



Water-Data Report 2007

474135096203001 Local number G01-R 149N44W30CAAD

0000620661

Sand and gravel aquifers (glaciated regions)

Glacial Surficial Sand & Gravel

Polk County, MN

LOCATION.--Lat 47°41'34.7", long 96°20'30.25" referenced to North American Datum of 1983, in NE ¼ NE ¼ SW ¼ sec.30, T.149 N., R.44 W., Polk County, MN, Hydrologic Unit 09020303.

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Depth 10.42 ft. Upper casing diameter 2.04 in., top of first opening 5.58 ft, bottom of last opening 9.88 ft.

DATUM.--Land-surface datum is 1069.46 ft above North American Vertical Datum of 1988. Measuring point: MP is mark on top of casing, NOT protection post., 2.76 ft above land-surface datum, Aug. 16, 2002, to present.

PERIOD OF RECORD.--October 23, 2002 to Mar. 31, 2007.

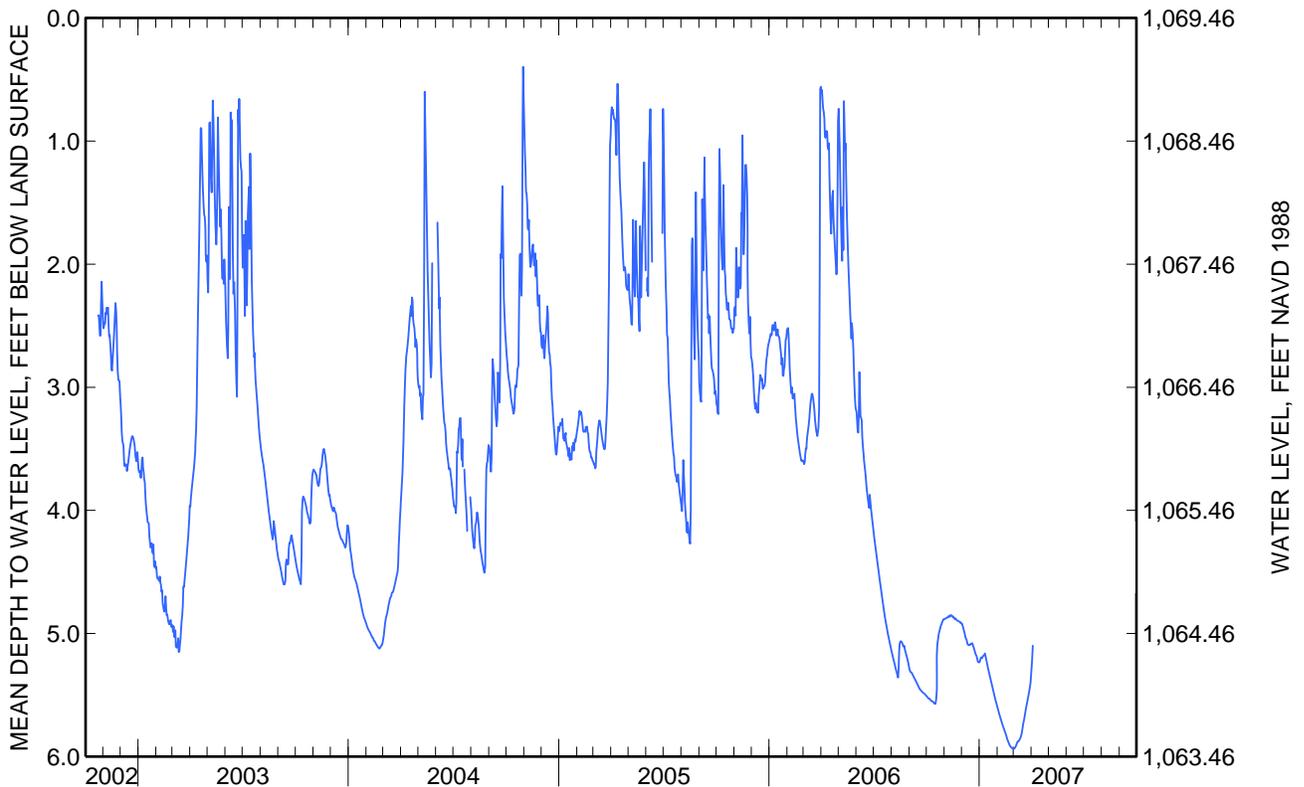
GAGE.--Measurements by USGS personnel. Water-stage recorder.

COOPERATION.--This site operated in cooperation with Red Lake Watershed and the Nature Conservancy.

REMARKS.--Well No. G01 at Glacial Ridge near Crookston, Minn. Owner: U. S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.281 ft. below land surface datum, Oct. 30, 2004 at 4:00; lowest recorded, 5.943 ft. below land surface datum, Mar. 1, 2007 at 9:00.

EXTREMES FOR CURRENT YEAR.--Highest water level, 0.479 ft below land surface datum, June 18; lowest water level, 5.943 ft below land surface datum, Mar. 1.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 25, 2002 to Mar. 31, 2007

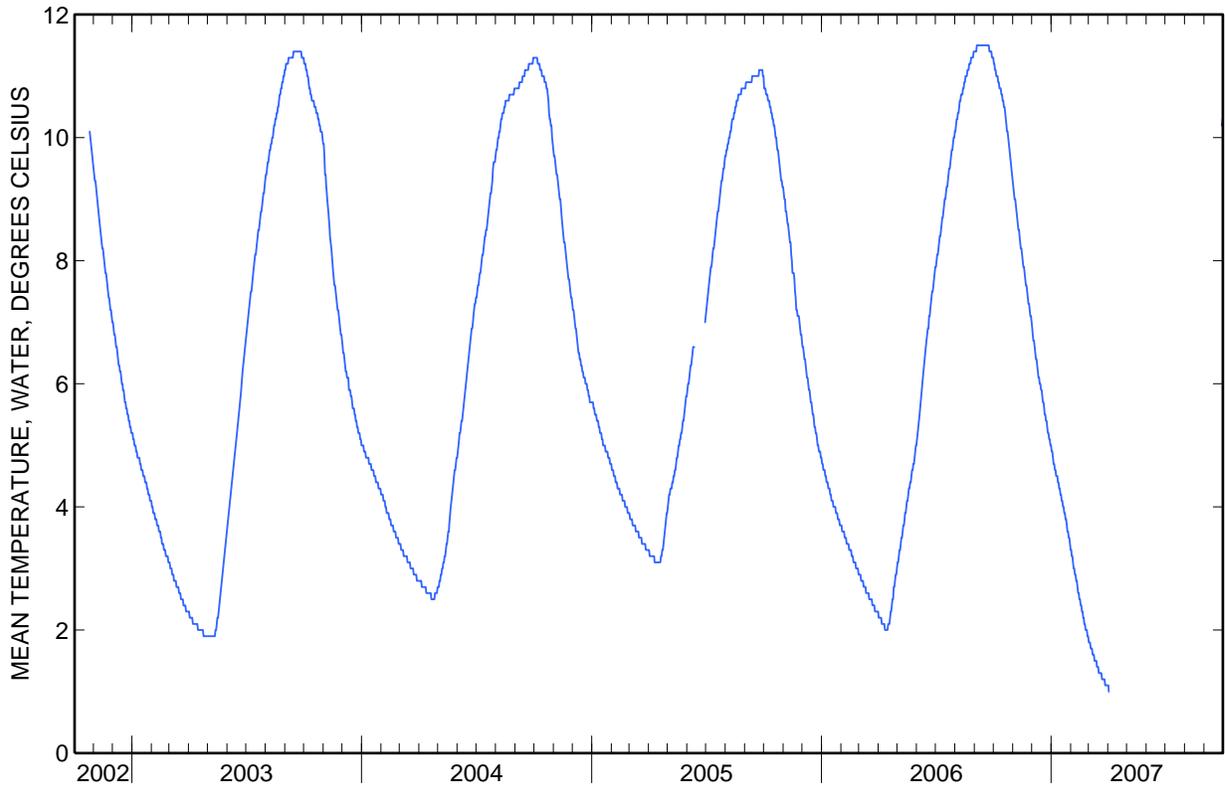
REMARKS.--Water temperature is measured by a submersible pressure transducer and is uncalibrated.

COOPERATION.--This site operated in cooperation with Red Lake Watershed and the Nature Conservancy.

EXTREMES FOR PERIOD OF RECORD.--Highest water temperature recorded, 12.6°C on Oct. 16, 2003; lowest recorded, 1.1°C on Mar. 26–31, 2007.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 11.2°C, Oct. 1, 2, 3; minimum, 1.1°C, Mar. 26–31, 2007.



WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 2

[Remark codes: <, less than; E, estimated.]

Date	Time	Sample type	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf μS/cm 25 degC (00095)	Temperature, air, deg C (00020)
Oct 18...	1015	Environmental	10.42	1,069.46	.17	18	10.2	737	1.1	6.9	844	.2
Apr 25...	0930	Environmental	10.42	1,069.46	--	--	--	738	.6	6.5	945	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 2

[Remark codes: <, less than; E, estimated.]

Date	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)
Oct 18...	12.2	492	599	.0	.199	<.06	E.002	.79	.022	.027
Apr 25...	3.3	530	647	--	.153	<.06	.003	.82	.009	.022

CLIMATOLOGICAL RECORDS

COOPERATION.--This site operated in cooperation with Red Lake Watershed and the Nature Conservancy.

PERIOD OF RECORD.--April 30, 2003 to Mar. 31, 2007

REMARKS.--Precipitation gage is NOT covered in the winter nor is the record corrected. Any precipitation recorded during freezing periods may represent snow or ice which fell earlier, and melted through the gage when recorded.

EXTREMES FOR PERIOD OF RECORD.--Maximum hourly precipitation:

Water year 2007 (through Mar. 31, 2007): 0.34 inches on Oct. 17, 2006 at 8:00; Water year 2006: 1.31 inches on Aug. 12, 2006; Water year 2005: 1.07 inches on Sep. 05, 2005; Water year 2004: 0.62 inches on Oct. 11, 2004; Water year 2003: 1.50 inches on June 22, 2003;

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 2.02 in., Oct. 17, 2006; minimum precipitation, 0.00 in., on many days.

