07311630 Middle Wichita River near Guthrie, TX

Red-Lake Texoma Basin
North Wichita Subbasin

LOCATION.--Lat 33°47′45″, long 100°04′29″ referenced to North American Datum of 1927, King County, TX, Hydrologic Unit 11130204, on right bank 100 ft downstream from inflatable dam, 0.71 mi upstream from Forrer Creek, 1.0 mi downstream from ranch road crossing, 12.0 mi upstream from confluence with North Wichita River and 19.0 mi northeast of Guthrie.

DRAINAGE AREA.--50.3 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1993 to May 1994 (misc. measurements) June 1994 to Sept. 1996 (daily mean discharges less than 30 ft^3/s), Oct. 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,583.90 ft above NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records poor. No known reguation. Temporal fluctuation caused by inflatable weir dam 40 ft upstream for the entire period of record; because storage capacity is small and temporary, daily flows are not affected appreciably. Low flow is maintained by springs that enter river in the vicinity of gage.

EXTREMES FOR PERIOD OF RECORD.--
FOR PERIOD OF DAILY MEAN DISCHARGE BELOW BASE: Maximum gage height, 16.02 ft, Aug. 2, 1995; minimum daily discharge, 2.7 ft^3/s, Aug. 23, 1996.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 20	0315	*859	*13.41

07311630 Middle Wichita River near Guthrie, TX—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	6.5	e7.0	e4.0	e4.0	3.6	3.3	4.1	4.1	3.5	2.7	4.2	4.1
2	2.9	e2.2	e5.3	e4.3	3.5	3.3	4.1	4.1	3.5	7.1	4.3	4.2
3	9.3	e5.1	e2.5	e4.7	3.5	3.4	4.1	4.1	3.5	3.1	4.2	4.2
4	2.7	e2.2	e5.0	e4.3	3.6	3.5	4.1	4.1	3.5	5.8	4.2	4.3
5	9.9	e4.9	e2.2	e2.5	3.6	3.5	4.1	4.1	4.2	3.5	4.2	4.3
6	2.6	e2.3	e5.5	e5.0	3.6	3.6	4.1	4.4	3.6	5.3	4.3	4.1
7	7.0	e4.7	e2.2	e2.2	3.6	3.6	4.1	4.7	3.6	3.7	3.2	4.2
8	2.4	e2.2	e5.3	e5.5	3.6	3.6	e4.2	4.2	3.7	5.4	4.1	10
9	6.0	e5.5	e2.2	e2.5	3.6	3.6	4.8	4.0	3.7	6.3	4.1	7.2
10	e2.2	e2.2	5.8	e5.0	3.6	3.5	5.4	4.0	3.6	2.9	6.8	4.5
11	e7.0	e5.3	e2.9	e2.5	3.6	3.6	e4.5	4.0	2.5	5.8	4.3	4.6
12	e2.2	e2.2	5.7	e3.9	3.6	3.6	e4.5	4.0	3.2	2.6	4.3	4.4
13	e7.9	5.2	e2.9	3.6	3.6	3.6	4.3	4.0	3.6	6.9	4.3	4.4
14	e2.2	e2.2	6.5	3.5	3.6	e2.2	3.9	4.1	3.7	2.7	4.2	4.3
15	e6.3	e5.2	e2.2	3.5	3.7	e2.2	3.2	4.1	2.1	7.7	4.3	4.3
16	e2.2	e2.2	6.0	3.6	3.9	3.5	4.2	4.0	5.2	2.7	4.2	4.3
17	e5.5	e5.5	e2.5	3.5	3.8	3.5	4.1	4.0	3.6	7.0	4.3	4.2
18	e2.2	e2.2	5.6	3.5	3.7	4.0	4.1	4.0	3.6	2.5	4.5	4.2
19	e5.0	e5.0	e2.2	3.5	3.7	3.8	4.1	4.0	7.3	6.2	5.2	4.2
20	e2.5	e2.2	e5.0	3.5	3.7	3.8	4.1	4.0	191	2.8	5.0	4.3
21	e6.5	e4.5	e2.4	3.5	3.8	e3.5	4.1	4.0	5.5	8.3	4.4	4.2
22	e2.5	e2.5	e4.9	3.6	3.8	e3.7	4.1	4.0	4.8	2.3	4.3	4.2
23	e6.0	e5.5	e3.5	3.6	3.7	4.1	4.2	4.0	4.7	7.0	4.3	4.1
24	e2.2	e2.5	e5.7	3.6	3.7	4.1	4.2	4.0	4.7	2.3	4.3	4.1
25	e5.5	e4.5	e3.0	3.5	3.6	4.1	4.1	4.0	4.7	5.8	4.3	4.1
26	e2.7	e3.5	e5.0	3.5	3.6	4.1	4.1	4.0	4.7	3.3	4.2	4.2
27	e6.5	e4.0	e3.5	3.5	3.6	4.1	4.1	16	2.8	4.1	4.2	4.2
28	e5.0	e3.0	e4.0	3.5	3.6	4.1	4.1	15	6.5	4.2	4.2	4.3
29	e3.0	e4.7	e3.5	3.5	3.5	4.1	4.1	3.6	3.6	4.3	4.2	4.3
30	e6.7	e3.5	e4.0	3.6	---	4.1	4.1	3.5	7.9	4.2	3.4	4.3
31	e2.5	---	e3.0	3.6	---	4.1	---	3.5	---	4.2	3.5	---
Total	143.6	113.7	124.0	113.6	105.6	112.8	125.3	147.6	312.1	142.7	133.5	136.3
Mean	4.63	3.79	4.00	3.66	3.64	3.64	4.18	4.76	10.4	4.60	4.31	4.54
Max	9.9	7.0	6.5	5.5	3.9	4.1	5.4	16	191	8.3	6.8	10
Min	2.2	2.2	2.2	2.2	3.5	2.2	3.2	3.5	2.1	2.3	3.2	4.1
Ac-ft	285	226	246	225	209	224	249	293	619	283	265	270

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2008[h], BY WATER YEAR (WY)

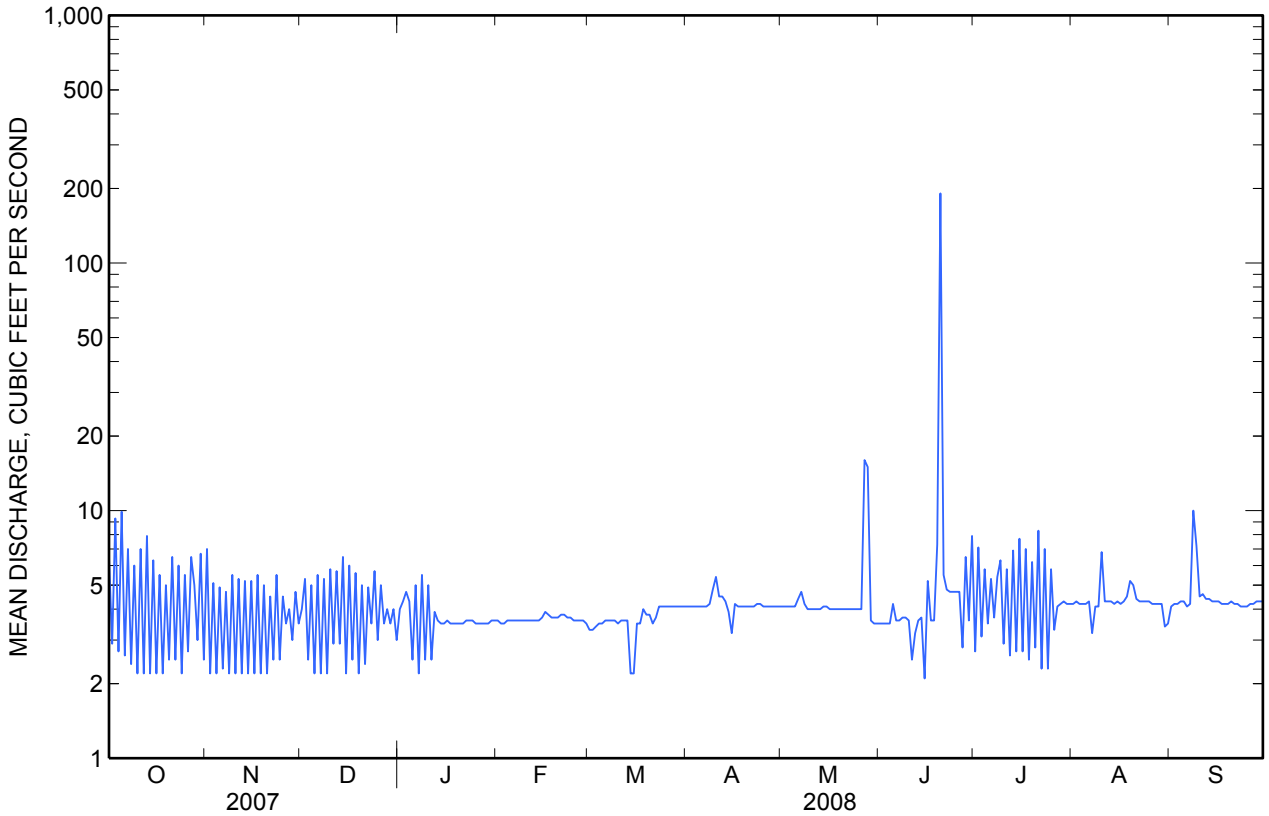
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	6.40	6.41	5.70	5.56	5.32	6.79	5.46	5.68	5.77	4.82	5.19	5.35
Max	15.2	11.1	8.22	7.54	7.58	24.1	7.77	11.5	10.4	8.25	8.39	9.58
(WY)	(2007)	(2005)	(1998)	(2001)	(1997)	(2000)	(1999)	(1999)	(2008)	(1999)	(2001)	(2005)
Min	3.65	3.75	3.90	3.40	3.20	3.20	3.51	3.76	3.49	3.28	2.59	3.39
(WY)	(2004)	(2004)	(2006)	(2006)	(2004)	(2006)	(2006)	(2005)	(2005)	(2006)	(2002)	(2002)

07311630 Middle Wichita River near Guthrie, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1997 - 2008[h]	
Annual total	1,850.8		1,710.8			
Annual mean	5.07		4.67		5.71	
Highest annual mean					7.75	2000
Lowest annual mean					3.96	2006
Highest daily mean	21	Jun 2	191	Jun 20	514	Mar 23, 2000
Lowest daily mean	1.6	Jul 20	2.1	Jun 15	0.60	Nov 25, 2005
Annual seven-day minimum	3.4	Nov 2	3.2	Mar 10	1.9	Aug 13, 2002
Maximum peak flow			859	Jun 20	5,630	Aug 2, 1995
Maximum peak stage			13.41	Jun 20	16.02	Aug 2, 1995
Annual runoff (ac-ft)	3,670		3,390		4,130	
10 percent exceeds	8.6		5.7		7.6	
50 percent exceeds	4.4		4.1		4.8	
90 percent exceeds	2.5		2.5		3.4	

[h] See Period of Record paragraph.



07311630 Middle Wichita River near Guthrie, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1993 to May 2007.
BIOCHEMICAL DATA: Nov. 1996 to May 2007.
BIOLOGICAL DATA: Apr. 2007.
PESTICIDE DATA: Oct. 1996 to May 2007.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Oct. 1994 to current year.
TEMPERATURE: Oct. 1994 to current year.

INSTRUMENTATION.--Water-quality monitor since Oct. 1994.

REMARKS.-- Temperature record fair. Specific conductance record poor. Interruption in record was caused by malfunctions of the instrument and when the Corps of Engineers lowered and raised the inflatable dam on a daily basis to flush the sediment backed up by the dam downstream. Interruptions or periods of missing record may be due to instrument failure, on flow conditions, or data corrections exceeding allowable criteria, which were deleted. Other than no flow conditions, minimum and maximum extremes may have occurred during period of missing record. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed for previous years using the daily records of specific conductance and a regression relation between each chemical constituent and specific conductance. The computation of the selected constituent loads might include estimated discharge or specific conductance data. Regression equations developed for this station may be obtained from the U.S. Geological Survey Texas Water Science Center; Austin, Texas upon request. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 18,900 microsiemens/cm, May 26, 1996; minimum, 210 microsiemens/cm, May 10, 1999.
TEMPERATURE: Maximum, 37.1°C, June 7, July 17, 2006; minimum, -0.3°C, Dec. 01, 2006.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 14600 microsiemens/cm, Aug. 4, Aug. 5; minimum, 498 microsiemens/cm, June 20.
WATER TEMPERATURE: Maximum, 34.8°C, July 12; minimum, 0.5°C, Jan. 18.

07311630 Middle Wichita River near Guthrie, TX—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	13,000	12,600	12,800	12,600	12,400	12,400	12,900	12,700	12,800	14,200	14,000	14,100
2	---	---	---	---	---	---	13,000	12,500	12,700	14,100	13,900	14,100
3	13,200	12,700	13,000	12,400	12,300	12,300	13,000	12,900	13,000	14,100	13,900	14,000
4	---	---	---	---	---	---	13,000	12,600	12,700	14,100	13,800	13,900
5	13,400	12,800	13,200	12,500	12,300	12,400	---	---	---	14,100	13,900	14,000
6	---	---	---	---	---	---	13,100	12,900	13,000	14,300	14,100	14,200
7	---	---	---	12,500	12,400	12,400	---	---	---	---	---	---
8	---	---	---	---	---	---	13,200	12,800	13,000	14,400	14,100	14,200
9	---	---	---	12,600	12,400	12,500	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	14,200	13,700	13,900
11	---	---	---	12,500	12,300	12,400	---	---	---	14,000	13,900	14,000
12	---	---	---	---	---	---	12,800	11,600	12,100	14,000	13,700	13,900
13	---	---	---	12,600	12,400	12,500	---	---	---	14,000	13,600	13,800
14	---	---	---	---	---	---	13,000	12,900	12,900	13,700	13,300	13,500
15	---	---	---	12,600	12,500	12,500	---	---	---	13,400	13,100	13,300
16	---	---	---	---	---	---	13,100	12,800	13,000	13,200	13,000	13,100
17	13,700	13,200	13,400	12,700	12,500	12,600	---	---	---	13,100	13,000	13,000
18	---	---	---	---	---	---	14,000	12,900	13,500	13,000	12,900	13,000
19	13,500	12,900	13,300	12,900	12,600	12,700	---	---	---	13,100	12,900	13,000
20	---	---	---	---	---	---	14,100	13,900	14,000	13,100	12,900	13,000
21	13,400	13,000	13,300	12,700	12,600	12,700	---	---	---	13,100	13,000	13,100
22	---	---	---	---	---	---	14,100	13,900	14,000	13,100	13,000	13,000
23	13,700	13,100	13,600	12,800	12,700	12,700	---	---	---	13,000	12,800	13,000
24	13,500	13,400	13,400	---	---	---	14,100	13,800	14,000	13,000	12,900	12,900
25	13,500	13,200	13,400	12,900	12,700	12,800	---	---	---	13,100	12,900	13,000
26	13,400	13,300	13,400	12,600	12,500	12,500	14,000	13,600	13,800	13,200	13,000	13,100
27	13,400	12,900	13,000	12,800	12,600	12,700	13,800	13,700	13,700	13,200	12,900	13,100
28	12,900	12,500	12,800	12,700	12,600	12,700	13,900	13,700	13,800	13,300	13,200	13,200
29	12,900	12,800	12,900	12,900	12,600	12,700	13,900	13,800	13,900	13,400	13,200	13,300
30	12,700	12,500	12,600	12,800	12,600	12,800	13,900	13,800	13,900	13,200	13,000	13,100
31	---	---	---	---	---	---	14,000	13,900	14,000	13,400	13,200	13,300
Month	---	---	---	---	---	---	---	---	---	---	---	---

07311630 Middle Wichita River near Guthrie, TX—Continued

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

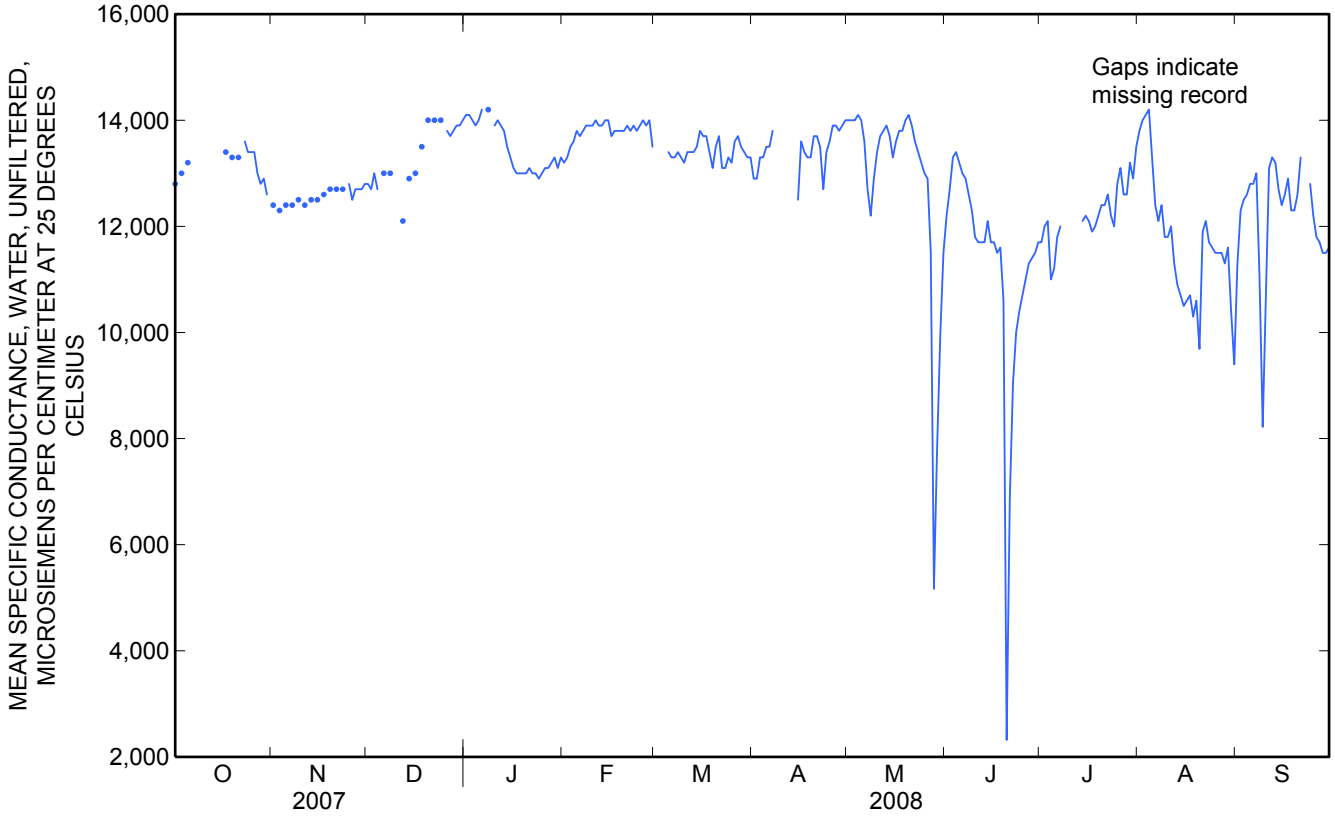
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	13,300	13,000	13,200	---	---	---	13,200	12,600	12,900	14,100	14,000	14,000
2	13,500	13,100	13,300	---	---	---	13,200	12,500	12,900	14,100	14,000	14,000
3	13,600	13,300	13,500	---	---	---	13,700	12,700	13,300	14,100	14,000	14,000
4	13,700	13,600	13,600	---	---	---	13,400	12,900	13,300	14,100	14,000	14,100
5	13,800	13,700	13,800	13,500	13,300	13,400	13,600	13,300	13,500	14,000	13,900	14,000
6	13,800	13,600	13,700	13,400	13,200	13,300	14,000	13,200	13,500	13,900	13,100	13,600
7	13,900	13,700	13,800	13,400	13,200	13,300	13,900	13,400	13,800	13,400	11,400	12,700
8	14,000	13,800	13,900	13,500	13,200	13,400	---	---	---	12,300	12,000	12,200
9	14,000	13,800	13,900	13,400	13,200	13,300	---	---	---	13,300	12,300	12,900
10	14,100	13,800	13,900	13,400	13,200	13,200	---	---	---	13,600	13,300	13,400
11	14,100	13,900	14,000	13,500	13,400	13,400	---	---	---	13,800	13,600	13,700
12	14,100	13,700	13,900	13,500	13,400	13,400	---	---	---	13,900	13,800	13,800
13	14,200	13,700	13,900	13,500	13,300	13,400	---	---	---	14,000	13,800	13,900
14	14,100	13,800	14,000	13,500	13,400	13,500	---	---	---	14,000	13,400	13,700
15	14,000	13,900	14,000	13,900	13,700	13,800	13,900	11,000	12,500	13,400	13,200	13,300
16	14,000	13,600	13,700	13,800	13,600	13,700	13,600	13,400	13,600	13,700	13,400	13,600
17	13,900	13,700	13,800	13,700	13,600	13,700	13,500	13,400	13,400	13,800	13,700	13,800
18	13,900	13,600	13,800	13,600	13,200	13,400	13,400	13,200	13,300	13,900	13,600	13,800
19	13,900	13,700	13,800	13,400	13,000	13,100	13,600	13,200	13,300	14,200	13,400	14,000
20	13,900	13,600	13,800	13,600	13,300	13,500	13,700	13,600	13,700	14,200	14,000	14,100
21	13,900	13,800	13,900	13,900	13,500	13,700	13,700	13,500	13,700	14,000	13,600	13,900
22	13,900	13,700	13,800	13,700	12,900	13,100	13,600	13,400	13,500	13,700	13,500	13,600
23	14,000	13,600	13,900	13,300	13,000	13,100	13,500	11,200	12,700	13,500	13,400	13,400
24	13,900	13,700	13,800	13,400	13,200	13,300	13,500	12,900	13,400	13,400	13,200	13,200
25	13,900	13,700	13,900	13,400	12,900	13,200	13,800	13,500	13,600	13,200	13,000	13,000
26	14,000	13,900	14,000	14,000	12,800	13,600	13,900	13,800	13,900	13,000	12,800	12,900
27	14,100	13,800	13,900	13,800	13,600	13,700	14,000	13,800	13,900	12,800	2,780	11,500
28	14,100	13,800	14,000	13,700	13,400	13,500	13,900	13,800	13,800	7,790	1,750	5,170
29	13,600	13,400	13,500	13,700	13,300	13,400	13,900	13,800	13,900	8,530	7,480	7,810
30	---	---	---	13,400	13,100	13,300	14,000	13,900	14,000	11,100	8,530	9,940
31	---	---	---	13,500	13,000	13,300	---	---	---	11,800	11,100	11,500
Month	14,200	13,000	13,800	---	---	---	---	---	---	14,200	1,750	12,900

07311630 Middle Wichita River near Guthrie, TX—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	12,400	11,800	12,200	12,300	11,000	11,700	14,200	13,400	13,800	12,100	10,500	11,300
2	13,100	12,300	12,700	12,400	11,600	12,000	14,400	13,600	14,000	12,500	12,100	12,300
3	13,600	13,000	13,300	12,600	11,700	12,100	14,400	13,700	14,100	12,600	12,400	12,500
4	13,700	13,100	13,400	11,800	10,100	11,000	14,600	13,800	14,200	12,800	12,500	12,600
5	13,300	13,100	13,200	11,800	10,900	11,200	14,600	12,100	13,300	12,800	12,700	12,800
6	13,300	12,900	13,000	12,000	11,600	11,800	12,700	11,900	12,400	12,800	12,700	12,800
7	13,100	12,700	12,900	12,200	11,800	12,000	12,600	11,700	12,100	13,100	12,700	13,000
8	12,800	12,400	12,600	---	---	---	12,600	12,200	12,400	13,700	5,520	11,000
9	12,600	12,000	12,300	---	---	---	12,200	11,600	11,800	11,400	3,830	8,220
10	12,000	11,500	11,800	---	---	---	12,900	11,300	11,800	12,500	9,060	10,700
11	11,900	11,500	11,700	---	---	---	12,800	11,600	12,000	13,400	12,500	13,100
12	12,100	11,400	11,700	---	---	---	11,900	10,400	11,300	13,500	12,900	13,300
13	12,200	11,500	11,700	---	---	---	11,300	10,200	10,900	13,500	12,900	13,200
14	12,300	11,900	12,100	12,300	11,700	12,100	11,200	9,830	10,700	13,200	11,800	12,700
15	11,900	11,500	11,700	12,300	11,900	12,200	10,700	10,100	10,500	12,800	11,900	12,400
16	12,000	11,500	11,700	12,500	11,800	12,100	10,700	10,300	10,600	13,100	12,000	12,600
17	11,900	10,900	11,500	12,300	11,300	11,900	11,000	10,300	10,700	13,300	12,400	12,900
18	11,800	11,300	11,600	12,400	11,800	12,000	10,600	10,100	10,300	12,800	11,500	12,300
19	11,700	2,000	10,600	12,600	11,700	12,200	12,100	9,590	10,600	12,900	11,200	12,300
20	4,740	498	2,320	12,800	12,000	12,400	11,000	8,030	9,690	13,200	12,100	12,600
21	8,490	4,740	6,880	12,800	11,900	12,400	12,400	10,800	11,900	13,500	13,100	13,300
22	9,540	8,490	9,040	12,800	12,200	12,600	12,300	11,800	12,100	---	---	---
23	10,500	9,330	10,000	13,200	11,400	12,200	12,200	11,300	11,700	---	---	---
24	10,800	10,200	10,400	12,600	11,600	12,000	11,800	11,200	11,600	13,300	12,600	12,800
25	11,000	10,400	10,700	13,500	12,300	12,800	11,700	11,300	11,500	12,700	11,400	12,200
26	11,200	10,800	11,000	13,500	12,600	13,100	11,700	11,200	11,500	12,400	10,900	11,800
27	11,600	11,100	11,300	13,100	12,000	12,600	11,700	11,000	11,500	12,000	10,700	11,700
28	12,300	10,000	11,400	13,100	11,900	12,600	11,500	11,000	11,300	12,000	10,700	11,500
29	12,000	11,000	11,500	13,800	12,400	13,200	12,000	11,300	11,600	11,800	10,800	11,500
30	12,400	11,000	11,700	13,600	12,200	12,900	11,600	7,660	10,400	11,900	10,900	11,600
31	---	---	---	13,900	13,300	13,500	10,600	7,990	9,400	---	---	---
Month	13,700	498	11,300	---	---	---	14,600	7,660	11,700	---	---	---

07311630 Middle Wichita River near Guthrie, TX—Continued



07311630 Middle Wichita River near Guthrie, TX—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	28.1	24.6	26.1	15.1	11.8	14.1	---	10.8	---	---	2.1	---
2	---	---	---	---	---	---	16.8	11.6	15.8	3.6	2.0	3.0
3	29.0	24.9	26.4	17.2	14.8	15.4	11.6	---	---	---	1.9	---
4	---	---	---	---	---	---	9.9	8.2	9.0	7.0	5.1	5.4
5	28.5	24.1	26.0	17.4	13.1	16.3	---	7.6	---	---	---	---
6	---	---	---	13.9	11.4	12.5	11.8	10.3	10.7	12.6	10.5	11.6
7	28.4	23.6	25.3	15.4	11.4	12.6	---	---	---	12.2	9.5	10.8
8	---	---	---	---	---	---	11.9	8.4	10.9	12.0	7.2	11.0
9	25.4	19.3	22.4	18.0	12.7	14.8	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	10.9	---	---
11	24.3	19.6	21.7	20.4	16.6	18.0	---	---	---	---	4.6	---
12	26.3	16.6	20.6	---	---	---	8.6	5.9	7.2	9.7	6.2	7.8
13	27.5	20.5	23.7	20.0	16.8	17.9	---	---	---	10.3	3.4	6.6
14	---	---	---	---	---	---	7.5	5.9	6.9	11.2	4.0	7.1
15	23.7	---	---	14.7	10.4	12.6	---	---	---	10.7	3.7	6.9
16	---	---	---	---	---	---	7.8	3.8	5.0	7.9	3.6	6.2
17	24.4	19.2	21.4	18.5	11.3	14.8	---	---	---	7.5	2.1	4.0
18	---	---	---	---	---	---	11.5	4.8	7.4	8.2	0.5	3.8
19	20.9	11.1	15.6	19.4	12.8	15.7	---	---	---	8.1	1.8	4.2
20	---	---	---	---	---	---	12.4	6.8	8.8	9.0	1.3	4.6
21	24.1	---	---	---	11.6	---	---	---	---	11.1	4.4	7.4
22	16.4	---	---	---	---	---	9.2	4.7	7.8	8.8	2.9	6.0
23	17.2	9.0	11.9	9.1	6.8	7.6	---	---	---	8.8	1.3	4.5
24	16.3	---	---	7.9	---	---	10.4	3.2	6.0	6.8	2.6	4.7
25	---	10.6	---	8.4	7.7	8.1	---	---	---	10.7	4.8	7.1
26	15.9	13.0	14.5	7.8	---	---	8.5	5.3	6.5	12.5	4.9	8.2
27	---	10.0	---	---	6.0	---	---	---	---	13.0	4.7	8.8
28	16.2	---	---	10.5	---	---	8.1	2.8	4.3	15.8	10.3	12.6
29	---	10.7	---	---	4.9	---	5.3	---	---	13.2	6.7	10.8
30	17.4	---	---	10.8	9.3	10.1	9.5	2.4	5.0	11.7	3.8	7.5
31	---	---	---	---	---	---	6.3	5.2	5.8	9.8	4.3	7.2
Month	---	---	---	---	---	---	---	---	---	---	---	---

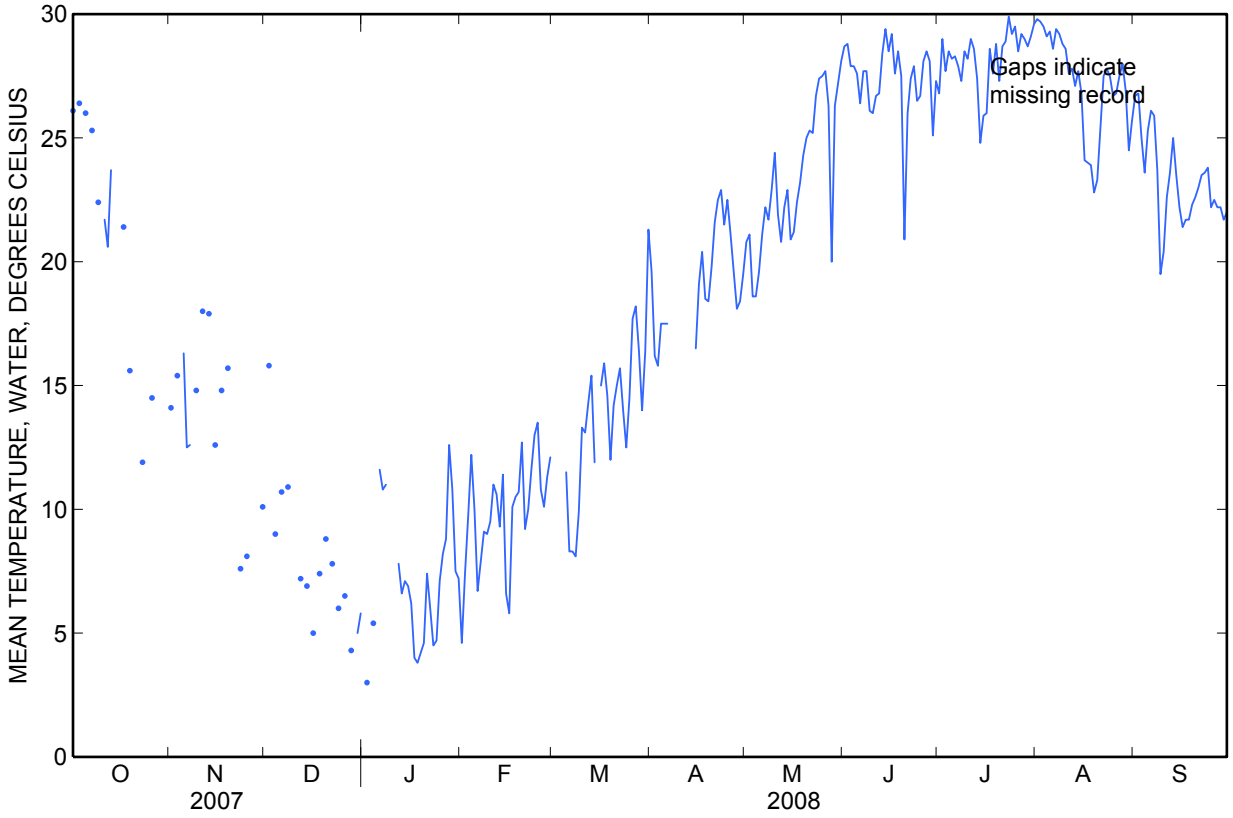
07311630 Middle Wichita River near Guthrie, TX—Continued

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	8.1	1.5	4.6	---	---	---	21.4	17.9	19.6	22.4	19.4	20.8
2	12.6	3.7	7.4	---	---	---	17.9	14.4	16.2	22.8	19.8	21.1
3	14.8	5.8	9.7	---	---	---	18.3	13.9	15.8	20.1	17.3	18.6
4	16.8	8.8	12.2	15.0	---	---	19.1	16.0	17.5	20.4	17.1	18.6
5	12.2	6.1	10	16.9	7.9	11.5	19.3	16.1	17.5	20.3	18.9	19.6
6	11.3	3.0	6.7	10.4	6.5	8.3	18.9	16.3	17.5	23.6	19.2	21.1
7	12.4	4.9	7.9	13.8	3.8	8.3	---	---	---	23.9	20.4	22.2
8	14.4	5.7	9.1	11.8	4.3	8.1	---	---	---	23.6	20.2	21.7
9	14.3	5.1	9.0	14.8	5.4	9.9	---	---	---	24.7	21.2	22.9
10	15.3	4.8	9.5	19.2	9.1	13.3	---	---	---	25.4	23.5	24.4
11	15.4	8.1	11.0	18.4	8.4	13.1	---	---	---	23.5	20.7	21.9
12	14.6	7.7	10.6	19.7	10.1	14.3	---	---	---	22.5	19.4	20.8
13	14.2	5.0	9.3	20.6	12.0	15.4	---	---	---	23.8	20.7	22.2
14	16.2	8.4	11.4	14.5	10.3	11.9	23.3	---	---	23.9	21.6	22.9
15	9.6	5.2	6.6	17.0	---	---	22.4	11.4	16.5	21.6	20.5	20.9
16	7.1	4.6	5.8	15.9	14.3	15.0	21.2	17.4	19.1	22.6	19.8	21.2
17	14.8	6.9	10.1	17.0	14.8	15.9	21.6	19.2	20.4	23.6	21.4	22.4
18	15.1	7.2	10.5	15.7	12.2	14.6	20.2	17.1	18.5	24.9	21.8	23.2
19	15.8	6.3	10.7	14.0	10.6	12.0	20.3	16.9	18.4	25.8	22.9	24.3
20	17.3	9.6	12.7	15.9	12.9	14.2	21.5	18.6	19.8	26.0	24.3	25.0
21	12.2	7.1	9.2	15.6	14.4	15.0	23.5	20.2	21.6	26.9	24.2	25.3
22	15.4	6.2	10	16.6	14.9	15.7	23.7	21.5	22.5	26.8	23.8	25.2
23	17.0	8.1	11.6	14.9	12.9	14.0	23.7	21.4	22.9	28.4	25.2	26.7
24	18.2	9.2	13.0	14.3	10.7	12.5	23.0	20.0	21.5	28.9	26.2	27.4
25	17.8	10.8	13.5	16.7	12.3	14.5	23.5	21.7	22.5	29.0	26.4	27.5
26	15.0	7.6	10.8	18.8	16.5	17.7	22.8	20.1	21.1	29.2	26.5	27.7
27	16.6	5.3	10.1	19.6	17.1	18.2	20.9	18.7	19.6	29.2	12.9	26.3
28	16.1	7.4	11.3	18.0	15.0	16.4	20.1	16.3	18.1	27.1	11.5	20.0
29	17.3	8.2	12.1	15.0	13.4	14.0	20.2	17.0	18.4	28.1	24.8	26.3
30	---	---	---	19.9	13.5	16.4	21.1	18.2	19.5	29.4	25.4	27.2
31	---	---	---	22.7	19.9	21.3	---	---	---	29.8	26.8	28.1
Month	18.2	1.5	9.9	---	---	---	---	---	---	29.8	11.5	23.3

07311630 Middle Wichita River near Guthrie, TX—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	30.8	27.4	28.7	32.1	23.2	26.8	31.0	28.9	29.8	28.1	25.3	26.7
2	30.2	27.7	28.8	33.4	24.9	29.0	30.7	28.9	29.7	27.1	26.3	26.8
3	29.2	26.8	27.9	31.9	24.9	27.7	30.4	28.6	29.5	26.3	23.7	25.0
4	29.3	27.0	27.9	32.1	24.3	28.5	29.8	27.9	29.1	24.9	22.4	23.6
5	28.9	26.5	27.6	29.9	24.8	28.2	30.5	28.0	29.3	26.8	23.9	25.3
6	28.5	23.7	26.4	31.9	24.4	28.3	30.5	27.0	28.6	27.5	24.9	26.1
7	30.0	25.2	27.7	29.0	24.9	27.9	33.3	26.6	29.4	27.1	25.0	25.9
8	30.9	24.4	27.7	30.5	24.2	27.3	30.2	28.6	29.2	25.4	20.6	23.7
9	28.5	24.1	26.1	30.4	26.0	28.5	30.0	28.0	28.8	20.6	19.0	19.5
10	31.8	21.5	26.0	32.3	24.9	28.2	30.9	27.7	28.6	22.1	19.1	20.4
11	31.2	23.3	26.7	30.1	26.3	29.0	31.1	25.3	27.6	24.5	21.4	22.6
12	29.1	23.3	26.8	34.8	24.2	28.6	32.8	24.7	27.8	26.1	21.8	23.6
13	31.6	25.2	28.4	29.1	24.3	27.4	31.8	23.3	27.1	28.9	22.5	25.0
14	32.3	26.2	29.4	27.8	22.7	24.8	33.2	23.6	27.7	28.0	20.1	23.5
15	34.0	24.0	28.5	28.5	24.2	25.9	32.3	22.6	26.8	27.1	18.2	22.2
16	30.4	28.1	29.2	29.2	24.1	26.0	26.3	22.5	24.1	27.0	16.7	21.4
17	30.7	24.3	27.6	33.0	25.3	28.6	28.5	21.3	24.0	27.5	17.0	21.7
18	32.8	24.8	28.5	32.6	24.8	27.6	26.3	22.5	23.9	27.3	17.1	21.7
19	32.6	14.9	27.5	33.4	23.6	28.8	23.7	21.9	22.8	27.8	17.9	22.3
20	26.3	13.1	20.9	29.5	24.5	27.3	26.7	21.4	23.3	27.6	18.3	22.6
21	30.9	22.7	26.0	33.9	23.2	28.7	31.2	20.6	25.4	27.9	18.7	23.0
22	33.8	22.3	27.4	34.3	24.9	28.9	32.8	23.2	27.5	28.0	19.9	23.5
23	33.3	23.9	27.9	34.0	27.2	29.9	32.5	23.8	27.8	28.1	20.0	23.6
24	31.5	23.0	26.5	34.6	25.6	29.2	32.3	23.6	27.5	29.0	20.2	23.8
25	31.9	23.2	26.7	32.3	25.6	29.5	31.4	23.0	26.7	27.0	18.6	22.2
26	33.6	23.6	28.1	30.2	25.4	28.5	32.5	22.2	26.8	27.6	18.6	22.5
27	34.0	24.5	28.5	30.4	28.3	29.2	32.0	23.5	27.5	27.7	17.7	22.2
28	29.3	25.4	28.1	30.2	28.1	29.0	33.1	24.1	28.0	27.2	18.0	22.2
29	26.2	23.8	25.1	29.6	27.7	28.7	31.0	24.2	26.9	27.0	17.4	21.7
30	31.8	25.5	27.3	30.1	27.9	29.1	27.2	22.6	24.5	27.0	18.0	22.0
31	---	---	---	30.6	29.0	29.6	27.6	23.8	25.7	---	---	---
Month	34.0	13.1	27.3	34.8	22.7	28.2	33.3	20.6	27.1	29.0	16.7	23.2

07311630 Middle Wichita River near Guthrie, TX—Continued