

**06818000 MISSOURI RIVER AT ST. JOSEPH, MO**

Missouri River Main Stem

LOCATION.--Lat 39°45'11.7", long 94°51'24.6" referenced to North American Datum of 1983, in NW ¼ SE ¼ sec.17, T.57 N., R.35 W., Buchanan County, MO, Hydrologic Unit 10240011, on left bank at downstream abutment of St. Joseph and Grand Island Railroad Bridge in St. Joseph, and at mile 448.2.

DRAINAGE AREA.--426,500 mi<sup>2</sup>, the 3,959 mi<sup>2</sup> in Great Divide basin are not included.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1928 to current year. Gage-height records collected in vicinity 1873-99 are contained in reports of the Missouri River Commission; since 1900 in reports of the National Weather Service.

REVISED RECORDS.--WDR MO-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 789.27 ft above North American Vertical Datum of 1988. Prior to Oct. 21, 1931 nonrecording gage and from Oct. 21, 1931, to Dec. 31, 1933, water-stage recorder, both at same site at datum 793.69 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records good. Some regulation from many upstream reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 397,000 ft<sup>3</sup>/s, Apr. 22, 1952; maximum gage-height, 32.07 ft; July 26, 1993; minimum discharge, 2,300 ft<sup>3</sup>/s, Jan. 9, 1937.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 29, 1881, reached a stage of 27.2 ft, present datum, discharge, about 370,000 ft<sup>3</sup>/s, computed by the U.S. Army Corps of Engineers. Flood of June 1844 reached a stage of 24.5 ft, discharge, about 350,000 ft<sup>3</sup>/s, computed by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 98,400 ft<sup>3</sup>/s, Apr. 16, gage height, 18.28 ft; minimum discharge, 32,600 ft<sup>3</sup>/s, Jan. 24, gage height, 5.40 ft.

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	87,400	57,400	55,600	42,100	38,400	43,100	49,300	46,000	64,300	43,800	38,000	38,900
2	83,700	57,600	56,000	42,000	40,000	45,600	47,600	46,200	61,200	43,100	38,100	38,400
3	79,300	57,900	56,900	41,800	41,700	47,200	46,600	47,300	60,500	42,500	37,700	38,900
4	74,900	57,700	63,300	41,500	42,700	48,200	46,000	49,300	60,200	42,100	37,700	39,100
5	70,600	57,900	61,900	40,900	43,700	46,900	46,200	49,900	58,900	41,600	38,000	39,200
6	66,700	57,700	58,100	40,000	43,200	46,200	48,000	48,700	57,100	41,000	38,100	39,200
7	64,400	57,800	56,600	40,100	41,200	45,500	46,300	50,900	55,600	40,500	38,500	39,200
8	63,100	59,300	55,300	40,600	40,600	44,600	45,400	54,400	54,200	39,800	38,900	39,300
9	61,700	63,800	54,600	40,100	40,800	43,800	45,800	53,700	52,900	42,200	39,200	39,500
10	61,600	63,500	54,200	39,700	39,700	44,500	44,800	51,100	51,600	40,000	39,800	40,200
11	61,700	60,500	53,000	40,400	38,600	45,400	44,100	51,200	50,900	40,000	39,800	39,700
12	61,500	59,300	51,100	40,600	37,500	45,500	43,600	51,600	52,900	39,800	39,600	39,700
13	62,600	58,800	50,100	39,600	37,400	45,200	44,100	49,400	52,000	39,400	39,900	40,100
14	63,600	59,000	50,500	38,800	37,100	45,100	46,900	51,600	49,300	39,100	39,900	42,000
15	63,600	58,900	53,900	37,000	36,600	44,600	60,200	56,100	48,300	39,500	39,900	42,300
16	62,200	58,100	53,300	36,200	36,700	44,400	92,600	55,600	54,300	40,000	40,000	41,600
17	61,200	58,200	49,900	36,700	36,600	43,900	71,200	53,400	58,400	39,800	40,000	41,200
18	60,400	58,100	47,400	35,900	36,300	43,400	61,600	51,600	55,700	39,400	39,700	40,300
19	60,100	57,800	45,400	36,100	37,700	43,000	58,000	50,300	51,000	39,000	39,800	40,200
20	59,100	57,500	44,900	36,700	39,300	43,300	53,600	49,600	48,800	39,000	39,900	40,400
21	57,900	57,200	45,100	36,400	40,000	43,200	49,700	49,300	48,200	38,900	40,000	40,200
22	58,600	57,300	44,600	35,000	41,300	44,600	48,500	49,800	49,900	38,500	40,000	39,900
23	59,300	57,000	43,000	34,100	42,900	45,500	48,100	50,000	50,900	38,300	39,900	40,000
24	58,800	56,200	42,400	33,000	43,200	45,700	47,300	48,300	50,600	38,200	39,800	40,100
25	58,900	56,100	42,700	32,900	42,700	46,200	46,900	47,500	48,800	38,100	40,600	40,100
26	58,500	56,800	41,500	33,700	42,400	46,800	45,800	48,400	47,100	38,500	47,600	40,300
27	58,300	57,100	41,100	34,800	41,800	46,700	44,500	50,500	46,100	38,100	48,400	40,400
28	57,900	57,200	41,600	36,000	41,400	46,000	44,700	51,700	45,200	38,000	43,200	40,400
29	57,900	57,600	42,000	37,000	41,400	46,400	44,800	53,800	44,300	38,000	41,800	40,300
30	57,900	56,300	42,200	37,700	---	48,000	45,100	55,300	44,000	37,700	41,000	40,300
31	57,700	---	42,000	38,200	---	51,900	---	63,100	---	37,600	40,100	---
<b>Mean</b>	63,580	58,190	49,680	37,920	40,100	45,500	50,240	51,150	52,440	39,730	40,160	40,050
<b>Max</b>	87,400	63,800	63,300	42,100	43,700	51,900	92,600	63,100	64,300	43,800	48,400	42,300
<b>Min</b>	57,700	56,100	41,100	32,900	36,300	43,000	43,600	46,000	44,000	37,600	37,700	38,400
<b>In.</b>	0.17	0.15	0.13	0.10	0.10	0.12	0.13	0.14	0.14	0.11	0.11	0.10

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2012<sup>a</sup>, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	47,350	43,640	30,630	25,910	32,030	45,260	55,640	58,730	64,540	58,710	50,410	49,040
<b>Max</b>	87,650	85,040	61,820	45,740	60,570	96,800	113,600	107,200	163,900	232,200	190,200	117,900
<b>(WY)</b>	(1987)	(1998)	(1987)	(1973)	(1983)	(1979)	(1984)	(2011)	(2011)	(2011)	(2011)	(2011)
<b>Min</b>	25,890	18,510	11,560	12,210	15,790	19,490	32,920	36,390	34,650	31,450	30,900	31,670
<b>(WY)</b>	(2007)	(1991)	(1964)	(1959)	(1964)	(1964)	(1990)	(1958)	(2006)	(2002)	(2003)	(2005)

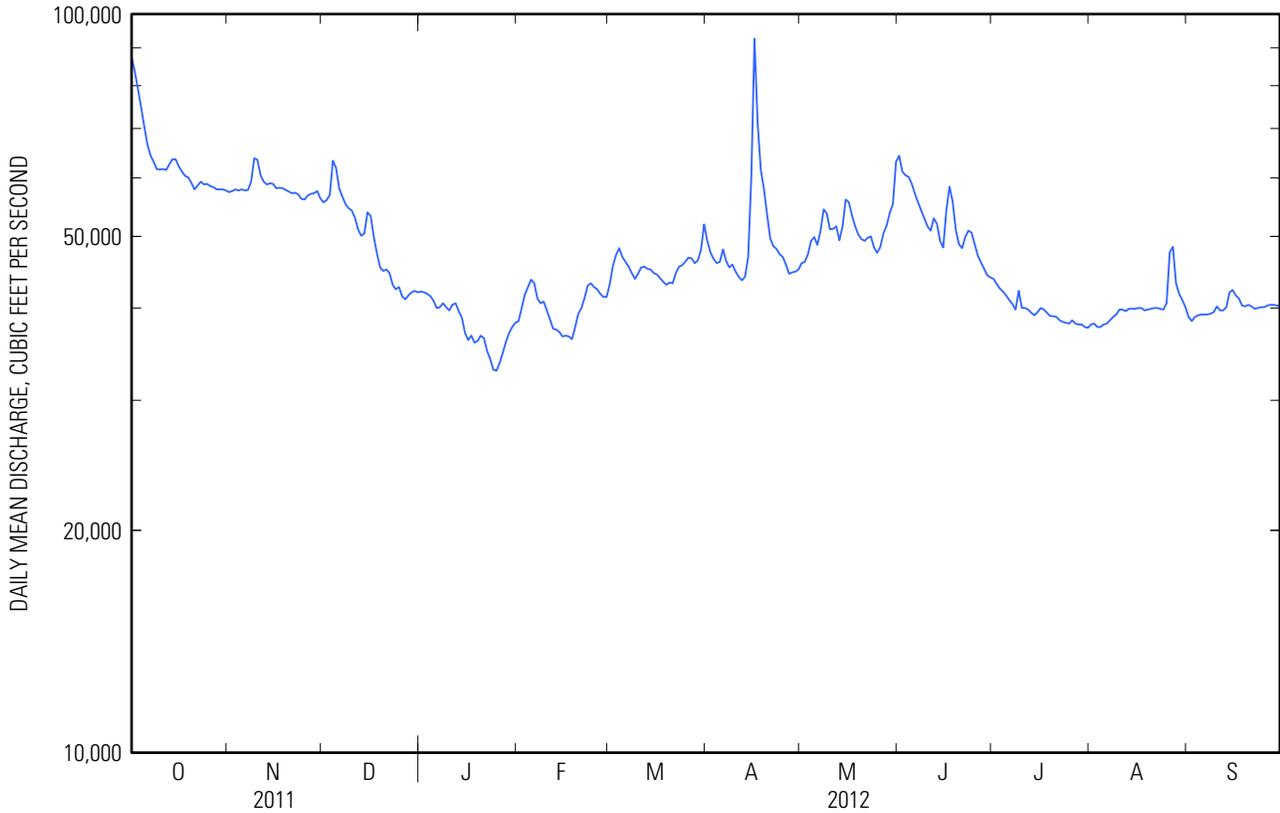
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SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1958 - 2012 <sup>a</sup>	
<b>Annual mean</b>	101,900		47,400		46,860	
<b>Highest annual mean</b>					104,500	2011
<b>Lowest annual mean</b>					29,790	2006
<b>Highest daily mean</b>	270,000	Jun 29	92,600	Apr 16	328,000	Jul 26, 1993
<b>Lowest daily mean</b>	36,300	Jan 12 <sup>b</sup>	32,900	Jan 25	4,000	Jan 17, 1963
<b>Annual seven-day minimum</b>	37,000	Jan 8	34,200	Jan 22	5,030	Dec 15, 1963
<b>Maximum peak flow</b>			98,400	Apr 16	335,000	Jul 26, 1993
<b>Maximum peak stage</b>			18.28	Apr 16	32.07	Jul 26, 1993
<b>Instantaneous low flow</b>			32,600	Jan 24	4,000	Jan 17, 1963
<b>Annual runoff (inches)</b>	3.24		1.51		1.49	
<b>10 percent exceeds</b>	210,000		59,200		74,100	
<b>50 percent exceeds</b>	78,900		45,100		41,300	
<b>90 percent exceeds</b>	38,800		38,200		21,800	

<sup>a</sup> Period of Regulated Streamflow

<sup>b</sup> Also Jan 13, Feb 6



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**GAGE HEIGHT, FEET**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**  
**OBSERVATION AT 0800**  
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	16.84	10.92	10.56	7.79	6.82	7.86	9.80	8.88	12.27	8.37	7.03	7.31
2	16.25	10.92	10.63	7.77	7.20	8.53	9.21	8.93	11.74	8.22	7.06	7.09
3	15.52	11.03	10.72	7.70	7.76	8.92	8.96	9.23	11.56	8.08	6.97	7.24
4	14.77	11.03	11.93	7.66	7.82	9.13	8.95	9.53	11.56	7.97	6.94	7.29
5	13.96	11.06	11.83	7.46	8.14	8.90	8.81	9.93	11.37	7.88	7.03	7.31
6	13.25	11.02	11.16	7.15	8.10	8.70	9.34	9.48	11.06	7.78	7.04	7.33
7	12.62	10.93	10.75	7.26	7.64	8.56	9.01	9.81	10.73	7.65	7.14	7.31
8	12.40	11.21	10.57	7.43	7.39	8.34	8.73	10.81	10.50	7.48	7.23	7.35
9	12.14	12.00	10.39	7.28	7.54	8.08	8.88	10.85	10.19	8.41	7.31	7.39
10	12.02	12.13	10.33	7.19	7.13	8.29	8.63	10.07	9.99	7.52	7.46	7.40
11	12.00	11.51	10.20	7.29	6.94	8.50	8.50	10.08	9.81	7.53	7.50	e7.45
12	11.92	11.35	9.81	7.45	6.71	8.61	8.36	10.21	9.99	7.48	7.41	7.43
13	12.14	11.14	9.51	7.19	6.67	8.46	8.45	9.78	10.16	7.40	7.48	7.47
14	12.24	11.18	9.54	7.12	6.62	8.45	9.06	9.89	9.49	7.29	7.50	7.82
15	12.29	11.16	10.22	6.65	6.41	8.36	9.08	11.18	9.21	7.39	7.48	8.11
16	12.02	11.11	10.34	6.25	6.33	8.35	18.23	11.15	10.31	7.52	7.52	7.92
17	11.85	11.01	9.55	6.50	6.51	8.23	14.42	10.66	11.14	7.47	7.53	7.82
18	11.65	11.09	9.03	6.19	6.26	8.17	12.38	10.28	10.95	7.38	7.45	7.59
19	11.66	11.00	8.57	6.22	6.55	8.02	11.65	9.87	9.90	7.28	7.48	7.56
20	11.47	10.97	8.37	6.50	7.09	8.14	10.86	9.70	9.37	7.28	7.48	7.61
21	11.13	10.91	8.48	6.47	7.19	8.10	9.81	9.56	9.24	7.26	7.49	7.58
22	11.26	10.95	8.42	e6.05	7.45	8.38	9.46	9.68	9.49	7.18	7.52	7.48
23	11.41	10.92	8.08	5.90	7.85	8.64	9.33	9.86	9.82	7.13	7.52	7.50
24	11.32	10.80	7.85	5.52	8.04	8.76	9.22	9.37	9.85	7.07	7.45	7.54
25	11.31	10.65	7.99	5.45	7.94	8.85	9.09	9.21	9.50	7.06	7.58	7.52
26	11.20	10.78	7.68	5.62	7.89	9.04	8.93	9.28	9.08	7.16	8.37	7.60
27	11.18	10.91	7.54	5.91	7.66	9.02	8.60	9.78	8.84	7.08	9.72	7.61
28	11.04	10.89	7.59	6.22	7.64	8.90	8.63	9.95	8.67	7.02	8.26	7.62
29	11.02	10.96	7.77	6.51	7.49	9.03	8.56	10.48	8.47	7.08	7.95	7.60
30	11.05	10.71	7.83	6.70	---	9.07	8.68	10.60	8.39	6.97	7.78	7.58
31	11.01	---	7.77	6.83	---	10.28	---	11.81	---	6.93	7.50	---
<b>Mean</b>	12.32	11.07	9.39	6.75	7.27	8.60	9.72	10.00	10.09	7.46	7.52	7.51
<b>Max</b>	16.84	12.13	11.93	7.79	8.14	10.28	18.23	11.81	12.27	8.41	9.72	8.11
<b>Min</b>	11.01	10.65	7.54	5.45	6.26	7.86	8.36	8.88	8.39	6.93	6.94	7.09

**06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--October 1969 to July 1992, November 1992 to current year. National Stream-Quality Accounting Network station October 1974 to September 1986. Ambient Water-Quality Monitoring Network station October 1969 to July 1992, November 1992 to current year. Discrete suspended and bed material sediment collection October 1947 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 2006 to current year (Seasonally).

pH: February 2006 to September 2007.

WATER TEMPERATURE: May 1984 to December 1984, July 1985 to September 1985, April 1986 to September 1986, February 2006 to current year (Seasonally).

DISSOLVED OXYGEN: May 1984 to November 1984, July 1985 to September 1985, April 1986 to September 1986, February 2006 to current year (Seasonally).

TURBIDITY: February 2006 to current year (Seasonally).

SUSPENDED-SEDIMENT CONCENTRATION: October 2008 to current year.

SUSPENDED-SEDIMENT LOAD: October 2008 to current year.

INSTRUMENTATION.--Water-quality monitor, May 1984 to December 1984, July 1985 to September 1985, April 1986 to September 1986, February 2006 to current year. U.S.G.S. satellite telemeter at station.

REMARKS.--The magnitude of extreme turbidity values has been found to vary depending on the probe used. The manufacturer's specified range for turbidity sensors used is 0 to 1,000 FNU. Values >1,000 FNU have been maintained in some cases for continuity of the record. All values greater than the manufacturer's specified limit should be considered as >1,000 FNU. In some cases partial daily maximum or minimum values were included with the record and were rated poor because no corresponding daily mean values were reported for these days. These values were reported because they are representative of stream conditions at the time and are a valid part of the record.

SPECIFIC CONDUCTANCE: Record is rated excellent, except for the following periods: Nov. 15, Apr. 16-17, Jul. 11-16, rated good; May 30, Aug. 28, rated poor.

WATER TEMPERATURE: Record is rated excellent, except for the following periods: May 30, rated poor.

DISSOLVED OXYGEN: Record is rated excellent, except for the following periods: Apr. 17, May 14, 16-20, Jul. 30 - Aug. 4, Aug. 14, Sept. 6-11, rated good; Mar. 29, May 15, 30, Jul. 7-16, Aug. 5, 11-13, 25-29, Sept. 1-5, 12-27, rated poor.

TURBIDITY: Record is rated excellent, except for the following periods: Oct. 6-11, Dec. 20-24, Mar. 12-24, rated good; Oct. 12-16, Dec. 25-28, May 13-15, 17-18, Jul. 17-24, 27-29, Jul. 31 - Aug. 4, Aug. 8 - Sept. 5, 26, rated fair; Oct. 17 - Nov. 16, Dec. 29 - Jan. 5, Apr. 11-12, May 16, 21, 30, Jun. 20, Jun. 28 - Jul. 16, Jul. 25-26, 30, Aug. 5-7, Sept. 6-25, 27, rated poor. Data collected using a YSI 6136 turbidity sensor.

Interruptions or periods of missing record may be due to instrument failure, ice conditions, or data corrections exceeding allowable criteria, which were deleted.

SUSPENDED-SEDIMENT: Record fair except for estimated days, which are poor.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 882  $\mu\text{S}/\text{cm}$ , May 1, 2011, but may have been higher during periods of missing record; minimum recorded 308  $\mu\text{S}/\text{cm}$ , May 8, 2007.

pH: Maximum recorded, 8.8 standard units, June 15-19, Aug. 24-25, Oct. 10, 2006; minimum recorded, 7.6 standard units, May 6-11, 24-27, 2007.

WATER TEMPERATURE: Maximum recorded, 31.2 °C, Jul. 20, 2006; minimum recorded, -0.2 °C, Jan. 16, 30, Feb. 10, 16, 18, 2007, Jan. 2, 17-18, 2008.

DISSOLVED OXYGEN: Maximum recorded 13.6 mg/L, Jan. 2-4, 2008; minimum recorded, 1.0 mg/L, Jul. 21, 1985, but may have been lower during periods of missing record.

TURBIDITY: Maximum recorded, 1990 FNU, May 6, 2007, but may have been higher during periods of missing record; minimum recorded, 2.5 FNU, Jan. 3, 2008, but may have been lower during periods of missing record; .

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 879  $\mu\text{S}/\text{cm}$ , May 1, 2011, but may have been higher during periods of missing record; minimum daily, 313  $\mu\text{S}/\text{cm}$ , May 8, 2007.

pH: Maximum daily, 8.8 standard units, Jun., 16, 18, 2006; minimum daily, 7.6 standard units, May 7-10, 25-26, 2007.

WATER TEMPERATURE: Maximum daily, 30.7 °C, Jul. 20, 2006; minimum daily, -0.1 °C, several days Jan.-Feb., 2007, Jan.-Feb., 2008 and Feb. 14-15, 2012.

DISSOLVED OXYGEN: Maximum daily, 13.5 mg/L, Jan. 3, 2008, but may have been higher during periods of missing record; minimum daily, 1.8 mg/L, Jul. 21, 1985, but may have been lower during periods of missing record.

TURBIDITY: Maximum daily, 1,780, May 7, 2007, but may have been higher during periods of missing record; minimum daily, 6.9 FNU, Jan. 25, 2008, but may have been lower during periods of missing record.

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily, 3,710 mg/L, Apr. 28, 2009; minimum daily, 204 mg/L, Jan. 24, 2012.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 799,000 tons, Jun. 6, 2009; minimum daily, 11,700 tons, Dec. 14, 2009.

EXTREMES FOR CURRENT YEAR.--

**06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued**

SPECIFIC CONDUCTANCE: Maximum recorded, 853  $\mu\text{S}/\text{cm}$ , Jul. 31; minimum recorded, 474  $\mu\text{S}/\text{cm}$ , Apr. 16-17, but may have been lower during period of missing record.

WATER TEMPERATURE: Maximum recorded, 30.9  $^{\circ}\text{C}$ , Jul. 7; minimum recorded, -0.1  $^{\circ}\text{C}$ , Jan. 20, 24, Feb. 14-16.

DISSOLVED OXYGEN: Maximum recorded, 11.0 mg/L, Nov. 15, but may have been higher during period of missing record; minimum recorded, 4.0 mg/L, Jul. 9.

TURBIDITY: Maximum recorded, 1220 FNU, Apr. 15, but may have been higher during periods of missing record; minimum recorded, 10 FNU, Jan. 21.

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean 2,000 mg/L (estimated), Apr. 16; minimum daily mean 204 mg/L, Jan. 24.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily 500,000 tons (estimated), Apr. 16; minimum daily 18,000 tons, Jan. 24, 25.

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	760	755	757	764	752	758	---	---	---	---	---	---
2	760	757	759	761	748	756	---	---	---	---	---	---
3	767	759	761	762	753	758	---	---	---	---	---	---
4	769	763	765	771	753	761	---	---	---	---	---	---
5	769	764	766	762	746	751	---	---	---	---	---	---
6	768	764	766	776	760	769	---	---	---	---	---	---
7	773	767	771	761	720	753	---	---	---	---	---	---
8	776	771	775	756	733	750	---	---	---	---	---	---
9	781	775	778	745	724	734	---	---	---	---	---	---
10	782	776	780	738	729	733	---	---	---	---	---	---
11	782	774	779	762	738	745	---	---	---	---	---	---
12	778	768	774	744	713	734	---	---	---	---	---	---
13	780	769	772	754	723	748	---	---	---	---	---	---
14	780	754	763	763	754	760	---	---	---	---	---	---
15	754	744	749	760	754	757	---	---	---	---	---	---
16	752	749	751	---	---	---	---	---	---	---	---	---
17	757	748	751	---	---	---	---	---	---	---	---	---
18	761	756	758	---	---	---	---	---	---	---	---	---
19	758	747	752	---	---	---	---	---	---	---	---	---
20	754	746	748	---	---	---	---	---	---	---	---	---
21	760	754	758	---	---	---	---	---	---	---	---	---
22	763	645	744	---	---	---	---	---	---	---	---	---
23	761	702	749	---	---	---	---	---	---	---	---	---
24	762	756	759	---	---	---	---	---	---	---	---	---
25	764	760	762	---	---	---	---	---	---	---	---	---
26	764	758	762	---	---	---	---	---	---	---	---	---
27	766	761	764	---	---	---	---	---	---	---	---	---
28	766	760	763	---	---	---	---	---	---	---	---	---
29	765	761	763	---	---	---	---	---	---	---	---	---
30	766	760	763	---	---	---	---	---	---	---	---	---
31	764	761	762	---	---	---	---	---	---	---	---	---
Month	782	645	762	---	---	---	---	---	---	---	---	---

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

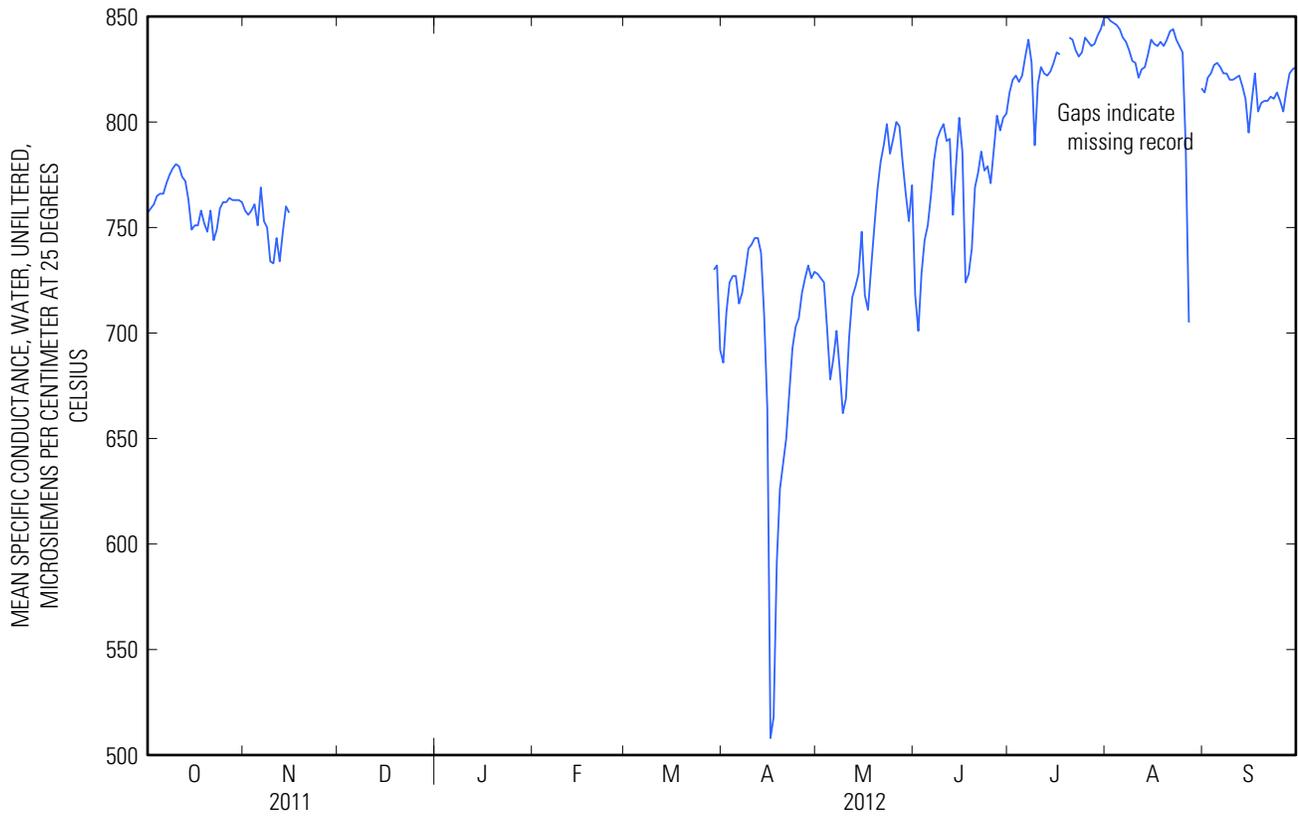
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	694	683	686	734	723	728
2	---	---	---	---	---	---	720	694	710	732	723	726
3	---	---	---	---	---	---	728	720	724	734	643	724
4	---	---	---	---	---	---	732	724	727	718	676	702
5	---	---	---	---	---	---	731	713	727	682	675	678
6	---	---	---	---	---	---	720	709	714	708	674	688
7	---	---	---	---	---	---	723	710	719	708	693	701
8	---	---	---	---	---	---	738	722	729	707	664	683
9	---	---	---	---	---	---	741	738	740	665	657	662
10	---	---	---	---	---	---	744	739	742	686	657	669
11	---	---	---	---	---	---	747	741	745	710	682	698
12	---	---	---	---	---	---	748	737	745	724	698	717
13	---	---	---	---	---	---	744	697	738	725	720	722
14	---	---	---	---	---	---	729	703	708	734	723	728
15	---	---	---	---	---	---	712	588	664	766	729	748
16	---	---	---	---	---	---	591	474	508	747	706	718
17	---	---	---	---	---	---	559	474	518	722	704	711
18	---	---	---	---	---	---	615	559	591	742	721	731
19	---	---	---	---	---	---	639	615	626	760	742	750
20	---	---	---	---	---	---	646	631	638	776	760	768
21	---	---	---	---	---	---	656	645	650	792	776	781
22	---	---	---	---	---	---	684	656	672	796	781	789
23	---	---	---	---	---	---	700	684	693	807	791	799
24	---	---	---	---	---	---	705	700	703	806	711	785
25	---	---	---	---	---	---	713	701	707	796	785	792
26	---	---	---	---	---	---	723	713	719	801	796	800
27	---	---	---	---	---	---	733	709	726	802	796	798
28	---	---	---	---	---	---	738	723	732	797	769	781
29	---	---	---	753	593	730	731	707	726	769	762	766
30	---	---	---	743	710	732	731	726	729	762	746	753
31	---	---	---	710	684	692	---	---	---	779	759	770
Month	---	---	---	---	---	---	748	474	692	807	643	738

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	765	697	718	817	812	814	851	848	850	820	797	814
2	708	697	701	824	817	820	852	840	848	822	820	821
3	741	708	728	824	821	822	849	845	847	828	787	823
4	747	739	744	822	817	819	848	844	846	830	812	827
5	757	745	751	824	820	822	846	842	844	829	827	828
6	774	756	765	838	824	831	845	836	840	828	824	826
7	790	773	782	840	838	839	839	836	838	824	820	823
8	797	786	792	838	817	828	838	825	834	824	820	823
9	802	791	796	819	745	789	831	828	829	822	819	820
10	802	796	799	825	805	818	829	824	828	821	818	820
11	802	653	791	830	822	826	824	819	821	823	820	821
12	804	762	792	827	820	823	827	823	825	823	821	822
13	765	747	756	824	820	822	827	824	826	822	810	817
14	794	761	780	825	822	824	840	824	832	813	808	811
15	805	794	802	831	824	828	842	837	839	809	782	795
16	809	758	786	837	829	833	839	835	837	834	790	810
17	766	693	724	836	824	832	839	834	836	837	808	823
18	740	701	728	---	---	---	839	835	838	808	804	805
19	760	726	740	---	---	---	839	834	836	810	807	809
20	777	673	769	842	838	840	841	837	839	811	808	810
21	787	672	776	841	837	839	845	840	843	812	808	810
22	792	778	786	837	829	834	845	841	844	813	810	812
23	784	758	777	833	829	831	842	830	839	814	809	811
24	783	774	779	838	830	833	837	834	836	816	810	814
25	775	768	771	843	836	840	837	813	833	815	805	810
26	801	773	787	843	827	838	824	700	788	807	802	805
27	810	797	803	839	833	836	744	682	705	825	806	815
28	799	794	796	840	834	837	---	744	---	826	822	823
29	806	799	802	843	840	841	---	---	---	826	823	825
30	815	669	804	845	841	844	---	---	---	829	826	826
31	---	---	---	853	845	849	817	809	816	---	---	---
Month	815	653	771	---	---	---	---	---	---	837	782	817

06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued



## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
<b>1</b>	18.6	17.9	18.3	12.2	11.6	11.9	4.8	4.5	4.6	3.9	3.5	3.7
<b>2</b>	18.4	17.7	18.1	12.2	11.4	11.9	4.5	4.1	4.2	3.5	2.7	3.1
<b>3</b>	18.3	17.6	18.0	11.4	10.8	11.1	4.7	4.2	4.5	2.7	2.3	2.5
<b>4</b>	18.3	17.7	18.0	10.8	10.1	10.5	4.5	3.9	4.3	2.4	2.1	2.3
<b>5</b>	18.5	18.0	18.3	10.1	9.8	9.9	3.9	2.9	3.5	2.1	1.8	2.0
<b>6</b>	18.5	18.1	18.4	10.3	10.0	10.1	2.9	1.8	2.4	2.2	1.8	2.0
<b>7</b>	18.7	18.2	18.5	10.1	9.7	9.9	1.8	1.5	1.7	2.3	2.0	2.2
<b>8</b>	18.9	18.6	18.7	9.7	9.4	9.6	1.6	1.2	1.3	2.6	2.2	2.4
<b>9</b>	18.8	18.5	18.7	9.4	8.8	9.0	1.2	0.8	1.0	2.9	2.4	2.7
<b>10</b>	18.9	18.7	18.8	8.8	8.5	8.7	0.8	0.2	0.5	3.2	2.8	3.0
<b>11</b>	19.0	18.8	18.9	8.7	8.3	8.5	0.8	0.1	0.4	3.1	2.6	3.0
<b>12</b>	19.2	18.8	19.0	8.5	8.2	8.3	1.6	0.8	1.2	2.6	1.4	2.0
<b>13</b>	19.1	18.8	19.0	8.5	8.2	8.3	2.1	1.6	1.8	1.4	1.0	1.2
<b>14</b>	18.8	18.0	18.4	8.3	8.1	8.2	2.8	2.0	2.3	1.0	0.6	0.9
<b>15</b>	18.0	17.2	17.6	8.2	7.8	8.0	3.0	2.8	2.9	0.6	0.1	0.4
<b>16</b>	17.2	16.7	16.9	8.2	8.0	8.1	2.8	2.6	2.7	0.1	0.0	0.0
<b>17</b>	16.7	15.8	16.3	8.1	7.7	7.8	2.8	2.5	2.7	0.0	0.0	0.0
<b>18</b>	15.8	14.8	15.4	7.7	7.2	7.4	2.8	2.5	2.7	0.0	0.0	0.0
<b>19</b>	14.8	13.6	14.1	7.5	7.2	7.3	2.8	2.6	2.8	0.3	0.0	0.1
<b>20</b>	13.6	13.1	13.4	7.2	6.4	6.7	2.8	2.5	2.7	0.0	-0.1	0.0
<b>21</b>	13.1	12.8	12.9	6.4	6.2	6.3	2.7	2.4	2.5	0.0	0.0	0.0
<b>22</b>	12.9	12.7	12.8	6.2	5.8	6.0	2.6	2.5	2.6	0.0	0.0	0.0
<b>23</b>	12.8	12.5	12.7	5.9	5.7	5.8	2.5	2.2	2.3	0.1	0.0	0.0
<b>24</b>	13.1	12.6	12.8	6.0	5.6	5.8	2.3	2.0	2.2	0.1	-0.1	0.0
<b>25</b>	13.7	13.1	13.4	6.4	5.9	6.0	2.2	1.8	2.0	0.6	0.0	0.3
<b>26</b>	13.7	13.4	13.6	6.5	6.4	6.4	1.8	1.4	1.5	1.2	0.5	0.9
<b>27</b>	13.6	13.2	13.4	6.4	6.3	6.4	2.0	1.5	1.7	1.2	1.0	1.1
<b>28</b>	13.2	12.6	12.8	6.3	5.8	6.0	2.3	1.9	2.1	1.6	1.0	1.3
<b>29</b>	12.6	12.2	12.4	5.8	5.4	5.6	2.6	2.1	2.3	1.7	1.3	1.5
<b>30</b>	12.3	12.0	12.2	5.4	4.8	5.0	3.4	2.6	3.1	2.4	1.7	2.0
<b>31</b>	12.0	11.6	11.8	---	---	---	3.8	3.2	3.5	3.1	2.3	2.7
<b>Month</b>	19.2	11.6	15.9	12.2	4.8	8.0	4.8	0.1	2.5	3.9	-0.1	1.4

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

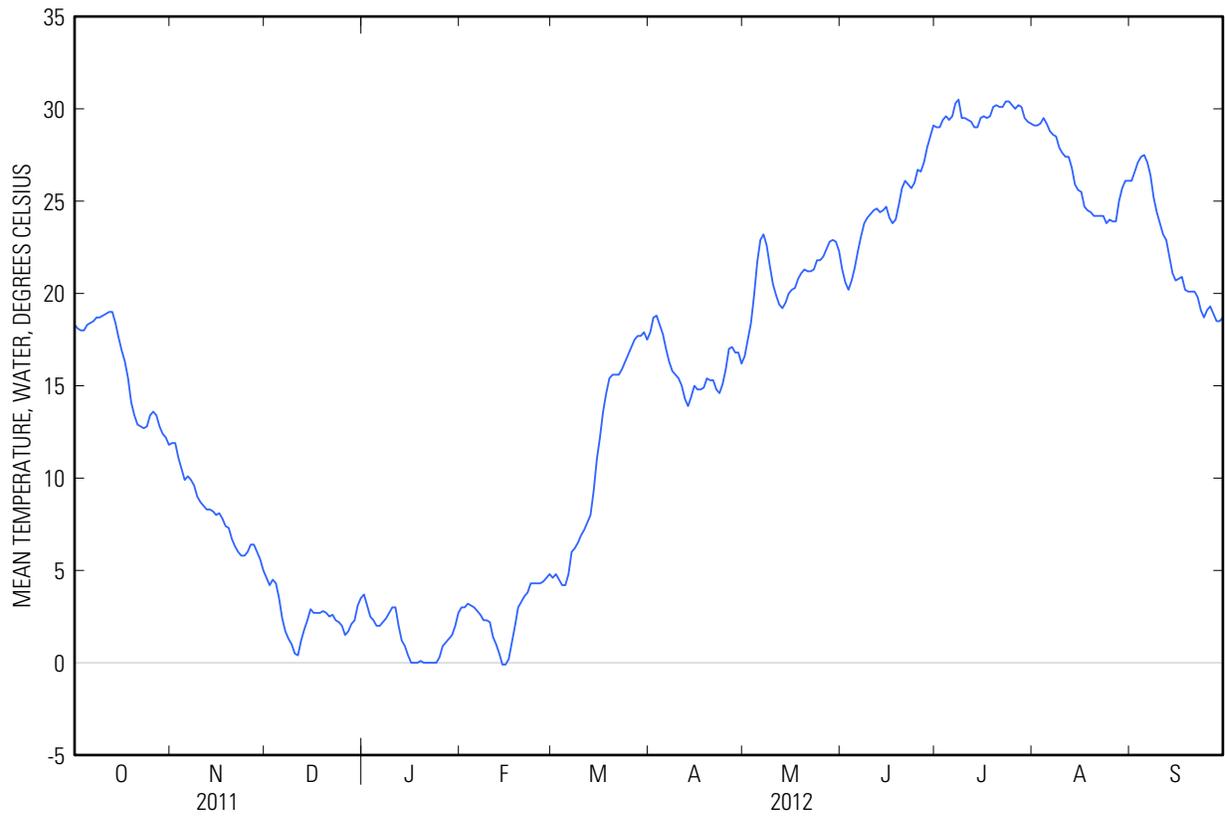
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
<b>1</b>	3.2	2.7	3.0	4.9	4.3	4.6	18.5	17.4	17.9	17.3	16.1	16.6
<b>2</b>	3.1	2.9	3.0	5.0	4.6	4.8	19.2	18.4	18.7	17.9	17.2	17.5
<b>3</b>	3.4	3.1	3.2	4.7	4.3	4.5	19.0	18.6	18.8	19.1	17.9	18.4
<b>4</b>	3.2	3.0	3.1	4.3	3.9	4.2	18.6	18.0	18.3	21.0	19.1	19.9
<b>5</b>	3.2	2.9	3.0	4.4	3.9	4.2	18.0	17.5	17.8	22.6	21.0	21.7
<b>6</b>	3.0	2.7	2.8	5.5	4.3	4.8	17.5	16.7	17.0	23.2	22.6	22.9
<b>7</b>	2.7	2.4	2.6	6.3	5.5	6.0	16.8	16.1	16.3	23.4	23.1	23.2
<b>8</b>	2.4	2.2	2.3	6.4	6.0	6.2	16.1	15.5	15.8	23.2	22.1	22.6
<b>9</b>	2.4	2.2	2.3	6.9	6.0	6.5	15.8	15.2	15.6	22.1	21.0	21.5
<b>10</b>	2.4	1.8	2.2	7.3	6.6	6.9	15.6	15.0	15.4	21.0	20.2	20.5
<b>11</b>	1.8	1.1	1.4	7.3	7.2	7.2	15.3	14.7	15.0	20.2	19.7	19.9
<b>12</b>	1.2	0.7	1.0	7.9	7.3	7.6	14.9	13.8	14.3	19.8	19.1	19.4
<b>13</b>	1.0	0.0	0.5	8.5	7.5	8.0	14.4	13.6	13.9	19.5	18.8	19.2
<b>14</b>	0.0	-0.1	-0.1	10.3	8.5	9.3	14.7	14.1	14.4	20.0	19.0	19.5
<b>15</b>	0.0	-0.1	-0.1	11.6	10.3	11.0	15.4	14.7	15.0	20.4	19.5	20.0
<b>16</b>	0.6	-0.1	0.2	12.9	11.6	12.2	15.0	14.6	14.8	20.5	19.9	20.2
<b>17</b>	1.6	0.6	1.1	14.3	12.9	13.6	15.1	14.6	14.8	20.8	19.9	20.3
<b>18</b>	2.6	1.5	2.0	15.0	14.3	14.6	15.3	14.4	14.9	21.2	20.4	20.8
<b>19</b>	3.4	2.6	3.0	15.6	15.0	15.4	15.6	15.2	15.4	21.4	20.9	21.1
<b>20</b>	3.4	3.1	3.3	15.7	15.6	15.6	15.5	15.0	15.3	21.5	21.1	21.3
<b>21</b>	3.9	3.4	3.6	15.6	15.6	15.6	15.6	14.9	15.3	21.6	20.9	21.2
<b>22</b>	4.1	3.6	3.8	15.9	15.4	15.6	15.4	14.5	14.8	21.6	20.9	21.2
<b>23</b>	4.5	4.0	4.3	16.2	15.6	15.9	15.0	14.2	14.6	21.8	20.9	21.3
<b>24</b>	4.5	4.2	4.3	16.7	15.9	16.3	15.5	14.8	15.1	22.2	21.6	21.8
<b>25</b>	4.6	4.1	4.3	17.0	16.4	16.7	16.6	15.4	15.9	21.9	21.6	21.8
<b>26</b>	4.6	4.0	4.3	17.4	16.8	17.1	17.4	16.6	17.0	22.5	21.7	22.0
<b>27</b>	4.6	4.2	4.4	17.8	17.2	17.5	17.4	16.6	17.1	22.9	22.0	22.4
<b>28</b>	5.5	4.4	4.6	18.0	17.4	17.7	17.1	16.5	16.8	23.2	22.4	22.8
<b>29</b>	4.9	4.6	4.8	18.0	16.8	17.7	17.1	16.4	16.8	23.2	22.5	22.9
<b>30</b>	---	---	---	18.2	17.7	17.9	16.4	16.0	16.2	22.9	22.6	22.8
<b>31</b>	---	---	---	17.8	17.3	17.5	---	---	---	22.7	21.9	22.3
<b>Month</b>	5.5	-0.1	2.7	18.2	3.9	11.4	19.2	13.6	16.0	23.4	16.1	20.9

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	21.9	20.9	21.3	29.4	28.8	29.0	29.4	28.8	29.1	26.5	25.8	26.1
2	20.9	20.2	20.6	29.4	28.5	29.0	29.6	28.6	29.1	27.2	26.1	26.6
3	20.5	20.0	20.2	29.9	29.0	29.4	29.4	28.9	29.2	27.6	26.6	27.1
4	21.3	20.1	20.7	29.9	29.2	29.6	30.0	29.2	29.5	27.9	27.0	27.4
5	22.0	20.9	21.4	29.7	29.0	29.4	29.6	28.8	29.2	27.9	27.2	27.5
6	22.8	21.8	22.3	30.2	29.1	29.6	29.2	28.2	28.8	27.5	26.8	27.1
7	23.6	22.6	23.1	30.9	29.7	30.3	29.0	28.1	28.6	27.0	25.8	26.4
8	24.2	23.4	23.8	30.8	30.2	30.5	28.9	28.0	28.5	25.8	24.8	25.2
9	24.5	23.8	24.1	30.2	29.1	29.5	28.4	27.7	27.9	24.8	24.0	24.4
10	24.6	24.0	24.3	29.9	29.1	29.5	27.9	27.2	27.6	24.2	23.5	23.8
11	24.9	23.5	24.5	29.8	28.9	29.4	27.8	27.0	27.4	23.5	22.8	23.2
12	25.0	24.3	24.6	29.7	29.0	29.3	27.7	27.0	27.4	23.1	22.6	22.9
13	24.7	24.1	24.4	29.4	28.8	29.0	27.4	26.4	26.8	22.9	21.3	22.0
14	25.0	24.1	24.5	29.7	28.5	29.0	26.4	25.6	25.9	21.3	20.9	21.1
15	24.8	24.5	24.7	30.0	29.0	29.5	26.0	25.1	25.6	21.0	20.4	20.7
16	24.5	23.8	24.1	29.8	29.2	29.6	25.9	25.0	25.5	21.1	20.6	20.8
17	24.1	23.4	23.8	29.9	29.0	29.5	25.1	24.2	24.7	21.1	20.6	20.9
18	24.5	23.6	24.0	30.0	29.1	29.6	24.7	24.1	24.5	20.6	19.8	20.2
19	25.4	24.3	24.8	30.7	29.6	30.1	24.8	24.0	24.4	20.4	19.7	20.1
20	26.2	25.3	25.7	30.6	29.8	30.2	24.6	23.7	24.2	20.3	19.9	20.1
21	26.4	25.6	26.1	30.6	29.7	30.1	24.6	23.8	24.2	20.4	19.9	20.1
22	26.4	25.5	25.9	30.6	29.6	30.1	24.6	23.7	24.2	20.1	19.5	19.8
23	26.0	25.1	25.7	30.8	29.9	30.4	24.5	24.0	24.2	19.5	18.7	19.1
24	26.6	25.5	26.0	30.7	29.9	30.4	24.0	23.7	23.8	19.0	18.4	18.7
25	27.1	26.3	26.7	30.5	29.8	30.2	24.1	23.8	24.0	19.5	18.7	19.1
26	26.9	26.2	26.6	30.5	29.6	30.0	24.0	23.6	23.9	19.4	19.1	19.3
27	27.8	26.6	27.1	30.6	29.8	30.2	24.6	23.3	23.9	19.2	18.7	18.9
28	28.4	27.4	27.9	30.4	29.7	30.1	25.6	24.5	25.0	18.7	18.2	18.5
29	29.0	28.1	28.5	30.0	29.0	29.5	26.3	25.3	25.7	18.9	18.1	18.5
30	29.6	28.1	29.1	29.7	29.1	29.3	26.5	25.7	26.1	19.0	18.3	18.7
31	---	---	---	29.6	28.7	29.2	26.3	25.9	26.1	---	---	---
Month	29.6	20.0	24.6	30.9	28.5	29.7	30.0	23.3	26.3	27.9	18.1	22.1

06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued



## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	8.1	7.7	7.9	9.9	9.7	9.8	---	---	---	---	---	---
2	8.1	7.8	7.9	9.8	9.7	9.8	---	---	---	---	---	---
3	8.0	7.8	7.9	10.0	9.7	9.9	---	---	---	---	---	---
4	8.0	7.7	7.8	10.2	9.9	10.0	---	---	---	---	---	---
5	7.8	7.6	7.7	10.4	9.9	10.2	---	---	---	---	---	---
6	7.8	7.6	7.7	10.4	10.2	10.3	---	---	---	---	---	---
7	7.9	7.5	7.7	10.5	10.2	10.4	---	---	---	---	---	---
8	7.9	7.6	7.7	10.5	10.2	10.4	---	---	---	---	---	---
9	7.8	7.6	7.7	10.4	10.0	10.2	---	---	---	---	---	---
10	7.7	7.5	7.6	10.4	10.2	10.3	---	---	---	---	---	---
11	7.8	7.5	7.7	10.7	10.3	10.5	---	---	---	---	---	---
12	7.7	7.5	7.6	10.9	10.6	10.8	---	---	---	---	---	---
13	7.7	7.5	7.6	10.9	10.6	10.8	---	---	---	---	---	---
14	7.6	7.5	7.6	10.9	10.6	10.8	---	---	---	---	---	---
15	7.9	7.6	7.7	11.0	10.6	10.8	---	---	---	---	---	---
16	8.2	7.9	8.1	---	---	---	---	---	---	---	---	---
17	8.4	8.2	8.3	---	---	---	---	---	---	---	---	---
18	8.7	8.4	8.5	---	---	---	---	---	---	---	---	---
19	9.1	8.7	8.9	---	---	---	---	---	---	---	---	---
20	9.3	9.0	9.1	---	---	---	---	---	---	---	---	---
21	9.4	9.2	9.3	---	---	---	---	---	---	---	---	---
22	9.5	9.3	9.4	---	---	---	---	---	---	---	---	---
23	9.6	9.4	9.5	---	---	---	---	---	---	---	---	---
24	9.6	9.5	9.5	---	---	---	---	---	---	---	---	---
25	9.5	9.4	9.5	---	---	---	---	---	---	---	---	---
26	9.4	9.3	9.4	---	---	---	---	---	---	---	---	---
27	9.4	9.2	9.3	---	---	---	---	---	---	---	---	---
28	9.6	9.3	9.4	---	---	---	---	---	---	---	---	---
29	9.7	9.5	9.6	---	---	---	---	---	---	---	---	---
30	9.8	9.6	9.7	---	---	---	---	---	---	---	---	---
31	9.9	9.7	9.8	---	---	---	---	---	---	---	---	---
Month	9.9	7.5	8.5	---	---	---	---	---	---	---	---	---

06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

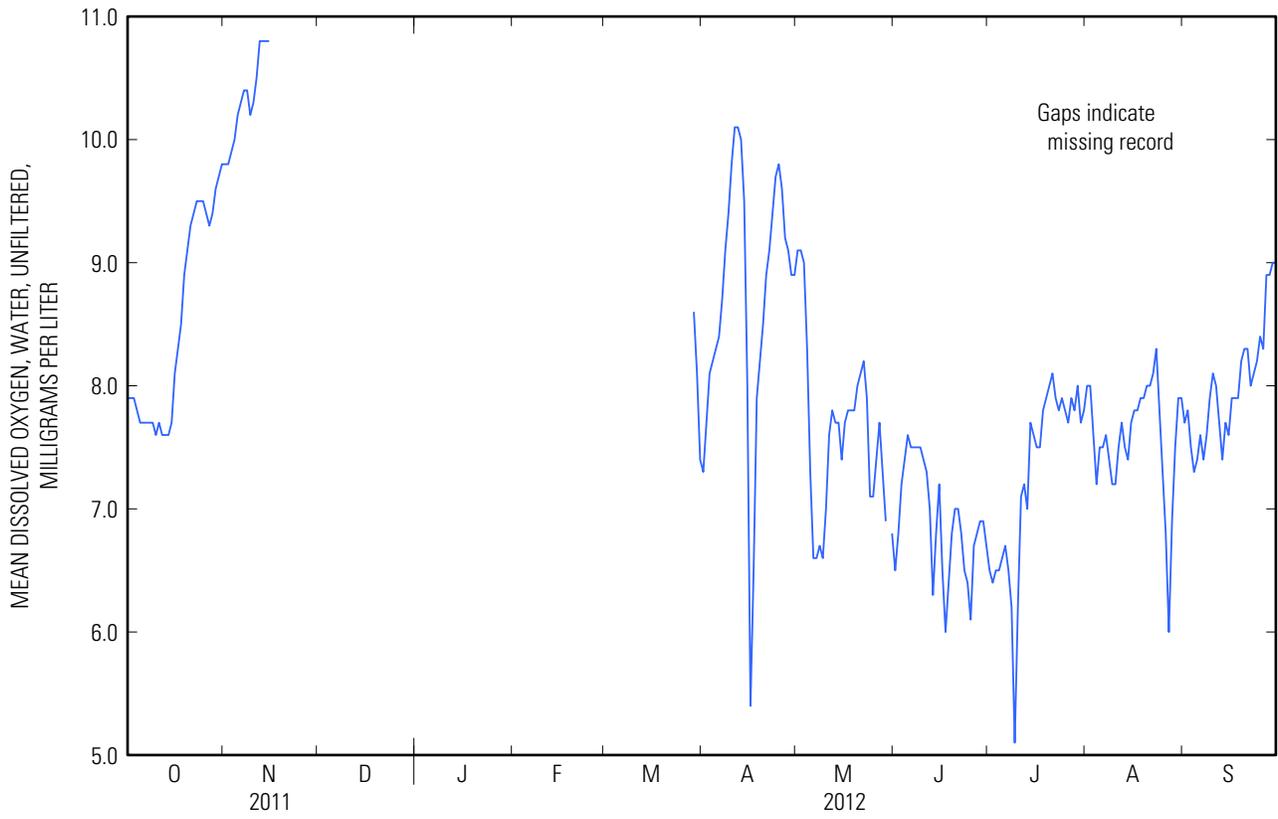
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	7.4	7.2	7.3	9.4	8.9	9.1
2	---	---	---	---	---	---	8.1	7.4	7.7	9.4	8.9	9.1
3	---	---	---	---	---	---	8.2	8.0	8.1	9.2	8.8	9.0
4	---	---	---	---	---	---	8.4	7.9	8.2	8.9	7.6	8.3
5	---	---	---	---	---	---	8.6	8.0	8.3	7.6	7.1	7.3
6	---	---	---	---	---	---	8.8	8.1	8.4	7.1	6.4	6.6
7	---	---	---	---	---	---	9.0	8.5	8.7	6.9	6.4	6.6
8	---	---	---	---	---	---	9.5	8.8	9.1	6.9	6.4	6.7
9	---	---	---	---	---	---	9.8	9.0	9.4	6.7	6.5	6.6
10	---	---	---	---	---	---	10.3	9.3	9.8	7.4	6.6	7.0
11	---	---	---	---	---	---	10.7	9.7	10.1	7.9	7.3	7.6
12	---	---	---	---	---	---	10.4	9.9	10.1	8.0	7.7	7.8
13	---	---	---	---	---	---	10.4	9.5	10	7.9	7.6	7.7
14	---	---	---	---	---	---	10.1	9.3	9.5	7.9	7.4	7.7
15	---	---	---	---	---	---	9.3	5.9	8.0	7.7	7.1	7.4
16	---	---	---	---	---	---	6.4	5.0	5.4	7.9	7.4	7.7
17	---	---	---	---	---	---	7.3	5.5	6.5	8.0	7.6	7.8
18	---	---	---	---	---	---	8.2	7.3	7.9	8.1	7.5	7.8
19	---	---	---	---	---	---	8.4	8.2	8.2	8.0	7.5	7.8
20	---	---	---	---	---	---	8.8	8.3	8.5	8.2	7.7	8.0
21	---	---	---	---	---	---	9.0	8.7	8.9	8.5	7.7	8.1
22	---	---	---	---	---	---	9.3	9.0	9.1	8.5	7.7	8.2
23	---	---	---	---	---	---	9.6	9.2	9.4	8.3	7.4	7.9
24	---	---	---	---	---	---	9.9	9.5	9.7	7.4	6.9	7.1
25	---	---	---	---	---	---	10.0	9.6	9.8	7.3	7.0	7.1
26	---	---	---	---	---	---	9.8	9.3	9.6	7.7	7.2	7.4
27	---	---	---	---	---	---	9.4	9.1	9.2	8.0	7.4	7.7
28	---	---	---	---	---	---	9.3	8.9	9.1	7.8	7.0	7.3
29	---	---	---	9.2	8.2	8.6	9.1	8.8	8.9	7.1	6.8	6.9
30	---	---	---	8.5	7.3	8.1	9.1	8.7	8.9	---	6.6	---
31	---	---	---	7.5	7.3	7.4	---	---	---	6.9	6.7	6.8
Month	---	---	---	---	---	---	10.7	5.0	8.7	---	6.4	---

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	6.7	6.4	6.5	6.7	6.2	6.5	8.9	7.2	8.0	8.3	7.3	7.7
2	7.0	6.4	6.8	6.9	6.1	6.4	8.9	7.2	8.0	8.5	7.2	7.8
3	7.3	6.9	7.2	6.9	6.1	6.5	8.2	7.0	7.6	8.0	6.9	7.5
4	7.6	7.3	7.4	7.0	6.1	6.5	8.0	6.5	7.2	7.8	6.8	7.3
5	7.6	7.5	7.6	7.1	6.1	6.6	8.5	6.8	7.5	8.1	6.9	7.4
6	7.6	7.4	7.5	7.2	6.2	6.7	8.3	6.8	7.5	8.2	7.0	7.6
7	7.7	7.3	7.5	7.0	5.9	6.5	8.4	6.9	7.6	7.7	7.0	7.4
8	7.7	7.2	7.5	6.6	5.9	6.2	7.9	7.2	7.4	8.2	7.1	7.6
9	7.8	7.2	7.5	6.0	4.0	5.1	7.7	6.7	7.2	8.3	7.4	7.9
10	7.6	7.2	7.4	7.1	5.5	6.2	7.9	6.7	7.2	8.6	7.6	8.1
11	7.5	7.0	7.3	7.9	6.3	7.1	8.1	6.9	7.5	8.3	7.6	8.0
12	7.2	6.6	7.0	7.8	6.5	7.2	8.5	7.1	7.7	8.0	7.4	7.7
13	6.6	6.1	6.3	7.5	6.5	7.0	7.8	7.1	7.5	7.7	7.2	7.4
14	7.2	6.4	6.8	8.7	6.9	7.7	7.8	7.1	7.4	8.2	7.4	7.7
15	7.3	7.0	7.2	8.5	6.9	7.6	8.2	7.2	7.7	7.8	7.4	7.6
16	7.2	5.7	6.5	8.2	6.8	7.5	8.2	7.5	7.8	8.0	7.6	7.9
17	6.3	5.8	6.0	8.4	6.7	7.5	8.4	7.4	7.8	8.1	7.7	7.9
18	6.6	6.2	6.4	8.6	6.9	7.8	8.3	7.6	7.9	8.3	7.7	7.9
19	7.1	6.5	6.8	8.9	7.0	7.9	8.4	7.5	7.9	8.6	7.8	8.2
20	7.3	6.8	7.0	9.0	7.0	8.0	8.4	7.6	8.0	8.7	8.0	8.3
21	7.4	6.8	7.0	9.1	7.2	8.1	8.4	7.6	8.0	8.7	8.0	8.3
22	7.1	6.4	6.8	8.9	6.9	7.9	8.7	7.6	8.1	8.3	7.8	8.0
23	6.6	6.3	6.5	8.8	6.9	7.8	8.8	7.8	8.3	8.3	7.7	8.1
24	6.5	6.2	6.4	8.9	7.0	7.9	8.4	7.4	7.8	8.6	7.9	8.2
25	6.4	6.0	6.1	8.9	7.0	7.8	7.5	7.0	7.3	8.8	8.1	8.4
26	7.0	6.3	6.7	8.6	6.9	7.7	7.3	5.9	6.8	8.5	8.1	8.3
27	7.0	6.5	6.8	9.0	7.0	7.9	6.6	5.6	6.0	9.2	8.3	8.9
28	7.3	6.5	6.9	8.8	7.0	7.8	7.6	6.3	6.9	9.1	8.7	8.9
29	7.3	6.5	6.9	9.1	7.0	8.0	7.9	7.1	7.5	9.3	8.8	9.0
30	7.1	6.3	6.7	8.3	7.1	7.7	8.7	7.2	7.9	9.2	8.8	9.0
31	---	---	---	8.9	7.0	7.8	8.2	7.5	7.9	---	---	---
Month	7.8	5.7	6.9	9.1	4.0	7.3	8.9	5.6	7.6	9.3	6.8	8.0

06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued



## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
<b>1</b>	110	80	91	40	33	36	40	32	34	46	33	40
<b>2</b>	92	74	85	48	33	38	39	34	37	48	35	39
<b>3</b>	95	71	84	45	34	38	53	37	40	47	35	38
<b>4</b>	100	74	87	51	32	39	120	45	85	48	33	38
<b>5</b>	100	81	91	51	37	42	130	69	100	51	33	37
<b>6</b>	100	84	94	45	34	38	69	41	51	45	30	34
<b>7</b>	110	81	96	57	31	38	43	33	36	46	29	36
<b>8</b>	100	72	87	47	35	40	46	30	33	47	41	44
<b>9</b>	90	71	80	97	38	64	32	28	30	48	36	41
<b>10</b>	82	69	75	55	41	47	32	28	30	39	31	36
<b>11</b>	76	58	69	46	37	41	32	28	30	38	30	33
<b>12</b>	76	57	66	43	36	38	40	28	31	36	29	33
<b>13</b>	75	62	68	39	34	36	36	28	31	35	27	32
<b>14</b>	90	65	76	39	34	36	67	29	39	34	29	31
<b>15</b>	90	72	82	40	34	37	120	67	99	41	26	31
<b>16</b>	84	62	73	45	35	37	120	86	100	36	27	29
<b>17</b>	65	56	61	42	34	37	88	57	70	32	17	26
<b>18</b>	66	52	58	41	34	36	71	50	57	37	13	24
<b>19</b>	60	49	55	37	34	36	62	43	51	42	29	34
<b>20</b>	60	48	54	39	33	35	53	35	42	35	15	22
<b>21</b>	57	45	51	46	33	35	50	35	41	28	10	19
<b>22</b>	57	46	51	38	31	33	54	40	43	27	18	22
<b>23</b>	55	45	48	51	29	32	46	36	40	30	20	23
<b>24</b>	50	39	46	43	29	32	48	34	39	22	14	18
<b>25</b>	51	41	45	32	29	30	41	30	34	20	17	19
<b>26</b>	53	40	45	35	29	32	38	31	35	21	18	20
<b>27</b>	49	38	43	37	32	33	43	30	35	23	20	21
<b>28</b>	48	36	41	37	31	34	44	30	33	21	18	20
<b>29</b>	47	34	39	38	32	34	41	29	34	22	18	20
<b>30</b>	43	34	38	36	31	33	46	32	37	30	18	21
<b>31</b>	42	32	36	---	---	---	44	34	38	28	20	22
<b>Month</b>	110	32	65	97	29	37	130	28	46	51	10	29

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

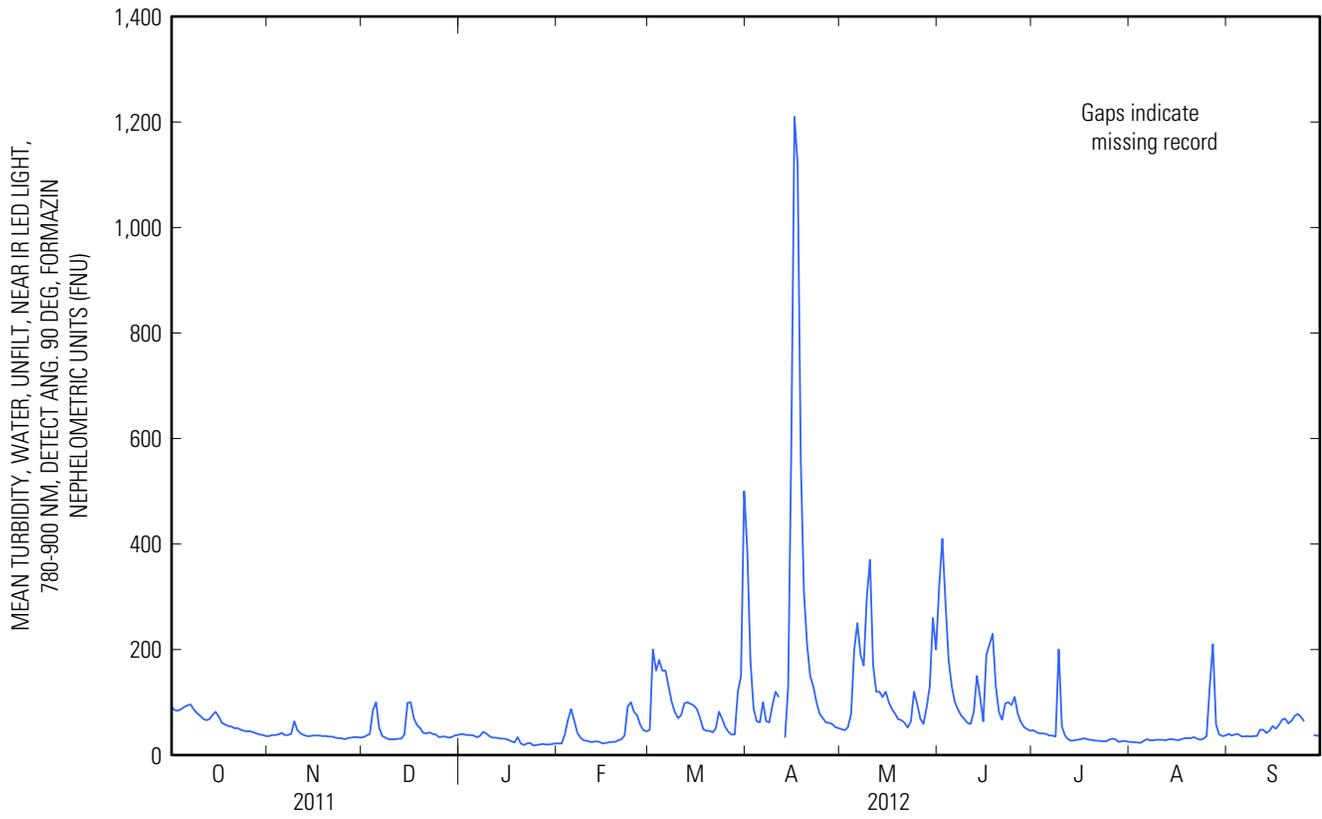
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
<b>1</b>	31	20	22	77	37	48	470	280	390	55	44	49
<b>2</b>	29	19	22	280	73	200	290	110	180	54	43	47
<b>3</b>	63	21	39	230	140	160	120	66	88	120	43	53
<b>4</b>	81	44	67	190	150	180	80	51	64	150	45	78
<b>5</b>	100	71	87	190	130	160	130	47	62	270	140	200
<b>6</b>	79	47	65	180	130	160	160	65	100	270	220	250
<b>7</b>	55	35	42	140	110	130	81	51	64	230	140	190
<b>8</b>	39	28	33	120	88	100	76	52	62	240	120	170
<b>9</b>	30	26	28	95	67	81	120	74	95	440	190	300
<b>10</b>	31	24	27	79	63	70	140	100	120	460	240	370
<b>11</b>	28	23	25	86	65	76	130	96	110	250	130	170
<b>12</b>	29	23	25	120	81	98	---	27	---	130	100	120
<b>13</b>	30	24	26	120	91	100	45	27	33	130	96	120
<b>14</b>	28	22	25	110	87	97	200	35	130	130	97	110
<b>15</b>	26	19	22	100	86	94	1,220	99	590	140	97	120
<b>16</b>	34	21	23	100	75	87	1,210	1,200	1,210	120	88	100
<b>17</b>	27	22	24	84	54	70	1,210	840	1,120	110	72	87
<b>18</b>	27	23	25	62	39	49	870	370	560	97	66	78
<b>19</b>	27	23	25	55	38	46	390	250	310	80	53	68
<b>20</b>	40	25	28	62	37	46	250	160	210	78	56	66
<b>21</b>	34	26	30	55	37	43	180	130	150	73	46	61
<b>22</b>	55	29	37	78	37	51	140	120	130	63	46	52
<b>23</b>	120	55	92	98	59	82	120	86	100	99	47	64
<b>24</b>	120	87	100	84	56	69	91	64	78	140	94	120
<b>25</b>	96	73	82	64	44	53	81	62	70	120	75	97
<b>26</b>	90	67	75	55	36	44	75	49	62	86	55	69
<b>27</b>	72	45	57	48	32	39	80	48	61	71	53	59
<b>28</b>	140	38	47	46	35	39	68	50	59	130	57	90
<b>29</b>	56	38	45	260	33	120	68	46	53	160	110	130
<b>30</b>	---	---	---	550	65	150	56	44	51	290	150	260
<b>31</b>	---	---	---	550	420	500	---	---	---	230	180	200
<b>Month</b>	140	19	43	550	32	100	---	27	---	460	43	130

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	420	200	320	67	40	47	29	22	25	43	35	40
2	440	360	410	53	35	43	28	21	24	41	34	37
3	370	230	290	49	34	41	28	21	24	45	34	39
4	230	150	180	48	33	41	27	19	23	45	36	40
5	150	110	130	48	30	40	65	18	27	40	32	36
6	110	93	100	44	30	37	35	26	30	40	30	35
7	96	78	86	44	30	37	32	25	28	43	29	36
8	83	69	75	40	27	35	33	25	28	42	29	35
9	73	63	68	500	28	200	35	25	29	44	30	36
10	75	54	61	92	35	54	34	25	29	43	31	36
11	130	51	59	44	29	37	34	25	29	61	37	48
12	140	51	82	36	24	30	33	24	28	55	41	48
13	180	120	150	34	19	27	33	25	30	48	36	42
14	150	73	110	35	23	28	35	27	30	54	40	46
15	75	55	64	34	26	29	33	26	29	67	45	55
16	390	55	190	35	26	30	30	25	28	56	44	50
17	230	190	210	35	29	32	34	25	30	66	49	57
18	280	160	230	33	27	30	36	28	32	78	57	67
19	160	90	130	32	26	29	36	28	32	76	63	69
20	94	69	81	31	25	28	36	29	32	71	52	60
21	94	58	67	31	24	27	38	31	34	71	60	65
22	190	55	98	30	24	27	36	25	31	88	60	74
23	140	85	100	30	22	26	33	25	29	84	74	78
24	110	84	95	29	23	26	35	25	31	84	64	72
25	130	94	110	33	25	29	39	32	36	70	59	64
26	99	64	78	37	25	31	320	32	130	---	---	---
27	68	54	62	38	22	30	320	83	210	---	33	---
28	59	46	53	29	22	25	87	42	58	42	34	38
29	55	45	49	33	23	26	45	32	39	43	34	37
30	54	41	46	35	21	27	40	32	36	42	34	36
31	---	---	---	27	22	25	41	34	37	---	---	---
<b>Month</b>	440	41	130	500	19	38	320	18	40	---	---	---

06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued



## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

[e, estimated]

Day	Mean	Mean	Sediment	Mean	Mean	Sediment	Mean	Mean	Sediment
	discharge	concentration	discharge	discharge	concentration	discharge	discharge	concentration	discharge
	(ft <sup>3</sup> /s)	(mg/L)	(tons/day)	(ft <sup>3</sup> /s)	(mg/L)	(tons/day)	(ft <sup>3</sup> /s)	(mg/L)	(tons/day)
	October			November			December		
1	87,400	420	99,000	57,400	259	40,000	55,600	252	38,000
2	83,700	402	91,000	57,600	263	41,000	56,000	261	39,000
3	79,300	401	86,000	57,900	263	41,000	56,900	271	42,000
4	74,900	409	83,000	57,700	266	41,000	63,300	403	69,000
5	70,600	422	80,000	57,900	276	43,000	61,900	459	77,000
6	66,700	431	78,000	57,700	264	41,000	58,100	302	47,000
7	64,400	437	76,000	57,800	263	41,000	56,600	259	40,000
8	63,100	410	70,000	59,300	269	43,000	55,300	249	37,000
9	61,700	389	65,000	63,800	341	59,000	54,600	241	36,000
10	61,600	373	62,000	63,500	289	50,000	54,200	240	35,000
11	61,700	355	59,000	60,500	273	45,000	53,000	240	34,000
12	61,500	347	58,000	59,300	265	42,000	51,100	242	33,000
13	62,600	354	60,000	58,800	258	41,000	50,100	242	33,000
14	63,600	377	65,000	59,000	259	41,000	50,500	268	37,000
15	63,600	393	67,000	58,900	260	41,000	53,900	445	65,000
16	62,200	367	62,000	58,100	262	41,000	53,300	448	64,000
17	61,200	332	55,000	58,200	260	41,000	49,900	360	49,000
18	60,400	323	53,000	58,100	259	41,000	47,400	320	41,000
19	60,100	314	51,000	57,800	257	40,000	45,400	301	37,000
20	59,100	311	50,000	57,500	254	39,000	44,900	275	33,000
21	57,900	301	47,000	57,200	255	39,000	45,100	272	33,000
22	58,600	303	48,000	57,300	250	39,000	44,600	279	34,000
23	59,300	292	47,000	57,000	247	38,000	43,000	270	31,000
24	58,800	286	45,000	56,200	245	37,000	42,400	268	31,000
25	58,900	284	45,000	56,100	241	37,000	42,700	252	29,000
26	58,500	285	45,000	56,800	245	38,000	41,500	255	29,000
27	58,300	278	44,000	57,100	250	39,000	41,100	255	28,000
28	57,900	273	43,000	57,200	251	39,000	41,600	250	28,000
29	57,900	267	42,000	57,600	251	39,000	42,000	251	28,000
30	57,900	265	41,000	56,300	248	38,000	42,200	260	30,000
31	57,700	258	40,000	---	---	---	42,000	263	30,000
<b>Total</b>	1,971,100	---	1,857,000	1,745,600	---	1,235,000	1,540,200	---	1,217,000

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

[e, estimated]

Day	Mean discharge (ft <sup>3</sup> /s)	Mean concentration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft <sup>3</sup> /s)	Mean concentration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft <sup>3</sup> /s)	Mean concentration (mg/L)	Sediment discharge (tons/day)
	January			February			March		
1	42,100	269	31,000	38,400	215	22,000	43,100	293	34,000
2	42,000	266	30,000	40,000	216	23,000	45,600	738	91,000
3	41,800	264	30,000	41,700	266	30,000	47,200	636	81,000
4	41,500	265	30,000	42,700	349	40,000	48,200	677	88,000
5	40,900	260	29,000	43,700	410	48,000	46,900	613	78,000
6	40,000	252	27,000	43,200	345	40,000	46,200	619	77,000
7	40,100	258	28,000	41,200	275	31,000	45,500	527	65,000
8	40,600	282	31,000	40,600	249	27,000	44,600	454	55,000
9	40,100	272	29,000	40,800	234	26,000	43,800	392	46,000
10	39,700	257	28,000	39,700	230	25,000	44,500	358	43,000
11	40,400	250	27,000	38,600	226	24,000	45,400	376	46,000
12	40,600	248	27,000	37,500	225	23,000	45,500	440	54,000
13	39,600	245	26,000	37,400	228	23,000	45,200	451	55,000
14	38,800	243	25,000	37,100	225	23,000	45,100	438	53,000
15	37,000	243	24,000	36,600	215	21,000	44,600	429	52,000
16	36,200	237	23,000	36,700	219	22,000	44,400	409	49,000
17	36,700	229	23,000	36,600	222	22,000	43,900	357	42,000
18	35,900	223	22,000	36,300	226	22,000	43,400	297	35,000
19	36,100	252	25,000	37,700	224	23,000	43,000	287	33,000
20	36,700	216	21,000	39,300	232	25,000	43,300	288	34,000
21	36,400	206	20,000	40,000	239	26,000	43,200	280	33,000
22	35,000	215	20,000	41,300	262	29,000	44,600	303	36,000
23	34,100	218	20,000	42,900	424	49,000	45,500	393	48,000
24	33,000	204	18,000	43,200	456	53,000	45,700	354	44,000
25	32,900	206	18,000	42,700	394	45,000	46,200	309	39,000
26	33,700	209	19,000	42,400	375	43,000	46,800	282	36,000
27	34,800	214	20,000	41,800	321	36,000	46,700	266	34,000
28	36,000	211	21,000	41,400	282	32,000	46,000	267	33,000
29	37,000	211	21,000	41,400	283	32,000	46,400	496	62,000
30	37,700	212	22,000	---	---	---	48,000	608	79,000
31	38,200	215	22,000	---	---	---	51,900	1,640	230,000
<b>Total</b>	1,175,600	---	757,000	1,162,900	---	885,000	1,410,400	---	1,785,000

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

[e, estimated]

Day	Mean discharge (ft <sup>3</sup> /s)	Mean concentration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft <sup>3</sup> /s)	Mean concentration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft <sup>3</sup> /s)	Mean concentration (mg/L)	Sediment discharge (tons/day)
	April			May			June		
1	49,300	1,310	174,000	46,000	295	37,000	64,300	1,100	191,000
2	47,600	691	89,000	46,200	291	36,000	61,200	1,370	226,000
3	46,600	411	52,000	47,300	305	39,000	60,500	1,010	165,000
4	46,000	342	42,000	49,300	384	51,000	60,200	697	113,000
5	46,200	333	42,000	49,900	736	99,000	58,900	536	85,000
6	48,000	447	58,000	48,700	884	116,000	57,100	454	70,000
7	46,300	341	43,000	50,900	703	97,000	55,600	406	61,000
8	45,400	334	41,000	54,400	662	97,000	54,200	373	55,000
9	45,800	431	53,000	53,700	1,040	151,000	52,900	353	50,000
10	44,800	505	61,000	51,100	1,230	170,000	51,600	333	46,000
11	44,100	e440	e52,000	51,200	666	92,000	50,900	326	45,000
12	43,600	e320	e38,000	51,600	494	69,000	52,900	393	56,000
13	44,100	248	30,000	49,400	499	67,000	52,000	607	85,000
14	46,900	528	67,000	51,600	481	67,000	49,300	463	62,000
15	60,200	e975	e158,000	56,100	511	77,000	48,300	342	45,000
16	92,600	e2,000	e500,000	55,600	458	69,000	54,300	705	103,000
17	71,200	e1,900	e365,000	53,400	410	59,000	58,400	764	120,000
18	61,600	e1,500	e249,000	51,600	381	53,000	55,700	823	124,000
19	58,000	1,070	168,000	50,300	351	48,000	51,000	525	72,000
20	53,600	777	112,000	49,600	346	46,000	48,800	392	52,000
21	49,700	585	79,000	49,300	331	44,000	48,200	349	45,000
22	48,500	532	70,000	49,800	306	41,000	49,900	441	59,000
23	48,100	458	59,000	50,000	340	46,000	50,900	447	61,000
24	47,300	381	49,000	48,300	497	65,000	50,600	432	59,000
25	46,900	358	45,000	47,500	438	56,000	48,800	491	65,000
26	45,800	334	41,000	48,400	356	47,000	47,100	382	49,000
27	44,500	331	40,000	50,500	327	45,000	46,100	335	42,000
28	44,700	327	39,000	51,700	419	58,000	45,200	309	38,000
29	44,800	309	37,000	53,800	527	77,000	44,300	296	35,000
30	45,100	301	37,000	55,300	e600	e90,000	44,000	288	34,000
31	---	---	---	63,100	737	126,000	---	---	---
<b>Total</b>	1,507,300	---	2,890,000	1,585,600	---	2,235,000	1,573,200	---	2,313,000

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

**SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

[e, estimated]

Day	Mean discharge (ft <sup>3</sup> /s)	Mean concentration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft <sup>3</sup> /s)	Mean concentration (mg/L)	Sediment discharge (tons/day)			
							Mean discharge (ft <sup>3</sup> /s)	Mean concentration (mg/L)	Sediment discharge (tons/day)
July			August			September			
1	43,800	290	34,000	38,000	226	23,000	38,900	269	28,000
2	43,100	278	32,000	38,100	223	23,000	38,400	262	27,000
3	42,500	272	31,000	37,700	221	22,000	38,900	267	28,000
4	42,100	273	31,000	37,700	218	22,000	39,100	269	28,000
5	41,600	268	30,000	38,000	229	23,000	39,200	258	27,000
6	41,000	261	29,000	38,100	240	25,000	39,200	254	27,000
7	40,500	260	28,000	38,500	234	24,000	39,200	257	27,000
8	39,800	254	27,000	38,900	235	25,000	39,300	256	27,000
9	42,200	744	85,000	39,200	237	25,000	39,500	259	28,000
10	40,000	311	34,000	39,800	237	25,000	40,200	259	28,000
11	40,000	260	28,000	39,800	238	26,000	39,700	292	31,000
12	39,800	241	26,000	39,600	235	25,000	39,700	295	32,000
13	39,400	230	24,000	39,900	239	26,000	40,100	274	30,000
14	39,100	234	25,000	39,900	240	26,000	42,000	288	33,000
15	39,500	238	25,000	39,900	238	26,000	42,300	314	36,000
16	40,000	240	26,000	40,000	233	25,000	41,600	298	33,000
17	39,800	245	26,000	40,000	240	26,000	41,200	320	36,000
18	39,400	240	26,000	39,700	247	26,000	40,300	351	38,000
19	39,000	237	25,000	39,800	246	26,000	40,200	e335	e36,000
20	39,000	234	25,000	39,900	246	27,000	40,400	329	36,000
21	38,900	231	24,000	40,000	253	27,000	40,200	345	37,000
22	38,500	230	24,000	40,000	244	26,000	39,900	370	40,000
23	38,300	228	24,000	39,900	237	26,000	40,000	383	41,000
24	38,200	227	23,000	39,800	242	26,000	40,100	364	39,000
25	38,100	236	24,000	40,600	257	28,000	40,100	341	37,000
26	38,500	243	25,000	47,600	534	69,000	40,300	e325	e35,000
27	38,100	240	25,000	48,400	775	101,000	40,400	e295	e32,000
28	38,000	226	23,000	43,200	322	38,000	40,400	265	29,000
29	38,000	228	23,000	41,800	266	30,000	40,300	262	29,000
30	37,700	e226	e23,000	41,000	258	29,000	40,300	259	28,000
31	37,600	224	23,000	40,100	261	28,000	---	---	---
<b>Total</b>	1,231,500	---	878,000	1,244,900	---	924,000	1,201,400	---	963,000

	Total discharge (ft <sup>3</sup> /s)	Total suspended sediment discharge (tons)
<b>Year</b>	17,349,700	17,939,000