 0.540     | 0.000   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY        | 715         | 2450.000               | 0.000   | 68.150  | 347.000  | 48.700  | 5.840     | 0.000   | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L            | 531         | 1140.000               | 150.000 | 482.659 | 761.000  | 600.000 | 469.000   | 362.000 | 240.800 |
| 70301  | DISSOLVED SOLIDS MG/L            | 715         | 1090.000               | 0.000   | 150.617 | 637.600  | 322.000 | 0.000     | 0.000   | 0.000   |
| 61028  | TURBIDITY, FIELD (NTU)           | 1           | 85.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00025  | AIR PRESSURE (MM OF HG)          | 8           | 734.000                | 720.000 | 726.750 | 734.000  | 729.750 | 726.500   | 723.500 | 720.000 |
| 00300  | OXYGEN DISSOLVED (MG/L)          | 9           | 11.200                 | 2.100   | 6.222   | 11.200   | 8.000   | 5.700     | 4.600   | 2.100   |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO  | 715         | 98.000                 | 0.000   | 0.755   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT     | 536         | 9.200                  | 6.700   | 7.897   | 8.500  | 8.200   | 7.900     | 7.600   | 7.300   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT  | 33          | 8.900                  | 6.900   | 7.964   | 8.550  | 8.200   | 8.000     | 7.750   | 6.970   |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C  | 52          | 1620.000               | 310.000 | 766.404 | 1296.500   | 975.250 | 704.500   | 557.250 | 361.600 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C     | 702         | 1680.000               | 210.000 | 765.108 | 1218.500   | 936.250 | 738.500   | 579.750 | 375.000 |
| 00020  | AIR TEMPERATURE DEGREES C        | 177         | 2080.000               | -28.500 | 20.812  | 29.530   | 18.500  | 8.000     | 1.000   | -15.100 |
| 00010  | WATER TEMPERATUR (DEGREES C)     | 343         | 30.000                 | 0.000   | 9.511   | 25.000   | 17.500  | 7.500     | 1.000   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3) | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3) | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3) | 715         | 45.000                 | 0.000   | 0.716   | 5.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3) | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)    | 715         | 570.000                | 0.000   | 182.516 | 340.000  | 270.000 | 220.000   | 0.000   | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)    | 281         | 110.000                | 16.000  | 51.996  | 83.000   | 60.000  | 50.000    | 42.000  | 23.100  |
| 00925  | MAGNESIUM DISSOL (MG/L AS MG)    | 281         | 71.400                 | 6.900   | 27.896  | 43.900   | 34.000  | 29.000    | 21.000  | 11.000  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)     | 275         | 17.000                 | 1.800   | 7.753   | 12.000   | 9.600   | 7.800     | 6.100   | 3.100   |
| 00931  | SODIUM ADSORPTIO (RATIO)         | 715         | 6.000                  | 0.000   | 1.526   | 4.000  | 2.000   | 2.000     | 0.000   | 0.000   |
| 00933  | SODIUM+POTASSIUM (MG/L AS Na)    | 4           | 140.000                | 63.000  | --      | --   | --      | --        | --      | --      |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)    | 536         | 230.000                | 10.000  | 73.812  | 150.000  | 100.000 | 69.000    | 42.000  | 19.850  |
| 00932  | SODIUM, PERCENT PERCENT          | 715         | 67.000                 | 0.000   | 26.162  | 52.000   | 42.000  | 32.000    | 0.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3)    | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3   | 41          | 496.000                | 99.000  | 289.122 | 489.300  | 394.000 | 279.000   | 205.000 | 107.100 |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3) | 4           | 351.000                | 256.000 | --      | --   | --      | --        | --      | --      |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3)  | 421         | 636.000                | 63.000  | 289.029 | 425.700  | 353.000 | 289.000   | 229.500 | 119.700 |

**Supplement 10.** Statistical summary of water-quality data for the Sheyenne River near Warwick, N. Dak., gaging station 05056000, January 1951 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, January 1951 through July 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 95440   | BICARBONATE MG/L AS CaCO3       | 21          | 530.000                | 140.000 | 318.095 | 525.000  | 360.000 | 300.000   | 260.000 | 145.000 |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 4           | 461.000                | 313.000 | --      | --   | --      | --        | --      | --      |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 481         | 780.000                | 100.000 | 350.353 | 520.000  | 430.000 | 350.000   | 280.000 | 151.000 |
| 95445   | CARBONATE MG/L AS CO3           | 21          | 28.000                 | 0.000   | 1.905   | 25.800   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)  | 4           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)  | 403         | 104.000                | 0.000   | 1.715   | 13.600   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)   | 248         | 37.000                 | 0.600   | 12.612  | 22.000   | 17.000  | 13.000    | 8.200   | 4.000   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 177         | 0.900                  | 0.100   | 0.228   | 0.400  | 0.300   | 0.200     | 0.200   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 166         | 40.000                 | 0.400   | 16.767  | 28.650   | 21.000  | 16.000    | 11.750  | 5.385   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 278         | 405.000                | 28.000  | 99.047  | 189.050  | 130.000 | 90.000    | 60.750  | 37.000  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 5           | 0.100                  | 0.050   | --      | --   | --      | --        | --      | --      |
| 00623   | NITRO AMN & ORG (MG/L AS N)     | 4           | 1.200                  | 1.000   | --      | --   | --      | --        | --      | --      |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)    | 5           | 1.800                  | 1.200   | --      | --   | --      | --        | --      | --      |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 715         | 0.130                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 715         | 1.400                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 715         | 4.200                  | 0.000   | 0.024   | 0.032  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3    | 715         | 18.600                 | 0.000   | 0.207   | 1.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N      | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71850   | N, NITRATE TOTAL MG/L AS NO3    | 40          | 9.600                  | 0.200   | 2.440   | 4.400  | 2.800   | 2.150     | 1.700   | 0.715   |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)    | 103         | 4.200                  | --      | *0.211  | *0.706   | *0.230  | *0.070    | *0.030  | *0.010  |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)     | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2    | 715         | 0.131                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613   | NITROGEN,NITRITE MG/L AS N      | 21          | 0.040                  | --      | *0.009  | *0.040   | *0.010  | *0.006    | *0.003  | *0.001  |
| 71855   | N, NITRITE TOTAL MG/L AS NO2    | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00607   | NITROGEN ORGANIC (MG/L AS N)    | 715         | 1.100                  | 0.000   | 0.006   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605   | NITROGEN ORGANIC (MG/L AS N)    | 715         | 1.700                  | 0.000   | 0.009   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00600   | NITROGEN TOTAL (MG/L AS N)      | 715         | 1.900                  | 0.000   | 0.007   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71887   | NITROGEN, TOTAL MG/L AS NO3     | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)  | 715         | 1.230                  | 0.000   | 0.011   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)   | 715         | 0.880                  | 0.000   | 0.004   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)    | 109         | 0.980                  | 0.010   | 0.168   | 0.425  | 0.230   | 0.130     | 0.070   | 0.020   |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)    | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)    | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)     | 715         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 10.** Statistical summary of water-quality data for the Sheyenne River near Warwick, N. Dak., gaging station 05056000, January 1951 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|--------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|---------|
|   |                                |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, January 1951 through July 2001--Continued</b> |                                |             |                        |         |         |  |          |           |         |         |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 715         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)   | 7           | 0.400                  | 0.020   | 0.203   | 0.400  | 0.280    | 0.210     | 0.110   | 0.020   |
| 00665   | PHOSPHORUS TOTAL (MG/L AS P)   | 5           | 0.510                  | 0.174   | --      | --   | --       | --        | --      | --      |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 715         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 715         | 171.000                | 0.000   | 6.752   | 20.200   | 9.500    | 5.100     | 0.000   | 0.000   |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 4           | 17.000                 | 15.000  | --      | --   | --       | --        | --      | --      |
| 00689   | CARBON ORGANIC P (MG/L AS C)   | 4           | 0.500                  | 0.300   | --      | --   | --       | --        | --      | --      |
| 00690   | CARBON INORG + O (MG/L AS C)   | 715         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 715         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 70950   | BIO CHL RATIO PE UNITS         | 715         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 70949   | BIO CHL RATIO PL UNITS         | 715         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 01106   | ALUMINUM DISSOLV (UG/L AS AL)  | 21          | 411.000                | --      | *89.556 | *402.200   | *150.000 | *20.000   | *10.000 | *5.749  |
| 01105   | ALUMINUM TOTAL UG/L AS AL      | 1           | 200.000                | --      | --      | --   | --       | --        | --      | --      |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 57          | 13.000                 | 1.000   | 5.298   | 10.300   | 8.000    | 5.000     | 2.000   | 1.000   |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)  | 22          | 200.000                | --      | *68.817 | *200.000   | *82.870  | *57.324   | *35.742 | *19.375 |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE)  | 15          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 178         | 390.000                | 10.000  | 145.236 | 310.500  | 190.000  | 140.000   | 90.000  | 39.500  |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD)  | 22          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR)  | 22          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01035   | COBALT DISSOLVED (UG/L AS CO)  | 22          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01040   | COPPER DISSOLVED (UG/L AS CU)  | 22          | 27.000                 | --      | *4.993  | *24.600  | *6.827   | *3.897    | *1.365  | *0.543  |
| 00720   | CYANIDE TOTAL (MG/L AS CN)     | 14          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 71885   | IRON UG/L AS FE                | 66          | 280.000                | 0.000   | 63.788  | 146.500  | 90.000   | 50.000    | 30.000  | 3.500   |
| 01046   | IRON DISSOLVED (UG/L AS FE)    | 72          | 410.000                | --      | *61.850 | *157.000   | *87.500  | *50.000   | *20.000 | *7.011  |
| 01045   | IRON TOTAL (UG/L AS FE)        | 25          | 100.000                | --      | *35.971 | *100.000   | *40.000  | *20.000   | *10.000 | *4.352  |
| 01049   | LEAD DISSOLVED (UG/L AS PB)    | 55          | 16.000                 | --      | *1.308  | *6.200   | *1.000   | *0.492    | *0.194  | *0.052  |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI)  | 57          | 720.000                | 10.000  | 62.982  | 100.000  | 76.500   | 50.000    | 30.000  | 10.000  |
| 01056   | MANGANESE DISSOL (UG/L AS MN)  | 70          | 660.000                | 5.000   | 69.329  | 209.000  | 82.500   | 50.000    | 20.000  | 10.000  |
| 01055   | MANGANESE TOTAL (UG/L AS MN)   | 12          | 190.000                | --      | *43.743 | *190.000   | *50.000  | *25.000   | *4.868  | *1.430  |
| 71890   | MERCURY DISSOLVE UG/L AS HG    | 51          | 6.500                  | --      | *0.400  | *2.980   | *0.200   | *0.100    | *0.022  | *0.004  |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO)  | 56          | 17.000                 | --      | *1.646  | *5.900   | *2.000   | *1.000    | *0.468  | *0.180  |
| 01065   | NICKEL DISSOLVED (UG/L AS NI)  | 23          | 12.000                 | --      | *3.119  | *11.400  | *4.000   | *2.000    | *1.000  | *0.380  |
| 01145   | SELENIUM DISSOLV (UG/L AS SE)  | 57          | 23.000                 | --      | *2.317  | *12.800  | *1.000   | *0.325    | *0.079  | *0.009  |
| 01075   | SILVER DISSOLVED (UG/L AS AG)  | 16          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01080   | STRONTIUM DISSOL (UG/L AS SR)  | 57          | 400.000                | 10.000  | 229.140 | 371.000  | 290.000  | 220.000   | 170.000 | 90.700  |

**Supplement 10.** Statistical summary of water-quality data for the Sheyenne River near Warwick, N. Dak., gaging station 05056000, January 1951 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent      | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|---|------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|   |                              |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, January 1951 through July 2001--Continued</b> |                              |             |                        |         |         |  |         |           |        |        |
| 01085   | VANADIUM DISSOLV (UG/L AS V) | 18          | 7.000                  | --      | *1.554  | *7.000   | *2.000  | *1.000    | *0.532 | *0.230 |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)  | 22          | 40.000                 | --      | *11.004 | *38.500  | *13.172 | *9.500    | *4.016 | *2.032 |
| 07060   | IRON 59 DISSOLVE (PCI/L)     | 2           | 1.000                  | 0.000   | --      | --   | --      | --        | --     | --     |
| 80156   | SUS-SED DISCH + T/DAY        | 715         | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 80155   | DISCHARGE,SUSP.S T/DAY       | 715         | 0.000                  | --      | --      | --   | --      | --        | --     | --     |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 11.** Statistical summary of water-quality data for the Sheyenne River near Cooperstown, N. Dak., gaging station 05057000, October 1959 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1959 through April 2001</b> |                                 |             |                        |         |         |  |          |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 2           | 11.100                 | 10.290  | --      | --   | --       | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 237         | 4900.000               | 0.500   | 179.307 | 839.600  | 145.000  | 33.000    | 13.500  | 4.920   |
| 00061   | DISCHARGE, INST. CFS            | 347         | 5290.000               | 0.020   | 371.178 | 1808.000   | 291.000  | 58.000    | 16.000  | 3.340   |
| 00310   | BOD 5-DAY AT 20 (MG/L)          | 69          | 9.300                  | 0.400   | 2.648   | 7.950  | 3.000    | 2.100     | 1.500   | 0.750   |
| 00080   | COLOR PLATINUM-COBAL            | 220         | 100.000                | 2.000   | 28.577  | 70.000   | 40.000   | 25.000    | 15.000  | 5.000   |
| 00120   | PRECIPITATION 4 (INCHES)        | 1           | 122.000                | --      | --      | --   | --       | --        | --      | --      |
| 00540   | RESIDUE FIXED (MG/L)            | 586         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00530   | RESIDUE TOTAL (MG/L)            | 9           | 120.000                | --      | *40.055 | *120.000   | *50.000  | *43.000   | *7.500  | *2.499  |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 586         | 706.000                | 0.000   | 2.148   | 1.037  | 0.842    | 0.605     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 586         | 4290.000               | 0.000   | 114.077 | 607.800  | 71.325   | 12.500    | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 358         | 1240.000               | 143.000 | 572.542 | 796.200  | 671.250  | 597.500   | 498.500 | 250.000 |
| 70301   | DISSOLVED SOLIDS MG/L           | 586         | 1230.000               | 0.000   | 279.898 | 716.000  | 590.250  | 170.000   | 0.000   | 0.000   |
| 00070   | TURBIDITY (JCU)                 | 1           | 110.000                | --      | --      | --   | --       | --        | --      | --      |
| 00076   | TURBIDITY (NTU)                 | 70          | 28.000                 | 2.400   | 10.891  | 24.000   | 16.000   | 8.700     | 5.675   | 2.920   |
| 00025   | AIR PRESSURE (MM OF HG)         | 30          | 745.000                | 653.000 | 726.133 | 743.350  | 735.000  | 728.000   | 721.500 | 686.550 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 77          | 13.500                 | 3.000   | 8.449   | 12.630   | 10.250   | 8.400     | 6.950   | 3.780   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 586         | 113.000                | 0.000   | 7.717   | 86.650   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 369         | 8.700                  | 6.500   | 7.932   | 8.500  | 8.200    | 8.000     | 7.700   | 7.300   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 52          | 8.600                  | 6.700   | 8.021   | 8.500  | 8.300    | 8.100     | 7.800   | 7.230   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 17          | 1080.000               | 307.000 | 663.235 | 1080.000   | 866.500  | 608.000   | 475.500 | 307.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 41          | 1600.000               | 385.000 | 882.171 | 1510.000   | 1020.000 | 935.000   | 603.000 | 428.200 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 571         | 1880.000               | 213.000 | 859.347 | 1250.000   | 1010.000 | 906.000   | 700.000 | 380.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 201         | 37.500                 | -30.000 | 9.063   | 28.000   | 18.000   | 10.500    | 0.500   | -12.950 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 462         | 27.800                 | 0.000   | 8.933   | 23.425   | 16.500   | 7.100     | 0.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 586         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 586         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 586         | 280.000                | 0.000   | 3.567   | 22.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 586         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 586         | 680.000                | 0.000   | 181.592 | 400.000  | 320.000  | 230.000   | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 328         | 154.000                | 19.000  | 66.640  | 100.000  | 78.000   | 66.000    | 56.000  | 28.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS MG)   | 328         | 72.000                 | 6.500   | 31.059  | 43.550   | 37.750   | 33.000    | 27.000  | 12.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 343         | 28.000                 | 0.100   | 8.731   | 11.000   | 9.600    | 8.500     | 7.700   | 6.500   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 586         | 4.000                  | 0.000   | 1.251   | 3.000  | 2.000    | 2.000     | 0.000   | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 35          | 120.000                | 40.000  | 94.286  | 120.000  | 110.000  | 100.000   | 85.000  | 44.000  |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 361         | 920.000                | 10.000  | 83.333  | 125.800  | 99.000   | 83.000    | 63.000  | 27.000  |

**Supplement 11.** Statistical summary of water-quality data for the Sheyenne River near Cooperstown, N. Dak., gaging station 05057000, October 1959 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1959 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00932  | SODIUM, PERCENT PERCENT         | 586         | 55.000                 | 0.000   | 22.389  | 45.000   | 37.000  | 31.000    | 0.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 586         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3  | 67          | 570.000                | 80.000  | 282.627 | 451.400  | 371.000 | 307.000   | 190.000 | 107.000 |
| 00418  | ALKALINITY,DIS,F (MG/L AS CaCO3 | 8           | 416.000                | 125.000 | 240.750 | 416.000  | 353.250 | 203.500   | 151.250 | 125.000 |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3 | 10          | 416.000                | 81.000  | 230.300 | 416.000  | 369.250 | 206.000   | 119.750 | 81.000  |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3  | 303         | 700.000                | 64.000  | 313.957 | 453.200  | 372.000 | 323.000   | 270.000 | 116.200 |
| 95440  | BICARBONATE MG/L AS CaCO3       | 21          | 520.000                | 100.000 | 291.905 | 510.000  | 385.000 | 260.000   | 185.000 | 106.000 |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3) | 10          | 508.000                | 99.000  | 258.400 | 508.000  | 370.750 | 227.000   | 146.250 | 99.000  |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 252         | 850.000                | 80.000  | 381.643 | 553.500  | 450.000 | 390.000   | 330.000 | 140.000 |
| 95445  | CARBONATE MG/L AS CO3           | 21          | 12.000                 | 0.000   | 1.857   | 11.800   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)  | 10          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 242         | 18.000                 | 0.000   | 0.227   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 305         | 39.000                 | 0.100   | 15.849  | 25.000   | 19.000  | 16.000    | 12.000  | 6.130   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 295         | 0.700                  | 0.000   | 0.245   | 0.400  | 0.300   | 0.200     | 0.200   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2) | 285         | 50.000                 | 0.100   | 19.915  | 29.000   | 25.000  | 21.000    | 15.000  | 11.000  |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 310         | 360.000                | 21.100  | 142.581 | 213.250  | 170.000 | 140.000   | 120.000 | 64.550  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)    | 77          | 0.740                  | --      | *0.175  | *0.627   | *0.230  | *0.100    | *0.025  | *0.007  |
| 00623  | NITRO AMN & ORG (MG/L AS N)     | 68          | 2.400                  | 0.020   | 1.150   | 1.800  | 1.375   | 1.100     | 0.933   | 0.632   |
| 00624  | NITROGEN SUSPEND (MG/L AS N)    | 63          | 6.100                  | 0.000   | 0.459   | 1.320  | 0.500   | 0.300     | 0.100   | 0.000   |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)    | 76          | 7.200                  | 0.790   | 1.562   | 2.575  | 1.675   | 1.400     | 1.200   | 0.886   |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 586         | 0.950                  | 0.000   | 0.030   | 0.187  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00610  | NITROGEN AMMONIA (MG/L AS N)    | 69          | 0.820                  | 0.000   | 0.205   | 0.670  | 0.245   | 0.120     | 0.060   | 0.010   |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 586         | 0.990                  | 0.000   | 0.030   | 0.190  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 586         | 2.600                  | 0.000   | 0.151   | 1.300  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 586         | 1.700                  | 0.000   | 0.042   | 0.293  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 586         | 25.000                 | 0.000   | 0.448   | 2.465  | 0.200   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 586         | 1.200                  | 0.000   | 0.018   | 0.090  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)    | 155         | 2.100                  | --      | *0.227  | *1.120   | *0.220  | *0.100    | *0.024  | *0.010  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 572         | 1.300                  | 0.000   | 0.022   | 0.100  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 586         | 0.360                  | 0.000   | 0.005   | 0.030  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N      | 84          | 0.110                  | --      | *0.013  | *0.047   | *0.010  | *0.010    | *0.005  | *0.002  |
| 00615  | NITROGEN,NITRITE MG/L AS N      | 69          | 0.140                  | --      | *0.022  | *0.095   | *0.020  | *0.020    | *0.007  | *0.003  |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 586         | 2.100                  | 0.000   | 0.114   | 1.065  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 586         | 7.100                  | 0.000   | 0.174   | 1.400  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 586         | 7.300                  | 0.000   | 0.231   | 1.700  | 0.000   | 0.000     | 0.000   | 0.000   |

**Supplement 11.** Statistical summary of water-quality data for the Sheyenne River near Cooperstown, N. Dak., gaging station 05057000, October 1959 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|--------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1959 through April 2001--Continued</b> |                                |             |                        |         |          |  |          |           |         |         |
| 71887  | NITROGEN, TOTAL MG/L AS NO3    | 586         | 32.000                 | 0.000   | 0.909    | 7.200  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 586         | 1.400                  | 0.000   | 0.065    | 0.520  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 586         | 1.700                  | 0.000   | 0.064    | 0.550  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 160         | 0.480                  | 0.010   | 0.165    | 0.339  | 0.200    | 0.160     | 0.110   | 0.041   |
| 00678  | PHOSPHORUS HYDRO (MG/L AS P)   | 36          | 0.560                  | 0.010   | 0.210    | 0.535  | 0.237    | 0.205     | 0.142   | 0.061   |
| 00677  | PHOSPHORUS HYDRO (MG/L AS P)   | 36          | 0.480                  | 0.020   | 0.179    | 0.472  | 0.210    | 0.165     | 0.115   | 0.046   |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)   | 586         | 0.180                  | 0.000   | 0.002    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)   | 586         | 0.180                  | 0.000   | 0.003    | 0.007  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 586         | 0.100                  | 0.000   | 0.001    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 586         | 1420.000               | 0.000   | 2.425    | 0.010  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 76          | 0.440                  | 0.020   | 0.148    | 0.373  | 0.190    | 0.135     | 0.090   | 0.038   |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 69          | 0.430                  | 0.010   | 0.160    | 0.335  | 0.205    | 0.160     | 0.100   | 0.055   |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 77          | 0.570                  | 0.010   | 0.242    | 0.511  | 0.290    | 0.220     | 0.170   | 0.090   |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 65          | 1.700                  | 0.030   | 0.708    | 1.540  | 0.860    | 0.670     | 0.490   | 0.280   |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 586         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 586         | 101.000                | 0.000   | 5.790    | 22.650   | 7.525    | 3.100     | 0.000   | 0.000   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 69          | 34.000                 | 6.700   | 15.829   | 27.000   | 20.000   | 15.000    | 11.500  | 7.650   |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 63          | 8.900                  | 0.100   | 1.156    | 2.960  | 1.400    | 0.900     | 0.500   | 0.120   |
| 00690  | CARBON INORG + O (MG/L AS C)   | 586         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 586         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS         | 586         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS         | 586         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 31501  | TOT COLI,MENDO M COLS./100 ML  | 68          | 28000.000              | 1.000   | 4263.676 | 18100.006  | 7600.000 | 740.000   | 160.000 | 4.000   |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 66          | 2300.000               | 1.000   | 128.803  | 800.000  | 110.000  | 28.500    | 12.250  | 2.000   |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 67          | 8000.000               | 2.000   | 478.119  | 2939.997   | 220.000  | 110.000   | 34.000  | 8.600   |
| 01106  | ALUMINUM DISSOLV (UG/L AS AL)  | 19          | 387.000                | --      | *114.352 | *387.000   | *200.000 | *40.000   | *20.000 | *10.000 |
| 01105  | ALUMINUM TOTAL UG/L AS AL      | 1           | 200.000                | --      | --       | --   | --       | --        | --      | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)  | 52          | 12.000                 | --      | *4.082   | *10.350  | *5.750   | *3.500    | *2.000  | *0.831  |
| 01005  | BARIUM DISSOLVED (UG/L AS BA)  | 19          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01010  | BERYLLIUM DISSOL (UG/L AS BE)  | 10          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 286         | 890.000                | 10.000  | 176.738  | 276.500  | 210.000  | 180.000   | 130.000 | 70.000  |
| 01025  | CADMIUM DISSOLVE (UG/L AS CD)  | 19          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01030  | CHROMIUM DISSOLV (UG/L AS CR)  | 19          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01035  | COBALT DISSOLVED (UG/L AS CO)  | 19          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01040  | COPPER DISSOLVED (UG/L AS CU)  | 18          | 34.000                 | --      | *7.985   | *34.000  | *12.500  | *5.000    | *1.920  | *0.679  |

**Supplement 11.** Statistical summary of water-quality data for the Sheyenne River near Cooperstown, N. Dak., gaging station 05057000, October 1959 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |          |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|----------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25       | 5       |
| <b>North Dakota data, October 1959 through April 2001--Continued</b> |                                 |             |                        |         |          |  |          |           |          |         |
| 00720  | CYANIDE TOTAL (MG/L AS CN)      | 14          | --                     | --      | --       | --   | --       | --        | --       | --      |
| 71885  | IRON UG/L AS FE                 | 51          | 910.000                | 20.000  | 118.235  | 558.001  | 110.000  | 60.000    | 40.000   | 20.000  |
| 01046  | IRON DISSOLVED (UG/L AS FE)     | 140         | 700.000                | --      | *52.590  | *170.000   | *60.000  | *30.000   | *10.000  | *4.354  |
| 01044  | IRON SUSPENDED (UG/L AS FE)     | 66          | 1800.000               | 10.000  | 469.848  | 1165.000   | 682.500  | 370.000   | 227.500  | 100.000 |
| 01045  | IRON TOTAL (UG/L AS FE)         | 74          | 1800.000               | 20.000  | 490.135  | 1200.000   | 692.500  | 390.000   | 237.500  | 60.000  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)     | 51          | 200.000                | --      | *5.650   | *20.400  | *1.000   | *0.200    | *0.033   | *0.003  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)   | 52          | 190.000                | 1.000   | 53.481   | 100.000  | 70.000   | 51.500    | 30.000   | 16.500  |
| 01056  | MANGANESE DISSOL (UG/L AS MN)   | 128         | 5000.000               | 2.000   | 577.773  | 3455.000   | 460.000  | 230.000   | 100.000  | 24.500  |
| 01054  | MANGANESE SUSPEN (UG/L AS MN)   | 70          | 4500.000               | --      | *306.179 | *637.000   | *330.000 | *195.000  | *100.000 | *26.502 |
| 01055  | MANGANESE TOTAL (UG/L AS MN)    | 96          | 8600.000               | 8.000   | 1082.167 | 4575.001   | 865.000  | 430.000   | 242.500  | 10.000  |
| 71890  | MERCURY DISSOLVE UG/L AS HG     | 49          | 0.600                  | --      | *0.122   | *0.450   | *0.144   | *0.100    | *0.043   | *0.019  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO)   | 52          | 20.000                 | --      | *2.233   | *11.500  | *2.000   | *1.000    | *0.575   | *0.215  |
| 01065  | NICKEL DISSOLVED (UG/L AS NI)   | 19          | 14.000                 | --      | *4.512   | *14.000  | *7.000   | *4.000    | *1.447   | *0.558  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)   | 52          | 14.000                 | --      | *1.247   | *8.700   | *1.000   | *0.261    | *0.079   | *0.013  |
| 01075  | SILVER DISSOLVED (UG/L AS AG)   | 10          | --                     | --      | --       | --   | --       | --        | --       | --      |
| 01080  | STRONTIUM DISSOL (UG/L AS SR)   | 52          | 500.000                | 60.000  | 289.115  | 487.000  | 377.500  | 320.000   | 195.000  | 89.650  |
| 01085  | VANADIUM DISSOLV (UG/L AS V)    | 18          | 3.000                  | --      | *1.540   | *3.000   | *2.000   | *1.000    | *1.000   | *0.471  |
| 01090  | ZINC DISSOLVED (UG/L AS ZN)     | 19          | 400.000                | --      | *33.245  | *400.000   | *20.000  | *10.328   | *6.000   | *2.137  |
| 01043  | COPPER BOT. MAT. (UG/G AS CU)   | 1           | 3.000                  | --      | --       | --   | --       | --        | --       | --      |
| 07060  | IRON 59 DISSOLVE (PCI/L)        | 2           | 3.000                  | 1.000   | --       | --   | --       | --        | --       | --      |
| 82068  | POTSSSIUM 40 DIS (PCI/L AS K40) | 21          | 7.500                  | 5.300   | 6.381    | 7.470  | 6.950    | 6.300     | 5.850    | 5.340   |
| 80156  | SUS-SED DISCH + T/DAY           | 586         | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 586         | 0.000                  | --      | --       | --   | --       | --        | --       | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 12.** Statistical summary of water-quality data for Baldhill Creek near Dazey, N. Dak., gaging station 05057200, October 1971 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001</b> |                                 |             |                        |         |         |  |          |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 1           | 6.800                  | --      | --      | --   | --       | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 52          | 1050.000               | 0.160   | 55.479  | 225.100  | 28.750   | 10.200    | 3.375   | 0.375   |
| 00061   | DISCHARGE, INST. CFS            | 292         | 2350.000               | 0.010   | 100.692 | 574.401  | 29.750   | 4.600     | 1.600   | 0.197   |
| 00310   | BOD 5-DAY AT 20 (MG/L)          | 36          | 8.600                  | 0.800   | 2.883   | 7.240  | 3.675    | 2.350     | 1.450   | 1.140   |
| 00080   | COLOR PLATINUM-COBAL            | 38          | 80.000                 | 5.000   | 31.553  | 70.500   | 50.000   | 27.500    | 18.750  | 5.000   |
| 00540   | RESIDUE FIXED (MG/L)            | 346         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00530   | RESIDUE TOTAL (MG/L)            | 10          | 74.000                 | --      | *25.399 | *74.000  | *45.250  | *19.000   | *5.500  | *1.989  |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 346         | 127.000                | 0.000   | 0.542   | 0.916  | 0.183    | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 346         | 1120.000               | 0.000   | 23.033  | 86.250   | 0.027    | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 87          | 991.000                | 131.000 | 513.920 | 853.000  | 646.000  | 550.000   | 391.000 | 150.200 |
| 70301   | DISSOLVED SOLIDS MG/L           | 346         | 1020.000               | 0.000   | 125.936 | 667.250  | 124.500  | 0.000     | 0.000   | 0.000   |
| 00076   | TURBIDITY (NTU)                 | 38          | 63.000                 | 1.200   | 8.542   | 56.350   | 10.000   | 4.500     | 2.475   | 1.390   |
| 00025   | AIR PRESSURE (MM OF HG)         | 17          | 740.000                | 719.000 | 728.706 | 740.000  | 733.000  | 729.000   | 721.500 | 719.000 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 45          | 15.400                 | 2.800   | 9.724   | 14.320   | 12.100   | 10.000    | 7.400   | 4.490   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 346         | 123.000                | 0.000   | 8.127   | 87.300   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 96          | 8.700                  | 6.700   | 7.968   | 8.415  | 8.200    | 8.000     | 7.725   | 7.300   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 38          | 8.500                  | 6.700   | 7.789   | 8.405  | 8.100    | 7.900     | 7.400   | 6.890   |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 47          | 1420.000               | 213.000 | 760.426 | 1236.000   | 919.000  | 809.000   | 621.000 | 238.600 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 331         | 1630.000               | 204.000 | 853.921 | 1410.000   | 1020.000 | 890.000   | 660.000 | 280.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 170         | 34.500                 | -32.000 | 8.909   | 28.950   | 18.500   | 8.500     | 1.000   | -14.175 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 339         | 29.000                 | 0.000   | 8.896   | 24.000   | 17.900   | 6.500     | 0.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 346         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 346         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 346         | 120.000                | 0.000   | 7.844   | 70.300   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 346         | 120.000                | 0.000   | 2.116   | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 346         | 660.000                | 0.000   | 75.436  | 386.500  | 81.250   | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 87          | 160.000                | 20.000  | 63.621  | 120.000  | 79.000   | 61.000    | 40.000  | 23.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS MG)   | 87          | 68.000                 | 7.000   | 34.279  | 57.600   | 44.000   | 38.000    | 24.000  | 8.600   |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 87          | 16.000                 | 4.800   | 9.675   | 15.000   | 11.000   | 9.300     | 7.800   | 6.100   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 346         | 4.000                  | 0.000   | 0.341   | 2.000  | 0.225    | 0.000     | 0.000   | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 23          | 140.000                | 12.000  | 68.696  | 138.000  | 88.000   | 73.000    | 35.000  | 12.400  |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 87          | 150.000                | 4.700   | 55.632  | 130.000  | 77.000   | 58.000    | 23.000  | 7.200   |
| 00932   | SODIUM, PERCENT PERCENT         | 346         | 54.000                 | 0.000   | 6.483   | 32.650   | 10.250   | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 346         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 54          | 480.000                | 63.000  | 232.741 | 432.500  | 295.250  | 235.000   | 145.000 | 72.750  |

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**Supplement 12.** Statistical summary of water-quality data for Baldhill Creek near Dazey, N. Dak., gaging station 05057200, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent          | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |        |
|--|----------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|--------|
|  |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5      |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                  |             |                        |         |         |  |         |           |         |        |
| 95410  | ANC, TIT 4.5, LA MG/L AS CaCO3   | 1           | 470.000                | --      | --      | --   | --      | --        | --      | --     |
| 00418  | ALKALINITY,DIS,F (MG/L AS CaCO3) | 10          | 333.000                | 62.000  | 186.600 | 333.000  | 279.250 | 166.500   | 111.000 | 62.000 |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3) | 10          | 337.000                | 60.000  | 188.300 | 337.000  | 284.000 | 167.500   | 110.250 | 60.000 |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3)  | 44          | 560.000                | 57.000  | 257.091 | 469.500  | 313.750 | 280.000   | 129.750 | 73.000 |
| 95440  | BICARBONATE MG/L AS CaCO3        | 20          | 370.000                | 87.000  | 238.050 | 370.000  | 327.500 | 255.000   | 150.000 | 87.350 |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3)  | 10          | 411.000                | 73.000  | 229.800 | 411.000  | 346.500 | 204.500   | 134.750 | 73.000 |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3)  | 17          | 590.000                | 89.000  | 329.353 | 590.000  | 380.000 | 340.000   | 280.000 | 89.000 |
| 95445  | CARBONATE MG/L AS CO3            | 20          | 4.000                  | 0.000   | 0.200   | 3.800  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)   | 10          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)   | 16          | 4.000                  | 0.000   | 0.438   | 4.000  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)    | 97          | 51.000                 | 2.100   | 16.515  | 41.300   | 21.000  | 15.000    | 8.200   | 3.200  |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)     | 87          | 1.000                  | 0.000   | 0.182   | 0.300  | 0.200   | 0.200     | 0.100   | 0.100  |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2)  | 77          | 43.000                 | 0.100   | 14.383  | 32.000   | 18.500  | 13.000    | 9.000   | 2.200  |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)   | 87          | 300.000                | 17.000  | 158.874 | 286.000  | 210.000 | 170.000   | 110.000 | 29.000 |
| 00608  | NITROGEN AMMONIA (MG/L AS N)     | 47          | 0.750                  | --      | *0.129  | *0.536   | *0.150  | *0.060    | *0.020  | *0.005 |
| 00623  | NITRO AMN & ORG (MG/L AS N)      | 38          | 2.300                  | 0.420   | 0.934   | 1.540  | 1.025   | 0.880     | 0.700   | 0.496  |
| 00624  | NITROGEN SUSPEND (MG/L AS N)     | 37          | 1.600                  | --      | *0.404  | *1.150   | *0.600  | *0.300    | *0.109  | *0.048 |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)     | 48          | 2.300                  | 0.690   | 1.377   | 2.100  | 1.600   | 1.400     | 1.025   | 0.748  |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4     | 346         | 0.970                  | 0.000   | 0.023   | 0.140  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00610  | NITROGEN AMMONIA (MG/L AS N)     | 38          | 0.810                  | --      | *0.142  | *0.553   | *0.208  | *0.090    | *0.047  | *0.010 |
| 71845  | NITROGEN, NH4, T MG/L AS NH4     | 346         | 1.040                  | 0.000   | 0.019   | 0.120  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00602  | NITROGEN DISSOLV (MG/L AS N)     | 346         | 2.300                  | 0.000   | 0.127   | 1.000  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00618  | NITROGEN NITRATE (MG/L AS N)     | 346         | 1.700                  | 0.000   | 0.041   | 0.230  | 0.000   | 0.000     | 0.000   | 0.000  |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3     | 346         | 7.700                  | 0.000   | 0.208   | 1.195  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00620  | NITROGEN NITRATE MG/L AS N       | 346         | 0.980                  | 0.000   | 0.023   | 0.016  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)     | 48          | 2.200                  | --      | *0.377  | *1.800   | *0.712  | *0.056    | *0.022  | *0.005 |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)      | 331         | 1.100                  | 0.000   | 0.026   | 0.100  | 0.000   | 0.000     | 0.000   | 0.000  |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2     | 346         | 0.200                  | 0.000   | 0.006   | 0.030  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00613  | NITROGEN,NITRITE MG/L AS N       | 37          | 0.060                  | --      | *0.016  | *0.060   | *0.015  | *0.010    | *0.004  | *0.001 |
| 00615  | NITROGEN,NITRITE MG/L AS N       | 38          | 0.160                  | --      | *0.029  | *0.141   | *0.040  | *0.010    | *0.005  | *0.001 |
| 00607  | NITROGEN ORGANIC (MG/L AS N)     | 346         | 2.300                  | 0.000   | 0.089   | 0.786  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00605  | NITROGEN ORGANIC (MG/L AS N)     | 346         | 2.100                  | 0.000   | 0.168   | 1.400  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00600  | NITROGEN TOTAL (MG/L AS N)       | 346         | 4.000                  | 0.000   | 0.231   | 1.800  | 0.000   | 0.000     | 0.000   | 0.000  |
| 71887  | NITROGEN, TOTAL MG/L AS NO3      | 346         | 15.000                 | 0.000   | 0.764   | 6.595  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)   | 346         | 1.630                  | 0.000   | 0.049   | 0.400  | 0.000   | 0.000     | 0.000   | 0.000  |

**Supplement 12.** Statistical summary of water-quality data for Baldhill Creek near Dazey, N. Dak., gaging station 05057200, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|--------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                |             |                        |         |          |  |          |           |         |         |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 346         | 1.500                  | 0.000   | 0.031    | 0.152  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 38          | 0.360                  | --      | *0.087   | *0.312   | *0.142   | *0.040    | *0.028  | *0.006  |
| 00678  | PHOSPHORUS HYDRO (MG/L AS P)   | 24          | 0.410                  | 0.010   | 0.142    | 0.395  | 0.213    | 0.120     | 0.055   | 0.015   |
| 00677  | PHOSPHORUS HYDRO (MG/L AS P)   | 24          | 0.310                  | 0.010   | 0.090    | 0.308  | 0.130    | 0.045     | 0.020   | 0.010   |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)   | 346         | 0.050                  | 0.000   | 0.001    | 0.010  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)   | 346         | 0.170                  | 0.000   | 0.003    | 0.010  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 346         | 0.110                  | 0.000   | 0.002    | 0.010  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 346         | 0.130                  | 0.000   | 0.002    | 0.010  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 53          | 0.530                  | --      | *0.096   | *0.357   | *0.145   | *0.040    | *0.010  | *0.003  |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 37          | 0.480                  | 0.010   | 0.086    | 0.282  | 0.135    | 0.050     | 0.020   | 0.010   |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 48          | 0.690                  | 0.030   | 0.180    | 0.537  | 0.275    | 0.130     | 0.062   | 0.034   |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 37          | 1.200                  | 0.090   | 0.432    | 1.110  | 0.640    | 0.310     | 0.180   | 0.090   |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 346         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 346         | 40.000                 | 0.000   | 1.703    | 7.660  | 1.800    | 0.000     | 0.000   | 0.000   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 37          | 41.000                 | 3.300   | 13.911   | 39.200   | 15.000   | 12.000    | 9.500   | 4.830   |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 36          | 11.000                 | 0.300   | 1.422    | 5.135  | 1.600    | 0.800     | 0.600   | 0.385   |
| 00690  | CARBON INORG + O (MG/L AS C)   | 346         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 346         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS         | 346         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS         | 346         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 31501  | TOT COLI,MENDO M COLS./100 ML  | 35          | 27000.000              | 2.000   | 4763.429 | 19800.008  | 8000.000 | 850.000   | 58.000  | 2.800   |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 35          | 2800.000               | --      | *203.362 | *1440.001  | *120.000 | *20.000   | *7.000  | *0.502  |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 35          | 16000.000              | 3.000   | 1113.571 | 8000.008   | 650.000  | 100.000   | 24.000  | 3.800   |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)  | 33          | 9.000                  | 1.000   | 3.030    | 7.600  | 4.000    | 3.000     | 2.000   | 1.000   |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 77          | 830.000                | 20.000  | 163.117  | 323.000  | 220.000  | 150.000   | 90.000  | 29.000  |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 87          | 1000.000               | --      | *70.363  | *200.000   | *90.000  | *40.000   | *20.000 | *5.254  |
| 01044  | IRON SUSPENDE (UG/L AS FE)     | 38          | 4600.000               | 30.000  | 574.474  | 3649.999   | 535.000  | 250.000   | 160.000 | 96.500  |
| 01045  | IRON TOTAL (UG/L AS FE)        | 38          | 4700.000               | 40.000  | 610.263  | 3749.999   | 555.000  | 270.000   | 177.500 | 116.000 |
| 01049  | LEAD DISSOLVED (UG/L AS PB)    | 33          | 2.000                  | --      | *0.467   | *1.300   | *0.597   | *0.351    | *0.206  | *0.095  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)  | 33          | 110.000                | 7.000   | 47.030   | 100.200  | 69.000   | 50.000    | 20.000  | 7.700   |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 87          | 2200.000               | 9.000   | 213.460  | 612.000  | 240.000  | 140.000   | 68.000  | 10.000  |
| 01054  | MANGANESE SUSPEN (UG/L AS MN)  | 38          | 840.000                | --      | *205.924 | *678.500   | *385.000 | *115.000  | *20.000 | *4.508  |
| 01055  | MANGANESE TOTAL (UG/L AS MN)   | 38          | 2100.000               | 40.000  | 445.526  | 969.499  | 577.500  | 360.000   | 200.000 | 97.000  |
| 71890  | MERCURY DISSOLVE UG/L AS HG    | 33          | 10.000                 | --      | *0.395   | *3.490   | *0.100   | *0.100    | *0.013  | *0.002  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO)  | 33          | 3.000                  | --      | *0.995   | *2.300   | *1.000   | *0.793    | *0.506  | *0.262  |

**Supplement 12.** Statistical summary of water-quality data for Baldhill Creek near Dazey, N. Dak., gaging station 05057200, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)   | 33          | 2.000                  | --      | *0.630  | *1.300   | *0.777  | *0.556    | *0.393  | *0.233  |
| 01080  | STRONTIUM DISSOL (UG/L AS SR)   | 32          | 580.000                | 73.000  | 335.094 | 521.500  | 420.000 | 350.000   | 252.500 | 116.550 |
| 07060  | IRON 59 DISSOLVE (PCI/L)        | 2           | 1.000                  | 1.000   | --      | --   | --      | --        | --      | --      |
| 82068  | POTSSSIUM 40 DIS (PCI/L AS K40) | 6           | 6.600                  | 4.300   | 5.283   | 6.600  | 5.925   | 5.250     | 4.525   | 4.300   |
| 80156  | SUS-SED DISCH + T/DAY           | 346         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 346         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 13.** Statistical summary of water-quality data for Lake Ashtabula at Baldhill Dam, N. Dak., gaging station 05057500, February 1960 through March 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, February 1960 through March 2001</b> |                                 |             |                        |         |         |  |          |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 2           | 65.200                 | 63.280  | --      | --   | --       | --        | --      | --      |
| 00080  | COLOR PLATINUM-COBAL            | 3           | 28.000                 | 20.000  | --      | --   | --       | --        | --      | --      |
| 00540  | RESIDUE FIXED (MG/L)            | 8           | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 8           | 0.970                  | 0.000   | 0.517   | 0.970  | 0.810    | 0.555     | 0.110   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 8           | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 70300  | RESIDUE DIS 180C MG/L           | 6           | 713.000                | 326.000 | 507.500 | 713.000  | 627.500  | 505.500   | 378.500 | 326.000 |
| 70301  | DISSOLVED SOLIDS MG/L           | 8           | 717.000                | 0.000   | 365.625 | 717.000  | 572.750  | 385.000   | 77.750  | 0.000   |
| 00077  | TRANSPARENCY (IN (INCHES)       | 2           | 144.000                | 97.000  | --      | --   | --       | --        | --      | --      |
| 61028  | TURBIDITY, FIELD (NTU)          | 1           | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00025  | AIR PRESSURE (MM OF HG)         | 2           | 732.000                | 722.000 | --      | --   | --       | --        | --      | --      |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 2           | 12.000                 | 11.000  | --      | --   | --       | --        | --      | --      |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 8           | 87.000                 | 0.000   | 20.875  | 87.000   | 60.000   | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 8           | 8.600                  | 7.300   | 7.788   | 8.600  | 8.225    | 7.650     | 7.400   | 7.300   |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 8           | 1560.000               | 529.000 | 868.000 | 1560.000   | 1051.000 | 799.000   | 619.250 | 529.000 |
| 00020  | AIR TEMPERATURE DEGREES C       | 2           | 4.500                  | -7.000  | --      | --   | --       | --        | --      | --      |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 4           | 9.000                  | 0.000   | --      | --   | --       | --        | --      | --      |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 8           | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 8           | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 8           | 30.000                 | 0.000   | 5.500   | 30.000   | 10.500   | 0.000     | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 8           | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 8           | 350.000                | 0.000   | 187.500 | 350.000  | 285.000  | 205.000   | 45.000  | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 6           | 66.000                 | 40.000  | 49.167  | 66.000   | 59.250   | 45.000    | 41.500  | 40.000  |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)   | 6           | 44.000                 | 20.000  | 30.833  | 44.000   | 39.500   | 30.500    | 21.500  | 20.000  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 6           | 13.000                 | 8.400   | 10.000  | 13.000   | 11.500   | 9.400     | 8.700   | 8.400   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 8           | 3.000                  | 0.000   | 1.500   | 3.000  | 2.000    | 2.000     | 0.250   | 0.000   |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 6           | 120.000                | 41.000  | 74.500  | 120.000  | 96.750   | 71.500    | 50.750  | 41.000  |
| 00932  | SODIUM, PERCENT PERCENT         | 8           | 42.000                 | 0.000   | 28.125  | 42.000   | 39.000   | 36.500    | 8.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 8           | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3  | 6           | 336.000                | 189.000 | 248.333 | 336.000  | 311.250  | 225.500   | 205.500 | 189.000 |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 6           | 410.000                | 230.000 | 301.667 | 410.000  | 380.000  | 270.000   | 252.500 | 230.000 |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 6           | 4.000                  | 0.000   | 0.667   | 4.000  | 1.000    | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS Cl)   | 6           | 23.000                 | 9.000   | 15.500  | 23.000   | 22.250   | 14.500    | 9.750   | 9.000   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 6           | 0.800                  | 0.000   | 0.300   | 0.800  | 0.500    | 0.200     | 0.150   | 0.000   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2) | 6           | 22.000                 | 0.700   | 10.883  | 22.000   | 17.500   | 11.700    | 2.575   | 0.700   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 6           | 240.000                | 76.000  | 145.333 | 240.000  | 210.000  | 132.000   | 88.000  | 76.000  |

**Supplement 13.** Statistical summary of water-quality data for Lake Ashtabula at Baldhill Dam, N. Dak., gaging station 05057500, February 1960 through March 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|---|--------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|   |                                |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, February 1960 through March 2001--Continued</b> |                                |             |                        |         |         |  |         |           |        |        |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 71845   | NITROGEN, NH4, T MG/L AS NH4   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00602   | NITROGEN DISSOLV (MG/L AS N)   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00618   | NITROGEN NITRATE (MG/L AS N)   | 8           | 0.560                  | 0.000   | 0.181   | 0.560  | 0.322   | 0.140     | 0.000  | 0.000  |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3   | 8           | 2.500                  | 0.000   | 1.000   | 2.500  | 1.575   | 1.100     | 0.050  | 0.000  |
| 00620   | NITROGEN NITRATE MG/L AS N     | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)    | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00607   | NITROGEN ORGANIC (MG/L AS N)   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00605   | NITROGEN ORGANIC (MG/L AS N)   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00600   | NITROGEN TOTAL (MG/L AS N)     | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 71887   | NITROGEN, TOTAL MG/L AS NO3    | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4) | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)  | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)    | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 8           | 23.000                 | 0.000   | 10.575  | 23.000   | 19.750  | 11.150    | 0.575  | 0.000  |
| 00690   | CARBON INORG + O (MG/L AS C)   | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 70950   | BIO CHL RATIO PE UNITS         | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 70949   | BIO CHL RATIO PL UNITS         | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 6           | 210.000                | 70.000  | 131.667 | 210.000  | 180.000 | 125.000   | 85.000 | 70.000 |
| 71885   | IRON UG/L AS FE                | 4           | 30.000                 | 20.000  | --      | --   | --      | --        | --     | --     |
| 01046   | IRON DISSOLVED (UG/L AS FE)    | 2           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 01056   | MANGANESE DISSOL (UG/L AS MN)  | 2           | 140.000                | 110.000 | --      | --   | --      | --        | --     | --     |
| 01055   | MANGANESE TOTAL (UG/L AS MN)   | 1           | 210.000                | --      | --      | --   | --      | --        | --     | --     |
| 80156   | SUS-SED DISCH + T/DAY          | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 80155   | DISCHARGE,SUSP.S T/DAY         | 8           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |

08

**Supplement 14.** Statistical summary of water-quality data for the Sheyenne River below Baldhill Dam, N. Dak., gaging station 05058000, June 1959 through July 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1959 through July 2001</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 1           | 24.800                 | --      | --      | --   | --      | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 82          | 3050.000               | 0.700   | 244.244 | 1693.499   | 177.750 | 52.000    | 15.000  | 10.000  |
| 00061   | DISCHARGE, INST. CFS            | 286         | 5510.000               | 0.050   | 400.513 | 2598.498   | 229.000 | 76.000    | 21.000  | 8.435   |
| 00310   | BOD 5-DAY AT 20 (MG/L)          | 30          | 4.100                  | 0.200   | 1.807   | 4.100  | 2.325   | 1.500     | 1.100   | 0.420   |
| 00080   | COLOR PLATINUM-COBAL            | 37          | 55.000                 | 8.000   | 20.892  | 41.500   | 25.000  | 20.000    | 15.000  | 9.800   |
| 00540   | RESIDUE FIXED (MG/L)            | 371         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00530   | RESIDUE TOTAL (MG/L)            | 10          | 32.000                 | --      | *18.907 | *32.000  | *23.500 | *19.500   | *13.500 | *8.074  |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 371         | 602.000                | 0.000   | 2.839   | 0.804  | 0.480   | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 371         | 3300.000               | 0.000   | 95.723  | 455.399  | 12.600  | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 114         | 764.000                | 196.000 | 458.088 | 699.750  | 524.750 | 447.500   | 378.250 | 278.750 |
| 70301   | DISSOLVED SOLIDS MG/L           | 371         | 741.000                | 0.000   | 136.639 | 569.800  | 352.000 | 0.000     | 0.000   | 0.000   |
| 00076   | TURBIDITY (NTU)                 | 30          | 51.000                 | 1.400   | 5.357   | 40.550   | 4.000   | 2.600     | 2.000   | 1.455   |
| 61028   | TURBIDITY, FIELD (NTU)          | 1           | 20.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00025   | AIR PRESSURE (MM OF HG)         | 19          | 741.000                | 597.000 | 722.737 | 741.000  | 733.000 | 730.000   | 723.000 | 597.000 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 41          | 714.000                | 6.000   | 27.988  | 14.540   | 12.600  | 11.000    | 9.550   | 7.300   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 371         | 8980.000               | 0.000   | 32.415  | 99.000   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 127         | 9.100                  | 6.900   | 8.098   | 8.900  | 8.500   | 8.100     | 7.700   | 7.340   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 35          | 8.700                  | 6.900   | 8.074   | 8.620  | 8.400   | 8.100     | 7.900   | 6.980   |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 42          | 1120.000               | 410.000 | 802.310 | 1098.500   | 929.250 | 764.000   | 695.000 | 564.750 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 366         | 1320.000               | 285.000 | 758.495 | 1110.000   | 890.500 | 742.500   | 620.000 | 463.150 |
| 00020   | AIR TEMPERATURE DEGREES C       | 189         | 36.000                 | -30.000 | 9.952   | 29.000   | 20.000  | 8.000     | 1.500   | -8.000  |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 336         | 26.200                 | 0.000   | 10.074  | 23.575   | 18.925  | 7.250     | 3.000   | 1.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 371         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 371         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 371         | 28.000                 | 0.000   | 0.558   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 371         | 1.000                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 371         | 380.000                | 0.000   | 72.011  | 294.000  | 190.000 | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 114         | 76.000                 | 22.000  | 48.070  | 69.000   | 54.250  | 47.000    | 40.000  | 33.750  |
| 00925   | MAGNESIUM DISSOL (MG/L AS MG)   | 114         | 48.000                 | 2.000   | 27.553  | 43.500   | 32.000  | 26.000    | 23.000  | 14.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 114         | 16.000                 | 1.800   | 10.113  | 14.000   | 11.000  | 9.800     | 8.975   | 7.925   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 371         | 3.000                  | 0.000   | 0.571   | 2.000  | 2.000   | 0.000     | 0.000   | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 18          | 97.000                 | 35.000  | 67.222  | 97.000   | 79.250  | 69.000    | 53.250  | 35.000  |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 114         | 120.000                | 20.000  | 64.596  | 100.000  | 77.000  | 65.000    | 51.000  | 31.750  |
| 00932   | SODIUM, PERCENT PERCENT         | 371         | 49.000                 | 0.000   | 11.167  | 39.400   | 33.000  | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 371         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 14.** Statistical summary of water-quality data for the Sheyenne River below Baldhill Dam, N. Dak., gaging station 05058000, June 1959 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent          | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|----------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1959 through July 2001--Continued</b> |                                  |             |                        |         |         |  |         |           |         |         |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3   | 53          | 382.000                | 130.000 | 262.000 | 380.000  | 312.000 | 251.000   | 225.000 | 139.400 |
| 00418  | ALKALINITY,DIS,F (MG/L AS CaCO3) | 10          | 364.000                | 138.000 | 238.700 | 364.000  | 326.000 | 220.000   | 165.000 | 138.000 |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3) | 10          | 371.000                | 139.000 | 240.300 | 371.000  | 330.000 | 219.000   | 165.000 | 139.000 |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3)  | 72          | 340.000                | 86.000  | 219.875 | 307.400  | 257.250 | 216.000   | 190.000 | 136.500 |
| 95440  | BICARBONATE MG/L AS CaCO3        | 20          | 430.000                | 260.000 | 323.500 | 429.500  | 385.000 | 290.000   | 280.000 | 260.000 |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3)  | 10          | 453.000                | 170.000 | 293.200 | 453.000  | 402.750 | 267.000   | 201.250 | 170.000 |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3)  | 52          | 410.000                | 170.000 | 273.462 | 380.500  | 315.000 | 270.000   | 232.500 | 180.000 |
| 95445  | CARBONATE MG/L AS CO3            | 20          | 13.000                 | 0.000   | 1.200   | 12.750   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)   | 10          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)   | 50          | 15.000                 | 0.000   | 0.760   | 6.900  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)    | 124         | 26.000                 | 4.700   | 14.048  | 22.750   | 17.000  | 13.000    | 11.000  | 7.900   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)     | 114         | 0.500                  | 0.100   | 0.194   | 0.300  | 0.200   | 0.200     | 0.100   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2)  | 104         | 31.000                 | 0.100   | 12.188  | 23.000   | 18.000  | 12.000    | 6.250   | 1.000   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)   | 114         | 240.000                | 48.000  | 123.728 | 210.000  | 150.000 | 120.000   | 93.750  | 69.750  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)     | 40          | 1.700                  | --      | *0.306  | *1.590   | *0.353  | *0.155    | *0.040  | *0.011  |
| 00623  | NITRO AMN & ORG (MG/L AS N)      | 30          | 2.900                  | 0.010   | 1.426   | 2.845  | 1.700   | 1.400     | 1.100   | 0.010   |
| 00624  | NITROGEN SUSPEND (MG/L AS N)     | 28          | 2.500                  | --      | *0.398  | *1.825   | *0.550  | *0.200    | *0.100  | *0.038  |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)     | 39          | 3.600                  | 0.730   | 1.637   | 3.000  | 1.900   | 1.500     | 1.200   | 0.870   |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4     | 371         | 2.190                  | 0.000   | 0.042   | 0.236  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00610  | NITROGEN AMMONIA (MG/L AS N)     | 30          | 1.700                  | --      | *0.382  | *1.645   | *0.515  | *0.220    | *0.088  | *0.011  |
| 71845  | NITROGEN, NH4, T MG/L AS NH4     | 371         | 2.190                  | 0.000   | 0.039   | 0.202  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00602  | NITROGEN DISSOLV (MG/L AS N)     | 371         | 3.000                  | 0.000   | 0.129   | 1.340  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618  | NITROGEN NITRATE (MG/L AS N)     | 371         | 2.200                  | 0.000   | 0.036   | 0.174  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3     | 371         | 5.900                  | 0.000   | 0.210   | 1.566  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N       | 371         | 0.630                  | 0.000   | 0.012   | 0.054  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71850  | N, NITRATE TOTAL MG/L AS NO3     | 1           | 1.100                  | --      | --      | --   | --      | --        | --      | --      |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)     | 40          | 1.400                  | --      | *0.252  | *1.100   | *0.330  | *0.115    | *0.048  | *0.021  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)      | 366         | 0.800                  | 0.000   | 0.015   | 0.100  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2     | 371         | 0.164                  | 0.000   | 0.005   | 0.033  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N       | 30          | 0.050                  | --      | *0.019  | *0.050   | *0.030  | *0.020    | *0.010  | *0.005  |
| 00615  | NITROGEN,NITRITE MG/L AS N       | 30          | 0.140                  | --      | *0.030  | *0.096   | *0.060  | *0.020    | *0.010  | *0.003  |
| 00607  | NITROGEN ORGANIC (MG/L AS N)     | 371         | 1.600                  | 0.000   | 0.086   | 1.040  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)     | 371         | 3.400                  | 0.000   | 0.137   | 1.200  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00600  | NITROGEN TOTAL (MG/L AS N)       | 371         | 3.800                  | 0.000   | 0.195   | 1.800  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71887  | NITROGEN, TOTAL MG/L AS NO3      | 371         | 17.000                 | 0.000   | 0.683   | 7.580  | 0.000   | 0.000     | 0.000   | 0.000   |

**Supplement 14.** Statistical summary of water-quality data for the Sheyenne River below Baldhill Dam, N. Dak., gaging station 05058000, June 1959 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|--------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1959 through July 2001--Continued</b> |                                |             |                        |         |          |  |          |           |         |         |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 371         | 0.860                  | 0.000   | 0.049    | 0.430  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 371         | 1.600                  | 0.000   | 0.035    | 0.382  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 30          | 0.288                  | 0.040   | 0.155    | 0.273  | 0.210    | 0.159     | 0.098   | 0.040   |
| 00678  | PHOSPHORUS HYDRO (MG/L AS P)   | 16          | 0.260                  | 0.040   | 0.158    | 0.260  | 0.225    | 0.150     | 0.105   | 0.040   |
| 00677  | PHOSPHORUS HYDRO (MG/L AS P)   | 18          | 0.320                  | 0.020   | 0.136    | 0.320  | 0.195    | 0.135     | 0.065   | 0.020   |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)   | 371         | 0.070                  | 0.000   | 0.001    | 0.004  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)   | 371         | 0.160                  | 0.000   | 0.002    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 371         | 0.100                  | 0.000   | 0.001    | 0.004  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 371         | 0.110                  | 0.000   | 0.001    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 46          | 0.280                  | 0.007   | 0.124    | 0.263  | 0.180    | 0.125     | 0.068   | 0.017   |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 30          | 0.510                  | 0.020   | 0.138    | 0.389  | 0.162    | 0.140     | 0.080   | 0.025   |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 40          | 0.340                  | 0.050   | 0.184    | 0.300  | 0.228    | 0.180     | 0.132   | 0.071   |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 29          | 0.920                  | 0.210   | 0.549    | 0.905  | 0.655    | 0.550     | 0.430   | 0.260   |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 371         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 371         | 36.000                 | 0.000   | 2.077    | 13.400   | 1.400    | 0.000     | 0.000   | 0.000   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 28          | 28.000                 | 6.800   | 14.175   | 24.850   | 16.000   | 14.000    | 11.000  | 8.060   |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 26          | 3.900                  | 0.100   | 0.604    | 3.060  | 0.600    | 0.400     | 0.200   | 0.100   |
| 00690  | CARBON INORG + O (MG/L AS C)   | 371         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 371         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS         | 371         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS         | 371         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 31501  | TOT COLI,MENDO M COLS./100 ML  | 29          | 20000.000              | 1.000   | 1990.931 | 14000.000  | 2050.000 | 92.000    | 29.000  | 1.000   |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 29          | 93.000                 | --      | *10.413  | *84.000  | *10.000  | *1.000    | *0.810  | *0.069  |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 29          | 3100.000               | --      | *155.403 | *1870.000  | *49.500  | *15.000   | *4.500  | *0.304  |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)  | 33          | 10.000                 | 1.000   | 4.485    | 8.600  | 5.000    | 4.000     | 4.000   | 1.000   |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 104         | 310.000                | 20.000  | 141.635  | 227.500  | 170.000  | 140.000   | 110.000 | 47.500  |
| 71885  | IRON UG/L AS FE                | 24          | 180.000                | 0.000   | 46.667   | 160.000  | 67.500   | 35.000    | 20.000  | 2.500   |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 76          | 760.000                | --      | *39.642  | *141.500   | *40.000  | *20.000   | *10.000 | *3.124  |
| 01044  | IRON SUSPENDED (UG/L AS FE)    | 25          | 210.000                | --      | *95.923  | *195.000   | *130.000 | *90.000   | *60.000 | *32.898 |
| 01045  | IRON TOTAL (UG/L AS FE)        | 30          | 290.000                | 20.000  | 109.000  | 235.000  | 142.500  | 105.000   | 70.000  | 20.000  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)    | 32          | 2.000                  | --      | *0.633   | *1.350   | *0.787   | *0.554    | *0.388  | *0.232  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)  | 33          | 95.000                 | 20.000  | 55.515   | 87.300   | 62.500   | 60.000    | 46.000  | 27.000  |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 76          | 2100.000               | 8.000   | 439.855  | 1830.000   | 585.000  | 225.000   | 86.250  | 20.000  |
| 01054  | MANGANESE SUSPEN (UG/L AS MN)  | 29          | 210.000                | --      | *71.147  | *200.000   | *100.000 | *60.000   | *20.000 | *8.751  |
| 01055  | MANGANESE TOTAL (UG/L AS MN)   | 43          | 2100.000               | 10.000  | 515.116  | 1960.000   | 740.000  | 280.000   | 140.000 | 46.000  |

**Supplement 14.** Statistical summary of water-quality data for the Sheyenne River below Baldhill Dam, N. Dak., gaging station 05058000, June 1959 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1959 through July 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 71890  | MERCURY DISSOLVE UG/L AS HG     | 33          | 0.600                  | --      | *0.159  | *0.600   | *0.200  | *0.100    | *0.053  | *0.022  |
| 71900  | MERCURY, TOT.REC UG/L AS HG     | 1           | 0.100                  | --      | --      | --   | --      | --        | --      | --      |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO)   | 32          | 5.000                  | --      | *1.138  | *3.700   | *1.000  | *1.000    | *0.520  | *0.256  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)   | 33          | 2.000                  | --      | *0.684  | *1.300   | *0.909  | *0.618    | *0.456  | *0.292  |
| 01080  | STRONTIUM DISSOL (UG/L AS SR)   | 33          | 500.000                | 170.000 | 326.364 | 465.000  | 385.000 | 320.000   | 280.000 | 177.000 |
| 07060  | IRON 59 DISSOLVE (PCI/L)        | 2           | 3.000                  | 1.000   | --      | --   | --      | --        | --      | --      |
| 82068  | POTSSSIUM 40 DIS (PCI/L AS K40) | 5           | 7.500                  | 6.900   | --      | --   | --      | --        | --      | --      |
| 80156  | SUS-SED DISCH + T/DAY           | 371         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 371         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 15.** Statistical summary of water-quality data for the Sheyenne River at Valley City, N. Dak., gaging station 05058500, November 1971 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, November 1971 through April 2001</b> |                                 |             |                        |         |         |  |          |           |         |         |
| 00060  | DISCHARGE CFS                   | 25          | 1020.000               | 8.800   | 138.192 | 940.800  | 154.500  | 59.000    | 18.500  | 10.660  |
| 00061  | DISCHARGE, INST. CFS            | 71          | 5200.000               | 11.000  | 972.577 | 4490.000   | 1420.000 | 171.000   | 46.000  | 13.000  |
| 00540  | RESIDUE FIXED (MG/L)            | 98          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 98          | 471.000                | 0.000   | 8.922   | 0.940  | 0.490    | 0.000     | 0.000   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 98          | 3670.000               | 0.000   | 267.480 | 2000.002   | 13.775   | 0.000     | 0.000   | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 28          | 734.000                | 278.000 | 486.321 | 716.000  | 573.250  | 483.500   | 390.750 | 282.050 |
| 70301  | DISSOLVED SOLIDS MG/L           | 98          | 687.000                | 0.000   | 132.684 | 628.550  | 338.250  | 0.000     | 0.000   | 0.000   |
| 00025  | AIR PRESSURE (MM OF HG)         | 1           | 731.000                | --      | --      | --   | --       | --        | --      | --      |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 1           | 7.300                  | --      | --      | --   | --       | --        | --      | --      |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 98          | 85.000                 | 0.000   | 0.867   | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 31          | 8.700                  | 7.300   | 8.045   | 8.640  | 8.300    | 8.000     | 7.800   | 7.480   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 11          | 8.500                  | 6.700   | 7.873   | 8.500  | 8.200    | 8.000     | 7.700   | 6.700   |
| 00094  | FIELD CONDUCTIVI US/CM @ 25C    | 9           | 1000.000               | 636.000 | 802.333 | 1000.000   | 917.000  | 791.000   | 691.500 | 636.000 |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 8           | 1030.000               | 390.000 | 700.375 | 1030.000   | 939.750  | 683.500   | 454.750 | 390.000 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 96          | 1300.000               | 235.000 | 722.688 | 1052.000   | 830.000  | 712.500   | 610.000 | 388.250 |
| 00020  | AIR TEMPERATURE DEGREES C       | 42          | 30.500                 | -10.000 | 8.655   | 30.350   | 15.500   | 7.000     | 2.000   | -6.000  |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 96          | 26.000                 | 0.000   | 8.411   | 23.575   | 16.375   | 4.250     | 1.625   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 98          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 98          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 98          | 32.000                 | 0.000   | 1.184   | 12.350   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 98          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 98          | 390.000                | 0.000   | 71.837  | 312.500  | 190.000  | 0.000     | 0.000   | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 28          | 79.000                 | 30.000  | 51.000  | 78.100   | 56.750   | 50.000    | 42.250  | 32.250  |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)   | 28          | 48.000                 | 16.000  | 30.143  | 46.650   | 36.000   | 29.000    | 23.750  | 16.000  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 28          | 15.000                 | 6.400   | 10.064  | 14.100   | 12.000   | 9.950     | 8.225   | 6.445   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 98          | 2.000                  | 0.000   | 0.518   | 2.000  | 1.000    | 0.000     | 0.000   | 0.000   |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 28          | 100.000                | 24.000  | 64.071  | 100.000  | 77.250   | 63.500    | 50.500  | 24.900  |
| 00932  | SODIUM, PERCENT PERCENT         | 98          | 42.000                 | 0.000   | 9.755   | 38.050   | 29.000   | 0.000     | 0.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 98          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3  | 19          | 391.000                | 120.000 | 245.789 | 391.000  | 308.000  | 250.000   | 210.000 | 120.000 |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3  | 10          | 260.000                | 146.000 | 217.400 | 260.000  | 252.750  | 216.000   | 193.000 | 146.000 |
| 95440  | BICARBONATE MG/L AS CaCO3       | 11          | 390.000                | 260.000 | 318.182 | 390.000  | 340.000  | 320.000   | 270.000 | 260.000 |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 10          | 320.000                | 180.000 | 266.000 | 320.000  | 310.000  | 265.000   | 235.000 | 180.000 |
| 95445  | CARBONATE MG/L AS CO3           | 11          | 11.000                 | 0.000   | 1.000   | 11.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 10          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |

**Supplement 15.** Statistical summary of water-quality data for the Sheyenne River at Valley City, N. Dak., gaging station 05058500, November 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |          |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|----------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25       | 5       |
| <b>North Dakota data, November 1971 through April 2001--Continued</b> |                                 |             |                        |         |          |  |          |           |          |         |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)   | 28          | 24.000                 | 5.100   | 15.411   | 22.650   | 19.750   | 15.000    | 12.000   | 5.820   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 28          | 0.900                  | 0.100   | 0.200    | 0.675  | 0.200    | 0.200     | 0.100    | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SIO2) | 21          | 25.000                 | 3.800   | 12.410   | 24.600   | 16.000   | 13.000    | 8.650    | 3.830   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 28          | 260.000                | 81.000  | 141.357  | 242.000  | 167.500  | 130.000   | 120.000  | 83.250  |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 98          | 1.000                  | 0.000   | 0.053    | 0.540  | 0.000    | 0.000     | 0.000    | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3    | 98          | 4.500                  | 0.000   | 0.276    | 2.405  | 0.000    | 0.000     | 0.000    | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N      | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)     | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00607   | NITROGEN ORGANIC (MG/L AS N)    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00605   | NITROGEN ORGANIC (MG/L AS N)    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00600   | NITROGEN TOTAL (MG/L AS N)      | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 71887   | NITROGEN, TOTAL MG/L AS NO3     | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)  | 98          | 1.200                  | 0.000   | 0.055    | 0.491  | 0.000    | 0.000     | 0.000    | 0.000   |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)   | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)     | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)    | 6           | 0.390                  | 0.010   | 0.206    | 0.390  | 0.310    | 0.215     | 0.092    | 0.010   |
| 00621   | NITROGEN NITRATE (MG/KG AS N)   | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2)  | 98          | 8.500                  | 0.000   | 1.249    | 6.535  | 1.675    | 0.000     | 0.000    | 0.000   |
| 00690   | CARBON INORG + O (MG/L AS C)    | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)   | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 70950   | BIO CHL RATIO PE UNITS          | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 70949   | BIO CHL RATIO PL UNITS          | 98          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)   | 18          | 9.000                  | 1.000   | 3.444    | 9.000  | 5.000    | 3.000     | 2.000    | 1.000   |
| 01020   | BORON DISSOLVED (UG/L AS B)     | 21          | 290.000                | --      | *153.617 | *287.000   | *205.000 | *150.000  | *95.000  | *63.172 |
| 01046   | IRON DISSOLVED (UG/L AS FE)     | 28          | 780.000                | --      | *90.891  | *613.500   | *87.500  | *40.000   | *10.000  | *2.413  |
| 01049   | LEAD DISSOLVED (UG/L AS PB)     | 18          | --                     | --      | --       | --   | --       | --        | --       | --      |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI)   | 18          | 81.000                 | 20.000  | 49.167   | 81.000   | 70.000   | 50.000    | 30.000   | 20.000  |
| 01056   | MANGANESE DISSOL (UG/L AS MN)   | 28          | 1150.000               | --      | *323.384 | *979.000   | *442.500 | *220.000  | *152.500 | *51.678 |

**Supplement 15.** Statistical summary of water-quality data for the Sheyenne River at Valley City, N. Dak., gaging station 05058500, November 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent       | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, November 1971 through April 2001--Continued</b> |                               |             |                        |         |         |  |         |           |         |         |
| 71890   | MERCURY DISSOLVE UG/L AS HG   | 18          | 0.800                  | --      | *0.195  | *0.800   | *0.300  | *0.100    | *0.044  | *0.014  |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO) | 18          | 3.000                  | --      | *1.228  | *3.000   | *2.000  | *0.924    | *0.551  | *0.264  |
| 01145   | SELENIUM DISSOLV (UG/L AS SE) | 18          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01080   | STRONTIUM DISSOL (UG/L AS SR) | 18          | 460.000                | 110.000 | 295.556 | 460.000  | 390.000 | 305.000   | 202.500 | 110.000 |
| 07060   | IRON 59 DISSOLVE (PCI/L)      | 2           | 3.000                  | 2.000   | --      | --   | --      | --        | --      | --      |
| 80156   | SUS-SED DISCH + T/DAY         | 98          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80155   | DISCHARGE,SUSP.S T/DAY        | 98          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 16.** Statistical summary of water-quality data for the Sheyenne River at Lisbon, N. Dak., gaging station 05058700, August 1956 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, August 1956 through April 2001</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 10          | 9.260                  | 2.160   | 3.472   | 9.260  | 3.430   | 2.780     | 2.527   | 2.160   |
| 00060  | DISCHARGE CFS                   | 441         | 4270.000               | 3.500   | 235.936 | 1119.000   | 201.000 | 63.000    | 27.000  | 12.000  |
| 00061  | DISCHARGE, INST. CFS            | 321         | 5230.000               | 1.000   | 638.548 | 3609.000   | 526.500 | 130.000   | 37.000  | 13.000  |
| 00080  | COLOR PLATINUM-COBAL            | 234         | 120.000                | 0.000   | 21.825  | 50.000   | 25.000  | 18.000    | 12.000  | 6.000   |
| 00540  | RESIDUE FIXED (MG/L)            | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 763         | 1.360                  | 0.000   | 0.572   | 1.020  | 0.830   | 0.650     | 0.400   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 763         | 4240.000               | 0.000   | 223.358 | 995.200  | 196.000 | 69.700    | 12.900  | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 591         | 1000.000               | 185.000 | 544.680 | 780.400  | 644.000 | 538.000   | 448.000 | 322.000 |
| 70301  | DISSOLVED SOLIDS MG/L           | 763         | 1040.000               | 0.000   | 223.900 | 678.600  | 489.000 | 0.000     | 0.000   | 0.000   |
| 00025  | AIR PRESSURE (MM OF HG)         | 58          | 785.000                | 715.000 | 737.345 | 770.000  | 740.000 | 735.000   | 730.000 | 723.800 |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 57          | 14.700                 | 6.000   | 10.144  | 14.040   | 12.000  | 10.400    | 8.150   | 6.190   |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 763         | 113.000                | 0.000   | 6.439   | 85.000   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 601         | 9.000                  | 6.700   | 7.826   | 8.390  | 8.100   | 7.800     | 7.600   | 7.300   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 90          | 8.700                  | 6.600   | 7.983   | 8.400  | 8.200   | 8.000     | 7.900   | 7.355   |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 97          | 1330.000               | 410.000 | 847.742 | 1180.000   | 982.500 | 841.000   | 719.500 | 538.600 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 755         | 5220.000               | 110.000 | 837.106 | 1190.000   | 988.000 | 831.000   | 683.000 | 454.000 |
| 00020  | AIR TEMPERATURE DEGREES C       | 213         | 33.000                 | -22.200 | 10.415  | 28.000   | 21.000  | 10.500    | 2.000   | -10.000 |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 391         | 225.000                | -0.500  | 10.354  | 25.000   | 19.000  | 7.000     | 1.000   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CACO3 | 763         | 130.000                | 0.000   | 1.720   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00905  | HARDNESS NC. DIS (MG/L AS CACO3 | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CACO3 | 763         | 210.000                | 0.000   | 30.384  | 100.000  | 52.000  | 17.000    | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CACO3 | 763         | 79.000                 | 0.000   | 0.444   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00900  | HARDNESS TOTAL (MG/L AS CAO3)   | 763         | 530.000                | 0.000   | 217.798 | 380.000  | 300.000 | 250.000   | 180.000 | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS CA)   | 359         | 130.000                | 30.000  | 60.549  | 85.000   | 69.000  | 59.000    | 51.000  | 40.000  |
| 00925  | MAGNESIUM DISSOL (MG/L AS MG)   | 359         | 53.000                 | 8.600   | 29.492  | 43.000   | 34.000  | 29.000    | 25.000  | 16.000  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 375         | 22.000                 | 4.900   | 10.894  | 14.000   | 12.000  | 11.000    | 9.700   | 7.800   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 763         | 27.000                 | 0.000   | 1.578   | 3.000  | 2.000   | 2.000     | 1.000   | 0.000   |
| 00933  | SODIUM+POTASSIUM (MG/L AS NA)   | 16          | 150.000                | 55.000  | 88.375  | 150.000  | 107.500 | 89.500    | 62.500  | 55.000  |
| 00930  | SODIUM DISSOLVED (MG/L AS NA)   | 607         | 560.000                | 13.000  | 75.330  | 115.000  | 91.000  | 76.000    | 59.000  | 34.000  |
| 00932  | SODIUM, PERCENT PERCENT         | 763         | 81.000                 | 0.000   | 28.512  | 41.000   | 38.000  | 35.000    | 28.000  | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CACO3    | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CACO3  | 96          | 543.000                | 127.000 | 255.677 | 390.000  | 289.750 | 250.000   | 220.000 | 158.400 |
| 95410  | ANC, TIT 4.5, LA MG/L AS CACO3  | 1           | 340.000                | --      | --      | --   | --      | --        | --      | --      |
| 39086  | ALKALINITY,DIS,I (MG/L AS CACO3 | 24          | 367.000                | 139.000 | 247.917 | 364.750  | 291.500 | 256.000   | 204.250 | 139.250 |
| 00410  | ANC, FET, FIELD (MG/L AS CACO3  | 441         | 376.000                | 22.000  | 226.136 | 319.700  | 258.500 | 226.000   | 190.500 | 146.200 |

**Supplement 16.** Statistical summary of water-quality data for the Sheyenne River at Lisbon, N. Dak., gaging station 05058700, August 1956 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, August 1956 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 95440   | BICARBONATE MG/L AS CaCO3       | 12          | 330.000                | 160.000 | 270.000 | 330.000  | 315.000 | 285.000   | 227.500 | 160.000 |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 24          | 448.000                | 169.000 | 293.792 | 445.000  | 328.500 | 300.500   | 227.750 | 169.500 |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 483         | 460.000                | 100.000 | 278.219 | 380.000  | 320.000 | 280.000   | 240.000 | 182.000 |
| 95445   | CARBONATE MG/L AS CO3           | 12          | 18.000                 | 0.000   | 1.500   | 18.000   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)  | 24          | 27.000                 | 0.000   | 5.000   | 25.250   | 11.750  | 0.000     | 0.000   | 0.000   |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)  | 407         | 30.000                 | 0.000   | 0.182   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)   | 326         | 110.000                | 8.000   | 30.027  | 58.650   | 38.000  | 26.000    | 20.000  | 10.700  |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 326         | 0.900                  | 0.100   | 0.264   | 0.400  | 0.300   | 0.200     | 0.200   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 317         | 28.000                 | 0.800   | 12.663  | 20.000   | 16.500  | 13.000    | 9.050   | 3.890   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 540         | 447.000                | 39.000  | 162.904 | 264.750  | 200.000 | 154.500   | 127.000 | 77.050  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 25          | 0.300                  | 0.010   | 0.106   | 0.294  | 0.190   | 0.060     | 0.040   | 0.011   |
| 00623   | NITRO AMN & ORG (MG/L AS N)     | 26          | 1.900                  | 0.200   | 0.854   | 1.690  | 1.000   | 0.800     | 0.700   | 0.340   |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)    | 26          | 3.100                  | 0.500   | 1.142   | 2.645  | 1.200   | 1.000     | 0.900   | 0.535   |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 763         | 0.390                  | 0.000   | 0.004   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 763         | 2.500                  | 0.000   | 0.035   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 763         | 1.500                  | 0.000   | 0.023   | 0.010  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3    | 763         | 8.600                  | 0.000   | 0.188   | 1.420  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N      | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71850   | N, NITRATE TOTAL MG/L AS NO3    | 54          | 7.900                  | 0.000   | 2.206   | 6.750  | 3.350   | 1.550     | 0.475   | 0.157   |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)    | 170         | 1.500                  | --      | *0.364  | *1.200   | *0.620  | *0.220    | *0.050  | *0.010  |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)     | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2    | 763         | 0.526                  | 0.000   | 0.002   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613   | NITROGEN,NITRITE MG/L AS N      | 38          | 0.160                  | --      | *0.016  | *0.055   | *0.020  | *0.007    | *0.003  | *0.001  |
| 00607   | NITROGEN ORGANIC (MG/L AS N)    | 763         | 1.700                  | 0.000   | 0.024   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605   | NITROGEN ORGANIC (MG/L AS N)    | 763         | 3.000                  | 0.000   | 0.033   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00600   | NITROGEN TOTAL (MG/L AS N)      | 763         | 3.500                  | 0.000   | 0.042   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71887   | NITROGEN, TOTAL MG/L AS NO3     | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)  | 763         | 1.040                  | 0.000   | 0.016   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)   | 763         | 0.760                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)    | 182         | 0.490                  | 0.010   | 0.129   | 0.349  | 0.170   | 0.100     | 0.060   | 0.020   |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)    | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)    | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)     | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)    | 763         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 16.** Statistical summary of water-quality data for the Sheyenne River at Lisbon, N. Dak., gaging station 05058700, August 1956 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|--------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|---------|
|   |                                |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, August 1956 through April 2001--Continued</b> |                                |             |                        |         |         |  |          |           |         |         |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)   | 25          | 0.340                  | 0.030   | 0.139   | 0.340  | 0.195    | 0.120     | 0.050   | 0.030   |
| 00665   | PHOSPHORUS TOTAL (MG/L AS P)   | 26          | 1.200                  | 0.060   | 0.268   | 0.990  | 0.315    | 0.230     | 0.108   | 0.064   |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 763         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 763         | 66.000                 | 0.000   | 6.648   | 20.800   | 9.300    | 5.100     | 1.900   | 0.000   |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 9           | 12.000                 | 8.600   | 10.233  | 12.000   | 11.000   | 9.900     | 9.350   | 8.600   |
| 00689   | CARBON ORGANIC P (MG/L AS C)   | 9           | 2.800                  | 0.600   | 1.500   | 2.800  | 2.250    | 1.500     | 0.800   | 0.600   |
| 00690   | CARBON INORG + O (MG/L AS C)   | 763         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 763         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 70950   | BIO CHL RATIO PE UNITS         | 763         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 70949   | BIO CHL RATIO PL UNITS         | 763         | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 01106   | ALUMINUM DISSOLV (UG/L AS AL)  | 18          | 279.000                | --      | *67.580 | *279.000   | *100.000 | *26.894   | *18.025 | *10.000 |
| 01105   | ALUMINUM TOTAL UG/L AS AL      | 2           | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 44          | 20.000                 | --      | *4.224  | *12.250  | *6.000   | *3.000    | *2.000  | *0.697  |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)  | 22          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE)  | 15          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 294         | 400.000                | 20.000  | 197.269 | 320.000  | 240.000  | 200.000   | 150.000 | 80.000  |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD)  | 19          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR)  | 22          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01035   | COBALT DISSOLVED (UG/L AS CO)  | 20          | 2.000                  | --      | *2.000  | *2.000   | *2.000   | *2.000    | *2.000  | *2.000  |
| 01040   | COPPER DISSOLVED (UG/L AS CU)  | 20          | 38.000                 | --      | *9.695  | *37.700  | *12.000  | *4.500    | *3.000  | *0.767  |
| 00720   | CYANIDE TOTAL (MG/L AS CN)     | 14          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 71885   | IRON UG/L AS FE                | 72          | 480.000                | 10.000  | 100.139 | 340.500  | 117.500  | 70.000    | 50.000  | 10.000  |
| 01046   | IRON DISSOLVED (UG/L AS FE)    | 73          | 1100.000               | 3.000   | 63.466  | 200.000  | 60.000   | 30.000    | 10.000  | 10.000  |
| 01045   | IRON TOTAL (UG/L AS FE)        | 58          | 90.000                 | --      | *24.073 | *90.000  | *30.000  | *20.000   | *10.000 | *4.387  |
| 01049   | LEAD DISSOLVED (UG/L AS PB)    | 40          | 40.000                 | --      | *2.380  | *16.650  | *1.000   | *0.185    | *0.035  | *0.004  |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI)  | 43          | 120.000                | 9.000   | 56.884  | 90.000   | 67.000   | 55.000    | 50.000  | 22.000  |
| 01056   | MANGANESE DISSOL (UG/L AS MN)  | 72          | 880.000                | 10.000  | 211.694 | 587.000  | 237.500  | 155.000   | 80.000  | 30.000  |
| 01055   | MANGANESE TOTAL (UG/L AS MN)   | 18          | 440.000                | 20.000  | 230.556 | 440.000  | 332.500  | 235.000   | 100.000 | 20.000  |
| 71890   | MERCURY DISSOLVE UG/L AS HG    | 39          | 1.600                  | --      | *0.152  | *0.600   | *0.169   | *0.066    | *0.026  | *0.008  |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO)  | 41          | 8.000                  | --      | *2.125  | *7.700   | *3.000   | *1.473    | *0.754  | *0.302  |
| 01065   | NICKEL DISSOLVED (UG/L AS NI)  | 20          | 23.000                 | --      | *7.900  | *22.900  | *8.500   | *6.000    | *3.500  | *1.313  |
| 01145   | SELENIUM DISSOLV (UG/L AS SE)  | 41          | 14.000                 | --      | *1.611  | *7.900   | *1.000   | *0.493    | *0.173  | *0.035  |
| 01075   | SILVER DISSOLVED (UG/L AS AG)  | 13          | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01080   | STRONTIUM DISSOL (UG/L AS SR)  | 42          | 520.000                | 200.000 | 365.000 | 510.000  | 432.500  | 360.000   | 297.500 | 203.000 |
| 01085   | VANADIUM DISSOLV (UG/L AS V)   | 17          | 4.000                  | --      | *1.644  | *4.000   | *2.000   | *1.000    | *1.000  | *0.424  |

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**Supplement 16.** Statistical summary of water-quality data for the Sheyenne River at Lisbon, N. Dak., gaging station 05058700, August 1956 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, August 1956 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |        |        |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)     | 22          | 140.000                | --      | *22.626 | *128.000   | *20.000 | *16.433   | *8.379 | *4.378 |
| 82068   | POTSSSIUM 40 DIS (PCI/L AS K40) | 5           | 9.000                  | 6.700   | --      | --   | --      | --        | --     | --     |
| 70338   | SED-SUSP-FALL-D- %              | 11          | 76.000                 | 59.000  | 66.909  | 76.000   | 72.000  | 64.000    | 62.000 | 59.000 |
| 70340   | SED-SUSP-FALL-D- %              | 11          | 98.000                 | 65.000  | 89.364  | 98.000   | 94.000  | 90.000    | 89.000 | 65.000 |
| 70342   | SED-SUSP-FALL-D- %              | 5           | 100.000                | 100.000 | --      | --   | --      | --        | --     | --     |
| 70331   | SED-SUSP-SIEVE-. %              | 25          | 100.000                | 24.000  | 91.400  | 100.000  | 100.000 | 99.000    | 96.500 | 33.900 |
| 70332   | SED-SUSP-SIEVE-. %              | 5           | 100.000                | 75.000  | --      | --   | --      | --        | --     | --     |
| 70333   | SED-SUSP-SIEVE-. %              | 3           | 99.000                 | 86.000  | --      | --   | --      | --        | --     | --     |
| 70334   | SED-SUSP-SIEVE-. %              | 3           | 100.000                | 95.000  | --      | --   | --      | --        | --     | --     |
| 70336   | SED-SUSP-SIEVE-2 %              | 1           | 100.000                | --      | --      | --   | --      | --        | --     | --     |
| 70335   | SED-SUSP-SIEVE-1 %              | 1           | 99.000                 | --      | --      | --   | --      | --        | --     | --     |
| 80156   | SUS-SED DISCH + T/DAY           | 763         | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 80154   | CONCENTRATION,S. MG/L           | 42          | 730.000                | 8.000   | 163.286 | 575.100  | 198.500 | 102.000   | 32.250 | 9.000  |
| 80155   | DISCHARGE,SUSP.S T/DAY          | 763         | 5300.000               | 0.000   | 41.327  | 2.360  | 0.000   | 0.000     | 0.000  | 0.000  |
| 80164   | SED-BED-SIEVE-.0 %              | 4           | 14.000                 | 1.000   | --      | --   | --      | --        | --     | --     |
| 80165   | SED-BED-SIEVE-.1 %              | 4           | 39.000                 | 5.000   | --      | --   | --      | --        | --     | --     |
| 80166   | SED-BED-SIEVE-.2 %              | 4           | 84.000                 | 17.000  | --      | --   | --      | --        | --     | --     |
| 80167   | SED-BED-SIEVE-.5 %              | 4           | 96.000                 | 26.000  | --      | --   | --      | --        | --     | --     |
| 80168   | SED-BED-SIEVE-1. %              | 4           | 98.000                 | 29.000  | --      | --   | --      | --        | --     | --     |
| 80169   | SED-BED-SIEVE-2. %              | 4           | 100.000                | 44.000  | --      | --   | --      | --        | --     | --     |
| 80170   | SED-BED-SIEVE-4. %              | 3           | 99.000                 | 70.000  | --      | --   | --      | --        | --     | --     |
| 80171   | SED-BED-SIEVE-8. %              | 3           | 100.000                | 76.000  | --      | --   | --      | --        | --     | --     |
| 80172   | SED-BED-SIEVE-16 %              | 2           | 100.000                | 100.000 | --      | --   | --      | --        | --     | --     |

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\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 17.** Statistical summary of water-quality data for the Sheyenne River near Kindred, N. Dak., gaging station 05059000, October 1971 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 6           | 3.930                  | 3.460   | 3.687   | 3.930  | 3.855   | 3.685     | 3.513   | 3.460   |
| 00060   | DISCHARGE CFS                   | 60          | 3230.000               | 29.000  | 429.800 | 1670.500   | 529.250 | 188.000   | 71.250  | 35.100  |
| 00061   | DISCHARGE, INST. CFS            | 362         | 5600.000               | 18.000  | 580.619 | 3379.001   | 593.250 | 143.000   | 58.000  | 28.000  |
| 00310   | BOD 5-DAY AT 20 (MG/L)          | 86          | 8.400                  | 0.500   | 2.878   | 5.425  | 3.900   | 2.850     | 1.700   | 0.935   |
| 00080   | COLOR PLATINUM-COBAL            | 96          | 200.000                | 4.000   | 22.938  | 55.000   | 29.500  | 12.500    | 9.000   | 7.000   |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 227         | 1.130                  | 0.270   | 0.722   | 0.940  | 0.820   | 0.730     | 0.647   | 0.424   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 225         | 3850.000               | 25.500  | 426.287 | 2114.000   | 434.000 | 166.000   | 80.150  | 40.150  |
| 70300   | RESIDUE DIS 180C MG/L           | 226         | 832.000                | 200.000 | 531.336 | 694.650  | 600.000 | 539.000   | 478.250 | 310.150 |
| 70301   | DISSOLVED SOLIDS MG/L           | 223         | 822.000                | 189.000 | 524.677 | 698.000  | 592.000 | 533.000   | 480.000 | 318.400 |
| 00070   | TURBIDITY (JCU)                 | 74          | 900.000                | 6.000   | 49.878  | 190.000  | 35.000  | 25.000    | 14.750  | 7.000   |
| 00076   | TURBIDITY (NTU)                 | 106         | 240.000                | 1.100   | 22.732  | 81.500   | 28.250  | 12.000    | 4.475   | 1.870   |
| 00025   | AIR PRESSURE (MM OF HG)         | 102         | 780.000                | 700.000 | 745.167 | 769.100  | 757.000 | 741.500   | 736.000 | 730.000 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 203         | 16.100                 | 4.000   | 8.945   | 13.240   | 10.800  | 8.500     | 7.000   | 5.240   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 175         | 134.000                | 8.000   | 82.059  | 107.000  | 94.000  | 84.900    | 74.000  | 44.800  |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 242         | 22.000                 | 6.900   | 8.173   | 8.500  | 8.300   | 8.200     | 7.975   | 7.515   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 95          | 8.500                  | 7.400   | 8.021   | 8.400  | 8.200   | 8.000     | 7.900   | 7.580   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 1           | 778.000                | --      | --      | --   | --      | --        | --      | --      |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 103         | 1250.000               | 478.000 | 853.505 | 1098.000   | 946.000 | 852.000   | 767.000 | 578.600 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 401         | 1420.000               | 180.000 | 805.915 | 1100.000   | 929.500 | 820.000   | 700.000 | 444.100 |
| 00020   | AIR TEMPERATURE DEGREES C       | 220         | 37.000                 | -25.000 | 10.156  | 29.000   | 21.875  | 11.000    | 1.000   | -14.925 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 410         | 28.000                 | -1.000  | 10.462  | 25.000   | 19.500  | 9.000     | 0.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 46          | 179.000                | 13.000  | 64.783  | 132.800  | 87.250  | 58.000    | 38.500  | 16.050  |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 117         | 150.000                | 0.000   | 58.718  | 93.700   | 75.000  | 59.000    | 40.500  | 18.900  |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 13          | 150.000                | 0.000   | 23.385  | 150.000  | 27.000  | 14.000    | 0.500   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 223         | 498.000                | 120.000 | 300.605 | 395.600  | 339.000 | 310.000   | 270.000 | 180.000 |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 223         | 110.000                | 28.000  | 72.341  | 92.800   | 83.000  | 75.000    | 64.000  | 42.400  |
| 00925   | MAGNESIUM DISSOL (MG/L AS MG)   | 223         | 54.000                 | 11.000  | 29.108  | 41.000   | 33.000  | 29.000    | 26.000  | 16.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 222         | 15.000                 | 3.800   | 9.041   | 12.000   | 10.000  | 8.900     | 8.000   | 6.615   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 223         | 41.000                 | 0.200   | 1.791   | 2.036  | 2.000   | 1.730     | 1.190   | 1.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 25          | 96.000                 | 18.000  | 57.120  | 95.100   | 72.000  | 58.000    | 38.000  | 20.100  |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 223         | 110.000                | 9.500   | 63.818  | 91.000   | 77.000  | 64.000    | 54.000  | 30.200  |
| 00932   | SODIUM, PERCENT PERCENT         | 223         | 41.000                 | 9.000   | 30.639  | 37.000   | 33.000  | 30.800    | 28.000  | 24.840  |
| 99430   | ANC, CARB, IT, F MG/L           | 7           | 447.000                | 2.800   | 255.971 | 447.000  | 309.000 | 272.000   | 218.000 | 2.800   |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 105         | 385.000                | 137.000 | 262.800 | 340.700  | 290.000 | 267.000   | 237.500 | 156.100 |
| 95410   | ANC, TIT 4.5, LA MG/L AS CaCO3  | 1           | 200.000                | --      | --      | --   | --      | --        | --      | --      |

**Supplement 17.** Statistical summary of water-quality data for the Sheyenne River near Kindred, N. Dak., gaging station 05059000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent          | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|----------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                  |             |                        |         |         |  |         |           |         |         |
| 00418  | ALKALINITY,DIS,F (MG/L AS CaCO3) | 21          | 357.000                | 177.000 | 269.952 | 355.800  | 292.500 | 268.000   | 251.500 | 177.500 |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3) | 47          | 358.000                | 140.000 | 254.936 | 337.600  | 289.000 | 262.000   | 228.000 | 144.000 |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3)  | 145         | 340.000                | 83.000  | 237.076 | 311.700  | 270.000 | 250.000   | 210.000 | 120.000 |
| 00417  | ANC, FET, LAB (MG/L AS CaCO3)    | 3           | 306.000                | 263.000 | --      | --   | --      | --        | --      | --      |
| 00419  | ANC, IT, FIELD (MG/L AS CaCO3)   | 13          | 358.000                | 201.000 | 263.462 | 358.000  | 283.500 | 268.000   | 227.000 | 201.000 |
| 99440  | BICARBONATE MG/L AS HCO3         | 6           | 545.000                | 266.000 | 365.333 | 545.000  | 419.000 | 337.500   | 313.250 | 266.000 |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3)  | 47          | 436.000                | 171.000 | 303.191 | 411.600  | 343.000 | 319.000   | 276.000 | 176.000 |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3)  | 88          | 410.000                | 110.000 | 291.932 | 380.000  | 330.000 | 310.000   | 260.000 | 163.500 |
| 00450  | ANC BICARB IT FI (MG/L AS HCO3)  | 11          | 359.000                | 224.000 | 302.909 | 359.000  | 342.000 | 322.000   | 261.000 | 224.000 |
| 99445  | CARBONATE MG/L AS CO3            | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)   | 47          | 48.000                 | 0.000   | 3.979   | 16.400   | 7.000   | 0.000     | 0.000   | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)   | 86          | 11.000                 | 0.000   | 0.233   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00447  | ANC CARB IT FIEL (MG/L AS CO3)   | 11          | 48.000                 | 0.000   | 6.909   | 48.000   | 8.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)    | 223         | 74.000                 | 5.700   | 28.390  | 51.800   | 35.000  | 27.000    | 20.000  | 12.000  |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)     | 222         | 0.600                  | 0.100   | 0.248   | 0.400  | 0.300   | 0.200     | 0.200   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2)  | 213         | 48.000                 | 3.900   | 16.989  | 24.000   | 20.500  | 17.000    | 13.000  | 8.680   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)   | 223         | 310.000                | 50.000  | 154.619 | 230.000  | 170.000 | 150.000   | 130.000 | 95.400  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)     | 207         | 0.450                  | --      | *0.085  | *0.342   | *0.140  | *0.040    | *0.010  | *0.003  |
| 99894  | NH3+ORG N DIS JI                 | 1           | 1.100                  | --      | --      | --   | --      | --        | --      | --      |
| 99892  | NH3+ORG N MOD JI                 | 1           | 0.900                  | --      | --      | --   | --      | --        | --      | --      |
| 00623  | NITRO AMN & ORG (MG/L AS N)      | 141         | 1.800                  | 0.010   | 0.717   | 1.390  | 0.900   | 0.670     | 0.485   | 0.321   |
| 00624  | NITROGEN SUSPEND (MG/L AS N)     | 107         | 6.000                  | 0.000   | 0.536   | 1.500  | 0.710   | 0.400     | 0.130   | 0.000   |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)     | 207         | 11.000                 | 0.140   | 1.224   | 2.300  | 1.300   | 1.000     | 0.790   | 0.508   |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4     | 199         | 0.580                  | 0.000   | 0.112   | 0.450  | 0.180   | 0.052     | 0.010   | 0.000   |
| 00610  | NITROGEN AMMONIA (MG/L AS N)     | 149         | 0.800                  | --      | *0.097  | *0.415   | *0.135  | *0.040    | *0.010  | *0.004  |
| 71845  | NITROGEN, NH4, T MG/L AS NH4     | 133         | 1.030                  | 0.000   | 0.138   | 0.533  | 0.180   | 0.060     | 0.030   | 0.010   |
| 00602  | NITROGEN DISSOLV (MG/L AS N)     | 126         | 4.700                  | 0.200   | 1.107   | 2.259  | 1.485   | 1.100     | 0.540   | 0.354   |
| 00618  | NITROGEN NITRATE (MG/L AS N)     | 131         | 3.450                  | 0.000   | 0.374   | 0.962  | 0.610   | 0.250     | 0.010   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3     | 131         | 15.300                 | 0.000   | 1.653   | 4.240  | 2.700   | 1.100     | 0.040   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N       | 95          | 11.000                 | 0.000   | 0.385   | 0.900  | 0.600   | 0.040     | 0.000   | 0.000   |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)     | 207         | 3.600                  | --      | *0.294  | *0.906   | *0.510  | *0.090    | *0.020  | *0.010  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)      | 123         | 1.000                  | --      | *0.291  | *0.900   | *0.500  | *0.122    | *0.073  | *0.024  |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2     | 128         | 0.690                  | 0.000   | 0.057   | 0.184  | 0.070   | 0.030     | 0.000   | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N       | 169         | 0.210                  | --      | *0.015  | *0.050   | *0.020  | *0.010    | *0.004  | *0.001  |
| 00615  | NITROGEN,NITRITE MG/L AS N       | 104         | 0.100                  | --      | *0.017  | *0.047   | *0.020  | *0.010    | *0.010  | *0.003  |

**Supplement 17.** Statistical summary of water-quality data for the Sheyenne River near Kindred, N. Dak., gaging station 05059000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |           | Percentage of samples in which values were less than or equal to those shown |           |           |          |         |
|--|--------------------------------|-------------|------------------------|---------|-----------|--|-----------|-----------|----------|---------|
|  |                                |             | Maximum                | Minimum | Mean      | 95   | 75        | Median 50 | 25       | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                |             |                        |         |           |  |           |           |          |         |
| 00607  | NITROGEN ORGANIC (MG/L AS N)   | 139         | 1.800                  | 0.010   | 0.631     | 1.100  | 0.780     | 0.570     | 0.450    | 0.300   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 199         | 10.700                 | 0.000   | 1.131     | 2.110  | 1.290     | 0.970     | 0.720    | 0.430   |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 165         | 11.800                 | 0.150   | 1.648     | 3.184  | 1.920     | 1.390     | 1.100    | 0.666   |
| 71887  | NITROGEN, TOTAL MG/L AS NO3    | 114         | 31.000                 | 0.700   | 6.304     | 12.000   | 7.600     | 5.400     | 3.975    | 2.450   |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 185         | 0.951                  | 0.000   | 0.211     | 0.583  | 0.276     | 0.180     | 0.120    | 0.030   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 107         | 3.700                  | 0.031   | 0.366     | 0.866  | 0.430     | 0.276     | 0.180    | 0.061   |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 207         | 0.300                  | 0.010   | 0.083     | 0.210  | 0.110     | 0.070     | 0.040    | 0.020   |
| 00678  | PHOSPHORUS HYDRO (MG/L AS P)   | 87          | 1.100                  | 0.010   | 0.158     | 0.400  | 0.160     | 0.120     | 0.090    | 0.030   |
| 00677  | PHOSPHORUS HYDRO (MG/L AS P)   | 84          | 0.840                  | 0.010   | 0.069     | 0.117  | 0.070     | 0.060     | 0.040    | 0.010   |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)   | 84          | 0.780                  | 0.000   | 0.027     | 0.065  | 0.020     | 0.010     | 0.000    | 0.000   |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)   | 87          | 0.770                  | 0.000   | 0.078     | 0.250  | 0.090     | 0.040     | 0.020    | 0.000   |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 85          | 0.130                  | 0.000   | 0.011     | 0.054  | 0.015     | 0.000     | 0.000    | 0.000   |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 89          | 0.390                  | --      | *0.024    | *0.105   | *0.020    | *0.006    | *0.002   | *0.000  |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 188         | 0.310                  | 0.007   | 0.067     | 0.190  | 0.080     | 0.050     | 0.030    | 0.010   |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 105         | 0.210                  | 0.010   | 0.076     | 0.157  | 0.100     | 0.070     | 0.050    | 0.020   |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 208         | 1.800                  | 0.020   | 0.206     | 0.426  | 0.248     | 0.170     | 0.120    | 0.060   |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 49          | 1.400                  | 0.090   | 0.620     | 1.250  | 0.785     | 0.610     | 0.385    | 0.210   |
| 99893  | TOT P DISS MOD J               | 1           | 0.064                  | --      | --        | --   | --        | --        | --       | --      |
| 99891  | TOT P, WH, MOD J               | 1           | 0.190                  | --      | --        | --   | --        | --        | --       | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 227         | 45.900                 | 0.700   | 4.655     | 14.000   | 5.000     | 3.000     | 2.200    | 1.400   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 56          | 25.000                 | 4.700   | 10.073    | 17.600   | 11.000    | 9.550     | 7.475    | 5.355   |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 49          | 12.000                 | 0.100   | 2.298     | 7.600  | 3.650     | 1.400     | 0.700    | 0.150   |
| 00680  | CARBON ORGANIC T (MG/L AS C)   | 21          | 43.000                 | 2.800   | 13.029    | 40.900   | 16.000    | 10.000    | 7.400    | 3.130   |
| 00572  | BIOMASS, PERIPHY (G/SQ M)      | 10          | 7.640                  | 0.000   | 2.381     | 7.640  | 4.173     | 1.430     | 0.200    | 0.000   |
| 00573  | BIOMASS PERIPHYT (G/SQ M)      | 10          | 8.820                  | 0.079   | 3.024     | 8.820  | 6.007     | 2.125     | 0.273    | 0.079   |
| 70950  | BIO CHL RATIO PE UNITS         | 10          | 3920.000               | 0.000   | 1135.960  | 3920.000   | 2980.000  | 106.850   | 9.225    | 0.000   |
| 60050  | PHYTO TYPE-I CELLS/ML          | 24          | 170000.000             | 130.000 | 32284.166 | 160000.000   | 50750.000 | 13000.000 | 3325.000 | 205.000 |
| 31501  | TOT COLI,MENDO M COLS./100 ML  | 47          | 7600.000               | 10.000  | 960.660   | 4080.000   | 1200.000  | 420.000   | 160.000  | 35.400  |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 118         | 3500.000               | 1.000   | 209.847   | 930.002  | 160.000   | 60.500    | 21.500   | 3.000   |
| 31616  | FECAL COLI,MFC M COLS./100 ML  | 3           | 200.000                | 5.000   | --        | --   | --        | --        | --       | --      |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 104         | 5200.000               | 7.000   | 472.548   | 2675.000   | 335.000   | 120.000   | 61.250   | 16.250  |
| 70957  | CHL-A PR CH-FL M MG/M2         | 10          | 14.800                 | 0.000   | 2.910     | 14.800   | 5.175     | 0.500     | 0.075    | 0.000   |
| 70958  | CHL-B PR CH-FL M MG/M2         | 10          | 2.500                  | 0.000   | 0.410     | 2.500  | 0.575     | 0.000     | 0.000    | 0.000   |
| 01106  | ALUMINUM DISSOLV (UG/L AS AL)  | 45          | 80.000                 | --      | *14.638   | *30.000  | *20.000   | *10.000   | *6.302   | *2.929  |
| 01107  | ALUMINUM SUSPEND (UG/L AS AL)  | 1           | 1700.000               | --      | --        | --   | --        | --        | --       | --      |

**Supplement 17.** Statistical summary of water-quality data for the Sheyenne River near Kindred, N. Dak., gaging station 05059000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |           | Percentage of samples in which values were less than or equal to those shown |           |           |          |         |
|--|-------------------------------|-------------|------------------------|---------|-----------|--|-----------|-----------|----------|---------|
|  |                               |             | Maximum                | Minimum | Mean      | 95   | 75        | Median 50 | 25       | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                               |             |                        |         |           |  |           |           |          |         |
| 01105  | ALUMINUM TOTAL (UG/L AS AL)   | 19          | 6700.000               | --      | *1333.685 | *6700.000  | *1700.000 | *420.000  | *120.000 | *50.013 |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS) | 66          | 12.000                 | 1.000   | 4.742     | 10.000   | 5.000     | 4.000     | 3.000    | 2.000   |
| 01001  | ARSENIC SUSPENDE (UG/L AS AS) | 14          | 4.000                  | --      | *1.755    | *4.000   | *2.000    | *2.000    | *1.000   | *0.569  |
| 01002  | ARSENIC TOTAL (UG/L AS AS)    | 32          | 14.000                 | 3.000   | 6.406     | 12.700   | 7.000     | 5.500     | 4.000    | 3.650   |
| 01005  | BARIUM DISSOLVED (UG/L AS BA) | 68          | 300.000                | --      | *101.480  | *205.500   | *110.000  | *92.500   | *71.079  | *48.898 |
| 01006  | BARIUM SUSPENDE (UG/L AS BA)  | 21          | 300.000                | 0.000   | 50.952    | 290.000  | 100.000   | 0.000     | 0.000    | 0.000   |
| 01007  | BARIUM TOTAL (UG/L AS BA)     | 31          | 600.000                | --      | *157.165  | *480.000   | *200.000  | *100.000  | *71.064  | *34.337 |
| 01010  | BERYLLIUM DISSOL (UG/L AS BE) | 32          | --                     | --      | --        | --   | --        | --        | --       | --      |
| 01012  | BERYLLIUM TOTAL (UG/L AS BE)  | 20          | --                     | --      | --        | --   | --        | --        | --       | --      |
| 01020  | BORON DISSOLVED (UG/L AS B)   | 31          | 20000.000              | 70.000  | 935.161   | 9559.993   | 220.000   | 170.000   | 110.000  | 76.000  |
| 01022  | BORON TOTAL (UG/L AS B)       | 20          | 450.000                | 90.000  | 209.500   | 443.000  | 267.500   | 200.000   | 140.000  | 90.500  |
| 01025  | CADMIUM DISSOLVE (UG/L AS CD) | 50          | 27.000                 | --      | *0.813    | *2.000   | *0.263    | *0.058    | *0.013   | *0.001  |
| 01026  | CADMIUM SUSPENDE (UG/L AS CD) | 11          | 1.000                  | 0.000   | 0.182     | 1.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 01027  | CADMIUM TOTAL (UG/L AS CD)    | 26          | --                     | --      | --        | --   | --        | --        | --       | --      |
| 01030  | CHROMIUM DISSOLV (UG/L AS CR) | 45          | 10.000                 | --      | *0.882    | *10.000  | *0.413    | *0.083    | *0.017   | *0.002  |
| 01031  | CHROMIUM SUSPEND (UG/L AS CR) | 19          | 20.000                 | 0.000   | 5.263     | 20.000   | 10.000    | 0.000     | 0.000    | 0.000   |
| 01034  | CHROMIUM TOTAL (UG/L AS CR)   | 22          | 20.000                 | --      | *9.900    | *20.000  | *13.762   | *7.800    | *4.991   | *3.206  |
| 01035  | COBALT DISSOLVED (UG/L AS CO) | 62          | --                     | --      | --        | --   | --        | --        | --       | --      |
| 01036  | COBALT SUSPENDE (UG/L AS CO)  | 15          | 8.000                  | 0.000   | 1.867     | 8.000  | 4.000     | 0.000     | 0.000    | 0.000   |
| 01037  | COBALT TOTAL (UG/L AS CO)     | 28          | 8.000                  | --      | *2.615    | *7.550   | *3.909    | *2.000    | *0.973   | *0.411  |
| 01040  | COPPER DISSOLVED (UG/L AS CU) | 56          | 28.000                 | --      | *3.631    | *10.350  | *4.000    | *2.000    | *2.000   | *0.678  |
| 01041  | COPPER SUSPENDE (UG/L AS CU)  | 23          | 25.000                 | 0.000   | 6.130     | 22.800   | 9.000     | 5.000     | 3.000    | 0.000   |
| 01042  | COPPER TOTAL (UG/L AS CU)     | 32          | 40.000                 | --      | *11.019   | *33.500  | *12.818   | *8.368    | *6.000   | *3.000  |
| 00723  | CYANIDE DISSOLVE (MG/L AS CN) | 1           | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00720  | CYANIDE TOTAL (MG/L AS CN)    | 18          | --                     | --      | --        | --   | --        | --        | --       | --      |
| 01046  | IRON DISSOLVED (UG/L AS FE)   | 195         | 1400.000               | --      | *41.210   | *114.000   | *40.000   | *20.000   | *7.895   | *2.591  |
| 01044  | IRON SUSPENDE (UG/L AS FE)    | 44          | 11000.000              | 290.000 | 2307.045  | 10150.000  | 3025.000  | 1250.000  | 502.500  | 305.000 |
| 01045  | IRON TOTAL (UG/L AS FE)       | 108         | 58000.000              | 10.000  | 2525.463  | 8965.007   | 2175.000  | 1200.000  | 592.500  | 309.000 |
| 01049  | LEAD DISSOLVED (UG/L AS PB)   | 56          | 350.000                | --      | *7.358    | *5.150   | *2.000    | *0.469    | *0.136   | *0.026  |
| 01050  | LEAD SUSPENDE (UG/L AS PB)    | 14          | 17.000                 | 0.000   | 5.214     | 17.000   | 7.250     | 4.000     | 1.750    | 0.000   |
| 01051  | LEAD TOTAL (UG/L AS PB)       | 25          | 25.000                 | --      | *6.801    | *23.500  | *9.000    | *5.347    | *1.619   | *0.697  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI) | 54          | 70.000                 | 20.000  | 52.333    | 68.500   | 59.250    | 52.500    | 48.750   | 31.500  |
| 01132  | LITHIUM TOTAL (UG/L AS LI)    | 20          | 140.000                | --      | *52.310   | *137.000   | *67.500   | *45.000   | *32.500  | *16.397 |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 195         | 500.000                | 2.000   | 98.005    | 312.000  | 130.000   | 70.000    | 28.000   | 6.800   |
| 01054  | MANGANESE SUSPEN (UG/L AS MN) | 97          | 3500.000               | 0.000   | 533.711   | 1539.999   | 735.000   | 430.000   | 140.000  | 20.000  |

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**Supplement 17.** Statistical summary of water-quality data for the Sheyenne River near Kindred, N. Dak., gaging station 05059000, October 1971 through April 2001--Continued

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| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                               |             |                        |         |         |  |         |           |         |         |
| 01055  | MANGANESE TOTAL (UG/L AS MN)  | 107         | 3700.000               | 140.000 | 656.748 | 1839.999   | 812.000 | 520.000   | 280.000 | 154.000 |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 66          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 71895  | MERCURY SUSPENDE UG/L AS HG   | 19          | 30.000                 | 0.000   | 2.642   | 30.000   | 4.000   | 0.100     | 0.000   | 0.000   |
| 71900  | MERCURY, TOT.REC UG/L AS HG   | 32          | 40.000                 | --      | *3.451  | *30.250  | *0.392  | *0.100    | *0.007  | *0.000  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 55          | 10.000                 | --      | *0.973  | *5.188   | *1.000  | *0.310    | *0.112  | *0.026  |
| 01062  | MOLYBDENUM TOTAL (UG/L AS MO) | 20          | 7.000                  | --      | *2.791  | *7.000   | *4.000  | *3.000    | *1.000  | *0.487  |
| 01065  | NICKEL DISSOLVED (UG/L AS NI) | 56          | 31.000                 | 1.000   | 5.411   | 9.150  | 6.000   | 5.000     | 4.000   | 2.000   |
| 01066  | NICKEL SUSPENDE (UG/L AS NI)  | 11          | 15.000                 | 1.000   | 5.091   | 15.000   | 7.000   | 3.000     | 1.000   | 1.000   |
| 01067  | NICKEL TOTAL (UG/L AS NI)     | 32          | 33.000                 | --      | *13.090 | *33.000  | *19.500 | *10.301   | *6.000  | *2.712  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 78          | 1.000                  | --      | *1.000  | *1.000   | *1.000  | *1.000    | *1.000  | *1.000  |
| 01146  | SELENIUM SUSPEND (UG/L AS SE) | 20          | 1.000                  | 0.000   | 0.400   | 1.000  | 1.000   | 0.000     | 0.000   | 0.000   |
| 01147  | SELENIUM TOTAL (UG/L AS SE)   | 32          | 1.000                  | --      | *1.000  | *1.000   | *1.000  | *1.000    | *1.000  | *1.000  |
| 01075  | SILVER DISSOLVED (UG/L AS AG) | 56          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01076  | SILVER SUSPENDE (UG/L AS AG)  | 20          | 1.000                  | 0.000   | 0.050   | 0.950  | 0.000   | 0.000     | 0.000   | 0.000   |
| 01077  | SILVER TOTAL (UG/L AS AG)     | 23          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 54          | 550.000                | 180.000 | 334.259 | 442.500  | 370.000 | 330.000   | 300.000 | 215.000 |
| 01082  | STRONTIUM TOTAL (UG/L AS SR)  | 6           | 420.000                | 280.000 | 348.333 | 420.000  | 390.000 | 365.000   | 280.000 | 280.000 |
| 01085  | VANADIUM DISSOLV (UG/L AS V)  | 44          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01090  | ZINC DISSOLVED (UG/L AS ZN)   | 56          | 100.000                | --      | *16.387 | *74.500  | *20.000 | *8.500    | *4.125  | *1.220  |
| 01091  | ZINC SUSPENDE (UG/L AS ZN)    | 22          | 160.000                | 0.000   | 30.000  | 155.500  | 32.500  | 20.000    | 0.000   | 0.000   |
| 01092  | ZINC TOTAL (UG/L AS ZN)       | 29          | 260.000                | --      | *48.152 | *230.000   | *50.000 | *30.000   | *20.000 | *8.200  |
| 49295  | 1-NAPHTHOL FLTRD (UG/L)       | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 39741  | 2,4,5-T BTM UG/KG             | 5           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 39742  | 2,4,5-T DISSOLVE UG/L         | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 39740  | 2,4,5-T TOTAL(WA UG/L         | 4           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 39732  | 2,4-D DISSOLVED UG/L          | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 39730  | 2,4-D TOTAL (WA UG/L          | 4           | 0.070                  | 0.010   | --      | --   | --      | --        | --      | --      |
| 38746  | 2,4-DB FLTRD (UG/L)           | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 82660  | 26DIETHYLANILINE (UG/L)       | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 49308  | 3HYDRXYCARBOFURA (UG/L)       | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 49260  | ACETOCHLOR FLTRD (UG/L)       | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 49315  | ACIFLUORFEN FLTR (UG/L)       | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 46342  | ALACHLOR, DISS, UG/L          | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 49313  | ALDICARB SULFONE (UG/L)       | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 49314  | ALDICARB SULFOXI (UG/L)       | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |

**Supplement 17.** Statistical summary of water-quality data for the Sheyenne River near Kindred, N. Dak., gaging station 05059000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

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|--|----------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                            |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                            |             |                        |         |      |  |    |           |    |    |
| 49312  | ALDICARB FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39330  | ALDRIN TOTAL (WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 34253  | ALPHA BHC UG/L             | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39632  | ATRAZINE, DISS, UG/L       | 1           | 0.007                  | --      | --   | --   | -- | --        | -- | -- |
| 99835  | BDMC, SURROG, UN (PERCENT) | 1           | 73.000                 | --      | --   | --   | -- | --        | -- | -- |
| 82673  | BENFLURALIN FIL (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38711  | BENTAZON, FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04029  | BROMACIL DISS RE (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49311  | BROMOXYNIL FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04028  | BUTYLATE DISS RE (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49310  | CARBARYL FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82680  | CARBARYL FIL 0.7 (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49309  | CARBOFURAN FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82674  | CARBOFURAN FIL. (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39786  | CARBOPHENOTHION UG/L       | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 61188  | CHLORAMBEN, METH (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39350  | CHLORDANE TOT(WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 49306  | CHLOROTHALONIL F (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38933  | CHLORPYRIFOS, DI UG/L      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49305  | CLOPYRALID FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04041  | CYANAZINE DISS R (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49304  | DACTHAL MONO-ACI (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82682  | DCPA FIL 0.7 REC (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04040  | DEETHYL ATRAZINE (UG/L)    | 1           | 0.002                  | --      | --   | --   | -- | --        | -- | -- |
| 39572  | DIAZINON DISSOLV UG/L      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39570  | DIAZINON TOT (WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 38442  | DICAMBA FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49303  | DICHLORBENIL FLTR (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49302  | DICHLORPRO FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39381  | DIELDRIN DISSOLV UG/L      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39380  | DIELDRIN TOT (WA UG/L)     | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49301  | DINOSEB FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677  | DISULFOTON FIL. (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49300  | DIURON FLTRD (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49299  | DNOC FLTD (UG/L)           | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 17.** Statistical summary of water-quality data for the Sheyenne River near Kindred, N. Dak., gaging station 05059000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent    | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|----------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                            |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                            |             |                        |         |      |  |    |           |    |    |
| 39388  | ENDOSULFAN I TOT UG/L      | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39390  | ENDRIN UNF REC (UG/L)      | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 82668  | EPTC FIL 0.7 REC (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49298  | ESFENVALERATE FL (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82663  | ETHALFLURALIN FI (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39398  | ETHION TOTAL (WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 82672  | ETHOPROP FIL 0.7 (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49297  | FENURON FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38811  | FLUOMETURON FLT (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04095  | FONOFOX DISS REC (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 91065  | ALPHA D6 HCH SUR (PERCENT) | 1           | 86.000                 | --      | --   | --   | -- | --        | -- | -- |
| 39420  | HEPT EPOX TOT(WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39410  | HEPTACHLOR T.(WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39341  | LINDANE DISSOLVE UG/L      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39340  | LINDANE TOTAL(WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 38478  | LINURON FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82666  | LINURON FIL 0.7 (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39532  | MALATHION DISSOL UG/L      | 1           | 0.004                  | --      | --   | --   | -- | --        | -- | -- |
| 39530  | MALATHION TOT(WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 38482  | MCPA FLTRD (UG/L)          | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38487  | MCPB FLTRD (UG/L)          | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38501  | METHIOCARB FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49296  | METHOMYL FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82686  | METHYL AZINPHOS (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39600  | MET PARTH TOT(WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 82667  | METHYL PARATHION (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39790  | MET TRITH TOT(WA UG/L)     | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39415  | METOLACHLOR,WAT. UG/L      | 1           | 0.001                  | --      | --   | --   | -- | --        | -- | -- |
| 82630  | METRIBUZIN,WAT.D UG/L      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39755  | MIREX TOTAL UG/L           | 3           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 82671  | MOLINATE FIL 0.7 (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82684  | NAPROPAMIDE FIL (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49294  | NEBURON FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49293  | NORFLURAZON FLTR (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49292  | ORYZALIN FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |

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[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent    | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|----------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                            |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                            |             |                        |         |      |  |    |           |    |    |
| 38866  | OXAMYL FLTRD (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34653  | P,P' DDE DISSOLV (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39360  | P,P'-DDD UNFLT R UG/L      | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39365  | P,P'-DDE, TOTAL UG/L       | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39370  | P,P'-DDT UNFILT UG/L       | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39542  | PARATHION DISSOL UG/L      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39540  | PARATHION TOT(WA UG/L      | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39516  | PCB TOTAL (WA UG/L         | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39250  | PCN TOTAL (WA UG/L         | 3           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 82669  | PEBULATE FIL 0.7 (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82683  | PENDIMETHALIN F. (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82687  | PERMETHRIN FIL. (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39034  | PERTHANE TOTAL UG/L        | 2           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 82664  | PHORATE FIL 0.7 (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49291  | PICLORAM FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04037  | PROMETON DISS RE (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82676  | PRONAMIDE FIL .7 (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04024  | PROPACHLOR DISS (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82679  | PROPANIL FIL 0.7 (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82685  | PROPARGITE FIL. (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49236  | PROPHAM FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38538  | PROPOXUR FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39762  | SILVEX DISSOLVED UG/L      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39760  | SILVEX TOTAL (WA UG/L      | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 04035  | SIMAZINE DISS RE (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82670  | TEBUTHIURON FIL (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82665  | TERBACIL FIL 0.7 (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82675  | TERBUFOS FIL 0.7 (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 91064  | TERBUTHYLAZINE S (PERCENT) | 1           | 109.000                | --      | --   | --   | -- | --        | -- | -- |
| 82681  | THIOBENCARB FIL (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39400  | TOXAPHENE TOT(WA UG/L      | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 82678  | TRIALATE FIL .7 (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49235  | TRICLOPYR FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82661  | TRIFLURALIN FIL (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39731  | 2,4-D BTM UG/KG            | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |

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|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |        |        |
| 39333  | ALDRIN BTM U UG/KG              | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39351  | CHLORDANE BTM U UG/KG           | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39571  | DIAZINON BTM U UG/KG            | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39383  | DIELDRIN BTM UG/KG              | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39393  | ENDRIN BTM UG/KG                | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39399  | ETHION BTM UG/KG                | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39423  | HEPT EPOX BTM U UG/KG           | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39413  | HEPTACHLOR BTM U UG/KG          | 5           | 1.200                  | 0.000   | --      | --   | --      | --        | --     | --     |
| 39343  | LINDANE BTM U UG/KG             | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39531  | MALATHION BTM U UG/KG           | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39601  | MET PARTH BTM U UG/KG           | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39791  | MET TRITH BTM U UG/KG           | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39363  | P,P'-DDD BEDMAT UG/KG           | 5           | 0.300                  | 0.100   | --      | --   | --      | --        | --     | --     |
| 39368  | P,P'-DDE BED MAT UG/KG          | 5           | 0.200                  | 0.000   | --      | --   | --      | --        | --     | --     |
| 39373  | P,P'-DDT BTM UG/KG              | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39541  | PARATHION BTM UG UG/KG          | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39519  | PCB BTM UG/KG                   | 5           | 2.000                  | 0.000   | --      | --   | --      | --        | --     | --     |
| 39761  | SILVEX BT UG/KG                 | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 39787  | TRITHION BTM UG/KG              | 5           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 82068  | POTSSSIUM 40 DIS (PCI/L AS K40) | 5           | 7.400                  | 5.000   | --      | --   | --      | --        | --     | --     |
| 70338  | SED-SUSP-FALL-D- %              | 10          | 83.000                 | 44.000  | 55.900  | 83.000   | 58.500  | 53.500    | 49.750 | 44.000 |
| 70340  | SED-SUSP-FALL-D- %              | 10          | 99.000                 | 65.000  | 79.200  | 99.000   | 87.500  | 76.500    | 71.250 | 65.000 |
| 70342  | SED-SUSP-FALL-D- %              | 3           | 100.000                | 100.000 | --      | --   | --      | --        | --     | --     |
| 70331  | SED-SUSP-SIEVE-. %              | 101         | 100.000                | 24.000  | 85.743  | 100.000  | 98.000  | 92.000    | 80.000 | 48.300 |
| 70332  | SED-SUSP-SIEVE-. %              | 7           | 99.000                 | 91.000  | 96.429  | 99.000   | 99.000  | 98.000    | 93.000 | 91.000 |
| 70333  | SED-SUSP-SIEVE-. %              | 7           | 100.000                | 97.000  | 99.286  | 100.000  | 100.000 | 100.000   | 99.000 | 97.000 |
| 70334  | SED-SUSP-SIEVE-. %              | 3           | 100.000                | 100.000 | --      | --   | --      | --        | --     | --     |
| 80154  | CONCENTRATION,S. MG/L           | 107         | 2850.000               | 10.000  | 155.991 | 526.800  | 150.000 | 72.000    | 39.000 | 15.800 |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 107         | 9990.000               | 1.100   | 305.869 | 1378.000   | 177.000 | 26.000    | 8.000  | 2.600  |
| 80157  | SED-BED-FALL-D-. %              | 1           | 4.000                  | --      | --      | --   | --      | --        | --     | --     |
| 80158  | SED-BED-FALL-D-. %              | 2           | 21.000                 | 16.000  | --      | --   | --      | --        | --     | --     |
| 80159  | SED-BED-FALL-D-. %              | 2           | 49.000                 | 45.000  | --      | --   | --      | --        | --     | --     |
| 80160  | SED-BED-FALL-D-. %              | 2           | 93.000                 | 88.000  | --      | --   | --      | --        | --     | --     |
| 80161  | SED-BED-FALL-D-. %              | 2           | 97.000                 | 94.000  | --      | --   | --      | --        | --     | --     |
| 80162  | SED-BED-FALL-D-1 %              | 1           | 94.000                 | --      | --      | --   | --      | --        | --     | --     |

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**Supplement 17.** Statistical summary of water-quality data for the Sheyenne River near Kindred, N. Dak., gaging station 05059000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent | Sample size | Descriptive statistics |         |        | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|--|-------------------------|-------------|------------------------|---------|--------|--|---------|-----------|--------|--------|
|  |                         |             | Maximum                | Minimum | Mean   | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                         |             |                        |         |        |  |         |           |        |        |
| 80164  | SED-BED-SIEVE-.0 %      | 10          | 34.000                 | 4.000   | 17.400 | 34.000   | 26.000  | 18.500    | 4.750  | 4.000  |
| 80165  | SED-BED-SIEVE-.1 %      | 10          | 86.000                 | 18.000  | 53.700 | 86.000   | 72.000  | 62.000    | 24.250 | 18.000 |
| 80166  | SED-BED-SIEVE-.2 %      | 10          | 99.000                 | 56.000  | 82.700 | 99.000   | 92.000  | 84.500    | 76.250 | 56.000 |
| 80167  | SED-BED-SIEVE-.5 %      | 10          | 100.000                | 89.000  | 93.600 | 100.000  | 96.750  | 93.000    | 90.750 | 89.000 |
| 80168  | SED-BED-SIEVE-1. %      | 10          | 99.000                 | 90.000  | 95.900 | 99.000   | 98.250  | 96.000    | 94.000 | 90.000 |
| 80169  | SED-BED-SIEVE-2. %      | 11          | 100.000                | 92.000  | 97.364 | 100.000  | 100.000 | 97.000    | 96.000 | 92.000 |
| 80170  | SED-BED-SIEVE-4. %      | 8           | 99.000                 | 94.000  | 97.875 | 99.000   | 99.000  | 98.500    | 97.250 | 94.000 |
| 80171  | SED-BED-SIEVE-8. %      | 8           | 100.000                | 96.000  | 99.250 | 100.000  | 100.000 | 100.000   | 99.000 | 96.000 |
| 80172  | SED-BED-SIEVE-16 %      | 3           | 100.000                | 97.000  | --     | --   | --      | --        | --     | --     |
| 80173  | SED-BED-SIEVE-32 %      | 2           | 100.000                | 100.000 | --     | --   | --      | --        | --     | --     |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 18.** Statistical summary of water-quality data for the Sheyenne River at West Fargo, N. Dak., gaging station 05059500, September 1969 through July 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, September 1969 through July 2001</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 1           | 8.090                  | --      | --      | --   | --      | --        | --      | --      |
| 00060  | DISCHARGE CFS                   | 46          | 1490.000               | 32.000  | 341.804 | 1402.500   | 568.500 | 116.000   | 64.750  | 39.050  |
| 00061  | DISCHARGE, INST. CFS            | 283         | 3840.000               | 5.300   | 453.470 | 2022.000   | 486.000 | 164.000   | 64.000  | 22.200  |
| 00540  | RESIDUE FIXED (MG/L)            | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 331         | 251.000                | 0.000   | 0.878   | 0.780  | 0.000   | 0.000     | 0.000   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 331         | 3710.000               | 0.000   | 81.024  | 643.799  | 0.000   | 0.000     | 0.000   | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 60          | 820.000                | 222.000 | 489.700 | 673.600  | 576.750 | 504.500   | 401.500 | 246.700 |
| 70301  | DISSOLVED SOLIDS MG/L           | 331         | 823.000                | 0.000   | 87.616  | 574.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00076  | TURBIDITY (NTU)                 | 1           | 34.000                 | --      | --      | --   | --      | --        | --      | --      |
| 61028  | TURBIDITY, FIELD (NTU)          | 1           | 150.000                | --      | --      | --   | --      | --        | --      | --      |
| 00025  | AIR PRESSURE (MM OF HG)         | 3           | 783.000                | 725.000 | --      | --   | --      | --        | --      | --      |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 3           | 9.000                  | 6.700   | --      | --   | --      | --        | --      | --      |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 331         | 204.000                | 0.000   | 1.027   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 64          | 8.600                  | 6.700   | 7.948   | 8.500  | 8.200   | 8.000     | 7.700   | 7.425   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 27          | 9.100                  | 6.600   | 7.993   | 8.820  | 8.300   | 8.100     | 7.800   | 6.720   |
| 00094  | FIELD CONDUCTIVI US/CM @ 25C    | 2           | 805.000                | 765.000 | --      | --   | --      | --        | --      | --      |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 30          | 1240.000               | 409.000 | 776.833 | 1141.000   | 885.250 | 786.500   | 676.750 | 412.850 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 325         | 1700.000               | 237.000 | 814.545 | 1197.000   | 954.000 | 833.000   | 672.500 | 387.900 |
| 00020  | AIR TEMPERATURE DEGREES C       | 169         | 118.000                | -21.000 | 10.920  | 28.000   | 21.000  | 13.000    | 0.250   | -14.000 |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 323         | 73.300                 | -1.000  | 9.880   | 24.400   | 19.000  | 8.000     | 0.500   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 331         | 56.000                 | 0.000   | 0.169   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 331         | 89.000                 | 0.000   | 4.571   | 45.400   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 331         | 34.000                 | 0.000   | 0.112   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 331         | 500.000                | 0.000   | 50.997  | 340.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 60          | 110.000                | 24.000  | 67.617  | 98.000   | 84.750  | 69.500    | 51.500  | 32.050  |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)   | 60          | 55.000                 | 13.000  | 27.150  | 42.000   | 30.000  | 27.000    | 21.000  | 13.050  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 60          | 14.000                 | 3.300   | 8.637   | 12.000   | 9.975   | 8.200     | 7.300   | 5.605   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 331         | 2.000                  | 0.000   | 0.277   | 2.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 60          | 95.000                 | 23.000  | 58.200  | 85.850   | 71.750  | 60.500    | 46.000  | 25.050  |
| 00932  | SODIUM, PERCENT PERCENT         | 331         | 39.000                 | 0.000   | 5.459   | 32.000   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3  | 31          | 335.000                | 120.000 | 236.710 | 328.400  | 270.000 | 240.000   | 200.000 | 126.000 |
| 00418  | ALKALINITY,DIS,F (MG/L AS CaCO3 | 1           | 256.000                | --      | --      | --   | --      | --        | --      | --      |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3 | 1           | 262.000                | --      | --      | --   | --      | --        | --      | --      |

**Supplement 18.** Statistical summary of water-quality data for the Sheyenne River at West Fargo, N. Dak., gaging station 05059500, September 1969 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, September 1969 through July 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3) | 29          | 310.000                | 124.000 | 227.966 | 298.500  | 270.500 | 250.000   | 172.000 | 124.500 |
| 95440   | BICARBONATE MG/L AS CaCO3       | 24          | 350.000                | 140.000 | 262.500 | 345.000  | 310.000 | 280.000   | 212.500 | 142.500 |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 1           | 320.000                | --      | --      | --   | --      | --        | --      | --      |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 29          | 380.000                | 150.000 | 277.241 | 365.000  | 330.000 | 300.000   | 210.000 | 150.000 |
| 95445   | CARBONATE MG/L AS CO3           | 24          | 30.000                 | 0.000   | 1.583   | 23.750   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)  | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)  | 29          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)   | 60          | 57.000                 | 7.800   | 27.063  | 48.800   | 36.000  | 27.000    | 18.250  | 8.810   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 60          | 0.600                  | 0.100   | 0.205   | 0.300  | 0.275   | 0.200     | 0.100   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 55          | 24.000                 | 3.200   | 15.247  | 23.200   | 19.000  | 16.000    | 12.000  | 7.640   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 60          | 310.000                | 8.600   | 138.677 | 219.500  | 170.000 | 140.000   | 104.000 | 64.250  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 1           | 0.260                  | --      | --      | --   | --      | --        | --      | --      |
| 00623   | NITRO AMN & ORG (MG/L AS N)     | 1           | 1.300                  | --      | --      | --   | --      | --        | --      | --      |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 331         | 0.330                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 331         | 1.700                  | 0.000   | 0.005   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 331         | 1.500                  | 0.000   | 0.024   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3    | 331         | 6.700                  | 0.000   | 0.185   | 1.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N      | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)    | 2           | 0.370                  | 0.020   | --      | --   | --      | --        | --      | --      |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)     | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2    | 331         | 0.066                  | 0.000   | 0.000   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613   | NITROGEN,NITRITE MG/L AS N      | 1           | 0.020                  | --      | --      | --   | --      | --        | --      | --      |
| 00607   | NITROGEN ORGANIC (MG/L AS N)    | 331         | 1.000                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605   | NITROGEN ORGANIC (MG/L AS N)    | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600   | NITROGEN TOTAL (MG/L AS N)      | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71887   | NITROGEN, TOTAL MG/L AS NO3     | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)  | 331         | 0.600                  | 0.000   | 0.012   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)   | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)    | 1           | 0.170                  | --      | --      | --   | --      | --        | --      | --      |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)    | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)    | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)     | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)    | 331         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)    | 8           | 0.300                  | 0.007   | 0.147   | 0.300  | 0.191   | 0.146     | 0.085   | 0.007   |

**Supplement 18.** Statistical summary of water-quality data for the Sheyenne River at West Fargo, N. Dak., gaging station 05059500, September 1969 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|--------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, September 1969 through July 2001--Continued</b> |                                |             |                        |         |          |  |          |           |         |         |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 331         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 331         | 88.000                 | 0.000   | 1.328    | 7.920  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00690   | CARBON INORG + O (MG/L AS C)   | 331         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 331         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950   | BIO CHL RATIO PE UNITS         | 331         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949   | BIO CHL RATIO PL UNITS         | 331         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 28          | 10.000                 | 1.000   | 5.071    | 10.000   | 6.750    | 5.000     | 3.000   | 1.450   |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)  | 1           | 90.000                 | --      | --       | --   | --       | --        | --      | --      |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 54          | 5400.000               | --      | *280.866 | 1007.500   | *200.000 | *125.000  | *87.500 | *26.925 |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01035   | COBALT DISSOLVED (UG/L AS CO)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01040   | COPPER DISSOLVED (UG/L AS CU)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 71885   | IRON UG/L AS FE                | 12          | 3800.000               | 0.000   | 690.833  | 3800.000   | 1030.000 | 320.000   | 40.000  | 0.000   |
| 01046   | IRON DISSOLVED (UG/L AS FE)    | 48          | 510.000                | --      | *73.392  | *425.500   | *77.500  | *40.000   | *20.000 | *3.885  |
| 01049   | LEAD DISSOLVED (UG/L AS PB)    | 29          | 4.000                  | --      | *0.512   | *3.500   | *0.502   | *0.180    | *0.062  | *0.012  |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI)  | 29          | 70.000                 | 18.000  | 49.759   | 70.000   | 60.000   | 50.000    | 40.000  | 23.500  |
| 71883   | MANGANESE UG/L AS MN           | 12          | 220.000                | 10.000  | 50.833   | 220.000  | 70.000   | 25.000    | 12.500  | 10.000  |
| 01056   | MANGANESE DISSOL (UG/L AS MN)  | 48          | 260.000                | --      | *83.396  | *226.500   | *135.000 | *65.000   | *20.000 | *5.902  |
| 71890   | MERCURY DISSOLVE UG/L AS HG    | 28          | 0.400                  | --      | *0.150   | *0.400   | *0.200   | *0.100    | *0.068  | *0.031  |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO)  | 28          | 6.000                  | --      | *2.019   | *5.550   | *3.000   | *1.787    | *1.000  | *0.398  |
| 01065   | NICKEL DISSOLVED (UG/L AS NI)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01145   | SELENIUM DISSOLV (UG/L AS SE)  | 28          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01075   | SILVER DISSOLVED (UG/L AS AG)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01080   | STRONTIUM DISSOL (UG/L AS SR)  | 29          | 550.000                | 140.000 | 354.483  | 525.000  | 420.000  | 380.000   | 295.000 | 145.000 |
| 01085   | VANADIUM DISSOLV (UG/L AS V)   | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)    | 1           | 7.000                  | --      | --       | --   | --       | --        | --      | --      |
| 82082   | HYDROGEN 2 / 1 R RATIO PER MIL | 1           | -104.000               | --      | --       | --   | --       | --        | --      | --      |
| 07060   | IRON 59 DISSOLVE (PCI/L)       | 1           | 2.000                  | --      | --       | --   | --       | --        | --      | --      |

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**Supplement 18.** Statistical summary of water-quality data for the Sheyenne River at West Fargo, N. Dak., gaging station 05059500, September 1969 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|---|--------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                                |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, September 1969 through July 2001--Continued</b> |                                |             |                        |         |      |  |    |           |    |    |
| 82085   | OXYGEN 18 / 16 R RATIO PER MIL | 1           | -13.400                | --      | --   | --   | -- | --        | -- | -- |
| 07000   | TRITIUM TOTAL (PCI/L)          | 1           | 61.000                 | --      | --   | --   | -- | --        | -- | -- |
| 75985   | TRITIUM PREC EST PCI/L         | 1           | 6.400                  | --      | --   | --   | -- | --        | -- | -- |
| 80156   | SUS-SED DISCH + T/DAY          | 331         | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 80155   | DISCHARGE,SUSP.S T/DAY         | 331         | 0.000                  | --      | --   | --   | -- | --        | -- | -- |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 19.** Statistical summary of water-quality data for the Maple River near Enderlin, N. Dak., gaging station 05059700, October 1971 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00060   | DISCHARGE CFS                   | 32          | 698.000                | 1.100   | 114.463  | 652.500  | 86.000   | 13.000    | 3.650   | 1.620   |
| 00061   | DISCHARGE, INST. CFS            | 308         | 3590.000               | 0.950   | 229.388  | 1289.499   | 120.250  | 6.400     | 2.725   | 1.745   |
| 00540   | RESIDUE FIXED (MG/L)            | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 340         | 2.140                  | 0.000   | 0.300    | 1.600  | 0.000    | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 340         | 3360.000               | 0.000   | 54.448   | 376.601  | 0.000    | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 81          | 1570.000               | 182.000 | 924.284  | 1330.000   | 1170.000 | 1070.000  | 728.000 | 260.200 |
| 70301   | DISSOLVED SOLIDS MG/L           | 340         | 1540.000               | 0.000   | 211.756  | 1149.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00025   | AIR PRESSURE (MM OF HG)         | 2           | 932.000                | 731.000 | --       | --   | --       | --        | --      | --      |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 1           | 12.400                 | --      | --       | --   | --       | --        | --      | --      |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 340         | 137.000                | 0.000   | 0.403    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 86          | 8.400                  | 6.900   | 7.741    | 8.200  | 8.000    | 7.800     | 7.575   | 7.100   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 27          | 9.900                  | 6.800   | 7.830    | 9.300  | 8.100    | 7.900     | 7.400   | 6.920   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 19          | 2250.000               | 321.000 | 1168.263 | 2250.000   | 1550.000 | 1400.000  | 465.000 | 321.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 16          | 1960.000               | 474.000 | 1091.125 | 1960.000   | 1390.000 | 1125.000  | 570.750 | 474.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 331         | 2800.000               | 275.000 | 1297.752 | 1984.000   | 1630.000 | 1420.000  | 960.000 | 400.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 200         | 36.000                 | -32.000 | 9.658    | 28.475   | 19.375   | 10.250    | 1.000   | -10.000 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 334         | 30.000                 | -5.000  | 9.204    | 23.000   | 17.625   | 6.000     | 1.000   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 340         | 480.000                | 0.000   | 40.959   | 360.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 340         | 400.000                | 0.000   | 3.332    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 340         | 910.000                | 0.000   | 132.382  | 730.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 81          | 200.000                | 26.000  | 135.074  | 200.000  | 180.000  | 150.000   | 105.000 | 33.200  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 81          | 110.000                | 9.500   | 52.932   | 86.000   | 65.500   | 60.000    | 42.000  | 13.100  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 81          | 24.000                 | 5.300   | 11.436   | 18.900   | 13.000   | 11.000    | 8.900   | 7.910   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 340         | 3.000                  | 0.000   | 0.319    | 2.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 5           | 120.000                | 32.000  | --       | --   | --       | --        | --      | --      |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 81          | 180.000                | 12.000  | 76.938   | 139.000  | 99.500   | 79.000    | 60.000  | 16.000  |
| 00932   | SODIUM, PERCENT PERCENT         | 340         | 36.000                 | 0.000   | 5.300    | 25.950   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 38          | 393.000                | 83.000  | 247.605  | 390.150  | 352.000  | 276.000   | 134.250 | 90.600  |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 43          | 431.000                | 81.000  | 304.674  | 392.800  | 372.000  | 340.000   | 279.000 | 89.200  |
| 95440   | BICARBONATE MG/L AS CaCO3       | 23          | 480.000                | 24.000  | 304.522  | 478.000  | 430.000  | 360.000   | 150.000 | 39.200  |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 43          | 520.000                | 99.000  | 370.442  | 478.000  | 450.000  | 420.000   | 340.000 | 112.000 |
| 95445   | CARBONATE MG/L AS CO3           | 23          | 90.000                 | 0.000   | 6.696    | 83.400   | 0.000    | 0.000     | 0.000   | 0.000   |

**Supplement 19.** Statistical summary of water-quality data for the Maple River near Enderlin, N. Dak., gaging station 05059700, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 43          | 14.000                 | 0.000   | 0.326    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 81          | 140.000                | 2.500   | 50.483   | 100.000  | 67.500   | 48.000    | 27.000  | 8.410   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 81          | 0.600                  | 0.100   | 0.206    | 0.490  | 0.200    | 0.200     | 0.100   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 70          | 35.000                 | 5.600   | 20.220   | 29.000   | 25.000   | 21.000    | 16.500  | 9.810   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 81          | 650.000                | 42.000  | 374.000  | 549.000  | 480.000  | 450.000   | 260.000 | 68.300  |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 340         | 3.200                  | 0.000   | 0.047    | 0.230  | 0.000    | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 340         | 14.000                 | 0.000   | 0.205    | 1.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 340         | 1.400                  | 0.000   | 0.027    | 0.179  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)    | 14          | 0.310                  | 0.007   | 0.119    | 0.310  | 0.165    | 0.102     | 0.060   | 0.007   |
| 00621  | NITROGEN NITRATE (MG/KG AS N)   | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2)  | 340         | 69.000                 | 0.000   | 3.039    | 18.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00690  | CARBON INORG + O (MG/L AS C)    | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)   | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS          | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS          | 340         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)   | 36          | 20.000                 | 1.000   | 4.778    | 10.650   | 5.750    | 4.000     | 3.000   | 1.850   |
| 01020  | BORON DISSOLVED (UG/L AS B)     | 70          | 520.000                | --      | *183.295 | *464.500   | *260.000 | *165.000  | *60.000 | *34.994 |
| 01046  | IRON DISSOLVED (UG/L AS FE)     | 79          | 1000.000               | 10.000  | 102.278  | 300.000  | 120.000  | 60.000    | 30.000  | 10.000  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)     | 35          | 3.000                  | --      | *0.612   | *2.200   | *1.000   | *0.398    | *0.207  | *0.080  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)   | 36          | 130.000                | 6.000   | 68.472   | 130.000  | 110.000  | 70.000    | 26.000  | 13.650  |

**Supplement 19.** Statistical summary of water-quality data for the Maple River near Enderlin, N. Dak., gaging station 05059700, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |        |
|--|-------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|--------|
|  |                               |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5      |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                               |             |                        |         |         |  |          |           |         |        |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 81          | 1600.000               | 10.000  | 647.654 | 1400.000   | 1000.000 | 730.000   | 165.000 | 40.000 |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 36          | 0.500                  | --      | *0.136  | *0.500   | *0.200   | *0.100    | *0.046  | *0.017 |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 35          | 24.000                 | --      | *3.035  | *21.600  | *3.000   | *2.000    | *1.000  | *0.356 |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 36          | 2.000                  | --      | *0.611  | *2.000   | *0.770   | *0.458    | *0.269  | *0.121 |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 36          | 970.000                | 6.000   | 511.444 | 944.500  | 755.000  | 535.000   | 232.500 | 26.400 |
| 07060  | IRON 59 DISSOLVE (PCI/L)      | 1           | 2.000                  | --      | --      | --   | --       | --        | --      | --     |
| 80156  | SUS-SED DISCH + T/DAY         | 340         | 0.000                  | --      | --      | --   | --       | --        | --      | --     |
| 80155  | DISCHARGE,SUSP.S T/DAY        | 340         | 0.000                  | --      | --      | --   | --       | --        | --      | --     |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 20.** Statistical summary of water-quality data for the Maple River below Mapleton, N. Dak., gaging station 05060100, March 1995 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, March 1995 through April 2001</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 1           | 9.710                  | --      | --       | --   | --       | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 29          | 6620.000               | 8.800   | 572.786  | 4710.000   | 487.500  | 131.000   | 49.000  | 10.400  |
| 00061   | DISCHARGE, INST. CFS            | 50          | 5660.000               | 0.820   | 775.424  | 3366.500   | 1515.000 | 160.000   | 25.750  | 2.750   |
| 00540   | RESIDUE FIXED (MG/L)            | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 81          | 1.670                  | 0.000   | 0.133    | 1.238  | 0.000    | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 81          | 3990.000               | 0.000   | 149.999  | 1371.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 11          | 1230.000               | 223.000 | 720.727  | 1230.000   | 1010.000 | 729.000   | 343.000 | 223.000 |
| 70301   | DISSOLVED SOLIDS MG/L           | 81          | 1110.000               | 0.000   | 90.667   | 880.200  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 11          | 8.600                  | 6.500   | 8.027    | 8.600  | 8.400    | 8.100     | 8.000   | 6.500   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 4           | 8.300                  | 7.700   | --       | --   | --       | --        | --      | --      |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 9           | 1410.000               | 347.000 | 869.667  | 1410.000   | 1210.000 | 862.000   | 512.500 | 347.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 78          | 2190.000               | 305.000 | 1136.564 | 1986.500   | 1460.000 | 1180.000  | 716.250 | 359.500 |
| 00020   | AIR TEMPERATURE DEGREES C       | 45          | 29.000                 | -22.000 | 8.956    | 27.850   | 16.000   | 9.500     | 3.000   | -17.700 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 76          | 29.500                 | -0.500  | 11.532   | 25.710   | 21.600   | 11.000    | 1.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 81          | 680.000                | 0.000   | 54.815   | 508.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 11          | 140.000                | 34.000  | 86.818   | 140.000  | 110.000  | 94.000    | 45.000  | 34.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 11          | 80.000                 | 13.000  | 45.545   | 80.000   | 62.000   | 50.000    | 21.000  | 13.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 11          | 16.000                 | 6.600   | 11.791   | 16.000   | 14.000   | 12.000    | 9.400   | 6.600   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 81          | 2.000                  | 0.000   | 0.173    | 1.900  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 11          | 110.000                | 13.000  | 63.636   | 110.000  | 110.000  | 64.000    | 28.000  | 13.000  |
| 00932   | SODIUM, PERCENT PERCENT         | 81          | 30.000                 | 0.000   | 3.160    | 25.700   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 11          | 305.000                | 94.000  | 206.000  | 305.000  | 290.000  | 226.000   | 124.000 | 94.000  |
| 00940   | CHLORIDE DISSOLV (MG/L AS Cl)   | 11          | 64.000                 | 7.400   | 35.764   | 64.000   | 58.000   | 37.000    | 17.000  | 7.400   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 11          | 0.300                  | 0.100   | 0.209    | 0.300  | 0.300    | 0.200     | 0.200   | 0.100   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 11          | 550.000                | 73.000  | 299.364  | 550.000  | 440.000  | 260.000   | 130.000 | 73.000  |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 81          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |

**Supplement 20.** Statistical summary of water-quality data for the Maple River below Mapleton, N. Dak., gaging station 05060100, March 1995 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|--------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, March 1995 through April 2001--Continued</b> |                                |             |                        |         |         |  |         |           |         |         |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3   | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00620  | NITROGEN NITRATE MG/L AS N     | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)    | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2   | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)   | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3    | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)   | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)   | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 81          | 65.000                 | 0.000   | 1.104   | 3.590  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00690  | CARBON INORG + O (MG/L AS C)   | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS         | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS         | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)  | 11          | 12.000                 | 3.000   | 6.545   | 12.000   | 10.000  | 5.000     | 4.000   | 3.000   |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 11          | 80.000                 | 10.000  | 39.091  | 80.000   | 60.000  | 30.000    | 20.000  | 10.000  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)    | 11          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)  | 11          | 110.000                | 20.000  | 60.000  | 110.000  | 90.000  | 60.000    | 30.000  | 20.000  |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 11          | 210.000                | 20.000  | 75.455  | 210.000  | 100.000 | 50.000    | 30.000  | 20.000  |
| 71890  | MERCURY DISSOLVE UG/L AS HG    | 11          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO)  | 11          | 7.000                  | --      | *2.575  | *7.000   | *4.000  | *1.000    | *1.000  | *0.325  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)  | 11          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01080  | STRONTIUM DISSOL (UG/L AS SR)  | 11          | 690.000                | 160.000 | 422.727 | 690.000  | 540.000 | 480.000   | 210.000 | 160.000 |
| 80156  | SUS-SED DISCH + T/DAY          | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY         | 81          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 21.** Statistical summary of water-quality data for the Rush River at Amenia, N. Dak., gaging station 05060500, November 1971 through August 2000

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, November 1971 through August 2000</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 3           | 6.500                  | 3.900   | --       | --   | --       | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 24          | 1450.000               | 0.030   | 80.926   | 1143.500   | 34.750   | 3.950     | 0.472   | 0.030   |
| 00061   | DISCHARGE, INST. CFS            | 230         | 3240.000               | 0.010   | 112.076  | 615.150  | 74.250   | 8.650     | 1.300   | 0.096   |
| 00540   | RESIDUE FIXED (MG/L)            | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 254         | 889.000                | 0.000   | 4.761    | 1.395  | 0.000    | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 254         | 1500.000               | 0.000   | 23.091   | 110.750  | 0.000    | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 50          | 1450.000               | 137.000 | 708.500  | 1320.000   | 947.250  | 760.500   | 357.000 | 209.200 |
| 70301   | DISSOLVED SOLIDS MG/L           | 254         | 1400.000               | 0.000   | 131.039  | 889.500  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00025   | AIR PRESSURE (MM OF HG)         | 1           | 736.000                | --      | --       | --   | --       | --        | --      | --      |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 50          | 8.400                  | 6.800   | 7.910    | 8.400  | 8.100    | 8.000     | 7.800   | 7.155   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 30          | 8.200                  | 6.700   | 7.617    | 8.200  | 7.925    | 7.700     | 7.375   | 6.810   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 12          | 1380.000               | 394.000 | 859.500  | 1380.000   | 1100.000 | 890.000   | 472.500 | 394.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 22          | 1660.000               | 282.000 | 924.000  | 1628.500   | 1227.500 | 1035.000  | 608.500 | 283.800 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 245         | 4000.000               | 208.000 | 1046.755 | 1994.000   | 1350.000 | 1070.000  | 636.000 | 320.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 166         | 35.000                 | -9.000  | 11.849   | 28.650   | 20.000   | 11.500    | 3.500   | -3.000  |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 253         | 28.500                 | 0.000   | 10.191   | 24.500   | 19.000   | 9.000     | 1.000   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 254         | 490.000                | 0.000   | 14.031   | 58.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 254         | 280.000                | 0.000   | 1.850    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 254         | 770.000                | 0.000   | 84.646   | 592.500  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 50          | 180.000                | 27.000  | 100.960  | 174.500  | 132.500  | 115.000   | 53.250  | 32.100  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 50          | 78.000                 | 8.500   | 42.930   | 75.250   | 62.250   | 47.500    | 19.000  | 11.550  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 50          | 19.000                 | 4.900   | 11.938   | 18.450   | 15.000   | 12.000    | 9.550   | 5.975   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 254         | 3.000                  | 0.000   | 0.193    | 1.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 50          | 200.000                | 7.000   | 52.640   | 124.500  | 70.500   | 51.000    | 18.750  | 7.820   |
| 00932   | SODIUM, PERCENT PERCENT         | 254         | 39.000                 | 0.000   | 3.681    | 21.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 36          | 410.000                | 77.000  | 233.639  | 400.650  | 329.000  | 222.000   | 145.250 | 94.000  |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 15          | 374.000                | 89.000  | 232.467  | 374.000  | 320.000  | 279.000   | 124.000 | 89.000  |
| 95440   | BICARBONATE MG/L AS CaCO3       | 19          | 510.000                | 94.000  | 262.842  | 510.000  | 410.000  | 220.000   | 150.000 | 94.000  |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 15          | 460.000                | 110.000 | 282.000  | 460.000  | 390.000  | 330.000   | 150.000 | 110.000 |
| 95445   | CARBONATE MG/L AS CO3           | 18          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)  | 15          | 3.000                  | 0.000   | 0.200    | 3.000  | 0.000    | 0.000     | 0.000   | 0.000   |

**Supplement 21.** Statistical summary of water-quality data for the Rush River at Amenia, N. Dak., gaging station 05060500, November 1971 through August 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, November 1971 through August 2000--Continued</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 50          | 120.000                | 2.300   | 24.618   | 62.900   | 34.000   | 20.000    | 9.750   | 3.095   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 50          | 1.000                  | 0.100   | 0.228    | 0.400  | 0.300    | 0.200     | 0.200   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 38          | 32.000                 | 3.100   | 15.766   | 32.000   | 19.250   | 15.000    | 11.000  | 4.715   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 50          | 670.000                | 37.000  | 279.000  | 642.500  | 405.000  | 270.000   | 110.000 | 50.300  |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 254         | 3.400                  | 0.000   | 0.026    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 254         | 15.000                 | 0.000   | 0.158    | 0.025  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 254         | 1.000                  | 0.000   | 0.024    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)    | 4           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 00621  | NITROGEN NITRATE (MG/KG AS N)   | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2)  | 254         | 51.000                 | 0.000   | 1.355    | 7.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00690  | CARBON INORG + O (MG/L AS C)    | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)   | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS          | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS          | 254         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)   | 35          | 19.000                 | 1.000   | 7.229    | 16.600   | 10.000   | 6.000     | 3.000   | 1.800   |
| 01020  | BORON DISSOLVED (UG/L AS B)     | 38          | 790.000                | --      | *182.422 | *628.500   | *230.000 | *135.000  | *80.000 | *28.933 |
| 01046  | IRON DISSOLVED (UG/L AS FE)     | 50          | 820.000                | 10.000  | 109.000  | 728.000  | 112.500  | 55.000    | 30.000  | 20.000  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)     | 34          | 5.000                  | --      | *0.584   | *3.500   | *0.683   | *0.213    | *0.075  | *0.017  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)   | 35          | 160.000                | 10.000  | 72.371   | 160.000  | 110.000  | 70.000    | 30.000  | 14.000  |
| 01056  | MANGANESE DISSOL (UG/L AS MN)   | 50          | 1300.000               | 10.000  | 294.400  | 1100.000   | 327.500  | 160.000   | 97.500  | 25.500  |

**Supplement 21.** Statistical summary of water-quality data for the Rush River at Amenia, N. Dak., gaging station 05060500, November 1971 through August 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, November 1971 through August 2000--Continued</b> |                               |             |                        |         |         |  |         |           |         |         |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 35          | 0.900                  | --      | *0.158  | *0.580   | *0.200  | *0.100    | *0.039  | *0.013  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 35          | 10.000                 | --      | *1.930  | *6.800   | *3.000  | *1.000    | *0.597  | *0.230  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 35          | 3.000                  | --      | *0.692  | *2.200   | *1.000  | *0.480    | *0.259  | *0.104  |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 35          | 930.000                | 110.000 | 473.429 | 914.000  | 620.000 | 500.000   | 300.000 | 134.000 |
| 07060  | IRON 59 DISSOLVE (PCI/L)      | 2           | 6.000                  | 1.000   | --      | --   | --      | --        | --      | --      |
| 80156  | SUS-SED DISCH + T/DAY         | 254         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY        | 254         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 22.** Statistical summary of water-quality data for the Buffalo River near Dilworth, Minn., gaging station 05062000, April 1962 through March 1991

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code                                       | Property or constituent          | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|----------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                                  |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, April 1962 through March 1991</b> |                                  |             |                        |         |      |  |    |           |    |    |
| 00061  | DISCHARGE, INST. CFS             | 1           | 1480.000               | --      | --   | --   | -- | --        | -- | -- |
| 70303  | RESIDUE DIS TON/ T/AC-FT         | 1           | 0.700                  | --      | --   | --   | -- | --        | -- | -- |
| 70300  | RESIDUE DIS 180C MG/L            | 1           | 539.000                | --      | --   | --   | -- | --        | -- | -- |
| 70301  | DISSOLVED SOLIDS MG/L            | 1           | 546.000                | --      | --   | --   | -- | --        | -- | -- |
| 00025  | AIR PRESSURE (MM OF HG)          | 1           | 760.000                | --      | --   | --   | -- | --        | -- | -- |
| 00300  | OXYGEN DISSOLVED (MG/L)          | 1           | 6.100                  | --      | --   | --   | -- | --        | -- | -- |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO  | 1           | 42.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00400  | PH, WH, FIELD (STANDARD UNIT     | 1           | 7.700                  | --      | --   | --   | -- | --        | -- | -- |
| 00403  | PH, WH, LABORATO (STANDARD UNIT  | 1           | 7.900                  | --      | --   | --   | -- | --        | -- | -- |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C  | 1           | 845.000                | --      | --   | --   | -- | --        | -- | -- |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C     | 1           | 850.000                | --      | --   | --   | -- | --        | -- | -- |
| 00010  | WATER TEMPERATUR (DEGREES C)     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3) | 1           | 76.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)    | 1           | 426.000                | --      | --   | --   | -- | --        | -- | -- |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)    | 1           | 98.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)    | 1           | 44.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00935  | POTASSIUM DISSOL (MG/L AS K)     | 1           | 7.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00931  | SODIUM ADSORPTIO (RATIO)         | 1           | 0.485                  | --      | --   | --   | -- | --        | -- | -- |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)    | 1           | 23.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00932  | SODIUM, PERCENT PERCENT          | 1           | 10.300                 | --      | --   | --   | -- | --        | -- | -- |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3) | 1           | 350.000                | --      | --   | --   | -- | --        | -- | -- |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3)  | 1           | 427.000                | --      | --   | --   | -- | --        | -- | -- |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)   | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00940  | CHLORIDE DISSOLV (MG/L AS Cl)    | 1           | 15.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)     | 1           | 0.200                  | --      | --   | --   | -- | --        | -- | -- |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2)  | 1           | 25.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)   | 1           | 120.000                | --      | --   | --   | -- | --        | -- | -- |
| 00608  | NITROGEN AMMONIA (MG/L AS N)     | 1           | 0.210                  | --      | --   | --   | -- | --        | -- | -- |
| 00623  | NITRO AMN & ORG (MG/L AS N)      | 1           | 0.800                  | --      | --   | --   | -- | --        | -- | -- |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4     | 1           | 0.270                  | --      | --   | --   | -- | --        | -- | -- |
| 00602  | NITROGEN DISSOLV (MG/L AS N)     | 1           | 1.300                  | --      | --   | --   | -- | --        | -- | -- |
| 00618  | NITROGEN NITRATE (MG/L AS N)     | 1           | 0.480                  | --      | --   | --   | -- | --        | -- | -- |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3     | 1           | 2.120                  | --      | --   | --   | -- | --        | -- | -- |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)     | 1           | 0.500                  | --      | --   | --   | -- | --        | -- | -- |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2     | 1           | 0.066                  | --      | --   | --   | -- | --        | -- | -- |

**Supplement 22.** Statistical summary of water-quality data for the Buffalo River near Dilworth, Minn., gaging station 05062000, April 1962 through March 1991--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|---|--------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                                |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, April 1962 through March 1991--Continued</b> |                                |             |                        |         |      |  |    |           |    |    |
| 00613   | NITROGEN,NITRITE MG/L AS N     | 1           | 0.020                  | --      | --   | --   | -- | --        | -- | -- |
| 00607   | NITROGEN ORGANIC (MG/L AS N)   | 1           | 0.590                  | --      | --   | --   | -- | --        | -- | -- |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4) | 1           | 0.337                  | --      | --   | --   | -- | --        | -- | -- |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)   | 1           | 0.110                  | --      | --   | --   | -- | --        | -- | -- |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)   | 1           | 0.110                  | --      | --   | --   | -- | --        | -- | -- |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)  | 1           | 61.000                 | --      | --   | --   | -- | --        | -- | -- |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01035   | COBALT DISSOLVED (UG/L AS CO)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01040   | COPPER DISSOLVED (UG/L AS CU)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01046   | IRON DISSOLVED (UG/L AS FE)    | 1           | 30.000                 | --      | --   | --   | -- | --        | -- | -- |
| 01049   | LEAD DISSOLVED (UG/L AS PB)    | 1           | 10.000                 | --      | --   | --   | -- | --        | -- | -- |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI)  | 1           | 40.000                 | --      | --   | --   | -- | --        | -- | -- |
| 01056   | MANGANESE DISSOL (UG/L AS MN)  | 1           | 100.000                | --      | --   | --   | -- | --        | -- | -- |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01065   | NICKEL DISSOLVED (UG/L AS NI)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01075   | SILVER DISSOLVED (UG/L AS AG)  | 1           | 1.000                  | --      | --   | --   | -- | --        | -- | -- |
| 01080   | STRONTIUM DISSOL (UG/L AS SR)  | 1           | 400.000                | --      | --   | --   | -- | --        | -- | -- |
| 01085   | VANADIUM DISSOLV (UG/L AS V)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)    | 1           | 16.000                 | --      | --   | --   | -- | --        | -- | -- |
| 82082   | HYDROGEN 2 / 1 R RATIO PER MIL | 1           | -92.000                | --      | --   | --   | -- | --        | -- | -- |
| 82085   | OXYGEN 18 / 16 R RATIO PER MIL | 1           | -12.250                | --      | --   | --   | -- | --        | -- | -- |
| 07000   | TRITIUM TOTAL (PCI/L)          | 1           | 27.000                 | --      | --   | --   | -- | --        | -- | -- |
| 75985   | TRITIUM PREC EST PCI/L         | 1           | 4.500                  | --      | --   | --   | -- | --        | -- | -- |
| 80154   | CONCENTRATION,S. MG/L          | 1           | 275.000                | --      | --   | --   | -- | --        | -- | -- |
| 80155   | DISCHARGE,SUSP.S T/DAY         | 1           | 1100.000               | --      | --   | --   | -- | --        | -- | -- |

**Supplement 23.** Statistical summary of water-quality data for the Elm River near Kelso, N. Dak., gaging station 05062200, February 1981 through April 1989

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, February 1981 through April 1989</b> |                                 |             |                        |         |         |  |          |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 1           | 3.830                  | --      | --      | --   | --       | --        | --      | --      |
| 00061  | DISCHARGE, INST. CFS            | 35          | 705.000                | 0.010   | 141.945 | 581.800  | 273.000  | 24.000    | 0.840   | 0.018   |
| 00540  | RESIDUE FIXED (MG/L)            | 35          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 35          | 639.000                | 0.000   | 18.389  | 128.560  | 0.310    | 0.000     | 0.000   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 35          | 404.000                | 0.000   | 38.018  | 240.000  | 0.960    | 0.000     | 0.000   | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 11          | 710.000                | 180.000 | 374.000 | 710.000  | 575.000  | 292.000   | 231.000 | 180.000 |
| 70301  | DISSOLVED SOLIDS MG/L           | 35          | 666.000                | 0.000   | 107.686 | 644.400  | 231.000  | 0.000     | 0.000   | 0.000   |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 35          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 11          | 8.800                  | 6.500   | 7.782   | 8.800  | 8.300    | 7.800     | 7.400   | 6.500   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 10          | 9.200                  | 7.200   | 7.800   | 9.200  | 8.025    | 7.650     | 7.300   | 7.200   |
| 00094  | FIELD CONDUCTIVI US/CM @ 25C    | 10          | 1050.000               | 311.000 | 563.900 | 1050.000   | 861.000  | 435.000   | 371.500 | 311.000 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 31          | 1530.000               | 248.000 | 673.742 | 1368.000   | 1000.000 | 520.000   | 392.000 | 272.600 |
| 00020  | AIR TEMPERATURE DEGREES C       | 29          | 33.000                 | -4.000  | 11.069  | 32.000   | 17.500   | 7.500     | 2.500   | -1.500  |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 34          | 27.500                 | 0.000   | 8.941   | 26.375   | 18.250   | 3.500     | 0.500   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 35          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 35          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 35          | 58.000                 | 0.000   | 1.657   | 11.600   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 35          | 85.000                 | 0.000   | 5.800   | 63.400   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 35          | 450.000                | 0.000   | 72.000  | 418.000  | 150.000  | 0.000     | 0.000   | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 11          | 100.000                | 28.000  | 55.000  | 100.000  | 77.000   | 43.000    | 36.000  | 28.000  |
| 00925  | MAGNESIUM DISSOL (MG/L AS MG)   | 11          | 49.000                 | 11.000  | 22.091  | 49.000   | 35.000   | 16.000    | 14.000  | 11.000  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 11          | 16.000                 | 8.800   | 11.782  | 16.000   | 13.000   | 12.000    | 9.500   | 8.800   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 35          | 1.000                  | 0.000   | 0.191   | 1.000  | 0.300    | 0.000     | 0.000   | 0.000   |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 11          | 59.000                 | 5.900   | 23.455  | 59.000   | 43.000   | 16.000    | 8.600   | 5.900   |
| 00932  | SODIUM, PERCENT PERCENT         | 35          | 23.000                 | 0.000   | 5.000   | 21.400   | 11.000   | 0.000     | 0.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 35          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3  | 11          | 340.000                | 80.000  | 160.818 | 340.000  | 180.000  | 130.000   | 100.000 | 80.000  |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3  | 1           | 174.000                | --      | --      | --   | --       | --        | --      | --      |
| 95440  | BICARBONATE MG/L AS CaCO3       | 11          | 410.000                | 77.000  | 190.364 | 410.000  | 220.000  | 160.000   | 120.000 | 77.000  |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 1           | 210.000                | --      | --      | --   | --       | --        | --      | --      |
| 95445  | CARBONATE MG/L AS CO3           | 11          | 26.000                 | 0.000   | 2.364   | 26.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 1           | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 11          | 41.000                 | 4.500   | 16.527  | 41.000   | 29.000   | 13.000    | 7.400   | 4.500   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 11          | 0.300                  | 0.100   | 0.164   | 0.300  | 0.200    | 0.200     | 0.100   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2) | 11          | 18.000                 | 7.800   | 14.345  | 18.000   | 17.000   | 15.000    | 12.000  | 7.800   |

**Supplement 23.** Statistical summary of water-quality data for the Elm River near Kelso, N. Dak., gaging station 05062200, February 1981 through April 1989--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |        |
|---|--------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|--------|
|   |                                |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5      |
| <b>North Dakota data, February 1981 through April 1989--Continued</b> |                                |             |                        |         |         |  |         |           |         |        |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4) | 11          | 210.000                | 35.000  | 98.636  | 210.000  | 170.000 | 70.000    | 45.000  | 35.000 |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 71845   | NITROGEN, NH4, T MG/L AS NH4   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00602   | NITROGEN DISSOLV (MG/L AS N)   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00618   | NITROGEN NITRATE (MG/L AS N)   | 35          | 6.600                  | 0.000   | 0.240   | 2.280  | 0.000   | 0.000     | 0.000   | 0.000  |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3   | 35          | 29.000                 | 0.000   | 1.660   | 20.200   | 0.000   | 0.000     | 0.000   | 0.000  |
| 00620   | NITROGEN NITRATE MG/L AS N     | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)    | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00607   | NITROGEN ORGANIC (MG/L AS N)   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00605   | NITROGEN ORGANIC (MG/L AS N)   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00600   | NITROGEN TOTAL (MG/L AS N)     | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 71887   | NITROGEN, TOTAL MG/L AS NO3    | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4) | 35          | 0.960                  | 0.000   | 0.059   | 0.672  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)  | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)    | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 35          | 62.000                 | 0.000   | 3.149   | 23.600   | 2.400   | 0.000     | 0.000   | 0.000  |
| 00690   | CARBON INORG + O (MG/L AS C)   | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 70950   | BIO CHL RATIO PE UNITS         | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 70949   | BIO CHL RATIO PL UNITS         | 35          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 10          | 10.000                 | 3.000   | 4.900   | 10.000   | 6.250   | 4.000     | 3.000   | 3.000  |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 11          | 200.000                | 0.000   | 76.364  | 200.000  | 150.000 | 50.000    | 30.000  | 0.000  |
| 01046   | IRON DISSOLVED (UG/L AS FE)    | 11          | 150.000                | 10.000  | 73.636  | 150.000  | 120.000 | 70.000    | 20.000  | 10.000 |
| 01049   | LEAD DISSOLVED (UG/L AS PB)    | 10          | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI)  | 10          | 80.000                 | 13.000  | 35.100  | 80.000   | 46.750  | 30.000    | 19.500  | 13.000 |
| 01056   | MANGANESE DISSOL (UG/L AS MN)  | 11          | 280.000                | 10.000  | 110.909 | 280.000  | 160.000 | 100.000   | 40.000  | 10.000 |
| 71890   | MERCURY DISSOLVE UG/L AS HG    | 10          | 1.000                  | --      | *0.353  | *1.000   | *0.525  | *0.300    | *0.094  | *0.051 |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO)  | 10          | 11.000                 | 1.000   | 2.600   | 11.000   | 2.250   | 2.000     | 1.000   | 1.000  |
| 01145   | SELENIUM DISSOLV (UG/L AS SE)  | 10          | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01080   | STRONTIUM DISSOL (UG/L AS SR)  | 10          | 620.000                | 85.000  | 260.500 | 620.000  | 387.500 | 215.000   | 130.000 | 85.000 |

**Supplement 23.** Statistical summary of water-quality data for the Elm River near Kelso, N. Dak., gaging station 05062200, February 1981 through April 1989--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent  | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|---|--------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                          |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, February 1981 through April 1989--Continued</b> |                          |             |                        |         |      |  |    |           |    |    |
| 07060   | IRON 59 DISSOLVE (PCI/L) | 2           | 11.000                 | 1.000   | --   | --   | -- | --        | -- | -- |
| 80156   | SUS-SED DISCH + T/DAY    | 35          | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 80155   | DISCHARGE,SUSP.S T/DAY   | 35          | 0.000                  | --      | --   | --   | -- | --        | -- | -- |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 24.** Statistical summary of water-quality data for the Wild Rice River at Twin Valley, Minn., gaging station 05062500, September 1974 through August 1998

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5       |
| <b>Minnesota data, September 1974 through August 1998</b> |                                 |             |                        |         |         |  |          |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 16          | 11.110                 | 3.020   | 6.372   | 11.110   | 7.827    | 5.960     | 5.550   | 3.020   |
| 00060   | DISCHARGE CFS                   | 31          | 2690.000               | 64.000  | 855.677 | 2510.000   | 1460.000 | 560.000   | 288.000 | 79.600  |
| 00061   | DISCHARGE, INST. CFS            | 85          | 5920.000               | 31.000  | 790.435 | 3745.995   | 989.000  | 360.000   | 108.000 | 37.000  |
| 00310   | BOD 5-DAY AT 20 (MG/L)          | 11          | 4.700                  | 0.800   | 2.391   | 4.700  | 3.500    | 2.200     | 1.400   | 0.800   |
| 00080   | COLOR PLATINUM-COBAL            | 34          | 80.000                 | 15.000  | 35.441  | 72.500   | 40.000   | 32.500    | 30.000  | 18.750  |
| 00520   | RESIDUE VOLATILE (MG/L)         | 1           | 68.000                 | --      | --      | --   | --       | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 78          | 0.650                  | 0.260   | 0.436   | 0.601  | 0.500    | 0.400     | 0.400   | 0.329   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 67          | 2200.000               | 27.700  | 360.910 | 1218.000   | 450.000  | 238.000   | 66.100  | 37.440  |
| 70300   | RESIDUE DIS 180C MG/L           | 79          | 479.000                | 193.000 | 320.304 | 443.000  | 346.000  | 310.000   | 283.000 | 249.000 |
| 70301   | DISSOLVED SOLIDS MG/L           | 78          | 456.000                | 165.000 | 295.295 | 423.050  | 316.500  | 286.000   | 262.000 | 221.900 |
| 00070   | TURBIDITY (JCU)                 | 20          | 65.000                 | 2.000   | 10.650  | 64.250   | 7.000    | 4.000     | 3.000   | 2.000   |
| 00076   | TURBIDITY (NTU)                 | 27          | 470.000                | 3.000   | 66.741  | 350.000  | 91.000   | 25.000    | 7.000   | 3.000   |
| 00025   | AIR PRESSURE (MM OF HG)         | 57          | 750.000                | 726.000 | 737.140 | 747.100  | 740.500  | 738.000   | 734.000 | 728.000 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 95          | 13.200                 | 3.100   | 9.017   | 12.400   | 10.700   | 8.700     | 7.700   | 6.440   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 94          | 127.000                | 22.000  | 86.886  | 104.250  | 95.400   | 90.100    | 84.675  | 51.950  |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 95          | 9.000                  | 7.200   | 8.039   | 8.620  | 8.300    | 8.100     | 7.800   | 7.400   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 45          | 8.400                  | 7.100   | 7.864   | 8.300  | 8.100    | 7.900     | 7.600   | 7.400   |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 45          | 701.000                | 390.000 | 511.444 | 676.500  | 549.500  | 497.000   | 465.000 | 392.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 99          | 700.000                | 270.000 | 495.586 | 656.000  | 547.000  | 487.000   | 440.000 | 370.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 77          | 33.000                 | -25.600 | 13.231  | 30.100   | 21.500   | 15.000    | 5.250   | -12.150 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 100         | 27.500                 | 0.000   | 12.624  | 24.425   | 20.450   | 13.650    | 4.125   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 34          | 85.000                 | 5.000   | 33.794  | 82.000   | 42.250   | 32.500    | 13.250  | 5.750   |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 34          | 57.000                 | 0.000   | 22.000  | 57.000   | 32.000   | 20.500    | 8.500   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 79          | 400.000                | 130.000 | 261.101 | 335.000  | 287.000  | 260.000   | 236.000 | 190.000 |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 79          | 98.000                 | 32.000  | 61.529  | 79.000   | 67.000   | 61.000    | 55.000  | 47.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS MG)   | 79          | 38.000                 | 12.000  | 26.073  | 34.000   | 29.000   | 26.000    | 24.000  | 17.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 79          | 8.600                  | 0.900   | 3.518   | 7.100  | 4.000    | 3.300     | 2.600   | 2.100   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 79          | 0.400                  | 0.100   | 0.223   | 0.300  | 0.283    | 0.201     | 0.193   | 0.135   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 10          | 18.000                 | 9.100   | 11.400  | 18.000   | 12.000   | 10.950    | 9.625   | 9.100   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 79          | 15.000                 | 3.500   | 8.356   | 14.000   | 10.000   | 8.100     | 6.500   | 4.400   |
| 00932   | SODIUM, PERCENT PERCENT         | 79          | 16.000                 | 4.000   | 6.416   | 8.020  | 7.000    | 6.100     | 5.430   | 4.690   |
| 90410   | ANC. TIT. 4.5, L MG/L AS CaCO3  | 44          | 372.000                | 110.000 | 236.432 | 330.250  | 256.750  | 232.500   | 212.750 | 140.500 |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 37          | 458.000                | 120.000 | 238.703 | 353.600  | 249.000  | 232.000   | 213.000 | 168.600 |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 34          | 410.000                | 80.000  | 239.706 | 395.000  | 265.000  | 230.000   | 210.000 | 117.500 |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 36          | 558.000                | 147.000 | 285.444 | 438.150  | 289.500  | 273.000   | 259.500 | 202.250 |

**Supplement 24.** Statistical summary of water-quality data for the Wild Rice River at Twin Valley, Minn., gaging station 05062500, September 1974 through August 1998--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 11          | 350.000                | 270.000 | 303.636 | 350.000  | 320.000 | 300.000   | 280.000 | 270.000 |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)  | 36          | 17.000                 | 0.000   | 2.556   | 16.150   | 2.250   | 0.000     | 0.000   | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 11          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 79          | 15.000                 | 2.100   | 4.720   | 10.000   | 5.500   | 4.100     | 3.000   | 2.300   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 79          | 0.500                  | 0.100   | 0.162   | 0.200  | 0.200   | 0.200     | 0.100   | 0.100   |
| 00951  | FLUORIDE TOTAL (MG/L AS F)      | 33          | 0.700                  | 0.100   | 0.182   | 0.490  | 0.200   | 0.200     | 0.100   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 78          | 29.000                 | 6.000   | 14.808  | 26.050   | 18.000  | 14.000    | 10.000  | 6.990   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 79          | 85.000                 | 12.000  | 32.770  | 58.000   | 39.000  | 29.000    | 23.000  | 14.000  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)    | 84          | 0.400                  | --      | *0.079  | *0.370   | *0.098  | *0.030    | *0.010  | *0.002  |
| 00623  | NITRO AMN & ORG (MG/L AS N)     | 84          | 1.500                  | 0.400   | 0.799   | 1.275  | 0.900   | 0.800     | 0.652   | 0.482   |
| 00624  | NITROGEN SUSPEND (MG/L AS N)    | 36          | 3.800                  | 0.000   | 0.293   | 1.590  | 0.300   | 0.100     | 0.032   | 0.000   |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)    | 86          | 4.600                  | 0.500   | 1.003   | 1.895  | 1.100   | 0.900     | 0.707   | 0.600   |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 76          | 0.520                  | 0.000   | 0.111   | 0.489  | 0.130   | 0.040     | 0.026   | 0.000   |
| 00610  | NITROGEN AMMONIA (MG/L AS N)    | 37          | 0.400                  | 0.010   | 0.106   | 0.391  | 0.170   | 0.050     | 0.015   | 0.010   |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 36          | 0.520                  | 0.010   | 0.137   | 0.503  | 0.227   | 0.065     | 0.020   | 0.010   |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 61          | 6.100                  | 0.480   | 1.424   | 3.900  | 1.365   | 0.974     | 0.760   | 0.621   |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 51          | 4.670                  | 0.000   | 0.621   | 2.748  | 1.080   | 0.100     | 0.010   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 51          | 20.700                 | 0.000   | 2.757   | 12.120   | 4.780   | 0.443     | 0.040   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 37          | 2.600                  | 0.000   | 0.441   | 2.420  | 0.335   | 0.050     | 0.010   | 0.000   |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)    | 85          | 4.800                  | --      | *0.417  | *2.500   | *0.215  | *0.063    | *0.020  | *0.004  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 38          | 2.700                  | --      | *0.461  | *2.510   | *0.325  | *0.089    | *0.020  | *0.003  |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 52          | 0.427                  | 0.000   | 0.084   | 0.370  | 0.100   | 0.030     | 0.000   | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N      | 84          | 0.130                  | --      | *0.018  | *0.105   | *0.010  | *0.006    | *0.002  | *0.001  |
| 00615  | NITROGEN,NITRITE MG/L AS N      | 37          | 0.120                  | --      | *0.023  | *0.120   | *0.020  | *0.010    | *0.004  | *0.001  |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 76          | 1.120                  | 0.380   | 0.723   | 1.041  | 0.810   | 0.680     | 0.590   | 0.502   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 77          | 4.500                  | 0.480   | 0.928   | 1.613  | 1.090   | 0.780     | 0.675   | 0.557   |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 68          | 6.800                  | 0.520   | 1.592   | 4.855  | 1.570   | 1.090     | 0.853   | 0.614   |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 38          | 22.000                 | 2.300   | 6.787   | 21.050   | 6.500   | 4.400     | 3.200   | 2.680   |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 73          | 0.370                  | 0.000   | 0.091   | 0.318  | 0.123   | 0.060     | 0.030   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 38          | 1.000                  | 0.000   | 0.199   | 0.895  | 0.150   | 0.120     | 0.090   | 0.000   |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)    | 85          | 0.150                  | --      | *0.038  | *0.117   | *0.060  | *0.030    | *0.010  | *0.005  |
| 00678  | PHOSPHORUS HYDRO (MG/L AS P)    | 36          | 0.550                  | --      | *0.084  | *0.389   | *0.075  | *0.030    | *0.020  | *0.005  |
| 00677  | PHOSPHORUS HYDRO (MG/L AS P)    | 36          | 0.150                  | --      | *0.035  | *0.125   | *0.047  | *0.020    | *0.010  | *0.003  |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 30          | 0.090                  | 0.000   | 0.012   | 0.057  | 0.020   | 0.010     | 0.000   | 0.000   |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 35          | 0.490                  | 0.000   | 0.052   | 0.282  | 0.040   | 0.020     | 0.010   | 0.000   |

**Supplement 24.** Statistical summary of water-quality data for the Wild Rice River at Twin Valley, Minn., gaging station 05062500, September 1974 through August 1998--Continued

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|--|--------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                                |             |                        |         |          |  |          |           |         |         |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 37          | 0.050                  | 0.000   | 0.011    | 0.032  | 0.015    | 0.010     | 0.000   | 0.000   |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 37          | 0.070                  | 0.000   | 0.017    | 0.061  | 0.020    | 0.010     | 0.010   | 0.000   |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 84          | 0.120                  | --      | *0.027   | *0.090   | *0.040   | *0.010    | *0.010  | *0.002  |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 37          | 0.140                  | --      | *0.033   | *0.131   | *0.045   | *0.020    | *0.010  | *0.003  |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 86          | 0.550                  | 0.010   | 0.082    | 0.290  | 0.100    | 0.050     | 0.030   | 0.010   |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 21          | 1.700                  | 0.090   | 0.433    | 1.640  | 0.690    | 0.210     | 0.135   | 0.093   |
| 00626  | NITROGEN AMMONIA (MG/KG AS N)  | 1           | 500.000                | --      | --       | --   | --       | --        | --      | --      |
| 00603  | NITROGEN TOTAL B (MG/KG AS N)  | 1           | 500.000                | --      | --       | --   | --       | --        | --      | --      |
| 00668  | PHOSPHORUS BOT. (MG/KG AS P)   | 1           | 350.000                | --      | --       | --   | --       | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 76          | 25.400                 | 0.400   | 5.750    | 18.285   | 7.700    | 3.250     | 2.225   | 0.870   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 48          | 40.000                 | 8.500   | 14.188   | 26.100   | 15.000   | 13.500    | 11.250  | 9.490   |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 41          | 3.600                  | 0.200   | 0.910    | 2.470  | 1.150    | 0.700     | 0.400   | 0.300   |
| 60050  | PHYTO TYPE-I CELLS/ML          | 32          | 19000.000              | 0.000   | 1422.438 | 10030.006  | 1200.000 | 685.000   | 175.000 | 41.600  |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 31          | 170.000                | 1.000   | 50.258   | 158.000  | 82.000   | 36.000    | 10.000  | 1.600   |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 33          | 1800.000               | 6.000   | 160.970  | 1660.000   | 115.000  | 49.000    | 21.500  | 7.400   |
| 70953  | CHL-A PHY CHROMA UG/L          | 1           | 0.800                  | --      | --       | --   | --       | --        | --      | --      |
| 70954  | CHLOROPHYLL-B, P UG/L          | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01105  | ALUMINUM TOTAL UG/L AS AL      | 5           | 380.000                | 30.000  | --       | --   | --       | --        | --      | --      |
| 01002  | ARSENIC TOTAL (UG/L AS AS)     | 6           | 6.000                  | 2.000   | 4.333    | 6.000  | 6.000    | 4.500     | 2.750   | 2.000   |
| 01007  | BARIUM TOTAL (UG/L AS BA)      | 6           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01012  | BERYLLIUM TOTAL (UG/L AS BE)   | 6           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 2           | 80.000                 | 50.000  | --       | --   | --       | --        | --      | --      |
| 01022  | BORON TOTAL (UG/L AS B)        | 6           | 200.000                | 70.000  | 116.667  | 200.000  | 177.500  | 95.000    | 70.000  | 70.000  |
| 01027  | CADMIUM TOTAL (UG/L AS CD)     | 3           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01034  | CHROMIUM TOTAL (UG/L AS CR)    | 6           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01037  | COBALT TOTAL (UG/L AS CO)      | 3           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01040  | COPPER DISSOLVED (UG/L AS CU)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01042  | COPPER TOTAL (UG/L AS CU)      | 6           | 3.000                  | --      | *2.427   | *3.000   | *3.000   | *2.500    | *1.891  | *1.563  |
| 00720  | CYANIDE TOTAL (MG/L AS CN)     | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 77          | 150.000                | 3.000   | 58.481   | 111.000  | 70.000   | 50.000    | 40.000  | 19.000  |
| 01044  | IRON SUSPENDED (UG/L AS FE)    | 32          | 17000.000              | 0.000   | 1240.938 | 11020.004  | 720.000  | 345.000   | 235.000 | 6.500   |
| 01045  | IRON TOTAL (UG/L AS FE)        | 34          | 17000.000              | 90.000  | 1275.588 | 10175.000  | 802.500  | 400.000   | 320.000 | 202.500 |
| 01051  | LEAD TOTAL (UG/L AS PB)        | 5           | 25.000                 | 3.000   | --       | --   | --       | --        | --      | --      |
| 01132  | LITHIUM TOTAL (UG/L AS LI)     | 6           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 78          | 990.000                | --      | *69.212  | *371.500   | *42.250  | *30.000   | *20.000 | *4.979  |

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|--|-------------------------------|-------------|------------------------|---------|---------|--|--------|-----------|--------|--------|
|  |                               |             | Maximum                | Minimum | Mean    | 95   | 75     | Median 50 | 25     | 5      |
| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                               |             |                        |         |         |  |        |           |        |        |
| 01054  | MANGANESE SUSPEN (UG/L AS MN) | 33          | 750.000                | 0.000   | 55.152  | 309.000  | 50.000 | 30.000    | 15.000 | 0.000  |
| 01055  | MANGANESE TOTAL (UG/L AS MN)  | 34          | 760.000                | 20.000  | 112.353 | 602.500  | 92.500 | 70.000    | 50.000 | 27.500 |
| 71900  | MERCURY, TOT.REC UG/L AS HG   | 6           | --                     | --      | --      | --   | --     | --        | --     | --     |
| 01062  | MOLYBDENUM TOTAL (UG/L AS MO) | 6           | 5.000                  | 2.000   | 3.333   | 5.000  | 5.000  | 3.000     | 2.000  | 2.000  |
| 01067  | NICKEL TOTAL (UG/L AS NI)     | 6           | 14.000                 | 2.000   | 8.500   | 14.000   | 12.500 | 8.000     | 5.750  | 2.000  |
| 01147  | SELENIUM TOTAL (UG/L AS SE)   | 6           | --                     | --      | --      | --   | --     | --        | --     | --     |
| 01077  | SILVER TOTAL (UG/L AS AG)     | 2           | --                     | --      | --      | --   | --     | --        | --     | --     |
| 01082  | STRONTIUM TOTAL (UG/L AS SR)  | 5           | 250.000                | 190.000 | --      | --   | --     | --        | --     | --     |
| 01085  | VANADIUM DISSOLV (UG/L AS V)  | 6           | 2.000                  | 0.000   | 1.000   | 2.000  | 1.625  | 1.250     | 0.000  | 0.000  |
| 01092  | ZINC TOTAL (UG/L AS ZN)       | 6           | --                     | --      | --      | --   | --     | --        | --     | --     |
| 34795  | ANTIMONY BM<63 W UG/G         | 2           | 0.800                  | 0.300   | --      | --   | --     | --        | --     | --     |
| 34800  | ARSENIC BM<63 WS UG/G         | 2           | 8.000                  | 7.500   | --      | --   | --     | --        | --     | --     |
| 01003  | ARSENIC BOT. MAT (UG/G AS AS) | 1           | 0.000                  | --      | --      | --   | --     | --        | --     | --     |
| 34805  | BARIUM BM<63 WSF UG/G         | 2           | 460.000                | 420.000 | --      | --   | --     | --        | --     | --     |
| 01008  | BARIUM BOT. MAT. (UG/G AS BA) | 1           | 0.000                  | --      | --      | --   | --     | --        | --     | --     |
| 34810  | BERYLLIUM BM<63 UG/G          | 2           | --                     | --      | --      | --   | --     | --        | --     | --     |
| 01013  | BERYLLIUM BOT. M (UG/G AS BE) | 1           | 0.000                  | --      | --      | --   | --     | --        | --     | --     |
| 34816  | BISMUTH BM<180WS UG/G         | 2           | --                     | --      | --      | --   | --     | --        | --     | --     |
| 01023  | BORON BOT. MAT. (UG/G AS B)   | 1           | 0.000                  | --      | --      | --   | --     | --        | --     | --     |
| 01028  | CADMIUM BOT. MAT (UG/G AS CD) | 1           | 10.000                 | --      | --      | --   | --     | --        | --     | --     |
| 34825  | CADMIUM BM<63 WS UG/G         | 2           | 0.400                  | 0.200   | --      | --   | --     | --        | --     | --     |
| 34835  | CERIUM BM<63 WSF UG/G         | 2           | 59.000                 | 46.000  | --      | --   | --     | --        | --     | --     |
| 34840  | CHROMIUM BM<63 WS UG/G        | 2           | 50.000                 | 45.000  | --      | --   | --     | --        | --     | --     |
| 01029  | CHROMIUM TOTAL B (UG/G AS CR) | 1           | 10.000                 | --      | --      | --   | --     | --        | --     | --     |
| 34845  | COBALT BM<63 WSF UG/G         | 2           | 9.000                  | 9.000   | --      | --   | --     | --        | --     | --     |
| 01038  | COBALT BOT. MAT. (UG/G AS CO) | 1           | 10.000                 | --      | --      | --   | --     | --        | --     | --     |
| 34850  | COPPER BM<63 WSF UG/G         | 2           | 13.000                 | 9.000   | --      | --   | --     | --        | --     | --     |
| 01043  | COPPER BOT. MAT. (UG/G AS CU) | 1           | 10.000                 | --      | --      | --   | --     | --        | --     | --     |
| 34855  | EUROPIUM BM<63 W UG/G         | 2           | --                     | --      | --      | --   | --     | --        | --     | --     |
| 34860  | GALLIUM BM<63 WS UG/G         | 2           | 12.000                 | 10.000  | --      | --   | --     | --        | --     | --     |
| 34870  | GOLD BM<63 WSF UG/G           | 2           | --                     | --      | --      | --   | --     | --        | --     | --     |
| 34875  | HOLMIUM BM<63 WS UG/G         | 2           | --                     | --      | --      | --   | --     | --        | --     | --     |
| 34880  | IRON BM<63 WSF PERCENT        | 2           | 2.400                  | 2.300   | --      | --   | --     | --        | --     | --     |
| 34885  | LANTHANUM BM<63 UG/G          | 2           | 32.000                 | 26.000  | --      | --   | --     | --        | --     | --     |
| 34890  | LEAD BM<63 WSF UG/G           | 2           | 10.000                 | 9.000   | --      | --   | --     | --        | --     | --     |

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|--|-------------------------------|-------------|------------------------|----------|------|--|----|-----------|----|----|
|  |                               |             | Maximum                | Minimum  | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                               |             |                        |          |      |  |    |           |    |    |
| 01052  | LEAD TOTAL BOT. (UG/G AS PB)  | 1           | 10.000                 | --       | --   | --   | -- | --        | -- | -- |
| 34895  | LITHIUM BM<63 WS UG/G         | 2           | 25.000                 | 23.000   | --   | --   | -- | --        | -- | -- |
| 34905  | MANGANESE BM<63 UG/G          | 2           | 1100.000               | 1100.000 | --   | --   | -- | --        | -- | -- |
| 34910  | MERCURY BM<63 WS UG/G         | 2           | 0.020                  | 0.020    | --   | --   | -- | --        | -- | -- |
| 71921  | MERCURY BTM UG/G AS HG        | 1           | 0.000                  | --       | --   | --   | -- | --        | -- | -- |
| 34915  | MOLYBDENUM BM<63 UG/G         | 2           | --                     | --       | --   | --   | -- | --        | -- | -- |
| 01063  | MOLYBDENUM BOT.M (UG/G AS MO) | 1           | 0.000                  | --       | --   | --   | -- | --        | -- | -- |
| 34920  | NEODYMIUM BM<63 UG/G          | 2           | 23.000                 | 23.000   | --   | --   | -- | --        | -- | -- |
| 34925  | NICKEL BM<63 WSF UG/G         | 2           | 20.000                 | 19.000   | --   | --   | -- | --        | -- | -- |
| 01068  | NICKEL BOT. MAT. (UG/G AS NI) | 1           | 10.000                 | --       | --   | --   | -- | --        | -- | -- |
| 34930  | NIOBIUM BM<63 WS UG/G         | 2           | 7.000                  | 6.000    | --   | --   | -- | --        | -- | -- |
| 34945  | SCANDIUM BM<63 W UG/G         | 2           | 7.000                  | 7.000    | --   | --   | -- | --        | -- | -- |
| 34950  | SELENIUM BM<63 W UG/G         | 2           | 3.400                  | 0.600    | --   | --   | -- | --        | -- | -- |
| 01148  | SELENIUM BOT. MA (UG/G AS SE) | 1           | 0.000                  | --       | --   | --   | -- | --        | -- | -- |
| 34955  | SILVER BM<63 WSF UG/G         | 2           | 0.200                  | 0.100    | --   | --   | -- | --        | -- | -- |
| 01078  | SILVER BOT. MAT. (UG/G AS AG) | 1           | 0.000                  | --       | --   | --   | -- | --        | -- | -- |
| 34965  | STRONTIUM BM<63 UG/G          | 2           | 190.000                | 180.000  | --   | --   | -- | --        | -- | -- |
| 01083  | STRONTIUM BOT. M (UG/G AS SR) | 1           | 10.000                 | --       | --   | --   | -- | --        | -- | -- |
| 34975  | TANTALUM BM<63 W UG/G         | 2           | --                     | --       | --   | --   | -- | --        | -- | -- |
| 34985  | TIN BM<63 WSF UG/G            | 2           | --                     | --       | --   | --   | -- | --        | -- | -- |
| 49274  | TITANIUM BM <63U (PERCENT)    | 2           | 0.250                  | 0.200    | --   | --   | -- | --        | -- | -- |
| 35005  | VANADIUM BM<63 W UG/G         | 2           | 78.000                 | 71.000   | --   | --   | -- | --        | -- | -- |
| 35015  | YTTERBIUM BM<63 UG/G          | 2           | 2.000                  | 2.000    | --   | --   | -- | --        | -- | -- |
| 35010  | YTTRIUM BM<63 WS UG/G         | 2           | 16.000                 | 14.000   | --   | --   | -- | --        | -- | -- |
| 35020  | ZINC BM<63 WSF UG/G           | 2           | 73.000                 | 52.000   | --   | --   | -- | --        | -- | -- |
| 01093  | ZINC BOTTOM MATE (UG/G AS ZN) | 1           | 10.000                 | --       | --   | --   | -- | --        | -- | -- |
| 49295  | 1-NAPHTHOL FLTRD (UG/L)       | 34          | --                     | --       | --   | --   | -- | --        | -- | -- |
| 77441  | 1-NAPHTHOL, WHOL (UG/L)       | 1           | --                     | --       | --   | --   | -- | --        | -- | -- |
| 82183  | 2,4-DP TOTAL UG/L             | 1           | --                     | --       | --   | --   | -- | --        | -- | -- |
| 39742  | 2,4,5-T DISSOLVE UG/L         | 34          | --                     | --       | --   | --   | -- | --        | -- | -- |
| 39740  | 2,4,5-T TOTAL(WA UG/L         | 2           | --                     | --       | --   | --   | -- | --        | -- | -- |
| 39732  | 2,4-D DISSOLVED UG/L          | 34          | --                     | --       | --   | --   | -- | --        | -- | -- |
| 39730  | 2,4-D TOTAL (WA UG/L          | 2           | --                     | --       | --   | --   | -- | --        | -- | -- |
| 38746  | 2,4-DB FLTRD (UG/L)           | 34          | --                     | --       | --   | --   | -- | --        | -- | -- |
| 82660  | 26DIETHYLANILINE (UG/L)       | 34          | --                     | --       | --   | --   | -- | --        | -- | -- |

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|--|-------------------------|-------------|------------------------|---------|--------|--|--------|-----------|--------|--------|
|  |                         |             | Maximum                | Minimum | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                         |             |                        |         |        |  |        |           |        |        |
| 82584  | 3-HYDRX. CARBOFU UG/L   | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49308  | 3HYDRXYCARBOFURA (UG/L) | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49260  | ACETOCHLOR FLTRD (UG/L) | 11          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49315  | ACIFLUORFEN FLTR (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 46342  | ALACHLOR, DISS, UG/L    | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49313  | ALDICARB SULFONE (UG/L) | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82587  | ALDICARB SULFONE UG/L   | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49314  | ALDICARB SULFOXI (UG/L) | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82586  | ALDICARB SULFOXI UG/L   | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49312  | ALDICARB FLTRD (UG/L)   | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82619  | ALDICARB UG/L           | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39330  | ALDRIN TOTAL (WA UG/L)  | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 34253  | ALPHA BHC UG/L          | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39632  | ATRAZINE, DISS, UG/L    | 34          | 0.370                  | --      | *0.040 | *0.198   | *0.043 | *0.017    | *0.010 | *0.002 |
| 82673  | BENFLURALIN FIL (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38711  | BENTAZON, FLTRD (UG/L)  | 34          | 0.650                  | --      | *0.060 | *0.567   | *0.020 | *0.002    | *0.000 | *0.000 |
| 04029  | BROMACIL DISS RE (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49311  | BROMOXYNIL FLTRD (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04028  | BUTYLATE DISS RE (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49310  | CARBARYL FLTRD (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82680  | CARBARYL FIL 0.7 (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39750  | CARBARYL UNFILT UG/L    | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49309  | CARBOFURAN FLTRD (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82674  | CARBOFURAN FIL. (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82615  | CARBOFURAN UG/L         | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39786  | CARBOPHENOTHION UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 61188  | CHLORAMBEN, METH (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39350  | CHLORDANE TOT(WA UG/L)  | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 49306  | CHLOROTHALONIL F (UG/L) | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38933  | CHLORPYRIFOS, DI UG/L   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49305  | CLOPYRALID FLTRD (UG/L) | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04041  | CYANAZINE DISS R (UG/L) | 34          | 0.110                  | --      | *0.012 | *0.075   | *0.012 | *0.005    | *0.002 | *0.001 |
| 49304  | DACTHAL MONO-ACI (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82682  | DCPA FIL 0.7 REC (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04040  | DEETHYL ATRAZINE (UG/L) | 34          | 0.025                  | --      | *0.005 | *0.018   | *0.005 | *0.004    | *0.002 | *0.001 |

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|--|--------------------------|-------------|------------------------|---------|--------|--|--------|-----------|--------|--------|
|  |                          |             | Maximum                | Minimum | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                          |             |                        |         |        |  |        |           |        |        |
| 39572  | DIAZINON DISSOLV UG/L    | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39570  | DIAZINON TOT (WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 82052  | DICAMBA,TOTAL UG/L       | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38442  | DICAMBA FLTRD (UG/L)     | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49303  | DICHLOBENIL FLTR (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49302  | DICHLORPRO FLTRD (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39381  | DIELDRIN DISSOLV UG/L    | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39380  | DIELDRIN TOT (WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 49301  | DINOSEB FLTRD (UG/L)     | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82677  | DISULFOTON FIL. (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49300  | DIURON FLTRD (UG/L)      | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49299  | DNOC FLTD (UG/L)         | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39390  | ENDRIN UNF REC (UG/L)    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 82668  | EPTC FIL 0.7 REC (UG/L)  | 34          | 0.013                  | --      | *0.002 | *0.012   | *0.002 | *0.001    | *0.000 | *0.000 |
| 49298  | ESFENVALERATE FL (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82663  | ETHALFLURALIN FI (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39398  | ETHION TOTAL (WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 82672  | ETHOPROP FIL 0.7 (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49297  | FENURON FLTRD (UG/L)     | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38811  | FLUOMETURON FLT (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04095  | FONOFOX DISS REC0 (UG/L) | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39420  | HEPT EPOX TOT(WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 39410  | HEPTACHLOR T.(WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 39341  | LINDANE DISSOLVE UG/L    | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39340  | LINDANE TOTAL(WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 38478  | LINURON FLTRD (UG/L)     | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82666  | LINURON FIL 0.7 (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39532  | MALATHION DISSOL UG/L    | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39530  | MALATHION TOT(WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 38482  | MCPA FLTRD (UG/L)        | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38487  | MCPB FLTRD (UG/L)        | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38501  | METHIOCARB FLTRD (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 30282  | METHIOCARB WTR W UG/L    | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39051  | METHOMYL TOTAL UG/L      | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49296  | METHOMYL FLTRD (UG/L)    | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |

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| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                          |             |                        |         |        |  |        |           |        |        |
| 82686  | METHYL AZINPHOS (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39600  | MET PARTH TOT(WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 82667  | METHYL PARATHION (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39790  | MET TRITH TOT(WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 39415  | METOLACHLOR,WAT. UG/L    | 34          | 0.075                  | --      | *0.005 | *0.036   | *0.004 | *0.001    | *0.001 | *0.000 |
| 82630  | METRIBUZIN,WAT.D UG/L    | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82671  | MOLINATE FIL 0.7 (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82684  | NAPROPAMIDE FIL (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49294  | NEBURON FLTRD (UG/L)     | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49293  | NORFLURAZON FLTR (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49292  | ORYZALIN FLTRD (UG/L)    | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38866  | OXAMYL FLTRD (UG/L)      | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82613  | OXYAMYL UG/L             | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 34653  | P,P' DDE DISSOLV (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39360  | P,P'-DDD UNFLT R UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 49328  | P,P'-DDE BM <2MM (UG/KG) | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39365  | P,P'-DDE, TOTAL UG/L     | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 39370  | P,P'-DDT UNFILT UG/L     | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 39542  | PARATHION DISSOL UG/L    | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39540  | PARATHION TOT(WA UG/L    | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 39516  | PCB TOTAL (WA UG/L       | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 39250  | PCN TOTAL (WA UG/L       | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 82669  | PEBULATE FIL 0.7 (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82683  | PENDIMETHALIN F. (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82687  | PERMETHRIN FIL. (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 32730  | PHENOLS, TOTAL UG/L      | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82664  | PHORATE FIL 0.7 (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49291  | PICLORAM FLTRD (UG/L)    | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39720  | PICLORAM, TOTAL UG/L     | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04037  | PROMETON DISS RE (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82676  | PRONAMIDE FIL .7 (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04024  | PROPACHLOR DISS (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82679  | PROPANIL FIL 0.7 (UG/L)  | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82685  | PROPARGITE FIL. (UG/L)   | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39052  | PROPHAM TOTAL UG/L       | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |

**Supplement 24.** Statistical summary of water-quality data for the Wild Rice River at Twin Valley, Minn., gaging station 05062500, September 1974 through August 1998--Continued

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|--|----------------------------|-------------|------------------------|---------|--------|--|--------|-----------|--------|--------|
|  |                            |             | Maximum                | Minimum | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                            |             |                        |         |        |  |        |           |        |        |
| 49236  | PROPHAM FLTRD (UG/L)       | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38538  | PROPOXUR FLTRD (UG/L)      | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 30296  | PROPOXUR, WTR WH UG/L      | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39762  | SILVEX DISSOLVED UG/L      | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39760  | SILVEX TOTAL (WA UG/L      | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04035  | SIMAZINE DISS RE (UG/L)    | 34          | 0.008                  | --      | *0.004 | *0.008   | *0.005 | *0.004    | *0.003 | *0.002 |
| 82670  | TEBUTHIURON FIL (UG/L)     | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82665  | TERBACIL FIL 0.7 (UG/L)    | 33          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82675  | TERBUFOS FIL 0.7 (UG/L)    | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82681  | THIOBENCARB FIL (UG/L)     | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39400  | TOXAPHENE TOT(WA UG/L      | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 82678  | TRIALATE FIL .7 (UG/L)     | 34          | 0.210                  | --      | *0.018 | *0.120   | *0.018 | *0.006    | *0.001 | *0.000 |
| 49235  | TRICLOPYR FLTRD (UG/L)     | 34          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82661  | TRIFLURALIN FIL (UG/L)     | 34          | 0.018                  | --      | *0.005 | *0.017   | *0.007 | *0.004    | *0.002 | *0.001 |
| 49391  | 22BIQUINOLINE <2 (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49421  | 3,5-XYLENOL BM < (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49454  | 4BROMOPHNPHNLETH (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49455  | 4CHLOROPHNPHNLET (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49411  | 4HCYPENPHENANTHR (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49437  | 9,10ANTHRAQUINON (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49398  | 1METHYL9HFLUOREN (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49399  | 9H-FLUORENE BM < (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49429  | ACENAPHTHENE <2 (UG/KG)    | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49428  | ACENAPHTHYLENE < (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49430  | ACRIDINE BM <2MM (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39333  | ALDRIN BTM U UG/KG         | 1           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 49319  | ALDRIN BM <2MM (UG/KG)     | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49275  | ALPHA-BHC SURRGT (PERCENT) | 2           | 74.000                 | 48.000  | --     | --   | --     | --        | --     | --     |
| 49338  | ALPHA-BHC BM <2M (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49435  | 2METHYLANTHRACEN (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49434  | ANTHRACENE BM <2 (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49443  | AZOBENZENE BM <2 (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49436  | BENZ(A)ANTHRACEN (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49438  | BENZENE124TRICHL (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49343  | BENZENE HEXACHLO (UG/KG)   | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |

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|--|---------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                           |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                           |             |                        |         |      |  |    |           |    |    |
| 49441  | BENZENE MDICHLOR (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49444  | BENZENE NITRO <2 (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49280  | BENZENE NITROD5 (PERCENT) | 2           | 57.000                 | 48.000  | --   | --   | -- | --        | -- | -- |
| 49439  | BENZENEODICHLORO (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49442  | BENZENE PDICHLOR (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49446  | BENZENEPTCHLRNT (UG/KG)   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49389  | BENZO(A)PYRENE < (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49458  | BENZOBFLUORANTHE (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49408  | BENZO(GHI)PERYLE (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49397  | BENZO(K)FLUORANT (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49468  | BENZOCINNOLINE B (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49339  | BETA-BHC BM <2MM (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49279  | BIPHENL 2FLUORO (PERCENT) | 2           | 58.000                 | 36.000  | --   | --   | -- | --        | -- | -- |
| 49277  | BIPHENL 35DICHR (PERCENT) | 2           | 80.000                 | 52.000  | --   | --   | -- | --        | -- | -- |
| 49449  | CARBAZOLE BM <2M (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39351  | CHLORDANE BTM U UG/KG     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 49322  | CHLORONEB BM <2M (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49450  | CHRYSENE BM <2MM (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49320  | CIS-CHLORDANE BM (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49316  | CIS-NONACHLOR BM (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49349  | CIS-PERMETHRIN < (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49324  | DCPA BM <2MM (UG/KG)      | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39571  | DIAZINON BTM U UG/KG      | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 49461  | DBENZ(AH)ANTHRAC (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49331  | DIELDRIN BM <2MM (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39383  | DIELDRIN BTM UG/KG        | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 49433  | NNITRSDIPHNYLAMN (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49431  | NNITROSODPRPYLAM (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49332  | ENDOSULFAN I BM (UG/KG)   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39393  | ENDRIN BTM UG/KG          | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 49335  | ENDRIN BM <2MM (UG/KG)    | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39399  | ETHION BTM UG/KG          | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 49466  | FLUORANTHENE BM (UG/KG)   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49342  | HEPTACHLOR EPOXI (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39423  | HEPT EPOX BTM U UG/KG     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |

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| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                           |             |                        |         |      |  |    |           |    |    |    |
| 39413  | HEPTACHLOR BTM U UG/KG    | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |
| 49341  | HEPTA-CHLOR BM < (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49390  | 1MINDENO123CDPYR (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49344  | ISODRIN BM <2MM (UG/KG)   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49400  | ISOPHORONE BM <2 (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49394  | ISOQUINOLINE BM (UG/KG)   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49345  | LINDANE BM <2MM (UG/KG)   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 39343  | LINDANE BTM U UG/KG       | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |
| 39531  | MALATHION BTM U UG/KG     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |
| 49422  | 4-CHLORO M-CRESO (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49401  | METHANE2CHLRETHO (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49347  | METHOXYCHLOR O,P (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49346  | METHOXYCHLOR P,P (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 39601  | MET PARTH BTM U UG/KG     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |
| 39791  | MET TRITH BTM U UG/KG     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |
| 49348  | MIREX BM <2MM (UG/KG)     | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49403  | 12DIMETHLNAPHTHA (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49404  | 16DIMETHLNAPHTHA (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49405  | 236TRIMTHNAPHTHA (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49406  | 26DIMETHLNAPHTHA (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49407  | 2-CHLORONAPHTHAL (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49948  | NAPHTH, 2ETHYL B UG/KG    | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49402  | NAPHTHALENE BM < (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49325  | O,P'-DDD BM <2MM (UG/KG)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49327  | O,P'-DDE BM <2MM (UG/KG)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49329  | O,P'-DDT BM <2MM (UG/KG)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49276  | OCTCHLR BIPHENL (PERCENT) | 2           | 99.000                 | 52.000  | --   | --   | -- | --        | -- | -- | -- |
| 00553  | OIL AND GREASE B (MG/KG)  | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |
| 49318  | OXYCHLORDANE BM (UG/KG)   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 39363  | P,P'-DDD BEDMAT UG/KG     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |
| 49326  | P,P'-DDD BM <2MM (UG/KG)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 39368  | P,P'-DDE BED MAT UG/KG    | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |
| 39373  | P,P'-DDT BTM UG/KG        | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |
| 49330  | P,P'-DDT BM <2MM (UG/KG)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 39541  | PARATHION BTM UG UG/KG    | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- | -- |

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| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                                 |             |                        |         |         |  |         |           |        |        |
| 39519  | PCB BTM UG/KG                   | 1           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 49459  | PCB BM <2MM (UG/KG)             | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49451  | P-CRESOL BM <2MM (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49460  | PENTACHLOROANISO (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49410  | 1METHYLPHENANTHR (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49409  | PHENANTHRENE BM (UG/KG)         | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49393  | PHENANTHRIDINE < (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49413  | PHENOL BM <2MM (UG/KG)          | 2           | 20.000                 | 10.000  | --      | --   | --      | --        | --     | --     |
| 49424  | PHENOL C8-ALKYL- (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49467  | PHENOL 2CHLORO B (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49426  | BS2ETHHXLPHTHALA (UG/KG)        | 2           | 70.000                 | 50.000  | --      | --   | --      | --        | --     | --     |
| 49427  | BUTYLBENZYLPHTHAL (UG/KG)       | 2           | 60.000                 | 40.000  | --      | --   | --      | --        | --     | --     |
| 49381  | DIBUTYLPHTHALATE (UG/KG)        | 2           | 70.000                 | 60.000  | --      | --   | --      | --        | --     | --     |
| 49383  | PHTHALATE DIETHY (UG/KG)        | 2           | 40.000                 | 20.000  | --      | --   | --      | --        | --     | --     |
| 49384  | DIMETHLYPHTHALAT (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49382  | PHTHALATE DIOCTY (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49388  | PYRENE 1-METHYL (UG/KG)         | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49387  | PYRENE BM <2MM (UG/KG)          | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49392  | QUINOLINE BM <2M (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49278  | TERPHENYL,D14- S (PERCENT)      | 2           | 68.000                 | 50.000  | --      | --   | --      | --        | --     | --     |
| 49452  | THIOPHENE,DIBENZ (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49395  | 24DINITROTOLUENE (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49396  | 26DINITROTOLUENE (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39403  | TOXAPHENE BTM UG/KG             | 1           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 49351  | TOXAPHENE BM <2M (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49321  | T-CHLORDANE BM < (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49317  | T-NONACHLOR BM < (UG/KG)        | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49350  | TRANS-PERMETHRIN (UG/KG)        | 1           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39787  | TRITHION BTM UG/KG              | 1           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 34980  | THORIUM BM<63 WS UG/G           | 2           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 35000  | URANIUM BM<63 WS UG/G           | 2           | 3.200                  | 2.500   | --      | --   | --      | --        | --     | --     |
| 70331  | SED-SUSP-SIEVE-. %              | 42          | 100.000                | 16.000  | 82.571  | 99.000   | 95.000  | 88.000    | 75.250 | 38.300 |
| 80154  | CONCENTRATION,S. MG/L           | 63          | 984.000                | 5.000   | 122.968 | 468.000  | 163.000 | 73.000    | 23.000 | 5.200  |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 53          | 2710.000               | 1.300   | 360.479 | 1575.000   | 565.000 | 122.000   | 22.500 | 2.250  |
| 80294  | BED MAT FD DW<.0 PERCENT <.002M | 1           | 8.000                  | --      | --      | --   | --      | --        | --     | --     |

**Supplement 24.** Statistical summary of water-quality data for the Wild Rice River at Twin Valley, Minn., gaging station 05062500, September 1974 through August 1998--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>Minnesota data, September 1974 through August 1998--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 80157  | SED-BED-FALL-D-. %              | 2           | 9.000                  | 8.000   | --      | --   | --      | --        | --      | --      |
| 80293  | BED MAT FD DW<.0 PERCENT> .008M | 1           | 9.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80282  | BED MAT FD DW<.0 PERCENT <.016M | 1           | 12.000                 | --      | --      | --   | --      | --        | --      | --      |
| 80283  | BED MAT FD DW<.0 PERCENT <.031M | 1           | 18.000                 | --      | --      | --   | --      | --        | --      | --      |
| 80158  | SED-BED-FALL-D-. %              | 3           | 31.000                 | 0.000   | --      | --   | --      | --        | --      | --      |
| 80159  | SED-BED-FALL-D-. %              | 3           | 68.000                 | 1.000   | --      | --   | --      | --        | --      | --      |
| 80160  | SED-BED-FALL-D-. %              | 3           | 93.000                 | 11.000  | --      | --   | --      | --        | --      | --      |
| 80161  | SED-BED-FALL-D-. %              | 3           | 99.000                 | 40.000  | --      | --   | --      | --        | --      | --      |
| 80162  | SED-BED-FALL-D-1 %              | 3           | 100.000                | 68.000  | --      | --   | --      | --        | --      | --      |
| 80164  | SED-BED-SIEVE-.0 %              | 1           | 1.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80165  | SED-BED-SIEVE-.1 %              | 1           | 5.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80166  | SED-BED-SIEVE-.2 %              | 1           | 17.000                 | --      | --      | --   | --      | --        | --      | --      |
| 80167  | SED-BED-SIEVE-.5 %              | 1           | 27.000                 | --      | --      | --   | --      | --        | --      | --      |
| 80168  | SED-BED-SIEVE-1. %              | 1           | 33.000                 | --      | --      | --   | --      | --        | --      | --      |
| 80169  | SED-BED-SIEVE-2. %              | 3           | 100.000                | 42.000  | --      | --   | --      | --        | --      | --      |
| 80170  | SED-BED-SIEVE-4. %              | 2           | 97.000                 | 59.000  | --      | --   | --      | --        | --      | --      |
| 80171  | SED-BED-SIEVE-8. %              | 2           | 99.000                 | 78.000  | --      | --   | --      | --        | --      | --      |
| 80172  | SED-BED-SIEVE-16 %              | 2           | 100.000                | 89.000  | --      | --   | --      | --        | --      | --      |
| 80173  | SED-BED-SIEVE-32 %              | 1           | 100.000                | --      | --      | --   | --      | --        | --      | --      |
| 95100  | CONVERSION FACTO                | 114         | 287.000                | 1.800   | 30.768  | 154.400  | 25.175  | 14.050    | 9.675   | 3.300   |
| 99869  | SAMP VOL SCHED 1 (ML)           | 1           | 954.000                | --      | --      | --   | --      | --        | --      | --      |
| 99857  | SAMP VOL SCHED 2 (ML)           | 12          | 939.000                | 757.000 | 876.583 | 939.000  | 907.250 | 880.500   | 852.250 | 757.000 |
| 99853  | SAMPLE WEIGHT S2 (G)            | 2           | 25.000                 | 25.000  | --      | --   | --      | --        | --      | --      |
| 99824  | SET NO SCHED 250 (NUMBER)       | 2           | 95.310                 | 32.100  | --      | --   | --      | --        | --      | --      |
| 99825  | SET NO SCHED 250 (NUMBER)       | 2           | 93032.000              | 95.310  | --      | --   | --      | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 25.** Statistical summary of water-quality data for the Wild Rice River at Hendrum, Minn., gaging station 05064000, July 1978 through September 1999

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>Minnesota data, July 1978 through September 1999</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 13          | 26.900                 | 4.470   | 16.698   | 26.900   | 23.385   | 18.640    | 9.395   | 4.470   |
| 00060   | DISCHARGE CFS                   | 21          | 6520.000               | 75.000  | 2367.667 | 6497.000   | 4195.000 | 1610.000  | 401.500 | 77.000  |
| 00061   | DISCHARGE, INST. CFS            | 56          | 6690.000               | 29.000  | 1369.554 | 6456.500   | 2022.500 | 499.000   | 72.000  | 30.000  |
| 00310   | BOD 5-DAY AT 20 (MG/L)          | 11          | 5.100                  | 0.400   | 2.600    | 5.100  | 4.800    | 1.800     | 1.300   | 0.400   |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 2           | 0.600                  | 0.300   | --       | --   | --       | --        | --      | --      |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 1           | 1460.000               | --      | --       | --   | --       | --        | --      | --      |
| 70300   | RESIDUE DIS 180C MG/L           | 2           | 451.000                | 250.000 | --       | --   | --       | --        | --      | --      |
| 70301   | DISSOLVED SOLIDS MG/L           | 2           | 461.000                | 217.000 | --       | --   | --       | --        | --      | --      |
| 00070   | TURBIDITY (JCU)                 | 20          | 100.000                | 1.000   | 21.700   | 98.250   | 30.000   | 15.000    | 5.000   | 1.100   |
| 00076   | TURBIDITY (NTU)                 | 27          | 540.000                | 10.000  | 90.259   | 428.000  | 110.000  | 35.000    | 25.000  | 14.000  |
| 00025   | AIR PRESSURE (MM OF HG)         | 11          | 760.000                | 726.000 | 738.182  | 760.000  | 742.000  | 737.000   | 733.000 | 726.000 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 45          | 12.800                 | 2.300   | 7.896    | 12.140   | 9.450    | 7.700     | 6.000   | 4.690   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 45          | 99.000                 | 16.000  | 78.107   | 95.400   | 89.200   | 83.000    | 73.700  | 36.200  |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 47          | 9.400                  | 7.300   | 8.081    | 9.060  | 8.300    | 8.200     | 7.800   | 7.400   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 2           | 8.000                  | 7.500   | --       | --   | --       | --        | --      | --      |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 2           | 756.000                | 372.000 | --       | --   | --       | --        | --      | --      |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 48          | 760.000                | 245.000 | 508.667  | 727.500  | 540.000  | 508.500   | 456.750 | 352.300 |
| 00020   | AIR TEMPERATURE DEGREES C       | 33          | 395.000                | -21.000 | 26.667   | 143.700  | 25.000   | 20.000    | 7.250   | -17.500 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 47          | 27.000                 | 0.000   | 14.336   | 26.060   | 22.000   | 16.000    | 6.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 1           | 7.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 2           | 393.000                | 171.000 | --       | --   | --       | --        | --      | --      |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 2           | 93.000                 | 42.000  | --       | --   | --       | --        | --      | --      |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 2           | 39.000                 | 16.000  | --       | --   | --       | --        | --      | --      |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 2           | 4.600                  | 4.500   | --       | --   | --       | --        | --      | --      |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 2           | 0.395                  | 0.173   | --       | --   | --       | --        | --      | --      |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 2           | 18.000                 | 5.200   | --       | --   | --       | --        | --      | --      |
| 00932   | SODIUM, PERCENT PERCENT         | 2           | 8.950                  | 6.030   | --       | --   | --       | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 1           | 126.000                | --      | --       | --   | --       | --        | --      | --      |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 1           | 386.000                | --      | --       | --   | --       | --        | --      | --      |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 1           | 471.000                | --      | --       | --   | --       | --        | --      | --      |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)  | 1           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00940   | CHLORIDE DISSOLV (MG/L AS Cl)   | 36          | 8.300                  | 2.900   | 4.375    | 8.130  | 4.775    | 4.000     | 3.425   | 2.985   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 2           | 0.200                  | 0.200   | --       | --   | --       | --        | --      | --      |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 2           | 24.000                 | 11.000  | --       | --   | --       | --        | --      | --      |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 2           | 51.000                 | 40.000  | --       | --   | --       | --        | --      | --      |

**Supplement 25.** Statistical summary of water-quality data for the Wild Rice River at Hendrum, Minn., gaging station 05064000, July 1978 through September 1999--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |        | Percentage of samples in which values were less than or equal to those shown |        |           |        |        |
|--|--------------------------------|-------------|------------------------|---------|--------|--|--------|-----------|--------|--------|
|  |                                |             | Maximum                | Minimum | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>Minnesota data, July 1978 through September 1999--Continued</b> |                                |             |                        |         |        |  |        |           |        |        |
| 00608  | NITROGEN AMMONIA (MG/L AS N)   | 2           | 0.170                  | 0.080   | --     | --   | --     | --        | --     | --     |
| 00623  | NITRO AMN & ORG (MG/L AS N)    | 2           | 0.800                  | 0.800   | --     | --   | --     | --        | --     | --     |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)   | 35          | 2.000                  | 0.330   | 0.946  | 1.840  | 1.000  | 0.880     | 0.760  | 0.554  |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4   | 2           | 0.219                  | 0.103   | --     | --   | --     | --        | --     | --     |
| 00610  | NITROGEN AMMONIA (MG/L AS N)   | 34          | 0.340                  | 0.010   | 0.075  | 0.288  | 0.095  | 0.050     | 0.020  | 0.010  |
| 71845  | NITROGEN, NH4, T MG/L AS NH4   | 33          | 0.440                  | 0.010   | 0.098  | 0.377  | 0.130  | 0.060     | 0.030  | 0.010  |
| 00602  | NITROGEN DISSOLV (MG/L AS N)   | 2           | 1.800                  | 1.130   | --     | --   | --     | --        | --     | --     |
| 00618  | NITROGEN NITRATE (MG/L AS N)   | 1           | 0.950                  | --      | --     | --   | --     | --        | --     | --     |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3   | 1           | 4.210                  | --      | --     | --   | --     | --        | --     | --     |
| 00620  | NITROGEN NITRATE MG/L AS N     | 34          | 2.400                  | 0.000   | 0.331  | 2.175  | 0.295  | 0.085     | 0.018  | 0.000  |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)   | 2           | 1.000                  | 0.330   | --     | --   | --     | --        | --     | --     |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)    | 34          | 2.500                  | --      | *0.348 | *2.275   | *0.250 | *0.100    | *0.028 | *0.005 |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2   | 1           | 0.164                  | --      | --     | --   | --     | --        | --     | --     |
| 00613  | NITROGEN,NITRITE MG/L AS N     | 2           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 00615  | NITROGEN,NITRITE MG/L AS N     | 34          | 0.140                  | --      | *0.021 | *0.132   | *0.020 | *0.010    | *0.005 | *0.002 |
| 00607  | NITROGEN ORGANIC (MG/L AS N)   | 2           | 0.720                  | 0.630   | --     | --   | --     | --        | --     | --     |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 35          | 1.920                  | 0.270   | 0.871  | 1.744  | 0.980  | 0.760     | 0.680  | 0.502  |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 35          | 4.300                  | 0.380   | 1.310  | 3.420  | 1.500  | 1.000     | 0.800  | 0.580  |
| 71887  | NITROGEN, TOTAL MG/L AS NO3    | 34          | 19.000                 | 1.700   | 5.591  | 15.250   | 6.025  | 4.400     | 3.475  | 2.525  |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 2           | 0.184                  | 0.031   | --     | --   | --     | --        | --     | --     |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 12          | 0.890                  | 0.150   | 0.369  | 0.890  | 0.400  | 0.295     | 0.198  | 0.150  |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 36          | 0.190                  | 0.010   | 0.044  | 0.156  | 0.050  | 0.030     | 0.020  | 0.010  |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 2           | 0.060                  | 0.010   | --     | --   | --     | --        | --     | --     |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 35          | 0.410                  | 0.010   | 0.101  | 0.346  | 0.120  | 0.070     | 0.050  | 0.010  |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 16          | 0.890                  | 0.150   | 0.375  | 0.890  | 0.423  | 0.325     | 0.250  | 0.150  |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 1           | 6.100                  | --      | --     | --   | --     | --        | --     | --     |
| 01005  | BARIUM DISSOLVED (UG/L AS BA)  | 1           | 98.000                 | --      | --     | --   | --     | --        | --     | --     |
| 01010  | BERYLLIUM DISSOL (UG/L AS BE)  | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 01025  | CADMIUM DISSOLVE (UG/L AS CD)  | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 01030  | CHROMIUM DISSOLV (UG/L AS CR)  | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 01035  | COBALT DISSOLVED (UG/L AS CO)  | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 01040  | COPPER DISSOLVED (UG/L AS CU)  | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 2           | 50.000                 | 20.000  | --     | --   | --     | --        | --     | --     |
| 01049  | LEAD DISSOLVED (UG/L AS PB)    | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)  | 1           | 24.000                 | --      | --     | --   | --     | --        | --     | --     |

**Supplement 25.** Statistical summary of water-quality data for the Wild Rice River at Hendrum, Minn., gaging station 05064000, July 1978 through September 1999--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|-------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                               |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, July 1978 through September 1999--Continued</b> |                               |             |                        |         |      |  |    |           |    |    |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 2           | 33.000                 | 5.000   | --   | --   | -- | --        | -- | -- |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01065  | NICKEL DISSOLVED (UG/L AS NI) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01075  | SILVER DISSOLVED (UG/L AS AG) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 1           | 280.000                | --      | --   | --   | -- | --        | -- | -- |
| 01085  | VANADIUM DISSOLV (UG/L AS V)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 01090  | ZINC DISSOLVED (UG/L AS ZN)   | 1           | 23.000                 | --      | --   | --   | -- | --        | -- | -- |
| 49295  | 1-NAPHTHOL FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39742  | 2,4,5-T DISSOLVE UG/L         | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39732  | 2,4-D DISSOLVED UG/L          | 1           | 0.190                  | --      | --   | --   | -- | --        | -- | -- |
| 38746  | 2,4-DB FLTRD (UG/L)           | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82660  | 26DIETHYLANILINE (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49308  | 3HYDRXYCARBOFURA (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49260  | ACETOCHLOR FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49315  | ACIFLUORFEN FLTR (UG/L)       | 1           | 0.170                  | --      | --   | --   | -- | --        | -- | -- |
| 46342  | ALACHLOR, DISS, UG/L          | 1           | 0.015                  | --      | --   | --   | -- | --        | -- | -- |
| 49313  | ALDICARB SULFONE (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49314  | ALDICARB SULFOXI (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49312  | ALDICARB FLTRD (UG/L)         | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34253  | ALPHA BHC UG/L                | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39632  | ATRAZINE, DISS, UG/L          | 1           | 0.130                  | --      | --   | --   | -- | --        | -- | -- |
| 82673  | BENFLURALIN FIL (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38711  | BENTAZON, FLTRD (UG/L)        | 1           | 0.140                  | --      | --   | --   | -- | --        | -- | -- |
| 04029  | BROMACIL DISS RE (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49311  | BROMOXYNIL FLTRD (UG/L)       | 1           | 0.100                  | --      | --   | --   | -- | --        | -- | -- |
| 04028  | BUTYLATE DISS RE (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49310  | CARBARYL FLTRD (UG/L)         | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82680  | CARBARYL FIL 0.7 (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49309  | CARBOFURAN FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82674  | CARBOFURAN FIL. (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 61188  | CHLORAMBEN, METH (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49306  | CHLOROTHALONIL F (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38933  | CHLORPYRIFOS, DI UG/L         | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49305  | CLOPYRALID FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04041  | CYANAZINE DISS R (UG/L)       | 1           | 0.098                  | --      | --   | --   | -- | --        | -- | -- |

**Supplement 25.** Statistical summary of water-quality data for the Wild Rice River at Hendrum, Minn., gaging station 05064000, July 1978 through September 1999--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent  | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|--------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                          |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, July 1978 through September 1999--Continued</b> |                          |             |                        |         |      |  |    |           |    |    |
| 49304  | DACTHAL MONO-ACI (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82682  | DCPA FIL 0.7 REC (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04040  | DEETHYL ATRAZINE (UG/L)  | 1           | 0.022                  | --      | --   | --   | -- | --        | -- | -- |
| 39572  | DIAZINON DISSOLV UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38442  | DICAMBA FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49303  | DICHOLOBENIL FLTR (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49302  | DICHLORPRO FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39381  | DIELDRIN DISSOLV UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49301  | DINOSEB FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677  | DISULFOTON FIL. (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49300  | DIURON FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49299  | DNOC FLTD (UG/L)         | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82668  | EPTC FIL 0.7 REC (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49298  | ESFENVALERATE FL (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82663  | ETHALFLURALIN FI (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82672  | ETHOPROP FIL 0.7 (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49297  | FENURON FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38811  | FLUOMETURON FLT (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04095  | FONOFOX DISS REC (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39341  | LINDANE DISSOLVE UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38478  | LINURON FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82666  | LINURON FIL 0.7 (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39532  | MALATHION DISSOL UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38482  | MCPA FLTRD (UG/L)        | 1           | 0.120                  | --      | --   | --   | -- | --        | -- | -- |
| 38487  | MCPB FLTRD (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38501  | METHIOCARB FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49296  | METHOMYL FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82686  | METHYL AZINPHOS (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82667  | METHYL PARATHION (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39415  | METOLACHLOR,WAT. UG/L    | 1           | 0.012                  | --      | --   | --   | -- | --        | -- | -- |
| 82630  | METRIBUZIN,WAT.D UG/L    | 1           | 0.004                  | --      | --   | --   | -- | --        | -- | -- |
| 82671  | MOLINATE FIL 0.7 (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82684  | NAPROPAMIDE FIL (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49294  | NEBURON FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49293  | NORFLURAZON FLTR (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 25.** Statistical summary of water-quality data for the Wild Rice River at Hendrum, Minn., gaging station 05064000, July 1978 through September 1999--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |        |
|--|--------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|--------|
|  |                                |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5      |
| <b>Minnesota data, July 1978 through September 1999--Continued</b> |                                |             |                        |         |          |  |          |           |         |        |
| 49292  | ORYZALIN FLTRD (UG/L)          | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 38866  | OXAMYL FLTRD (UG/L)            | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 34653  | P,P' DDE DISSOLV (UG/L)        | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 39542  | PARATHION DISSOL UG/L          | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82669  | PEBULATE FIL 0.7 (UG/L)        | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82683  | PENDIMETHALIN F. (UG/L)        | 1           | 0.004                  | --      | --       | --   | --       | --        | --      | --     |
| 82687  | PERMETHRIN FIL. (UG/L)         | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82664  | PHORATE FIL 0.7 (UG/L)         | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 49291  | PICLORAM FLTRD (UG/L)          | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 04037  | PROMETON DISS RE (UG/L)        | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82676  | PRONAMIDE FIL .7 (UG/L)        | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 04024  | PROPACHLOR DISS (UG/L)         | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82679  | PROPANIL FIL 0.7 (UG/L)        | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82685  | PROPARGITE FIL. (UG/L)         | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 49236  | PROPHAM FLTRD (UG/L)           | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 38538  | PROPOXUR FLTRD (UG/L)          | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 39762  | SILVEX DISSOLVED UG/L          | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 04035  | SIMAZINE DISS RE (UG/L)        | 1           | 0.007                  | --      | --       | --   | --       | --        | --      | --     |
| 82670  | TEBUTHIURON FIL (UG/L)         | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82665  | TERBACIL FIL 0.7 (UG/L)        | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82675  | TERBUFOS FIL 0.7 (UG/L)        | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82681  | THIOBENCARB FIL (UG/L)         | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82678  | TRIALATE FIL .7 (UG/L)         | 1           | 0.038                  | --      | --       | --   | --       | --        | --      | --     |
| 49235  | TRICLOPYR FLTRD (UG/L)         | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 82661  | TRIFLURALIN FIL (UG/L)         | 1           | 0.018                  | --      | --       | --   | --       | --        | --      | --     |
| 82082  | HYDROGEN 2 / 1 R RATIO PER MIL | 1           | -84.000                | --      | --       | --   | --       | --        | --      | --     |
| 82085  | OXYGEN 18 / 16 R RATIO PER MIL | 1           | -10.950                | --      | --       | --   | --       | --        | --      | --     |
| 07000  | TRITIUM TOTAL (PCI/L)          | 1           | 49.000                 | --      | --       | --   | --       | --        | --      | --     |
| 75985  | TRITIUM PREC EST PCI/L         | 1           | 5.800                  | --      | --       | --   | --       | --        | --      | --     |
| 70331  | SED-SUSP-SIEVE-. %             | 5           | 99.000                 | 91.000  | --       | --   | --       | --        | --      | --     |
| 80154  | CONCENTRATION,S. MG/L          | 32          | 792.000                | 20.000  | 191.094  | 598.950  | 223.500  | 131.000   | 93.000  | 21.950 |
| 80155  | DISCHARGE,SUSP.S T/DAY         | 26          | 5670.000               | 10.000  | 1200.846 | 5043.499   | 1680.000 | 644.500   | 127.000 | 11.750 |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 26.** Statistical summary of water-quality data for the Red River of the North at Halstad, N. Dak., gaging station 05064500, July 1961 through July 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1961 through July 2001</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 14          | 28.200                 | 0.200   | 7.109    | 28.200   | 7.193    | 5.785     | 4.405   | 0.200   |
| 00060   | DISCHARGE CFS                   | 71          | 25800.000              | 132.000 | 4507.634 | 16800.006  | 6070.000 | 1870.000  | 887.000 | 235.400 |
| 00061   | DISCHARGE, INST. CFS            | 326         | 69200.000              | 23.000  | 5448.294 | 24500.000  | 6090.000 | 1305.000  | 510.750 | 127.850 |
| 00080   | COLOR PLATINUM-COBAL            | 4           | 29.000                 | 16.000  | --       | --   | --       | --        | --      | --      |
| 00540   | RESIDUE FIXED (MG/L)            | 398         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00515   | RESIDUE DISSOLVE (MG/L)         | 1           | 380.000                | --      | --       | --   | --       | --        | --      | --      |
| 00530   | RESIDUE TOTAL (MG/L)            | 1           | 192.000                | --      | --       | --   | --       | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 398         | 0.950                  | 0.000   | 0.238    | 0.740  | 0.550    | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 398         | 40000.000              | 0.000   | 1203.136 | 6521.487   | 786.000  | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 163         | 695.000                | 176.000 | 428.209  | 590.000  | 497.000  | 425.000   | 367.000 | 252.200 |
| 70301   | DISSOLVED SOLIDS MG/L           | 398         | 843.000                | 0.000   | 168.942  | 524.250  | 383.250  | 0.000     | 0.000   | 0.000   |
| 00070   | TURBIDITY (JCU)                 | 4           | 90.000                 | 7.000   | --       | --   | --       | --        | --      | --      |
| 00076   | TURBIDITY (NTU)                 | 112         | 480.000                | 1.000   | 48.054   | 141.000  | 73.750   | 27.500    | 6.625   | 2.165   |
| 61028   | TURBIDITY, FIELD (NTU)          | 1           | 510.000                | --      | --       | --   | --       | --        | --      | --      |
| 00025   | AIR PRESSURE (MM OF HG)         | 96          | 785.000                | 710.000 | 746.469  | 770.000  | 760.000  | 743.000   | 738.000 | 725.850 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 135         | 16.200                 | 1.900   | 8.947    | 13.220   | 11.000   | 9.000     | 6.800   | 4.040   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 398         | 144.000                | 0.000   | 23.389   | 97.000   | 61.250   | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 186         | 9.200                  | 5.900   | 8.094    | 8.700  | 8.300    | 8.100     | 7.900   | 7.500   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 98          | 8.700                  | 7.300   | 7.967    | 8.400  | 8.125    | 8.000     | 7.800   | 7.495   |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 109         | 1090.000               | 299.000 | 680.541  | 914.000  | 785.500  | 686.000   | 588.000 | 390.500 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 375         | 1650.000               | 245.000 | 636.661  | 940.400  | 750.000  | 638.000   | 522.000 | 303.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 195         | 33.000                 | -25.000 | 10.190   | 28.000   | 21.500   | 11.000    | 2.000   | -13.800 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 381         | 28.000                 | 0.000   | 10.146   | 25.000   | 19.500   | 8.000     | 0.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 398         | 190.000                | 0.000   | 8.445    | 70.050   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 398         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 398         | 150.000                | 0.000   | 9.214    | 78.050   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 398         | 78.000                 | 0.000   | 1.766    | 5.300  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 398         | 480.000                | 0.000   | 118.015  | 370.000  | 272.500  | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 163         | 96.000                 | 28.000  | 60.656   | 80.600   | 69.000   | 60.000    | 52.000  | 39.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 163         | 58.000                 | 12.000  | 33.141   | 45.800   | 39.000   | 33.000    | 29.000  | 17.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 163         | 18.000                 | 3.900   | 7.391    | 10.000   | 8.400    | 7.100     | 6.200   | 4.900   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 398         | 2.000                  | 0.000   | 0.319    | 1.000  | 0.700    | 0.000     | 0.000   | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 17          | 69.000                 | 21.000  | 36.294   | 69.000   | 41.500   | 35.000    | 28.000  | 21.000  |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 163         | 77.000                 | 7.600   | 31.342   | 58.200   | 38.000   | 30.000    | 22.000  | 11.400  |
| 00932   | SODIUM, PERCENT PERCENT         | 398         | 35.000                 | 0.000   | 7.472    | 24.000   | 16.000   | 0.000     | 0.000   | 0.000   |

**Supplement 26.** Statistical summary of water-quality data for the Red River of the North at Halstad, N. Dak., gaging station 05064500, July 1961 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent          | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|----------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1961 through July 2001--Continued</b> |                                  |             |                        |         |         |  |         |           |         |         |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3)    | 398         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 99430  | ANC, CARB, IT, F MG/L            | 6           | 356.000                | 198.000 | 244.167 | 356.000  | 266.000 | 227.500   | 214.500 | 198.000 |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3   | 108         | 350.000                | 104.000 | 231.398 | 317.300  | 263.000 | 230.000   | 200.250 | 135.450 |
| 00418  | ALKALINITY,DIS,F (MG/L AS CaCO3) | 24          | 355.000                | 143.000 | 241.833 | 342.500  | 285.250 | 236.000   | 206.250 | 152.500 |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3) | 43          | 355.000                | 100.000 | 232.698 | 327.200  | 278.000 | 222.000   | 196.000 | 136.200 |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3)  | 80          | 690.000                | 89.000  | 228.150 | 310.000  | 254.000 | 224.000   | 198.500 | 116.700 |
| 00419  | ANC, IT, FIELD (MG/L AS CaCO3)   | 12          | 310.000                | 185.000 | 248.833 | 310.000  | 273.750 | 246.500   | 228.250 | 185.000 |
| 99440  | BICARBONATE MG/L AS HCO3         | 6           | 434.000                | 242.000 | 299.167 | 434.000  | 324.500 | 281.500   | 261.500 | 242.000 |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3)  | 42          | 433.000                | 122.000 | 277.833 | 400.650  | 331.750 | 267.500   | 232.000 | 166.050 |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3)  | 27          | 380.000                | 18.000  | 221.593 | 364.000  | 280.000 | 250.000   | 160.000 | 20.800  |
| 00450  | ANC BICARB IT FI (MG/L AS HCO3)  | 11          | 378.000                | 225.000 | 297.545 | 378.000  | 336.000 | 290.000   | 270.000 | 225.000 |
| 99445  | CARBONATE MG/L AS CO3            | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)   | 43          | 23.000                 | 0.000   | 3.140   | 15.200   | 6.000   | 0.000     | 0.000   | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)   | 26          | 17.000                 | 0.000   | 0.923   | 13.500   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00447  | ANC CARB IT FIEL (MG/L AS CO3)   | 11          | 19.000                 | 0.000   | 2.909   | 19.000   | 4.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)    | 163         | 52.000                 | 4.000   | 17.854  | 35.800   | 22.000  | 16.000    | 12.000  | 7.320   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)     | 163         | 0.700                  | 0.100   | 0.229   | 0.400  | 0.300   | 0.200     | 0.200   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2)  | 153         | 27.000                 | 3.800   | 14.184  | 21.000   | 17.000  | 14.000    | 12.000  | 6.770   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)   | 163         | 240.000                | 36.000  | 108.791 | 190.000  | 130.000 | 110.000   | 80.000  | 46.200  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)     | 105         | 1.600                  | 0.000   | 0.236   | 1.052  | 0.295   | 0.120     | 0.060   | 0.020   |
| 99894  | NH3+ORG N DIS JI                 | 1           | 0.800                  | --      | --      | --   | --      | --        | --      | --      |
| 99892  | NH3+ORG N MOD JI                 | 1           | 1.500                  | --      | --      | --   | --      | --        | --      | --      |
| 00623  | NITRO AMN & ORG (MG/L AS N)      | 61          | 2.900                  | 0.500   | 1.108   | 2.380  | 1.300   | 1.000     | 0.800   | 0.700   |
| 00624  | NITROGEN SUSPEND (MG/L AS N)     | 43          | 3.500                  | 0.000   | 0.511   | 1.780  | 0.700   | 0.380     | 0.100   | 0.000   |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)     | 124         | 19.000                 | 0.700   | 1.646   | 3.000  | 1.700   | 1.300     | 1.100   | 0.800   |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4     | 398         | 2.060                  | 0.000   | 0.080   | 0.440  | 0.030   | 0.000     | 0.000   | 0.000   |
| 00610  | NITROGEN AMMONIA (MG/L AS N)     | 82          | 1.700                  | 0.010   | 0.298   | 1.185  | 0.373   | 0.190     | 0.047   | 0.010   |
| 71845  | NITROGEN, NH4, T MG/L AS NH4     | 398         | 2.190                  | 0.000   | 0.078   | 0.501  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00602  | NITROGEN DISSOLV (MG/L AS N)     | 398         | 6.500                  | 0.000   | 0.195   | 1.700  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618  | NITROGEN NITRATE (MG/L AS N)     | 398         | 4.630                  | 0.000   | 0.111   | 0.610  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3     | 398         | 20.500                 | 0.000   | 0.619   | 3.904  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N       | 398         | 0.580                  | 0.000   | 0.007   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71850  | N, NITRATE TOTAL MG/L AS NO3     | 3           | 5.200                  | 0.400   | --      | --   | --      | --        | --      | --      |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)     | 106         | 4.900                  | --      | *0.574  | *1.765   | *0.632  | *0.400    | *0.218  | *0.077  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)      | 397         | 1.300                  | 0.000   | 0.061   | 0.500  | 0.000   | 0.000     | 0.000   | 0.000   |

**Supplement 26.** Statistical summary of water-quality data for the Red River of the North at Halstad, N. Dak., gaging station 05064500, July 1961 through July 2001--Continued

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| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |           | Percentage of samples in which values were less than or equal to those shown |           |           |          |         |
|--|--------------------------------|-------------|------------------------|---------|-----------|--|-----------|-----------|----------|---------|
|  |                                |             | Maximum                | Minimum | Mean      | 95   | 75        | Median 50 | 25       | 5       |
| <b>North Dakota data, July 1961 through July 2001--Continued</b> |                                |             |                        |         |           |  |           |           |          |         |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2   | 398         | 0.887                  | 0.000   | 0.014     | 0.099  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N     | 62          | 0.270                  | --      | *0.029    | *0.090   | *0.030    | *0.020    | *0.009   | *0.002  |
| 00615  | NITROGEN,NITRITE MG/L AS N     | 14          | 0.160                  | --      | *0.033    | *0.160   | *0.032    | *0.020    | *0.009   | *0.002  |
| 00607  | NITROGEN ORGANIC (MG/L AS N)   | 398         | 1.600                  | 0.000   | 0.095     | 0.891  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 398         | 19.000                 | 0.000   | 0.432     | 1.700  | 0.845     | 0.000     | 0.000    | 0.000   |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 398         | 21.000                 | 0.000   | 0.670     | 2.900  | 1.325     | 0.000     | 0.000    | 0.000   |
| 71887  | NITROGEN, TOTAL MG/L AS NO3    | 398         | 28.000                 | 0.000   | 1.277     | 10.000   | 0.000     | 0.000     | 0.000    | 0.000   |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 398         | 1.690                  | 0.000   | 0.108     | 0.676  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 398         | 1.990                  | 0.000   | 0.035     | 0.190  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 125         | 1.800                  | 0.010   | 0.200     | 0.570  | 0.230     | 0.160     | 0.100    | 0.050   |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)   | 398         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)   | 398         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 398         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 398         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 86          | 0.550                  | 0.010   | 0.158     | 0.396  | 0.210     | 0.130     | 0.080    | 0.040   |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 14          | 0.650                  | 0.060   | 0.229     | 0.650  | 0.303     | 0.160     | 0.110    | 0.060   |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 126         | 2.700                  | 0.070   | 0.321     | 0.640  | 0.370     | 0.280     | 0.170    | 0.100   |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 46          | 2.900                  | 0.280   | 0.906     | 2.355  | 1.100     | 0.785     | 0.423    | 0.320   |
| 99893  | TOT P DISS MOD J               | 1           | 0.180                  | --      | --        | --   | --        | --        | --       | --      |
| 99891  | TOT P, WH, MOD J               | 1           | 0.400                  | --      | --        | --   | --        | --        | --       | --      |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 398         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 398         | 368.000                | 0.000   | 2.877     | 8.705  | 2.400     | 0.000     | 0.000    | 0.000   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 37          | 39.000                 | 7.400   | 11.727    | 20.100   | 12.500    | 10.000    | 9.400    | 7.850   |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 34          | 5.000                  | 0.100   | 1.571     | 3.950  | 2.400     | 1.200     | 0.700    | 0.325   |
| 00680  | CARBON ORGANIC T (MG/L AS C)   | 17          | 28.000                 | 7.800   | 16.635    | 28.000   | 21.000    | 15.000    | 14.000   | 7.800   |
| 00690  | CARBON INORG + O (MG/L AS C)   | 398         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 398         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00572  | BIOMASS, PERIPHY (G/SQ M)      | 9           | 5.350                  | 0.000   | 1.338     | 5.350  | 2.795     | 0.236     | 0.119    | 0.000   |
| 00573  | BIOMASS PERIPHYT (G/SQ M)      | 9           | 7.560                  | 0.000   | 1.689     | 7.560  | 3.030     | 0.472     | 0.120    | 0.000   |
| 70950  | BIO CHL RATIO PE UNITS         | 398         | 2880.000               | 0.000   | 11.398    | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 70949  | BIO CHL RATIO PL UNITS         | 398         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 60050  | PHYTO TYPE-I CELLS/ML          | 23          | 180000.000             | 120.000 | 24494.348 | 158799.922   | 34000.000 | 8400.000  | 3600.000 | 186.000 |
| 31501  | TOT COLI,MENDO M COLS./100 ML  | 1           | 470.000                | --      | --        | --   | --        | --        | --       | --      |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 101         | 2400.000               | 0.000   | 113.792   | 631.000  | 98.500    | 32.000    | 12.500   | 4.000   |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 103         | 54000.000              | 1.000   | 1240.825  | 3760.002   | 340.000   | 95.000    | 33.000   | 10.000  |

**Supplement 26.** Statistical summary of water-quality data for the Red River of the North at Halstad, N. Dak., gaging station 05064500, July 1961 through July 2001--Continued

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|--|-------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1961 through July 2001--Continued</b> |                               |             |                        |         |          |  |          |           |         |         |
| 70957  | CHL-A PR CH-FL M MG/M2        | 8           | 9.400                  | 0.000   | 1.875    | 9.400  | 2.550    | 0.300     | 0.100   | 0.000   |
| 70958  | CHL-B PR CH-FL M MG/M2        | 9           | 2.700                  | 0.000   | 0.500    | 2.700  | 0.900    | 0.000     | 0.000   | 0.000   |
| 01106  | ALUMINUM DISSOLV (UG/L AS AL) | 44          | 70.000                 | --      | *17.483  | *55.000  | *20.000  | *20.000   | *8.650  | *4.483  |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS) | 64          | 11.000                 | 1.000   | 3.875    | 7.000  | 5.000    | 4.000     | 3.000   | 1.250   |
| 01001  | ARSENIC SUSPENDE (UG/L AS AS) | 17          | 6.000                  | --      | *1.023   | *6.000   | *1.000   | *0.501    | *0.225  | *0.074  |
| 01002  | ARSENIC TOTAL (UG/L AS AS)    | 21          | 10.000                 | 2.000   | 5.048    | 9.900  | 7.000    | 5.000     | 3.500   | 2.000   |
| 01005  | BARIUM DISSOLVED (UG/L AS BA) | 65          | 200.000                | --      | *85.352  | *194.000   | *92.747  | *77.000   | *63.500 | *53.000 |
| 01006  | BARIUM SUSPENDE (UG/L AS BA)  | 21          | 300.000                | 0.000   | 39.048   | 280.000  | 100.000  | 0.000     | 0.000   | 0.000   |
| 01007  | BARIUM TOTAL (UG/L AS BA)     | 21          | 400.000                | --      | *125.374 | *390.000   | *200.000 | *100.000  | *57.063 | *28.040 |
| 01010  | BERYLLIUM DISSOL (UG/L AS BE) | 33          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01020  | BORON DISSOLVED (UG/L AS B)   | 22          | 290.000                | --      | *103.987 | *282.500   | *130.000 | *110.000  | *37.503 | *19.107 |
| 01022  | BORON TOTAL (UG/L AS B)       | 3           | 140.000                | 60.000  | --       | --   | --       | --        | --      | --      |
| 01025  | CADMIUM DISSOLVE (UG/L AS CD) | 51          | 45.000                 | --      | *1.621   | *12.800  | *0.131   | *0.011    | *0.001  | *0.000  |
| 01026  | CADMIUM SUSPENDE (UG/L AS CD) | 13          | 1.000                  | 0.000   | 0.077    | 1.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 01027  | CADMIUM TOTAL (UG/L AS CD)    | 18          | 1.000                  | --      | *1.000   | *1.000   | *1.000   | *1.000    | *1.000  | *1.000  |
| 01030  | CHROMIUM DISSOLV (UG/L AS CR) | 54          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01031  | CHROMIUM SUSPEND (UG/L AS CR) | 17          | 30.000                 | 0.000   | 5.294    | 30.000   | 10.000   | 0.000     | 0.000   | 0.000   |
| 01034  | CHROMIUM TOTAL (UG/L AS CR)   | 21          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01035  | COBALT DISSOLVED (UG/L AS CO) | 65          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01036  | COBALT SUSPENDE (UG/L AS CO)  | 15          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01037  | COBALT TOTAL (UG/L AS CO)     | 21          | 12.000                 | --      | *2.065   | *11.300  | *2.000   | *2.000    | *0.634  | *0.240  |
| 01040  | COPPER DISSOLVED (UG/L AS CU) | 54          | 22.000                 | --      | *4.276   | *10.750  | *5.000   | *3.000    | *2.000  | *1.000  |
| 01041  | COPPER SUSPENDE (UG/L AS CU)  | 21          | 31.000                 | 0.000   | 8.095    | 29.700   | 12.000   | 6.000     | 3.500   | 0.000   |
| 01042  | COPPER TOTAL (UG/L AS CU)     | 21          | 35.000                 | 3.000   | 13.190   | 33.900   | 20.500   | 11.000    | 6.000   | 3.200   |
| 71885  | IRON UG/L AS FE               | 9           | 90.000                 | 20.000  | 47.778   | 90.000   | 75.000   | 50.000    | 20.000  | 20.000  |
| 01046  | IRON DISSOLVED (UG/L AS FE)   | 98          | 1000.000               | --      | *39.551  | *130.000   | *30.000  | *20.000   | *10.000 | *3.321  |
| 01044  | IRON SUSPENDE (UG/L AS FE)    | 17          | 18000.000              | 130.000 | 2872.941 | 18000.000  | 4500.000 | 1200.000  | 325.000 | 130.000 |
| 01045  | IRON TOTAL (UG/L AS FE)       | 24          | 18000.000              | 20.000  | 2361.250 | 15125.000  | 3625.000 | 915.000   | 285.000 | 27.500  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)   | 60          | 190.000                | --      | *4.375   | *5.000   | *2.000   | *0.548    | *0.182  | *0.049  |
| 01050  | LEAD SUSPENDE (UG/L AS PB)    | 16          | 22.000                 | 2.000   | 9.188    | 22.000   | 10.750   | 8.000     | 4.250   | 2.000   |
| 01051  | LEAD TOTAL (UG/L AS PB)       | 17          | 25.000                 | --      | *10.086  | *25.000  | *10.500  | *9.000    | *6.000  | *2.454  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI) | 54          | 56.000                 | 14.000  | 33.167   | 48.250   | 40.000   | 31.000    | 27.000  | 19.750  |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 102         | 87.000                 | --      | *20.536  | *75.950  | *35.000  | *10.000   | *3.000  | *1.000  |
| 01054  | MANGANESE SUSPEN (UG/L AS MN) | 20          | 850.000                | 10.000  | 199.000  | 833.500  | 342.500  | 110.000   | 42.500  | 10.000  |
| 01055  | MANGANESE TOTAL (UG/L AS MN)  | 30          | 860.000                | --      | *177.705 | *678.500   | *207.500 | *100.000  | *65.000 | *9.369  |

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|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1961 through July 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 71890  | MERCURY DISSOLVE UG/L AS HG     | 63          | 6.900                  | --      | *0.206  | *0.920   | *0.100  | *0.009    | *0.001  | *0.000  |
| 71895  | MERCURY SUSPENDE UG/L AS HG     | 17          | 22.000                 | 0.000   | 1.406   | 22.000   | 0.200   | 0.100     | 0.000   | 0.000   |
| 71900  | MERCURY, TOT.REC UG/L AS HG     | 21          | 29.000                 | --      | *1.671  | *26.280  | *0.350  | *0.200    | *0.065  | *0.005  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO)   | 54          | 10.000                 | --      | *1.818  | *10.000  | *2.172  | *1.000    | *0.456  | *0.175  |
| 01065  | NICKEL DISSOLVED (UG/L AS NI)   | 57          | 25.000                 | --      | *4.359  | *16.000  | *5.000  | *3.000    | *2.000  | *0.939  |
| 01066  | NICKEL SUSPENDED (UG/L AS NI)   | 13          | 23.000                 | 0.000   | 6.231   | 23.000   | 10.000  | 4.000     | 2.000   | 0.000   |
| 01067  | NICKEL TOTAL (UG/L AS NI)       | 13          | 25.000                 | --      | *11.185 | *25.000  | *16.500 | *8.000    | *5.500  | *2.405  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)   | 75          | 1.000                  | --      | *1.000  | *1.000   | *1.000  | *1.000    | *1.000  | *1.000  |
| 01146  | SELENIUM SUSPEND (UG/L AS SE)   | 17          | 1.000                  | 0.000   | 0.235   | 1.000  | 0.500   | 0.000     | 0.000   | 0.000   |
| 01147  | SELENIUM TOTAL (UG/L AS SE)     | 21          | 1.000                  | --      | *1.000  | *1.000   | *1.000  | *1.000    | *1.000  | *1.000  |
| 01075  | SILVER DISSOLVED (UG/L AS AG)   | 65          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01076  | SILVER SUSPENDED (UG/L AS AG)   | 17          | 4.000                  | 0.000   | 0.588   | 4.000  | 1.000   | 0.000     | 0.000   | 0.000   |
| 01077  | SILVER TOTAL (UG/L AS AG)       | 24          | 4.000                  | --      | *0.870  | *3.410   | *1.000  | *0.707    | *0.426  | *0.244  |
| 01080  | STRONTIUM DISSOL (UG/L AS SR)   | 54          | 380.000                | 160.000 | 241.852 | 345.000  | 272.500 | 230.000   | 207.500 | 170.000 |
| 01085  | VANADIUM DISSOLV (UG/L AS V)    | 44          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01090  | ZINC DISSOLVED (UG/L AS ZN)     | 54          | 190.000                | --      | *17.855 | *62.000  | *20.000 | *9.000    | *6.265  | *1.973  |
| 01091  | ZINC SUSPENDED (UG/L AS ZN)     | 20          | 120.000                | 0.000   | 25.500  | 119.000  | 27.500  | 20.000    | 10.000  | 0.000   |
| 01092  | ZINC TOTAL (UG/L AS ZN)         | 21          | 140.000                | 10.000  | 44.762  | 137.000  | 50.000  | 40.000    | 30.000  | 11.000  |
| 75987  | ALPHA PE TH-230 PCI/L           | 6           | 3.200                  | 0.700   | 1.883   | 3.200  | 2.675   | 1.900     | 1.000   | 0.700   |
| 76004  | ALPHA PE SS TH-2 PCI/L          | 6           | 6.700                  | 0.500   | 3.833   | 6.700  | 5.800   | 4.500     | 1.100   | 0.500   |
| 75986  | ALPHA CNT PE DIS UG/L           | 7           | 3.600                  | 0.300   | 2.157   | 3.600  | 2.900   | 1.900     | 1.900   | 0.300   |
| 04127  | ALPHA SS AS TH-2 PCI/L          | 1           | 10.000                 | --      | --      | --   | --      | --        | --      | --      |
| 04126  | ALPHA DISS AS TH PCI/L          | 1           | 3.700                  | --      | --      | --   | --      | --        | --      | --      |
| 80030  | GROSS ALPHA DIS. UG/L AS U-NAT  | 19          | 11.000                 | --      | *3.261  | *11.000  | *3.147  | *2.568    | *1.866  | *1.200  |
| 76005  | BETA PE SS CS137 PCI/L          | 6           | 2.600                  | 0.680   | 1.480   | 2.600  | 2.150   | 1.300     | 0.920   | 0.680   |
| 75989  | BETA PE CS-137 PCI/L            | 7           | 2.500                  | 1.800   | 2.129   | 2.500  | 2.300   | 2.200     | 1.900   | 1.800   |
| 75988  | BETA PE SR90/Y90 PCI/L          | 7           | 1.800                  | 1.500   | 1.643   | 1.800  | 1.800   | 1.600     | 1.500   | 1.500   |
| 80050  | GROS-B,D,SR-90-P PCI/L SR/Y-90  | 20          | 14.000                 | 5.500   | 9.440   | 13.950   | 10.750  | 9.200     | 8.350   | 5.530   |
| 01515  | GROSS ALPHA DISS (PCI/L AS U-NA | 4           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 80040  | GROSS ALPHA SUS. UG/L AS U-NAT  | 19          | 31.000                 | --      | *6.637  | *31.000  | *11.000 | *5.400    | *1.600  | *0.543  |
| 01516  | G.ALPHA SUS.U-N PCI/L AS U-NAT  | 7           | 21.000                 | 2.000   | 6.414   | 21.000   | 7.500   | 3.900     | 2.400   | 2.000   |
| 03515  | GROSS BETA DISSO PCI/L AS CS-13 | 20          | 16.000                 | 7.000   | 11.265  | 15.850   | 13.000  | 11.500    | 9.475   | 7.040   |
| 80060  | GROS-B,S,SR-90 P PCI/L SR/Y-90  | 19          | 35.000                 | --      | *5.607  | *35.000  | *5.400  | *4.000    | *2.600  | *0.694  |
| 03516  | GROSS BETA SUSPE PCI/L AS CS-13 | 19          | 37.000                 | --      | *6.023  | *37.000  | *5.900  | *4.100    | *2.700  | *0.732  |
| 82082  | HYDROGEN 2 / 1 R RATIO PER MIL  | 1           | -68.500                | --      | --      | --   | --      | --        | --      | --      |

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|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, July 1961 through July 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |        |        |
| 82085  | OXYGEN 18 / 16 R RATIO PER MIL  | 1           | -8.500                 | --      | --      | --   | --      | --        | --     | --     |
| 82068  | POTSSSIUM 40 DIS (PCI/L AS K40) | 7           | 6.200                  | 2.900   | 4.829   | 6.200  | 5.400   | 5.100     | 3.700  | 2.900  |
| 09511  | RADIUM 226 DISS. (PCI/L)        | 22          | 0.610                  | 0.060   | 0.127   | 0.549  | 0.112   | 0.095     | 0.080  | 0.061  |
| 76001  | RADIUM-226 PE DI PCI/L          | 8           | 0.030                  | 0.020   | 0.021   | 0.030  | 0.020   | 0.020     | 0.020  | 0.020  |
| 07000  | TRITIUM TOTAL (PCI/L)           | 1           | 57.000                 | --      | --      | --   | --      | --        | --     | --     |
| 75985  | TRITIUM PREC EST PCI/L          | 1           | 6.400                  | --      | --      | --   | --      | --        | --     | --     |
| 75990  | URANIUM NAT PE D UG/L           | 8           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 22703  | URANIUM,NATURAL, UG/L AS U      | 22          | 9.000                  | 1.000   | 3.045   | 8.700  | 3.250   | 2.000     | 2.000  | 1.150  |
| 70338  | SED-SUSP-FALL-D- %              | 5           | 82.000                 | 65.000  | --      | --   | --      | --        | --     | --     |
| 70340  | SED-SUSP-FALL-D- %              | 5           | 97.000                 | 77.000  | --      | --   | --      | --        | --     | --     |
| 70342  | SED-SUSP-FALL-D- %              | 5           | 100.000                | 83.000  | --      | --   | --      | --        | --     | --     |
| 70343  | SED-SUSP-FALL-D- %              | 1           | 84.000                 | --      | --      | --   | --      | --        | --     | --     |
| 70344  | SED-SUSP-FALL-D- %              | 1           | 86.000                 | --      | --      | --   | --      | --        | --     | --     |
| 70345  | SED-SUSP-FALL-D- %              | 1           | 91.000                 | --      | --      | --   | --      | --        | --     | --     |
| 70346  | SED-SUSP-FALL-D- %              | 1           | 97.000                 | --      | --      | --   | --      | --        | --     | --     |
| 70347  | SED-SUSP-FALL-D- %              | 1           | 100.000                | --      | --      | --   | --      | --        | --     | --     |
| 70331  | SED-SUSP-SIEVE-. %              | 109         | 100.000                | 21.000  | 92.156  | 100.000  | 99.500  | 98.000    | 94.000 | 57.000 |
| 80156  | SUS-SED DISCH + T/DAY           | 398         | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 80154  | CONCENTRATION,S. MG/L           | 133         | 730.000                | 6.000   | 128.617 | 361.200  | 191.000 | 76.000    | 20.500 | 8.700  |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 398         | 10700.000              | 0.000   | 352.198 | 2421.500   | 20.000  | 0.000     | 0.000  | 0.000  |
| 80164  | SED-BED-SIEVE-.0 %              | 7           | 52.000                 | 1.000   | 20.429  | 52.000   | 41.000  | 13.000    | 3.000  | 1.000  |
| 80165  | SED-BED-SIEVE-.1 %              | 7           | 53.000                 | 3.000   | 23.429  | 53.000   | 43.000  | 16.000    | 7.000  | 3.000  |
| 80166  | SED-BED-SIEVE-.2 %              | 7           | 55.000                 | 8.000   | 29.000  | 55.000   | 45.000  | 24.000    | 15.000 | 8.000  |
| 80167  | SED-BED-SIEVE-.5 %              | 7           | 64.000                 | 20.000  | 45.857  | 64.000   | 62.000  | 44.000    | 32.000 | 20.000 |
| 80168  | SED-BED-SIEVE-1. %              | 7           | 79.000                 | 48.000  | 66.143  | 79.000   | 78.000  | 69.000    | 51.000 | 48.000 |
| 80169  | SED-BED-SIEVE-2. %              | 7           | 96.000                 | 70.000  | 78.143  | 96.000   | 82.000  | 76.000    | 72.000 | 70.000 |
| 80170  | SED-BED-SIEVE-4. %              | 7           | 97.000                 | 76.000  | 86.286  | 97.000   | 91.000  | 87.000    | 80.000 | 76.000 |
| 80171  | SED-BED-SIEVE-8. %              | 7           | 99.000                 | 79.000  | 92.000  | 99.000   | 98.000  | 92.000    | 89.000 | 79.000 |
| 80172  | SED-BED-SIEVE-16 %              | 7           | 100.000                | 91.000  | 98.143  | 100.000  | 100.000 | 100.000   | 96.000 | 91.000 |
| 80173  | SED-BED-SIEVE-32 %              | 2           | 100.000                | 100.000 | --      | --   | --      | --        | --     | --     |

**Supplement 26.** Statistical summary of water-quality data for the Red River of the North at Halstad, N. Dak., gaging station 05064500, July 1961 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |           |           |          |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|-----------|-----------|----------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75        | Median 50 | 25       | 5       |
| <b>Minnesota data, October 1992 through June 1995</b> |                                 |             |                        |         |          |  |           |           |          |         |
| 00060   | DISCHARGE CFS                   | 3           | 3230.000               | 900.000 | --       | --   | --        | --        | --       | --      |
| 00061   | DISCHARGE, INST. CFS            | 26          | 22000.000              | 376.000 | 6614.769 | 20984.998  | 12275.000 | 4175.000  | 1060.500 | 394.900 |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 22          | 0.900                  | 0.300   | 0.605    | 0.885  | 0.700     | 0.600     | 0.571    | 0.300   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 21          | 19200.000              | 427.000 | 6662.333 | 18899.998  | 11700.000 | 5510.000  | 1335.000 | 435.000 |
| 70300   | RESIDUE DIS 180C MG/L           | 22          | 632.000                | 198.000 | 448.682  | 624.950  | 525.000   | 469.000   | 401.500  | 205.950 |
| 70301   | DISSOLVED SOLIDS MG/L           | 22          | 571.000                | 189.000 | 419.773  | 567.100  | 495.000   | 447.500   | 363.000  | 196.350 |
| 00076   | TURBIDITY (NTU)                 | 4           | 60.000                 | 6.700   | --       | --   | --        | --        | --       | --      |
| 00025   | AIR PRESSURE (MM OF HG)         | 26          | 753.000                | 733.000 | 741.731  | 751.950  | 745.250   | 740.500   | 737.750  | 733.350 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 25          | 16.200                 | 1.900   | 8.880    | 15.300   | 11.100    | 10.300    | 6.200    | 2.200   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 23          | 118.000                | 36.300  | 81.122   | 115.400  | 92.100    | 82.600    | 71.900   | 40.140  |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 28          | 8.600                  | 7.400   | 8.011    | 8.600  | 8.200     | 8.050     | 7.800    | 7.490   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 22          | 8.300                  | 7.300   | 7.764    | 8.285  | 7.925     | 7.750     | 7.600    | 7.315   |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 23          | 900.000                | 334.000 | 671.304  | 895.000  | 791.000   | 712.000   | 529.000  | 342.800 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 27          | 1220.000               | 314.000 | 713.815  | 1096.400   | 801.000   | 723.000   | 645.000  | 339.600 |
| 00020   | AIR TEMPERATURE DEGREES C       | 29          | 25.000                 | -20.000 | 8.090    | 24.000   | 19.750    | 8.500     | 1.000    | -16.500 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 30          | 23.500                 | 0.000   | 10.587   | 22.400   | 19.700    | 9.250     | 0.875    | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 17          | 188.000                | 21.000  | 95.294   | 188.000  | 134.500   | 107.000   | 44.000   | 21.000  |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 22          | 395.000                | 128.000 | 294.000  | 393.650  | 347.000   | 314.500   | 249.000  | 133.250 |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 22          | 82.000                 | 30.000  | 62.955   | 81.550   | 72.250    | 65.500    | 56.000   | 31.350  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 22          | 48.000                 | 13.000  | 33.227   | 47.400   | 40.250    | 35.000    | 26.500   | 13.450  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 22          | 11.000                 | 6.200   | 8.277    | 10.850   | 9.825     | 8.300     | 6.950    | 6.230   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 22          | 1.130                  | 0.341   | 0.726    | 1.117  | 0.850     | 0.762     | 0.619    | 0.347   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 22          | 48.000                 | 10.000  | 29.227   | 47.850   | 36.000    | 31.000    | 22.500   | 10.000  |
| 00932   | SODIUM, PERCENT PERCENT         | 22          | 23.000                 | 11.100  | 16.782   | 22.625   | 18.000    | 16.750    | 15.850   | 11.310  |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 21          | 303.000                | 114.000 | 215.095  | 302.300  | 267.000   | 212.000   | 164.000  | 116.100 |
| 00418   | ALKALINITY,DIS,F (MG/L AS CaCO3 | 4           | 288.000                | 230.000 | --       | --   | --        | --        | --       | --      |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 24          | 332.000                | 100.000 | 220.958  | 321.750  | 256.250   | 222.000   | 195.250  | 108.750 |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 24          | 405.000                | 122.000 | 265.417  | 389.000  | 310.250   | 269.500   | 233.500  | 132.750 |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)  | 25          | 16.000                 | 0.000   | 2.080    | 14.200   | 0.000     | 0.000     | 0.000    | 0.000   |
| 00940   | CHLORIDE DISSOLV (MG/L AS Cl)   | 22          | 37.000                 | 6.800   | 16.668   | 34.750   | 19.000    | 17.000    | 13.250   | 6.905   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 22          | 0.500                  | 0.100   | 0.214    | 0.470  | 0.200     | 0.200     | 0.200    | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 22          | 27.000                 | 10.000  | 16.318   | 26.100   | 20.000    | 15.500    | 12.000   | 10.300  |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 22          | 240.000                | 44.000  | 122.091  | 231.000  | 162.500   | 120.000   | 72.750   | 45.350  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 23          | 1.200                  | 0.010   | 0.172    | 1.040  | 0.240     | 0.080     | 0.050    | 0.012   |
| 00623   | NITRO AMN & ORG (MG/L AS N)     | 18          | 1.600                  | 0.500   | 0.867    | 1.600  | 0.925     | 0.800     | 0.700    | 0.500   |

**Supplement 26.** Statistical summary of water-quality data for the Red River of the North at Halstad, N. Dak., gaging station 05064500, July 1961 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |        |
|--|--------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|--------|
|  |                                |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5      |
| <b>Minnesota data, October 1992 through June 1995--Continued</b> |                                |             |                        |         |         |  |         |           |         |        |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)   | 24          | 2.500                  | 0.800   | 1.283   | 2.500  | 1.400   | 1.100     | 0.900   | 0.800  |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4   | 23          | 1.550                  | 0.013   | 0.222   | 1.343  | 0.309   | 0.103     | 0.064   | 0.016  |
| 00610  | NITROGEN AMMONIA (MG/L AS N)   | 2           | 1.100                  | 0.020   | --      | --   | --      | --        | --      | --     |
| 71845  | NITROGEN, NH4, T MG/L AS NH4   | 2           | 1.420                  | 0.030   | --      | --   | --      | --        | --      | --     |
| 00602  | NITROGEN DISSOLV (MG/L AS N)   | 18          | 6.500                  | 0.880   | 1.973   | 6.500  | 2.475   | 1.420     | 1.000   | 0.880  |
| 00618  | NITROGEN NITRATE (MG/L AS N)   | 20          | 4.630                  | 0.068   | 1.023   | 4.569  | 1.257   | 0.555     | 0.345   | 0.075  |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3   | 20          | 20.500                 | 0.301   | 4.530   | 20.230   | 5.562   | 2.455     | 1.528   | 0.332  |
| 00620  | NITROGEN NITRATE MG/L AS N     | 1           | 0.230                  | --      | --      | --   | --      | --        | --      | --     |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)   | 23          | 4.900                  | 0.098   | 0.960   | 4.640  | 0.980   | 0.560     | 0.300   | 0.114  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)    | 2           | 0.200                  | 0.200   | --      | --   | --      | --        | --      | --     |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2   | 20          | 0.887                  | 0.033   | 0.163   | 0.874  | 0.189   | 0.099     | 0.041   | 0.033  |
| 00613  | NITROGEN,NITRITE MG/L AS N     | 23          | 0.270                  | --      | *0.044  | *0.254   | *0.050  | *0.020    | *0.010  | *0.003 |
| 00615  | NITROGEN,NITRITE MG/L AS N     | 2           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 00607  | NITROGEN ORGANIC (MG/L AS N)   | 18          | 1.200                  | 0.410   | 0.736   | 1.200  | 0.795   | 0.700     | 0.630   | 0.410  |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 23          | 2.410                  | 0.560   | 1.115   | 2.354  | 1.350   | 1.010     | 0.750   | 0.576  |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 23          | 6.700                  | 1.120   | 2.242   | 6.360  | 2.990   | 1.740     | 1.200   | 1.124  |
| 71887  | NITROGEN, TOTAL MG/L AS NO3    | 2           | 11.900                 | 5.000   | --      | --   | --      | --        | --      | --     |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 23          | 1.100                  | 0.184   | 0.477   | 1.058  | 0.675   | 0.368     | 0.307   | 0.184  |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 2           | 1.230                  | 0.337   | --      | --   | --      | --        | --      | --     |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 23          | 0.370                  | 0.050   | 0.165   | 0.362  | 0.240   | 0.130     | 0.110   | 0.052  |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 23          | 0.360                  | 0.060   | 0.156   | 0.346  | 0.220   | 0.120     | 0.100   | 0.060  |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 2           | 0.400                  | 0.110   | --      | --   | --      | --        | --      | --     |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 24          | 0.840                  | 0.070   | 0.299   | 0.785  | 0.365   | 0.275     | 0.205   | 0.075  |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 21          | 11.700                 | 1.200   | 4.510   | 11.460   | 5.900   | 3.700     | 2.450   | 1.290  |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 8           | 12.000                 | 8.600   | 9.887   | 12.000   | 10.750  | 9.600     | 9.025   | 8.600  |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 8           | 5.000                  | 0.400   | 1.788   | 5.000  | 2.625   | 1.300     | 0.650   | 0.400  |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 4           | 110.000                | 5.000   | --      | --   | --      | --        | --      | --     |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 4           | 200.000                | 28.000  | --      | --   | --      | --        | --      | --     |
| 01106  | ALUMINUM DISSOLV (UG/L AS AL)  | 2           | 20.000                 | 20.000  | --      | --   | --      | --        | --      | --     |
| 01005  | BARIUM DISSOLVED (UG/L AS BA)  | 2           | 79.000                 | 51.000  | --      | --   | --      | --        | --      | --     |
| 01035  | COBALT DISSOLVED (UG/L AS CO)  | 2           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 20          | 130.000                | --      | *27.971 | *129.000   | *27.500 | *15.000   | *10.000 | *2.211 |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)  | 2           | 46.000                 | 27.000  | --      | --   | --      | --        | --      | --     |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 20          | 87.000                 | --      | *19.162 | *86.700  | *24.750 | *6.500    | *2.250  | *0.283 |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO)  | 2           | --                     | --      | --      | --   | --      | --        | --      | --     |

**Supplement 26.** Statistical summary of water-quality data for the Red River of the North at Halstad, N. Dak., gaging station 05064500, July 1961 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |        |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|--------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5      |
| <b>Minnesota data, October 1992 through June 1995--Continued</b> |                                 |             |                        |         |          |  |          |           |         |        |
| 01065  | NICKEL DISSOLVED (UG/L AS NI)   | 2           | 4.000                  | 3.000   | --       | --   | --       | --        | --      | --     |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)   | 2           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 01075  | SILVER DISSOLVED (UG/L AS AG)   | 2           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 01080  | STRONTIUM DISSOL (UG/L AS SR)   | 2           | 320.000                | 210.000 | --       | --   | --       | --        | --      | --     |
| 01085  | VANADIUM DISSOLV (UG/L AS V)    | 2           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 75987  | ALPHA PE TH-230 PCI/L           | 1           | 2.500                  | --      | --       | --   | --       | --        | --      | --     |
| 76004  | ALPHA PE SS TH-2 PCI/L          | 1           | 6.700                  | --      | --       | --   | --       | --        | --      | --     |
| 75986  | ALPHA CNT PE DIS UG/L           | 1           | 3.600                  | --      | --       | --   | --       | --        | --      | --     |
| 04127  | ALPHA SS AS TH-2 PCI/L          | 1           | 10.000                 | --      | --       | --   | --       | --        | --      | --     |
| 04126  | ALPHA DISS AS TH PCI/L          | 1           | 3.700                  | --      | --       | --   | --       | --        | --      | --     |
| 80030  | GROSS ALPHA DIS. UG/L AS U-NAT  | 1           | 5.300                  | --      | --       | --   | --       | --        | --      | --     |
| 76005  | BETA PE SS CS137 PCI/L          | 1           | 2.600                  | --      | --       | --   | --       | --        | --      | --     |
| 75989  | BETA PE CS-137 PCI/L            | 1           | 2.500                  | --      | --       | --   | --       | --        | --      | --     |
| 75988  | BETA PE SR90/Y90 PCI/L          | 1           | 1.800                  | --      | --       | --   | --       | --        | --      | --     |
| 80050  | GROS-B,D,SR-90-P PCI/L SR/Y-90  | 1           | 9.900                  | --      | --       | --   | --       | --        | --      | --     |
| 80040  | GROSS ALPHA SUS. UG/L AS U-NAT  | 1           | 13.000                 | --      | --       | --   | --       | --        | --      | --     |
| 03515  | GROSS BETA DISSO PCI/L AS CS-13 | 1           | 13.000                 | --      | --       | --   | --       | --        | --      | --     |
| 80060  | GROS-B,S,SR-90 P PCI/L SR/Y-90  | 1           | 10.000                 | --      | --       | --   | --       | --        | --      | --     |
| 03516  | GROSS BETA SUSPE PCI/L AS CS-13 | 1           | 11.000                 | --      | --       | --   | --       | --        | --      | --     |
| 09511  | RADIUM 226 DISS. (PCI/L)        | 1           | 0.100                  | --      | --       | --   | --       | --        | --      | --     |
| 76001  | RADIUM-226 PE DI PCI/L          | 1           | 0.020                  | --      | --       | --   | --       | --        | --      | --     |
| 75990  | URANIUM NAT PE D UG/L           | 1           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 22703  | URANIUM,NATURAL, UG/L AS U      | 1           | 2.200                  | --      | --       | --   | --       | --        | --      | --     |
| 70331  | SED-SUSP-SIEVE-. %              | 23          | 100.000                | 88.000  | 98.522   | 100.000  | 100.000  | 99.000    | 98.000  | 89.800 |
| 80154  | CONCENTRATION,S. MG/L           | 23          | 643.000                | 9.000   | 188.000  | 602.600  | 281.000  | 138.000   | 52.000  | 9.800  |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 22          | 20600.000              | 21.000  | 3809.182 | 19355.004  | 5672.500 | 2400.000  | 319.250 | 22.650 |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 27.** Statistical summary of water-quality data for the Goose River at Hillsboro, N. Dak., gaging station 05066500, September 1969 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, September 1969 through April 2001</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00060   | DISCHARGE CFS                   | 57          | 3940.000               | 0.750   | 323.545  | 2181.000   | 103.000  | 20.000    | 6.350   | 1.590   |
| 00061   | DISCHARGE, INST. CFS            | 281         | 8000.000               | 0.020   | 505.560  | 3193.999   | 260.000  | 24.000    | 4.700   | 0.471   |
| 00540   | RESIDUE FIXED (MG/L)            | 339         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 339         | 2.980                  | 0.000   | 0.360    | 1.810  | 0.520    | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 339         | 4510.000               | 0.000   | 117.921  | 629.000  | 5.680    | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 95          | 2190.000               | 184.000 | 944.021  | 1638.000   | 1140.000 | 977.000   | 644.000 | 257.800 |
| 70301   | DISSOLVED SOLIDS MG/L           | 339         | 2060.000               | 0.000   | 251.882  | 1250.000   | 339.000  | 0.000     | 0.000   | 0.000   |
| 00025   | AIR PRESSURE (MM OF HG)         | 4           | 785.000                | 735.000 | --       | --   | --       | --        | --      | --      |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 4           | 10.400                 | 4.100   | --       | --   | --       | --        | --      | --      |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 339         | 114.000                | 0.000   | 0.743    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 96          | 8.500                  | 7.200   | 7.898    | 8.400  | 8.100    | 7.900     | 7.700   | 7.400   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 29          | 8.900                  | 6.600   | 7.776    | 8.600  | 8.100    | 7.800     | 7.450   | 6.750   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 17          | 1960.000               | 318.000 | 977.765  | 1960.000   | 1365.000 | 916.000   | 545.000 | 318.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 19          | 1540.000               | 402.000 | 967.316  | 1540.000   | 1330.000 | 1090.000  | 538.000 | 402.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 324         | 3400.000               | 204.000 | 1324.469 | 2315.000   | 1647.500 | 1335.000  | 935.000 | 366.250 |
| 00020   | AIR TEMPERATURE DEGREES C       | 177         | 35.000                 | -30.000 | 10.158   | 28.000   | 20.000   | 10.500    | 1.750   | -8.200  |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 332         | 27.500                 | 0.000   | 9.230    | 24.175   | 18.500   | 6.000     | 0.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 339         | 370.000                | 0.000   | 1.091    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 339         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 339         | 500.000                | 0.000   | 49.475   | 360.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 339         | 300.000                | 0.000   | 2.537    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 339         | 930.000                | 0.000   | 145.457  | 700.000  | 210.000  | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 95          | 230.000                | 32.000  | 119.747  | 213.000  | 150.000  | 120.000   | 80.000  | 38.600  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 95          | 98.000                 | 10.000  | 53.421   | 87.000   | 71.000   | 58.000    | 35.000  | 15.800  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 95          | 20.000                 | 2.600   | 10.925   | 17.200   | 12.000   | 10.000    | 9.000   | 5.980   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 339         | 5.000                  | 0.000   | 0.502    | 2.000  | 0.700    | 0.000     | 0.000   | 0.000   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 95          | 330.000                | 8.500   | 98.113   | 254.000  | 120.000  | 84.000    | 54.000  | 13.000  |
| 00932   | SODIUM, PERCENT PERCENT         | 339         | 50.000                 | 0.000   | 7.248    | 33.000   | 17.000   | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 339         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 40          | 380.000                | 90.000  | 215.575  | 355.650  | 304.500  | 220.000   | 123.500 | 98.100  |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 1           | 306.000                | --      | --       | --   | --       | --        | --      | --      |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 56          | 464.000                | 91.000  | 302.875  | 445.450  | 371.500  | 304.000   | 260.250 | 113.400 |
| 95440   | BICARBONATE MG/L AS CaCO3       | 22          | 460.000                | 110.000 | 263.182  | 451.000  | 370.000  | 270.000   | 147.500 | 110.000 |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 1           | 361.000                | --      | --       | --   | --       | --        | --      | --      |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 56          | 570.000                | 110.000 | 367.500  | 541.500  | 450.000  | 370.000   | 310.000 | 138.500 |

**Supplement 27.** Statistical summary of water-quality data for the Goose River at Hillsboro, N. Dak., gaging station 05066500, September 1969 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |        |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|--------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5      |
| <b>North Dakota data, September 1969 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |        |
| 95445  | CARBONATE MG/L AS CO3           | 22          | 22.000                 | 0.000   | 1.136   | 19.150   | 0.000   | 0.000     | 0.000   | 0.000  |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)  | 1           | 6.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 55          | 18.000                 | 0.000   | 0.564   | 2.600  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 95          | 310.000                | 5.400   | 69.220  | 214.000  | 90.000  | 50.000    | 24.000  | 7.940  |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 95          | 1.500                  | 0.100   | 0.338   | 0.900  | 0.400   | 0.200     | 0.200   | 0.100  |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 83          | 31.000                 | 1.700   | 16.784  | 26.800   | 20.000  | 17.000    | 14.000  | 4.680  |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 95          | 800.000                | 49.000  | 370.495 | 614.000  | 480.000 | 400.000   | 240.000 | 86.400 |
| 00608  | NITROGEN AMMONIA (MG/L AS N)    | 2           | 0.070                  | 0.040   | --      | --   | --      | --        | --      | --     |
| 00623  | NITRO AMN & ORG (MG/L AS N)     | 2           | 0.800                  | 0.700   | --      | --   | --      | --        | --      | --     |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)    | 2           | 1.600                  | 1.100   | --      | --   | --      | --        | --      | --     |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 339         | 0.090                  | 0.000   | 0.000   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000  |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 339         | 1.100                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 339         | 2.700                  | 0.000   | 0.084   | 0.560  | 0.000   | 0.000     | 0.000   | 0.000  |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 339         | 13.000                 | 0.000   | 0.535   | 3.900  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00620  | NITROGEN NITRATE MG/L AS N      | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)    | 2           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 339         | 0.033                  | 0.000   | 0.000   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00613  | NITROGEN,NITRITE MG/L AS N      | 2           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 339         | 0.760                  | 0.000   | 0.004   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 339         | 1.600                  | 0.000   | 0.008   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 339         | 1.500                  | 0.000   | 0.004   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000  |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 339         | 2.800                  | 0.000   | 0.053   | 0.190  | 0.000   | 0.000     | 0.000   | 0.000  |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)    | 2           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)    | 12          | 0.910                  | --      | *0.156  | *0.910   | *0.268  | *0.039    | *0.004  | *0.003 |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)    | 2           | 0.390                  | 0.090   | --      | --   | --      | --        | --      | --     |
| 00621  | NITROGEN NITRATE (MG/KG AS N)   | 339         | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2)  | 339         | 47.000                 | 0.000   | 2.260   | 13.000   | 2.200   | 0.000     | 0.000   | 0.000  |

**Supplement 27.** Statistical summary of water-quality data for the Goose River at Hillsboro, N. Dak., gaging station 05066500, September 1969 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|-------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, September 1969 through April 2001--Continued</b> |                               |             |                        |         |          |  |          |           |         |         |
| 00681  | CARBON ORGANIC D (MG/L AS C)  | 2           | 13.000                 | 8.400   | --       | --   | --       | --        | --      | --      |
| 00689  | CARBON ORGANIC P (MG/L AS C)  | 2           | 9.000                  | 1.500   | --       | --   | --       | --        | --      | --      |
| 00690  | CARBON INORG + O (MG/L AS C)  | 339         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C) | 339         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS        | 339         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS        | 339         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS) | 36          | 19.000                 | 1.000   | 5.250    | 18.150   | 6.750    | 4.000     | 3.000   | 1.850   |
| 01020  | BORON DISSOLVED (UG/L AS B)   | 81          | 1100.000               | --      | *244.255 | *780.000   | *320.000 | *210.000  | *70.000 | *25.778 |
| 71885  | IRON UG/L AS FE               | 11          | 5600.000               | 0.000   | 860.000  | 5600.000   | 1200.000 | 280.000   | 50.000  | 0.000   |
| 01046  | IRON DISSOLVED (UG/L AS FE)   | 83          | 880.000                | 0.000   | 66.386   | 218.000  | 80.000   | 40.000    | 20.000  | 0.000   |
| 01049  | LEAD DISSOLVED (UG/L AS PB)   | 36          | 3.000                  | --      | *0.510   | *2.150   | *0.609   | *0.272    | *0.121  | *0.037  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI) | 36          | 140.000                | 12.000  | 57.917   | 123.000  | 89.250   | 59.500    | 21.250  | 16.250  |
| 71883  | MANGANESE UG/L AS MN          | 10          | 210.000                | 10.000  | 57.000   | 210.000  | 72.500   | 30.000    | 20.000  | 10.000  |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 84          | 2800.000               | 1.000   | 362.798  | 1875.000   | 345.000  | 175.000   | 80.000  | 10.000  |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 36          | 0.600                  | --      | *0.111   | *0.430   | *0.100   | *0.086    | *0.036  | *0.013  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 36          | 5.000                  | --      | *1.914   | *5.000   | *2.000   | *2.000    | *1.000  | *0.444  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 36          | 2.000                  | --      | *0.855   | *2.000   | *1.000   | *0.747    | *0.527  | *0.313  |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 36          | 930.000                | 91.000  | 454.750  | 930.000  | 660.000  | 465.000   | 250.000 | 132.650 |
| 07060  | IRON 59 DISSOLVE (PCI/L)      | 1           | 3.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70331  | SED-SUSP-SIEVE-. %            | 2           | 100.000                | 93.000  | --       | --   | --       | --        | --      | --      |
| 80156  | SUS-SED DISCH + T/DAY         | 339         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 80154  | CONCENTRATION,S. MG/L         | 2           | 610.000                | 38.000  | --       | --   | --       | --        | --      | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY        | 339         | 1960.000               | 0.000   | 5.807    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 28.** Statistical summary of water-quality data for the Marsh River near Shelly, Minn., gaging station 05067500, July 1975 through September 2000

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|---------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                                 |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, July 1975 through September 2000</b> |                                 |             |                        |         |      |  |    |           |    |    |
| 00065  | GAGE HEIGHT (FEET)              | 2           | 4.290                  | 3.830   | --   | --   | -- | --        | -- | -- |
| 00061  | DISCHARGE, INST. CFS            | 4           | 3060.000               | 3.300   | --   | --   | -- | --        | -- | -- |
| 00540  | RESIDUE FIXED (MG/L)            | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70301  | DISSOLVED SOLIDS MG/L           | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00076  | TURBIDITY (NTU)                 | 2           | 50.000                 | 42.000  | --   | --   | -- | --        | -- | -- |
| 00025  | AIR PRESSURE (MM OF HG)         | 1           | 735.000                | --      | --   | --   | -- | --        | -- | -- |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 2           | 8.900                  | 7.300   | --   | --   | -- | --        | -- | -- |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 4           | 72.000                 | 0.000   | --   | --   | -- | --        | -- | -- |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 2           | 8.300                  | 8.000   | --   | --   | -- | --        | -- | -- |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 2           | 627.000                | 605.000 | --   | --   | -- | --        | -- | -- |
| 00020  | AIR TEMPERATURE DEGREES C       | 2           | 19.500                 | 10.000  | --   | --   | -- | --        | -- | -- |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 4           | 24.000                 | 8.000   | --   | --   | -- | --        | -- | -- |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00932  | SODIUM, PERCENT PERCENT         | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00620  | NITROGEN NITRATE MG/L AS N      | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |

**Supplement 28.** Statistical summary of water-quality data for the Marsh River near Shelly, Minn., gaging station 05067500, July 1975 through September 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|---|--------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                                |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, July 1975 through September 2000--Continued</b> |                                |             |                        |         |      |  |    |           |    |    |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)  | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)   | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)   | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)    | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 2           | 15.000                 | 12.000  | --   | --   | -- | --        | -- | -- |
| 00680   | CARBON ORGANIC T (MG/L AS C)   | 2           | 15.000                 | 14.000  | --   | --   | -- | --        | -- | -- |
| 00690   | CARBON INORG + O (MG/L AS C)   | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70950   | BIO CHL RATIO PE UNITS         | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70949   | BIO CHL RATIO PL UNITS         | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70342   | SED-SUSP-FALL-D- %             | 1           | 99.000                 | --      | --   | --   | -- | --        | -- | -- |
| 70331   | SED-SUSP-SIEVE-. %             | 2           | 98.000                 | 87.000  | --   | --   | -- | --        | -- | -- |
| 80156   | SUS-SED DISCH + T/DAY          | 4           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 80154   | CONCENTRATION,S. MG/L          | 4           | 87.000                 | 44.000  | --   | --   | -- | --        | -- | -- |
| 80155   | DISCHARGE,SUSP.S T/DAY         | 4           | 719.000                | 0.620   | --   | --   | -- | --        | -- | -- |

**Supplement 29.** Statistical summary of water-quality data for the Sand Hill River at Climax, Minn., gaging station 05069000, November 1966 through September 2000

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent          | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|--|----------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|  |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, November 1966 through September 2000</b> |                                  |             |                        |         |         |  |         |           |        |        |
| 00065  | GAGE HEIGHT (FEET)               | 3           | 5.640                  | 4.590   | --      | --   | --      | --        | --     | --     |
| 00060  | DISCHARGE CFS                    | 1           | 28.000                 | --      | --      | --   | --      | --        | --     | --     |
| 00061  | DISCHARGE, INST. CFS             | 7           | 2690.000               | 11.000  | 444.714 | 2690.000   | 246.000 | 41.000    | 28.000 | 11.000 |
| 00080  | COLOR PLATINUM-COBAL             | 1           | 20.000                 | --      | --      | --   | --      | --        | --     | --     |
| 00540  | RESIDUE FIXED (MG/L)             | 7           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 70303  | RESIDUE DIS TON/ T/AC-FT         | 7           | 0.610                  | 0.000   | 0.087   | 0.610  | 0.000   | 0.000     | 0.000  | 0.000  |
| 70302  | DISSOLVED SOLIDS TONS/DAY        | 7           | 34.000                 | 0.000   | 4.857   | 34.000   | 0.000   | 0.000     | 0.000  | 0.000  |
| 70300  | RESIDUE DIS 180C MG/L            | 2           | 475.000                | 445.000 | --      | --   | --      | --        | --     | --     |
| 70301  | DISSOLVED SOLIDS MG/L            | 7           | 435.000                | 0.000   | 62.143  | 435.000  | 0.000   | 0.000     | 0.000  | 0.000  |
| 00076  | TURBIDITY (NTU)                  | 3           | 120.000                | 25.000  | --      | --   | --      | --        | --     | --     |
| 00025  | AIR PRESSURE (MM OF HG)          | 2           | 764.000                | 737.000 | --      | --   | --      | --        | --     | --     |
| 00300  | OXYGEN DISSOLVED (MG/L)          | 3           | 9.200                  | 8.900   | --      | --   | --      | --        | --     | --     |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO  | 7           | 90.000                 | 0.000   | 22.000  | 90.000   | 64.000  | 0.000     | 0.000  | 0.000  |
| 00400  | PH, WH, FIELD (STANDARD UNIT     | 5           | 8.400                  | 7.800   | --      | --   | --      | --        | --     | --     |
| 00403  | PH, WH, LABORATO (STANDARD UNIT  | 1           | 7.800                  | --      | --      | --   | --      | --        | --     | --     |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C  | 1           | 768.000                | --      | --      | --   | --      | --        | --     | --     |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C     | 5           | 799.000                | 602.000 | --      | --   | --      | --        | --     | --     |
| 00020  | AIR TEMPERATURE DEGREES C        | 1           | -2.000                 | --      | --      | --   | --      | --        | --     | --     |
| 00010  | WATER TEMPERATUR (DEGREES C)     | 7           | 23.000                 | 0.000   | 8.914   | 23.000   | 15.500  | 9.000     | 0.500  | 0.000  |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3) | 7           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3) | 7           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3) | 7           | 50.000                 | 0.000   | 7.143   | 50.000   | 0.000   | 0.000     | 0.000  | 0.000  |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3) | 7           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)    | 7           | 410.000                | 0.000   | 110.000 | 410.000  | 360.000 | 0.000     | 0.000  | 0.000  |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)    | 2           | 100.000                | 84.000  | --      | --   | --      | --        | --     | --     |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)    | 2           | 38.000                 | 37.000  | --      | --   | --      | --        | --     | --     |
| 00935  | POTASSIUM DISSOL (MG/L AS K)     | 2           | 4.100                  | 3.500   | --      | --   | --      | --        | --     | --     |
| 00931  | SODIUM ADSORPTIO (RATIO)         | 7           | 0.400                  | 0.000   | 0.100   | 0.400  | 0.300   | 0.000     | 0.000  | 0.000  |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)    | 2           | 19.000                 | 14.000  | --      | --   | --      | --        | --     | --     |
| 00932  | SODIUM, PERCENT PERCENT          | 7           | 10.000                 | 0.000   | 2.429   | 10.000   | 7.000   | 0.000     | 0.000  | 0.000  |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3)    | 7           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3)  | 1           | 310.000                | --      | --      | --   | --      | --        | --     | --     |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3)  | 1           | 380.000                | --      | --      | --   | --      | --        | --     | --     |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)   | 1           | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 71870  | BROMIDE DISSOLVE MG/L AS BR      | 1           | 0.040                  | --      | --      | --   | --      | --        | --     | --     |

**Supplement 29.** Statistical summary of water-quality data for the Sand Hill River at Climax, Minn., gaging station 05069000, November 1966 through September 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |       | Percentage of samples in which values were less than or equal to those shown |       |           |       |       |
|---|---------------------------------|-------------|------------------------|---------|-------|--|-------|-----------|-------|-------|
|   |                                 |             | Maximum                | Minimum | Mean  | 95   | 75    | Median 50 | 25    | 5     |
| <b>North Dakota data, November 1966 through September 2000--Continued</b> |                                 |             |                        |         |       |  |       |           |       |       |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)   | 2           | 15.000                 | 13.000  | --    | --   | --    | --        | --    | --    |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 2           | 0.300                  | 0.200   | --    | --   | --    | --        | --    | --    |
| 00955   | SILICA DISSOLVED (MG/L AS SIO2) | 2           | 25.000                 | 21.000  | --    | --   | --    | --        | --    | --    |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 2           | 78.000                 | 69.000  | --    | --   | --    | --        | --    | --    |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3    | 7           | 0.100                  | 0.000   | 0.014 | 0.100  | 0.000 | 0.000     | 0.000 | 0.000 |
| 00620   | NITROGEN NITRATE MG/L AS N      | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 71850   | N, NITRATE TOTAL MG/L AS NO3    | 1           | 0.100                  | --      | --    | --   | --    | --        | --    | --    |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)     | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00607   | NITROGEN ORGANIC (MG/L AS N)    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00605   | NITROGEN ORGANIC (MG/L AS N)    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00600   | NITROGEN TOTAL (MG/L AS N)      | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 71887   | NITROGEN, TOTAL MG/L AS NO3     | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)  | 7           | 0.060                  | 0.000   | 0.009 | 0.060  | 0.000 | 0.000     | 0.000 | 0.000 |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)   | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)     | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00621   | NITROGEN NITRATE (MG/KG AS N)   | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2)  | 7           | 3.800                  | 0.000   | 0.543 | 3.800  | 0.000 | 0.000     | 0.000 | 0.000 |
| 00681   | CARBON ORGANIC D (MG/L AS C)    | 3           | 13.000                 | 11.000  | --    | --   | --    | --        | --    | --    |
| 00680   | CARBON ORGANIC T (MG/L AS C)    | 3           | 19.000                 | 10.000  | --    | --   | --    | --        | --    | --    |
| 00690   | CARBON INORG + O (MG/L AS C)    | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)   | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 70950   | BIO CHL RATIO PE UNITS          | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 70949   | BIO CHL RATIO PL UNITS          | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 01105   | ALUMINUM TOTAL UG/L AS AL       | 1           | 200.000                | --      | --    | --   | --    | --        | --    | --    |
| 01005   | BARIUM DISSOLVED (UG/L AS BA)   | 1           | 150.000                | --      | --    | --   | --    | --        | --    | --    |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE)   | 1           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 01020   | BORON DISSOLVED (UG/L AS B)     | 1           | 70.000                 | --      | --    | --   | --    | --        | --    | --    |

**Supplement 29.** Statistical summary of water-quality data for the Sand Hill River at Climax, Minn., gaging station 05069000, November 1966 through September 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent       | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |       |       |
|---|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|-------|-------|
|   |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25    | 5     |
| <b>North Dakota data, November 1966 through September 2000--Continued</b> |                               |             |                        |         |         |  |         |           |       |       |
| 01022   | BORON TOTAL (UG/L AS B)       | 1           | 70.000                 | --      | --      | --   | --      | --        | --    | --    |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD) | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR) | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 01035   | COBALT DISSOLVED (UG/L AS CO) | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 01040   | COPPER DISSOLVED (UG/L AS CU) | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 71885   | IRON UG/L AS FE               | 1           | 20.000                 | --      | --      | --   | --      | --        | --    | --    |
| 01046   | IRON DISSOLVED (UG/L AS FE)   | 1           | 20.000                 | --      | --      | --   | --      | --        | --    | --    |
| 01045   | IRON TOTAL (UG/L AS FE)       | 1           | 20.000                 | --      | --      | --   | --      | --        | --    | --    |
| 01049   | LEAD DISSOLVED (UG/L AS PB)   | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI) | 1           | 22.000                 | --      | --      | --   | --      | --        | --    | --    |
| 01056   | MANGANESE DISSOL (UG/L AS MN) | 1           | 18.000                 | --      | --      | --   | --      | --        | --    | --    |
| 01055   | MANGANESE TOTAL (UG/L AS MN)  | 1           | 0.000                  | --      | --      | --   | --      | --        | --    | --    |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO) | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 01065   | NICKEL DISSOLVED (UG/L AS NI) | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 01145   | SELENIUM DISSOLV (UG/L AS SE) | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 01075   | SILVER DISSOLVED (UG/L AS AG) | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 01080   | STRONTIUM DISSOL (UG/L AS SR) | 1           | 240.000                | --      | --      | --   | --      | --        | --    | --    |
| 01085   | VANADIUM DISSOLV (UG/L AS V)  | 1           | --                     | --      | --      | --   | --      | --        | --    | --    |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)   | 1           | 12.000                 | --      | --      | --   | --      | --        | --    | --    |
| 70342   | SED-SUSP-FALL-D- %            | 1           | 99.000                 | --      | --      | --   | --      | --        | --    | --    |
| 70331   | SED-SUSP-SIEVE- %             | 2           | 100.000                | 97.000  | --      | --   | --      | --        | --    | --    |
| 80156   | SUS-SED DISCH + T/DAY         | 7           | 0.000                  | --      | --      | --   | --      | --        | --    | --    |
| 80154   | CONCENTRATION,S. MG/L         | 4           | 305.000                | 60.000  | --      | --   | --      | --        | --    | --    |
| 80155   | DISCHARGE,SUSP.S T/DAY        | 7           | 1110.000               | 0.000   | 192.486 | 1110.000   | 203.000 | 5.400     | 0.000 | 0.000 |

**Supplement 30.** Statistical summary of water-quality data for the Lower Red Lake near Red Lake, Minn., gaging station 05074000, May 1962 through April 1965

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, May 1962 through April 1965</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00080   | COLOR PLATINUM-COBAL            | 6           | 12.000                 | 3.000   | 5.833   | 12.000   | 6.750   | 5.000     | 4.500   | 3.000   |
| 00540   | RESIDUE FIXED (MG/L)            | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 6           | 0.270                  | 0.240   | 0.248   | 0.270  | 0.255   | 0.245     | 0.240   | 0.240   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70300   | RESIDUE DIS 180C MG/L           | 6           | 196.000                | 174.000 | 182.500 | 196.000  | 187.000 | 182.000   | 176.250 | 174.000 |
| 70301   | DISSOLVED SOLIDS MG/L           | 6           | 168.000                | 156.000 | 164.000 | 168.000  | 168.000 | 166.500   | 158.250 | 156.000 |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 6           | 7.800                  | 7.300   | 7.483   | 7.800  | 7.650   | 7.450     | 7.300   | 7.300   |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 6           | 311.000                | 283.000 | 296.000 | 311.000  | 308.750 | 292.000   | 288.250 | 283.000 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 1           | 4.400                  | --      | --      | --   | --      | --        | --      | --      |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 6           | 7.000                  | 4.000   | 5.000   | 7.000  | 6.250   | 4.500     | 4.000   | 4.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 6           | 160.000                | 150.000 | 153.333 | 160.000  | 160.000 | 150.000   | 150.000 | 150.000 |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 6           | 39.000                 | 34.000  | 37.000  | 39.000   | 38.250  | 37.500    | 35.500  | 34.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 6           | 16.000                 | 14.000  | 14.833  | 16.000   | 15.250  | 15.000    | 14.000  | 14.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 6           | 2.700                  | 2.000   | 2.350   | 2.700  | 2.550   | 2.400     | 2.075   | 2.000   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 6           | 0.100                  | 0.100   | 0.100   | 0.100  | 0.100   | 0.100     | 0.100   | 0.100   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 6           | 4.000                  | 3.100   | 3.417   | 4.000  | 3.775   | 3.250     | 3.175   | 3.100   |
| 00932   | SODIUM, PERCENT PERCENT         | 6           | 5.000                  | 4.000   | 4.333   | 5.000  | 5.000   | 4.000     | 4.000   | 4.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 1           | 141.000                | --      | --      | --   | --      | --        | --      | --      |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 6           | 190.000                | 170.000 | 180.000 | 190.000  | 190.000 | 180.000   | 170.000 | 170.000 |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)  | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00940   | CHLORIDE DISSOLV (MG/L AS Cl)   | 6           | 2.400                  | 0.200   | 1.283   | 2.400  | 2.400   | 1.100     | 0.425   | 0.200   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 6           | 0.300                  | 0.100   | 0.183   | 0.300  | 0.225   | 0.200     | 0.100   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 6           | 9.900                  | 2.700   | 5.933   | 9.900  | 9.300   | 5.500     | 2.850   | 2.700   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 6           | 12.000                 | 8.800   | 9.967   | 12.000   | 10.500  | 9.750     | 9.325   | 8.800   |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4    | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71845   | NITROGEN, NH4, T MG/L AS NH4    | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602   | NITROGEN DISSOLV (MG/L AS N)    | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00618   | NITROGEN NITRATE (MG/L AS N)    | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3    | 6           | 2.800                  | 0.100   | 0.917   | 2.800  | 1.750   | 0.500     | 0.175   | 0.100   |
| 00620   | NITROGEN NITRATE MG/L AS N      | 6           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 30.** Statistical summary of water-quality data for the Lower Red Lake near Red Lake, Minn., gaging station 05074000, May 1962 through April 1965--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |        | Percentage of samples in which values were less than or equal to those shown |        |           |        |        |
|--|--------------------------------|-------------|------------------------|---------|--------|--|--------|-----------|--------|--------|
|  |                                |             | Maximum                | Minimum | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>North Dakota data, May 1962 through April 1965--Continued</b> |                                |             |                        |         |        |  |        |           |        |        |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)    | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2   | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00607  | NITROGEN ORGANIC (MG/L AS N)   | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 71887  | NITROGEN, TOTAL MG/L AS NO3    | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 6           | 0.200                  | 0.000   | 0.042  | 0.200  | 0.080  | 0.005     | 0.000  | 0.000  |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)   | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)   | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 6           | 15.000                 | 4.800   | 10.317 | 15.000   | 14.250 | 10.650    | 6.300  | 4.800  |
| 00690  | CARBON INORG + O (MG/L AS C)   | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 70950  | BIO CHL RATIO PE UNITS         | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 70949  | BIO CHL RATIO PL UNITS         | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 01105  | ALUMINUM TOTAL UG/L AS AL      | 4           | 1000.000               | 0.000   | --     | --   | --     | --        | --     | --     |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 6           | 100.000                | 30.000  | 48.333 | 100.000  | 55.000 | 40.000    | 37.500 | 30.000 |
| 71885  | IRON UG/L AS FE                | 6           | 30.000                 | 10.000  | 21.667 | 30.000   | 30.000 | 20.000    | 17.500 | 10.000 |
| 01055  | MANGANESE TOTAL (UG/L AS MN)   | 6           | 30.000                 | 0.000   | 16.667 | 30.000   | 30.000 | 15.000    | 7.500  | 0.000  |
| 80156  | SUS-SED DISCH + T/DAY          | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |
| 80155  | DISCHARGE,SUSP.S T/DAY         | 6           | 0.000                  | --      | --     | --   | --     | --        | --     | --     |

**Supplement 31.** Statistical summary of water-quality data for the Red Lake River at High Landing near Goodridge, Minn., gaging station 05075000, April 1979 through September 2000

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>Minnesota data, April 1979 through September 2000</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 5           | 8.680                  | 5.540   | --       | --   | --       | --        | --      | --      |
| 00061  | DISCHARGE, INST. CFS            | 7           | 3640.000               | 668.000 | 1516.714 | 3640.000   | 2130.000 | 927.000   | 762.000 | 668.000 |
| 00540  | RESIDUE FIXED (MG/L)            | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70301  | DISSOLVED SOLIDS MG/L           | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00076  | TURBIDITY (NTU)                 | 5           | 9.400                  | 1.300   | --       | --   | --       | --        | --      | --      |
| 00025  | AIR PRESSURE (MM OF HG)         | 5           | 743.000                | 726.000 | --       | --   | --       | --        | --      | --      |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 5           | 14.000                 | 9.500   | --       | --   | --       | --        | --      | --      |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 7           | 100.000                | 0.000   | 66.143   | 100.000  | 94.000   | 90.000    | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 5           | 8.300                  | 7.900   | --       | --   | --       | --        | --      | --      |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 5           | 311.000                | 275.000 | --       | --   | --       | --        | --      | --      |
| 00020  | AIR TEMPERATURE DEGREES C       | 4           | 15.000                 | -15.000 | --       | --   | --       | --        | --      | --      |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 7           | 10.200                 | -0.200  | 5.171    | 10.200   | 10.200   | 6.000     | 0.000   | -0.200  |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00932  | SODIUM, PERCENT PERCENT         | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00620  | NITROGEN NITRATE MG/L AS N      | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 7           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |

**Supplement 31.** Statistical summary of water-quality data for the Red Lake River at High Landing near Goodridge, Minn., gaging station 05075000, April 1979 through September 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent        | Sample size | Descriptive statistics |         |        | Percentage of samples in which values were less than or equal to those shown |         |           |       |       |
|---|--------------------------------|-------------|------------------------|---------|--------|--|---------|-----------|-------|-------|
|   |                                |             | Maximum                | Minimum | Mean   | 95   | 75      | Median 50 | 25    | 5     |
| <b>Minnesota data, April 1979 through September 2000--Continued</b> |                                |             |                        |         |        |  |         |           |       |       |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)  | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)   | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)   | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)    | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 5           | 20.000                 | 14.000  | --     | --   | --      | --        | --    | --    |
| 00680   | CARBON ORGANIC T (MG/L AS C)   | 5           | 21.000                 | 14.000  | --     | --   | --      | --        | --    | --    |
| 00690   | CARBON INORG + O (MG/L AS C)   | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 70950   | BIO CHL RATIO PE UNITS         | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 70949   | BIO CHL RATIO PL UNITS         | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 70342   | SED-SUSP-FALL-D- %             | 2           | 80.000                 | 76.000  | --     | --   | --      | --        | --    | --    |
| 80156   | SUS-SED DISCH + T/DAY          | 7           | 0.000                  | --      | --     | --   | --      | --        | --    | --    |
| 80154   | CONCENTRATION,S. MG/L          | 2           | 43.000                 | 21.000  | --     | --   | --      | --        | --    | --    |
| 80155   | DISCHARGE,SUSP.S T/DAY         | 7           | 423.000                | 0.000   | 77.714 | 423.000  | 121.000 | 0.000     | 0.000 | 0.000 |

**Supplement 32.** Statistical summary of water-quality data for the Clearwater River at Red Lake Falls, Minn., gaging station 05078500, August 1992 through March 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|---|---------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                                 |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, August 1992 through March 2001</b> |                                 |             |                        |         |      |  |    |           |    |    |
| 00065   | GAGE HEIGHT (FEET)              | 1           | 3.820                  | --      | --   | --   | -- | --        | -- | -- |
| 00060   | DISCHARGE CFS                   | 1           | 1140.000               | --      | --   | --   | -- | --        | -- | -- |
| 00061   | DISCHARGE, INST. CFS            | 1           | 139.000                | --      | --   | --   | -- | --        | -- | -- |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 1           | 0.500                  | --      | --   | --   | -- | --        | -- | -- |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 1           | 1120.000               | --      | --   | --   | -- | --        | -- | -- |
| 70300   | RESIDUE DIS 180C MG/L           | 1           | 365.000                | --      | --   | --   | -- | --        | -- | -- |
| 70301   | DISSOLVED SOLIDS MG/L           | 1           | 313.000                | --      | --   | --   | -- | --        | -- | -- |
| 00076   | TURBIDITY (NTU)                 | 1           | 3.500                  | --      | --   | --   | -- | --        | -- | -- |
| 00025   | AIR PRESSURE (MM OF HG)         | 2           | 740.000                | 738.000 | --   | --   | -- | --        | -- | -- |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 2           | 10.200                 | 7.700   | --   | --   | -- | --        | -- | -- |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 1           | 89.100                 | --      | --   | --   | -- | --        | -- | -- |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 2           | 8.100                  | 7.400   | --   | --   | -- | --        | -- | -- |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 1           | 7.900                  | --      | --   | --   | -- | --        | -- | -- |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 1           | 538.000                | --      | --   | --   | -- | --        | -- | -- |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 2           | 548.000                | 537.000 | --   | --   | -- | --        | -- | -- |
| 00020   | AIR TEMPERATURE DEGREES C       | 2           | 14.500                 | 2.000   | --   | --   | -- | --        | -- | -- |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 1           | 21.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 1           | 60.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 1           | 279.000                | --      | --   | --   | -- | --        | -- | -- |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 1           | 69.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00925   | MAGNESIUM DISSOL (MG/L AS MG)   | 1           | 26.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 1           | 4.500                  | --      | --   | --   | -- | --        | -- | -- |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 1           | 0.185                  | --      | --   | --   | -- | --        | -- | -- |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 1           | 7.100                  | --      | --   | --   | -- | --        | -- | -- |
| 00932   | SODIUM, PERCENT PERCENT         | 1           | 5.140                  | --      | --   | --   | -- | --        | -- | -- |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 1           | 233.000                | --      | --   | --   | -- | --        | -- | -- |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 1           | 219.000                | --      | --   | --   | -- | --        | -- | -- |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3) | 1           | 267.000                | --      | --   | --   | -- | --        | -- | -- |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)  | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)   | 1           | 7.500                  | --      | --   | --   | -- | --        | -- | -- |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)    | 1           | 0.200                  | --      | --   | --   | -- | --        | -- | -- |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2) | 1           | 19.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)  | 1           | 46.000                 | --      | --   | --   | -- | --        | -- | -- |
| 00608   | NITROGEN AMMONIA (MG/L AS N)    | 1           | 0.060                  | --      | --   | --   | -- | --        | -- | -- |
| 00623   | NITRO AMN & ORG (MG/L AS N)     | 1           | 1.200                  | --      | --   | --   | -- | --        | -- | -- |

**Supplement 32.** Statistical summary of water-quality data for the Clearwater River at Red Lake Falls, Minn., gaging station 05078500, August 1992 through March 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|--------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                                |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, August 1992 through March 2001--Continued</b> |                                |             |                        |         |      |  |    |           |    |    |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)   | 1           | 1.500                  | --      | --   | --   | -- | --        | -- | -- |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4   | 1           | 0.077                  | --      | --   | --   | -- | --        | -- | -- |
| 00602  | NITROGEN DISSOLV (MG/L AS N)   | 1           | 1.620                  | --      | --   | --   | -- | --        | -- | -- |
| 00618  | NITROGEN NITRATE (MG/L AS N)   | 1           | 0.350                  | --      | --   | --   | -- | --        | -- | -- |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3   | 1           | 1.550                  | --      | --   | --   | -- | --        | -- | -- |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)   | 1           | 0.420                  | --      | --   | --   | -- | --        | -- | -- |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2   | 1           | 0.230                  | --      | --   | --   | -- | --        | -- | -- |
| 00613  | NITROGEN,NITRITE MG/L AS N     | 1           | 0.070                  | --      | --   | --   | -- | --        | -- | -- |
| 00607  | NITROGEN ORGANIC (MG/L AS N)   | 1           | 1.140                  | --      | --   | --   | -- | --        | -- | -- |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 1           | 1.440                  | --      | --   | --   | -- | --        | -- | -- |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 1           | 1.920                  | --      | --   | --   | -- | --        | -- | -- |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 1           | 0.276                  | --      | --   | --   | -- | --        | -- | -- |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 1           | 0.070                  | --      | --   | --   | -- | --        | -- | -- |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 1           | 0.090                  | --      | --   | --   | -- | --        | -- | -- |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 1           | 0.130                  | --      | --   | --   | -- | --        | -- | -- |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 1           | 3.300                  | --      | --   | --   | -- | --        | -- | -- |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 2           | 18.000                 | 11.000  | --   | --   | -- | --        | -- | -- |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 1           | 2.500                  | --      | --   | --   | -- | --        | -- | -- |
| 00680  | CARBON ORGANIC T (MG/L AS C)   | 1           | 11.000                 | --      | --   | --   | -- | --        | -- | -- |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 1           | 60.000                 | --      | --   | --   | -- | --        | -- | -- |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 1           | 8.000                  | --      | --   | --   | -- | --        | -- | -- |
| 49295  | 1-NAPHTHOL FLTRD (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39742  | 2,4,5-T DISSOLVE UG/L          | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39732  | 2,4-D DISSOLVED UG/L           | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38746  | 2,4-DB FLTRD (UG/L)            | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82660  | 2DIETHYLANILINE (UG/L)         | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49308  | 3HYDRXYCARBOFURA (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49260  | ACETOCHLOR FLTRD (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49315  | ACIFLUORFEN FLTR (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 46342  | ALACHLOR, DISS, UG/L           | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49313  | ALDICARB SULFONE (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49314  | ALDICARB SULFOXI (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49312  | ALDICARB FLTRD (UG/L)          | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34253  | ALPHA BHC UG/L                 | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39632  | ATRAZINE, DISS, UG/L           | 1           | 0.057                  | --      | --   | --   | -- | --        | -- | -- |

**Supplement 32.** Statistical summary of water-quality data for the Clearwater River at Red Lake Falls, Minn., gaging station 05078500, August 1992 through March 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent  | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|--------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                          |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, August 1992 through March 2001--Continued</b> |                          |             |                        |         |      |  |    |           |    |    |
| 82673  | BENFLURALIN FIL (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38711  | BENTAZON, FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04029  | BROMACIL DISS RE (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49311  | BROMOXYNIL FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04028  | BUTYLATE DISS RE (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49310  | CARBARYL FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82680  | CARBARYL FIL 0.7 (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49309  | CARBOFURAN FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82674  | CARBOFURAN FIL. (UG/L)   | 1           | 0.029                  | --      | --   | --   | -- | --        | -- | -- |
| 61188  | CHLORAMBEN, METH (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49306  | CHLOROTHALONIL F (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38933  | CHLORPYRIFOS, DI UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49305  | CLOPYRALID FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04041  | CYANAZINE DISS R (UG/L)  | 1           | 0.014                  | --      | --   | --   | -- | --        | -- | -- |
| 49304  | DACTHAL MONO-ACI (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82682  | DCPA FIL 0.7 REC (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04040  | DEETHYL ATRAZINE (UG/L)  | 1           | 0.011                  | --      | --   | --   | -- | --        | -- | -- |
| 39572  | DIAZINON DISSOLV UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38442  | DICAMBA FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49303  | DICHLORBENIL FLTR (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49302  | DICHLORPRO FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39381  | DIELDRIN DISSOLV UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49301  | DINOSEB FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677  | DISULFOTON FIL. (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49300  | DIURON FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49299  | DNOC FLTD (UG/L)         | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82668  | EPTC FIL 0.7 REC (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49298  | ESFENVALERATE FL (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82663  | ETHALFLURALIN FI (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82672  | ETHOPROP FIL 0.7 (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49297  | FENURON FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38811  | FLUOMETURON FLT (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04095  | FONOFox DISS REC (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39341  | LINDANE DISSOLVE UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38478  | LINURON FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 32.** Statistical summary of water-quality data for the Clearwater River at Red Lake Falls, Minn., gaging station 05078500, August 1992 through March 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, August 1992 through March 2001--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 82666  | LINURON FIL 0.7 (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39532  | MALATHION DISSOL UG/L   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38482  | MCPA FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38487  | MCPB FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38501  | METHIOCARB FLTRD (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49296  | METHOMYL FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82686  | METHYL AZINPHOS (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82667  | METHYL PARATHION (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39415  | METOLACHLOR,WAT. UG/L   | 1           | 0.002                  | --      | --   | --   | -- | --        | -- | -- |
| 82630  | METRIBUZIN,WAT.D UG/L   | 1           | 0.004                  | --      | --   | --   | -- | --        | -- | -- |
| 82671  | MOLINATE FIL 0.7 (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82684  | NAPROPAMIDE FIL (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49294  | NEBURON FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49293  | NORFLURAZON FLTR (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49292  | ORYZALIN FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38866  | OXAMYL FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34653  | P,P' DDE DISSOLV (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39542  | PARATHION DISSOL UG/L   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82669  | PEBULATE FIL 0.7 (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82683  | PENDIMETHALIN F. (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82687  | PERMETHRIN FIL. (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82664  | PHORATE FIL 0.7 (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04037  | PROMETON DISS RE (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82676  | PRONAMIDE FIL .7 (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04024  | PROPACHLOR DISS (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82679  | PROPANIL FIL 0.7 (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82685  | PROPARGITE FIL. (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49236  | PROPHAM FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38538  | PROPOXUR FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39762  | SILVEX DISSOLVED UG/L   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04035  | SIMAZINE DISS RE (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82670  | TEBUTHIURON FIL (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82665  | TERBACIL FIL 0.7 (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82675  | TERBUFOS FIL 0.7 (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82681  | THIOBENCARB FIL (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 32.** Statistical summary of water-quality data for the Clearwater River at Red Lake Falls, Minn., gaging station 05078500, August 1992 through March 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|---------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                                 |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, August 1992 through March 2001--Continued</b> |                                 |             |                        |         |      |  |    |           |    |    |
| 82678  | TRIALATE FIL .7 (UG/L)          | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49235  | TRICLOPYR FLTRD (UG/L)          | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82661  | TRIFLURALIN FIL (UG/L)          | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 70331  | SED-SUSP-SIEVE-. %              | 1           | 78.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80154  | CONCENTRATION,S. MG/L           | 2           | 79.000                 | 44.000  | --   | --   | -- | --        | -- | -- |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 2           | 135.000                | 30.000  | --   | --   | -- | --        | -- | -- |
| 80294  | BED MAT FD DW<.0 PERCENT <.002M | 1           | 18.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80157  | SED-BED-FALL-D-. %              | 1           | 21.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80293  | BED MAT FD DW<.0 PERCENT> .008M | 1           | 22.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80282  | BED MAT FD DW<.0 PERCENT <.016M | 1           | 27.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80283  | BED MAT FD DW<.0 PERCENT <.031M | 1           | 36.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80158  | SED-BED-FALL-D-. %              | 1           | 49.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80159  | SED-BED-FALL-D-. %              | 1           | 72.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80160  | SED-BED-FALL-D-. %              | 1           | 87.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80161  | SED-BED-FALL-D-. %              | 1           | 93.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80162  | SED-BED-FALL-D-1 %              | 1           | 100.000                | --      | --   | --   | -- | --        | -- | -- |

**Supplement 33.** Statistical summary of water-quality data for the Red Lake River at Crookston, Minn., gaging station 05079000, April 1962 through September 2000

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>Minnesota data, April 1962 through September 2000</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 9           | 19.280                 | 4.900   | 7.841    | 19.280   | 8.430    | 5.900     | 5.320   | 4.900   |
| 00060  | DISCHARGE CFS                   | 42          | 8000.000               | 374.000 | 1650.810 | 5937.497   | 2037.500 | 1040.000  | 663.250 | 411.100 |
| 00061  | DISCHARGE, INST. CFS            | 156         | 20200.000              | 6.000   | 1518.744 | 4462.000   | 1552.500 | 976.000   | 467.250 | 102.650 |
| 00080  | COLOR PLATINUM-COBAL            | 54          | 90.000                 | 4.000   | 22.907   | 55.000   | 30.000   | 20.000    | 12.000  | 5.000   |
| 00540  | RESIDUE FIXED (MG/L)            | 193         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00520  | RESIDUE VOLATILE (MG/L)         | 14          | 128.000                | 7.000   | 87.857   | 128.000  | 103.250  | 96.000    | 81.250  | 7.000   |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 193         | 0.630                  | 0.000   | 0.328    | 0.500  | 0.400    | 0.350     | 0.300   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 193         | 5930.000               | 0.000   | 777.627  | 2462.001   | 1004.500 | 558.000   | 149.500 | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 176         | 463.000                | 145.000 | 267.648  | 368.900  | 302.250  | 262.500   | 230.250 | 191.000 |
| 70301  | DISSOLVED SOLIDS MG/L           | 193         | 474.000                | 0.000   | 213.995  | 320.900  | 265.000  | 225.000   | 192.000 | 0.000   |
| 00076  | TURBIDITY (NTU)                 | 100         | 95.000                 | 0.600   | 10.913   | 49.500   | 12.000   | 4.750     | 3.000   | 0.810   |
| 00025  | AIR PRESSURE (MM OF HG)         | 100         | 786.000                | 718.000 | 742.840  | 772.950  | 746.000  | 740.000   | 736.000 | 724.200 |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 116         | 14.100                 | 5.700   | 10.307   | 13.915   | 12.275   | 10.200    | 8.325   | 7.100   |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 193         | 127.000                | 0.000   | 53.979   | 103.000  | 94.000   | 80.000    | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 171         | 8.700                  | 6.900   | 8.019    | 8.600  | 8.300    | 8.100     | 7.700   | 7.300   |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 105         | 8.600                  | 7.200   | 8.034    | 8.500  | 8.200    | 8.000     | 7.850   | 7.500   |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 104         | 743.000                | 278.000 | 437.125  | 575.250  | 488.500  | 429.500   | 382.000 | 324.250 |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 179         | 730.000                | 195.000 | 408.603  | 562.000  | 453.000  | 395.000   | 358.000 | 297.000 |
| 00020  | AIR TEMPERATURE DEGREES C       | 99          | 30.000                 | -20.000 | 9.582    | 27.000   | 21.000   | 11.500    | 1.000   | -17.000 |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 170         | 28.500                 | 0.000   | 9.282    | 25.000   | 18.025   | 6.500     | 0.500   | 0.000   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 193         | 97.000                 | 0.000   | 14.269   | 75.600   | 23.500   | 0.000     | 0.000   | 0.000   |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 193         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 95902  | HARDNESS, NONCAR (MG/L AS CaCO3 | 16          | 65.000                 | 0.000   | 34.125   | 65.000   | 61.000   | 37.500    | 11.750  | 0.000   |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 193         | 120.000                | 0.000   | 10.689   | 69.300   | 6.000    | 0.000     | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 193         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 193         | 390.000                | 0.000   | 192.280  | 280.000  | 235.000  | 200.000   | 175.000 | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 175         | 94.000                 | 25.000  | 52.279   | 70.000   | 58.000   | 52.000    | 46.000  | 37.800  |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)   | 175         | 38.000                 | 8.400   | 19.668   | 28.000   | 22.000   | 19.000    | 16.000  | 13.000  |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 176         | 9.800                  | 0.100   | 3.504    | 5.315  | 4.175    | 3.300     | 2.700   | 2.000   |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 193         | 0.400                  | 0.000   | 0.155    | 0.300  | 0.200    | 0.200     | 0.100   | 0.000   |
| 00933  | SODIUM+POTASSIUM (MG/L AS Na)   | 6           | 6.900                  | 5.500   | 6.283    | 6.900  | 6.900    | 6.400     | 5.575   | 5.500   |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 176         | 15.000                 | 2.300   | 5.870    | 11.000   | 6.600    | 5.100     | 4.300   | 3.300   |
| 00932  | SODIUM, PERCENT PERCENT         | 193         | 14.000                 | 0.000   | 4.948    | 8.300  | 6.000    | 5.000     | 4.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 193         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 99430  | ANC, CARB, IT, F MG/L           | 5           | 187.000                | 162.000 | --       | --   | --       | --        | --      | --      |

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|   |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>Minnesota data, April 1962 through September 2000--Continued</b> |                                  |             |                        |         |         |  |         |           |         |         |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3   | 102         | 308.000                | 97.000  | 190.804 | 280.000  | 203.000 | 188.000   | 174.000 | 126.000 |
| 00418   | ALKALINITY,DIS,F (MG/L AS CaCO3) | 1           | 183.000                | --      | --      | --   | --      | --        | --      | --      |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3) | 65          | 305.000                | 84.000  | 189.738 | 276.300  | 200.000 | 188.000   | 174.000 | 119.600 |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3)  | 72          | 212.000                | 80.000  | 167.417 | 200.000  | 184.750 | 171.000   | 156.000 | 118.400 |
| 00417   | ANC, FET, LAB (MG/L AS CaCO3)    | 1           | 197.000                | --      | --      | --   | --      | --        | --      | --      |
| 99440   | BICARBONATE MG/L AS HCO3         | 5           | 228.000                | 198.000 | --      | --   | --      | --        | --      | --      |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3)  | 65          | 372.000                | 102.000 | 227.369 | 336.700  | 243.000 | 222.000   | 207.000 | 146.200 |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3)  | 55          | 260.000                | 98.000  | 198.873 | 244.000  | 220.000 | 210.000   | 190.000 | 120.000 |
| 99445   | CARBONATE MG/L AS CO3            | 5           | 2.000                  | 0.000   | --      | --   | --      | --        | --      | --      |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)   | 66          | 20.000                 | 0.000   | 2.045   | 10.650   | 1.000   | 0.000     | 0.000   | 0.000   |
| 00445   | ANC CARB FET FIE (MG/L AS CO3)   | 47          | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00940   | CHLORIDE DISSOLV (MG/L AS CL)    | 176         | 12.000                 | 0.000   | 4.543   | 9.615  | 5.600   | 3.850     | 2.900   | 2.085   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)     | 176         | 0.400                  | 0.000   | 0.160   | 0.300  | 0.200   | 0.100     | 0.100   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2)  | 176         | 22.000                 | 0.400   | 7.778   | 16.000   | 10.000  | 7.600     | 4.900   | 2.085   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)   | 176         | 125.000                | 7.000   | 37.406  | 88.150   | 50.750  | 32.000    | 18.250  | 9.985   |
| 00608   | NITROGEN AMMONIA (MG/L AS N)     | 112         | 0.730                  | --      | *0.074  | *0.264   | *0.080  | *0.035    | *0.020  | *0.005  |
| 99894   | NH3+ORG N DIS JI                 | 1           | 1.400                  | --      | --      | --   | --      | --        | --      | --      |
| 99892   | NH3+ORG N MOD JI                 | 1           | 1.400                  | --      | --      | --   | --      | --        | --      | --      |
| 00623   | NITRO AMN & ORG (MG/L AS N)      | 47          | 1.600                  | 0.280   | 0.849   | 1.520  | 0.980   | 0.780     | 0.700   | 0.488   |
| 00624   | NITROGEN SUSPEND (MG/L AS N)     | 22          | 0.470                  | 0.000   | 0.138   | 0.464  | 0.213   | 0.115     | 0.010   | 0.000   |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)     | 132         | 2.600                  | 0.400   | 1.060   | 1.900  | 1.200   | 0.900     | 0.800   | 0.607   |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4     | 193         | 0.940                  | 0.000   | 0.055   | 0.286  | 0.050   | 0.010     | 0.000   | 0.000   |
| 00610   | NITROGEN AMMONIA (MG/L AS N)     | 65          | 0.880                  | 0.000   | 0.098   | 0.469  | 0.095   | 0.040     | 0.030   | 0.010   |
| 71845   | NITROGEN, NH4, T MG/L AS NH4     | 193         | 1.100                  | 0.000   | 0.042   | 0.223  | 0.040   | 0.000     | 0.000   | 0.000   |
| 00602   | NITROGEN DISSOLV (MG/L AS N)     | 193         | 3.700                  | 0.000   | 0.195   | 1.230  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618   | NITROGEN NITRATE (MG/L AS N)     | 193         | 2.310                  | 0.000   | 0.042   | 0.233  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3     | 193         | 10.200                 | 0.000   | 0.359   | 1.903  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620   | NITROGEN NITRATE MG/L AS N       | 193         | 1.400                  | 0.000   | 0.013   | 0.040  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71850   | N, NITRATE TOTAL MG/L AS NO3     | 6           | 8.500                  | 0.300   | 2.217   | 8.500  | 3.925   | 0.900     | 0.300   | 0.300   |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)     | 119         | 2.400                  | --      | *0.164  | *0.610   | *0.190  | *0.074    | *0.029  | *0.010  |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)      | 180         | 1.500                  | 0.000   | 0.051   | 0.295  | 0.075   | 0.000     | 0.000   | 0.000   |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2     | 193         | 0.296                  | 0.000   | 0.009   | 0.066  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613   | NITROGEN,NITRITE MG/L AS N       | 75          | 0.090                  | --      | *0.009  | *0.040   | *0.010  | *0.004    | *0.001  | *0.000  |
| 00615   | NITROGEN,NITRITE MG/L AS N       | 22          | 0.120                  | --      | *0.015  | *0.105   | *0.020  | *0.010    | *0.004  | *0.001  |
| 00607   | NITROGEN ORGANIC (MG/L AS N)     | 193         | 1.400                  | 0.000   | 0.140   | 0.879  | 0.000   | 0.000     | 0.000   | 0.000   |

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| <b>Minnesota data, April 1962 through September 2000--Continued</b> |                                |             |                        |         |           |  |           |           |          |         |
| 00605   | NITROGEN ORGANIC (MG/L AS N)   | 193         | 1.900                  | 0.000   | 0.481     | 1.300  | 0.860     | 0.560     | 0.000    | 0.000   |
| 00600   | NITROGEN TOTAL (MG/L AS N)     | 193         | 4.000                  | 0.000   | 0.584     | 2.090  | 1.000     | 0.000     | 0.000    | 0.000   |
| 71887   | NITROGEN, TOTAL MG/L AS NO3    | 193         | 12.000                 | 0.000   | 1.213     | 6.750  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4) | 193         | 0.680                  | 0.000   | 0.040     | 0.184  | 0.060     | 0.000     | 0.000    | 0.000   |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)  | 193         | 0.970                  | 0.000   | 0.011     | 0.040  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)   | 120         | 0.970                  | --      | *0.041    | *0.109   | *0.040    | *0.020    | *0.010   | *0.004  |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)   | 193         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)   | 193         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)    | 193         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 193         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)   | 98          | 0.200                  | --      | *0.021    | *0.082   | *0.020    | *0.010    | *0.005   | *0.001  |
| 70507   | PHOS ORTHO TOT A MG/L AS P     | 13          | 0.060                  | --      | *0.021    | *0.060   | *0.030    | *0.010    | *0.010   | *0.003  |
| 00665   | PHOSPHORUS TOTAL (MG/L AS P)   | 147         | 1.100                  | 0.010   | 0.084     | 0.256  | 0.080     | 0.050     | 0.030    | 0.010   |
| 71886   | PHOSPHORUS TOT P MG/L AS PO4   | 35          | 3.400                  | 0.090   | 0.311     | 1.248  | 0.280     | 0.180     | 0.120    | 0.090   |
| 99893   | TOT P DISS MOD J               | 1           | 0.087                  | --      | --        | --   | --        | --        | --       | --      |
| 99891   | TOT P, WH, MOD J               | 1           | 0.100                  | --      | --        | --   | --        | --        | --       | --      |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 193         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 193         | 42.000                 | 0.000   | 4.383     | 18.000   | 5.600     | 2.100     | 1.150    | 0.000   |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 24          | 69.000                 | 3.400   | 17.850    | 59.000   | 18.000    | 16.000    | 13.250   | 5.300   |
| 00689   | CARBON ORGANIC P (MG/L AS C)   | 18          | 2.900                  | 0.300   | 1.233     | 2.900  | 1.525     | 1.100     | 0.700    | 0.300   |
| 00680   | CARBON ORGANIC T (MG/L AS C)   | 13          | 18.000                 | 9.400   | 13.262    | 18.000   | 15.000    | 13.000    | 12.000   | 9.400   |
| 00690   | CARBON INORG + O (MG/L AS C)   | 193         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 193         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00572   | BIOMASS, PERIPHY (G/SQ M)      | 3           | 0.551                  | 0.080   | --        | --   | --        | --        | --       | --      |
| 00573   | BIOMASS PERIPHYT (G/SQ M)      | 3           | 0.709                  | 0.080   | --        | --   | --        | --        | --       | --      |
| 70950   | BIO CHL RATIO PE UNITS         | 193         | 236.000                | 0.000   | 1.223     | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 70949   | BIO CHL RATIO PL UNITS         | 193         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 60050   | PHYTO TYPE-I CELLS/ML          | 15          | 63000.000              | 590.000 | 19348.666 | 63000.000  | 40000.000 | 8000.000  | 3900.000 | 590.000 |
| 31625   | COLIFORM FECAL 0 COLS./100 ML  | 95          | 7400.000               | 2.000   | 510.705   | 3420.000   | 210.000   | 49.000    | 16.000   | 5.000   |
| 31673   | FECAL STREP,KF M COLS./100 ML  | 95          | 3300.000               | 6.000   | 389.705   | 2000.000   | 430.000   | 170.000   | 35.000   | 11.600  |
| 70957   | CHL-A PR CH-FL M MG/M2         | 3           | 0.700                  | 0.100   | --        | --   | --        | --        | --       | --      |
| 70958   | CHL-B PR CH-FL M MG/M2         | 2           | 0.200                  | 0.000   | --        | --   | --        | --        | --       | --      |
| 01106   | ALUMINUM DISSOLV (UG/L AS AL)  | 46          | 60.000                 | --      | *10.193   | *43.000  | *10.000   | *6.037    | *2.958   | *1.051  |
| 01105   | ALUMINUM TOTAL UG/L AS AL      | 20          | 1600.000               | 0.000   | 390.000   | 1550.001   | 475.000   | 350.000   | 225.000  | 5.000   |
| 01000   | ARSENIC DISSOLVE (UG/L AS AS)  | 51          | 6.000                  | --      | *2.107    | *4.400   | *3.000    | *2.000    | *1.000   | *0.629  |

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|   |                               |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25       | 5        |
| <b>Minnesota data, April 1962 through September 2000--Continued</b> |                               |             |                        |         |          |  |          |           |          |          |
| 01001   | ARSENIC SUSPENDE (UG/L AS AS) | 12          | 4.000                  | 0.000   | 0.917    | 4.000  | 1.750    | 0.500     | 0.000    | 0.000    |
| 01002   | ARSENIC TOTAL (UG/L AS AS)    | 16          | 8.000                  | 1.000   | 3.188    | 8.000  | 4.000    | 3.000     | 2.000    | 1.000    |
| 01005   | BARIUM DISSOLVED (UG/L AS BA) | 64          | 100.000                | --      | *57.534  | *78.750  | *63.750  | *57.000   | *49.250  | *41.250  |
| 01006   | BARIUM SUSPENDE (UG/L AS BA)  | 14          | 50.000                 | --      | *35.472  | *50.000  | *40.000  | *36.288   | *29.770  | *25.538  |
| 01007   | BARIUM TOTAL (UG/L AS BA)     | 16          | 100.000                | --      | *100.000 | *100.000   | *100.000 | *100.000  | *100.000 | *100.000 |
| 01010   | BERYLLIUM DISSOL (UG/L AS BE) | 36          | --                     | --      | --       | --   | --       | --        | --       | --       |
| 01020   | BORON DISSOLVED (UG/L AS B)   | 49          | 310.000                | --      | *58.842  | *95.000  | *70.000  | *50.000   | *40.000  | *22.333  |
| 01022   | BORON TOTAL (UG/L AS B)       | 6           | 60.000                 | 30.000  | 43.333   | 60.000   | 52.500   | 45.000    | 30.000   | 30.000   |
| 01025   | CADMIUM DISSOLVE (UG/L AS CD) | 53          | 4.000                  | --      | *0.509   | *2.000   | *0.579   | *0.284    | *0.130   | *0.046   |
| 01026   | CADMIUM SUSPENDE (UG/L AS CD) | 11          | 18.000                 | 0.000   | 1.818    | 18.000   | 1.000    | 0.000     | 0.000    | 0.000    |
| 01027   | CADMIUM TOTAL (UG/L AS CD)    | 14          | 4.000                  | --      | *1.025   | *4.000   | *1.033   | *0.889    | *0.413   | *0.240   |
| 01030   | CHROMIUM DISSOLV (UG/L AS CR) | 51          | 30.000                 | --      | *4.660   | *20.000  | *10.000  | *1.340    | *0.611   | *0.167   |
| 01032   | CHROMIUM HEXAVAL (UG/L AS CR) | 1           | 0.000                  | --      | --       | --   | --       | --        | --       | --       |
| 01031   | CHROMIUM SUSPEND (UG/L AS CR) | 15          | 50.000                 | 0.000   | 10.600   | 50.000   | 10.000   | 10.000    | 0.000    | 0.000    |
| 01034   | CHROMIUM TOTAL (UG/L AS CR)   | 16          | 60.000                 | --      | *21.336  | *60.000  | *27.500  | *20.000   | *10.136  | *8.089   |
| 01035   | COBALT DISSOLVED (UG/L AS CO) | 65          | 3.000                  | --      | *1.027   | *2.047   | *1.244   | *0.898    | *0.645   | *0.397   |
| 01036   | COBALT SUSPENDE (UG/L AS CO)  | 12          | 5.000                  | 0.000   | 1.250    | 5.000  | 2.500    | 0.500     | 0.000    | 0.000    |
| 01037   | COBALT TOTAL (UG/L AS CO)     | 15          | 7.000                  | --      | *1.764   | *7.000   | *2.000   | *1.000    | *0.434   | *0.182   |
| 01040   | COPPER DISSOLVED (UG/L AS CU) | 53          | 16.000                 | --      | *2.596   | *8.700   | *3.000   | *2.000    | *1.000   | *0.521   |
| 01041   | COPPER SUSPENDE (UG/L AS CU)  | 15          | 4.000                  | 0.000   | 1.533    | 4.000  | 2.000    | 1.000     | 0.000    | 0.000    |
| 01042   | COPPER TOTAL (UG/L AS CU)     | 15          | 6.000                  | 2.000   | 3.800    | 6.000  | 6.000    | 4.000     | 2.000    | 2.000    |
| 00720   | CYANIDE TOTAL (MG/L AS CN)    | 1           | 0.000                  | --      | --       | --   | --       | --        | --       | --       |
| 71865   | IODIDE DISSOLVED MG/L AS I    | 1           | 0.004                  | --      | --       | --   | --       | --        | --       | --       |
| 71885   | IRON UG/L AS FE               | 16          | 140.000                | 20.000  | 72.500   | 140.000  | 102.500  | 70.000    | 42.500   | 20.000   |
| 01046   | IRON DISSOLVED (UG/L AS FE)   | 101         | 220.000                | 10.000  | 36.337   | 110.000  | 45.000   | 20.000    | 10.000   | 10.000   |
| 01044   | IRON SUSPENDE (UG/L AS FE)    | 16          | 1500.000               | 140.000 | 539.375  | 1500.000   | 707.500  | 420.000   | 315.000  | 140.000  |
| 01045   | IRON TOTAL (UG/L AS FE)       | 37          | 2100.000               | 10.000  | 473.784  | 1920.000   | 580.000  | 350.000   | 115.000  | 19.000   |
| 01049   | LEAD DISSOLVED (UG/L AS PB)   | 53          | 5.000                  | --      | *1.374   | *4.300   | *1.885   | *1.000    | *0.565   | *0.294   |
| 01050   | LEAD SUSPENDE (UG/L AS PB)    | 15          | 250.000                | 0.000   | 32.733   | 250.000  | 8.000    | 2.000     | 0.000    | 0.000    |
| 01051   | LEAD TOTAL (UG/L AS PB)       | 14          | 210.000                | --      | *18.390  | *210.000   | *7.250   | *3.000    | *1.000   | *0.502   |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI) | 48          | 37.000                 | 4.000   | 13.188   | 22.100   | 16.000   | 13.000    | 9.000    | 4.900    |
| 01056   | MANGANESE DISSOL (UG/L AS MN) | 101         | 79.000                 | --      | *18.872  | *53.700  | *25.000  | *13.000   | *7.309   | *4.030   |
| 01054   | MANGANESE SUSPEN (UG/L AS MN) | 16          | 140.000                | 10.000  | 55.625   | 140.000  | 77.500   | 50.000    | 30.000   | 10.000   |
| 01055   | MANGANESE TOTAL (UG/L AS MN)  | 54          | 270.000                | 0.000   | 63.889   | 167.500  | 92.500   | 50.000    | 30.000   | 0.000    |
| 71890   | MERCURY DISSOLVE UG/L AS HG   | 49          | 2.000                  | --      | *0.120   | *0.650   | *0.100   | *0.024    | *0.007   | *0.001   |

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|---|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|--------|
|   |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5      |
| <b>Minnesota data, April 1962 through September 2000--Continued</b> |                               |             |                        |         |         |  |         |           |         |        |
| 71895   | MERCURY SUSPENDE UG/L AS HG   | 12          | --                     | --      | --      | --   | --      | --        | --      | --     |
| 71900   | MERCURY, TOT.REC UG/L AS HG   | 16          | 0.700                  | --      | *0.193  | *0.700   | *0.200  | *0.106    | *0.071  | *0.029 |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO) | 48          | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01065   | NICKEL DISSOLVED (UG/L AS NI) | 60          | 7.000                  | --      | *1.569  | *3.950   | *2.000  | *1.000    | *0.725  | *0.349 |
| 01066   | NICKEL SUSPENDED (UG/L AS NI) | 11          | 3.000                  | 0.000   | 1.636   | 3.000  | 2.000   | 2.000     | 1.000   | 0.000  |
| 01067   | NICKEL TOTAL (UG/L AS NI)     | 11          | 8.000                  | 2.000   | 3.909   | 8.000  | 5.000   | 4.000     | 2.000   | 2.000  |
| 01145   | SELENIUM DISSOLV (UG/L AS SE) | 63          | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01146   | SELENIUM SUSPEND (UG/L AS SE) | 11          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 01147   | SELENIUM TOTAL (UG/L AS SE)   | 16          | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01075   | SILVER DISSOLVED (UG/L AS AG) | 64          | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01076   | SILVER SUSPENDED (UG/L AS AG) | 11          | 0.000                  | --      | --      | --   | --      | --        | --      | --     |
| 01077   | SILVER TOTAL (UG/L AS AG)     | 19          | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01080   | STRONTIUM DISSOL (UG/L AS SR) | 48          | 180.000                | 75.000  | 126.667 | 175.500  | 150.000 | 120.000   | 110.000 | 84.000 |
| 01085   | VANADIUM DISSOLV (UG/L AS V)  | 48          | --                     | --      | --      | --   | --      | --        | --      | --     |
| 01090   | ZINC DISSOLVED (UG/L AS ZN)   | 53          | 90.000                 | --      | *14.203 | *52.800  | *16.000 | *10.000   | *5.000  | *2.155 |
| 01091   | ZINC SUSPENDED (UG/L AS ZN)   | 15          | 40.000                 | 0.000   | 22.667  | 40.000   | 40.000  | 20.000    | 10.000  | 0.000  |
| 01092   | ZINC TOTAL (UG/L AS ZN)       | 16          | 100.000                | 10.000  | 38.125  | 100.000  | 50.000  | 35.000    | 20.000  | 10.000 |
| 49295   | 1-NAPHTHOL FLTRD (UG/L)       | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 39742   | 2,4,5-T DISSOLVE UG/L         | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 39732   | 2,4-D DISSOLVED UG/L          | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 38746   | 2,4-DB FLTRD (UG/L)           | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 82660   | 26DIETHYLANILINE (UG/L)       | 4           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 49308   | 3HYDRXYCARBOFURA (UG/L)       | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 49260   | ACETOCHLOR FLTRD (UG/L)       | 2           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 49315   | ACIFLUORFEN FLTR (UG/L)       | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 46342   | ALACHLOR, DISS, UG/L          | 4           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 49313   | ALDICARB SULFONE (UG/L)       | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 49314   | ALDICARB SULFOXI (UG/L)       | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 49312   | ALDICARB FLTRD (UG/L)         | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 34253   | ALPHA BHC UG/L                | 4           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 39632   | ATRAZINE, DISS, UG/L          | 4           | 0.120                  | 0.017   | --      | --   | --      | --        | --      | --     |
| 82673   | BENFLURALIN FIL (UG/L)        | 4           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 38711   | BENTAZON, FLTRD (UG/L)        | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 04029   | BROMACIL DISS RE (UG/L)       | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |
| 49311   | BROMOXYNIL FLTRD (UG/L)       | 3           | --                     | --      | --      | --   | --      | --        | --      | --     |

**Supplement 33.** Statistical summary of water-quality data for the Red Lake River at Crookston, Minn., gaging station 05079000, April 1962 through September 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|---|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, April 1962 through September 2000--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 04028   | BUTYLATE DISS RE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49310   | CARBARYL FLTRD (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82680   | CARBARYL FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49309   | CARBOFURAN FLTRD (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82674   | CARBOFURAN FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49307   | CHLORAMBEN FLTRD (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49306   | CHLOROTHALONIL F (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38933   | CHLORPYRIFOS, DI UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49305   | CLOPYRALID FLTRD (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04041   | CYANAZINE DISS R (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49304   | DACTHAL MONO-ACI (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82682   | DCPA FIL 0.7 REC (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04040   | DEETHYL ATRAZINE (UG/L) | 4           | 0.016                  | 0.006   | --   | --   | -- | --        | -- | -- |
| 39572   | DIAZINON DISSOLV UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38442   | DICAMBA FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49303   | DICHLOBENIL FLTR (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49302   | DICHLORPRO FLTRD (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39381   | DIELDRIN DISSOLV UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49301   | DINOSEB FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677   | DISULFOTON FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49300   | DIURON FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49299   | DNOC FLTD (UG/L)        | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82668   | EPTC FIL 0.7 REC (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49298   | ESFENVALERATE FL (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82663   | ETHALFLURALIN FI (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82672   | ETHOPROP FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49297   | FENURON FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38811   | FLUOMETURON FLT (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04095   | FONOFOX DISS REC (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39341   | LINDANE DISSOLVE UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38478   | LINURON FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82666   | LINURON FIL 0.7 (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39532   | MALATHION DISSOL UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38482   | MCPA FLTRD (UG/L)       | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38487   | MCPB FLTRD (UG/L)       | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 33.** Statistical summary of water-quality data for the Red Lake River at Crookston, Minn., gaging station 05079000, April 1962 through September 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|---|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, April 1962 through September 2000--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 38501   | METHIOCARB FLTRD (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49296   | METHOMYL FLTRD (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82686   | METHYL AZINPHOS (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82667   | METHYL PARATHION (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39415   | METOLACHLOR,WAT. UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82630   | METRIBUZIN,WAT.D UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82671   | MOLINATE FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82684   | NAPROPAMIDE FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49294   | NEBURON FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49293   | NORFLURAZON FLTR (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49292   | ORYZALIN FLTRD (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38866   | OXAMYL FLTRD (UG/L)     | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34653   | P,P' DDE DISSOLV (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39542   | PARATHION DISSOL UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82669   | PEBULATE FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82683   | PENDIMETHALIN F. (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82687   | PERMETHRIN FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82664   | PHORATE FIL 0.7 (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49291   | PICLORAM FLTRD (UG/L)   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04037   | PROMETON DISS RE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82676   | PRONAMIDE FIL .7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04024   | PROPACHLOR DISS (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82679   | PROPANIL FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82685   | PROPARGITE FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49236   | PROPHAM FLTRD (UG/L)    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38538   | PROPOXUR FLTRD (UG/L)   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39762   | SILVEX DISSOLVED UG/L   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04035   | SIMAZINE DISS RE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82670   | TEBUTHIURON FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82665   | TERBACIL FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82675   | TERBUFOS FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82681   | THIOBENCARB FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82678   | TRIALATE FIL .7 (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49235   | TRICLOPYR FLTRD (UG/L)  | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82661   | TRIFLURALIN FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 33.** Statistical summary of water-quality data for the Red Lake River at Crookston, Minn., gaging station 05079000, April 1962 through September 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>Minnesota data, April 1962 through September 2000--Continued</b> |                                 |             |                        |         |         |  |         |           |        |        |
| 82082   | HYDROGEN 2 / 1 R RATIO PER MIL  | 1           | -64.500                | --      | --      | --   | --      | --        | --     | --     |
| 82085   | OXYGEN 18 / 16 R RATIO PER MIL  | 1           | -7.750                 | --      | --      | --   | --      | --        | --     | --     |
| 82068   | POTSSSIUM 40 DIS (PCI/L AS K40) | 5           | 3.400                  | 2.500   | --      | --   | --      | --        | --     | --     |
| 07000   | TRITIUM TOTAL (PCI/L)           | 1           | 67.000                 | --      | --      | --   | --      | --        | --     | --     |
| 75985   | TRITIUM PREC EST PCI/L          | 1           | 6.400                  | --      | --      | --   | --      | --        | --     | --     |
| 70342   | SED-SUSP-FALL-D- %              | 18          | 100.000                | 73.000  | 95.167  | 100.000  | 100.000 | 98.000    | 92.750 | 73.000 |
| 70331   | SED-SUSP-SIEVE-. %              | 93          | 100.000                | 37.000  | 90.581  | 100.000  | 97.000  | 94.000    | 87.500 | 64.200 |
| 80156   | SUS-SED DISCH + T/DAY           | 193         | 0.000                  | --      | --      | --   | --      | --        | --     | --     |
| 80154   | CONCENTRATION,S. MG/L           | 117         | 695.000                | 4.000   | 54.197  | 246.400  | 48.500  | 24.000    | 14.000 | 7.000  |
| 80155   | DISCHARGE,SUSP.S T/DAY          | 193         | 37900.000              | 0.000   | 477.095 | 661.001  | 52.000  | 8.600     | 0.000  | 0.000  |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 34.** Statistical summary of water-quality data for the Red River of the North at Grand Forks, N. Dak., gaging station 05082500, June 1949 through July 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |           |           |          |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|-----------|-----------|----------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75        | Median 50 | 25       | 5       |
| <b>North Dakota data, June 1949 through July 2001</b> |                                 |             |                        |         |          |  |           |           |          |         |
| 00065   | GAGE HEIGHT (FEET)              | 3           | 45.560                 | 17.550  | --       | --   | --        | --        | --       | --      |
| 00060   | DISCHARGE CFS                   | 477         | 106000.000             | 175.000 | 5484.585 | 21250.004  | 5345.000  | 2060.000  | 1100.000 | 388.400 |
| 00061   | DISCHARGE, INST. CFS            | 451         | 80900.000              | 1.900   | 9412.947 | 37999.996  | 12100.000 | 3280.000  | 1370.000 | 284.000 |
| 00080   | COLOR PLATINUM-COBAL            | 123         | 70.000                 | 1.000   | 18.211   | 45.000   | 24.000    | 17.000    | 7.000    | 4.000   |
| 00540   | RESIDUE FIXED (MG/L)            | 931         | 0.000                  | --      | --       | --   | --        | --        | --       | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 931         | 277.000                | 0.000   | 0.596    | 0.600  | 0.470     | 0.340     | 0.000    | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 931         | 79700.000              | 0.000   | 2753.385 | 13340.002  | 2390.000  | 499.000   | 0.000    | 0.000   |
| 70299   | RESIDUE SUSPEN 1 MG/L           | 2           | 140.000                | 130.000 | --       | --   | --        | --        | --       | --      |
| 70300   | RESIDUE DIS 180C MG/L           | 508         | 570.000                | 158.000 | 343.530  | 460.100  | 385.750   | 336.500   | 303.000  | 234.900 |
| 70301   | DISSOLVED SOLIDS MG/L           | 931         | 1890.000               | 0.000   | 85.793   | 381.800  | 214.000   | 0.000     | 0.000    | 0.000   |
| 61028   | TURBIDITY, FIELD (NTU)          | 1           | 140.000                | --      | --       | --   | --        | --        | --       | --      |
| 82079   | TURBIDITY, LAB, NTU             | 2           | 110.000                | 92.000  | --       | --   | --        | --        | --       | --      |
| 00025   | AIR PRESSURE (MM OF HG)         | 32          | 786.000                | 727.000 | 742.281  | 762.600  | 743.000   | 742.000   | 739.000  | 730.250 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 33          | 14.500                 | 3.900   | 9.506    | 13.450   | 11.050    | 9.800     | 7.600    | 4.810   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 931         | 105.000                | 0.000   | 2.794    | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 530         | 8.700                  | 7.000   | 7.709    | 8.200  | 7.900     | 7.700     | 7.500    | 7.200   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 54          | 9.300                  | 6.700   | 7.876    | 8.725  | 8.100     | 7.900     | 7.600    | 7.100   |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 64          | 851.000                | 274.000 | 555.078  | 804.250  | 632.500   | 559.000   | 463.000  | 336.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 899         | 1040.000               | 200.000 | 534.230  | 753.000  | 600.000   | 530.000   | 460.000  | 338.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 278         | 33.000                 | -22.000 | 10.059   | 27.000   | 19.625    | 10.000    | 2.000    | -10.050 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 558         | 28.000                 | 0.000   | 9.892    | 24.500   | 18.000    | 8.000     | 1.000    | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 931         | 150.000                | 0.000   | 2.107    | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 931         | 0.000                  | --      | --       | --   | --        | --        | --       | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 931         | 120.000                | 0.000   | 24.401   | 86.000   | 45.000    | 0.000     | 0.000    | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 931         | 530.000                | 0.000   | 0.618    | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 931         | 840.000                | 0.000   | 145.360  | 320.000  | 260.000   | 200.000   | 0.000    | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 278         | 150.000                | 29.800  | 55.949   | 73.050   | 62.000    | 55.000    | 49.000   | 38.000  |
| 00918   | CALCIUM TOT. REC (MG/L)         | 1           | 120.000                | --      | --       | --   | --        | --        | --       | --      |
| 00925   | MAGNESIUM DISSOL (MG/L AS MG)   | 277         | 110.000                | 5.700   | 25.982   | 37.100   | 30.000    | 25.000    | 22.000   | 14.900  |
| 00921   | MAGNESIUM TOTAL (MG/L)          | 1           | 93.000                 | --      | --       | --   | --        | --        | --       | --      |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 247         | 60.000                 | 0.800   | 5.694    | 8.520  | 6.200     | 5.200     | 4.400    | 3.320   |
| 00939   | POTASSIUM TOTAL (MG/L)          | 1           | 9.800                  | --      | --       | --   | --        | --        | --       | --      |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 931         | 1.000                  | 0.000   | 0.270    | 0.700  | 0.500     | 0.300     | 0.000    | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 1           | 20.000                 | --      | --       | --   | --        | --        | --       | --      |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 530         | 43.000                 | 2.900   | 17.482   | 30.000   | 20.175    | 17.000    | 13.000   | 8.555   |

**Supplement 34.** Statistical summary of water-quality data for the Red River of the North at Grand Forks, N. Dak., gaging station 05082500, June 1949 through July 2001--Continued

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| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1949 through July 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00932  | SODIUM, PERCENT PERCENT         | 931         | 24.000                 | 0.000   | 6.449   | 17.000   | 13.000  | 6.000     | 0.000   | 0.000   |
| 00923  | SODIUM TOTAL REC (MG/L)         | 1           | 17.000                 | --      | --      | --   | --      | --        | --      | --      |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 931         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3  | 65          | 310.000                | 95.000  | 187.954 | 266.900  | 223.500 | 186.000   | 154.000 | 105.500 |
| 00418  | ALKALINITY,DIS,F (MG/L AS CaCO3 | 2           | 307.000                | 296.000 | --      | --   | --      | --        | --      | --      |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3 | 25          | 306.000                | 114.000 | 203.080 | 304.500  | 225.000 | 207.000   | 175.500 | 119.400 |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3  | 456         | 394.000                | 92.000  | 200.491 | 273.000  | 221.000 | 199.000   | 176.000 | 132.550 |
| 95440  | BICARBONATE MG/L AS CaCO3       | 23          | 370.000                | 120.000 | 218.261 | 364.000  | 250.000 | 200.000   | 180.000 | 122.000 |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3) | 25          | 373.000                | 140.000 | 246.920 | 371.200  | 272.000 | 253.000   | 214.000 | 146.300 |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 465         | 480.000                | 110.000 | 244.366 | 330.000  | 270.000 | 240.000   | 215.000 | 160.000 |
| 95445  | CARBONATE MG/L AS CO3           | 23          | 24.000                 | 0.000   | 2.826   | 22.400   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)  | 25          | 8.000                  | 0.000   | 0.400   | 6.200  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 463         | 11.000                 | 0.000   | 0.073   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 248         | 34.000                 | 0.100   | 9.981   | 19.000   | 12.000  | 9.050     | 6.900   | 3.945   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 248         | 0.700                  | 0.100   | 0.222   | 0.400  | 0.300   | 0.200     | 0.200   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2) | 237         | 35.000                 | 1.800   | 11.835  | 19.000   | 14.000  | 12.000    | 8.450   | 4.200   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 463         | 200.000                | 18.000  | 75.052  | 130.000  | 96.000  | 70.000    | 51.600  | 34.000  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)    | 34          | 0.380                  | 0.020   | 0.104   | 0.335  | 0.116   | 0.060     | 0.040   | 0.027   |
| 00623  | NITRO AMN & ORG (MG/L AS N)     | 32          | 1.500                  | 0.600   | 0.890   | 1.370  | 0.900   | 0.800     | 0.712   | 0.652   |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)    | 31          | 1.700                  | 0.700   | 1.114   | 1.700  | 1.400   | 1.000     | 0.900   | 0.700   |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 931         | 0.490                  | 0.000   | 0.005   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00610  | NITROGEN AMMONIA (MG/L AS N)    | 4           | 0.160                  | 0.050   | --      | --   | --      | --        | --      | --      |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 931         | 0.200                  | 0.000   | 0.000   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 931         | 5.900                  | 0.000   | 0.057   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 931         | 8.400                  | 0.000   | 0.159   | 0.996  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 931         | 19.200                 | 0.000   | 0.227   | 1.008  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 931         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71850  | N, NITRATE TOTAL MG/L AS NO3    | 74          | 13.000                 | 0.100   | 1.782   | 5.475  | 2.225   | 1.000     | 0.400   | 0.200   |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)    | 49          | 4.600                  | 0.030   | 0.691   | 3.700  | 0.605   | 0.380     | 0.220   | 0.100   |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 931         | 0.500                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 931         | 0.887                  | 0.000   | 0.005   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N      | 47          | 0.270                  | --      | *0.029  | *0.186   | *0.020  | *0.010    | *0.003  | *0.001  |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 931         | 1.400                  | 0.000   | 0.027   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 931         | 1.600                  | 0.000   | 0.034   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 931         | 6.200                  | 0.000   | 0.067   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |

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|--|--------------------------------|-------------|------------------------|----------|----------|--|----------|-----------|---------|---------|
|  |                                |             | Maximum                | Minimum  | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1949 through July 2001--Continued</b> |                                |             |                        |          |          |  |          |           |         |         |
| 71887  | NITROGEN, TOTAL MG/L AS NO3    | 931         | 7.900                  | 0.000    | 0.016    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 931         | 12.000                 | 0.000    | 0.037    | 0.153  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 931         | 0.690                  | 0.000    | 0.005    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 74          | 0.370                  | 0.010    | 0.126    | 0.238  | 0.162    | 0.120     | 0.070   | 0.018   |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)   | 931         | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)   | 931         | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 931         | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 931         | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 34          | 0.330                  | 0.030    | 0.128    | 0.270  | 0.194    | 0.100     | 0.068   | 0.034   |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 2           | 0.199                  | 0.139    | --       | --   | --       | --        | --      | --      |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 34          | 0.490                  | 0.030    | 0.230    | 0.490  | 0.325    | 0.216     | 0.135   | 0.030   |
| 00603  | NITROGEN TOTAL B (MG/KG AS N)  | 2           | 1.200                  | 1.000    | --       | --   | --       | --        | --      | --      |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 931         | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 931         | 43.000                 | 0.000    | 5.262    | 19.000   | 8.400    | 3.100     | 0.000   | 0.000   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 10          | 14.000                 | 8.800    | 11.400   | 14.000   | 12.000   | 12.000    | 10.550  | 8.800   |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 10          | 3.200                  | 0.300    | 1.440    | 3.200  | 1.700    | 1.200     | 1.050   | 0.300   |
| 00690  | CARBON INORG + O (MG/L AS C)   | 931         | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 931         | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS         | 931         | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS         | 931         | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 7           | 160.000                | --       | *63.262  | *160.000   | *150.000 | *34.000   | *12.000 | *3.832  |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 5           | 11000.000              | 1000.000 | --       | --   | --       | --        | --      | --      |
| 01106  | ALUMINUM DISSOLV (UG/L AS AL)  | 15          | 213.000                | --       | *107.386 | *213.000   | *200.000 | *100.000  | *16.690 | *1.000  |
| 01105  | ALUMINUM TOTAL UG/L AS AL      | 7           | 200.000                | 100.000  | 171.429  | 200.000  | 200.000  | 200.000   | 100.000 | 100.000 |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)  | 45          | 13.000                 | --       | *3.379   | *7.700   | *4.000   | *3.000    | *2.000  | *0.938  |
| 01005  | BARIUM DISSOLVED (UG/L AS BA)  | 11          | --                     | --       | --       | --   | --       | --        | --      | --      |
| 01010  | BERYLLIUM DISSOL (UG/L AS BE)  | 8           | --                     | --       | --       | --   | --       | --        | --      | --      |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 204         | 760.000                | --       | *93.409  | *175.000   | *100.000 | *80.000   | *60.000 | *29.339 |
| 01022  | BORON TOTAL (UG/L AS B)        | 5           | 90.000                 | 20.000   | --       | --   | --       | --        | --      | --      |
| 00999  | BORON TOTAL REC. (UG/L)        | 1           | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 01025  | CADMIUM DISSOLVE (UG/L AS CD)  | 17          | --                     | --       | --       | --   | --       | --        | --      | --      |
| 01030  | CHROMIUM DISSOLV (UG/L AS CR)  | 20          | --                     | --       | --       | --   | --       | --        | --      | --      |
| 01032  | CHROMIUM HEXAVAL (UG/L AS CR)  | 1           | 0.000                  | --       | --       | --   | --       | --        | --      | --      |
| 01034  | CHROMIUM TOTAL (UG/L AS CR)    | 5           | --                     | --       | --       | --   | --       | --        | --      | --      |
| 01035  | COBALT DISSOLVED (UG/L AS CO)  | 20          | --                     | --       | --       | --   | --       | --        | --      | --      |

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|--|-------------------------------|-------------|------------------------|---------|----------|--|---------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean     | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, June 1949 through July 2001--Continued</b> |                               |             |                        |         |          |  |         |           |         |         |
| 01040  | COPPER DISSOLVED (UG/L AS CU) | 21          | 20.000                 | --      | *9.942   | *20.000  | *13.681 | *8.929    | *5.852  | *3.733  |
| 00720  | CYANIDE TOTAL (MG/L AS CN)    | 9           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 71885  | IRON UG/L AS FE               | 84          | 360.000                | 0.000   | 78.452   | 190.000  | 107.500 | 60.000    | 40.000  | 10.000  |
| 01046  | IRON DISSOLVED (UG/L AS FE)   | 116         | 1500.000               | --      | *73.212  | *243.000   | *70.000 | *35.000   | *20.000 | *4.622  |
| 01045  | IRON TOTAL (UG/L AS FE)       | 76          | 6300.000               | --      | *112.134 | *130.000   | *37.500 | *20.000   | *10.000 | *2.669  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)   | 52          | 5.000                  | --      | *0.657   | *4.000   | *0.731  | *0.288    | *0.118  | *0.033  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI) | 52          | 40.000                 | 10.000  | 23.173   | 40.000   | 30.000  | 20.000    | 20.000  | 10.000  |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 106         | 820.000                | --      | *32.207  | *80.000  | *30.000 | *17.500   | *7.750  | *2.000  |
| 01055  | MANGANESE TOTAL (UG/L AS MN)  | 30          | 240.000                | --      | *46.156  | *240.000   | *57.500 | *15.000   | *4.226  | *0.766  |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 39          | 1.400                  | --      | *0.162   | *0.600   | *0.200  | *0.100    | *0.031  | *0.009  |
| 71900  | MERCURY, TOT.REC UG/L AS HG   | 1           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 42          | 9.000                  | --      | *1.832   | *6.700   | *2.000  | *1.000    | *1.000  | *0.335  |
| 01065  | NICKEL DISSOLVED (UG/L AS NI) | 20          | 13.000                 | --      | *7.468   | *12.900  | *10.000 | *10.000   | *4.014  | *2.033  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 45          | 23.000                 | --      | *2.067   | *9.880   | *1.500  | *0.447    | *0.120  | *0.018  |
| 01075  | SILVER DISSOLVED (UG/L AS AG) | 10          | 5.000                  | --      | *1.706   | *5.000   | *2.500  | *1.038    | *0.488  | *0.317  |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 52          | 480.000                | 100.000 | 240.308  | 420.000  | 277.500 | 220.000   | 200.000 | 113.000 |
| 01085  | VANADIUM DISSOLV (UG/L AS V)  | 8           | 2.000                  | --      | *1.187   | *2.000   | *1.341  | *1.000    | *1.000  | *0.939  |
| 01090  | ZINC DISSOLVED (UG/L AS ZN)   | 20          | 46.000                 | --      | *16.776  | *45.700  | *20.000 | *14.029   | *10.000 | *6.177  |
| 39742  | 2,4,5-T DISSOLVE UG/L         | 7           | 0.020                  | 0.000   | 0.003    | 0.020  | 0.000   | 0.000     | 0.000   | 0.000   |
| 39743  | 2,4,5-T SUSPENDE UG/L         | 7           | 0.000                  | --      | --       | --   | --      | --        | --      | --      |
| 39740  | 2,4,5-T TOTAL(WA UG/L         | 9           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 39732  | 2,4-D DISSOLVED UG/L          | 7           | 0.070                  | 0.000   | 0.017    | 0.070  | 0.030   | 0.000     | 0.000   | 0.000   |
| 39733  | 2,4-D SUSPENDE UG/L           | 7           | 0.000                  | --      | --       | --   | --      | --        | --      | --      |
| 39730  | 2,4-D TOTAL (WA UG/L          | 9           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 82660  | 26DIETHYLANILINE (UG/L)       | 4           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 77057  | ACETATE, VINYL UG/L           | 4           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 49260  | ACETOCHLOR FLTRD (UG/L)       | 4           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 79193  | ACIFLUORFEN UNF (UG/L)        | 2           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 34210  | ACROLEIN TOT. (UG/L)          | 4           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 77825  | ALACHLOR, TOT RE UG/L         | 2           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 46342  | ALACHLOR, DISS, UG/L          | 4           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 82587  | ALDICARB SULFONE UG/L         | 2           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 82586  | ALDICARB SULFOXI UG/L         | 2           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 82619  | ALDICARB UG/L                 | 2           | --                     | --      | --       | --   | --      | --        | --      | --      |
| 39331  | ALDRIN DISSOLVED UG/L         | 7           | --                     | --      | --       | --   | --      | --        | --      | --      |

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| 39332  | ALDRIN SUSPENDED UG/L   | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 39330  | ALDRIN TOTAL (WA UG/L   | 9           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 34253  | ALPHA BHC UG/L          | 4           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 39337  | ALPHA BHC UG/L          | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 39632  | ATRAZINE, DISS, UG/L    | 4           | 0.052                  | 0.022   | --    | --   | --    | --        | --    | --    |
| 39630  | ATRAZINE UNF REC (UG/L) | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 82673  | BENFLURALIN FIL (UG/L)  | 4           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 38710  | BENTAZON UNF REC (UG/L) | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 30202  | BROMOMETHANE UG/L       | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 49311  | BROMOXYNIL FLTRD (UG/L) | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 04028  | BUTYLATE DISS RE (UG/L) | 4           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 82680  | CARBARYL FIL 0.7 (UG/L) | 4           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 82618  | CARBARYL UG/L           | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 82674  | CARBOFURAN FIL . (UG/L) | 4           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 82615  | CARBOFURAN UG/L         | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 39348  | CHLORDANE,ALPHA (UG/L)  | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 39810  | GAMMA CHLORDANE (UG/L)  | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 39353  | CHLORDANE SUSPEN UG/L   | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 39352  | CHLORDANE DISSOL UG/L   | 7           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 39350  | CHLORDANE TOT(WA UG/L   | 7           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 30201  | CHLOROMETHANE UG/L      | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 38933  | CHLORPYRIFOS, DI UG/L   | 4           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 81403  | CHLOROPYRIFOS TO UG/L   | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 81757  | CYANAZINE UG/L          | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 04041  | CYANAZINE DISS R (UG/L) | 4           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 82682  | DCPA FIL 0.7 REC (UG/L) | 4           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 39362  | DDD SUSPENDED UG/L      | 7           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 39367  | DDE SUSPENDED UG/L      | 7           | 0.010                  | 0.000   | 0.001 | 0.010  | 0.000 | 0.000     | 0.000 | 0.000 |
| 39372  | DDT SUSPENDED UG/L      | 7           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 04040  | DEETHYL ATRAZINE (UG/L) | 4           | 0.016                  | 0.007   | --    | --   | --    | --        | --    | --    |
| 39572  | DIAZINON DISSOLV UG/L   | 11          | --                     | --      | --    | --   | --    | --        | --    | --    |
| 39573  | DIAZINON SUSPEND UG/L   | 5           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 39570  | DIAZINON TOT (WA UG/L   | 7           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 82052  | DICAMBA,TOTAL UG/L      | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 49302  | DICHLORPRO FLTRD (UG/L) | 2           | --                     | --      | --    | --   | --    | --        | --    | --    |

**Supplement 34.** Statistical summary of water-quality data for the Red River of the North at Grand Forks, N. Dak., gaging station 05082500, June 1949 through July 2001--Continued

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|--|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, June 1949 through July 2001--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 39381  | DIELDRIN DISSOLV UG/L   | 11          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39382  | DIELDRIN SUSPEND UG/L   | 7           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39380  | DIELDRIN TOT (WA UG/L   | 9           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82226  | DINOSEB UNFLTRD (UG/L)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677  | DISULFOTON FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34361  | ENDOSULFAN I WH (UG/L)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34356  | ENDOSULFAN II UN (UG/L) | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34351  | ENDOSULFAN SULFA (UG/L) | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34366  | ENDRIN ALDEHYDE (UG/L)  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39391  | ENDRIN DISSOLVED UG/L   | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39392  | ENDRIN SUSPENDED UG/L   | 7           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39390  | ENDRIN UNF REC (UG/L)   | 9           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82668  | EPTC FIL 0.7 REC (UG/L) | 4           | 0.052                  | 0.019   | --   | --   | -- | --        | -- | -- |
| 82663  | ETHALFLURALIN FI (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38787  | ETHALFLURALIN WH (UG/L) | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82672  | ETHOPROP FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04095  | FONOFOX DISS REC (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39421  | HEPT.EPOX. DISSO UG/L   | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39422  | HEPT EPOX SUSPEN UG/L   | 7           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39420  | HEPT EPOX TOT(WA UG/L   | 9           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39411  | HEPTACHLOR DISSO UG/L   | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39412  | HEPTACHLOR SUSPE UG/L   | 7           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39410  | HEPTACHLOR T.(WA UG/L   | 9           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39782  | LINDANE TOTAL (UG/L)    | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39341  | LINDANE DISSOLVE UG/L   | 11          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39342  | LINDANE SUSPENDE UG/L   | 6           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39340  | LINDANE TOTAL(WA UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82666  | LINURON FIL 0.7 (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39532  | MALATHION DISSOL UG/L   | 11          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39533  | MALATHION SUSPEN UG/L   | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39530  | MALATHION TOT(WA UG/L   | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 30192  | MCPA UNF REC (UG/L)     | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39051  | METHOMYL TOTAL UG/L     | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39480  | METHOXYCHLOR T.( UG/L   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82686  | METHYL AZINPHOS (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |

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|--|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, June 1949 through July 2001--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 39602  | METH. PARA. DISS UG/L   | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39603  | METHYL PAR SUSPE UG/L   | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39600  | MET PARTH TOT(WA UG/L   | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82667  | METHYL PARATHION (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39415  | METOLACHLOR,WAT. UG/L   | 4           | 0.049                  | 0.011   | --   | --   | -- | --        | -- | -- |
| 82612  | METOLACHLOR UG/L        | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81408  | METRIBUZIN (SENC UG/L   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82630  | METRIBUZIN,WAT.D UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82671  | MOLINATE FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82684  | NAPROPAMIDE FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82613  | OXYAMYL UG/L            | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34653  | P,P' DDE DISSOLV (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39361  | P,P'-DDD FILT RE UG/L   | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39360  | P,P'-DDD UNFLT R UG/L   | 9           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39366  | P,P'-DDE FILT UG/L      | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39365  | P,P'-DDE, TOTAL UG/L    | 9           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39371  | P,P'-DDT FILT RE UG/L   | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39370  | P,P'-DDT UNFILT UG/L    | 9           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39542  | PARATHION DISSOL UG/L   | 11          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39543  | PARATHION SUSPEN UG/L   | 5           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39540  | PARATHION TOT(WA UG/L   | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39517  | PCB DISSOLVED UG/L      | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39518  | PCB SUSPENDE UG/L       | 7           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39516  | PCB TOTAL(WA UG/L       | 7           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82669  | PEBULATE FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 79190  | PENDIMETHALIN T UG/L    | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82683  | PENDIMETHALIN F. (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39032  | PETACHLOROPHENOL (UG/L) | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82687  | PERMETHRIN FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82664  | PHORATE FIL 0.7 (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39720  | PICLORAM, TOTAL UG/L    | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04037  | PROMETON DISS RE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82676  | PRONAMIDE FIL .7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04024  | PROPACHLOR DISS (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82679  | PROPANIL FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 34.** Statistical summary of water-quality data for the Red River of the North at Grand Forks, N. Dak., gaging station 05082500, June 1949 through July 2001--Continued

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|--|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, June 1949 through July 2001--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 82685  | PROPARGITE FIL (UG/L)   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39762  | SILVEX DISSOLVED UG/L   | 7           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39763  | SILVEX SUSPENDED UG/L   | 7           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39760  | SILVEX TOTAL (WA UG/L   | 9           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39055  | SIMAZINE TOTAL U UG/L   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04035  | SIMAZINE DISS RE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82670  | TEBUTHIURON FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82665  | TERBACIL FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82675  | TERBUFOS FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82681  | THIOBENCARB FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39400  | TOXAPHENE TOT(WA UG/L   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82678  | TRIALATE FIL .7 (UG/L)  | 4           | 0.078                  | 0.038   | --   | --   | -- | --        | -- | -- |
| 39030  | TRIFLURALIN,TOT UG/L    | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82661  | TRIFLURALIN FIL (UG/L)  | 4           | 0.022                  | 0.010   | --   | --   | -- | --        | -- | -- |
| 81551  | XYLENE UNF REC (UG/L)   | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34506  | 111TRICHLOROETHA (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34511  | 112TRICHLOROETHA (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34496  | DICHLOROETHANE 1 (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34501  | DICHLOROETHYLENE (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77168  | 1,1-DICHLOROPROP UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77443  | 123TRICHLPROPANE UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77651  | 1,2DIBROMOETHANE UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32103  | 1,2-DICHLOROETHA UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34541  | DICHLOROPROPANE (UG/L)  | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34546  | TRANSDICL.ETHENE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77170  | 2,2-DICHLOROPROP UG/L   | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 73547  | 2-BUTENE T-1,4-D (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77103  | 2-HEXANONE,TOTAL UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81552  | ACETONE,TOTAL UG/L      | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34215  | ACRYLONITRILE TO (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77613  | 1,2,3-TRICHLORO (UG/L)  | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77221  | BENZENE 123TRIME (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34551  | 124TRICHLOROBENZ (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77222  | 124-TRIMETHYLBEN (UG/L) | 4           | 0.230                  | 0.010   | --   | --   | -- | --        | -- | -- |
| 77226  | 135-TRIMETHYL BE (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |

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|  |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, June 1949 through July 2001--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 34566  | 13DICHLORO-BENZE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34571  | 14DICHLORO-BENZE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77223  | ISOPROPYL-BENZEN (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77342  | N-BUTYL-BENZENE (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77224  | N-PROPYL-BENZENE (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34536  | O-DICHLORO-BENZE (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77350  | SEC-BUTYL-BENZEN (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77353  | TERT-BUTYL-BENZE (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34030  | BENZENE, TOTAL UG/L     | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81555  | BROMOBENZENE WAT UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 50002  | BROMOETHENE (UG/L)      | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32104  | BROMOFORM TOTAL UG/L    | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77041  | CARBON DISULFIDE UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32102  | CARBON TETRACHLO UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34301  | CHLOROBENZENE (UG/L)    | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32105  | CHLORODIBROMOMET UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34311  | CHLOROETHANE UG/L       | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32106  | CHLOROFORM TOTAL UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77093  | CIS1,2DICHL.ETHE UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34704  | CIS1,3-DICHL.PRO UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82625  | DIBROMOCHLOROPRO UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 30217  | DIBROMOMETHANE,W UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32101  | BROMODICHLOROMET UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34668  | DICHL.DIFL.METHA (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81577  | DIISOPROPYLETHER UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77562  | 1112TETRACHLORO- (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34516  | 1122TETRACHLORO (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34396  | ETHANE, HEXACHLO (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81576  | ETHER, ETHYL, UN (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 50004  | T-BUTYL ETHYL ET (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 50005  | T-PENTYL METHYLE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34371  | ETHYLBENZENE TOT (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77652  | FREON 113 UNF RE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81607  | FURAN, TETRAHYDR (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39702  | HEXACHLOROBUTADI UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 34.** Statistical summary of water-quality data for the Red River of the North at Grand Forks, N. Dak., gaging station 05082500, June 1949 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

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|--|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, June 1949 through July 2001--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 50000  | ISODURENE (UG/L)        | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 73570  | METHACRYLATE, ET (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81597  | METHACRYLATE, ME (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81593  | METHACRYLONITRIL (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77297  | METHANE BROMOCHL (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49991  | METHYL ACRYLATE (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77424  | METHYL IODIDE (UG/L)    | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 78032  | MTBE (UG/L)             | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34413  | METHYLBROMIDE TO (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34418  | METHYLCHLORIDE,T (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34423  | METHYLENE CHLORI (UG/L) | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81595  | METH.ETHYL KETON UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 78133  | METH.ISOBU.KETON UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 85795  | M/P XYLENE UNFLT (UG/L) | 4           | 0.420                  | 0.030   | --   | --   | -- | --        | -- | -- |
| 34696  | NAPHTHALENE TOTA (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77275  | O-CHLOROTOLUENE UG/L    | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77135  | TOT. O-XYLENE (U (UG/L) | 4           | 0.100                  | 0.010   | --   | --   | -- | --        | -- | -- |
| 77356  | P-ISOPROPYLTOLUE (UG/L) | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49999  | 1234TETRAMETHYL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77173  | 1,3DICHLPROPANE UG/L    | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 78109  | PROPENE, 3-CHLOR (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77128  | STYRENE, TOTAL UG/L     | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34475  | TETRACHLOROETHYL (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77220  | TOLUENE, O-ETHYL (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77277  | P-CHLORO-TOLUENE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34010  | TOLUENE, TOTAL UG/L     | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34699  | TR1,3-DICHL.PROP UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39180  | TRICHLOROETHYLEN UG/L   | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34488  | TRICH.FLUOR.METH (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39175  | VINYL CHLORIDE T UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39333  | ALDRIN BTM U UG/KG      | 2           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39351  | CHLORDANE BTM U UG/KG   | 2           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39383  | DIELDRIN BTM UG/KG      | 2           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39393  | ENDRIN BTM UG/KG        | 2           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39423  | HEPT EPOX BTM U UG/KG   | 2           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |

**Supplement 34.** Statistical summary of water-quality data for the Red River of the North at Grand Forks, N. Dak., gaging station 05082500, June 1949 through July 2001--Continued

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|--|---------------------------------|-------------|------------------------|----------|-----------|--|-----------|-----------|----------|----------|
|  |                                 |             | Maximum                | Minimum  | Mean      | 95   | 75        | Median 50 | 25       | 5        |
| <b>North Dakota data, June 1949 through July 2001--Continued</b> |                                 |             |                        |          |           |  |           |           |          |          |
| 39413  | HEPTACHLOR BTM U UG/KG          | 2           | 0.000                  | --       | --        | --   | --        | --        | --       | --       |
| 39343  | LINDANE BTM U UG/KG             | 2           | 0.000                  | --       | --        | --   | --        | --        | --       | --       |
| 39363  | P,P'-DDD BEDMAT UG/KG           | 2           | 0.000                  | --       | --        | --   | --        | --        | --       | --       |
| 39368  | P,P'-DDE BED MAT UG/KG          | 2           | 0.000                  | --       | --        | --   | --        | --        | --       | --       |
| 39373  | P,P'-DDT BTM UG/KG              | 2           | 0.000                  | --       | --        | --   | --        | --        | --       | --       |
| 39519  | PCB BTM UG/KG                   | 2           | 0.000                  | --       | --        | --   | --        | --        | --       | --       |
| 82082  | HYDROGEN 2 / 1 R RATIO PER MIL  | 1           | -70.500                | --       | --        | --   | --        | --        | --       | --       |
| 07060  | IRON 59 DISSOLVE (PCI/L)        | 2           | 1.000                  | 1.000    | --        | --   | --        | --        | --       | --       |
| 82085  | OXYGEN 18 / 16 R RATIO PER MIL  | 1           | -8.750                 | --       | --        | --   | --        | --        | --       | --       |
| 07000  | TRITIUM TOTAL (PCI/L)           | 1           | 59.000                 | --       | --        | --   | --        | --        | --       | --       |
| 75985  | TRITIUM PREC EST PCI/L          | 1           | 6.400                  | --       | --        | --   | --        | --        | --       | --       |
| 70331  | SED-SUSP-SIEVE-. %              | 20          | 100.000                | 95.000   | 99.100    | 100.000  | 100.000   | 99.000    | 99.000   | 95.150   |
| 80156  | SUS-SED DISCH + T/DAY           | 931         | 0.000                  | --       | --        | --   | --        | --        | --       | --       |
| 80154  | CONCENTRATION,S. MG/L           | 20          | 253.000                | 6.000    | 115.350   | 252.400  | 176.000   | 111.000   | 39.750   | 6.050    |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 931         | 17100.000              | 0.000    | 78.090    | 0.000  | 0.000     | 0.000     | 0.000    | 0.000    |
| <b>Minnesota data, September 1992 through April 1997</b>         |                                 |             |                        |          |           |  |           |           |          |          |
| 00065  | GAGE HEIGHT (FEET)              | 1           | 45.560                 | --       | --        | --   | --        | --        | --       | --       |
| 00060  | DISCHARGE CFS                   | 5           | 20500.000              | 1750.000 | --        | --   | --        | --        | --       | --       |
| 00061  | DISCHARGE, INST. CFS            | 20          | 26300.000              | 1050.000 | 10341.500 | 26275.000  | 21750.000 | 5920.000  | 3385.000 | 1072.500 |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 29          | 0.800                  | 0.200    | 0.517     | 0.750  | 0.600     | 0.500     | 0.400    | 0.250    |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 23          | 23400.000              | 944.000  | 9299.739  | 23240.000  | 16500.000 | 6340.000  | 3100.000 | 1061.200 |
| 70300  | RESIDUE DIS 180C MG/L           | 29          | 570.000                | 166.000  | 378.448   | 560.000  | 439.000   | 379.000   | 292.000  | 191.000  |
| 70301  | DISSOLVED SOLIDS MG/L           | 29          | 516.000                | 155.000  | 348.483   | 505.000  | 411.000   | 342.000   | 273.500  | 178.000  |
| 00025  | AIR PRESSURE (MM OF HG)         | 28          | 750.000                | 732.000  | 741.429   | 750.000  | 743.000   | 742.000   | 739.250  | 732.450  |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 29          | 14.500                 | 3.900    | 9.421     | 13.750   | 11.050    | 9.800     | 7.600    | 4.550    |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 27          | 105.000                | 45.000   | 83.204    | 104.200  | 94.300    | 82.700    | 74.100   | 51.360   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 29          | 8.400                  | 7.200    | 7.921     | 8.400  | 8.150     | 7.800     | 7.700    | 7.350    |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 29          | 8.200                  | 7.200    | 7.779     | 8.150  | 8.000     | 7.800     | 7.600    | 7.250    |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 29          | 817.000                | 274.000  | 581.034   | 811.500  | 673.000   | 610.000   | 454.500  | 304.500  |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 28          | 828.000                | 254.000  | 576.571   | 815.400  | 664.750   | 618.000   | 455.500  | 280.550  |
| 00020  | AIR TEMPERATURE DEGREES C       | 27          | 24.500                 | -22.000  | 9.167     | 23.100   | 18.000    | 10.000    | 3.500    | -15.400  |

**Supplement 34.** Statistical summary of water-quality data for the Red River of the North at Grand Forks, N. Dak., gaging station 05082500, June 1949 through July 2001--Continued

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|---|----------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                  |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>Minnesota data, September 1992 through April 1997--Continued</b> |                                  |             |                        |         |         |  |         |           |         |         |
| 00010   | WATER TEMPERATUR (DEGREES C)     | 29          | 23.500                 | 0.000   | 10.217  | 22.500   | 19.000  | 10.000    | 0.750   | 0.250   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3) | 22          | 145.000                | 29.000  | 84.000  | 144.700  | 114.000 | 78.000    | 52.000  | 30.200  |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)    | 29          | 365.000                | 119.000 | 254.862 | 358.000  | 294.500 | 261.000   | 196.000 | 125.000 |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)    | 29          | 77.000                 | 29.800  | 57.369  | 77.000   | 66.000  | 60.000    | 48.500  | 30.600  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)    | 29          | 42.000                 | 10.700  | 27.103  | 41.500   | 32.500  | 28.000    | 19.500  | 11.700  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)     | 29          | 12.000                 | 4.600   | 7.270   | 10.950   | 8.500   | 7.200     | 5.750   | 4.635   |
| 00931   | SODIUM ADSORPTIO (RATIO)         | 29          | 0.961                  | 0.131   | 0.520   | 0.887  | 0.632   | 0.543     | 0.373   | 0.141   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)    | 29          | 40.000                 | 3.800   | 19.586  | 37.500   | 24.500  | 20.000    | 12.000  | 4.250   |
| 00932   | SODIUM, PERCENT PERCENT          | 29          | 20.500                 | 3.930   | 13.333  | 19.000   | 14.950  | 13.800    | 11.600  | 5.050   |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3   | 28          | 269.000                | 103.000 | 191.536 | 265.850  | 232.750 | 199.500   | 141.000 | 103.450 |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3) | 23          | 257.000                | 114.000 | 194.348 | 256.800  | 217.000 | 205.000   | 174.000 | 117.600 |
| 00453   | BICARBONATE,DIS, (MG/L AS HCO3)  | 23          | 314.000                | 140.000 | 236.217 | 313.600  | 264.000 | 247.000   | 212.000 | 144.200 |
| 00452   | CARBONATE,DIS,IT (MG/L AS CO3)   | 23          | 8.000                  | 0.000   | 0.435   | 6.800  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940   | CHLORIDE DISSOLV (MG/L AS Cl)    | 29          | 18.000                 | 2.700   | 11.738  | 18.000   | 14.500  | 12.000    | 10.500  | 3.500   |
| 00950   | FLUORIDE DISSOLV (MG/L AS F)     | 29          | 0.300                  | 0.100   | 0.186   | 0.300  | 0.200   | 0.200     | 0.200   | 0.100   |
| 00955   | SILICA DISSOLVED (MG/L AS SiO2)  | 29          | 21.000                 | 4.600   | 14.576  | 20.500   | 17.500  | 15.000    | 12.350  | 6.400   |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4)   | 29          | 200.000                | 28.000  | 97.176  | 190.000  | 140.000 | 83.000    | 55.000  | 36.000  |
| 00608   | NITROGEN AMMONIA (MG/L AS N)     | 29          | 0.380                  | 0.020   | 0.103   | 0.350  | 0.120   | 0.060     | 0.040   | 0.025   |
| 00623   | NITRO AMN & ORG (MG/L AS N)      | 29          | 1.500                  | 0.600   | 0.880   | 1.400  | 0.900   | 0.800     | 0.700   | 0.640   |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)     | 29          | 1.700                  | 0.700   | 1.094   | 1.700  | 1.300   | 1.000     | 0.900   | 0.700   |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4     | 29          | 0.489                  | 0.026   | 0.133   | 0.451  | 0.155   | 0.077     | 0.052   | 0.032   |
| 00602   | NITROGEN DISSOLV (MG/L AS N)     | 29          | 5.900                  | 0.870   | 1.755   | 5.500  | 1.640   | 1.200     | 1.090   | 0.900   |
| 00618   | NITROGEN NITRATE (MG/L AS N)     | 22          | 4.330                  | 0.150   | 1.020   | 4.222  | 1.021   | 0.415     | 0.317   | 0.155   |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3     | 22          | 19.200                 | 0.664   | 4.514   | 18.720   | 4.517   | 1.835     | 1.405   | 0.684   |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)     | 29          | 4.600                  | 0.130   | 0.876   | 4.200  | 0.675   | 0.390     | 0.235   | 0.150   |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2     | 22          | 0.887                  | 0.033   | 0.184   | 0.848  | 0.190   | 0.066     | 0.033   | 0.033   |
| 00613   | NITROGEN,NITRITE MG/L AS N       | 29          | 0.270                  | --      | *0.043  | *0.230   | *0.032  | *0.020    | *0.007  | *0.001  |
| 00607   | NITROGEN ORGANIC (MG/L AS N)     | 29          | 1.420                  | 0.570   | 0.776   | 1.225  | 0.860   | 0.770     | 0.641   | 0.570   |
| 00605   | NITROGEN ORGANIC (MG/L AS N)     | 29          | 1.550                  | 0.590   | 0.989   | 1.490  | 1.175   | 0.950     | 0.760   | 0.630   |
| 00600   | NITROGEN TOTAL (MG/L AS N)       | 29          | 6.200                  | 0.930   | 1.968   | 5.750  | 1.775   | 1.470     | 1.145   | 0.950   |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4)   | 29          | 1.010                  | 0.092   | 0.403   | 0.888  | 0.617   | 0.307     | 0.199   | 0.108   |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)     | 29          | 0.370                  | 0.030   | 0.142   | 0.320  | 0.220   | 0.120     | 0.075   | 0.030   |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)     | 29          | 0.330                  | 0.030   | 0.131   | 0.290  | 0.201   | 0.100     | 0.065   | 0.035   |
| 00665   | PHOSPHORUS TOTAL (MG/L AS P)     | 29          | 0.490                  | 0.030   | 0.230   | 0.490  | 0.336   | 0.200     | 0.130   | 0.045   |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2)   | 28          | 12.200                 | 1.500   | 5.061   | 11.975   | 5.575   | 3.850     | 2.725   | 1.590   |

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|---|-------------------------------|-------------|------------------------|----------|--------|--|--------|-----------|--------|-------|
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| <b>Minnesota data, September 1992 through April 1997--Continued</b> |                               |             |                        |          |        |  |        |           |        |       |
| 00681   | CARBON ORGANIC D (MG/L AS C)  | 9           | 14.000                 | 9.200    | 11.689 | 14.000   | 12.000 | 12.000    | 11.000 | 9.200 |
| 00689   | CARBON ORGANIC P (MG/L AS C)  | 9           | 3.200                  | 0.900    | 1.567  | 3.200  | 2.000  | 1.200     | 1.150  | 0.900 |
| 00680   | CARBON ORGANIC T (MG/L AS C)  | 1           | 19.000                 | --       | --     | --   | --     | --        | --     | --    |
| 31625   | COLIFORM FECAL 0 COLS./100 ML | 4           | 150.000                | 12.000   | --     | --   | --     | --        | --     | --    |
| 31673   | FECAL STREP,KF M COLS./100 ML | 4           | 11000.000              | 3400.000 | --     | --   | --     | --        | --     | --    |
| 01046   | IRON DISSOLVED (UG/L AS FE)   | 29          | 150.000                | 0.000    | 27.345 | 115.000  | 30.000 | 20.000    | 0.000  | 0.000 |
| 01056   | MANGANESE DISSOL (UG/L AS MN) | 29          | 130.000                | 2.000    | 19.193 | 97.000   | 21.500 | 11.000    | 3.500  | 2.000 |
| 49295   | 1-NAPHTHOL FLTRD (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 39742   | 2,4,5-T DISSOLVE UG/L         | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 39732   | 2,4-D DISSOLVED UG/L          | 1           | 0.110                  | --       | --     | --   | --     | --        | --     | --    |
| 38746   | 2,4-DB FLTRD (UG/L)           | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 82660   | 26DIETHYLANILINE (UG/L)       | 5           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49308   | 3HYDRXYCARBOFURA (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 77057   | ACETATE, VINYL UG/L           | 4           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49260   | ACETOCHLOR FLTRD (UG/L)       | 5           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49315   | ACIFLUORFEN FLTR (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 34210   | ACROLEIN TOT. (UG/L)          | 4           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 46342   | ALACHLOR, DISS, UG/L          | 5           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49313   | ALDICARB SULFONE (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49314   | ALDICARB SULFOXI (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49312   | ALDICARB FLTRD (UG/L)         | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 34253   | ALPHA BHC UG/L                | 5           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 39632   | ATRAZINE, DISS, UG/L          | 5           | 0.052                  | 0.022    | --     | --   | --     | --        | --     | --    |
| 82673   | BENFLURALIN FIL (UG/L)        | 5           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 38711   | BENTAZON, FLTRD (UG/L)        | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 04029   | BROMACIL DISS RE (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49311   | BROMOXYNIL FLTRD (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 04028   | BUTYLATE DISS RE (UG/L)       | 5           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49310   | CARBARYL FLTRD (UG/L)         | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 82680   | CARBARYL FIL 0.7 (UG/L)       | 5           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49309   | CARBOFURAN FLTRD (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 82674   | CARBOFURAN FIL. (UG/L)        | 5           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 61188   | CHLORAMBEN, METH (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 49306   | CHLOROTHALONIL F (UG/L)       | 1           | --                     | --       | --     | --   | --     | --        | --     | --    |
| 38933   | CHLORPYRIFOS, DI UG/L         | 5           | --                     | --       | --     | --   | --     | --        | --     | --    |

**Supplement 34.** Statistical summary of water-quality data for the Red River of the North at Grand Forks, N. Dak., gaging station 05082500, June 1949 through July 2001--Continued

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|---|--------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                          |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, September 1992 through April 1997--Continued</b> |                          |             |                        |         |      |  |    |           |    |    |
| 49305   | CLOPYRALID FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04041   | CYANAZINE DISS R (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49304   | DACTHAL MONO-ACI (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82682   | DCPA FIL 0.7 REC (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04040   | DEETHYL ATRAZINE (UG/L)  | 5           | 0.016                  | 0.007   | --   | --   | -- | --        | -- | -- |
| 39572   | DIAZINON DISSOLV UG/L    | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38442   | DICAMBA FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49303   | DICHOLOBENIL FLTR (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49302   | DICHLORPRO FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39381   | DIELDRIN DISSOLV UG/L    | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49301   | DINOSEB FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677   | DISULFOTON FIL. (UG/L)   | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49300   | DIURON FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49299   | DNOC FLTD (UG/L)         | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82668   | EPTC FIL 0.7 REC (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49298   | ESFENVALERATE FL (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82663   | ETHALFLURALIN FI (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82672   | ETHOPROP FIL 0.7 (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49297   | FENURON FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38811   | FLUOMETURON FLT (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04095   | FONOFOX DISS REC (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39341   | LINDANE DISSOLVE UG/L    | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38478   | LINURON FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82666   | LINURON FIL 0.7 (UG/L)   | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39532   | MALATHION DISSOL UG/L    | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38482   | MCPA FLTRD (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38487   | MCPB FLTRD (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38501   | METHIOCARB FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49296   | METHOMYL FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82686   | METHYL AZINPHOS (UG/L)   | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82667   | METHYL PARATHION (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39415   | METOLACHLOR,WAT. UG/L    | 5           | 0.049                  | 0.009   | --   | --   | -- | --        | -- | -- |
| 82630   | METRIBUZIN,WAT.D UG/L    | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82671   | MOLINATE FIL 0.7 (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82684   | NAPROPAMIDE FIL (UG/L)   | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |

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|---|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, September 1992 through April 1997--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 49294   | NEBURON FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49293   | NORFLURAZON FLTR (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49292   | ORYZALIN FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38866   | OXAMYL FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34653   | P,P' DDE DISSOLV (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39542   | PARATHION DISSOL UG/L   | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82669   | PEBULATE FIL 0.7 (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82683   | PENDIMETHALIN F. (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82687   | PERMETHRIN FIL. (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82664   | PHORATE FIL 0.7 (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49291   | PICLORAM FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04037   | PROMETON DISS RE (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82676   | PRONAMIDE FIL .7 (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04024   | PROPACHLOR DISS (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82679   | PROPANIL FIL 0.7 (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82685   | PROPARGITE FIL. (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49236   | PROPHAM FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38538   | PROPOXUR FLTR (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39762   | SILVEX DISSOLVED UG/L   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04035   | SIMAZINE DISS RE (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82670   | TEBUTHIURON FIL (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82665   | TERBACIL FIL 0.7 (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82675   | TERBUFOS FIL 0.7 (UG/L) | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82681   | THIOBENCARB FIL (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82678   | TRIALATE FIL .7 (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49235   | TRICLOPYR FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82661   | TRIFLURALIN FIL (UG/L)  | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34506   | 111TRICHLOROETHA (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34511   | 112TRICHLOROETHA (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34496   | DICHLOROETHANE 1 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34501   | DICHLOROETHYLENE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77168   | 1,1-DICHLOROPROP UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77443   | 123TRICHLPROPANE UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77651   | 1,2DIBROMOETHANE UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32103   | 1,2-DICHLOROETHA UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |

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| <b>Minnesota data, September 1992 through April 1997--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 34541   | DICHLOROPROPANE (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34546   | TRANSDICL.ETHENE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77170   | 2,2-DICHLOROPROP UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 73547   | 2-BUTENE T-1,4-D (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77103   | 2-HEXANONE,TOTAL UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81552   | ACETONE,TOTAL UG/L      | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34215   | ACRYLONITRILE TO (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77613   | 1,2,3-TRICHLORO (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77221   | BENZENE 123TRIME (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34551   | 124TRICHLOROBENZ (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77222   | 124-TRIMETHYLBEN (UG/L) | 4           | 0.230                  | 0.010   | --   | --   | -- | --        | -- | -- |
| 77226   | 135-TRIMETHYL BE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34566   | 13DICHLORO-BENZE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34571   | 14DICHLORO-BENZE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77223   | ISOPROPYL-BENZEN (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77342   | N-BUTYL-BENZENE (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77224   | N-PROPYL-BENZENE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34536   | O-DICHLORO-BENZE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77350   | SEC-BUTYL-BENZEN (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77353   | TERT-BUTYL-BENZE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34030   | BENZENE, TOTAL UG/L     | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81555   | BROMOBENZENE WAT UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 50002   | BROMOETHENE (UG/L)      | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32104   | BROMOFORM TOTAL UG/L    | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77041   | CARBON DISULFIDE UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32102   | CARBON TETRACHLO UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34301   | CHLOROBENZENE (UG/L)    | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32105   | CHLORODIBROMOMET UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34311   | CHLOROETHANE UG/L       | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32106   | CHLOROFORM TOTAL UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77093   | CIS1,2DICHL.ETHE UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34704   | CIS1,3-DICHL.PRO UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82625   | DIBROMOCHLOROPRO UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 30217   | DIBROMOMETHANE,W UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 32101   | BROMODICHLOROMET UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |

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| <b>Minnesota data, September 1992 through April 1997--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 34668   | DICHL.DIFL.METHA (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81577   | DIISOPROPYLETHER UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77562   | 1112TETRACHLORO- (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34516   | 1122TETRACHLORO (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34396   | ETHANE, HEXACHLO (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81576   | ETHER, ETHYL, UN (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 50004   | T-BUTYL ETHYL ET (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 50005   | T-PENTYL METHYLE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34371   | ETHYLBENZENE TOT (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77652   | FREON 113 UNF RE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81607   | FURAN, TETRAHYDR (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39702   | HEXACHLOROBUTADI UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 50000   | ISODURENE (UG/L)        | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 73570   | METHACRYLATE, ET (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81597   | METHACRYLATE, ME (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81593   | METHACRYLONITRIL (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77297   | METHANE BROMOCHL (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49991   | METHYL ACRYLATE (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77424   | METHYL IODIDE (UG/L)    | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 78032   | MTBE (UG/L)             | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34413   | METHYLBROMIDE TO (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34418   | METHYLCHLORIDE,T (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34423   | METHYLENE CHLORI (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81595   | METH.ETHYL KETON UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 78133   | METH.ISOBU.KETON UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 85795   | M/P XYLENE UNFLT (UG/L) | 4           | 0.420                  | 0.030   | --   | --   | -- | --        | -- | -- |
| 34696   | NAPHTHALENE TOTA (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77275   | O-CHLOROTOLUENE UG/L    | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77135   | TOT. O-XYLENE (U (UG/L) | 4           | 0.100                  | 0.010   | --   | --   | -- | --        | -- | -- |
| 77356   | P-ISOPROPYLTOLUE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49999   | 1234TETRAMETHYL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77173   | 1,3DICHLPROPANE UG/L    | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 78109   | PROPENE, 3-CHLOR (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 77128   | STYRENE, TOTAL UG/L     | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34475   | TETRACHLOROETHYL (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 34.** Statistical summary of water-quality data for the Red River of the North at Grand Forks, N. Dak., gaging station 05082500, June 1949 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |        |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|--------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5      |
| <b>Minnesota data, September 1992 through April 1997--Continued</b> |                                 |             |                        |         |          |  |          |           |         |        |
| 77220   | TOLUENE, O-ETHYL (UG/L)         | 4           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 77277   | P-CHLORO-TOLUENE (UG/L)         | 4           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 34010   | TOLUENE, TOTAL UG/L             | 4           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 34699   | TR1,3-DICHL.PROP UG/L           | 4           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 39180   | TRICHLOROETHYLEN UG/L           | 4           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 34488   | TRICH.FLUOR.METH (UG/L)         | 4           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 39175   | VINYL CHLORIDE T UG/L           | 4           | --                     | --      | --       | --   | --       | --        | --      | --     |
| 70331   | SED-SUSP-SIEVE-. %              | 28          | 100.000                | 95.000  | 99.036   | 100.000  | 100.000  | 99.000    | 98.250  | 95.900 |
| 80154   | CONCENTRATION,S. MG/L           | 28          | 454.000                | 6.000   | 139.571  | 391.000  | 218.500  | 123.000   | 50.250  | 6.450  |
| 80155   | DISCHARGE,SUSP.S T/DAY          | 22          | 27500.000              | 24.000  | 4648.864 | 25940.004  | 6515.000 | 1785.000  | 539.000 | 25.200 |
| 80294   | BED MAT FD DW<.0 PERCENT <.002M | 1           | 41.000                 | --      | --       | --   | --       | --        | --      | --     |
| 80157   | SED-BED-FALL-D-. %              | 1           | 52.000                 | --      | --       | --   | --       | --        | --      | --     |
| 80293   | BED MAT FD DW<.0 PERCENT> .008M | 1           | 54.000                 | --      | --       | --   | --       | --        | --      | --     |
| 80282   | BED MAT FD DW<.0 PERCENT <.016M | 1           | 62.000                 | --      | --       | --   | --       | --        | --      | --     |
| 80283   | BED MAT FD DW<.0 PERCENT <.031M | 1           | 73.000                 | --      | --       | --   | --       | --        | --      | --     |
| 80158   | SED-BED-FALL-D-. %              | 1           | 81.000                 | --      | --       | --   | --       | --        | --      | --     |
| 80159   | SED-BED-FALL-D-. %              | 1           | 90.000                 | --      | --       | --   | --       | --        | --      | --     |
| 80160   | SED-BED-FALL-D-. %              | 1           | 97.000                 | --      | --       | --   | --       | --        | --      | --     |
| 80161   | SED-BED-FALL-D-. %              | 1           | 100.000                | --      | --       | --   | --       | --        | --      | --     |
| 80162   | SED-BED-FALL-D-1 %              | 1           | 100.000                | --      | --       | --   | --       | --        | --      | --     |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 35.** Statistical summary of water-quality data for the Turtle River at Manvel, N. Dak., gaging station 05083000, October 1971 through October 1991

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |          |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|----------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25       | 5       |
| <b>North Dakota data, October 1971 through October 1991</b> |                                 |             |                        |         |          |  |          |           |          |         |
| 00065   | GAGE HEIGHT (FEET)              | 1           | 4.820                  | --      | --       | --   | --       | --        | --       | --      |
| 00060   | DISCHARGE CFS                   | 13          | 1450.000               | 0.200   | 154.315  | 1450.000   | 60.000   | 5.900     | 2.500    | 0.200   |
| 00061   | DISCHARGE, INST. CFS            | 28          | 1140.000               | 3.600   | 215.036  | 1014.450   | 378.250  | 57.000    | 18.250   | 3.735   |
| 00540   | RESIDUE FIXED (MG/L)            | 41          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 41          | 11.000                 | 0.000   | 2.250    | 6.024  | 2.780    | 1.900     | 1.075    | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 41          | 2270.000               | 0.000   | 419.960  | 1853.000   | 609.000  | 192.000   | 22.150   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 37          | 4440.000               | 465.000 | 1614.432 | 4332.000   | 2045.000 | 1400.000  | 904.000  | 488.400 |
| 70301   | DISSOLVED SOLIDS MG/L           | 41          | 8120.000               | 0.000   | 1637.195 | 4509.000   | 2015.000 | 1360.000  | 777.000  | 0.000   |
| 00076   | TURBIDITY (NTU)                 | 10          | 14.000                 | 1.000   | 7.050    | 14.000   | 13.250   | 6.200     | 2.250    | 1.000   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 41          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 40          | 8.400                  | 6.700   | 7.815    | 8.300  | 8.100    | 7.800     | 7.600    | 7.200   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 17          | 9.300                  | 6.600   | 7.753    | 9.300  | 8.050    | 7.700     | 7.450    | 6.600   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 7           | 2530.000               | 779.000 | 1515.857 | 2530.000   | 2400.000 | 1170.000  | 882.000  | 779.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 10          | 7080.000               | 820.000 | 3238.000 | 7080.000   | 4637.500 | 3030.000  | 1672.500 | 820.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 41          | 7300.000               | 770.000 | 2644.585 | 6883.003   | 3415.000 | 2300.000  | 1495.000 | 807.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 13          | 27.000                 | 0.000   | 11.692   | 27.000   | 22.250   | 8.500     | 4.000    | 0.000   |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 41          | 25.000                 | 0.000   | 8.232    | 23.800   | 15.500   | 6.500     | 0.500    | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 41          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 41          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 41          | 1700.000               | 0.000   | 302.195  | 989.000  | 425.000  | 250.000   | 0.000    | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 41          | 890.000                | 0.000   | 108.049  | 861.000  | 50.000   | 0.000     | 0.000    | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 41          | 1800.000               | 0.000   | 549.268  | 1200.000   | 730.000  | 500.000   | 310.000  | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 38          | 410.000                | 54.000  | 137.579  | 258.000  | 175.000  | 125.000   | 83.750   | 54.950  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 38          | 200.000                | 18.000  | 60.737   | 152.500  | 75.500   | 55.000    | 31.000   | 18.950  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 38          | 83.000                 | 8.100   | 18.053   | 40.250   | 18.000   | 15.500    | 12.750   | 9.810   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 41          | 21.000                 | 0.000   | 5.951    | 14.000   | 7.500    | 5.000     | 3.000    | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 8           | 2200.000               | 160.000 | 493.750  | 2200.000   | 322.500  | 280.000   | 195.000  | 160.000 |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 38          | 2100.000               | 63.000  | 398.000  | 1149.999   | 465.000  | 285.000   | 177.500  | 77.250  |
| 00932   | SODIUM, PERCENT PERCENT         | 41          | 73.000                 | 0.000   | 49.976   | 69.700   | 58.500   | 53.000    | 47.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 41          | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 17          | 282.000                | 60.000  | 180.118  | 282.000  | 255.000  | 170.000   | 110.000  | 60.000  |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 21          | 398.000                | 100.000 | 219.476  | 396.500  | 288.500  | 200.000   | 140.000  | 101.000 |
| 95440   | BICARBONATE MG/L AS CaCO3       | 7           | 330.000                | 40.000  | 167.143  | 330.000  | 210.000  | 140.000   | 120.000  | 40.000  |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 13          | 480.000                | 160.000 | 319.231  | 480.000  | 415.000  | 330.000   | 240.000  | 160.000 |
| 95445   | CARBONATE MG/L AS CO3           | 7           | 17.000                 | 0.000   | 2.429    | 17.000   | 0.000    | 0.000     | 0.000    | 0.000   |

**Supplement 35.** Statistical summary of water-quality data for the Turtle River at Manvel, N. Dak., gaging station 05083000, October 1971 through October 1991--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through October 1991--Continued</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 13          | 6.000                  | 0.000   | 0.462    | 6.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 38          | 3600.000               | 89.000  | 621.289  | 2079.999   | 765.000  | 435.000   | 267.500 | 108.950 |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 38          | 1.500                  | 0.100   | 0.453    | 1.215  | 0.500    | 0.400     | 0.300   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 38          | 31.000                 | 0.200   | 15.413   | 29.100   | 17.000   | 15.000    | 12.000  | 4.285   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 38          | 1600.000               | 100.000 | 389.474  | 915.999  | 427.500  | 330.000   | 225.000 | 128.500 |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 41          | 2.200                  | 0.000   | 0.246    | 1.880  | 0.230    | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 41          | 9.700                  | 0.000   | 1.344    | 8.310  | 1.700    | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71850  | N, NITRATE TOTAL MG/L AS NO3    | 1           | 1.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)    | 18          | 2.200                  | --      | *0.508   | *2.200   | *0.755   | *0.305    | *0.143  | *0.051  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00613  | NITROGEN,NITRITE MG/L AS N      | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 41          | 1.400                  | --      | *0.240   | *0.767   | *0.390   | *0.090    | *0.013  | *0.003  |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)    | 29          | 0.450                  | --      | *0.104   | *0.350   | *0.180   | *0.070    | *0.010  | *0.003  |
| 00621  | NITROGEN NITRATE (MG/KG AS N)   | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2)  | 41          | 29.000                 | 0.000   | 6.415    | 20.600   | 9.500    | 4.100     | 2.600   | 0.000   |
| 00690  | CARBON INORG + O (MG/L AS C)    | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)   | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS          | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS          | 41          | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 31625  | COLIFORM FECAL 0 COLS./100 ML   | 17          | 8200.000               | 2.000   | 693.588  | 8200.000   | 680.000  | 30.000    | 7.500   | 2.000   |
| 31673  | FECAL STREP,KF M COLS./100 ML   | 17          | 11000.000              | 0.000   | 1985.294 | 11000.000  | 1700.000 | 390.000   | 125.000 | 0.000   |

**Supplement 35.** Statistical summary of water-quality data for the Turtle River at Manvel, N. Dak., gaging station 05083000, October 1971 through October 1991--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through October 1991--Continued</b> |                                 |             |                        |         |         |  |          |           |         |         |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)   | 7           | 5.000                  | --      | *2.753  | *5.000   | *3.000   | *3.000    | *2.000  | *1.268  |
| 01020  | BORON DISSOLVED (UG/L AS B)     | 38          | 14000.000              | 40.000  | 879.737 | 2694.991   | 645.000  | 435.000   | 260.000 | 78.000  |
| 01046  | IRON DISSOLVED (UG/L AS FE)     | 38          | 130.000                | --      | *45.573 | *101.500   | *62.500  | *40.000   | *20.000 | *10.736 |
| 01049  | LEAD DISSOLVED (UG/L AS PB)     | 7           | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)   | 7           | 140.000                | 49.000  | 82.143  | 140.000  | 130.000  | 60.000    | 50.000  | 49.000  |
| 01056  | MANGANESE DISSOL (UG/L AS MN)   | 37          | 1500.000               | 10.000  | 334.541 | 977.999  | 435.000  | 280.000   | 115.000 | 28.000  |
| 71890  | MERCURY DISSOLVE UG/L AS HG     | 7           | 0.400                  | 0.000   | 0.186   | 0.400  | 0.300    | 0.200     | 0.100   | 0.000   |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO)   | 7           | 4.000                  | --      | *1.965  | *4.000   | *2.000   | *2.000    | *1.000  | *0.752  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)   | 7           | --                     | --      | --      | --   | --       | --        | --      | --      |
| 01080  | STRONTIUM DISSOL (UG/L AS SR)   | 7           | 1700.000               | 420.000 | 971.429 | 1700.000   | 1600.000 | 780.000   | 590.000 | 420.000 |
| 82068  | POTSSSIUM 40 DIS (PCI/L AS K40) | 4           | 16.000                 | 11.000  | --      | --   | --       | --        | --      | --      |
| 70331  | SED-SUSP-SIEVE-. %              | 2           | 100.000                | 96.000  | --      | --   | --       | --        | --      | --      |
| 80156  | SUS-SED DISCH + T/DAY           | 41          | 0.000                  | --      | --      | --   | --       | --        | --      | --      |
| 80154  | CONCENTRATION,S. MG/L           | 15          | 106.000                | 6.000   | 41.067  | 106.000  | 50.000   | 40.000    | 27.000  | 6.000   |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 41          | 79.000                 | 0.000   | 6.195   | 45.900   | 4.000    | 0.000     | 0.000   | 0.000   |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 36.** Statistical summary of water-quality data for the Forest River at Minto, N. Dak., gaging station 05085000, October 1971 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 4           | 3.910                  | 1.270   | --      | --   | --      | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 32          | 2000.000               | 0.100   | 159.570 | 1499.500   | 56.750  | 8.150     | 3.475   | 0.230   |
| 00061   | DISCHARGE, INST. CFS            | 266         | 6210.000               | 0.030   | 218.966 | 1392.000   | 56.250  | 14.000    | 4.975   | 0.693   |
| 00540   | RESIDUE FIXED (MG/L)            | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 300         | 238.000                | 0.000   | 1.007   | 0.850  | 0.582   | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 300         | 2870.000               | 0.000   | 45.546  | 287.601  | 4.900   | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 92          | 1370.000               | 171.000 | 515.761 | 761.700  | 581.500 | 511.000   | 443.000 | 254.700 |
| 70301   | DISSOLVED SOLIDS MG/L           | 300         | 1370.000               | 0.000   | 152.657 | 595.900  | 409.750 | 0.000     | 0.000   | 0.000   |
| 00025   | AIR PRESSURE (MM OF HG)         | 1           | 730.000                | --      | --      | --   | --      | --        | --      | --      |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 12          | 12.400                 | 1.800   | 7.908   | 12.400   | 10.700  | 8.750     | 4.850   | 1.800   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 300         | 94.000                 | 0.000   | 3.033   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 98          | 8.800                  | 7.100   | 7.960   | 8.405  | 8.200   | 8.000     | 7.700   | 7.300   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 30          | 8.500                  | 6.700   | 7.893   | 8.390  | 8.200   | 8.050     | 7.675   | 6.810   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 15          | 918.000                | 390.000 | 667.133 | 918.000  | 812.000 | 679.000   | 489.000 | 390.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 23          | 1080.000               | 487.000 | 812.957 | 1062.000   | 908.000 | 820.000   | 776.000 | 493.400 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 286         | 2120.000               | 240.000 | 816.979 | 1300.000   | 940.000 | 801.000   | 670.000 | 366.300 |
| 00020   | AIR TEMPERATURE DEGREES C       | 157         | 34.000                 | -22.000 | 9.846   | 29.050   | 19.500  | 11.000    | 1.000   | -15.000 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 293         | 27.000                 | 0.000   | 8.894   | 24.000   | 17.500  | 6.500     | 0.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CACO3 | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CACO3 | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CACO3 | 300         | 270.000                | 0.000   | 17.487  | 110.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CACO3 | 300         | 87.000                 | 0.000   | 0.763   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CAO3)   | 300         | 840.000                | 0.000   | 102.467 | 400.000  | 270.000 | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS CA)   | 92          | 180.000                | 32.000  | 78.935  | 120.000  | 88.000  | 78.000    | 69.500  | 36.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS MG)   | 92          | 140.000                | 7.300   | 33.302  | 49.350   | 37.000  | 33.500    | 28.250  | 13.300  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 92          | 62.000                 | 3.600   | 7.447   | 10.350   | 8.100   | 6.750     | 5.300   | 4.500   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 300         | 2.000                  | 0.000   | 0.275   | 1.000  | 0.700   | 0.000     | 0.000   | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS NA)   | 5           | 70.000                 | 37.000  | --      | --   | --      | --        | --      | --      |
| 00930   | SODIUM DISSOLVED (MG/L AS NA)   | 92          | 170.000                | 6.000   | 41.046  | 64.700   | 48.750  | 38.000    | 32.000  | 18.000  |
| 00932   | SODIUM, PERCENT PERCENT         | 300         | 30.000                 | 0.000   | 6.207   | 24.000   | 16.000  | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CACO3    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CACO3  | 40          | 330.000                | 103.000 | 211.350 | 299.250  | 252.250 | 232.500   | 162.500 | 110.400 |
| 00418   | ALKALINITY,DIS,F (MG/L AS CACO3 | 1           | 356.000                | --      | --      | --   | --      | --        | --      | --      |
| 00410   | ANC, FET, FIELD (MG/L AS CACO3  | 54          | 567.000                | 76.000  | 251.611 | 402.250  | 284.000 | 246.000   | 220.250 | 108.250 |
| 95440   | BICARBONATE MG/L AS CACO3       | 23          | 400.000                | 120.000 | 256.087 | 388.000  | 310.000 | 290.000   | 190.000 | 122.000 |

**Supplement 36.** Statistical summary of water-quality data for the Forest River at Minto, N. Dak., gaging station 05085000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 54          | 690.000                | 93.000  | 304.130 | 487.500  | 332.500 | 295.000   | 270.000 | 130.000 |
| 95445  | CARBONATE MG/L AS CO3           | 23          | 4.000                  | 0.000   | 0.217   | 3.400  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 54          | 12.000                 | 0.000   | 1.148   | 9.500  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 92          | 270.000                | 1.300   | 32.110  | 70.350   | 38.000  | 24.000    | 18.000  | 9.930   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 92          | 0.600                  | 0.100   | 0.202   | 0.500  | 0.200   | 0.200     | 0.100   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 80          | 31.000                 | 4.900   | 17.534  | 26.950   | 20.750  | 17.000    | 14.000  | 10.000  |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 92          | 290.000                | 36.000  | 146.641 | 240.500  | 177.500 | 140.000   | 120.000 | 72.650  |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 300         | 2.700                  | 0.000   | 0.083   | 0.560  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 300         | 12.000                 | 0.000   | 0.393   | 2.690  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 300         | 0.860                  | 0.000   | 0.022   | 0.150  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)    | 25          | 0.130                  | --      | *0.030  | *0.124   | *0.050  | *0.023    | *0.003  | *0.002  |
| 00621  | NITROGEN NITRATE (MG/KG AS N)   | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2)  | 300         | 45.000                 | 0.000   | 2.226   | 11.950   | 2.250   | 0.000     | 0.000   | 0.000   |
| 00681  | CARBON ORGANIC D (MG/L AS C)    | 10          | 19.000                 | 3.400   | 10.080  | 19.000   | 17.000  | 7.850     | 3.925   | 3.400   |
| 00689  | CARBON ORGANIC P (MG/L AS C)    | 8           | 2.300                  | --      | *1.108  | *2.300   | *2.075  | *0.850    | *0.400  | *0.162  |
| 00690  | CARBON INORG + O (MG/L AS C)    | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)   | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS          | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS          | 300         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 31501  | TOT COLI,MENDO M COLS./100 ML   | 1           | 480.000                | --      | --      | --   | --      | --        | --      | --      |

**Supplement 36.** Statistical summary of water-quality data for the Forest River at Minto, N. Dak., gaging station 05085000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|-------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                               |             |                        |         |          |  |          |           |         |         |
| 31616  | FECAL COLI,MFC M COLS./100 ML | 10          | 230.000                | --      | *51.502  | *230.000   | *112.500 | *8.000    | *0.565  | *0.083  |
| 31679  | FECAL STRPT MF M COLS./100 ML | 10          | 460.000                | --      | *134.174 | *460.000   | *220.000 | *90.000   | *9.621  | *4.256  |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS) | 38          | 20.000                 | 1.000   | 3.947    | 11.450   | 5.000    | 3.000     | 2.000   | 1.000   |
| 01020  | BORON DISSOLVED (UG/L AS B)   | 79          | 500.000                | --      | *125.357 | *310.000   | *190.000 | *90.000   | *50.000 | *21.174 |
| 01046  | IRON DISSOLVED (UG/L AS FE)   | 92          | 2000.000               | --      | *73.726  | *250.000   | *60.000  | *30.000   | *10.000 | *2.708  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)   | 38          | 2.000                  | --      | *0.623   | *2.000   | *0.823   | *0.507    | *0.330  | *0.173  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI) | 38          | 50.000                 | 13.000  | 30.947   | 50.000   | 37.750   | 30.000    | 23.000  | 16.800  |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 91          | 15000.000              | 10.000  | 377.912  | 778.000  | 280.000  | 150.000   | 80.000  | 16.000  |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 38          | 0.800                  | --      | *0.140   | *0.515   | *0.200   | *0.100    | *0.037  | *0.013  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 36          | 5.000                  | --      | *1.665   | *5.000   | *2.000   | *1.000    | *1.000  | *0.348  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 38          | 3.000                  | --      | *0.850   | *2.050   | *1.000   | *0.731    | *0.517  | *0.312  |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 38          | 530.000                | 120.000 | 308.684  | 511.000  | 370.000  | 310.000   | 250.000 | 120.000 |
| 07060  | IRON 59 DISSOLVE (PCI/L)      | 2           | 3.000                  | 2.000   | --       | --   | --       | --        | --      | --      |
| 70338  | SED-SUSP-FALL-D- %            | 1           | 51.000                 | --      | --       | --   | --       | --        | --      | --      |
| 70340  | SED-SUSP-FALL-D- %            | 1           | 78.000                 | --      | --       | --   | --       | --        | --      | --      |
| 70342  | SED-SUSP-FALL-D- %            | 1           | 100.000                | --      | --       | --   | --       | --        | --      | --      |
| 80156  | SUS-SED DISCH + T/DAY         | 300         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 80154  | CONCENTRATION,S. MG/L         | 13          | 158.000                | 12.000  | 55.308   | 158.000  | 64.000   | 48.000    | 38.000  | 12.000  |
| 80155  | DISCHARGE,SUSP.S T/DAY        | 300         | 147.000                | 0.000   | 0.585    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 80157  | SED-BED-FALL-D-. %            | 1           | 31.000                 | --      | --       | --   | --       | --        | --      | --      |
| 80158  | SED-BED-FALL-D-. %            | 2           | 85.000                 | 7.000   | --       | --   | --       | --        | --      | --      |
| 80159  | SED-BED-FALL-D-. %            | 2           | 91.000                 | 8.000   | --       | --   | --       | --        | --      | --      |
| 80160  | SED-BED-FALL-D-. %            | 2           | 94.000                 | 14.000  | --       | --   | --       | --        | --      | --      |
| 80161  | SED-BED-FALL-D-. %            | 2           | 96.000                 | 41.000  | --       | --   | --       | --        | --      | --      |
| 80162  | SED-BED-FALL-D-1 %            | 2           | 98.000                 | 58.000  | --       | --   | --       | --        | --      | --      |
| 80169  | SED-BED-SIEVE-2. %            | 2           | 99.000                 | 69.000  | --       | --   | --       | --        | --      | --      |
| 80170  | SED-BED-SIEVE-4. %            | 2           | 100.000                | 84.000  | --       | --   | --       | --        | --      | --      |
| 80171  | SED-BED-SIEVE-8. %            | 1           | 94.000                 | --      | --       | --   | --       | --        | --      | --      |
| 80172  | SED-BED-SIEVE-16 %            | 1           | 100.000                | --      | --       | --   | --       | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 37.** Statistical summary of water-quality data for the Snake River at Warren, Minn., gaging station 05085500, April 1979

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code                    | Property or constituent          | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|-----------------------------------|----------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|                                   |                                  |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, April 1979</b> |                                  |             |                        |         |      |  |    |           |    |    |
| 00061                             | DISCHARGE, INST. CFS             | 1           | 1980.000               | --      | --   | --   | -- | --        | -- | -- |
| 00540                             | RESIDUE FIXED (MG/L)             | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70303                             | RESIDUE DIS TON/ T/AC-FT         | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70302                             | DISSOLVED SOLIDS TONS/DAY        | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70301                             | DISSOLVED SOLIDS MG/L            | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00301                             | OXYGEN DIS. PERC % OF SATURATIO  | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00010                             | WATER TEMPERATUR (DEGREES C)     | 1           | 5.500                  | --      | --   | --   | -- | --        | -- | -- |
| 00904                             | HARDNESS NC. DIS (MG/L AS CaCO3) | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00905                             | HARDNESS NC. DIS (MG/L AS CaCO3) | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00902                             | NONCARBONATE HAR (MG/L AS CaCO3) | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00903                             | NONCARBONATE HAR (MG/L AS CaCO3) | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00900                             | HARDNESS TOTAL (MG/L AS CaO3)    | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00931                             | SODIUM ADSORPTIO (RATIO)         | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00932                             | SODIUM, PERCENT PERCENT          | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00435                             | ACIDITY TOTAL (MG/L AS CaCO3)    | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71846                             | NITR. NH4 AS NH4 MG/L AS NH4     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71845                             | NITROGEN, NH4, T MG/L AS NH4     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00602                             | NITROGEN DISSOLV (MG/L AS N)     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00618                             | NITROGEN NITRATE (MG/L AS N)     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71851                             | NITR. NO3 AS NO3 MG/L AS NO3     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00620                             | NITROGEN NITRATE MG/L AS N       | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00630                             | NO2 + NO3 TOTAL (MG/L AS N)      | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71856                             | NITR. NO2 AS NO2 MG/L AS NO2     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00607                             | NITROGEN ORGANIC (MG/L AS N)     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00605                             | NITROGEN ORGANIC (MG/L AS N)     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00600                             | NITROGEN TOTAL (MG/L AS N)       | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 71887                             | NITROGEN, TOTAL MG/L AS NO3      | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00660                             | PHOSPHATE ORTHO. (MG/L AS PO4)   | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00650                             | PHOSPHATE TOTAL (MG/L AS PO4)    | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00672                             | PHOSPHORUS HYDRO (MG/L AS P)     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00669                             | PHOSPHORUS HYDRO (MG/L AS P)     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00673                             | PHOSPHORUS ORG. (MG/L AS P)      | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00670                             | PHOSPHORUS ORG.T (MG/L AS P)     | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00621                             | NITROGEN NITRATE (MG/KG AS N)    | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00405                             | CARBON DIOXIDE D (MG/L AS CO2)   | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |

**Supplement 37.** Statistical summary of water-quality data for the Snake River at Warren, Minn., gaging station 05085500, April 1979--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code                               | Property or constituent       | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|-------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                               |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, April 1979--Continued</b> |                               |             |                        |         |      |  |    |           |    |    |
| 00690  | CARBON INORG + O (MG/L AS C)  | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 00687  | CARBON ORG. BOT. (GM/KG AS C) | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70950  | BIO CHL RATIO PE UNITS        | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70949  | BIO CHL RATIO PL UNITS        | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 70342  | SED-SUSP-FALL-D- %            | 1           | 91.000                 | --      | --   | --   | -- | --        | -- | -- |
| 80156  | SUS-SED DISCH + T/DAY         | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 80154  | CONCENTRATION,S. MG/L         | 1           | 289.000                | --      | --   | --   | -- | --        | -- | -- |
| 80155  | DISCHARGE,SUSP.S T/DAY        | 1           | 1540.000               | --      | --   | --   | -- | --        | -- | -- |

**Supplement 38.** Statistical summary of water-quality data for the Middle River at Argyle, Minn., gaging station 05087500, April 1968 through September 2000

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>Minnesota data, April 1968 through September 2000</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065  | GAGE HEIGHT (FEET)              | 3           | 5.560                  | 3.960   | --       | --   | --       | --        | --      | --      |
| 00060  | DISCHARGE CFS                   | 2           | 38.000                 | 15.000  | --       | --   | --       | --        | --      | --      |
| 00061  | DISCHARGE, INST. CFS            | 6           | 4050.000               | 5.700   | 1005.267 | 4050.000   | 2242.500 | 165.000   | 5.850   | 5.700   |
| 00080  | COLOR PLATINUM-COBAL            | 2           | 45.000                 | 3.000   | --       | --   | --       | --        | --      | --      |
| 00540  | RESIDUE FIXED (MG/L)            | 8           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 8           | 0.600                  | 0.000   | 0.118    | 0.600  | 0.255    | 0.000     | 0.000   | 0.000   |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 8           | 45.400                 | 0.000   | 6.938    | 45.400   | 7.575    | 0.000     | 0.000   | 0.000   |
| 70300  | RESIDUE DIS 180C MG/L           | 2           | 439.000                | 253.000 | --       | --   | --       | --        | --      | --      |
| 70301  | DISSOLVED SOLIDS MG/L           | 8           | 403.000                | 0.000   | 79.750   | 403.000  | 176.250  | 0.000     | 0.000   | 0.000   |
| 00076  | TURBIDITY (NTU)                 | 3           | 32.000                 | 4.600   | --       | --   | --       | --        | --      | --      |
| 00025  | AIR PRESSURE (MM OF HG)         | 3           | 750.000                | 738.000 | --       | --   | --       | --        | --      | --      |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 3           | 9.900                  | 5.600   | --       | --   | --       | --        | --      | --      |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 8           | 86.000                 | 0.000   | 29.625   | 86.000   | 80.750   | 0.000     | 0.000   | 0.000   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 6           | 8.200                  | 7.700   | 7.917    | 8.200  | 8.125    | 7.900     | 7.700   | 7.700   |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 6           | 644.000                | 368.000 | 510.500  | 644.000  | 641.000  | 511.500   | 383.000 | 368.000 |
| 00020  | AIR TEMPERATURE DEGREES C       | 4           | 18.000                 | -10.000 | --       | --   | --       | --        | --      | --      |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 7           | 21.000                 | 0.500   | 8.400    | 21.000   | 15.000   | 8.300     | 1.000   | 0.500   |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 8           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00905  | HARDNESS NC. DIS (MG/L AS CaCO3 | 8           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902  | NONCARBONATE HAR (MG/L AS CaCO3 | 8           | 73.000                 | 0.000   | 15.375   | 73.000   | 37.500   | 0.000     | 0.000   | 0.000   |
| 00903  | NONCARBONATE HAR (MG/L AS CaCO3 | 8           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 8           | 360.000                | 0.000   | 70.000   | 360.000  | 150.000  | 0.000     | 0.000   | 0.000   |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 2           | 83.000                 | 48.000  | --       | --   | --       | --        | --      | --      |
| 00925  | MAGNESIUM DISSOL (MG/L AS Mg)   | 2           | 39.000                 | 19.000  | --       | --   | --       | --        | --      | --      |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 2           | 3.800                  | 3.700   | --       | --   | --       | --        | --      | --      |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 8           | 0.200                  | 0.000   | 0.038    | 0.200  | 0.075    | 0.000     | 0.000   | 0.000   |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 2           | 7.300                  | 4.300   | --       | --   | --       | --        | --      | --      |
| 00932  | SODIUM, PERCENT PERCENT         | 8           | 4.000                  | 0.000   | 1.000    | 4.000  | 3.000    | 0.000     | 0.000   | 0.000   |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3    | 8           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3  | 2           | 292.000                | 149.000 | --       | --   | --       | --        | --      | --      |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 2           | 360.000                | 180.000 | --       | --   | --       | --        | --      | --      |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 2           | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00940  | CHLORIDE DISSOLV (MG/L AS Cl)   | 2           | 6.200                  | 3.300   | --       | --   | --       | --        | --      | --      |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 2           | 0.200                  | 0.200   | --       | --   | --       | --        | --      | --      |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2) | 2           | 10.000                 | 9.900   | --       | --   | --       | --        | --      | --      |

**Supplement 38.** Statistical summary of water-quality data for the Middle River at Argyle, Minn., gaging station 05087500, April 1968 through September 2000--Continued

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|---|--------------------------------|-------------|------------------------|---------|-------|--|-------|-----------|-------|-------|
|   |                                |             | Maximum                | Minimum | Mean  | 95   | 75    | Median 50 | 25    | 5     |
| <b>Minnesota data, April 1968 through September 2000--Continued</b> |                                |             |                        |         |       |  |       |           |       |       |
| 00945   | SULFATE DISSOLVE (MG/L AS SO4) | 2           | 79.000                 | 54.000  | --    | --   | --    | --        | --    | --    |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)   | 1           | 1.700                  | --      | --    | --   | --    | --        | --    | --    |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 71845   | NITROGEN, NH4, T MG/L AS NH4   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00602   | NITROGEN DISSOLV (MG/L AS N)   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00618   | NITROGEN NITRATE (MG/L AS N)   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3   | 8           | 1.900                  | 0.000   | 0.237 | 1.900  | 0.000 | 0.000     | 0.000 | 0.000 |
| 00620   | NITROGEN NITRATE MG/L AS N     | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)    | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00607   | NITROGEN ORGANIC (MG/L AS N)   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00605   | NITROGEN ORGANIC (MG/L AS N)   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00600   | NITROGEN TOTAL (MG/L AS N)     | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 71887   | NITROGEN, TOTAL MG/L AS NO3    | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4) | 8           | 0.220                  | 0.000   | 0.053 | 0.220  | 0.150 | 0.000     | 0.000 | 0.000 |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)  | 8           | 0.730                  | 0.000   | 0.091 | 0.730  | 0.000 | 0.000     | 0.000 | 0.000 |
| 00672   | PHOSPHORUS HYDRO (MG/L AS P)   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00669   | PHOSPHORUS HYDRO (MG/L AS P)   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00673   | PHOSPHORUS ORG. (MG/L AS P)    | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00670   | PHOSPHORUS ORG.T (MG/L AS P)   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00665   | PHOSPHORUS TOTAL (MG/L AS P)   | 1           | 0.250                  | --      | --    | --   | --    | --        | --    | --    |
| 00621   | NITROGEN NITRATE (MG/KG AS N)  | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 8           | 5.800                  | 0.000   | 1.175 | 5.800  | 2.700 | 0.000     | 0.000 | 0.000 |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 3           | 18.000                 | 12.000  | --    | --   | --    | --        | --    | --    |
| 00680   | CARBON ORGANIC T (MG/L AS C)   | 2           | 19.000                 | 16.000  | --    | --   | --    | --        | --    | --    |
| 00690   | CARBON INORG + O (MG/L AS C)   | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 70950   | BIO CHL RATIO PE UNITS         | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 70949   | BIO CHL RATIO PL UNITS         | 8           | 0.000                  | --      | --    | --   | --    | --        | --    | --    |
| 01105   | ALUMINUM TOTAL UG/L AS AL      | 2           | 400.000                | 400.000 | --    | --   | --    | --        | --    | --    |
| 01020   | BORON DISSOLVED (UG/L AS B)    | 2           | 60.000                 | 20.000  | --    | --   | --    | --        | --    | --    |
| 01045   | IRON TOTAL (UG/L AS FE)        | 2           | 80.000                 | 60.000  | --    | --   | --    | --        | --    | --    |
| 01055   | MANGANESE TOTAL (UG/L AS MN)   | 2           | 100.000                | 20.000  | --    | --   | --    | --        | --    | --    |
| 49295   | 1-NAPHTHOL FLTRD (UG/L)        | 1           | --                     | --      | --    | --   | --    | --        | --    | --    |
| 39742   | 2,4,5-T DISSOLVE UG/L          | 1           | --                     | --      | --    | --   | --    | --        | --    | --    |

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|---|--------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|   |                          |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>Minnesota data, April 1968 through September 2000--Continued</b> |                          |             |                        |         |      |  |    |           |    |    |
| 39732   | 2,4-D DISSOLVED UG/L     | 1           | 0.360                  | --      | --   | --   | -- | --        | -- | -- |
| 38746   | 2,4-DB FLTRD (UG/L)      | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82660   | 26DIETHYLANILINE (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49308   | 3HYDRXYCARBOFURA (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49315   | ACIFLUORFEN FLTR (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 46342   | ALACHLOR, DISS, UG/L     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49313   | ALDICARB SULFONE (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49314   | ALDICARB SULFOXI (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49312   | ALDICARB FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34253   | ALPHA BHC UG/L           | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39632   | ATRAZINE, DISS, UG/L     | 1           | 0.088                  | --      | --   | --   | -- | --        | -- | -- |
| 82673   | BENFLURALIN FIL (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38711   | BENTAZON, FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04029   | BROMACIL DISS RE (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49311   | BROMOXYNIL FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04028   | BUTYLATE DISS RE (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49310   | CARBARYL FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82680   | CARBARYL FIL 0.7 (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49309   | CARBOFURAN FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82674   | CARBOFURAN FIL . (UG/L)  | 1           | 0.019                  | --      | --   | --   | -- | --        | -- | -- |
| 49307   | CHLORAMBEN FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49306   | CHLOROTHALONIL F (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38933   | CHLORPYRIFOS, DI UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49305   | CLOPYRALID FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04041   | CYANAZINE DISS R (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49304   | DACTHAL MONO-ACI (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82682   | DCPA FIL 0.7 REC (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04040   | DEETHYL ATRAZINE (UG/L)  | 1           | 0.012                  | --      | --   | --   | -- | --        | -- | -- |
| 39572   | DIAZINON DISSOLV UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38442   | DICAMBA FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49303   | DICHLORBENIL FLTR (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49302   | DICHLORPRO FLTRD (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39381   | DIELDRIN DISSOLV UG/L    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 49301   | DINOSEB FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677   | DISULFOTON FIL . (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |

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| <b>Minnesota data, April 1968 through September 2000--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |    |
| 49300   | DIURON FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49299   | DNOC FLTD (UG/L)        | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82668   | EPTC FIL 0.7 REC (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49298   | ESFENVALERATE FL (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82663   | ETHALFLURALIN FI (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82672   | ETHOPROP FIL 0.7 (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49297   | FENURON FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 38811   | FLUOMETURON FLT (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 04095   | FONOFOX DISS REC (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 39341   | LINDANE DISSOLVE UG/L   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 38478   | LINURON FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82666   | LINURON FIL 0.7 (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 39532   | MALATHION DISSOL UG/L   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 38482   | MCPA FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 38487   | MCPB FLTRD (UG/L)       | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 38501   | METHIOCARB FLTRD (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49296   | METHOMYL FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82686   | METHYL AZINPHOS (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82667   | METHYL PARATHION (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 39415   | METOLACHLOR,WAT. UG/L   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82630   | METRIBUZIN,WAT.D UG/L   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82671   | MOLINATE FIL 0.7 (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82684   | NAPROPAMIDE FIL (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49294   | NEBURON FLTRD (UG/L)    | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49293   | NORFLURAZON FLTR (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49292   | ORYZALIN FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 38866   | OXAMYL FLTRD (UG/L)     | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 34653   | P,P' DDE DISSOLV (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 39542   | PARATHION DISSOL UG/L   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82669   | PEBULATE FIL 0.7 (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82683   | PENDIMETHALIN F. (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82687   | PERMETHRIN FIL . (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 82664   | PHORATE FIL 0.7 (UG/L)  | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 49291   | PICLORAM FLTRD (UG/L)   | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |
| 04037   | PROMETON DISS RE (UG/L) | 1           | --                     | --      | --   | --   | -- | --        | -- | -- | -- |

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**Supplement 38.** Statistical summary of water-quality data for the Middle River at Argyle, Minn., gaging station 05087500, April 1968 through September 2000--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |          |           |       |       |
|---|-------------------------|-------------|------------------------|---------|---------|--|----------|-----------|-------|-------|
|   |                         |             | Maximum                | Minimum | Mean    | 95   | 75       | Median 50 | 25    | 5     |
| <b>Minnesota data, April 1968 through September 2000--Continued</b> |                         |             |                        |         |         |  |          |           |       |       |
| 82676   | PRONAMIDE FIL .7 (UG/L) | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 04024   | PROPACHLOR DISS (UG/L)  | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 82679   | PROPANIL FIL 0.7 (UG/L) | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 82685   | PROPARGITE FIL . (UG/L) | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 49236   | PROPHAM FLTRD (UG/L)    | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 38538   | PROPOXUR FLTRD (UG/L)   | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 39762   | SILVEX DISSOLVED UG/L   | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 04035   | SIMAZINE DISS RE (UG/L) | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 82670   | TEBUTHIURON FIL (UG/L)  | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 82665   | TERBACIL FIL 0.7 (UG/L) | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 82675   | TERBUFOS FIL 0.7 (UG/L) | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 82681   | THIOBENCARB FIL (UG/L)  | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 82678   | TRIALATE FIL .7 (UG/L)  | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 49235   | TRICLOPYR FLTRD (UG/L)  | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 82661   | TRIFLURALIN FIL (UG/L)  | 1           | --                     | --      | --      | --   | --       | --        | --    | --    |
| 70342   | SED-SUSP-FALL-D- %      | 1           | 78.000                 | --      | --      | --   | --       | --        | --    | --    |
| 70331   | SED-SUSP-SIEVE- %       | 3           | 71.000                 | 53.000  | --      | --   | --       | --        | --    | --    |
| 80156   | SUS-SED DISCH + T/DAY   | 8           | 0.000                  | --      | --      | --   | --       | --        | --    | --    |
| 80154   | CONCENTRATION,S. MG/L   | 5           | 347.000                | 21.000  | --      | --   | --       | --        | --    | --    |
| 80155   | DISCHARGE,SUSP.S T/DAY  | 8           | 2900.000               | 0.000   | 560.236 | 2900.000   | 1165.250 | 0.445     | 0.000 | 0.000 |

**Supplement 39.** Statistical summary of water-quality data for the Park River at Grafton, N. Dak., gaging station 05090000, September 1969 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, September 1969 through April 2001</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 3           | 8.900                  | 6.930   | --       | --   | --       | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 52          | 4840.000               | 0.010   | 294.319  | 1912.998   | 80.250   | 3.800     | 0.150   | 0.010   |
| 00061   | DISCHARGE, INST. CFS            | 232         | 8460.000               | 0.010   | 382.103  | 2883.500   | 116.000  | 8.250     | 1.425   | 0.066   |
| 00540   | RESIDUE FIXED (MG/L)            | 284         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 284         | 349.000                | 0.000   | 1.496    | 1.305  | 0.438    | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 284         | 2860.000               | 0.000   | 57.687   | 298.500  | 0.138    | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 81          | 1450.000               | 83.000  | 684.457  | 1189.000   | 854.500  | 718.000   | 436.500 | 228.400 |
| 70301   | DISSOLVED SOLIDS MG/L           | 284         | 1430.000               | 0.000   | 191.824  | 910.500  | 317.250  | 0.000     | 0.000   | 0.000   |
| 00025   | AIR PRESSURE (MM OF HG)         | 1           | 746.000                | --      | --       | --   | --       | --        | --      | --      |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 1           | 12.200                 | --      | --       | --   | --       | --        | --      | --      |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 284         | 86.000                 | 0.000   | 0.303    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 84          | 8.700                  | 7.200   | 7.907    | 8.400  | 8.100    | 7.900     | 7.700   | 7.400   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 29          | 8.700                  | 7.000   | 7.814    | 8.450  | 8.100    | 7.900     | 7.550   | 7.050   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 13          | 2410.000               | 360.000 | 1037.154 | 2410.000   | 1295.000 | 1030.000  | 570.500 | 360.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 22          | 2040.000               | 336.000 | 1008.773 | 1993.500   | 1327.500 | 952.000   | 575.000 | 342.450 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 270         | 2500.000               | 289.000 | 1079.100 | 1874.500   | 1360.000 | 1110.000  | 750.000 | 349.100 |
| 00020   | AIR TEMPERATURE DEGREES C       | 133         | 32.000                 | -22.000 | 10.192   | 27.150   | 20.250   | 12.000    | 1.000   | -12.300 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 279         | 28.000                 | 0.000   | 9.504    | 24.000   | 18.000   | 7.000     | 0.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 284         | 170.000                | 0.000   | 0.599    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 284         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 284         | 270.000                | 0.000   | 19.771   | 150.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 284         | 88.000                 | 0.000   | 0.556    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 284         | 610.000                | 0.000   | 93.697   | 430.000  | 177.500  | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 81          | 130.000                | 31.000  | 77.605   | 129.700  | 96.500   | 75.000    | 58.000  | 35.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 81          | 68.000                 | 8.100   | 32.680   | 58.800   | 41.500   | 33.000    | 20.500  | 10.100  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 81          | 16.000                 | 3.800   | 8.951    | 14.000   | 11.000   | 8.600     | 7.400   | 5.010   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 284         | 9.000                  | 0.000   | 0.665    | 3.750  | 1.000    | 0.000     | 0.000   | 0.000   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 81          | 370.000                | 12.000  | 102.407  | 227.000  | 130.000  | 100.000   | 46.000  | 22.100  |
| 00932   | SODIUM, PERCENT PERCENT         | 284         | 72.000                 | 0.000   | 10.377   | 44.500   | 27.000   | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 284         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 37          | 1110.000               | 92.000  | 232.649  | 405.299  | 275.000  | 224.000   | 133.000 | 99.200  |
| 00418   | ALKALINITY,DIS,F (MG/L AS CaCO3 | 1           | 285.000                | --      | --       | --   | --       | --        | --      | --      |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3 | 1           | 286.000                | --      | --       | --   | --       | --        | --      | --      |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 45          | 358.000                | 76.000  | 210.533  | 302.500  | 261.500  | 214.000   | 168.500 | 83.300  |
| 95440   | BICARBONATE MG/L AS CaCO3       | 21          | 360.000                | 120.000 | 239.048  | 359.000  | 325.000  | 260.000   | 145.000 | 121.000 |

**Supplement 39.** Statistical summary of water-quality data for the Park River at Grafton, N. Dak., gaging station 05090000, September 1969 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, September 1969 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3) | 1           | 349.000                | --      | --      | --   | --      | --        | --      | --      |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 45          | 440.000                | 93.000  | 256.067 | 360.000  | 320.000 | 260.000   | 205.000 | 100.000 |
| 95445  | CARBONATE MG/L AS CO3           | 21          | 7.000                  | 0.000   | 0.333   | 6.300  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)  | 1           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 45          | 6.000                  | 0.000   | 0.289   | 3.700  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 81          | 410.000                | 6.200   | 96.525  | 240.000  | 136.500 | 81.000    | 31.000  | 14.100  |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 81          | 2.000                  | 0.100   | 0.364   | 0.900  | 0.450   | 0.300     | 0.200   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 70          | 27.000                 | 4.300   | 15.323  | 23.450   | 19.000  | 15.500    | 12.000  | 6.450   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 81          | 420.000                | 53.000  | 213.383 | 378.000  | 270.000 | 210.000   | 140.000 | 64.300  |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 284         | 2.900                  | 0.000   | 0.053   | 0.392  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 284         | 13.000                 | 0.000   | 0.345   | 2.500  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 284         | 0.760                  | 0.000   | 0.014   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)    | 7           | 0.250                  | --      | *0.073  | *0.250   | *0.130  | *0.040    | *0.007  | *0.005  |
| 00621  | NITROGEN NITRATE (MG/KG AS N)   | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2)  | 284         | 37.000                 | 0.000   | 1.713   | 9.175  | 1.900   | 0.000     | 0.000   | 0.000   |
| 00690  | CARBON INORG + O (MG/L AS C)    | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)   | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS          | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS          | 284         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)   | 36          | 12.000                 | 1.000   | 4.361   | 11.150   | 6.000   | 4.000     | 2.000   | 1.000   |

**Supplement 39.** Statistical summary of water-quality data for the Park River at Grafton, N. Dak., gaging station 05090000, September 1969 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|-------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, September 1969 through April 2001--Continued</b> |                               |             |                        |         |          |  |          |           |         |         |
| 01020  | BORON DISSOLVED (UG/L AS B)   | 70          | 830.000                | --      | *202.622 | *598.000   | *302.500 | *180.000  | *50.000 | *21.283 |
| 71885  | IRON UG/L AS FE               | 9           | 2900.000               | 0.000   | 593.342  | 2900.000   | 790.000  | 120.000   | 40.040  | 0.000   |
| 01046  | IRON DISSOLVED (UG/L AS FE)   | 72          | 640.000                | --      | *75.113  | *201.000   | *100.000 | *55.000   | *20.000 | *6.352  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)   | 36          | 2.000                  | --      | *0.662   | *1.150   | *0.811   | *0.595    | *0.436  | *0.277  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI) | 36          | 110.000                | 10.000  | 51.167   | 101.500  | 70.000   | 55.500    | 30.000  | 15.100  |
| 71883  | MANGANESE UG/L AS MN          | 8           | 460.000                | 10.000  | 136.250  | 460.000  | 340.000  | 30.000    | 15.000  | 10.000  |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 71          | 850.000                | 10.000  | 211.408  | 652.000  | 300.000  | 130.000   | 50.000  | 10.000  |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 36          | 1.000                  | --      | *0.188   | *0.915   | *0.200   | *0.100    | *0.047  | *0.016  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 36          | 7.000                  | --      | *2.622   | *7.000   | *4.000   | *2.000    | *1.000  | *0.454  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 36          | 4.000                  | --      | *0.770   | *2.300   | *1.000   | *0.575    | *0.354  | *0.164  |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 36          | 680.000                | 98.000  | 390.222  | 663.000  | 517.500  | 385.000   | 242.500 | 116.700 |
| 07060  | IRON 59 DISSOLVE (PCI/L)      | 2           | 4.000                  | 0.000   | --       | --   | --       | --        | --      | --      |
| 70331  | SED-SUSP-SIEVE-. %            | 1           | 99.000                 | --      | --       | --   | --       | --        | --      | --      |
| 80156  | SUS-SED DISCH + T/DAY         | 284         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 80154  | CONCENTRATION,S. MG/L         | 1           | 280.000                | --      | --       | --   | --       | --        | --      | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY        | 284         | 336.000                | 0.000   | 1.183    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 40.** Statistical summary of water-quality data for the Red River of the North at Drayton, N. Dak., gaging station 05092000, October 1971 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent          | Sample size | Descriptive statistics |         |           | Percentage of samples in which values were less than or equal to those shown |           |           |          |         |
|---|----------------------------------|-------------|------------------------|---------|-----------|--|-----------|-----------|----------|---------|
|   |                                  |             | Maximum                | Minimum | Mean      | 95   | 75        | Median 50 | 25       | 5       |
| <b>North Dakota data, October 1971 through April 2001</b> |                                  |             |                        |         |           |  |           |           |          |         |
| 00065   | GAGE HEIGHT (FEET)               | 2           | 41.400                 | 14.350  | --        | --   | --        | --        | --       | --      |
| 00060   | DISCHARGE CFS                    | 35          | 30900.000              | 578.000 | 8035.086  | 30580.000  | 12500.000 | 2540.000  | 1800.000 | 875.600 |
| 00061   | DISCHARGE, INST. CFS             | 360         | 92900.000              | 111.000 | 10253.241 | 37775.008  | 14575.000 | 3435.000  | 1372.500 | 281.700 |
| 00080   | COLOR PLATINUM-COBAL             | 1           | 43.000                 | --      | --        | --   | --        | --        | --       | --      |
| 00540   | RESIDUE FIXED (MG/L)             | 396         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT         | 396         | 270.000                | 0.000   | 0.760     | 0.620  | 0.000     | 0.000     | 0.000    | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY        | 396         | 52700.000              | 0.000   | 1364.465  | 8953.497   | 0.000     | 0.000     | 0.000    | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L            | 56          | 932.000                | 179.000 | 413.071   | 661.050  | 481.000   | 392.500   | 335.000  | 199.550 |
| 70301   | DISSOLVED SOLIDS MG/L            | 396         | 878.000                | 0.000   | 55.217    | 429.600  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00025   | AIR PRESSURE (MM OF HG)          | 2           | 780.000                | 737.000 | --        | --   | --        | --        | --       | --      |
| 00300   | OXYGEN DISSOLVED (MG/L)          | 2           | 11.900                 | 10.500  | --        | --   | --        | --        | --       | --      |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO  | 396         | 80.000                 | 0.000   | 0.391     | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT     | 57          | 8.700                  | 7.200   | 8.067     | 8.610  | 8.300     | 8.100     | 7.800    | 7.490   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT  | 30          | 9.100                  | 6.700   | 7.953     | 8.990  | 8.200     | 8.000     | 7.800    | 6.810   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C     | 19          | 1020.000               | 296.000 | 635.368   | 1020.000   | 711.000   | 618.000   | 497.000  | 296.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C  | 18          | 1450.000               | 394.000 | 713.944   | 1450.000   | 777.750   | 659.000   | 550.750  | 394.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C     | 368         | 2010.000               | 275.000 | 651.228   | 1050.000   | 749.500   | 615.000   | 520.000  | 338.900 |
| 00020   | AIR TEMPERATURE DEGREES C        | 210         | 32.000                 | -16.000 | 12.240    | 28.225   | 22.000    | 13.000    | 3.000    | -7.000  |
| 00010   | WATER TEMPERATUR (DEGREES C)     | 387         | 28.500                 | -2.000  | 10.264    | 24.500   | 18.000    | 9.000     | 0.500    | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3) | 396         | 100.000                | 0.000   | 0.399     | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3) | 396         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3) | 396         | 100.000                | 0.000   | 2.505     | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3) | 396         | 62.000                 | 0.000   | 0.227     | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)    | 396         | 480.000                | 0.000   | 35.934    | 281.500  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)    | 56          | 98.000                 | 29.000  | 57.643    | 85.650   | 66.750    | 56.000    | 48.500   | 31.700  |
| 00925   | MAGNESIUM DISSOL (MG/L AS MG)    | 56          | 56.000                 | 3.200   | 26.700    | 42.750   | 32.750    | 26.000    | 21.000   | 12.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)     | 56          | 12.000                 | 3.100   | 6.707     | 10.300   | 8.200     | 6.650     | 5.000    | 3.600   |
| 00931   | SODIUM ADSORPTIO (RATIO)         | 396         | 3.000                  | 0.000   | 0.147     | 1.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)    | 56          | 130.000                | 7.300   | 39.304    | 102.150  | 47.000    | 30.500    | 22.250   | 8.955   |
| 00932   | SODIUM, PERCENT PERCENT          | 396         | 46.000                 | 0.000   | 3.192     | 22.000   | 0.000     | 0.000     | 0.000    | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3)    | 396         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3   | 38          | 310.000                | 95.000  | 195.447   | 310.000  | 230.750   | 195.000   | 160.000  | 99.750  |
| 00418   | ALKALINITY,DIS,F (MG/L AS CaCO3) | 2           | 316.000                | 299.000 | --        | --   | --        | --        | --       | --      |
| 39086   | ALKALINITY,DIS,I (MG/L AS CaCO3) | 2           | 320.000                | 303.000 | --        | --   | --        | --        | --       | --      |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3)  | 18          | 233.000                | 93.000  | 166.389   | 233.000  | 198.250   | 175.000   | 128.250  | 93.000  |

**Supplement 40.** Statistical summary of water-quality data for the Red River of the North at Drayton, N. Dak., gaging station 05092000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 95440  | BICARBONATE MG/L AS CaCO3       | 23          | 380.000                | 92.000  | 233.565 | 380.000  | 270.000 | 230.000   | 190.000 | 97.600  |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3) | 2           | 390.000                | 370.000 | --      | --   | --      | --        | --      | --      |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 18          | 280.000                | 110.000 | 201.667 | 280.000  | 242.500 | 210.000   | 155.000 | 110.000 |
| 95445  | CARBONATE MG/L AS CO3           | 23          | 15.000                 | 0.000   | 1.826   | 15.000   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)  | 2           | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 17          | 6.000                  | 0.000   | 0.471   | 6.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 56          | 160.000                | 4.800   | 45.579  | 143.000  | 53.250  | 30.500    | 21.250  | 6.140   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 55          | 0.400                  | 0.100   | 0.182   | 0.300  | 0.200   | 0.200     | 0.100   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2) | 44          | 16.000                 | 2.300   | 10.745  | 16.000   | 13.000  | 11.000    | 8.375   | 3.025   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 56          | 220.000                | 35.000  | 91.304  | 161.500  | 120.000 | 88.000    | 64.250  | 37.000  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)    | 1           | 0.230                  | --      | --      | --   | --      | --        | --      | --      |
| 00623  | NITRO AMN & ORG (MG/L AS N)     | 1           | 1.100                  | --      | --      | --   | --      | --        | --      | --      |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 396         | 0.300                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 396         | 1.900                  | 0.000   | 0.005   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 396         | 3.600                  | 0.000   | 0.032   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 396         | 16.000                 | 0.000   | 0.168   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)    | 1           | 0.770                  | --      | --      | --   | --      | --        | --      | --      |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00613  | NITROGEN,NITRITE MG/L AS N      | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 396         | 0.870                  | 0.000   | 0.002   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 396         | 0.570                  | 0.000   | 0.009   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)    | 1           | 0.110                  | --      | --      | --   | --      | --        | --      | --      |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)    | 5           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 00621  | NITROGEN NITRATE (MG/KG AS N)   | 396         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

**Supplement 40.** Statistical summary of water-quality data for the Red River of the North at Drayton, N. Dak., gaging station 05092000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|--------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                |             |                        |         |          |  |          |           |         |         |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 396         | 14.000                 | 0.000   | 0.453    | 3.315  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 1           | 9.100                  | --      | --       | --   | --       | --        | --      | --      |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 1           | 0.300                  | --      | --       | --   | --       | --        | --      | --      |
| 00690  | CARBON INORG + O (MG/L AS C)   | 396         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 396         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS         | 396         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS         | 396         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 1           | 250.000                | --      | --       | --   | --       | --        | --      | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)  | 38          | 8.000                  | --      | *3.531   | *8.000   | *5.000   | *3.000    | *2.000  | *1.000  |
| 01005  | BARIUM DISSOLVED (UG/L AS BA)  | 1           | 86.000                 | --      | --       | --   | --       | --        | --      | --      |
| 01010  | BERYLLIUM DISSOL (UG/L AS BE)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 44          | 1100.000               | --      | *133.265 | *452.500   | *150.000 | *85.000   | *60.000 | *22.439 |
| 01025  | CADMIUM DISSOLVE (UG/L AS CD)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01030  | CHROMIUM DISSOLV (UG/L AS CR)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01035  | COBALT DISSOLVED (UG/L AS CO)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01040  | COPPER DISSOLVED (UG/L AS CU)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 55          | 820.000                | 10.000  | 79.636   | 322.000  | 90.000   | 40.000    | 20.000  | 10.000  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)    | 38          | 10.000                 | --      | *0.656   | *4.300   | *0.612   | *0.148    | *0.043  | *0.007  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)  | 38          | 70.000                 | 1.000   | 29.474   | 51.000   | 40.000   | 30.000    | 20.000  | 9.550   |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 55          | 100.000                | --      | *18.498  | *54.000  | *20.000  | *10.000   | *6.661  | *2.810  |
| 71890  | MERCURY DISSOLVE UG/L AS HG    | 38          | 0.600                  | --      | *0.147   | *0.600   | *0.200   | *0.086    | *0.033  | *0.010  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO)  | 38          | 4.000                  | --      | *1.469   | *4.000   | *2.000   | *1.000    | *0.679  | *0.329  |
| 01065  | NICKEL DISSOLVED (UG/L AS NI)  | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)  | 38          | 3.000                  | --      | *0.521   | *3.000   | *0.614   | *0.295    | *0.140  | *0.046  |
| 01075  | SILVER DISSOLVED (UG/L AS AG)  | 1           | 1.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01080  | STRONTIUM DISSOL (UG/L AS SR)  | 38          | 700.000                | 1.000   | 273.263  | 500.500  | 330.750  | 265.000   | 210.000 | 104.550 |
| 01085  | VANADIUM DISSOLV (UG/L AS V)   | 1           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01090  | ZINC DISSOLVED (UG/L AS ZN)    | 1           | 9.000                  | --      | --       | --   | --       | --        | --      | --      |
| 82082  | HYDROGEN 2 / 1 R RATIO PER MIL | 1           | -74.000                | --      | --       | --   | --       | --        | --      | --      |

**Supplement 40.** Statistical summary of water-quality data for the Red River of the North at Drayton, N. Dak., gaging station 05092000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|--------------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                                |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                |             |                        |         |      |  |    |           |    |    |
| 07060  | IRON 59 DISSOLVE (PCI/L)       | 2           | 2.000                  | 1.000   | --   | --   | -- | --        | -- | -- |
| 82085  | OXYGEN 18 / 16 R RATIO PER MIL | 1           | -9.000                 | --      | --   | --   | -- | --        | -- | -- |
| 07000  | TRITIUM TOTAL (PCI/L)          | 1           | 56.000                 | --      | --   | --   | -- | --        | -- | -- |
| 75985  | TRITIUM PREC EST PCI/L         | 1           | 5.800                  | --      | --   | --   | -- | --        | -- | -- |
| 80156  | SUS-SED DISCH + T/DAY          | 396         | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 80155  | DISCHARGE,SUSP.S T/DAY         | 396         | 0.000                  | --      | --   | --   | -- | --        | -- | -- |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 41.** Statistical summary of water-quality data for the Pembina River at Neche, N. Dak., gaging station 05100000, October 1971 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001</b> |                                 |             |                        |         |          |  |         |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 1           | 2.620                  | --      | --       | --   | --      | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 29          | 2050.000               | 2.700   | 432.121  | 1940.000   | 770.000 | 107.000   | 40.000  | 6.000   |
| 00061   | DISCHARGE, INST. CFS            | 291         | 19000.000              | 0.040   | 1208.822 | 6562.000   | 816.000 | 108.000   | 19.000  | 2.320   |
| 00540   | RESIDUE FIXED (MG/L)            | 320         | 0.000                  | --      | --       | --   | --      | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 320         | 205.000                | 0.000   | 0.748    | 0.790  | 0.000   | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 320         | 6950.000               | 0.000   | 149.520  | 660.901  | 0.000   | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 54          | 763.000                | 194.000 | 469.574  | 639.250  | 584.000 | 519.000   | 363.750 | 213.250 |
| 70301   | DISSOLVED SOLIDS MG/L           | 320         | 761.000                | 0.000   | 76.328   | 562.800  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00025   | AIR PRESSURE (MM OF HG)         | 1           | 745.000                | --      | --       | --   | --      | --        | --      | --      |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 1           | 12.400                 | --      | --       | --   | --      | --        | --      | --      |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 320         | 92.000                 | 0.000   | 0.287    | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 54          | 8.700                  | 6.700   | 8.035    | 8.500  | 8.325   | 8.100     | 7.800   | 7.400   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 30          | 8.500                  | 6.400   | 7.937    | 8.500  | 8.200   | 8.050     | 7.775   | 6.620   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 17          | 1100.000               | 374.000 | 720.824  | 1100.000   | 864.500 | 802.000   | 553.000 | 374.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 18          | 910.000                | 374.000 | 675.778  | 910.000  | 840.750 | 721.000   | 528.750 | 374.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 281         | 1700.000               | 250.000 | 780.918  | 1150.000   | 941.500 | 820.000   | 583.500 | 355.300 |
| 00020   | AIR TEMPERATURE DEGREES C       | 181         | 33.000                 | -28.000 | 9.912    | 26.000   | 20.000  | 10.000    | 2.000   | -13.850 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 314         | 28.000                 | 0.000   | 9.624    | 24.000   | 17.625  | 7.750     | 0.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 320         | 0.000                  | --      | --       | --   | --      | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 320         | 0.000                  | --      | --       | --   | --      | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 320         | 130.000                | 0.000   | 4.584    | 35.600   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 320         | 95.000                 | 0.000   | 0.622    | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 320         | 570.000                | 0.000   | 48.056   | 360.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 54          | 140.000                | 26.000  | 69.148   | 102.500  | 90.000  | 70.000    | 50.500  | 32.250  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 54          | 53.000                 | 8.000   | 27.046   | 40.500   | 36.000  | 29.500    | 19.500  | 9.625   |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 54          | 13.000                 | 3.200   | 8.402    | 12.250   | 10.250  | 8.400     | 6.200   | 3.825   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 320         | 1.000                  | 0.000   | 0.160    | 1.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 54          | 59.000                 | 19.000  | 39.815   | 55.000   | 49.000  | 42.000    | 28.750  | 19.750  |
| 00932   | SODIUM, PERCENT PERCENT         | 320         | 34.000                 | 0.000   | 3.925    | 24.000   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 320         | 0.000                  | --      | --       | --   | --      | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 38          | 350.000                | 97.000  | 207.737  | 302.500  | 265.500 | 222.000   | 138.500 | 99.850  |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 17          | 278.000                | 88.000  | 191.471  | 278.000  | 262.000 | 181.000   | 124.000 | 88.000  |
| 95440   | BICARBONATE MG/L AS CaCO3       | 23          | 420.000                | 120.000 | 253.043  | 408.000  | 320.000 | 290.000   | 160.000 | 120.000 |
| 00440   | ANC HCO3 FET FIE (MG/L AS HCO3) | 17          | 340.000                | 110.000 | 229.412  | 340.000  | 320.000 | 210.000   | 150.000 | 110.000 |
| 95445   | CARBONATE MG/L AS CO3           | 23          | 10.000                 | 0.000   | 0.783    | 9.200  | 0.000   | 0.000     | 0.000   | 0.000   |

**Supplement 41.** Statistical summary of water-quality data for the Pembina River at Neche, N. Dak., gaging station 05100000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                 |             |                        |         |          |  |          |           |         |         |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 17          | 13.000                 | 0.000   | 1.824    | 13.000   | 0.000    | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 54          | 34.000                 | 3.400   | 14.196   | 28.750   | 18.000   | 14.500    | 8.025   | 5.350   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 54          | 0.600                  | 0.100   | 0.235    | 0.400  | 0.300    | 0.200     | 0.200   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SIO2) | 43          | 32.000                 | 0.300   | 19.409   | 29.800   | 24.000   | 19.000    | 16.000  | 5.920   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 54          | 250.000                | 56.000  | 154.167  | 210.000  | 190.000  | 160.000   | 110.000 | 62.250  |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 320         | 1.700                  | 0.000   | 0.027    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 320         | 7.600                  | 0.000   | 0.132    | 0.995  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 320         | 1.200                  | 0.000   | 0.016    | 0.000  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)     | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)    | 5           | 0.200                  | 0.003   | --       | --   | --       | --        | --      | --      |
| 00621  | NITROGEN NITRATE (MG/KG AS N)   | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2)  | 320         | 41.000                 | 0.000   | 0.766    | 4.780  | 0.000    | 0.000     | 0.000   | 0.000   |
| 00690  | CARBON INORG + O (MG/L AS C)    | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)   | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70950  | BIO CHL RATIO PE UNITS          | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 70949  | BIO CHL RATIO PL UNITS          | 320         | 0.000                  | --      | --       | --   | --       | --        | --      | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)   | 35          | 12.000                 | --      | *3.681   | *8.000   | *5.000   | *3.000    | *2.000  | *0.962  |
| 01020  | BORON DISSOLVED (UG/L AS B)     | 42          | 550.000                | --      | *125.263 | *360.500   | *160.000 | *100.000  | *60.000 | *28.025 |
| 01046  | IRON DISSOLVED (UG/L AS FE)     | 54          | 410.000                | 10.000  | 74.074   | 260.000  | 100.000  | 40.000    | 20.000  | 10.000  |
| 01049  | LEAD DISSOLVED (UG/L AS PB)     | 36          | 3.000                  | --      | *0.600   | *3.000   | *0.919   | *0.344    | *0.162  | *0.055  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)   | 36          | 85.000                 | 16.000  | 50.722   | 80.750   | 63.750   | 57.500    | 32.250  | 19.400  |

**Supplement 41.** Statistical summary of water-quality data for the Pembina River at Neche, N. Dak., gaging station 05100000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                               |             |                        |         |         |  |         |           |         |         |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 54          | 780.000                | 10.000  | 128.148 | 482.500  | 160.000 | 80.000    | 30.000  | 10.000  |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 36          | 0.800                  | --      | *0.153  | *0.715   | *0.200  | *0.100    | *0.042  | *0.015  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 34          | 13.000                 | 1.000   | 4.353   | 11.500   | 5.250   | 4.000     | 2.000   | 1.000   |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 36          | 4.000                  | --      | *1.131  | *3.150   | *1.000  | *1.000    | *0.597  | *0.325  |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 36          | 680.000                | 130.000 | 372.778 | 671.500  | 450.000 | 370.000   | 265.000 | 155.500 |
| 07060  | IRON 59 DISSOLVE (PCI/L)      | 2           | 5.000                  | 1.000   | --      | --   | --      | --        | --      | --      |
| 80156  | SUS-SED DISCH + T/DAY         | 320         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY        | 320         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 42.** Statistical summary of water-quality data for the Tongue River at Akra, N. Dak., gaging station 05101000, October 1971 through April 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|---|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|   |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 00065   | GAGE HEIGHT (FEET)              | 1           | 8.250                  | --      | --      | --   | --      | --        | --      | --      |
| 00060   | DISCHARGE CFS                   | 28          | 242.000                | 0.210   | 33.664  | 230.750  | 22.750  | 4.150     | 2.875   | 0.304   |
| 00061   | DISCHARGE, INST. CFS            | 234         | 663.000                | 0.020   | 60.127  | 462.250  | 25.500  | 7.200     | 2.350   | 0.148   |
| 00080   | COLOR PLATINUM-COBAL            | 7           | 30.000                 | 15.000  | 20.714  | 30.000   | 25.000  | 20.000    | 15.000  | 15.000  |
| 00540   | RESIDUE FIXED (MG/L)            | 262         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 262         | 255.000                | 0.000   | 1.118   | 0.579  | 0.420   | 0.000     | 0.000   | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 262         | 349.000                | 0.000   | 13.424  | 83.680   | 1.345   | 0.000     | 0.000   | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 78          | 515.000                | 172.000 | 356.897 | 482.000  | 407.250 | 360.000   | 315.750 | 221.600 |
| 70301   | DISSOLVED SOLIDS MG/L           | 262         | 505.000                | 0.000   | 102.649 | 395.550  | 292.750 | 0.000     | 0.000   | 0.000   |
| 00076   | TURBIDITY (NTU)                 | 7           | 6.000                  | 1.100   | 3.929   | 6.000  | 5.500   | 4.800     | 1.700   | 1.100   |
| 00025   | AIR PRESSURE (MM OF HG)         | 1           | 739.000                | --      | --      | --   | --      | --        | --      | --      |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 8           | 13.200                 | 6.500   | 9.650   | 13.200   | 11.425  | 9.800     | 7.650   | 6.500   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 262         | 111.000                | 0.000   | 2.817   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 83          | 8.800                  | 6.400   | 8.004   | 8.600  | 8.300   | 8.000     | 7.800   | 7.320   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 26          | 8.600                  | 6.600   | 7.835   | 8.565  | 8.100   | 7.950     | 7.600   | 6.775   |
| 00094   | FIELD CONDUCTIVI US/CM @ 25C    | 18          | 779.000                | 264.000 | 543.444 | 779.000  | 613.000 | 555.500   | 473.750 | 264.000 |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 19          | 654.000                | 305.000 | 556.421 | 654.000  | 636.000 | 584.000   | 484.000 | 305.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 245         | 1490.000               | 235.000 | 581.567 | 800.000  | 652.000 | 570.000   | 512.500 | 326.500 |
| 00020   | AIR TEMPERATURE DEGREES C       | 127         | 34.000                 | -13.000 | 12.122  | 26.300   | 20.500  | 14.000    | 3.000   | -5.800  |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 259         | 27.500                 | -0.500  | 10.225  | 24.000   | 18.500  | 8.500     | 2.500   | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 262         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 262         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 262         | 82.000                 | 0.000   | 6.405   | 49.850   | 0.000   | 0.000     | 0.000   | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 262         | 36.000                 | 0.000   | 0.393   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 262         | 350.000                | 0.000   | 71.374  | 280.000  | 190.000 | 0.000     | 0.000   | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 79          | 98.000                 | 28.000  | 62.899  | 89.000   | 72.000  | 63.000    | 55.000  | 35.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 79          | 35.000                 | 6.700   | 19.225  | 30.000   | 22.000  | 20.000    | 16.000  | 9.100   |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 79          | 12.000                 | 2.800   | 5.999   | 8.100  | 6.800   | 6.000     | 5.100   | 3.900   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 262         | 1.000                  | 0.000   | 0.222   | 0.800  | 0.600   | 0.000     | 0.000   | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 9           | 35.000                 | 21.000  | 28.444  | 35.000   | 30.500  | 30.000    | 25.000  | 21.000  |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 79          | 37.000                 | 11.000  | 25.747  | 35.000   | 29.000  | 26.000    | 22.000  | 16.000  |
| 00932   | SODIUM, PERCENT PERCENT         | 262         | 25.000                 | 0.000   | 5.695   | 21.850   | 17.000  | 0.000     | 0.000   | 0.000   |
| 00435   | ACIDITY TOTAL (MG/L AS CaCO3    | 262         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 90410   | ANC, TIT. 4.5, L MG/L AS CaCO3  | 37          | 300.000                | 100.000 | 190.541 | 300.000  | 226.500 | 200.000   | 143.000 | 100.000 |
| 00410   | ANC, FET, FIELD (MG/L AS CaCO3  | 42          | 309.000                | 80.000  | 199.810 | 301.950  | 245.000 | 190.500   | 162.750 | 93.150  |

**Supplement 42.** Statistical summary of water-quality data for the Tongue River at Akra, N. Dak., gaging station 05101000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|---------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                                 |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                 |             |                        |         |         |  |         |           |         |         |
| 95440  | BICARBONATE MG/L AS CaCO3       | 20          | 360.000                | 120.000 | 233.500 | 360.000  | 267.500 | 240.000   | 180.000 | 121.000 |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3) | 34          | 380.000                | 97.000  | 240.500 | 372.500  | 310.000 | 230.000   | 197.500 | 106.750 |
| 95445  | CARBONATE MG/L AS CO3           | 20          | 9.000                  | 0.000   | 0.750   | 8.850  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)  | 34          | 6.000                  | 0.000   | 0.176   | 1.500  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 79          | 40.000                 | 2.200   | 10.284  | 14.000   | 12.000  | 9.700     | 7.800   | 5.600   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 79          | 92.000                 | 0.100   | 1.438   | 0.500  | 0.300   | 0.300     | 0.200   | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2) | 67          | 25.000                 | 0.600   | 13.157  | 24.000   | 17.000  | 14.000    | 11.000  | 2.180   |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 79          | 140.000                | 5.600   | 84.413  | 110.000  | 97.000  | 87.000    | 72.000  | 46.000  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)    | 8           | 0.330                  | 0.020   | 0.155   | 0.330  | 0.270   | 0.145     | 0.050   | 0.020   |
| 00623  | NITRO AMN & ORG (MG/L AS N)     | 8           | 1.300                  | 0.300   | 0.914   | 1.300  | 1.175   | 0.925     | 0.760   | 0.300   |
| 00624  | NITROGEN SUSPEND (MG/L AS N)    | 8           | 0.700                  | 0.050   | 0.282   | 0.700  | 0.465   | 0.225     | 0.110   | 0.050   |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)    | 8           | 1.800                  | 0.820   | 1.196   | 1.800  | 1.400   | 1.200     | 0.873   | 0.820   |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4    | 262         | 0.430                  | 0.000   | 0.006   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00610  | NITROGEN AMMONIA (MG/L AS N)    | 8           | 0.360                  | 0.030   | 0.186   | 0.360  | 0.335   | 0.175     | 0.058   | 0.030   |
| 71845  | NITROGEN, NH4, T MG/L AS NH4    | 262         | 0.440                  | 0.000   | 0.007   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00602  | NITROGEN DISSOLV (MG/L AS N)    | 262         | 1.500                  | 0.000   | 0.031   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00618  | NITROGEN NITRATE (MG/L AS N)    | 262         | 2.300                  | 0.000   | 0.065   | 0.544  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3    | 262         | 10.000                 | 0.000   | 0.329   | 2.500  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N      | 262         | 0.300                  | 0.000   | 0.003   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)    | 8           | 0.340                  | --      | *0.117  | *0.340   | *0.257  | *0.075    | *0.006  | *0.002  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)     | 260         | 0.400                  | 0.000   | 0.004   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2    | 262         | 0.200                  | 0.000   | 0.002   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N      | 8           | 0.060                  | --      | *0.018  | *0.060   | *0.040  | *0.010    | *0.002  | *0.001  |
| 00615  | NITROGEN,NITRITE MG/L AS N      | 8           | 0.060                  | --      | *0.025  | *0.060   | *0.052  | *0.015    | *0.006  | *0.002  |
| 00607  | NITROGEN ORGANIC (MG/L AS N)    | 262         | 1.000                  | 0.000   | 0.023   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)    | 262         | 1.700                  | 0.000   | 0.031   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00600  | NITROGEN TOTAL (MG/L AS N)      | 262         | 2.000                  | 0.000   | 0.040   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 71887  | NITROGEN, TOTAL MG/L AS NO3     | 262         | 8.600                  | 0.000   | 0.179   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4)  | 262         | 0.980                  | 0.000   | 0.025   | 0.206  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)   | 262         | 0.490                  | 0.000   | 0.006   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)    | 8           | 0.200                  | 0.010   | 0.075   | 0.200  | 0.088   | 0.070     | 0.030   | 0.010   |
| 00678  | PHOSPHORUS HYDRO (MG/L AS P)    | 6           | 0.240                  | 0.040   | 0.107   | 0.240  | 0.150   | 0.095     | 0.047   | 0.040   |
| 00677  | PHOSPHORUS HYDRO (MG/L AS P)    | 6           | 0.220                  | --      | *0.074  | *0.220   | *0.108  | *0.050    | *0.033  | *0.014  |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)    | 262         | 0.150                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)    | 262         | 0.160                  | 0.000   | 0.001   | 0.000  | 0.000   | 0.000     | 0.000   | 0.000   |

**Supplement 42.** Statistical summary of water-quality data for the Tongue River at Akra, N. Dak., gaging station 05101000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |           | Percentage of samples in which values were less than or equal to those shown |            |           |          |         |
|--|--------------------------------|-------------|------------------------|---------|-----------|--|------------|-----------|----------|---------|
|  |                                |             | Maximum                | Minimum | Mean      | 95   | 75         | Median 50 | 25       | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                                |             |                        |         |           |  |            |           |          |         |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 262         | 0.040                  | 0.000   | 0.000     | 0.000  | 0.000      | 0.000     | 0.000    | 0.000   |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 262         | 0.190                  | 0.000   | 0.001     | 0.000  | 0.000      | 0.000     | 0.000    | 0.000   |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 20          | 0.160                  | --      | *0.061    | *0.158   | *0.080     | *0.060    | *0.032   | *0.016  |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 8           | 0.160                  | 0.010   | 0.062     | 0.160  | 0.080      | 0.050     | 0.032    | 0.010   |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 8           | 0.430                  | 0.040   | 0.144     | 0.430  | 0.170      | 0.110     | 0.065    | 0.040   |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 8           | 1.300                  | 0.120   | 0.439     | 1.300  | 0.520      | 0.340     | 0.198    | 0.120   |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 262         | 0.000                  | --      | --        | --   | --         | --        | --       | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 262         | 115.000                | 0.000   | 2.189     | 8.085  | 1.350      | 0.000     | 0.000    | 0.000   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 8           | 150.000                | 8.000   | 31.450    | 150.000  | 23.000     | 16.000    | 8.500    | 8.000   |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 8           | 1.100                  | 0.300   | 0.625     | 1.100  | 0.800      | 0.650     | 0.325    | 0.300   |
| 00690  | CARBON INORG + O (MG/L AS C)   | 262         | 0.000                  | --      | --        | --   | --         | --        | --       | --      |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 262         | 0.000                  | --      | --        | --   | --         | --        | --       | --      |
| 00572  | BIOMASS, PERIPHY (G/SQ M)      | 5           | 17.700                 | 0.709   | --        | --   | --         | --        | --       | --      |
| 00573  | BIOMASS PERIPHYT (G/SQ M)      | 5           | 22.400                 | 0.945   | --        | --   | --         | --        | --       | --      |
| 70950  | BIO CHL RATIO PE UNITS         | 262         | 215.000                | 0.000   | 3.046     | 0.000  | 0.000      | 0.000     | 0.000    | 0.000   |
| 70949  | BIO CHL RATIO PL UNITS         | 262         | 0.000                  | --      | --        | --   | --         | --        | --       | --      |
| 60050  | PHYTO TYPE-I CELLS/ML          | 8           | 260000.000             | 900.000 | 57012.500 | 260000.000   | 131250.000 | 3550.000  | 1425.000 | 900.000 |
| 31501  | TOT COLI,MENDO M COLS./100 ML  | 8           | 28000.000              | 64.000  | 7602.125  | 28000.000  | 13250.000  | 4650.000  | 154.750  | 64.000  |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 8           | 720.000                | --      | *110.309  | *720.000   | *71.250    | *16.000   | *6.250   | *0.473  |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 8           | 580.000                | 3.000   | 144.625   | 580.000  | 215.000    | 65.500    | 19.250   | 3.000   |
| 70957  | CHL-A PR CH-FL M MG/M2         | 5           | 31.600                 | 1.100   | --        | --   | --         | --        | --       | --      |
| 70958  | CHL-B PR CH-FL M MG/M2         | 5           | 9.100                  | 0.600   | --        | --   | --         | --        | --       | --      |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS)  | 36          | 12.000                 | 1.000   | 4.583     | 11.150   | 7.000      | 3.000     | 2.000    | 1.000   |
| 01020  | BORON DISSOLVED (UG/L AS B)    | 67          | 350.000                | --      | *88.564   | *230.000   | *100.000   | *80.000   | *33.371  | *18.497 |
| 01046  | IRON DISSOLVED (UG/L AS FE)    | 78          | 1700.000               | --      | *76.352   | *243.000   | *80.000    | *30.000   | *20.000  | *4.634  |
| 01044  | IRON SUSPENDE (UG/L AS FE)     | 6           | 300.000                | 130.000 | 228.333   | 300.000  | 277.500    | 230.000   | 190.000  | 130.000 |
| 01045  | IRON TOTAL (UG/L AS FE)        | 7           | 330.000                | 140.000 | 240.000   | 330.000  | 290.000    | 220.000   | 210.000  | 140.000 |
| 01049  | LEAD DISSOLVED (UG/L AS PB)    | 36          | 6.000                  | --      | *0.806    | *2.600   | *1.000     | *0.539    | *0.302   | *0.130  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI)  | 36          | 45.000                 | 10.000  | 29.111    | 40.750   | 35.750     | 30.000    | 20.000   | 10.850  |
| 01056  | MANGANESE DISSOL (UG/L AS MN)  | 77          | 11000.000              | 7.000   | 756.325   | 2200.000   | 700.000    | 380.000   | 215.000  | 57.000  |
| 01054  | MANGANESE SUSPEN (UG/L AS MN)  | 7           | 180.000                | --      | *90.345   | *180.000   | *140.000   | *100.000  | *31.395  | *21.020 |
| 01055  | MANGANESE TOTAL (UG/L AS MN)   | 7           | 1800.000               | 250.000 | 902.857   | 1800.000   | 1400.000   | 720.000   | 390.000  | 250.000 |
| 71890  | MERCURY DISSOLVE UG/L AS HG    | 36          | 2.400                  | --      | *0.177    | *1.040   | *0.100     | *0.100    | *0.020   | *0.005  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO)  | 36          | 5.000                  | --      | *1.948    | *4.150   | *3.000     | *2.000    | *1.000   | *0.548  |
| 01145  | SELENIUM DISSOLV (UG/L AS SE)  | 36          | 2.000                  | --      | *0.865    | *2.000   | *1.000     | *0.754    | *0.544   | *0.323  |

**Supplement 42.** Statistical summary of water-quality data for the Tongue River at Akra, N. Dak., gaging station 05101000, October 1971 through April 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent       | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |         |         |
|--|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, October 1971 through April 2001--Continued</b> |                               |             |                        |         |         |  |         |           |         |         |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 36          | 460.000                | 82.000  | 283.389 | 443.000  | 340.000 | 290.000   | 242.500 | 105.800 |
| 07060  | IRON 59 DISSOLVE (PCI/L)      | 2           | 3.000                  | 1.000   | --      | --   | --      | --        | --      | --      |
| 80156  | SUS-SED DISCH + T/DAY         | 262         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |
| 80155  | DISCHARGE,SUSP.S T/DAY        | 262         | 0.000                  | --      | --      | --   | --      | --        | --      | --      |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |           |           |          |         |
|---|---------------------------------|-------------|------------------------|---------|----------|--|-----------|-----------|----------|---------|
|   |                                 |             | Maximum                | Minimum | Mean     | 95   | 75        | Median 50 | 25       | 5       |
| <b>North Dakota data, July 1974 through July 2001</b> |                                 |             |                        |         |          |  |           |           |          |         |
| 00065   | GAGE HEIGHT (FEET)              | 5           | 18.680                 | 5.380   | --       | --   | --        | --        | --       | --      |
| 00060   | DISCHARGE CFS                   | 67          | 62800.000              | 229.000 | 8256.940 | 30479.996  | 12300.000 | 3330.000  | 1410.000 | 536.600 |
| 00061   | DISCHARGE, INST. CFS            | 105         | 62800.000              | 170.000 | 4989.076 | 25500.000  | 3680.000  | 1600.000  | 915.500  | 300.200 |
| 00080   | COLOR PLATINUM-COBAL            | 2           | 50.000                 | 33.000  | --       | --   | --        | --        | --       | --      |
| 00540   | RESIDUE FIXED (MG/L)            | 182         | 0.000                  | --      | --       | --   | --        | --        | --       | --      |
| 00515   | RESIDUE DISSOLVE (MG/L)         | 1           | 394.000                | --      | --       | --   | --        | --        | --       | --      |
| 70303   | RESIDUE DIS TON/ T/AC-FT        | 182         | 1.500                  | 0.000   | 0.489    | 0.949  | 0.660     | 0.560     | 0.387    | 0.000   |
| 70302   | DISSOLVED SOLIDS TONS/DAY       | 182         | 46100.000              | 0.000   | 3839.670 | 20685.000  | 3562.500  | 1375.000  | 0.000    | 0.000   |
| 70300   | RESIDUE DIS 180C MG/L           | 144         | 1100.000               | 245.000 | 457.556  | 729.750  | 503.750   | 438.000   | 373.500  | 287.500 |
| 70301   | DISSOLVED SOLIDS MG/L           | 182         | 1060.000               | 0.000   | 341.962  | 683.400  | 459.750   | 380.500   | 263.250  | 0.000   |
| 00077   | TRANSPARENCY (IN (INCHES)       | 1           | --                     | --      | --       | --   | --        | --        | --       | --      |
| 00070   | TURBIDITY (JCU)                 | 5           | 140.000                | 9.000   | --       | --   | --        | --        | --       | --      |
| 00076   | TURBIDITY (NTU)                 | 108         | 270.000                | 1.000   | 53.711   | 160.000  | 86.250    | 39.000    | 6.150    | 3.445   |
| 61028   | TURBIDITY, FIELD (NTU)          | 1           | 440.000                | --      | --       | --   | --        | --        | --       | --      |
| 00025   | AIR PRESSURE (MM OF HG)         | 116         | 788.000                | 665.000 | 746.543  | 780.000  | 753.750   | 744.500   | 738.000  | 729.550 |
| 00300   | OXYGEN DISSOLVED (MG/L)         | 151         | 18.200                 | 1.300   | 9.639    | 14.480   | 11.400    | 9.600     | 7.800    | 5.360   |
| 00301   | OXYGEN DIS. PERC % OF SATURATIO | 182         | 130.000                | 0.000   | 61.901   | 103.850  | 92.000    | 82.000    | 0.000    | 0.000   |
| 00400   | PH, WH, FIELD (STANDARD UNIT    | 158         | 8.900                  | 7.200   | 8.077    | 8.700  | 8.400     | 8.100     | 7.800    | 7.500   |
| 00403   | PH, WH, LABORATO (STANDARD UNIT | 104         | 8.600                  | 7.300   | 8.037    | 8.500  | 8.200     | 8.000     | 7.800    | 7.700   |
| 90095   | SPECIFIC CONDUCT MICROSIEMENS/C | 109         | 1780.000               | 413.000 | 751.569  | 1180.000   | 846.500   | 706.000   | 613.000  | 464.000 |
| 00095   | SPECIFIC CONDUCT US/CM @ 25C    | 171         | 1810.000               | 76.000  | 721.918  | 1184.000   | 811.000   | 690.000   | 585.000  | 410.000 |
| 00020   | AIR TEMPERATURE DEGREES C       | 119         | 34.000                 | -22.000 | 9.373    | 29.000   | 19.500    | 10.000    | 0.500    | -15.000 |
| 00010   | WATER TEMPERATUR (DEGREES C)    | 172         | 29.000                 | 0.000   | 9.963    | 25.500   | 18.500    | 9.000     | 0.500    | 0.000   |
| 00904   | HARDNESS NC. DIS (MG/L AS CaCO3 | 182         | 180.000                | 0.000   | 22.313   | 110.000  | 30.250    | 0.000     | 0.000    | 0.000   |
| 00905   | HARDNESS NC. DIS (MG/L AS CaCO3 | 182         | 0.000                  | --      | --       | --   | --        | --        | --       | --      |
| 00902   | NONCARBONATE HAR (MG/L AS CaCO3 | 182         | 150.000                | 0.000   | 14.258   | 79.550   | 0.000     | 0.000     | 0.000    | 0.000   |
| 00903   | NONCARBONATE HAR (MG/L AS CaCO3 | 182         | 140.000                | 0.000   | 7.280    | 69.100   | 0.000     | 0.000     | 0.000    | 0.000   |
| 00900   | HARDNESS TOTAL (MG/L AS CaO3)   | 182         | 500.000                | 0.000   | 222.363  | 370.000  | 310.000   | 270.000   | 187.500  | 0.000   |
| 00915   | CALCIUM DISSOLVE (MG/L AS Ca)   | 143         | 110.000                | 36.000  | 63.649   | 82.800   | 70.000    | 63.000    | 57.000   | 46.000  |
| 00925   | MAGNESIUM DISSOL (MG/L AS Mg)   | 143         | 54.000                 | 16.000  | 30.136   | 43.000   | 34.000    | 30.000    | 26.000   | 18.000  |
| 00935   | POTASSIUM DISSOL (MG/L AS K)    | 143         | 17.000                 | 3.800   | 7.062    | 10.980   | 8.300     | 6.700     | 5.500    | 4.300   |
| 00931   | SODIUM ADSORPTIO (RATIO)        | 182         | 4.000                  | 0.000   | 0.881    | 2.000  | 1.000     | 0.800     | 0.400    | 0.000   |
| 00933   | SODIUM+POTASSIUM (MG/L AS Na)   | 29          | 200.000                | 9.200   | 61.007   | 190.000  | 81.000    | 41.000    | 32.000   | 17.100  |
| 00930   | SODIUM DISSOLVED (MG/L AS Na)   | 143         | 190.000                | 7.500   | 44.297   | 110.000  | 50.000    | 34.000    | 28.000   | 14.200  |
| 00932   | SODIUM, PERCENT PERCENT         | 182         | 48.000                 | 0.000   | 18.280   | 39.700   | 25.000    | 19.000    | 13.000   | 0.000   |

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent          | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |          |           |          |         |
|--|----------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|----------|---------|
|  |                                  |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25       | 5       |
| <b>North Dakota data, July 1974 through July 2001--Continued</b> |                                  |             |                        |         |          |  |          |           |          |         |
| 00435  | ACIDITY TOTAL (MG/L AS CaCO3)    | 182         | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 99430  | ANC, CARB, IT, F MG/L            | 6           | 253.000                | 27.000  | 192.500  | 253.000  | 250.750  | 222.000   | 142.500  | 27.000  |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3   | 106         | 360.000                | 124.000 | 218.349  | 308.950  | 242.500  | 217.000   | 188.500  | 144.000 |
| 00418  | ALKALINITY,DIS,F (MG/L AS CaCO3) | 25          | 324.000                | 151.000 | 225.920  | 323.400  | 266.000  | 223.000   | 180.000  | 153.100 |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3) | 50          | 326.000                | 112.000 | 216.100  | 315.200  | 252.750  | 214.500   | 180.000  | 128.550 |
| 00410  | ANC, FET, FIELD (MG/L AS CaCO3)  | 61          | 369.000                | 19.000  | 210.344  | 288.000  | 240.000  | 210.000   | 180.000  | 121.000 |
| 00417  | ANC, FET, LAB (MG/L AS CaCO3)    | 1           | 235.000                | --      | --       | --   | --       | --        | --       | --      |
| 00419  | ANC, IT, FIELD (MG/L AS CaCO3)   | 17          | 370.000                | --      | *211.044 | *370.000   | *256.500 | *226.000  | *186.000 | *19.000 |
| 99440  | BICARBONATE MG/L AS HCO3         | 6           | 308.000                | 33.000  | 234.833  | 308.000  | 305.750  | 271.000   | 174.000  | 33.000  |
| 95440  | BICARBONATE MG/L AS CaCO3        | 1           | 200.000                | --      | --       | --   | --       | --        | --       | --      |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3)  | 50          | 398.000                | 136.000 | 258.200  | 373.250  | 308.000  | 254.500   | 219.250  | 156.100 |
| 00440  | ANC HCO3 FET FIE (MG/L AS HCO3)  | 9           | 350.000                | 34.000  | 246.000  | 350.000  | 320.000  | 260.000   | 190.000  | 34.000  |
| 00450  | ANC BICARB IT FI (MG/L AS HCO3)  | 17          | 416.000                | 166.000 | 259.000  | 416.000  | 303.000  | 240.000   | 217.000  | 166.000 |
| 99445  | CARBONATE MG/L AS CO3            | 5           | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 95445  | CARBONATE MG/L AS CO3            | 1           | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)   | 50          | 22.000                 | 0.000   | 2.680    | 17.000   | 1.250    | 0.000     | 0.000    | 0.000   |
| 00445  | ANC CARB FET FIE (MG/L AS CO3)   | 6           | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 00447  | ANC CARB IT FIEL (MG/L AS CO3)   | 16          | 48.000                 | 0.000   | 10.562   | 48.000   | 17.000   | 8.500     | 0.000    | 0.000   |
| 71830  | HYDROXIDE,WH,FET (MG/L AS OH)    | 1           | 0.000                  | --      | --       | --   | --       | --        | --       | --      |
| 71870  | BROMIDE DISSOLVE MG/L AS BR      | 1           | 0.090                  | --      | --       | --   | --       | --        | --       | --      |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)    | 144         | 240.000                | 9.800   | 50.387   | 147.500  | 61.750   | 34.500    | 24.250   | 12.250  |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)     | 143         | 0.600                  | 0.100   | 0.215    | 0.300  | 0.200    | 0.200     | 0.200    | 0.100   |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2)  | 142         | 38.000                 | 2.500   | 12.746   | 20.000   | 15.000   | 13.000    | 9.475    | 5.915   |
| 00945  | SULFATE DISSOLVED (MG/L AS SO4)  | 144         | 230.000                | 6.000   | 97.572   | 160.000  | 120.000  | 93.500    | 69.250   | 44.500  |
| 00608  | NITROGEN AMMONIA (MG/L AS N)     | 123         | 2.300                  | 0.010   | 0.129    | 0.332  | 0.160    | 0.080     | 0.030    | 0.010   |
| 00623  | NITRO AMN & ORG (MG/L AS N)      | 76          | 2.800                  | 0.030   | 0.982    | 1.600  | 1.175    | 0.970     | 0.723    | 0.506   |
| 00624  | NITROGEN SUSPEND (MG/L AS N)     | 43          | 11.000                 | --      | *0.566   | *0.954   | *0.500   | *0.300    | *0.100   | *0.030  |
| 00625  | NITROGEN AMM+ORG (MG/L AS N)     | 143         | 12.000                 | 0.200   | 1.320    | 2.080  | 1.500    | 1.200     | 0.910    | 0.760   |
| 71846  | NITR. NH4 AS NH4 MG/L AS NH4     | 182         | 3.000                  | 0.000   | 0.112    | 0.367  | 0.150    | 0.040     | 0.000    | 0.000   |
| 00610  | NITROGEN AMMONIA (MG/L AS N)     | 83          | 2.300                  | 0.010   | 0.136    | 0.330  | 0.160    | 0.070     | 0.030    | 0.010   |
| 71845  | NITROGEN, NH4, T MG/L AS NH4     | 182         | 2.800                  | 0.000   | 0.078    | 0.320  | 0.082    | 0.000     | 0.000    | 0.000   |
| 00602  | NITROGEN DISSOLV (MG/L AS N)     | 182         | 7.300                  | 0.000   | 0.551    | 2.470  | 1.000    | 0.000     | 0.000    | 0.000   |
| 00618  | NITROGEN NITRATE (MG/L AS N)     | 182         | 5.560                  | 0.000   | 0.207    | 1.133  | 0.000    | 0.000     | 0.000    | 0.000   |
| 71851  | NITR. NO3 AS NO3 MG/L AS NO3     | 182         | 24.600                 | 0.000   | 0.916    | 5.012  | 0.000    | 0.000     | 0.000    | 0.000   |
| 00620  | NITROGEN NITRATE MG/L AS N       | 182         | 0.860                  | 0.000   | 0.018    | 0.000  | 0.000    | 0.000     | 0.000    | 0.000   |

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent        | Sample size | Descriptive statistics |         |           | Percentage of samples in which values were less than or equal to those shown |           |           |          |         |
|--|--------------------------------|-------------|------------------------|---------|-----------|--|-----------|-----------|----------|---------|
|  |                                |             | Maximum                | Minimum | Mean      | 95   | 75        | Median 50 | 25       | 5       |
| <b>North Dakota data, July 1974 through July 2001--Continued</b> |                                |             |                        |         |           |  |           |           |          |         |
| 00631  | NO2 + NO3 DISSOL (MG/L AS N)   | 125         | 5.800                  | --      | *0.578    | *2.980   | *0.664    | *0.330    | *0.130   | *0.036  |
| 00630  | NO2 + NO3 TOTAL (MG/L AS N)    | 177         | 1.800                  | 0.000   | 0.114     | 0.800  | 0.100     | 0.000     | 0.000    | 0.000   |
| 71856  | NITR. NO2 AS NO2 MG/L AS NO2   | 182         | 0.789                  | 0.000   | 0.031     | 0.187  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00613  | NITROGEN,NITRITE MG/L AS N     | 76          | 0.240                  | --      | *0.024    | *0.152   | *0.020    | *0.005    | *0.002   | *0.000  |
| 00615  | NITROGEN,NITRITE MG/L AS N     | 13          | 0.210                  | --      | *0.039    | *0.210   | *0.030    | *0.020    | *0.004   | *0.001  |
| 00607  | NITROGEN ORGANIC (MG/L AS N)   | 182         | 1.700                  | 0.000   | 0.260     | 1.185  | 0.620     | 0.000     | 0.000    | 0.000   |
| 00605  | NITROGEN ORGANIC (MG/L AS N)   | 182         | 12.000                 | 0.000   | 0.924     | 1.785  | 1.300     | 0.925     | 0.630    | 0.000   |
| 00600  | NITROGEN TOTAL (MG/L AS N)     | 182         | 12.000                 | 0.000   | 1.353     | 3.985  | 1.800     | 1.400     | 0.000    | 0.000   |
| 71887  | NITROGEN, TOTAL MG/L AS NO3    | 182         | 53.000                 | 0.000   | 2.385     | 8.185  | 5.825     | 0.000     | 0.000    | 0.000   |
| 00660  | PHOSPHATE ORTHO. (MG/L AS PO4) | 182         | 1.070                  | 0.000   | 0.181     | 0.670  | 0.307     | 0.122     | 0.000    | 0.000   |
| 00650  | PHOSPHATE TOTAL (MG/L AS PO4)  | 182         | 1.320                  | 0.000   | 0.057     | 0.486  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00666  | PHOSPHORUS DISS. (MG/L AS P)   | 142         | 0.750                  | 0.010   | 0.128     | 0.290  | 0.170     | 0.110     | 0.060    | 0.030   |
| 00672  | PHOSPHORUS HYDRO (MG/L AS P)   | 182         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00669  | PHOSPHORUS HYDRO (MG/L AS P)   | 182         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00673  | PHOSPHORUS ORG. (MG/L AS P)    | 182         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00670  | PHOSPHORUS ORG.T (MG/L AS P)   | 182         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00671  | PHOSPHORUS ORTHO (MG/L AS P)   | 100         | 0.350                  | 0.010   | 0.108     | 0.269  | 0.140     | 0.095     | 0.050    | 0.030   |
| 70507  | PHOS ORTHO TOT A MG/L AS P     | 14          | 0.430                  | 0.050   | 0.182     | 0.430  | 0.273     | 0.150     | 0.100    | 0.050   |
| 00665  | PHOSPHORUS TOTAL (MG/L AS P)   | 145         | 0.880                  | 0.020   | 0.218     | 0.447  | 0.295     | 0.190     | 0.130    | 0.060   |
| 71886  | PHOSPHORUS TOT P MG/L AS PO4   | 46          | 2.700                  | 0.060   | 0.712     | 1.365  | 0.920     | 0.610     | 0.453    | 0.131   |
| 00621  | NITROGEN NITRATE (MG/KG AS N)  | 182         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00405  | CARBON DIOXIDE D (MG/L AS CO2) | 182         | 24.000                 | 0.000   | 3.411     | 11.850   | 4.725     | 2.000     | 0.650    | 0.000   |
| 00681  | CARBON ORGANIC D (MG/L AS C)   | 52          | 41.000                 | 8.700   | 13.142    | 24.450   | 14.000    | 12.000    | 11.000   | 8.895   |
| 00689  | CARBON ORGANIC P (MG/L AS C)   | 45          | 9.600                  | 0.300   | 1.822     | 7.190  | 2.250     | 1.300     | 0.800    | 0.400   |
| 00680  | CARBON ORGANIC T (MG/L AS C)   | 16          | 35.000                 | 7.400   | 16.837    | 35.000   | 18.500    | 15.500    | 13.000   | 7.400   |
| 00690  | CARBON INORG + O (MG/L AS C)   | 182         | 20.000                 | 0.000   | 0.110     | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 00687  | CARBON ORG. BOT. (GM/KG AS C)  | 182         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 00572  | BIOMASS, PERIPHY (G/SQ M)      | 10          | 10.600                 | 0.000   | 2.744     | 10.600   | 5.665     | 0.630     | 0.120    | 0.000   |
| 00573  | BIOMASS PERIPHYT (G/SQ M)      | 10          | 12.000                 | 0.000   | 3.083     | 12.000   | 6.162     | 0.748     | 0.200    | 0.000   |
| 70950  | BIO CHL RATIO PE UNITS         | 182         | 449.000                | 0.000   | 9.505     | 0.000  | 0.000     | 0.000     | 0.000    | 0.000   |
| 70949  | BIO CHL RATIO PL UNITS         | 182         | 0.000                  | --      | --        | --   | --        | --        | --       | --      |
| 60050  | PHYTO TYPE-I CELLS/ML          | 25          | 71000.000              | 0.000   | 10434.800 | 57200.035  | 15000.000 | 6300.000  | 2300.000 | 141.000 |
| 31501  | TOT COLI,MENDO M COLS./100 ML  | 1           | 100.000                | --      | --        | --   | --        | --        | --       | --      |
| 31625  | COLIFORM FECAL 0 COLS./100 ML  | 101         | 1000.000               | --      | *68.230   | *288.000   | *54.500   | *18.000   | *7.000   | *1.306  |
| 31673  | FECAL STREP,KF M COLS./100 ML  | 100         | 3800.000               | 2.000   | 293.140   | 1795.000   | 215.000   | 65.000    | 22.250   | 7.050   |

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001--Continued

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|--|-------------------------------|-------------|------------------------|---------|----------|--|----------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean     | 95   | 75       | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1974 through July 2001--Continued</b> |                               |             |                        |         |          |  |          |           |         |         |
| 70957  | CHL-A PR CH-FL M MG/M2        | 10          | 8.500                  | 0.000   | 2.180    | 8.500  | 5.200    | 0.350     | 0.075   | 0.000   |
| 32230  | CHLORO-A-PHY-SUC UG/L         | 1           | 20.000                 | --      | --       | --   | --       | --        | --      | --      |
| 70958  | CHL-B PR CH-FL M MG/M2        | 10          | 0.500                  | 0.000   | 0.070    | 0.500  | 0.100    | 0.000     | 0.000   | 0.000   |
| 01106  | ALUMINUM DISSOLV (UG/L AS AL) | 42          | 420.000                | --      | *33.074  | *97.000  | *30.000  | *20.000   | *7.111  | *2.347  |
| 01000  | ARSENIC DISSOLVE (UG/L AS AS) | 52          | 11.000                 | --      | *3.330   | *6.000   | *4.000   | *3.000    | *2.000  | *1.000  |
| 01001  | ARSENIC SUSPENDE (UG/L AS AS) | 16          | 5.000                  | --      | *1.404   | *5.000   | *2.000   | *1.000    | *0.602  | *0.309  |
| 01002  | ARSENIC TOTAL (UG/L AS AS)    | 20          | 9.000                  | 1.000   | 4.200    | 8.900  | 5.750    | 4.000     | 2.250   | 1.050   |
| 01005  | BARIUM DISSOLVED (UG/L AS BA) | 63          | 240.000                | --      | *82.033  | *208.000   | *90.000  | *68.000   | *57.000 | *42.370 |
| 01006  | BARIUM SUSPENDE (UG/L AS BA)  | 18          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01007  | BARIUM TOTAL (UG/L AS BA)     | 20          | 300.000                | --      | *110.190 | *295.000   | *122.500 | *100.000  | *60.942 | *34.604 |
| 01010  | BERYLLIUM DISSOL (UG/L AS BE) | 32          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01020  | BORON DISSOLVED (UG/L AS B)   | 2           | 160.000                | 130.000 | --       | --   | --       | --        | --      | --      |
| 01025  | CADMIUM DISSOLVE (UG/L AS CD) | 52          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01026  | CADMIUM SUSPENDE (UG/L AS CD) | 12          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01027  | CADMIUM TOTAL (UG/L AS CD)    | 20          | 4.000                  | --      | *1.071   | *3.900   | *1.071   | *1.000    | *0.593  | *0.391  |
| 01030  | CHROMIUM DISSOLV (UG/L AS CR) | 52          | 10.000                 | --      | *1.332   | *6.100   | *1.899   | *0.722    | *0.349  | *0.121  |
| 01031  | CHROMIUM SUSPEND (UG/L AS CR) | 17          | 30.000                 | --      | *9.777   | *30.000  | *11.007  | *7.918    | *4.545  | *2.828  |
| 01034  | CHROMIUM TOTAL (UG/L AS CR)   | 20          | 30.000                 | --      | *12.233  | *29.500  | *14.328  | *10.000   | *8.714  | *5.434  |
| 01035  | COBALT DISSOLVED (UG/L AS CO) | 63          | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01036  | COBALT SUSPENDE (UG/L AS CO)  | 14          | 5.000                  | --      | *0.993   | *5.000   | *1.250   | *0.348    | *0.113  | *0.028  |
| 01037  | COBALT TOTAL (UG/L AS CO)     | 21          | 5.000                  | --      | *1.970   | *4.900   | *2.500   | *2.000    | *1.000  | *0.795  |
| 01040  | COPPER DISSOLVED (UG/L AS CU) | 52          | 17.000                 | --      | *4.978   | *14.050  | *6.750   | *4.000    | *2.250  | *1.000  |
| 01041  | COPPER SUSPENDE (UG/L AS CU)  | 20          | 300.000                | 1.000   | 23.600   | 286.050  | 14.250   | 9.000     | 5.000   | 1.050   |
| 01042  | COPPER TOTAL (UG/L AS CU)     | 21          | 310.000                | 3.000   | 27.810   | 281.800  | 19.500   | 13.000    | 10.000  | 3.200   |
| 00723  | CYANIDE DISSOLVE (MG/L AS CN) | 2           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 00720  | CYANIDE TOTAL (MG/L AS CN)    | 3           | --                     | --      | --       | --   | --       | --        | --      | --      |
| 01046  | IRON DISSOLVED (UG/L AS FE)   | 89          | 640.000                | --      | *34.907  | *105.000   | *30.000  | *20.000   | *10.000 | *3.311  |
| 01044  | IRON SUSPENDE (UG/L AS FE)    | 17          | 12000.000              | 210.000 | 3355.294 | 12000.000  | 4900.000 | 2500.000  | 880.000 | 210.000 |
| 01045  | IRON TOTAL (UG/L AS FE)       | 20          | 12000.000              | 240.000 | 2988.000 | 11750.004  | 4600.000 | 2100.000  | 772.500 | 240.500 |
| 01049  | LEAD DISSOLVED (UG/L AS PB)   | 49          | 11.000                 | --      | *1.620   | *6.500   | *1.918   | *1.000    | *0.449  | *0.189  |
| 01050  | LEAD SUSPENDE (UG/L AS PB)    | 16          | 66.000                 | --      | *9.842   | *66.000  | *8.750   | *6.500    | *2.500  | *0.470  |
| 01051  | LEAD TOTAL (UG/L AS PB)       | 17          | 66.000                 | --      | *10.345  | *66.000  | *10.000  | *8.000    | *3.500  | *0.857  |
| 01130  | LITHIUM DISSOLVE (UG/L AS LI) | 43          | 57.000                 | 16.000  | 35.140   | 52.200   | 42.000   | 34.000    | 28.000  | 21.200  |
| 01056  | MANGANESE DISSOL (UG/L AS MN) | 92          | 85.000                 | --      | *16.272  | *48.050  | *25.750  | *10.000   | *4.000  | *1.000  |
| 01054  | MANGANESE SUSPEN (UG/L AS MN) | 20          | 730.000                | --      | *190.099 | *719.500   | *265.000 | *140.000  | *52.500 | *12.388 |

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|--|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|---------|---------|
|  |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25      | 5       |
| <b>North Dakota data, July 1974 through July 2001--Continued</b> |                               |             |                        |         |         |  |         |           |         |         |
| 01055  | MANGANESE TOTAL (UG/L AS MN)  | 20          | 740.000                | 30.000  | 203.000 | 729.500  | 277.500 | 140.000   | 72.500  | 31.500  |
| 71890  | MERCURY DISSOLVE UG/L AS HG   | 50          | 0.500                  | --      | *0.096  | *0.500   | *0.100  | *0.048    | *0.021  | *0.006  |
| 71895  | MERCURY SUSPENDE UG/L AS HG   | 19          | 1.400                  | --      | *0.204  | *1.400   | *0.200  | *0.100    | *0.030  | *0.007  |
| 71900  | MERCURY, TOT.REC UG/L AS HG   | 22          | 1.400                  | --      | *0.234  | *1.325   | *0.225  | *0.100    | *0.087  | *0.017  |
| 01060  | MOLYBDENUM DISSO (UG/L AS MO) | 43          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01065  | NICKEL DISSOLVED (UG/L AS NI) | 56          | 12.000                 | --      | *3.643  | *8.450   | *5.000  | *3.000    | *2.000  | *0.974  |
| 01066  | NICKEL SUSPENDED (UG/L AS NI) | 13          | 14.000                 | 1.000   | 6.462   | 14.000   | 11.500  | 6.000     | 1.500   | 1.000   |
| 01067  | NICKEL TOTAL (UG/L AS NI)     | 14          | 19.000                 | 4.000   | 9.714   | 19.000   | 13.250  | 7.500     | 5.750   | 4.000   |
| 01145  | SELENIUM DISSOLV (UG/L AS SE) | 64          | 1.000                  | --      | *0.706  | *1.000   | *0.811  | *0.681    | *0.570  | *0.449  |
| 01146  | SELENIUM SUSPEND (UG/L AS SE) | 17          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01147  | SELENIUM TOTAL (UG/L AS SE)   | 20          | 1.000                  | --      | *1.000  | *1.000   | *1.000  | *1.000    | *1.000  | *1.000  |
| 01075  | SILVER DISSOLVED (UG/L AS AG) | 63          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01076  | SILVER SUSPENDED (UG/L AS AG) | 17          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01077  | SILVER TOTAL (UG/L AS AG)     | 23          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01080  | STRONTIUM DISSOL (UG/L AS SR) | 43          | 390.000                | 6.000   | 254.093 | 380.000  | 300.000 | 260.000   | 220.000 | 136.000 |
| 01087  | VANADIUM TOTAL (UG/L AS V)    | 1           | 20.000                 | --      | --      | --   | --      | --        | --      | --      |
| 01085  | VANADIUM DISSOLV (UG/L AS V)  | 43          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 01090  | ZINC DISSOLVED (UG/L AS ZN)   | 52          | 60.000                 | --      | *16.208 | *48.550  | *21.750 | *12.000   | *6.030  | *2.670  |
| 01091  | ZINC SUSPENDED (UG/L AS ZN)   | 18          | 240.000                | --      | *37.878 | *240.000   | *40.000 | *15.000   | *8.624  | *1.451  |
| 01092  | ZINC TOTAL (UG/L AS ZN)       | 21          | 250.000                | 10.000  | 49.190  | 236.000  | 50.000  | 30.000    | 20.000  | 10.000  |
| 82183  | 2,4-DP TOTAL UG/L             | 2           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 39741  | 2,4,5-T BTM UG/KG             | 1           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 39740  | 2,4,5-T TOTAL (WA UG/L        | 7           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 39730  | 2,4-D TOTAL (WA UG/L          | 7           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 82660  | 26DIETHYLANILINE (UG/L)       | 4           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 49260  | ACETOCHLOR FLTRD (UG/L)       | 4           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 46342  | ALACHLOR, DISS, UG/L          | 4           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 39330  | ALDRIN TOTAL (WA UG/L         | 15          | --                     | --      | --      | --   | --      | --        | --      | --      |
| 34253  | ALPHA BHC UG/L                | 4           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 39504  | PCB,54%CL, T (A1 UG/L         | 1           | 0.100                  | --      | --      | --   | --      | --        | --      | --      |
| 39632  | ATRAZINE, DISS, UG/L          | 4           | 0.038                  | 0.021   | --      | --   | --      | --        | --      | --      |
| 39630  | ATRAZINE UNF REC (UG/L)       | 3           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 82673  | BENFLURALIN FIL (UG/L)        | 4           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 04028  | BUTYLATE DISS RE (UG/L)       | 4           | --                     | --      | --      | --   | --      | --        | --      | --      |
| 82680  | CARBARYL FIL 0.7 (UG/L)       | 4           | --                     | --      | --      | --   | --      | --        | --      | --      |

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|  |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, July 1974 through July 2001--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 82674  | CARBOFURAN FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39786  | CARBOPHENOTHION UG/L    | 14          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39350  | CHLORDANE TOT(WA UG/L   | 15          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 38933  | CHLORPYRIFOS, DI UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04041  | CYANAZINE DISS R (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82682  | DCPA FIL 0.7 REC (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04040  | DEETHYL ATRAZINE (UG/L) | 4           | 0.020                  | 0.010   | --   | --   | -- | --        | -- | -- |
| 39572  | DIAZINON DISSOLV UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39570  | DIAZINON TOT (WA UG/L   | 14          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39381  | DIELDRIN DISSOLV UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39380  | DIELDRIN TOT (WA UG/L   | 15          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82677  | DISULFOTON FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39388  | ENDOSULFAN I TOT UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39390  | ENDRIN UNF REC (UG/L)   | 15          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82668  | EPTC FIL 0.7 REC (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82663  | ETHALFLURALIN FI (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39398  | ETHION TOTAL (WA UG/L   | 14          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82672  | ETHOPROP FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04095  | FONOFOX DISS REC (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39420  | HEPT EPOX TOT(WA UG/L   | 15          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39410  | HEPTACHLOR T.(WA UG/L   | 15          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39341  | LINDANE DISSOLVE UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39340  | LINDANE TOTAL(WA UG/L   | 15          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82666  | LINURON FIL 0.7 (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39532  | MALATHION DISSOL UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39530  | MALATHION TOT(WA UG/L   | 14          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39480  | METHOXYCHLOR T.( UG/L   | 15          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82686  | METHYL AZINPHOS (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39600  | MET PARTH TOT(WA UG/L   | 14          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82667  | METHYL PARATHION (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39790  | MET TRITH TOT(WA UG/L   | 14          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39415  | METOLACHLOR,WAT. UG/L   | 4           | 0.043                  | 0.003   | --   | --   | -- | --        | -- | -- |
| 82630  | METRIBUZIN,WAT.D UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39755  | MIREX TOTAL UG/L        | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82671  | MOLINATE FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent | Sample size | Descriptive statistics |         |      | Percentage of samples in which values were less than or equal to those shown |    |           |    |    |
|--|-------------------------|-------------|------------------------|---------|------|--|----|-----------|----|----|
|  |                         |             | Maximum                | Minimum | Mean | 95   | 75 | Median 50 | 25 | 5  |
| <b>North Dakota data, July 1974 through July 2001--Continued</b> |                         |             |                        |         |      |  |    |           |    |    |
| 82684  | NAPROPAMIDE FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 34653  | P,P' DDE DISSOLV (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39360  | P,P'-DDD UNFLT R UG/L   | 15          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39365  | P,P'-DDE, TOTAL UG/L    | 14          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39370  | P,P'-DDT UNFILT UG/L    | 15          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39542  | PARATHION DISSOL UG/L   | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39540  | PARATHION TOT(WA UG/L   | 14          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39516  | PCB TOTAL (WA UG/L      | 13          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39250  | PCN TOTAL (WA UG/L      | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82669  | PEBULATE FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82683  | PENDIMETHALIN F. (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82687  | PERMETHRIN FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 81886  | PERTHANE, BOT.MA UG/KG  | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39034  | PERTHANE TOTAL UG/L     | 2           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82664  | PHORATE FIL 0.7 (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04037  | PROMETON DISS RE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82676  | PRONAMIDE FIL .7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04024  | PROPACHLOR DISS (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82679  | PROPANIL FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82685  | PROPARGITE FIL . (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39762  | SILVEX DISSOLVED UG/L   | 1           | 0.000                  | --      | --   | --   | -- | --        | -- | -- |
| 39760  | SILVEX TOTAL (WA UG/L   | 6           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39025  | SIMAZINE TOTAL-C UG/L   | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 04035  | SIMAZINE DISS RE (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82670  | TEBUTHIURON FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82665  | TERBACIL FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82675  | TERBUFOS FIL 0.7 (UG/L) | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82681  | THIOBENCARB FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39400  | TOXAPHENE TOT(WA UG/L   | 14          | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82678  | TRIALATE FIL .7 (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 82661  | TRIFLURALIN FIL (UG/L)  | 4           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39731  | 2,4-D BTM UG/KG         | 1           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39333  | ALDRIN BTM U UG/KG      | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39351  | CHLORDANE BTM U UG/KG   | 5           | --                     | --      | --   | --   | -- | --        | -- | -- |
| 39571  | DIAZINON BTM U UG/KG    | 3           | --                     | --      | --   | --   | -- | --        | -- | -- |

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code   | Property or constituent         | Sample size | Descriptive statistics |         |          | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|--|---------------------------------|-------------|------------------------|---------|----------|--|---------|-----------|--------|--------|
|  |                                 |             | Maximum                | Minimum | Mean     | 95   | 75      | Median 50 | 25     | 5      |
| <b>North Dakota data, July 1974 through July 2001--Continued</b> |                                 |             |                        |         |          |  |         |           |        |        |
| 39383  | DIELDRIN BTM UG/KG              | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39389  | ENDOSULFANE BTM UG/KG           | 2           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39393  | ENDRIN BTM UG/KG                | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39399  | ETHION BTM UG/KG                | 3           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39423  | HEPT EPOX BTM U UG/KG           | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39413  | HEPTACHLOR BTM U UG/KG          | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39343  | LINDANE BTM U UG/KG             | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39531  | MALATHION BTM U UG/KG           | 3           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39481  | MTHXYCLR BTM UG/ UG/KG          | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39601  | MET PARTH BTM U UG/KG           | 3           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39791  | MET TRITH BTM U UG/KG           | 3           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39758  | MIREX BTM UG/KG                 | 2           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39363  | P,P'-DDD BEDMAT UG/KG           | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39368  | P,P'-DDE BED MAT UG/KG          | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39373  | P,P'-DDT BTM UG/KG              | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39541  | PARATHION BTM UG UG/KG          | 3           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39519  | PCB BTM UG/KG                   | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39251  | PCN TOTAL BTM DR UG/KG          | 2           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39761  | SILVEX BTM UG/KG                | 1           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39403  | TOXAPHENE BTM UG/KG             | 5           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 39787  | TRITHION BTM UG/KG              | 3           | --                     | --      | --       | --   | --      | --        | --     | --     |
| 82082  | HYDROGEN 2 / 1 R RATIO PER MIL  | 1           | -68.500                | --      | --       | --   | --      | --        | --     | --     |
| 82085  | OXYGEN 18 / 16 R RATIO PER MIL  | 1           | -8.700                 | --      | --       | --   | --      | --        | --     | --     |
| 82068  | POTSSSIUM 40 DIS (PCI/L AS K40) | 6           | 5.700                  | 4.300   | 5.100    | 5.700  | 5.550   | 5.300     | 4.450  | 4.300  |
| 07000  | TRITIUM TOTAL (PCI/L)           | 1           | 61.000                 | --      | --       | --   | --      | --        | --     | --     |
| 75985  | TRITIUM PREC EST PCI/L          | 1           | 6.400                  | --      | --       | --   | --      | --        | --     | --     |
| 70331  | SED-SUSP-SIEVE-. %              | 112         | 100.000                | 22.000  | 94.839   | 100.000  | 100.000 | 99.000    | 94.250 | 75.300 |
| 80156  | SUS-SED DISCH + T/DAY           | 182         | 0.000                  | --      | --       | --   | --      | --        | --     | --     |
| 80154  | CONCENTRATION,S. MG/L           | 120         | 911.000                | 6.000   | 144.133  | 480.050  | 218.250 | 110.000   | 22.500 | 9.000  |
| 80155  | DISCHARGE,SUSP.S T/DAY          | 182         | 31000.000              | 0.000   | 1719.135 | 12370.014  | 801.000 | 36.000    | 0.000  | 0.000  |
| 80184  | SED-TOT-FALL-D-. %              | 1           | 10.000                 | --      | --       | --   | --      | --        | --     | --     |

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001--Continued

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|--|---------------------------------|-------------|------------------------|----------|-----------|--|-----------|-----------|----------|----------|
|  |                                 |             | Maximum                | Minimum  | Mean      | 95   | 75        | Median 50 | 25       | 5        |
| <b>Minnesota data, October 1992 through March 2000</b> |                                 |             |                        |          |           |  |           |           |          |          |
| 00065  | GAGE HEIGHT (FEET)              | 2           | 229.360                | 13.710   | --        | --   | --        | --        | --       | --       |
| 00060  | DISCHARGE CFS                   | 29          | 40300.000              | 1010.000 | 14255.518 | 36050.000  | 24300.000 | 9780.000  | 3895.000 | 1235.000 |
| 00061  | DISCHARGE, INST. CFS            | 8           | 25500.000              | 1020.000 | 8207.500  | 25500.000  | 20935.000 | 1900.000  | 1225.000 | 1020.000 |
| 70303  | RESIDUE DIS TON/ T/AC-FT        | 34          | 0.900                  | 0.300    | 0.618     | 0.825  | 0.700     | 0.600     | 0.600    | 0.375    |
| 70302  | DISSOLVED SOLIDS TONS/DAY       | 22          | 33200.000              | 1120.000 | 13018.637 | 33050.000  | 21850.000 | 8325.000  | 3752.500 | 1169.500 |
| 70300  | RESIDUE DIS 180C MG/L           | 34          | 651.000                | 245.000  | 449.471   | 600.750  | 499.250   | 451.500   | 410.750  | 279.500  |
| 70301  | DISSOLVED SOLIDS MG/L           | 34          | 597.000                | 228.000  | 419.265   | 565.500  | 477.000   | 416.500   | 361.750  | 264.000  |
| 00076  | TURBIDITY (NTU)                 | 5           | 230.000                | 3.500    | --        | --   | --        | --        | --       | --       |
| 00025  | AIR PRESSURE (MM OF HG)         | 39          | 756.000                | 727.000  | 743.513   | 753.000  | 748.000   | 744.000   | 740.000  | 735.000  |
| 00300  | OXYGEN DISSOLVED (MG/L)         | 41          | 15.600                 | 1.300    | 9.651     | 14.870   | 11.900    | 10.300    | 7.700    | 2.170    |
| 00301  | OXYGEN DIS. PERC % OF SATURATIO | 39          | 110.000                | 15.600   | 81.608    | 109.000  | 96.700    | 86.100    | 74.700   | 23.900   |
| 00400  | PH, WH, FIELD (STANDARD UNIT    | 50          | 8.800                  | 7.400    | 7.942     | 8.490  | 8.100     | 7.900     | 7.775    | 7.500    |
| 00403  | PH, WH, LABORATO (STANDARD UNIT | 34          | 8.500                  | 7.400    | 7.868     | 8.425  | 8.000     | 7.850     | 7.700    | 7.475    |
| 90095  | SPECIFIC CONDUCT MICROSIEMENS/C | 34          | 973.000                | 413.000  | 701.029   | 967.750  | 776.250   | 695.000   | 628.000  | 446.750  |
| 00095  | SPECIFIC CONDUCT US/CM @ 25C    | 49          | 1020.000               | 76.000   | 639.163   | 934.500  | 756.500   | 693.000   | 540.500  | 313.000  |
| 00020  | AIR TEMPERATURE DEGREES C       | 40          | 23.500                 | -22.000  | 6.547     | 23.330   | 18.000    | 7.500     | -3.000   | -16.850  |
| 00010  | WATER TEMPERATUR (DEGREES C)    | 46          | 22.000                 | 0.000    | 8.028     | 21.325   | 15.600    | 5.400     | 0.500    | 0.000    |
| 00904  | HARDNESS NC. DIS (MG/L AS CaCO3 | 30          | 176.000                | 16.000   | 83.767    | 158.400  | 107.000   | 84.000    | 48.250   | 19.850   |
| 00900  | HARDNESS TOTAL (MG/L AS CaO3)   | 34          | 424.000                | 156.000  | 288.853   | 397.750  | 312.000   | 291.000   | 268.250  | 177.000  |
| 00915  | CALCIUM DISSOLVE (MG/L AS Ca)   | 34          | 90.400                 | 36.000   | 65.065    | 86.350   | 70.150    | 66.000    | 61.650   | 42.000   |
| 00925  | MAGNESIUM DISSOL (MG/L AS MG)   | 34          | 48.000                 | 16.000   | 30.674    | 44.250   | 34.000    | 31.200    | 28.525   | 17.500   |
| 00935  | POTASSIUM DISSOL (MG/L AS K)    | 34          | 10.900                 | 4.480    | 7.602     | 10.225   | 9.250     | 8.300     | 5.500    | 4.570    |
| 00931  | SODIUM ADSORPTIO (RATIO)        | 34          | 1.960                  | 0.185    | 0.851     | 1.608  | 0.938     | 0.858     | 0.709    | 0.360    |
| 00930  | SODIUM DISSOLVED (MG/L AS Na)   | 34          | 80.000                 | 7.500    | 33.426    | 63.500   | 37.250    | 33.900    | 26.750   | 10.875   |
| 00932  | SODIUM, PERCENT PERCENT         | 34          | 34.800                 | 4.840    | 19.184    | 31.125   | 20.950    | 19.300    | 16.950   | 11.260   |
| 90410  | ANC, TIT. 4.5, L MG/L AS CaCO3  | 31          | 294.000                | 130.000  | 218.839   | 283.200  | 256.000   | 229.000   | 201.000  | 131.200  |
| 00418  | ALKALINITY,DIS,F (MG/L AS CaCO3 | 3           | 261.000                | 216.000  | --        | --   | --        | --        | --       | --       |
| 39086  | ALKALINITY,DIS,I (MG/L AS CaCO3 | 36          | 296.000                | 112.000  | 208.722   | 282.400  | 238.750   | 214.500   | 183.250  | 125.600  |
| 00453  | BICARBONATE,DIS, (MG/L AS HCO3) | 36          | 361.000                | 136.000  | 251.417   | 344.000  | 286.750   | 257.500   | 223.500  | 152.150  |
| 00452  | CARBONATE,DIS,IT (MG/L AS CO3)  | 36          | 22.000                 | 0.000    | 1.667     | 15.200   | 0.000     | 0.000     | 0.000    | 0.000    |
| 00940  | CHLORIDE DISSOLV (MG/L AS CL)   | 34          | 110.000                | 11.000   | 32.000    | 88.250   | 38.225    | 28.950    | 18.750   | 11.000   |
| 00950  | FLUORIDE DISSOLV (MG/L AS F)    | 34          | 0.300                  | 0.100    | 0.188     | 0.225  | 0.200     | 0.200     | 0.200    | 0.100    |
| 00955  | SILICA DISSOLVED (MG/L AS SiO2) | 34          | 38.000                 | 5.400    | 15.256    | 30.500   | 17.200    | 14.100    | 11.875   | 6.825    |
| 00945  | SULFATE DISSOLVE (MG/L AS SO4)  | 34          | 200.000                | 44.000   | 104.982   | 193.250  | 140.000   | 86.350    | 70.000   | 45.500   |
| 00608  | NITROGEN AMMONIA (MG/L AS N)    | 39          | 0.370                  | 0.020    | 0.118     | 0.300  | 0.190     | 0.102     | 0.040    | 0.020    |

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|---|--------------------------------|-------------|------------------------|----------|--------|--|--------|-----------|--------|--------|
|   |                                |             | Maximum                | Minimum  | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>Minnesota data, October 1992 through March 2000--Continued</b> |                                |             |                        |          |        |  |        |           |        |        |
| 00623   | NITRO AMN & ORG (MG/L AS N)    | 34          | 1.600                  | 0.100    | 0.931  | 1.525  | 1.125  | 0.900     | 0.700  | 0.475  |
| 00625   | NITROGEN AMM+ORG (MG/L AS N)   | 39          | 1.900                  | 0.700    | 1.095  | 1.900  | 1.200  | 1.000     | 0.900  | 0.750  |
| 71846   | NITR. NH4 AS NH4 MG/L AS NH4   | 39          | 0.476                  | 0.026    | 0.153  | 0.386  | 0.245  | 0.131     | 0.052  | 0.026  |
| 00610   | NITROGEN AMMONIA (MG/L AS N)   | 2           | 0.050                  | 0.020    | --     | --   | --     | --        | --     | --     |
| 71845   | NITROGEN, NH4, T MG/L AS NH4   | 2           | 0.060                  | 0.030    | --     | --   | --     | --        | --     | --     |
| 00602   | NITROGEN DISSOLV (MG/L AS N)   | 33          | 7.300                  | 0.867    | 2.170  | 5.893  | 3.150  | 1.350     | 1.160  | 0.883  |
| 00618   | NITROGEN NITRATE (MG/L AS N)   | 18          | 5.560                  | 0.057    | 1.749  | 5.560  | 3.072  | 0.980     | 0.275  | 0.057  |
| 71851   | NITR. NO3 AS NO3 MG/L AS NO3   | 18          | 24.600                 | 0.252    | 7.740  | 24.600   | 13.625 | 4.335     | 1.215  | 0.252  |
| 00620   | NITROGEN NITRATE MG/L AS N     | 1           | 0.100                  | --       | --     | --   | --     | --        | --     | --     |
| 00631   | NO2 + NO3 DISSOL (MG/L AS N)   | 39          | 5.800                  | 0.050    | 1.067  | 3.710  | 0.920  | 0.460     | 0.260  | 0.067  |
| 00630   | NO2 + NO3 TOTAL (MG/L AS N)    | 2           | --                     | --       | --     | --   | --     | --        | --     | --     |
| 71856   | NITR. NO2 AS NO2 MG/L AS NO2   | 19          | 0.789                  | 0.033    | 0.252  | 0.789  | 0.460  | 0.099     | 0.066  | 0.033  |
| 00613   | NITROGEN,NITRITE MG/L AS N     | 39          | 0.240                  | --       | *0.039 | *0.170   | *0.030 | *0.008    | *0.002 | *0.000 |
| 00615   | NITROGEN,NITRITE MG/L AS N     | 2           | --                     | --       | --     | --   | --     | --        | --     | --     |
| 00607   | NITROGEN ORGANIC (MG/L AS N)   | 33          | 1.390                  | 0.560    | 0.831  | 1.362  | 0.919  | 0.809     | 0.660  | 0.567  |
| 00605   | NITROGEN ORGANIC (MG/L AS N)   | 39          | 1.880                  | 0.600    | 0.976  | 1.710  | 1.100  | 0.920     | 0.780  | 0.641  |
| 00600   | NITROGEN TOTAL (MG/L AS N)     | 38          | 7.400                  | 1.020    | 2.196  | 5.699  | 2.480  | 1.440     | 1.200  | 1.087  |
| 71887   | NITROGEN, TOTAL MG/L AS NO3    | 1           | 5.400                  | --       | --     | --   | --     | --        | --     | --     |
| 00660   | PHOSPHATE ORTHO. (MG/L AS PO4) | 39          | 1.070                  | 0.089    | 0.375  | 0.951  | 0.521  | 0.307     | 0.153  | 0.092  |
| 00650   | PHOSPHATE TOTAL (MG/L AS PO4)  | 2           | 0.460                  | 0.215    | --     | --   | --     | --        | --     | --     |
| 00666   | PHOSPHORUS DISS. (MG/L AS P)   | 39          | 0.360                  | 0.030    | 0.135  | 0.330  | 0.200  | 0.100     | 0.060  | 0.040  |
| 00671   | PHOSPHORUS ORTHO (MG/L AS P)   | 39          | 0.350                  | 0.029    | 0.122  | 0.310  | 0.170  | 0.100     | 0.050  | 0.030  |
| 70507   | PHOS ORTHO TOT A MG/L AS P     | 2           | 0.150                  | 0.070    | --     | --   | --     | --        | --     | --     |
| 00665   | PHOSPHORUS TOTAL (MG/L AS P)   | 39          | 0.550                  | 0.040    | 0.217  | 0.490  | 0.350  | 0.180     | 0.079  | 0.045  |
| 00626   | NITROGEN AMMONIA (MG/KG AS N)  | 4           | 5300.000               | 2400.000 | --     | --   | --     | --        | --     | --     |
| 00633   | NO2 + NO3 BOT. M (MG/KG AS N)  | 4           | --                     | --       | --     | --   | --     | --        | --     | --     |
| 00405   | CARBON DIOXIDE D (MG/L AS CO2) | 31          | 12.900                 | 0.700    | 6.000  | 12.780   | 9.000  | 5.100     | 3.500  | 1.060  |
| 00681   | CARBON ORGANIC D (MG/L AS C)   | 23          | 22.000                 | 8.700    | 12.248 | 20.400   | 13.000 | 12.000    | 11.000 | 8.960  |
| 00689   | CARBON ORGANIC P (MG/L AS C)   | 21          | 8.600                  | 0.300    | 2.000  | 8.130  | 2.500  | 1.400     | 1.050  | 0.310  |
| 00687   | CARBON ORG. BOT. (GM/KG AS C)  | 1           | 20.000                 | --       | --     | --   | --     | --        | --     | --     |
| 31625   | COLIFORM FECAL 0 COLS./100 ML  | 3           | 48.000                 | 1.000    | --     | --   | --     | --        | --     | --     |
| 31673   | FECAL STREP,KF M COLS./100 ML  | 3           | 140.000                | 13.000   | --     | --   | --     | --        | --     | --     |
| 70953   | CHL-A PHY CHROMA UG/L          | 1           | 0.800                  | --       | --     | --   | --     | --        | --     | --     |
| 70954   | CHLOROPHYLL-B, P UG/L          | 1           | 0.100                  | --       | --     | --   | --     | --        | --     | --     |
| 01106   | ALUMINUM DISSOLV (UG/L AS AL)  | 3           | --                     | --       | --     | --   | --     | --        | --     | --     |

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent       | Sample size | Descriptive statistics |         |         | Percentage of samples in which values were less than or equal to those shown |         |           |        |        |
|---|-------------------------------|-------------|------------------------|---------|---------|--|---------|-----------|--------|--------|
|   |                               |             | Maximum                | Minimum | Mean    | 95   | 75      | Median 50 | 25     | 5      |
| <b>Minnesota data, October 1992 through March 2000--Continued</b> |                               |             |                        |         |         |  |         |           |        |        |
| 01005   | BARIUM DISSOLVED (UG/L AS BA) | 3           | 65.000                 | 51.000  | --      | --   | --      | --        | --     | --     |
| 01035   | COBALT DISSOLVED (UG/L AS CO) | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 01046   | IRON DISSOLVED (UG/L AS FE)   | 32          | 260.000                | --      | *29.183 | *162.500   | *27.500 | *15.000   | *4.521 | *1.527 |
| 01130   | LITHIUM DISSOLVE (UG/L AS LI) | 3           | 38.000                 | 27.000  | --      | --   | --      | --        | --     | --     |
| 01056   | MANGANESE DISSOL (UG/L AS MN) | 32          | 85.000                 | --      | *19.426 | *70.570  | *29.750 | *15.400   | *2.250 | *0.503 |
| 01060   | MOLYBDENUM DISSO (UG/L AS MO) | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 01065   | NICKEL DISSOLVED (UG/L AS NI) | 3           | 3.000                  | 2.000   | --      | --   | --      | --        | --     | --     |
| 01145   | SELENIUM DISSOLV (UG/L AS SE) | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 01075   | SILVER DISSOLVED (UG/L AS AG) | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 01080   | STRONTIUM DISSOL (UG/L AS SR) | 3           | 280.000                | 240.000 | --      | --   | --      | --        | --     | --     |
| 01085   | VANADIUM DISSOLV (UG/L AS V)  | 3           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49295   | 1-NAPHTHOL FLTRD (UG/L)       | 22          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 77441   | 1-NAPHTHOL, WHOL (UG/L)       | 1           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 82183   | 2,4-DP TOTAL UG/L             | 1           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39742   | 2,4,5-T DISSOLVE UG/L         | 22          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39740   | 2,4,5-T TOTAL(WA UG/L         | 1           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39732   | 2,4-D DISSOLVED UG/L          | 22          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39730   | 2,4-D TOTAL (WA UG/L          | 1           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 38746   | 2,4-DB FLTRD (UG/L)           | 22          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 82660   | 26DIETHYLANILINE (UG/L)       | 26          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 82584   | 3-HYDRX. CARBOFU UG/L         | 1           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49308   | 3HYDRXYCARBOFURA (UG/L)       | 22          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49260   | ACETOCHLOR FLTRD (UG/L)       | 4           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49315   | ACIFLUORFEN FLTR (UG/L)       | 22          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 46342   | ALACHLOR, DISS, UG/L          | 26          | 0.110                  | --      | *0.009  | *0.081   | *0.009  | *0.003    | *0.001 | *0.000 |
| 49313   | ALDICARB SULFONE (UG/L)       | 22          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 82587   | ALDICARB SULFONE UG/L         | 1           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49314   | ALDICARB SULFOXI (UG/L)       | 22          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 82586   | ALDICARB SULFOXI UG/L         | 1           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 49312   | ALDICARB FLTRD (UG/L)         | 22          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 82619   | ALDICARB UG/L                 | 1           | --                     | --      | --      | --   | --      | --        | --     | --     |
| 34253   | ALPHA BHC UG/L                | 26          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 39632   | ATRAZINE, DISS, UG/L          | 26          | 0.280                  | 0.021   | 0.079   | 0.259  | 0.098   | 0.038     | 0.029  | 0.022  |
| 82673   | BENFLURALIN FIL (UG/L)        | 26          | --                     | --      | --      | --   | --      | --        | --     | --     |
| 38711   | BENTAZON, FLTRD (UG/L)        | 22          | 2.000                  | --      | *0.229  | *1.880   | *0.192  | *0.020    | *0.003 | *0.000 |

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001--Continued

[A complete unabbreviated list of each parameter code and corresponding property or constituent is at the beginning of the supplemental tables; --, no data]

| Parameter code  | Property or constituent  | Sample size | Descriptive statistics |         |        | Percentage of samples in which values were less than or equal to those shown |        |           |        |        |
|---|--------------------------|-------------|------------------------|---------|--------|--|--------|-----------|--------|--------|
|   |                          |             | Maximum                | Minimum | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>Minnesota data, October 1992 through March 2000--Continued</b> |                          |             |                        |         |        |  |        |           |        |        |
| 04029   | BROMACIL DISS RE (UG/L)  | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49311   | BROMOXYNIL FLTRD (UG/L)  | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04028   | BUTYLATE DISS RE (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49310   | CARBARYL FLTRD (UG/L)    | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82680   | CARBARYL FIL 0.7 (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39750   | CARBARYL UNFILT UG/L     | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49309   | CARBOFURAN FLTRD (UG/L)  | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82674   | CARBOFURAN FIL. (UG/L)   | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82615   | CARBOFURAN UG/L          | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 61188   | CHLORAMBEN, METH (UG/L)  | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49306   | CHLOROTHALONIL F (UG/L)  | 21          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38933   | CHLORPYRIFOS, DI UG/L    | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49305   | CLOPYRALID FLTRD (UG/L)  | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04041   | CYANAZINE DISS R (UG/L)  | 26          | 0.150                  | 0.004   | 0.036  | 0.143  | 0.053  | 0.019     | 0.013  | 0.005  |
| 49304   | DACTHAL MONO-ACI (UG/L)  | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82682   | DCPA FIL 0.7 REC (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04040   | DEETHYL ATRAZINE (UG/L)  | 26          | 0.025                  | --      | *0.010 | *0.024   | *0.016 | *0.006    | *0.004 | *0.001 |
| 39572   | DIAZINON DISSOLV UG/L    | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82052   | DICAMBA,TOTAL UG/L       | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38442   | DICAMBA FLTRD (UG/L)     | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49303   | DICHOLOBENIL FLTR (UG/L) | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49302   | DICHLORPRO FLTRD (UG/L)  | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39381   | DIELDRLN DISSOLV UG/L    | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49301   | DINOSEB FLTRD (UG/L)     | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82677   | DISULFOTON FIL. (UG/L)   | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49300   | DIURON FLTRD (UG/L)      | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49299   | DNOC FLTD (UG/L)         | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82668   | EPTC FIL 0.7 REC (UG/L)  | 26          | 0.240                  | --      | *0.022 | *0.175   | *0.023 | *0.010    | *0.004 | *0.001 |
| 49298   | ESFENVALERATE FL (UG/L)  | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82663   | ETHALFLURALIN FI (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82672   | ETHOPROP FIL 0.7 (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49297   | FENURON FLTRD (UG/L)     | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38811   | FLUOMETURON FLT (UG/L)   | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04095   | FONOFOX DISS REC (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39341   | LINDANE DISSOLVE UG/L    | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |

**Supplement 43.** Statistical summary of water-quality data for the Red River of the North at Emerson, Manitoba, gaging station 05102500, July 1974 through July 2001--Continued

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|---|-------------------------|-------------|------------------------|---------|--------|--|--------|-----------|--------|--------|
|   |                         |             | Maximum                | Minimum | Mean   | 95   | 75     | Median 50 | 25     | 5      |
| <b>Minnesota data, October 1992 through March 2000--Continued</b> |                         |             |                        |         |        |  |        |           |        |        |
| 38478   | LINURON FLTRD (UG/L)    | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82666   | LINURON FIL 0.7 (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39532   | MALATHION DISSOL UG/L   | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38482   | MCPA FLTRD (UG/L)       | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38487   | MCPB FLTRD (UG/L)       | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38501   | METHIOCARB FLTRD (UG/L) | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 30282   | METHIOCARB WTR W UG/L   | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39051   | METHOMYL TOTAL UG/L     | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49296   | METHOMYL FLTRD (UG/L)   | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82686   | METHYL AZINPHOS (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82667   | METHYL PARATHION (UG/L) | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38260   | DETERGENTS (MBAS MG/L)  | 1           | 0.040                  | --      | --     | --   | --     | --        | --     | --     |
| 39415   | METOLACHLOR,WAT. UG/L   | 26          | 0.170                  | 0.002   | 0.025  | 0.141  | 0.033  | 0.009     | 0.006  | 0.002  |
| 82630   | METRIBUZIN,WAT.D UG/L   | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82671   | MOLINATE FIL 0.7 (UG/L) | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82684   | NAPROPAMIDE FIL (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49294   | NEBURON FLTRD (UG/L)    | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49293   | NORFLURAZON FLTR (UG/L) | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49292   | ORYZALIN FLTRD (UG/L)   | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 38866   | OXAMYL FLTRD (UG/L)     | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82613   | OXYAMYL UG/L            | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 34653   | P,P' DDE DISSOLV (UG/L) | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39542   | PARATHION DISSOL UG/L   | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82669   | PEBULATE FIL 0.7 (UG/L) | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82683   | PENDIMETHALIN F. (UG/L) | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82687   | PERMETHRIN FIL. (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 32730   | PHENOLS, TOTAL UG/L     | 1           | 1.000                  | --      | --     | --   | --     | --        | --     | --     |
| 82664   | PHORATE FIL 0.7 (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 49291   | PICLORAM FLTRD (UG/L)   | 22          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 39720   | PICLORAM, TOTAL UG/L    | 1           | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04037   | PROMETON DISS RE (UG/L) | 26          | 0.034                  | --      | *0.013 | *0.032   | *0.017 | *0.011    | *0.007 | *0.004 |
| 82676   | PRONAMIDE FIL .7 (UG/L) | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 04024   | PROPACHLOR DISS (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82679   | PROPANIL FIL 0.7 (UG/L) | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |
| 82685   | PROPARGITE FIL. (UG/L)  | 26          | --                     | --      | --     | --   | --     | --        | --     | --     |

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|---|--------------------------------|-------------|------------------------|---------|----------|--|-----------|-----------|----------|--------|
|   |                                |             | Maximum                | Minimum | Mean     | 95   | 75        | Median 50 | 25       | 5      |
| <b>Minnesota data, October 1992 through March 2000--Continued</b> |                                |             |                        |         |          |  |           |           |          |        |
| 39052   | PROPHAM TOTAL UG/L             | 1           | --                     | --      | --       | --   | --        | --        | --       | --     |
| 49236   | PROPHAM FLTRD (UG/L)           | 22          | --                     | --      | --       | --   | --        | --        | --       | --     |
| 38538   | PROPOXUR FLTRD (UG/L)          | 21          | --                     | --      | --       | --   | --        | --        | --       | --     |
| 30296   | PROPOXUR, WTR WH UG/L          | 1           | --                     | --      | --       | --   | --        | --        | --       | --     |
| 39762   | SILVEX DISSOLVED UG/L          | 22          | --                     | --      | --       | --   | --        | --        | --       | --     |
| 39760   | SILVEX TOTAL (WA UG/L          | 1           | --                     | --      | --       | --   | --        | --        | --       | --     |
| 04035   | SIMAZINE DISS RE (UG/L)        | 26          | 0.016                  | --      | *0.007   | *0.016   | *0.010    | *0.006    | *0.004   | *0.002 |
| 82670   | TEBUTHIURON FIL (UG/L)         | 26          | --                     | --      | --       | --   | --        | --        | --       | --     |
| 82665   | TERBACIL FIL 0.7 (UG/L)        | 26          | --                     | --      | --       | --   | --        | --        | --       | --     |
| 82675   | TERBUFOS FIL 0.7 (UG/L)        | 26          | --                     | --      | --       | --   | --        | --        | --       | --     |
| 82681   | THIOBENCARB FIL (UG/L)         | 26          | --                     | --      | --       | --   | --        | --        | --       | --     |
| 82678   | TRIALATE FIL .7 (UG/L)         | 26          | 0.067                  | --      | *0.010   | *0.055   | *0.009    | *0.005    | *0.002   | *0.000 |
| 49235   | TRICLOPYR FLTRD (UG/L)         | 22          | --                     | --      | --       | --   | --        | --        | --       | --     |
| 82661   | TRIFLURALIN FIL (UG/L)         | 26          | 0.011                  | --      | *0.003   | *0.011   | *0.006    | *0.002    | *0.001   | *0.000 |
| 82082   | HYDROGEN 2 / 1 R RATIO PER MIL | 1           | -70.000                | --      | --       | --   | --        | --        | --       | --     |
| 82085   | OXYGEN 18 / 16 R RATIO PER MIL | 1           | -8.270                 | --      | --       | --   | --        | --        | --       | --     |
| 70331   | SED-SUSP-SIEVE-. %             | 26          | 100.000                | 95.000  | 98.885   | 100.000  | 100.000   | 99.000    | 99.000   | 95.350 |
| 80154   | CONCENTRATION,S. MG/L          | 30          | 612.000                | 7.000   | 157.267  | 444.250  | 238.000   | 170.500   | 24.750   | 8.100  |
| 80155   | DISCHARGE,SUSP.S T/DAY         | 24          | 27500.000              | 27.000  | 7751.500 | 26325.000  | 15225.000 | 4275.000  | 1050.000 | 30.500 |

\*Value is estimated by using a log-probability regression to predict the values of data below the detection limit.