Water-Data Report 2008

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND

Lower Red Basin
Sandhill-Wilson Subbasin

LOCATION.--Lat 47°55′37″, long 97°01′44″ referenced to North American Datum of 1927, in sec.3, T.151 N., R.50 W., Grand Forks County, ND, Hydrologic Unit 09020301, on left bank 50 ft downstream from the DeMers Avenue bridge, 0.4 mi downstream from Red Lake River, and at mile 297.6.

DRAINAGE AREA.--30,100 mi² of which 3,800 mi² probably is noncontributing, including 3,800 mi² in closed basins.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--DAILY DISCHARGE--April 1882 to current year. Prior to January 1904 monthly discharge only, published in WSP 1308.

PERIOD OF RECORD.--DAILY GAGE HEIGHT--October 1997 to current year.

REVISED RECORDS.--WSP 855: 1936(M). WSP 1115: 1942. WSP 1175: 1897(M). WSP 1388: 1904, 1914-15, 1917-19, 1921-22, 1927, 1950. WSP 1728: Drainage area. WRD-ND-81-1: 1882, 1897 (M).

GAGE.--Water stage recorder. Datum of gage is 779.00 ft above National Geodetic Vertical Datum of 1929. October 1, 1983, to September 30, 1986, datum of gage was 780.00 ft at same site. April 14, 1965, to September 30, 1983, water-stage recorder 1.9 mi downstream at a datum of 778.35 ft. November 3, 1933, to April 13, 1965, water-stage recorder 0.3 mi upstream at 778.35 ft datum. See WSP 1728 or 1913 for history of changes prior to November 3, 1933.

REMARKS.--Records good except for estimated daily discharges, which are poor.

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	984	2,160	e868	e980	e822	e772	e2,960	5,580	2,610	5,310	3,080	876
2	988	2,010	e935	e982	e818	e771	e3,380	6,290	2,790	5,260	2,710	996
3	1,090	1,870	e955	e990	e817	e760	e3,750	7,230	3,120	4,900	2,370	1,090
4	1,100	1,810	e957	e1,030	e816	e750	e4,770	7,880	3,080	4,280	2,060	1,500
5	1,040	1,910	e985	e1,050	e815	e730	e5,400	8,330	3,070	3,800	1,780	2,260
6	996	1,760	e945	e1,050	e811	e715	e6,150	8,740	3,330	3,600	1,570	2,320
7	997	1,680	e942	e1,050	e810	e700	e7,200	9,000	3,950	3,430	1,450	2,550
8	988	1,660	e941	e1,040	e810	e690	e8,500	8,710	6,660	3,190	1,350	2,610
9	979	1,620	e948	e1,030	e805	e695	e10,000	7,820	9,360	3,010	1,290	2,360
10	1,000	1,660	e965	e1,020	e785	e700	e12,500	6,920	10,500	3,030	1,260	2,020
11	1,090	1,730	e985	e1,030	e780	e710	e11,700	6,300	11,000	3,080	1,350	1,760
12	1,170	1,690	e995	e1,010	e775	e720	e11,000	5,820	11,600	3,060	1,480	2,380
13	1,180	1,580	e994	e1,000	e770	e730	10,400	5,490	13,700	2,900	1,480	5,870
14	1,250	1,520	e990	e990	e765	e740	9,030	5,200	16,000	2,810	1,860	7,860
15	1,300	1,590	e990	e980	e768	e775	8,540	4,980	17,300	2,810	2,890	8,050
16	1,280	1,570	e990	e975	e775	e810	8,340	4,780	17,700	2,960	4,250	7,180
17	1,250	1,500	e990	e970	e780	e875	8,380	4,620	e16,600	2,990	5,150	5,920
18	1,330	1,450	e1,000	e930	e760	e970	8,220	4,490	e15,100	2,850	5,350	4,690
19	1,480	1,430	e1,010	e920	e740	e1,040	7,800	4,400	e13,500	2,770	4,830	3,740
20	1,530	1,420	e1,020	e910	e745	e1,140	7,070	4,160	e11,700	2,640	4,010	3,070
21	1,730	1,350	e1,020	e900	e760	e1,230	6,470	3,910	e10,100	2,650	3,290	2,610
22	2,140	1,180	e1,020	e890	e775	e1,320	5,970	3,710	e8,620	2,830	2,760	2,300
23	2,420	988	e1,020	e880	e785	e1,420	5,520	3,520	7,620	2,650	2,400	2,020
24	2,500	1,010	e1,030	e875	e770	e1,500	5,180	3,380	6,920	2,330	2,120	1,830
25	2,410	996	e1,030	e865	e750	e1,680	4,850	3,210	6,370	2,110	1,870	1,700
26	2,300	e974	e1,030	e860	e765	e1,830	4,790	3,030	5,810	1,990	1,560	1,560
27	2,230	e924	e1,030	e870	e770	e1,980	5,000	2,900	5,340	1,930	1,300	1,450
28	2,150	e864	e1,020	e865	e770	e2,140	5,290	2,800	5,180	1,870	1,130	1,360
29	2,080	e839	e1,010	e855	e770	e2,260	5,370	2,740	5,360	2,040	996	1,280
30	2,110	e843	e995	e845	---	e2,450	5,400	2,630	5,400	2,160	931	1,270
31	2,200	---	e990	e830	---	e2,690	---	2,560	---	3,090	884	---
Total	47,292	43,588	30,600	29,472	22,682	36,293	208,930	161,130	259,390	94,330	70,811	86,482
Mean	1,526	1,453	987	951	782	1,171	6,964	5,198	8,646	3,043	2,284	2,883
Max	2,500	2,160	1,030	1,050	822	2,690	12,500	9,000	17,700	5,310	5,350	8,050
Min	979	839	868	830	740	690	2,960	2,560	2,610	1,870	884	876
Ac-ft	93,800	86,460	60,700	58,460	44,990	71,990	414,400	319,600	514,500	187,100	140,500	171,500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,542	1,479	1,111	920	897	2,848	10,530	5,670	4,739	3,847	1,916	1,655
Max	5,127	10,720	3,832	3,271	3,520	15,370	56,210	36,510	21,370	25,270	17,050	11,340
(WY)	(1995)	(2005)	(2001)	(2006)	(1998)	(1995)	(1997)	(1950)	(2005)	(1975)	(1993)	(1999)
Min	12.1	30.5	17.8	18.8	2.87	42.1	954	373	151	88.8	30.6	20.3
(WY)	(1937)	(1937)	(1937)	(1937)	(1937)	(1937)	(1938)	(1934)	(1934)	(1936)	(1934)	(1936)

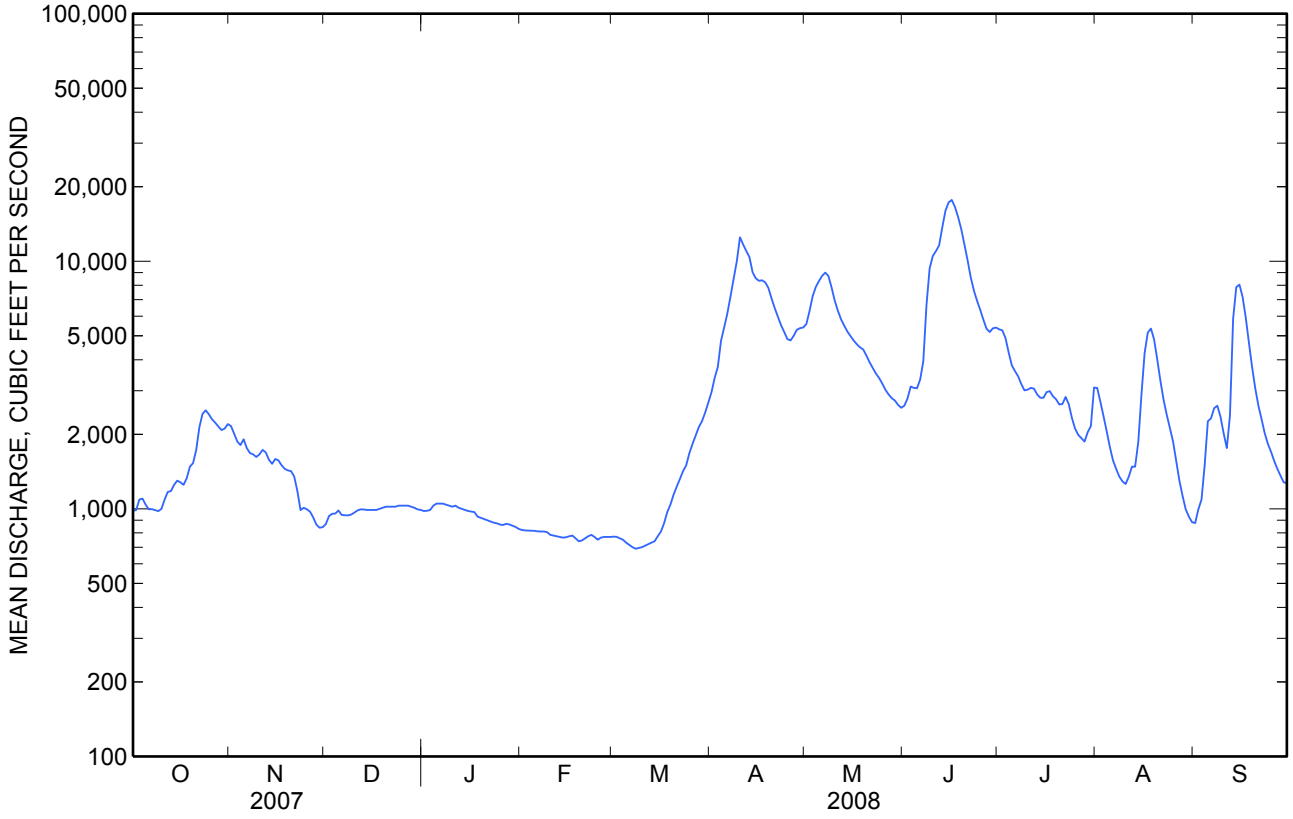
05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1904 - 2008	
Annual total	1,969,167		1,091,000			
Annual mean	5,395		2,981		3,082	
Highest annual mean					10,070	1997
Lowest annual mean					244	1934
Highest daily mean	35,200	Jun 22	17,700	Jun 16	127,000	Apr 18, 1997
Lowest daily mean	609	Feb 17	690	Mar 8	1.80	Sep 2, 1977
Annual seven-day minimum	616	Feb 12	704	Mar 6	2.46	Feb 12, 1937
Maximum peak flow			17,700	Jun 16	[a]137,000	Apr 18, 1997
Maximum peak stage			26.56	Jun 16	[b]54.35	Apr 22, 1997
Annual runoff (ac-ft)	3,906,000		2,164,000		2,233,000	
10 percent exceeds	15,800		7,210		6,820	
50 percent exceeds	1,440		1,720		1,470	
90 percent exceeds	728		808		300	

[a] Maximum observed, affected by breakout from Red River of the North about 20 mi upstream of gage that entered Red Lake River about 2 mi upstream of confluence with the Red River of the North.

[b] From floodmark.

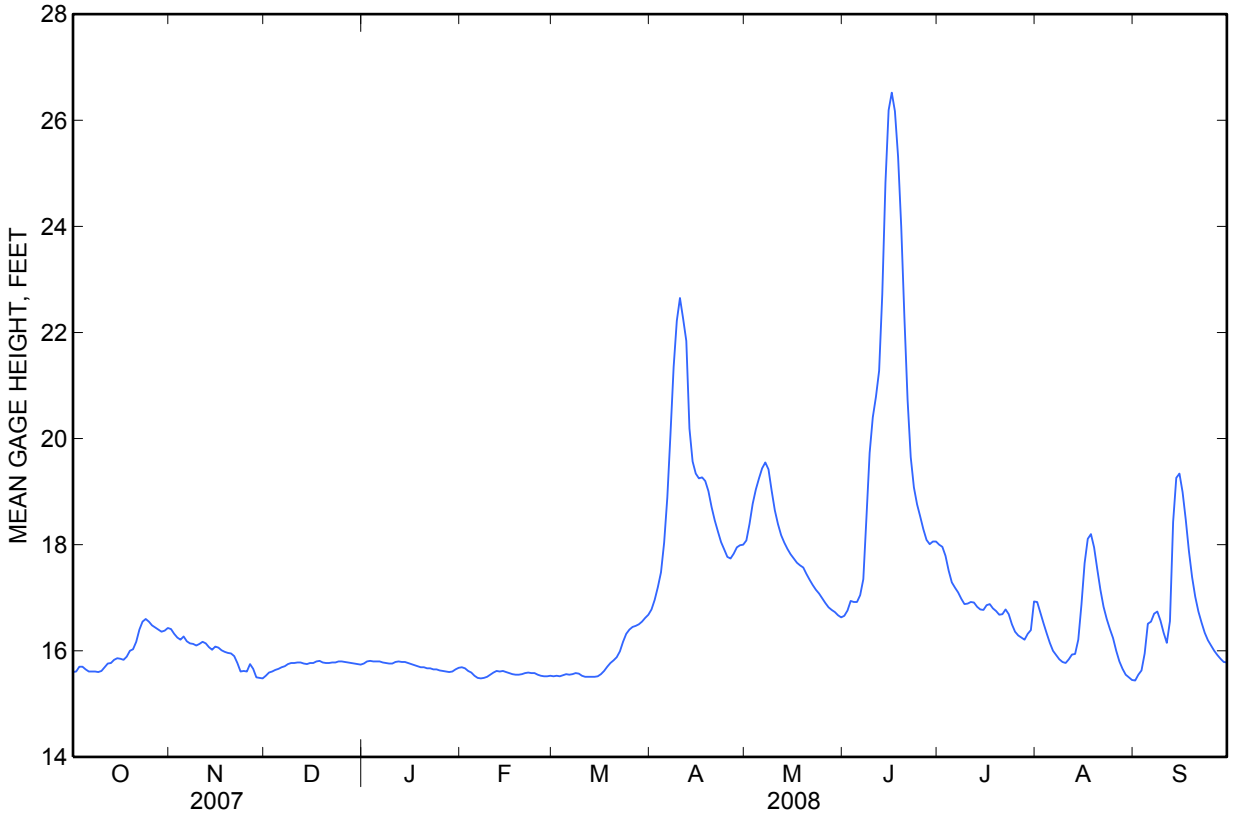


05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	15.60	16.41	15.53	15.76	15.69	15.52	16.78	18.08	16.66	18.00	16.92	15.44
2	15.61	16.32	15.59	15.80	15.67	15.53	16.96	18.39	16.76	17.96	16.72	15.55
3	15.70	16.25	15.61	15.81	15.62	15.52	17.20	18.77	16.94	17.79	16.52	15.63
4	15.70	16.21	15.64	15.80	15.59	15.54	17.48	19.04	16.92	17.51	16.33	15.95
5	15.65	16.27	15.66	15.80	15.53	15.56	18.04	19.25	16.92	17.29	16.15	16.51
6	15.61	16.18	15.69	15.80	15.49	15.55	18.89	19.44	17.05	17.19	16.00	16.55
7	15.61	16.14	15.71	15.78	15.48	15.56	20.08	19.55	17.35	17.10	15.92	16.70
8	15.61	16.13	15.75	15.77	15.49	15.58	21.35	19.42	18.53	16.98	15.84	16.74
9	15.60	16.10	15.77	15.76	15.51	15.57	22.22	19.02	19.73	16.88	15.79	16.57
10	15.62	16.13	15.77	15.76	15.55	15.53	22.65	18.65	20.40	16.89	15.77	16.34
11	15.69	16.17	15.78	15.79	15.59	15.51	22.26	18.39	20.79	16.92	15.84	16.15
12	15.76	16.14	15.78	15.80	15.62	15.51	21.84	18.18	21.28	16.91	15.93	16.56
13	15.77	16.07	15.76	15.79	15.61	15.51	20.19	18.04	22.72	16.83	15.94	18.43
14	15.83	16.02	15.75	15.79	15.62	15.51	19.57	17.92	24.82	16.78	16.21	19.26
15	15.86	16.08	15.77	15.77	15.60	15.52	19.34	17.82	26.19	16.77	16.87	19.34
16	15.85	16.06	15.77	15.75	15.58	15.56	19.25	17.74	26.52	16.86	17.65	18.99
17	15.83	16.01	15.80	15.73	15.56	15.62	19.27	17.66	26.17	16.88	18.11	18.47
18	15.89	15.98	15.81	15.71	15.55	15.70	19.20	17.61	25.31	16.80	18.20	17.88
19	16.00	15.96	15.78	15.69	15.55	15.77	19.01	17.57	23.99	16.75	17.95	17.39
20	16.03	15.95	15.77	15.69	15.56	15.82	18.71	17.45	22.28	16.68	17.54	17.02
21	16.17	15.90	15.77	15.67	15.58	15.88	18.46	17.34	20.73	16.69	17.15	16.74
22	16.40	15.77	15.78	15.67	15.59	15.99	18.25	17.24	19.65	16.78	16.83	16.53
23	16.55	15.61	15.78	15.65	15.58	16.17	18.05	17.15	19.08	16.69	16.60	16.34
24	16.60	15.62	15.80	15.65	15.58	16.32	17.91	17.08	18.76	16.50	16.41	16.20
25	16.55	15.61	15.80	15.63	15.55	16.40	17.77	16.99	18.53	16.36	16.24	16.10
26	16.48	15.75	15.79	15.62	15.53	16.45	17.74	16.90	18.29	16.29	16.00	16.00
27	16.44	15.66	15.78	15.61	15.52	16.47	17.83	16.82	18.09	16.25	15.80	15.92
28	16.40	15.50	15.77	15.60	15.52	16.50	17.95	16.77	18.01	16.21	15.66	15.85
29	16.36	15.49	15.76	15.61	15.53	16.55	17.99	16.73	18.06	16.32	15.55	15.79
30	16.38	15.48	15.75	15.65	---	16.62	18.00	16.67	18.06	16.39	15.50	15.78
31	16.43	---	15.74	15.68	---	16.68	---	16.63	---	16.93	15.45	---
Mean	15.99	15.97	15.74	15.72	15.57	15.86	19.01	17.88	20.15	16.88	16.43	16.76
Max	16.60	16.41	15.81	15.81	15.69	16.68	22.65	19.55	26.52	18.00	18.20	19.34
Min	15.60	15.48	15.53	15.60	15.48	15.51	16.78	16.63	16.66	16.21	15.45	15.44

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued



05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1959 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: March 2007 to current year.
SPECIFIC CONDUCTANCE: March 2007 to current year.
PH: March 2007 to current year.
DISSOLVED OXYGEN: March 2007 to current year.
TURBIDITY: May 2007 to current year.

INSTRUMENTATION.--Multiparameter water-quality monitor.

REMARKS.--Quality assurance samples also collected at this location. Record rated as follows:
WATER TEMPERATURE: Rated excellent.
SPECIFIC CONDUCTANCE: Rated excellent: October 1-29, November 9-March 30, April 30-September 30. Rated good: October 30-November 8, March 31-April 29.
PH: Rated excellent.
DISSOLVED OXYGEN: Rated excellent: October 1-July 12, August 5-September 30. Rated good: July 13-24. Rated fair: July 25-August 4.
TURBIDITY: Rated excellent: October 2-September 30. Rated good: October 1.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 28.7°C, July 25, 2007; minimum recorded, 0.0, many days in December 2007 and January to April 2008.
SPECIFIC CONDUCTANCE: Maximum recorded, 1,140 microsiemens, March 25, 2008; minimum recorded, 284 microsiemens, September 14, 2008.
PH: Maximum recorded, 8.9 units on November 20-22, 2007 and September 5-6, 2008; minimum recorded, 7.7 units on many days in February 2008.
DISSOLVED OXYGEN: Maximum recorded, 15.7 milligrams per liter, November 26, 2007; minimum recorded, 5.7 milligrams per liter, September 4, 2008.
TURBIDITY: Maximum recorded, 960 FNU, September 13, 2008; minimum recorded, 2.4 FNU, March 11, 2008.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 26.3°C, August 1; minimum recorded, 0.0°C, many days in December and January to April.
SPECIFIC CONDUCTANCE: Maximum recorded, 1,140 microsiemens, March 25; minimum recorded, 284 microsiemens, September 14.
PH: Maximum recorded, 8.9 units on November 20-22 and September 5-6; minimum recorded, 7.7 units on many days in February.
DISSOLVED OXYGEN: Maximum recorded, 15.7 milligrams per liter, November 26; minimum recorded, 5.7 milligrams per liter, September 4.
TURBIDITY: Maximum recorded, 960 FNU, September 13; minimum recorded, 2.4 FNU, March 11.

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 1 of 5
[Remark codes: <, less than. Null value qualifier codes: x, result failed quality assurance review.]

Date	Time	Instantaneous discharge, ft3/s (00061)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specific conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
Oct													
17...	1625	19,500	23	727	10.3	97	8.5	8.4	731	714	13.0	10.3	290
Jan													
09...	1450	1,030	3.5	734	9.4	67	8.0	7.3	804	755	6.0	.0	340
Apr													
29...	1225	5,380	95	737	11.2	95	8.5	--x	711	694	9.0	6.6	340
May													
14...	1640	5,140	130	736	10.2	97	8.5	7.8	755	737	17.0	11.4	340
Jun													
02...	1015	2,750	47	739	10.3	115	8.6	8.0	698	697	19.5	19.1	320
10...	1245	10,600	390	735	7.0	76	8.0	7.3	617	599	13.5	17.5	270
16...	1130	17,700	260	742	7.2	76	7.9	--x	556	557	19.5	16.6	260
Aug													
04...	1140	2,070	75	743	6.2	77	8.2	8.2	633	620	23.0	24.8	260
18...	1055	5,400	660	738	6.3	77	8.0	--x	428	429	24.5	23.7	190

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 2 of 5
[Remark codes: <, less than. Null value qualifier codes: x, result failed quality assurance review.]

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium fraction of cations percent (00932)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, dissolved, tons/d (70302)
Oct													
17...	61.7	34.0	8.26	.8	18	30.8	248	20.3	.18	11.2	108	453	22,300
Jan													
09...	73.1	38.3	6.08	.8	18	33.4	279	21.0	.21	18.6	128	498	1,360
Apr													
29...	74.2	37.6	5.88	.6	13	24.3	207	15.7	.17	10.8	149	441	6,460
May													
14...	69.5	39.1	5.35	.6	14	24.3	212	15.1	.20	9.02	176	468	6,490
Jun													
02...	68.0	37.7	5.26	.6	15	26.2	226	17.7	.18	4.79	127	433	3,140
10...	56.9	30.9	5.69	.6	16	22.8	178	14.1	.19	14.2	115	383	10,800
16...	56.6	28.8	5.95	.5	14	19.6	161	9.54	.20	18.1	112	345	17,100
Aug													
04...	56.3	30.2	7.65	.7	18	25.9	179	19.9	.33	15.3	125	392	2,180
18...	38.5	22.7	5.17	.5	16	16.8	184	10.2	.14	15.2	65.6	265	4,210

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 3 of 5
[Remark codes: <, less than. Null value qualifier codes: x, result failed quality assurance review.]

Date	Residue total non-filter-able, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Nitrate + nitrite water unfltrd mg/L as N (00630)	Organic nitro-gen, water, fltrd, mg/L (00607)	Organic nitro-gen, water, unfltrd mg/L (00605)	Total nitro-gen, wat flt by anal ysis, mg/L (62854)	Total nitro-gen, wat unf by anal ysis, mg/L (62855)	Total nitro-gen, water, fltrd, mg/L (00602)	Phos-phorus, water, fltrd, mg/L as P (00666)
Oct													
17...	24	1.3	.56	<.010	<.01	<.020	.690	--	--	1.33	1.25	--	.159
Jan													
09...	<5	.86	.90	.248	.23	.882	.880	.61	.67	1.74	1.78	1.7	.237
Apr													
29...	169	.61	.54	<.030	<.03	.522	.510	--	--	1.13	1.05	1.1	.071
May													
14...	204	.70	.55	<.030	<.03	.385	.430	--	--	1.09	.98	1.1	.075
Jun													
02...	79	.52	.56	<.030	<.03	<.030	<.030	--	--	.55	.59	--	.055
10...	704	.63	.41	.065	.07	2.74	2.66	.56	.34	3.37	3.07	3.4	.170
16...	409	.75	.60	.107	.07	2.17	2.09	.64	.54	2.92	2.69	2.9	.207
Aug													
04...	69	.62	.53	.031	.04	.512	.500	.59	.49	1.13	1.03	1.1	.161
18...	708	.49	.30	<.030	<.03	.819	.800	--	--	1.31	1.10	1.3	.168

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 4 of 5
[Remark codes: <, less than. Null value qualifier codes: x, result failed quality assurance review.]

Date	Phos-phorus, water, unfltrd mg/L as P (00665)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli-form, M-FC 0.7u MF col/ 100 mL (31625)	Fecal strep-tococci KF MF, col/ 100 mL (31673)	Alum-inum, water, fltrd, µg/L (01106)	Anti-mony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryll-ium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)
Oct													
17...	.179	7.5	7.2	30	30	60	<50	<1.00	4.3	56	<1.00	88	<1.00
Jan													
09...	.262	8.4	8.3	10	10	<10	<50	<1.00	3.0	63	<1.00	94	<1.00
Apr													
29...	.163	8.8	7.7	<10	<10	--	<50	<1.00	2.8	52	<1.00	67	<1.00
May													
14...	.191	9.0	8.2	<10	<10	--	<50	<1.00	3.3	62	<1.00	85	<1.00
Jun													
02...	.123	8.3	8.0	10	20	--	<50	<1.00	3.6	58	<1.00	118	<1.00
10...	.510	9.2	8.0	60	80	--	<50	<1.00	6.2	60	<1.00	80	<1.00
16...	.442	9.8	8.7	--	180	--	1,530	<1.00	6.7	56	<1.00	104	<1.00
Aug													
04...	.215	8.1	7.5	40	50	--	<50	<1.00	6.3	48	<1.00	81	<1.00
18...	.679	6.3	5.3	60	600	--	50	<1.00	5.3	34	<1.00	65	<1.00

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 5 of 5
[Remark codes: <, less than. Null value qualifier codes: x, result failed quality assurance review.]

Date	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Thallium, water, fltrd, µg/L (01057)	Zinc, water, fltrd, µg/L (01090)	Suspnd. sediment, sieve diametr percent <62.5um (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
Oct													
17...	<1.0	2.4	<50	<1.00	<10.0	3.6	<1.0	<1.0	<1.00	2.2	95	36	1,900
Jan													
09...	7.2	1.5	<50	1.63	24.0	2.9	1.0	<1.0	<1.00	7.7	99	170	473
Apr													
29...	<1.0	1.6	<50	<1.00	<10.0	3.1	1.2	<1.0	<1.00	<1.0	99	170	2,470
May													
14...	<1.0	2.1	<50	<1.00	<10.0	3.5	1.1	<1.0	<1.00	<1.0	96	187	2,600
Jun													
02...	<1.0	1.8	<50	<1.00	<10.0	3.9	<1.0	<1.0	<1.00	<1.0	88	33	245
10...	<1.0	2.9	<50	<1.00	<10.0	5.0	1.0	<1.0	<1.00	1.2	89	172	4,920
16...	<1.0	2.9	<50	<1.00	<10.0	5.4	<1.0	<1.0	<1.00	1.6	92	140	6,690
Aug													
04...	<1.0	<1.0	<50	<1.00	<10.0	5.0	1.4	<1.0	<1.00	3.6	98	95	531
18...	<1.0	1.2	<50	<1.00	<10.0	4.1	<1.0	<1.0	<1.00	<1.0	99	1,110	16,200

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	15.6	15.0	15.3	6.7	6.3	6.5	0.1	0.1	0.1	0.0	0.0	0.0
2	15.5	15.0	15.3	6.6	6.1	6.3	0.1	0.1	0.1	0.0	0.0	0.0
3	15.7	15.0	15.3	6.1	5.5	5.6	0.1	0.1	0.1	0.0	0.0	0.0
4	15.5	15.1	15.3	5.5	4.9	5.2	0.1	0.1	0.1	0.0	0.0	0.0
5	15.1	14.1	14.7	4.9	4.1	4.5	0.1	0.1	0.1	0.0	0.0	0.0
6	14.4	14.0	14.1	4.1	3.4	3.7	0.1	0.1	0.1	0.0	0.0	0.0
7	14.1	13.6	13.9	3.4	2.7	2.9	0.1	0.1	0.1	0.0	0.0	0.0
8	13.6	13.0	13.3	2.7	2.3	2.4	0.1	0.0	0.1	0.0	0.0	0.0
9	13.0	12.0	12.5	2.4	1.9	2.1	0.1	0.0	0.0	0.0	0.0	0.0
10	12.1	11.3	11.6	---	---	---	0.1	0.0	0.0	0.0	0.0	0.0
11	11.3	10.7	11.1	2.3	1.9	2.0	0.1	0.0	0.0	0.0	0.0	0.0
12	10.7	10.3	10.5	---	---	---	0.1	0.0	0.0	0.0	0.0	0.0
13	10.3	10.1	10.2	---	---	---	0.1	0.0	0.0	0.0	0.0	0.0
14	10.1	9.9	10.0	---	---	---	0.1	0.0	0.0	0.0	0.0	0.0
15	9.9	9.6	9.8	---	---	---	0.1	0.0	0.0	0.0	0.0	0.0
16	9.9	9.6	9.7	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
17	10.5	9.9	10.2	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
18	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
19	10.8	10.5	10.6	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
20	10.6	10.4	10.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
21	10.5	10.4	10.5	1.4	0.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0
22	10.4	9.6	10	0.6	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0
23	9.6	9.2	9.4	0.4	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0
24	9.2	8.8	9.0	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
25	---	---	---	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0
26	8.9	8.3	8.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
27	8.3	7.7	8.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
28	7.7	7.1	7.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
29	7.1	6.6	6.8	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
30	6.8	6.6	6.7	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
31	6.8	6.5	6.7	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
Month	---	---	---	---	---	---	0.1	0.0	0.0	0.0	0.0	0.0

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	---	---	---
2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	8.6	8.0	8.3
3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	8.6	7.8	8.2
4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	9.2	8.1	8.6
5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	9.8	8.9	9.3
6	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	10.5	9.2	9.8
7	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	10.9	10.1	10.5
8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	10.8	10.1	10.4
9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	10.7	10.3	10.5
10	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	11.2	10.6	10.8
11	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	11.6	10.8	11.2
12	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.1	---	---	---
13	0.0	0.0	0.0	0.1	0.0	0.0	2.2	1.5	1.8	11.4	11.0	11.2
14	0.0	0.0	0.0	0.1	0.0	0.0	2.6	1.8	2.2	11.4	10.5	11.0
15	0.0	0.0	0.0	0.1	0.0	0.0	4.8	2.5	3.3	12.8	11.3	11.9
16	0.0	0.0	0.0	0.1	0.0	0.0	6.0	4.8	5.3	14.0	12.8	13.3
17	0.0	0.0	0.0	0.1	0.0	0.0	7.1	6.0	6.5	14.4	13.7	14.1
18	0.0	0.0	0.0	0.1	0.0	0.0	8.2	7.0	7.4	14.9	14.0	14.4
19	0.0	0.0	0.0	0.1	0.0	0.1	9.1	8.0	8.5	14.8	14.5	14.6
20	0.0	0.0	0.0	0.1	0.0	0.1	9.5	8.8	9.1	15.0	14.2	14.6
21	0.0	0.0	0.0	0.1	0.0	0.0	9.9	9.5	9.7	15.1	14.3	14.7
22	0.0	0.0	0.0	0.0	0.0	0.0	10.1	9.5	9.8	15.9	14.9	15.3
23	0.0	0.0	0.0	0.0	0.0	0.0	10.0	9.5	9.8	16.7	15.8	16.2
24	0.0	0.0	0.0	0.0	0.0	0.0	10.0	9.3	9.7	17.1	16.4	16.7
25	0.0	0.0	0.0	0.0	0.0	0.0	9.3	7.9	8.5	17.9	16.7	17.3
26	0.0	0.0	0.0	0.0	0.0	0.0	7.9	6.4	7.0	17.5	16.9	17.2
27	0.0	0.0	0.0	0.0	0.0	0.0	6.4	5.7	6.1	17.3	16.6	17.0
28	0.0	0.0	0.0	0.0	0.0	0.0	6.6	5.9	6.2	17.0	16.2	16.6
29	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	17.0	16.5	16.8
30	---	---	---	0.0	0.0	0.0	---	---	---	17.7	16.9	17.3
31	---	---	---	0.1	0.0	0.0	---	---	---	18.2	17.2	17.7
Month	0.0	0.0	0.0	0.1	0.0	0.0	---	---	---	---	---	---

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	19.4	17.8	18.5	23.9	23.0	23.4	26.3	25.5	25.8	22.8	22.0	22.4
2	20.2	19.0	19.6	23.8	23.3	23.5	25.7	25.0	25.2	22.6	21.6	22.0
3	20.0	18.7	19.4	23.4	23.0	23.2	25.7	24.8	25.2	21.7	20.9	21.4
4	18.7	18.1	18.3	23.5	22.8	23.1	25.4	24.7	25.0	21.6	20.7	21.1
5	18.1	17.3	17.6	24.0	23.0	23.5	25.0	24.2	24.6	20.7	18.5	19.4
6	17.3	16.6	16.9	24.8	24.0	24.4	25.1	24.5	24.9	18.6	18.0	18.2
7	17.2	16.2	16.7	24.5	23.9	24.2	25.3	24.5	24.9	18.2	17.4	17.8
8	18.0	16.9	17.4	23.9	23.4	23.7	25.1	24.6	24.9	17.6	17.1	17.4
9	18.0	17.4	17.7	23.6	22.9	23.2	25.3	24.3	24.8	17.4	16.9	17.1
10	17.9	17.4	17.6	24.2	23.1	23.6	25.2	24.2	24.6	17.1	16.7	16.9
11	17.7	16.8	17.1	24.7	23.8	24.2	24.7	23.4	23.9	17.1	16.6	16.8
12	17.0	16.4	16.7	24.3	22.8	23.5	23.7	23.0	23.3	17.7	16.8	17.2
13	17.0	16.5	16.7	23.0	22.2	22.6	24.0	22.9	23.5	17.5	16.7	17.3
14	16.6	15.9	16.2	22.7	22.0	22.3	24.0	23.1	23.6	16.7	16.4	16.6
15	16.8	16.3	16.5	23.2	22.0	22.7	24.9	23.4	24.1	16.8	16.1	16.5
16	17.4	16.5	17.0	23.7	22.9	23.3	24.6	24.2	24.4	16.8	16.3	16.6
17	18.3	17.3	17.7	23.6	23.2	23.3	24.8	24.2	24.5	16.8	16.3	16.6
18	19.1	18.0	18.5	24.1	22.9	23.5	24.5	23.7	24.1	17.1	16.5	16.7
19	20.3	18.9	19.5	23.9	23.3	23.5	24.8	23.8	24.3	17.7	17.1	17.4
20	21.2	20.0	20.6	24.2	23.2	23.7	24.8	24.3	24.6	18.0	17.4	17.7
21	21.7	20.8	21.3	24.3	23.4	23.9	24.9	24.4	24.6	18.2	17.6	17.9
22	22.4	21.3	21.8	25.0	23.8	24.3	24.5	23.6	24.2	18.3	17.8	18.1
23	22.9	22.0	22.4	24.8	24.3	24.5	23.6	22.9	23.2	18.8	18.2	18.5
24	23.4	22.5	22.9	25.2	24.1	24.6	22.9	22.2	22.5	18.8	18.2	18.6
25	24.1	23.3	23.6	25.2	24.5	24.9	22.3	21.4	21.8	18.7	18.3	18.5
26	24.3	23.9	24.1	25.6	24.4	24.9	22.0	21.3	21.7	18.6	17.7	18.2
27	24.1	23.8	23.9	26.1	25.1	25.6	21.9	21.5	21.7	17.7	16.9	17.2
28	23.8	22.9	23.4	26.0	25.4	25.6	21.8	21.2	21.5	16.9	16.4	16.7
29	22.9	22.2	22.5	25.7	24.6	25.2	21.7	21.1	21.5	16.6	15.5	15.9
30	23.3	22.0	22.6	25.8	25.1	25.4	21.9	21.3	21.6	15.5	14.7	15.0
31	---	---	---	26.2	25.2	25.7	22.5	21.4	21.9	---	---	---
Month	24.3	15.9	19.5	26.2	22.0	24.0	26.3	21.1	23.8	22.8	14.7	17.9

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	724	687	698	717	709	713	843	837	840	758	749	753
2	790	724	755	724	712	719	852	839	845	756	748	753
3	867	790	846	712	691	701	863	852	858	757	752	755
4	879	827	861	711	679	699	855	818	832	759	751	755
5	832	819	825	680	665	671	818	803	809	766	758	763
6	853	828	844	688	666	679	853	805	821	769	762	765
7	848	823	839	690	673	683	866	851	861	763	757	761
8	828	783	813	702	674	682	853	821	837	766	756	762
9	786	752	765	742	702	719	826	818	821	766	758	763
10	766	740	754	758	742	750	829	823	826	762	755	759
11	746	706	728	758	742	750	824	817	820	755	747	750
12	713	693	706	---	---	---	818	805	811	759	749	755
13	693	659	676	---	---	---	807	800	804	756	750	754
14	661	647	653	---	---	---	808	802	806	751	741	746
15	650	630	638	---	---	---	813	807	811	743	735	740
16	662	636	649	---	---	---	816	803	811	736	729	734
17	715	662	691	---	---	---	803	787	792	731	727	729
18	---	---	---	---	---	---	799	789	795	733	727	731
19	684	672	676	---	---	---	817	799	805	743	728	733
20	712	684	694	---	---	---	850	812	831	753	743	748
21	726	712	720	744	699	721	847	790	815	787	753	772
22	719	684	701	755	732	741	790	776	782	784	771	775
23	715	676	688	758	752	756	782	774	778	790	776	785
24	715	676	695	761	738	753	787	781	784	793	788	790
25	---	---	---	756	738	749	783	778	781	794	790	792
26	709	692	699	749	737	741	783	775	779	794	785	791
27	736	708	724	753	738	749	777	766	772	790	782	785
28	749	734	743	752	731	737	767	760	763	796	788	791
29	744	728	736	818	752	785	764	760	762	822	795	803
30	733	717	723	840	818	835	763	758	761	828	807	822
31	724	710	717	---	---	---	762	757	760	807	758	781
Month	---	---	---	---	---	---	866	757	806	828	727	764

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	758	734	745	751	736	740	959	938	949	---	---	---
2	738	729	732	761	749	757	943	916	932	679	655	669
3	745	736	740	750	719	730	918	877	900	666	650	657
4	772	740	759	719	706	711	877	838	866	669	651	660
5	761	727	738	709	704	706	---	---	---	685	668	675
6	727	720	722	720	709	712	---	---	---	704	672	690
7	728	719	722	721	718	720	---	---	---	717	695	707
8	731	725	728	721	709	714	591	568	580	695	558	598
9	741	727	735	720	711	716	---	---	---	639	568	604
10	731	724	727	737	717	726	589	561	575	689	639	663
11	728	724	726	732	686	704	586	567	575	723	689	705
12	731	727	729	699	681	688	581	543	567	---	---	---
13	735	729	732	701	679	690	543	528	534	747	736	743
14	734	728	731	687	675	679	538	525	531	749	737	743
15	728	714	720	682	676	679	554	528	543	759	746	754
16	716	710	713	688	676	682	554	545	549	762	747	756
17	729	716	723	693	683	688	565	549	558	768	759	764
18	727	714	719	693	676	687	589	559	574	770	765	767
19	725	710	715	681	675	677	600	584	593	767	757	760
20	758	725	745	680	673	677	608	593	600	777	761	770
21	739	706	716	731	679	698	623	601	610	786	775	781
22	707	698	702	822	731	785	653	622	637	787	780	783
23	702	696	699	764	725	745	672	650	661	794	783	787
24	700	694	696	840	706	732	693	671	684	793	784	788
25	720	693	703	1,140	840	1,070	694	673	681	798	790	794
26	740	719	730	1,070	964	997	691	676	685	799	779	790
27	741	738	740	971	964	967	690	676	681	780	768	773
28	740	731	734	1,000	969	989	692	680	688	774	764	769
29	738	732	734	1,010	998	1,010	---	---	---	776	741	767
30	---	---	---	1,010	990	997	---	---	---	772	733	758
31	---	---	---	990	955	971	---	---	---	736	710	719
Month	772	693	726	1,140	673	776	---	---	---	---	---	---

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	715	700	708	883	773	805	677	510	642	600	562	590
2	701	659	682	782	765	772	510	401	430	589	554	579
3	660	628	643	770	758	764	584	417	505	607	584	596
4	654	624	637	792	764	775	673	565	627	613	597	606
5	653	634	646	825	792	809	665	614	641	638	583	606
6	652	624	637	828	819	825	629	608	618	615	578	598
7	669	648	657	830	804	819	614	595	604	578	474	530
8	677	645	660	809	796	803	605	589	598	520	479	496
9	689	546	606	806	787	801	617	598	605	569	520	553
10	623	545	585	815	795	808	628	607	620	554	542	548
11	647	579	612	801	773	790	655	603	632	555	537	546
12	643	580	617	777	733	753	626	595	616	568	552	562
13	650	589	614	792	728	757	626	605	618	660	301	534
14	589	507	535	737	718	728	634	611	627	351	284	318
15	533	507	520	740	701	717	684	626	645	349	324	332
16	571	533	553	735	693	710	633	517	574	408	348	381
17	636	571	602	746	720	733	661	533	577	437	401	412
18	695	636	663	720	693	701	564	386	437	481	437	458
19	730	690	706	695	670	680	439	395	422	531	481	511
20	766	729	753	687	669	678	443	434	440	542	531	537
21	788	763	778	696	684	692	463	441	453	572	542	557
22	818	782	801	710	691	701	482	463	475	595	571	582
23	836	811	822	706	692	698	494	480	485	607	595	601
24	842	830	835	712	688	698	511	493	503	631	606	617
25	834	819	827	741	710	731	533	510	522	653	631	642
26	854	834	844	738	688	711	534	530	533	681	652	667
27	868	851	860	695	671	682	546	528	539	692	680	686
28	876	865	868	681	671	676	558	541	549	694	685	689
29	886	875	880	672	591	639	577	558	569	698	686	690
30	883	872	877	696	659	673	583	572	578	742	697	722
31	---	---	---	713	668	687	593	582	587	---	---	---
Month	886	507	701	883	591	736	684	386	557	742	284	558

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
		October			November			December			January	
1	8.4	8.3	8.4	8.6	8.5	8.6	8.7	8.6	8.6	7.9	7.9	7.9
2	8.5	8.4	8.4	8.6	8.6	8.6	8.6	8.6	8.6	7.9	7.9	7.9
3	8.5	8.4	8.5	8.7	8.6	8.6	8.7	8.6	8.6	7.9	7.9	7.9
4	8.5	8.4	8.4	8.7	8.7	8.7	8.6	8.6	8.6	7.9	7.9	7.9
5	8.5	8.4	8.5	8.7	8.7	8.7	8.6	8.5	8.6	7.9	7.9	7.9
6	8.5	8.4	8.5	8.8	8.7	8.7	8.6	8.5	8.5	7.9	7.9	7.9
7	8.5	8.4	8.4	8.7	8.7	8.7	8.5	8.5	8.5	7.9	7.9	7.9
8	8.5	8.4	8.4	---	---	---	8.5	8.4	8.5	7.9	7.9	7.9
9	8.4	8.4	8.4	---	---	---	8.4	8.4	8.4	7.9	7.9	7.9
10	8.4	8.4	8.4	8.8	8.8	8.8	8.4	8.4	8.4	7.9	7.9	7.9
11	8.4	8.4	8.4	8.8	8.8	8.8	8.4	8.3	8.3	7.9	7.9	7.9
12	8.5	8.4	8.4	---	---	---	8.3	8.2	8.3	7.9	7.9	7.9
13	8.5	8.4	8.4	---	---	---	8.2	8.2	8.2	7.9	7.9	7.9
14	8.5	8.4	8.5	---	---	---	8.2	8.2	8.2	7.9	7.9	7.9
15	8.5	8.4	8.5	---	---	---	8.2	8.1	8.2	7.9	7.8	7.9
16	8.5	8.4	8.5	---	---	---	8.1	8.1	8.1	7.9	7.8	7.8
17	8.5	8.4	8.4	---	---	---	8.1	8.1	8.1	7.9	7.8	7.8
18	---	---	---	---	---	---	8.1	8.1	8.1	7.8	7.8	7.8
19	8.5	8.4	8.5	---	---	---	8.1	8.0	8.1	7.9	7.8	7.8
20	8.5	8.5	8.5	---	---	---	8.1	8.0	8.1	7.8	7.8	7.8
21	8.5	8.5	8.5	8.9	8.8	8.9	8.1	8.0	8.1	7.8	7.8	7.8
22	8.5	8.5	8.5	8.9	8.7	8.8	8.0	8.0	8.0	7.8	7.8	7.8
23	8.5	8.5	8.5	8.8	8.7	8.7	8.0	8.0	8.0	7.8	7.8	7.8
24	8.5	8.4	8.5	8.7	8.7	8.7	8.0	7.9	8.0	7.8	7.8	7.8
25	---	---	---	8.7	8.7	8.7	8.0	7.9	7.9	7.8	7.8	7.8
26	8.5	8.4	8.4	8.7	8.7	8.7	7.9	7.9	7.9	7.8	7.8	7.8
27	8.5	8.3	8.4	8.7	8.6	8.7	7.9	7.9	7.9	7.8	7.8	7.8
28	8.5	8.5	8.5	8.7	8.6	8.6	7.9	7.9	7.9	7.8	7.8	7.8
29	8.5	8.5	8.5	8.7	8.6	8.6	7.9	7.9	7.9	7.8	7.8	7.8
30	8.6	8.5	8.6	8.7	8.6	8.6	7.9	7.9	7.9	7.8	7.8	7.8
31	8.6	8.5	8.6	---	---	---	7.9	7.9	7.9	7.8	7.8	7.8
Max	---	---	---	---	---	---	8.7	8.6	8.6	7.9	7.9	7.9
Min	---	---	---	---	---	---	7.9	7.9	7.9	7.8	7.8	7.8

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
		February			March			April			May	
1	7.8	7.8	7.8	7.8	7.8	7.8	8.2	8.2	8.2	---	---	---
2	7.8	7.8	7.8	7.8	7.8	7.8	8.2	8.2	8.2	8.6	8.5	8.5
3	7.8	7.8	7.8	7.8	7.8	7.8	8.2	8.2	8.2	8.5	8.5	8.5
4	7.8	7.7	7.8	7.8	7.8	7.8	8.2	8.2	8.2	8.5	8.5	8.5
5	7.8	7.7	7.7	7.8	7.8	7.8	---	---	---	8.5	8.4	8.5
6	7.8	7.7	7.7	7.8	7.8	7.8	---	---	---	8.4	8.4	8.4
7	7.7	7.7	7.7	7.8	7.8	7.8	---	---	---	8.4	8.4	8.4
8	7.7	7.7	7.7	8.0	7.8	7.8	8.2	8.2	8.2	8.4	8.3	8.3
9	7.7	7.7	7.7	7.8	7.8	7.8	8.2	8.1	8.2	8.4	8.3	8.4
10	7.7	7.7	7.7	7.8	7.8	7.8	8.3	8.2	8.2	8.4	8.4	8.4
11	7.7	7.7	7.7	7.8	7.8	7.8	8.3	8.3	8.3	8.4	8.4	8.4
12	7.7	7.7	7.7	7.8	7.8	7.8	8.3	8.3	8.3	---	---	---
13	7.7	7.7	7.7	7.8	7.8	7.8	8.3	8.3	8.3	8.5	8.5	8.5
14	7.7	7.7	7.7	7.8	7.8	7.8	8.3	8.3	8.3	8.5	8.5	8.5
15	7.7	7.7	7.7	7.8	7.8	7.8	8.3	8.3	8.3	8.6	8.5	8.5
16	7.8	7.7	7.7	7.8	7.8	7.8	8.3	8.3	8.3	8.6	8.5	8.5
17	7.7	7.7	7.7	7.8	7.8	7.8	8.4	8.3	8.3	8.5	8.5	8.5
18	7.7	7.7	7.7	7.8	7.8	7.8	8.4	8.4	8.4	8.5	8.5	8.5
19	7.7	7.7	7.7	7.9	7.8	7.8	8.4	8.4	8.4	8.5	8.5	8.5
20	7.7	7.7	7.7	7.9	7.8	7.9	8.4	8.4	8.4	8.5	8.4	8.4
21	7.8	7.7	7.7	7.9	7.9	7.9	8.4	8.4	8.4	8.4	8.4	8.4
22	7.7	7.7	7.7	7.9	7.9	7.9	8.4	8.4	8.4	8.4	8.4	8.4
23	7.7	7.7	7.7	8.0	7.9	8.0	8.5	8.4	8.5	8.4	8.4	8.4
24	7.7	7.7	7.7	8.0	8.0	8.0	8.5	8.5	8.5	8.4	8.4	8.4
25	7.8	7.7	7.7	8.0	8.0	8.0	8.5	8.5	8.5	8.5	8.4	8.5
26	7.8	7.7	7.8	8.0	8.0	8.0	8.6	8.5	8.6	8.5	8.5	8.5
27	7.8	7.8	7.8	8.1	8.0	8.1	8.7	8.6	8.7	8.6	8.5	8.5
28	7.8	7.8	7.8	8.1	8.1	8.1	8.7	8.6	8.7	8.6	8.5	8.6
29	7.8	7.8	7.8	8.1	8.1	8.1	---	---	---	8.6	8.5	8.6
30	---	---	---	8.2	8.1	8.1	---	---	---	8.6	8.5	8.5
31	---	---	---	8.2	8.2	8.2	---	---	---	8.6	8.5	8.5
Max	7.8	7.8	7.8	8.2	8.2	8.2	---	---	---	---	---	---
Min	7.7	7.7	7.7	7.8	7.8	7.8	---	---	---	---	---	---

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
		June			July			August			September	
1	8.6	8.5	8.6	8.3	8.1	8.2	8.3	8.2	8.3	8.7	8.6	8.6
2	8.6	8.5	8.6	8.3	8.3	8.3	8.2	8.0	8.1	8.8	8.6	8.7
3	8.6	8.5	8.5	8.3	8.2	8.2	8.2	8.0	8.1	8.8	8.7	8.8
4	8.5	8.4	8.4	8.3	8.2	8.3	8.2	8.1	8.2	8.8	8.8	8.8
5	8.5	8.4	8.4	8.3	8.3	8.3	8.2	8.2	8.2	8.9	8.8	8.9
6	8.5	8.4	8.5	8.3	8.3	8.3	8.3	8.2	8.2	8.9	8.6	8.8
7	8.5	8.4	8.5	8.3	8.3	8.3	8.3	8.3	8.3	8.6	8.3	8.4
8	8.4	8.3	8.3	8.4	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
9	8.3	8.0	8.1	8.4	8.3	8.4	8.4	8.3	8.4	8.4	8.3	8.4
10	8.0	8.0	8.0	8.4	8.3	8.4	8.4	8.4	8.4	8.5	8.4	8.5
11	8.1	8.0	8.1	8.4	8.4	8.4	8.4	8.4	8.4	8.5	8.4	8.4
12	8.1	8.0	8.1	8.4	8.3	8.3	8.4	8.4	8.4	8.6	8.5	8.5
13	8.0	8.0	8.0	8.4	8.3	8.3	8.5	8.4	8.4	8.5	8.0	8.4
14	8.0	7.9	7.9	8.4	8.4	8.4	8.5	8.4	8.4	8.1	8.0	8.0
15	7.9	7.9	7.9	8.4	8.3	8.3	8.5	8.4	8.5	8.0	8.0	8.0
16	7.9	7.9	7.9	8.3	8.3	8.3	8.4	8.2	8.2	8.0	8.0	8.0
17	8.0	7.9	7.9	8.3	8.3	8.3	8.2	8.1	8.2	8.0	7.9	8.0
18	8.0	7.9	8.0	8.3	8.3	8.3	8.1	8.1	8.1	8.1	8.0	8.0
19	8.0	8.0	8.0	8.3	8.3	8.3	8.1	8.1	8.1	8.1	8.1	8.1
20	8.0	8.0	8.0	8.3	8.3	8.3	8.1	8.1	8.1	8.2	8.1	8.2
21	8.1	8.0	8.1	8.3	8.3	8.3	8.2	8.1	8.2	8.3	8.2	8.2
22	8.1	8.1	8.1	8.3	8.3	8.3	8.2	8.2	8.2	8.4	8.3	8.3
23	8.1	8.1	8.1	8.3	8.3	8.3	8.3	8.2	8.3	8.4	8.3	8.4
24	8.2	8.1	8.1	8.3	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4
25	8.2	8.2	8.2	8.4	8.3	8.3	8.4	8.3	8.3	8.4	8.4	8.4
26	8.2	8.2	8.2	8.4	8.3	8.4	8.4	8.4	8.4	8.4	8.4	8.4
27	8.2	8.2	8.2	8.3	8.3	8.3	8.5	8.4	8.4	8.5	8.4	8.4
28	8.2	8.2	8.2	8.4	8.3	8.4	8.4	8.4	8.4	8.5	8.4	8.5
29	8.2	8.2	8.2	8.4	8.4	8.4	8.5	8.4	8.5	8.5	8.5	8.5
30	8.3	8.2	8.2	8.4	8.4	8.4	8.5	8.5	8.5	8.5	8.5	8.5
31	---	---	---	8.4	8.3	8.4	8.6	8.5	8.6	---	---	---
Max	8.6	8.5	8.6	8.4	8.4	8.4	8.6	8.5	8.6	8.9	8.8	8.9
Min	7.9	7.9	7.9	8.3	8.1	8.2	8.1	8.0	8.1	8.0	7.9	8.0

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	9.1	8.5	8.8	11.8	11.3	11.7	14.7	14.5	14.6	10.0	9.9	9.9
2	9.0	8.8	8.9	12.0	11.6	11.8	14.6	14.4	14.5	10.0	9.9	9.9
3	8.9	8.6	8.7	12.4	11.7	12.1	14.6	14.4	14.5	10.0	9.8	9.9
4	8.9	8.3	8.6	12.4	11.8	12.2	14.7	14.5	14.6	10.0	9.8	9.9
5	8.9	8.5	8.7	12.7	12.0	12.4	14.7	14.4	14.6	10.1	10.0	10.0
6	8.9	8.4	8.7	13.1	12.2	12.7	14.4	14.2	14.3	10.2	10.0	10.1
7	9.0	8.6	8.8	13.7	12.6	13.2	14.2	13.9	14.1	10.2	9.9	10.0
8	8.9	8.6	8.8	---	---	---	13.9	13.3	13.6	10.2	10.0	10.1
9	9.1	8.7	8.9	---	---	---	13.4	13.0	13.2	10.3	10.0	10.1
10	9.4	8.9	9.2	14.6	14.2	14.4	13.0	12.5	12.8	10.3	9.9	10.2
11	9.5	9.1	9.3	14.7	14.3	14.5	12.5	11.9	12.2	10.2	9.9	10.1
12	9.9	9.4	9.7	---	---	---	11.9	11.3	11.6	10.2	10.0	10.1
13	10.2	9.7	10	---	---	---	11.3	11.0	11.1	10.2	9.9	10.0
14	10.3	9.9	10.2	---	---	---	11.0	10.6	10.8	10.2	9.9	10.1
15	10.4	9.9	10.3	---	---	---	10.6	10.5	10.5	10.3	9.9	10.1
16	10.4	10.0	10.3	---	---	---	10.5	10.3	10.4	10.4	10.1	10.2
17	10.2	9.8	10.0	---	---	---	10.3	10.1	10.2	10.4	10.1	10.3
18	---	---	---	---	---	---	10.1	10.0	10.0	10.6	10.3	10.4
19	10.0	9.6	9.8	---	---	---	10.1	9.9	10	10.6	10.3	10.4
20	10.1	9.7	9.9	---	---	---	10.1	9.9	10	10.5	10.3	10.4
21	10.1	9.7	9.9	15.5	15.2	15.3	10.0	9.9	10	10.5	10.3	10.4
22	10.4	9.8	10.1	15.2	14.8	15.0	9.9	9.8	9.9	10.6	10.3	10.5
23	10.6	10.2	10.4	15.3	14.9	15.1	9.9	9.8	9.8	10.6	10.2	10.4
24	10.6	10.3	10.4	15.4	14.9	15.2	9.9	9.7	9.8	10.6	10.3	10.4
25	---	---	---	15.5	15.1	15.3	9.8	9.7	9.8	10.7	10.5	10.6
26	10.8	10.2	10.6	15.7	15.0	15.4	9.8	9.8	9.8	10.7	10.4	10.5
27	11.0	10.4	10.8	15.4	14.9	15.1	9.9	9.7	9.8	10.5	10.3	10.4
28	11.3	10.6	11.0	14.9	14.6	14.8	9.9	9.8	9.8	10.5	10.3	10.3
29	11.6	11.0	11.4	14.7	14.5	14.6	9.9	9.8	9.8	10.3	10.1	10.2
30	11.9	11.3	11.7	14.7	14.5	14.6	10.0	9.8	9.9	10.2	10.0	10.1
31	11.9	11.3	11.7	---	---	---	9.9	9.8	9.9	10.0	9.8	9.9
Month	---	---	---	---	---	---	14.7	9.7	11.5	10.7	9.8	10.2

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	9.9	9.7	9.8	9.9	9.7	9.8	13.7	13.4	13.5	---	---	---
2	9.9	9.4	9.8	9.8	9.7	9.8	13.7	13.5	13.6	10.9	10.7	10.8
3	9.8	9.6	9.7	9.8	9.7	9.7	13.6	13.5	13.6	10.8	10.6	10.7
4	9.7	9.6	9.6	9.7	9.6	9.6	13.6	13.5	13.5	10.7	10.4	10.6
5	9.7	9.6	9.7	9.8	9.6	9.7	---	---	---	10.6	10.3	10.4
6	9.7	9.6	9.6	9.9	9.7	9.8	---	---	---	10.3	9.8	10.1
7	9.6	9.5	9.5	10.0	9.8	9.9	---	---	---	9.9	9.7	9.7
8	9.5	9.4	9.4	10.2	9.9	10.1	13.6	13.4	13.5	9.8	9.6	9.7
9	9.5	9.4	9.4	10.2	10.0	10.1	13.7	13.5	13.6	9.7	9.5	9.7
10	9.4	9.4	9.4	10.1	10.0	10.0	13.8	13.6	13.7	9.7	9.4	9.5
11	9.4	9.3	9.3	10.5	10.0	10.3	13.8	13.5	13.7	9.7	9.4	9.6
12	9.3	9.1	9.2	10.7	10.4	10.6	13.9	13.5	13.7	---	---	---
13	9.1	8.9	9.0	10.7	10.3	10.5	14.0	13.8	13.9	9.8	9.4	9.6
14	9.3	9.0	9.1	10.8	10.5	10.6	14.1	12.0	13.8	10.2	9.7	9.9
15	9.4	9.2	9.3	10.8	10.4	10.6	12.0	11.5	11.7	10.4	10.0	10.2
16	9.6	9.4	9.5	10.8	10.5	10.7	11.5	10.8	11.2	10.3	9.9	10.1
17	9.7	9.5	9.6	11.0	10.6	10.9	10.8	10.6	10.7	10.0	9.6	9.8
18	9.6	9.4	9.5	11.3	11.0	11.1	10.7	10.5	10.6	9.7	9.4	9.5
19	9.5	9.3	9.4	11.5	11.1	11.3	10.5	10.2	10.4	9.6	9.2	9.4
20	9.5	9.3	9.5	12.2	11.3	11.7	10.3	10.1	10.2	9.6	9.1	9.3
21	9.8	9.5	9.7	12.1	11.6	11.8	10.1	9.7	9.9	9.8	9.2	9.5
22	9.7	9.5	9.6	11.6	11.0	11.3	9.8	9.7	9.7	9.8	9.2	9.5
23	9.6	9.4	9.5	12.7	11.6	12.3	9.9	9.7	9.8	9.7	9.1	9.4
24	9.5	9.3	9.4	12.9	12.4	12.7	9.8	9.6	9.7	9.6	9.0	9.3
25	9.6	9.3	9.5	12.4	11.9	12.3	10.1	9.8	9.9	10.1	9.0	9.6
26	9.5	9.4	9.4	12.3	11.7	11.9	10.6	10.0	10.2	9.9	9.2	9.5
27	9.6	9.4	9.5	12.8	12.3	12.5	11.0	10.5	10.7	10.4	9.0	9.7
28	9.8	9.5	9.7	12.9	12.8	12.8	11.2	10.9	11.0	10.9	9.6	10.3
29	9.8	9.7	9.8	13.0	12.7	12.8	---	---	---	10.5	9.8	10.1
30	---	---	---	13.3	12.8	13.1	---	---	---	9.9	9.3	9.6
31	---	---	---	13.5	13.2	13.3	---	---	---	10.7	9.2	9.9
Month	9.9	8.9	9.5	13.5	9.6	11.1	---	---	---	---	---	---

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	11.2	9.8	10.4	7.0	6.3	6.5	7.0	6.2	6.8	8.8	8.0	8.4
2	11.1	9.7	10.3	6.8	6.4	6.6	6.4	6.0	6.2	8.1	7.0	7.7
3	10.2	8.8	9.4	6.9	6.4	6.6	6.6	6.3	6.5	7.0	5.8	6.4
4	8.9	8.3	8.6	7.1	6.7	6.9	6.6	6.2	6.4	6.4	5.7	6.0
5	9.3	8.5	8.9	7.2	6.9	7.0	6.9	6.4	6.6	8.8	5.9	7.6
6	9.3	8.8	9.0	7.5	6.8	7.1	6.8	6.6	6.7	9.0	8.1	8.6
7	9.5	8.8	9.1	7.3	6.9	7.1	7.3	6.6	6.9	8.6	8.0	8.2
8	9.2	8.1	8.6	7.4	6.7	7.1	7.2	6.8	7.0	8.5	8.0	8.3
9	8.2	7.0	7.4	7.7	7.0	7.3	7.4	6.8	7.1	8.8	8.4	8.5
10	7.1	6.9	7.0	7.9	7.3	7.6	7.4	6.9	7.1	9.0	8.6	8.7
11	7.5	7.0	7.3	7.9	7.3	7.6	7.4	6.9	7.1	9.1	8.6	8.8
12	7.5	7.4	7.4	7.5	6.8	7.1	7.6	7.0	7.3	9.5	8.7	9.1
13	7.5	7.2	7.3	7.5	7.0	7.2	7.7	7.1	7.4	9.1	6.6	8.1
14	7.3	7.0	7.2	7.7	7.3	7.5	8.0	7.4	7.7	6.7	6.4	6.6
15	7.0	6.8	6.9	7.5	7.1	7.2	7.9	7.5	7.7	7.1	6.7	6.9
16	6.9	6.8	6.9	7.1	6.8	7.0	7.6	6.6	7.0	7.6	7.0	7.3
17	7.0	6.9	6.9	7.2	6.9	7.1	6.8	6.5	6.7	7.8	7.5	7.6
18	7.0	6.9	7.0	7.3	7.1	7.2	6.7	6.5	6.6	8.1	7.8	8.0
19	7.1	6.9	7.0	7.3	7.0	7.1	6.7	6.6	6.7	8.3	8.0	8.1
20	7.1	6.9	7.0	7.2	7.0	7.0	7.0	6.6	6.8	8.3	8.0	8.2
21	7.1	7.0	7.0	7.5	6.9	7.2	7.2	6.9	7.0	8.5	8.1	8.3
22	7.1	6.9	7.0	7.5	7.3	7.4	7.2	7.0	7.1	8.7	8.3	8.4
23	7.1	6.9	7.0	7.4	7.1	7.3	7.5	7.1	7.3	8.7	8.1	8.4
24	7.2	6.8	7.0	7.5	6.9	7.2	7.7	7.4	7.5	8.7	7.9	8.4
25	7.2	6.8	7.0	7.5	7.0	7.3	8.1	7.6	7.8	8.6	8.1	8.4
26	7.0	6.6	6.8	7.5	7.2	7.4	8.5	7.9	8.2	8.5	8.1	8.3
27	7.0	6.6	6.7	7.4	7.0	7.1	8.4	7.9	8.3	8.9	8.2	8.5
28	7.0	6.5	6.7	7.7	7.0	7.3	8.4	7.9	8.1	9.1	8.5	8.7
29	7.2	6.7	6.9	7.6	7.0	7.4	8.2	7.8	8.0	9.3	8.6	8.9
30	7.5	6.9	7.2	7.5	7.2	7.4	8.5	7.9	8.2	9.8	9.0	9.3
31	---	---	---	7.4	6.9	7.2	8.8	8.0	8.4	---	---	---
Month	11.2	6.5	7.6	7.9	6.3	7.2	8.8	6.0	7.2	9.8	5.7	8.1

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	44	38	40	22	17	19	8.7	6.0	7.3	5.6	4.1	4.6
2	43	36	39	23	18	20	8.9	7.3	7.8	5.3	4.3	4.6
3	42	32	37	22	18	20	9.2	6.7	7.6	5.3	4.2	4.6
4	36	26	31	22	16	19	8.0	6.2	6.7	6.1	4.1	4.7
5	32	24	28	19	14	16	6.9	5.9	6.4	5.2	4.3	4.6
6	32	26	29	18	14	16	6.7	5.7	6.2	5.0	4.2	4.6
7	31	24	28	16	12	14	6.8	5.8	6.2	5.0	4.3	4.6
8	35	28	31	---	---	---	6.7	5.4	5.9	5.2	4.1	4.6
9	36	30	33	---	---	---	6.2	4.9	5.4	5.5	4.2	4.6
10	34	29	31	13	8.7	10	6.5	5.0	5.4	5.8	4.2	4.7
11	33	27	29	11	8.0	9.5	5.8	4.7	5.2	5.4	4.2	4.7
12	29	22	25	---	---	---	6.0	4.7	5.0	6.5	4.3	4.7
13	24	20	22	---	---	---	5.8	4.7	5.0	5.7	4.3	4.7
14	24	20	22	---	---	---	5.6	4.7	5.0	5.5	4.3	4.7
15	26	20	23	---	---	---	5.6	4.7	5.0	5.2	4.2	4.6
16	24	20	22	---	---	---	5.9	4.7	5.1	5.0	4.1	4.5
17	22	19	21	---	---	---	5.7	4.7	5.0	5.0	4.0	4.3
18	---	---	---	---	---	---	5.7	4.7	5.0	4.7	3.7	4.2
19	25	20	22	---	---	---	5.6	4.7	5.1	4.6	3.5	4.0
20	22	18	20	---	---	---	5.7	4.7	5.2	4.5	3.6	4.0
21	21	16	18	17	9.7	11	5.9	4.7	5.1	4.6	3.5	4.0
22	21	16	18	11	8.0	9.4	5.6	4.7	5.2	4.5	3.6	4.0
23	22	16	19	13	6.6	8.0	5.7	4.6	5.1	5.0	3.7	4.1
24	26	19	23	9.3	6.8	7.3	5.7	4.8	5.1	4.7	3.8	4.1
25	---	---	---	8.1	6.5	7.2	5.7	4.8	5.2	4.8	3.9	4.2
26	25	18	22	9.1	7.1	7.7	5.7	4.7	5.2	5.6	3.7	4.1
27	23	17	19	9.7	7.0	7.6	6.2	4.8	5.1	4.5	3.8	4.0
28	24	17	19	8.6	7.0	7.9	5.5	4.6	4.9	4.5	3.6	3.9
29	23	19	21	9.1	6.8	7.8	5.3	4.3	4.7	4.8	3.4	4.0
30	22	18	19	8.3	6.6	7.3	5.4	4.2	4.7	5.3	3.6	3.9
31	22	18	20	---	---	---	5.3	4.2	4.7	4.1	3.3	3.7
Month	---	---	---	---	---	---	9.2	4.2	5.5	6.5	3.3	4.3

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	4.0	3.2	3.6	3.6	2.8	3.3	19	12	14	---	---	---
2	3.9	3.2	3.5	3.7	2.9	3.2	21	14	17	130	98	110
3	3.9	3.1	3.4	3.8	2.8	3.2	32	18	25	150	130	140
4	4.0	3.0	3.4	3.5	2.7	3.1	49	28	37	170	130	150
5	4.6	3.1	3.5	3.3	2.5	3.0	---	---	---	210	160	180
6	3.8	3.0	3.3	3.3	2.6	2.9	---	---	---	350	210	280
7	3.7	2.9	3.3	3.2	2.6	2.9	---	---	---	510	350	440
8	3.6	2.8	3.3	3.3	2.6	2.9	190	170	170	730	490	600
9	3.9	2.9	3.4	3.5	2.6	3.1	200	170	180	520	300	400
10	4.2	3.0	3.3	3.5	2.6	3.0	250	200	220	320	210	260
11	3.8	3.0	3.3	3.5	2.4	3.0	350	240	280	220	180	200
12	4.0	2.9	3.3	3.6	2.6	3.1	380	310	340	---	---	---
13	4.0	2.8	3.4	4.7	2.9	3.5	340	300	320	160	120	140
14	4.0	2.8	3.4	4.0	2.8	3.3	310	250	280	150	120	130
15	4.4	2.8	3.2	3.7	2.7	3.1	280	250	270	130	100	120
16	3.7	3.0	3.2	4.0	2.6	3.3	280	250	260	130	100	110
17	3.8	2.9	3.4	4.3	3.3	3.8	280	230	250	130	100	120
18	3.9	3.0	3.3	6.2	3.3	4.4	250	210	220	130	99	120
19	3.8	2.8	3.3	5.6	3.5	4.2	220	200	210	120	92	110
20	3.8	2.8	3.3	4.9	3.7	4.1	220	200	200	120	92	100
21	3.8	2.9	3.2	6.5	3.8	5.0	220	190	200	110	89	100
22	3.7	2.9	3.2	8.6	5.7	7.3	210	190	200	110	78	94
23	3.6	2.8	3.2	8.7	6.1	7.1	210	180	190	100	74	92
24	3.6	2.8	3.2	11	6.7	8.6	190	170	180	100	64	86
25	3.6	2.9	3.2	12	8.0	9.7	190	170	180	100	64	85
26	3.8	2.9	3.3	15	10	12	180	140	160	99	62	81
27	3.5	2.8	3.1	13	9.9	12	140	120	130	87	53	71
28	3.4	2.7	3.1	13	9.4	11	120	100	110	79	53	66
29	3.6	2.7	3.2	14	10	12	---	---	---	74	45	60
30	---	---	---	14	11	13	---	---	---	60	38	49
31	---	---	---	15	11	13	---	---	---	57	38	46
Month	4.6	2.7	3.3	15	2.4	5.7	---	---	---	---	---	---

05082500 RED RIVER OF THE NORTH AT GRAND FORKS, ND—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	52	38	45	190	130	170	360	200	250	44	26	30
2	52	33	44	160	120	140	390	210	340	32	24	27
3	42	31	38	140	110	130	240	84	140	31	23	27
4	50	33	41	130	94	120	100	48	73	39	28	32
5	53	34	43	130	84	100	66	48	57	37	26	31
6	52	33	43	92	53	72	62	44	53	40	28	32
7	83	43	58	76	40	64	57	42	48	62	34	48
8	270	70	170	70	48	59	55	42	47	59	42	51
9	650	260	500	66	42	56	50	38	44	57	41	49
10	530	390	450	62	41	51	55	38	45	65	51	59
11	440	330	380	60	40	51	44	33	40	63	45	54
12	440	320	380	110	50	81	48	32	36	65	37	44
13	510	390	430	110	77	95	47	34	42	960	65	440
14	540	430	500	110	75	93	48	37	42	930	530	700
15	440	310	370	130	96	120	150	40	84	570	390	450
16	320	220	270	130	100	120	490	150	340	410	250	320
17	230	170	200	130	100	120	800	410	630	270	170	230
18	180	150	160	120	88	110	790	550	700	190	150	160
19	160	150	150	120	81	100	560	360	450	150	110	130
20	160	140	150	100	66	81	390	260	320	130	86	110
21	170	140	150	83	46	64	290	180	240	100	68	85
22	180	150	160	57	43	50	240	130	170	79	51	64
23	170	150	160	59	44	53	160	100	120	58	42	50
24	180	140	160	67	48	57	120	68	90	50	39	45
25	190	130	160	65	46	57	79	49	63	46	35	40
26	170	120	150	73	44	56	61	44	49	41	31	35
27	180	120	150	61	44	52	61	39	45	38	29	33
28	180	100	140	60	37	44	54	35	41	34	26	30
29	170	100	130	58	35	46	52	36	42	29	22	26
30	190	90	140	71	39	49	48	32	37	26	20	23
31	---	---	---	220	59	140	40	28	33	---	---	---
Month	650	31	200	220	35	84	800	28	150	960	20	120