

Table 14. Results for field-measured properties and constituents in water samples.

[ft³/s, cubic feet per second; NTU, nephelometric turbidity units; mm Hg, millimeter of mercury; mg/L, milligrams per liter; μS/cm, microsiemens per centimeter at 25 degrees Celsius; °C, degrees Celsius; e, estimated; <, less than; --, no data collected]

	Station identification number and name (site label)								
	433843096450500 Big Sioux River near Renner, SD (site US1, fig. 1)				433600096442400 Sioux Falls pump station intake from Big Sioux River at Sioux Falls, SD (site US2, fig. 1)				
Date of sample collection (month–day–year)	05–18–2004	05–31–2004	08–15–2001	09–09–2002	01–22–2003	03–19–2003	06–26–2003		
Time of sample collection (24-hour)	1500	1800	1405	1200	1105	1130	0930		
	Property or constituent								
Discharge, instantaneous (ft ³ /s)	93.7	1,700	e530	e65	e30	e500	e1,200		
Turbidity (NTU)	e27	e304	--	e69	--	--	e48		
Barometric pressure (mm Hg)	730	714	720	727	737	722	739		
Dissolved oxygen (mg/L)	14.2	6.1	8.1	6.2	15.7	13.1	--		
pH (standard units)	8.7	7.6	7.8	8.5	8.0	7.8	8.1		
Specific conductance (μS/cm)	911	528	1,080	744	1,230	520	805		
Water temperature (°C)	20.4	18.1	22.3	25.1	.1	.0	18.4		

	Station identification number and name (site label)								
	433419096434200 Sioux Falls water treatment plant finished drinking water at Sioux Falls, SD (site FDW, fig. 1)					433408096432000 Big Sioux River diversion channel at North Drive, at Sioux Falls, SD (site US3, fig. 1)		06482020 Big Sioux River at North Cliff Avenue, at Sioux Falls, SD (site US4, fig. 1)	
Date of sample collection (month–day–year)	08–15–2001	09–09–2002	01–22–2003	03–19–2003	06–27–2003	05–18–2004	05–31–2004	05–17–2004	05–30–2004
Time of sample collection (24-hour)	1100	1440	1330	1445	0915	1130	1145	1000	1530
	Property or constituent								
Discharge, instantaneous (ft ³ /s)	--	--	--	--	--	63.6	1990	221	5140
Turbidity (NTU)	--	--	--	--	e<1	e21	e335	38	760
Barometric pressure (mm Hg)	720	725	740	721	739	734	715	731	716
Dissolved oxygen (mg/L)	3.9	7.6	10.6	6.1	--	8.8	7.6	10.2	10.0
pH (standard units)	8.3	8.7	8.9	8.9	8.8	7.8	7.7	8.1	7.9
Specific conductance (μS/cm)	773	571	820	636	563	908	515	662	430
Water temperature (°C)	20.5	23.6	11.1	12.2	16.2	14.0	16.8	14.6	17.5

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Table 14. Results for field-measured properties and constituents in water samples.—Continued

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Station identification number and name (site label)									
433531096394200 Sioux Falls wastewater treatment plant effluent (site WWE, fig. 1)							433559096390700 Big Sioux River downstream from Sioux Falls wastewater discharge (site DS1, fig. 1)		
Date of sample collection (month-day-year)	09–10–2002	01–24–2003	03–21–2003	06–26–2003	05–18–2004	05–30–2004	09–10–2002	05–17–2004	05–30–2004
Time of sample collection (24-hour)	1400	0930	1045	1135	1020	2020	1030	1100	1630
Property or constituent									
Discharge, instantaneous (ft ³ /s)	e28	e20	e21	e31	e24	e47	e76	290	5,300
Turbidity (NTU)	e3	--	--	49	1	6	34	58	676
Barometric pressure (mm Hg)	734	731	724	743	732	720	733	733	719
Dissolved oxygen (mg/L)	7.7	8.4	7.8	6.9	7.7	9.1	9.6	8.2	8.6
pH (standard units)	7.0	7.0	7.3	7.0	6.8	7.2	8.3	7.7	7.8
Specific conductance (μS/cm)	1,440	1,760	1,690	1,420	1,640	1,320	1,100	821	501
Water temperature (°C)	22.8	9.8	12.0	18.9	16.6	16.0	22.1	14.2	17.7

Station identification number and name (site label)								
433541096355800 Big Sioux River at Brandon, SD (site DS2, fig. 1)								
Date of sample collection (month-day-year)	08–16–2001	09–11–2002	01–23–2003	03–20–2003	06–25–2003	05–17–2004	05–31–2004	
Time of sample collection (24-hour)	0930	1030	1125	1315	1630	1730	1230	
Property or constituent								
Discharge, instantaneous (ft ³ /s)	626	73.7	36.9	778	937	249	6,040	
Turbidity (NTU)	--	25	--	--	205	39	310	
Barometric pressure (mm Hg)	728	733	747	724	739	731	718	
Dissolved oxygen (mg/L)	--	11.8	13.6	12.7	10.3	10.7	9.0	
pH (standard units)	7.8	8.5	7.9	7.6	7.8	8.1	7.4	
Specific conductance (μS/cm)	1,120	1,160	1,750	546	426	877	406	
Water temperature (°C)	20.9	23.5	0.0	1.9	21.5	16.0	16.8	