Water-Data Report 2011

# 07381490 (COE) Atchafalaya River at Simmesport, LA

Atchafalaya-Vermilion Basin
Atchafalaya Subbasin

LOCATION.--Lat 30°58′57″, long 91°47′54″ referenced to North American Datum of 1983, Avoyelles Parish, LA, Hydrologic Unit 08080101, located on the right bridge pier of the State Hwy 1 bridge crossing the Atchafalaya River, and 5.4 mi downstream from confluence of Red River and Old River (head of Atchafalaya River).

DRAINAGE AREA.--87570.00 $mi^2$.

## SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 13, 2009 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.00 ft NGVD 29.

COOPERATION.--Gage is operated in cooperation with the USACE New Orleans District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 697,000 $ft^3/s$, May. 23, 24 2011, gage height, 45.06 ft; minimum discharge, 75,800 $ft^3/s$, Nov. 18, 2010, gage height, 5.21 ft.

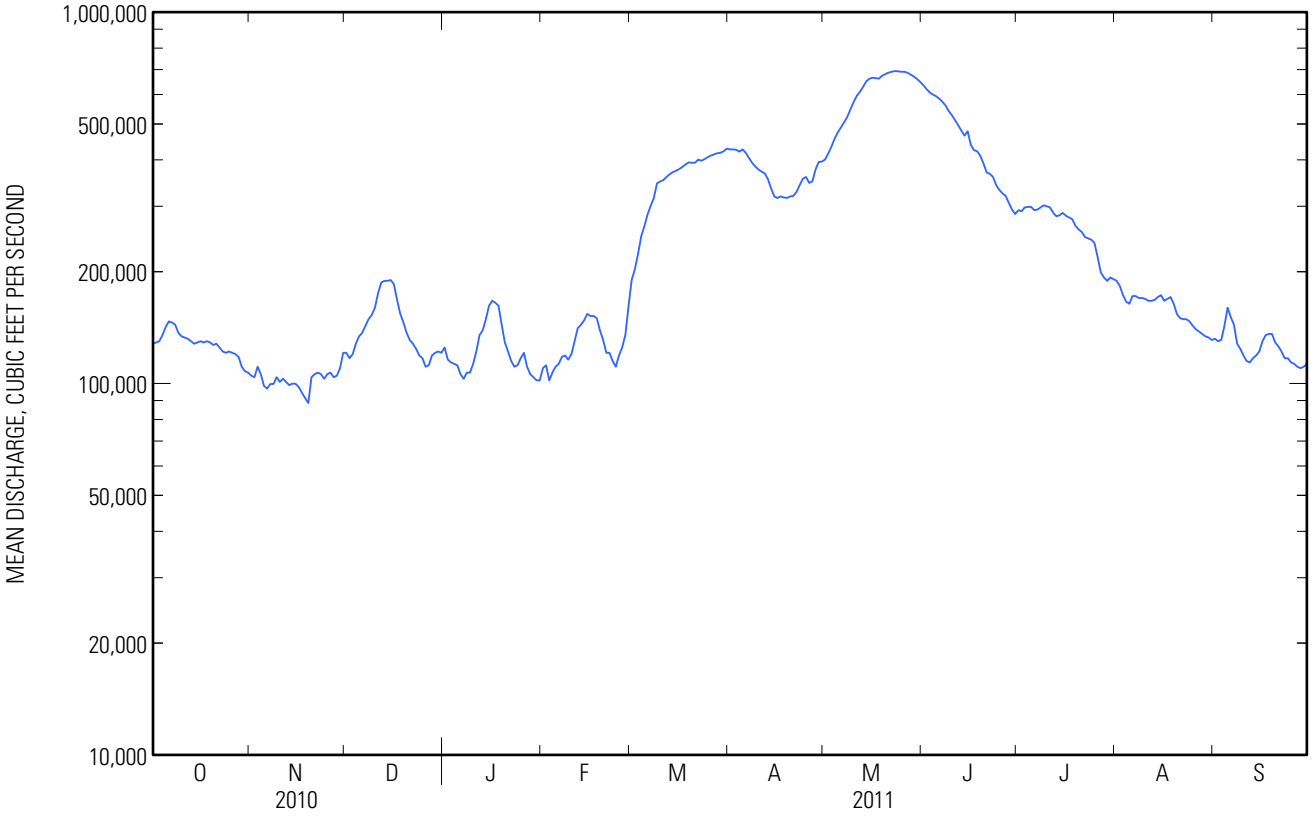
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 697,000 $ft^3/s$, May 23, 24; maximum gage height, 45.06 ft., May 24; minimum discharge, 75,800 $ft^3/s$, Nov. 18; minimum gage height, 5.21 ft, Nov. 18..

**07381490 (COE) Atchafalaya River at Simmesport, LA—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**
**DAILY MEAN VALUES**

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 128,000 | 105,000 | 121,000 | 125,000 | 110,000 | 190,000 | 427,000 | 401,000 | 636,000 | 293,000 | 189,000 | 132,000 |
| 2 | 129,000 | 104,000 | 117,000 | 116,000 | 112,000 | 203,000 | 427,000 | 416,000 | 621,000 | 291,000 | 183,000 | 130,000 |
| 3 | 130,000 | 111,000 | 120,000 | 114,000 | 102,000 | 223,000 | 426,000 | 434,000 | 608,000 | 298,000 | 173,000 | 131,000 |
| 4 | 135,000 | 106,000 | 128,000 | 113,000 | 107,000 | 249,000 | 421,000 | 456,000 | 600,000 | 299,000 | 166,000 | 143,000 |
| 5 | 142,000 | 98,600 | 134,000 | 112,000 | 111,000 | 265,000 | 427,000 | 474,000 | 594,000 | 299,000 | 164,000 | 160,000 |
| 6 | 147,000 | 96,900 | 137,000 | 106,000 | 113,000 | 285,000 | 418,000 | 489,000 | 585,000 | 293,000 | 172,000 | 151,000 |
| 7 | 146,000 | 99,700 | 143,000 | 103,000 | 118,000 | 301,000 | 405,000 | 505,000 | 574,000 | 294,000 | 172,000 | 144,000 |
| 8 | 144,000 | 99,700 | 149,000 | 107,000 | 119,000 | 316,000 | 393,000 | 522,000 | 561,000 | 298,000 | 170,000 | 128,000 |
| 9 | 137,000 | 104,000 | 153,000 | 107,000 | 116,000 | 346,000 | 384,000 | 547,000 | 542,000 | 302,000 | 170,000 | 124,000 |
| 10 | 134,000 | 101,000 | 160,000 | 113,000 | 120,000 | 350,000 | 377,000 | 572,000 | 528,000 | 300,000 | 169,000 | 119,000 |
| 11 | 133,000 | 103,000 | 175,000 | 122,000 | 130,000 | 353,000 | 372,000 | 595,000 | 512,000 | 298,000 | 167,000 | 115,000 |
| 12 | 132,000 | 101,000 | 187,000 | 135,000 | 141,000 | 360,000 | 368,000 | 610,000 | 496,000 | 288,000 | 167,000 | 114,000 |
| 13 | 130,000 | 99,000 | 189,000 | 139,000 | 144,000 | 366,000 | 355,000 | 629,000 | 480,000 | 282,000 | 168,000 | 117,000 |
| 14 | 128,000 | 100,000 | 189,000 | 149,000 | 148,000 | 371,000 | 335,000 | 651,000 | 465,000 | 284,000 | 171,000 | 119,000 |
| 15 | 129,000 | 99,800 | 190,000 | 162,000 | 154,000 | 374,000 | 319,000 | 662,000 | 478,000 | 288,000 | 173,000 | 122,000 |
| 16 | 130,000 | 97,800 | 185,000 | 167,000 | 152,000 | 378,000 | 316,000 | 666,000 | 439,000 | 283,000 | 167,000 | 130,000 |
| 17 | 129,000 | 94,400 | 168,000 | 165,000 | 152,000 | 383,000 | 319,000 | 664,000 | 425,000 | 280,000 | 169,000 | 135,000 |
| 18 | 130,000 | 91,400 | 154,000 | 162,000 | 150,000 | 389,000 | 317,000 | 662,000 | 422,000 | 277,000 | 171,000 | 136,000 |
| 19 | 129,000 | 88,600 | 146,000 | 144,000 | 139,000 | 394,000 | 316,000 | 674,000 | 410,000 | 266,000 | 164,000 | 136,000 |
| 20 | 127,000 | 104,000 | 137,000 | 129,000 | 131,000 | 393,000 | 319,000 | 681,000 | 391,000 | 260,000 | 154,000 | 129,000 |
| 21 | 128,000 | 106,000 | 131,000 | 122,000 | 121,000 | 393,000 | 320,000 | 687,000 | 370,000 | 256,000 | 150,000 | 126,000 |
| 22 | 125,000 | 107,000 | 128,000 | 115,000 | 121,000 | 401,000 | 328,000 | 691,000 | 367,000 | 248,000 | 149,000 | 122,000 |
| 23 | 122,000 | 106,000 | 124,000 | 111,000 | 115,000 | 398,000 | 342,000 | 694,000 | 360,000 | 246,000 | 149,000 | 117,000 |
| 24 | 121,000 | 103,000 | 119,000 | 112,000 | 111,000 | 402,000 | 356,000 | 693,000 | 342,000 | 244,000 | 147,000 | 117,000 |
| 25 | 122,000 | 106,000 | 117,000 | 117,000 | 119,000 | 407,000 | 360,000 | 691,000 | 332,000 | 239,000 | 143,000 | 114,000 |
| 26 | 121,000 | 107,000 | 111,000 | 121,000 | 125,000 | 411,000 | 347,000 | 691,000 | 325,000 | 219,000 | 140,000 | 113,000 |
| 27 | 120,000 | 104,000 | 112,000 | 111,000 | 135,000 | 414,000 | 350,000 | 687,000 | 320,000 | 199,000 | 138,000 | 111,000 |
| 28 | 118,000 | 105,000 | 119,000 | 106,000 | 161,000 | 417,000 | 377,000 | 679,000 | 306,000 | 193,000 | 136,000 | 110,000 |
| 29 | 111,000 | 110,000 | 121,000 | 104,000 | --- | 418,000 | 395,000 | 671,000 | 294,000 | 189,000 | 134,000 | 111,000 |
| 30 | 108,000 | 121,000 | 122,000 | 102,000 | --- | 422,000 | 396,000 | 661,000 | 286,000 | 193,000 | 133,000 | 113,000 |
| 31 | 107,000 | --- | 121,000 | 102,000 | --- | 429,000 | --- | 649,000 | --- | 191,000 | 131,000 | --- |

**07381490 (COE) Atchafalaya River at Simmesport, LA—Continued**



**07381490 (COE) Atchafalaya River at Simmesport, LA—Continued**

**GAGE HEIGHT, FEET**
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**
**DAILY MEAN VALUES**

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.97 | 7.91 | 9.32 | 9.68 | 8.32 | 15.39 | 32.22 | 30.88 | 42.32 | 24.13 | 15.32 | 10.29 |
| 2 | 10.07 | 7.82 | 8.99 | 8.93 | 8.55 | 16.53 | 32.22 | 31.67 | 41.67 | 24.01 | 14.80 | 10.14 |
| 3 | 10.13 | 8.45 | 9.27 | 8.71 | 7.62 | 18.27 | 32.17 | 32.62 | 41.07 | 24.54 | 13.96 | 10.24 |
| 4 | 10.57 | 7.98 | 9.97 | 8.64 | 8.05 | 20.52 | 31.94 | 33.75 | 40.71 | 24.67 | 13.32 | 11.30 |
| 5 | 11.18 | 7.30 | 10.52 | 8.54 | 8.45 | 21.89 | 32.22 | 34.63 | 40.41 | 24.61 | 13.17 | 12.78 |
| 6 | 11.68 | 7.15 | 10.76 | 8.00 | 8.65 | 23.51 | 31.77 | 35.40 | 39.99 | 24.13 | 13.85 | 11.99 |
| 7 | 11.57 | 7.40 | 11.34 | 7.75 | 9.04 | 24.83 | 31.10 | 36.20 | 39.48 | 24.23 | 13.91 | 11.39 |
| 8 | 11.35 | 7.40 | 11.80 | 8.09 | 9.15 | 25.88 | 30.41 | 37.02 | 38.88 | 24.57 | 13.73 | 10.00 |
| 9 | 10.78 | 7.77 | 12.16 | 8.08 | 8.91 | 27.82 | 29.96 | 38.18 | 37.98 | 24.86 | 13.71 | 9.58 |
| 10 | 10.47 | 7.55 | 12.82 | 8.57 | 9.28 | 28.07 | 29.56 | 39.37 | 37.28 | 24.71 | 13.61 | 9.15 |
| 11 | 10.43 | 7.68 | 14.08 | 9.44 | 10.15 | 28.22 | 29.32 | 40.48 | 36.51 | 24.52 | 13.45 | 8.80 |
| 12 | 10.31 | 7.54 | 15.17 | 10.55 | 11.15 | 28.63 | 29.10 | 41.15 | 35.75 | 23.79 | 13.46 | 8.67 |
| 13 | 10.16 | 7.33 | 15.38 | 10.93 | 11.37 | 28.99 | 28.35 | 42.00 | 34.95 | 23.29 | 13.52 | 8.98 |
| 14 | 9.92 | 7.44 | 15.36 | 11.84 | 11.75 | 29.24 | 27.19 | 43.03 | 34.20 | 23.45 | 13.76 | 9.16 |
| 15 | 10.05 | 7.41 | 15.43 | 12.95 | 12.30 | 29.43 | 26.10 | 43.49 | 34.84 | 23.73 | 13.98 | 9.41 |
| 16 | 10.17 | 7.22 | 14.97 | 13.43 | 12.14 | 29.62 | 25.87 | 43.66 | 32.87 | 23.37 | 13.42 | 10.16 |
| 17 | 10.09 | 6.92 | 13.54 | 13.24 | 12.06 | 29.90 | 26.14 | 43.61 | 32.14 | 23.08 | 13.63 | 10.63 |
| 18 | 10.18 | 6.65 | 12.25 | 13.00 | 11.93 | 30.22 | 25.99 | 43.52 | 31.97 | 22.88 | 13.78 | 10.64 |
| 19 | 10.06 | 6.39 | 11.57 | 11.39 | 10.91 | 30.50 | 25.89 | 44.03 | 31.34 | 21.97 | 13.20 | 10.66 |
| 20 | 9.90 | 7.78 | 10.80 | 10.02 | 10.26 | 30.43 | 26.14 | 44.36 | 30.33 | 21.44 | 12.27 | 10.03 |
| 21 | 9.97 | 8.02 | 10.24 | 9.42 | 9.37 | 30.44 | 26.21 | 44.62 | 29.21 | 21.13 | 11.91 | 9.77 |
| 22 | 9.67 | 8.03 | 9.92 | 8.83 | 9.37 | 30.85 | 26.72 | 44.77 | 29.04 | 20.39 | 11.85 | 9.38 |
| 23 | 9.42 | 7.94 | 9.59 | 8.45 | 8.80 | 30.71 | 27.65 | 44.91 | 28.63 | 20.23 | 11.79 | 8.97 |
| 24 | 9.33 | 7.69 | 9.14 | 8.48 | 8.41 | 30.92 | 28.40 | 44.89 | 27.64 | 20.08 | 11.66 | 8.94 |
| 25 | 9.41 | 7.93 | 8.99 | 8.98 | 9.16 | 31.17 | 28.61 | 44.77 | 27.04 | 19.64 | 11.27 | 8.69 |
| 26 | 9.38 | 8.07 | 8.46 | 9.34 | 9.72 | 31.38 | 27.92 | 44.78 | 26.51 | 17.96 | 10.99 | 8.59 |
| 27 | 9.22 | 7.79 | 8.51 | 8.43 | 10.60 | 31.54 | 28.06 | 44.62 | 26.19 | 16.20 | 10.86 | 8.46 |
| 28 | 9.09 | 7.87 | 9.17 | 7.97 | 12.92 | 31.70 | 29.56 | 44.26 | 25.21 | 15.68 | 10.72 | 8.31 |
| 29 | 8.47 | 8.31 | 9.37 | 7.79 | --- | 31.78 | 30.53 | 43.89 | 24.27 | 15.36 | 10.48 | 8.43 |
| 30 | 8.16 | 9.34 | 9.44 | 7.60 | --- | 31.96 | 30.60 | 43.45 | 23.59 | 15.70 | 10.41 | 8.58 |
| 31 | 8.10 | --- | 9.32 | 7.58 | --- | 32.36 | --- | 42.93 | --- | 15.54 | 10.27 | --- |

**07381490 (COE) Atchafalaya River at Simmesport, LA—Continued**

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-53, 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1975, October 1978 to September 1979.
WATER TEMPERATURE: December 1975 to September 1976, October 1977 to September 1984, May 1990 to August 1992.
CHLORIDE: October 1974 to September 1984, May 1990 to August 1992.
SUSPENDED-SEDIMENT DISCHARGE: October 1972 to current year.

COOPERATION.--Samples collected by the Corps of Engineers and analyzed by the Geological Survey. Daily suspended-sediment discharge records are computed by the Geological Survey and reviewed by the Corps of Engineers. Corps of Engineers station 03045.

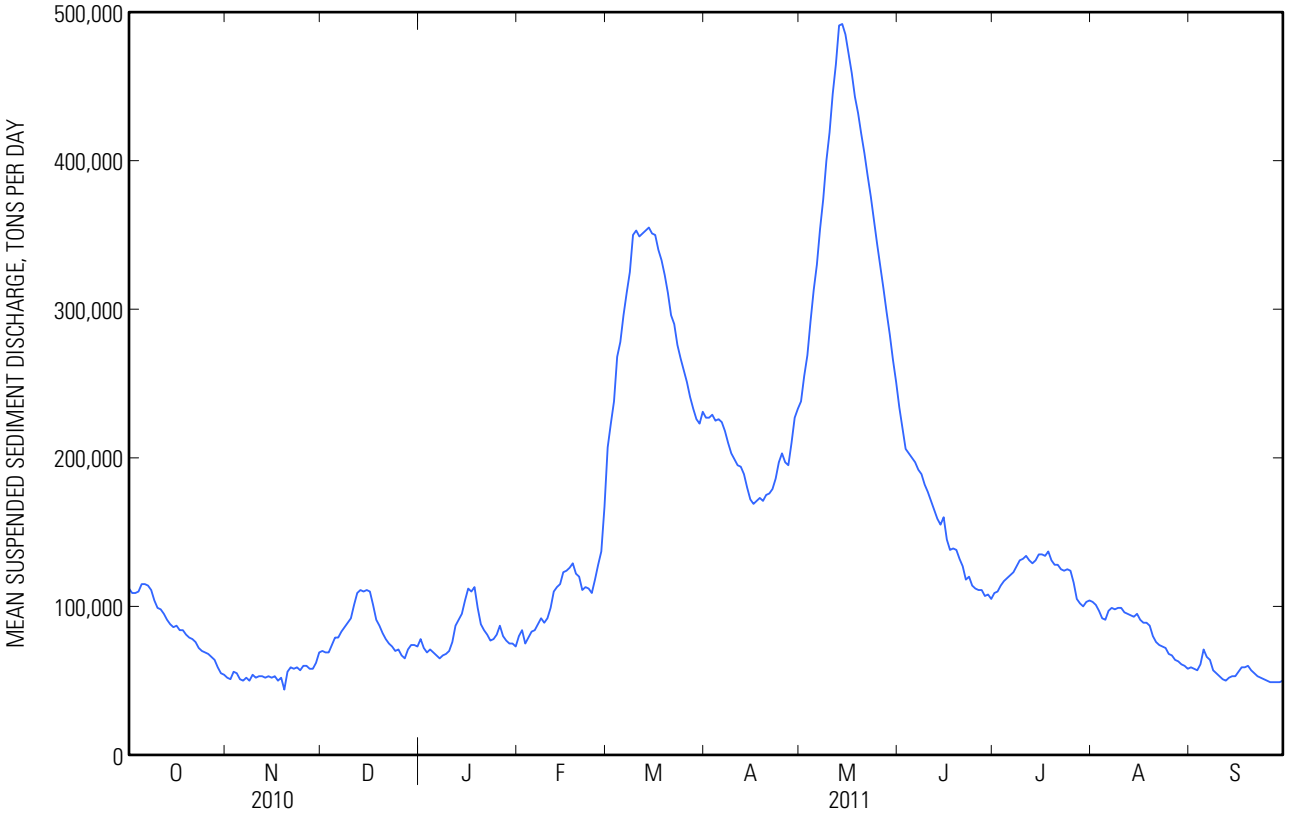
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 627 micromhos Nov. 17, 1978; minimum daily, 179 micromhos Feb. 21, 1979.
WATER TEMPERATURE: Maximum daily, 32.0°C July 23, 1981; minimum daily, 2.0°C Jan. 18-20, Feb. 3, 6, 7, 1978, Jan. 15, 1979,Jan. 14, 1982.
CHLORIDE: Maximum daily, 150 mg/L June 9, 13, 14, 1977; minimum daily, 9.1 mg/L May 14, 1991.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 1,240,000 tons Dec. 15, 1982; minimum daily, 2,000 tons Oct. 3- 5, 1976.

**07381490 (COE) Atchafalaya River at Simmesport, LA—Continued**

**SUSPENDED SEDIMENT DISCHARGE, TONS PER DAY**
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**
**DAILY MEAN VALUES**

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 112,000 | 52,000 | 70,000 | 78,000 | 80,000 | 207,000 | 227,000 | 238,000 | 234,000 | 109,000 | 103,000 | 59,000 |
| 2 | 109,000 | 51,000 | 69,000 | 72,000 | 84,000 | 223,000 | 227,000 | 255,000 | 220,000 | 110,000 | 101,000 | 58,000 |
| 3 | 109,000 | 56,000 | 69,000 | 69,000 | 75,000 | 238,000 | 229,000 | 269,000 | 206,000 | 114,000 | 97,000 | 57,000 |
| 4 | 110,000 | 55,000 | 74,000 | 71,000 | 79,000 | 268,000 | 225,000 | 292,000 | 203,000 | 117,000 | 92,000 | 61,000 |
| 5 | 115,000 | 51,000 | 79,000 | 69,000 | 83,000 | 278,000 | 226,000 | 313,000 | 200,000 | 119,000 | 91,000 | 71,000 |
| 6 | 115,000 | 50,000 | 79,000 | 67,000 | 84,000 | 296,000 | 224,000 | 330,000 | 197,000 | 121,000 | 97,000 | 66,000 |
| 7 | 114,000 | 52,000 | 83,000 | 65,000 | 88,000 | 311,000 | 218,000 | 354,000 | 192,000 | 123,000 | 99,000 | 64,000 |
| 8 | 111,000 | 50,000 | 86,000 | 67,000 | 92,000 | 325,000 | 210,000 | 374,000 | 189,000 | 127,000 | 98,000 | 57,000 |
| 9 | 104,000 | 54,000 | 89,000 | 68,000 | 89,000 | 350,000 | 203,000 | 400,000 | 182,000 | 131,000 | 99,000 | 55,000 |
| 10 | 99,000 | 52,000 | 92,000 | 70,000 | 92,000 | 353,000 | 199,000 | 419,000 | 177,000 | 132,000 | 99,000 | 53,000 |
| 11 | 98,000 | 53,000 | 101,000 | 76,000 | 99,000 | 349,000 | 195,000 | 445,000 | 171,000 | 134,000 | 96,000 | 51,000 |
| 12 | 95,000 | 53,000 | 109,000 | 87,000 | 110,000 | 351,000 | 194,000 | 465,000 | 165,000 | 131,000 | 95,000 | 50,000 |
| 13 | 91,000 | 52,000 | 111,000 | 91,000 | 113,000 | 353,000 | 189,000 | 491,000 | 159,000 | 129,000 | 94,000 | 52,000 |
| 14 | 88,000 | 53,000 | 110,000 | 95,000 | 115,000 | 355,000 | 180,000 | 492,000 | 155,000 | 131,000 | 93,000 | 53,000 |
| 15 | 86,000 | 52,000 | 111,000 | 104,000 | 123,000 | 351,000 | 172,000 | 485,000 | 160,000 | 135,000 | 95,000 | 53,000 |
| 16 | 87,000 | 53,000 | 110,000 | 112,000 | 124,000 | 350,000 | 169,000 | 472,000 | 145,000 | 135,000 | 91,000 | 56,000 |
| 17 | 84,000 | 50,000 | 101,000 | 110,000 | 126,000 | 340,000 | 171,000 | 459,000 | 138,000 | 134,000 | 89,000 | 59,000 |
| 18 | 84,000 | 52,000 | 91,000 | 113,000 | 129,000 | 333,000 | 173,000 | 443,000 | 139,000 | 137,000 | 89,000 | 59,000 |
| 19 | 81,000 | 44,000 | 87,000 | 99,000 | 122,000 | 323,000 | 171,000 | 432,000 | 138,000 | 131,000 | 87,000 | 60,000 |
| 20 | 79,000 | 56,000 | 82,000 | 88,000 | 120,000 | 311,000 | 175,000 | 418,000 | 132,000 | 128,000 | 80,000 | 57,000 |
| 21 | 78,000 | 59,000 | 78,000 | 84,000 | 111,000 | 296,000 | 176,000 | 405,000 | 127,000 | 128,000 | 76,000 | 55,000 |
| 22 | 76,000 | 58,000 | 75,000 | 81,000 | 113,000 | 290,000 | 179,000 | 390,000 | 118,000 | 125,000 | 74,000 | 53,000 |
| 23 | 72,000 | 59,000 | 73,000 | 77,000 | 112,000 | 276,000 | 186,000 | 376,000 | 120,000 | 124,000 | 73,000 | 52,000 |
| 24 | 70,000 | 57,000 | 70,000 | 78,000 | 109,000 | 267,000 | 197,000 | 360,000 | 114,000 | 125,000 | 72,000 | 51,000 |
| 25 | 69,000 | 60,000 | 71,000 | 81,000 | 118,000 | 259,000 | 203,000 | 344,000 | 112,000 | 124,000 | 68,000 | 50,000 |
| 26 | 68,000 | 60,000 | 67,000 | 87,000 | 128,000 | 251,000 | 197,000 | 329,000 | 111,000 | 116,000 | 67,000 | 49,000 |
| 27 | 66,000 | 58,000 | 65,000 | 80,000 | 137,000 | 241,000 | 195,000 | 314,000 | 111,000 | 105,000 | 64,000 | 49,000 |
| 28 | 64,000 | 58,000 | 71,000 | 77,000 | 167,000 | 233,000 | 210,000 | 298,000 | 107,000 | 102,000 | 63,000 | 49,000 |
| 29 | 59,000 | 62,000 | 74,000 | 75,000 | --- | 226,000 | 227,000 | 283,000 | 108,000 | 100,000 | 61,000 | 49,000 |
| 30 | 55,000 | 69,000 | 74,000 | 75,000 | --- | 223,000 | 233,000 | 266,000 | 105,000 | 103,000 | 60,000 | 50,000 |
| 31 | 54,000 | --- | 73,000 | 73,000 | --- | 231,000 | --- | 251,000 | --- | 104,000 | 58,000 | --- |
| Mean | 87,200 | 54,700 | 83,700 | 81,900 | 108,000 | 292,000 | 199,000 | 370,000 | 154,000 | 122,000 | 84,500 | 55,300 |
| Max | 115,000 | 69,000 | 111,000 | 113,000 | 167,000 | 355,000 | 233,000 | 492,000 | 234,000 | 137,000 | 103,000 | 71,000 |
| Min | 54,000 | 44,000 | 65,000 | 65,000 | 75,000 | 207,000 | 169,000 | 238,000 | 105,000 | 100,000 | 58,000 | 49,000 |

**07381490 (COE) Atchafalaya River at Simmesport, LA—Continued**



**07381490 (COE) Atchafalaya River at Simmesport, LA—Continued**

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**
[$ft^3/s$, cubic feet per second; mg/L, milligrams per liter; mm, millimeters]

| Date | Sample start time | Discharge, instantaneous, $ft^3/s$ (00061) | Suspended sediment, sieve diameter, percent smaller than 0.0625 mm (70331) | Suspended sediment concentration, mg/L (80154) | Suspended sediment discharge, tons per day (80155) |
|---|---|---|---|---|---|
| **11-01-2010** | **1200** | 103,000 | 100 | 189 | 52,500 |
| **12-01-2010** | **1100** | 127,000 | 100 | 205 | 70,500 |
| **12-22-2010** | **1030** | 131,000 | 98 | 212 | 74,900 |
| **01-20-2011** | **1030** | 130,000 | 99 | 251 | 88,300 |
| **02-15-2011** | **1145** | 156,000 | 97 | 293 | 123,000 |
| **03-02-2011** | **0915** | 211,000 | 93 | 392 | 223,000 |
| **03-16-2011** | **0930** | 388,000 | 72 | 335 | 351,000 |
| **03-29-2011** | **0915** | 413,000 | 63 | 203 | 226,000 |
| **04-12-2011** | **1015** | 359,000 | 81 | 200 | 194,000 |
| **04-28-2011** | **0930** | 362,000 | 68 | 215 | 210,000 |
| **05-13-2011** | **1015** | 617,000 | 50 | 295 | 491,000 |
| **05-18-2011** | **1030** | 661,000 | 48 | 248 | 443,000 |
| **06-03-2011** | **1010** | 570,000 | 60 | 134 | 206,000 |
| **06-17-2011** | **1030** | 390,000 | 82 | 131 | 138,000 |
| **07-18-2011** | **1030** | 273,000 | 95 | 186 | 137,000 |
| **08-10-2011** | **1045** | 169,000 | 100 | 217 | 99,100 |
| **08-31-2011** | **0945** | 134,000 | 99 | 162 | 59,000 |
| **09-27-2011** | **0945** | 115,000 | 99 | 158 | 49,000 |