

Prepared in cooperation with the State of Oklahoma and other agencies.

Water Resources Data Oklahoma Water Year 2005

Volume 1. Arkansas River Basin



Water-Data Report OK-05-1

Calendar for Water Year 2005

2004

[illegible]

2005

[illegible]

April							May							June						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2	1	2	3	4	5	6	7				1	2	3	4
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30		

[illegible]

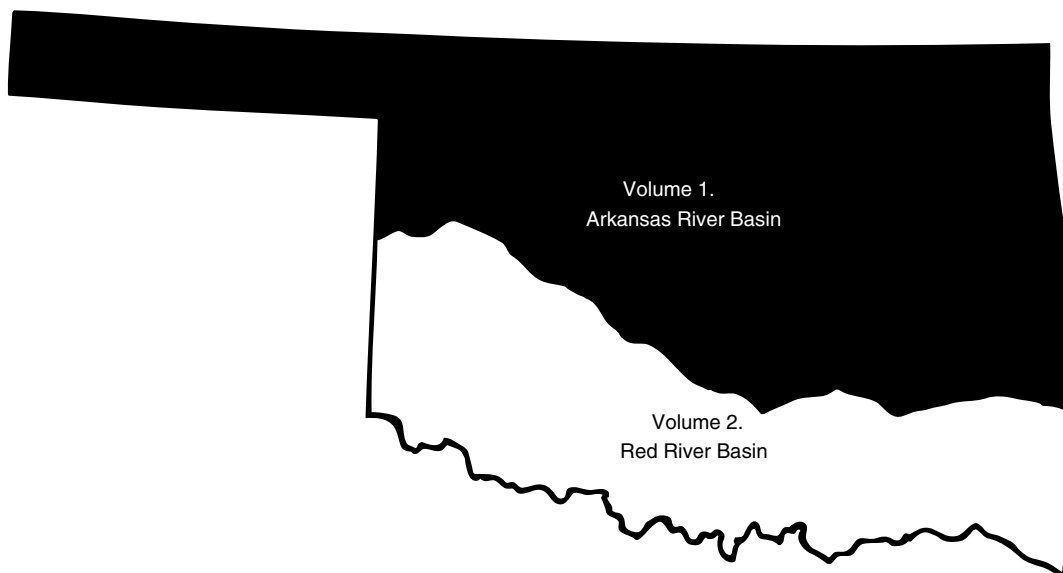
Water Resources Data Oklahoma

Water Year 2005

Volume 1. Arkansas River Basin

By R.L. Blazs, D.M. Walters, T.E. Coffey, D.L. Boyle, J.J. Wellman

Water-Data Report OK-05-1



Prepared in cooperation with the State of Oklahoma and with other oagencies.

U.S. Department of the Interior
U.S. Geological Survey



U.S. Department of the Interior

Gale A. Norton, Secretary

U.S. Geological Survey

P. Patrick Leahy, Acting Director

2006

U.S. Geological Survey
202 NW 66th St., Building 7
Oklahoma City, OK 73116
405-810-4400

Information about the USGS, Oklahoma District is available on the Internet at <http://okwater.usgs.gov/>

Information about all USGS reports and products is available by calling 1-888-ASK-USGS or on the Internet via the World Wide Web at <http://www.usgs.gov/>

Additional earth science information is available by accessing the USGS home page at <http://www.usgs.gov/>

This hydrologic-data report for Oklahoma is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface-water and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by state, local, and federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines.

The data were collected, computed, and processed by the following personnel:

D.L. Adams	K.L. Collins	J.R. Hanlon	E.W. Smith
L.A. Alf	K.C. Davis	R.E. Johnson	S.D. Smith
M.L. Allen	D.M. Ferree	J.E. Norvell	S. Strong
D.L. Boyle	R.A. Gibbs	M.L. Phillips	D.M. Walters
P.A. Carpenter	J.R. Greer	M.L. Schneider	J.J. Wellman
T.E. Coffey	G.H. Haff		

L.A. Alf assembled the text of the report.

This report was prepared in cooperation with the State of Oklahoma and with other agencies under the general supervision of Robert L. Blazs, Hydrologic Records Section Chief, and Kim T. Winton, District Chief.

Data for Oklahoma are in two volumes as follows:
 Volume 1. Arkansas River Basin
 Volume 2. Red River Basin and Ground-Water Records

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE March 2006		3. REPORT TYPE AND DATES COVERED Annual-Oct. 1, 2004 to Sept. 30, 2005
4. TITLE AND SUBTITLE Water Resources Data for Oklahoma, Water Year 2005				5. FUNDING NUMBERS
6. AUTHOR(S) R.L. Blazs, D.M. Walters, T.E. Coffey, D.L. Boyle, J.J. Wellman				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Geological Survey Water Resources Division 202 NW 66 St., Bldg. 7 Oklahoma City, OK 73116				8. PERFORMING ORGANIZATION REPORT NUMBER USGS-WDR-OK-05-1
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSORING / MONITORING AGENCY REPORT NUMBER USGS-WDR-OK-05-1
11. SUPPLEMENTARY NOTES Prepared in cooperation with the State of Oklahoma and with other agencies.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT No restrictions on distribution. This report may be purchased from: National Technical Information Service Springfield, VA 22161				12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 words) Volumes 1 and 2 of the water resources data for the 2005 water year for Oklahoma consists of record of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes or reservoirs; and water levels of ground-water wells. This report contains discharge records for 143 gaging stations; stage and contents for 16 lakes or reservoirs and 2 gage height stations; water quality for 55 gaging stations; 22 partial-record or miscellaneous streamflow stations and 3 ground-water sites. Also included are lists of discontinued surface-water discharge and water-quality sites. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Oklahoma.				
14. SUBJECT TERMS *Oklahoma, *Hydrologic data, *Surface water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment, Water temperature, Sampling sites, Water analyses, Ground water, Gage height				15. NUMBER OF PAGES 501
				16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UL	

CONTENTS

	Page
Preface	iii
List of surface-water stations, in downstream order, for which records are published in this volume	vii
List of discontinued surface-water discharge stations	x
List of discontinued surface-water-quality stations	xiii
Introduction.....	1
Cooperation.....	1
Special networks and programs	2
Explanation of records	3
Downstream order and station number.....	3
Numbering system for wells and miscellaneous sites	4
Records of stage and water discharge.....	4
Data collection and computation.....	4
Data presentation	5
Station manuscript.....	5
Peak discharge greater than base discharge	6
Data table of mean daily values	6
Statistics of monthly mean data.	6
Summary statistics.....	6
Identifying estimated daily discharge.....	7
Accuracy of field data and computed results	7
Other data records available	8
Explanation of water-quality records.....	8
Collection and examination of the data	8
Water analysis.....	8
Surface-water-quality records.....	8
Classification of records.....	8
Accuracy of the records.....	9
Arrangement of records.....	9
Onsite measurements and sample collection.....	9
Water temperature	10
Sediment.....	10
Laboratory measurements	10
Data presentation	10
Remark codes	11
Water-quality control data.....	11
Blank samples.....	11
Reference samples	12
Replicates samples	12
Spike samples	12
Explanation of ground-water-level records	12
Site identification numbers.....	12
Data presentation	13
Water-level tables.....	13
Hydrographs	14
Ground-water-quality data.....	14
Data collection and computation.....	14
Laboratory measurements	14

Access to USGS water data 14

Definition of terms..... 14

Publications on Techniques of Water-Resources Investigations..... 30

Station records, surface water..... 38

Station records, ground-water: See Volume 2

Miscellaneous water-quality records 461

Records of miscellaneous discharge measurements 465

Index 469

ILLUSTRATIONS

Figure 1. System for numbering miscellaneous and ground-water sites 3

Figures 2-4. Maps of Oklahoma showing:

2. Locations of continuous- and partial-record surface-water stations, water year 2005 35

3. Locations of water-quality stations, water year 2005 36

4. Locations of ground-water wells, water year 2005..... 37

**SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH
RECORDS ARE PUBLISHED IN THIS VOLUME**

vii

[Letters after station names designate type of data: (d) discharge,
(c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature, (e) elevation, gage heights, or contents]

	Station Number	Page
<u>LOWER MISSISSIPPI RIVER BASIN</u>		
<u>MISSISSIPPI RIVER</u>		
ARKANSAS RIVER BASIN		
Salt Fork Arkansas River near Alva (d)	07148400	38
Salt Fork Arkansas River at Tonkawa (d).....	07151000	40
Chikaskia River near Blackwell (d).....	07152000	42
Arkansas River at Ralston (d)	07152500	44
Black Bear Creek at Pawnee (d).....	07153000	46
Cimarron River near Kenton (d).....	07154500	48
Cimarron River near Forgan (d)	07156900	50
Cimarron River near Buffalo (d)	07157950	52
Cimarron River near Waynoka (d)	07158000	54
Cimarron River near Dover (d).....	07159100	56
Cottonwood Creek:		
Deer Creek:		
Bluff Creek:		
Lake Hefner at Oklahoma City (e).....	07159550	58
Bluff Creek above Bethany and Warr Acres Sewage Treatment Plant near Edmond (c).....	07159639	60
Deer Creek below Bluff Creek at Oklahoma City (c).....	07159643	61
Deer Creek at Oklahoma City (c)	07159650	62
Chisholm Creek at Edmond (c)	07159730	63
Chisholm Creek near Edmond (c)	07159735	64
Cimarron River near Guthrie (d)	07160000	66
Skeleton Creek at Enid(d).....	07160350	68
Skeleton Creek near Lovell (d).....	07160500	70
Cimarron River near Ripley (d).....	07161450	72
Arkansas River at Tulsa (dt).....	07164500	74
Joe Creek at 61st Street at Tulsa (d).....	07164600	78
Haikey Creek at 101st Street South at Tulsa (d).....	07165562	80
Little Haikey Creek at 101st Street South at Tulsa (d).....	07165565	82
Arkansas River near Haskell (d)	07165570	84
Verdigris River near Lenapah (d)	07171000	86
Caney River above Coon Creek at Bartlesville (d).....	07174400	88
Caney River near Ramona (d)	07175500	90
Verdigris River near Claremore (d)	07176000	92
Bird Creek near Avant (d).....	07176500	94
Hominy Creek near Hominy (dct)	07176950	86
Wildhorse Creek near Prue (c).....	07176976	106
Bird Creek near Sperry (dct)	07177500	110
Flat Rock Creek at Cincinnati Avenue at Tulsa (d)	07177650	120
Coal Creek at Tulsa (d)	07177800	122
Bird Creek near Owasso (dct).....	07178000	124
Bird Creek at State Highway 266 near Catoosa (dct).....	07178200	134
Neosho River near Commerce (dc)	07185000	144

**SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS
ARE PUBLISHED IN THIS VOLUME**

[Letters after station names designate type of data: (d) discharge,
(c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature, (e) elevation, gage heights, or contents]

	Station Number	Page
<u>LOWER MISSISSIPPI RIVER BASIN</u>		
<u>MISSISSIPPI RIVER--Continued</u>		
ARKANSAS RIVER BASIN--Continued		
Neosho River at Miami (e).....	07185080	148
Tar Creek near Commerce (dc)	07185090	152
Tar Creek at 22nd Street Bridge at Miami (dc)	07185095	174
Neosho River near Wyandotte (c)	07185190	194
Spring River near Quapaw (dc)	07188000	196
Beaver Creek above Spring River near Quapaw (dc)	07188007	200
Spring River near Wyandotte (c)	07188180	218
Elk River near Tiff City, MO (d)	07189000	222
Honey Creek:		
Cave Springs Branch near South West City, MO (dc)	07189540	224
Honey Creek near Southwest City, MO (dc)	07189542	228
Lake O' The Cherokees at Langley (e)	07190000	232
Neosho River near Langley (d)	07190500	234
Big Cabin Creek near Big Cabin (d)	07191000	236
Spavinaw Creek near Maysville, AR (dc)	07191160	238
Spavinaw Creek near Cherokee, AR (dc)	07191179	242
Spavinaw Creek near Sycamore (dc)	07191220	246
Spavinaw Creek near Colcord (dc)	071912213	250
Beaty Creek near Jay (dc)	07191222	264
Lake Eucha near Eucha (e)	07191285	272
Spavinaw Creek near Eucha (d)	07191288	274
Spavinaw Lake at Spavinaw (e)	07191300	276
Lake Hudson near Locust Grove (e)	07191400	278
Neosho River near Chouteau (d)	07191500	280
Arkansas River near Muskogee (d)	07194500	282
Illinois River near Watts (dc)	07195500	284
Flint Creek near West Siloam Springs(dc)	07195855	290
Sager Creek near West Siloam Springs(dc)	07195865	294
Flint Creek near Kansas (dc)	07196000	298
Illinois River at Chewey(c)	07196090	303
Illinois River near Tahlequah (dc)	07196500	308
Baron Fork at Eldon (dc)	07197000	314
Caney Creek near Barber (d)	07197360	320
Illinois River near Gore (d)	07198000	324
Canadian River at Bridgeport (d)	07228500	326
Canadian River at Purcell (d)	07229200	328
Little River:		
Elm Creek:		
Stanley Draper Lake near Oklahoma City (e)	07229445	330
Lake Thunderbird near Norman (e)	07229900	332
Little River below Lake Thunderbird near Norman (d)	07230000	334
Little River near Tecumseh (d)	07230500	336
Little River near Sasakwa (d)	07231000	338

**SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH
RECORDS ARE PUBLISHED IN THIS VOLUME**

ix

[Letters after station names designate type of data: (d) discharge,
(c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature, (e) elevation, gage heights, or contents]

	Station Number	Page
<u>LOWER MISSISSIPPI RIVER BASIN</u>		
<u>MISSISSIPPI RIVER--Continued</u>		
ARKANSAS RIVER BASIN--Continued		
Canadian River at Calvin (d)	07231500	340
Beaver River:		
Coldwater Creek near Guymon (d)	07232900	342
Palo Duro Creek at Range (d)	07233650	344
Beaver River at Beaver (d)	07234000	346
North Canadian River at Woodward (d)	07237500	348
North Canadian River near Seiling (d)	07238000	350
North Canadian River below Weavers Creek near Watonga (d)	07239300	352
North Canadian River near Calumet (dct)	07239450	354
North Canadian River near El Reno (dct)	07239500	370
North Canadian River near Yukon (dc)	07239700	376
Lake Hefner Canal near Oklahoma City (d)	07240000	382
North Canadian River at Highway 66 at Oklahoma City (e)	07240200	384
Lake Overholser at Oklahoma City (e)	07240500	388
North Canadian River blw Lake Overholser near Oklahoma City (dct)	07241000	390
North Canadian River at Britton Road at Oklahoma City (dct)	07241520	402
North Canadian River near Harrah (dct)	07241550	416
North Canadian River at Shawnee (d)	07241800	432
North Canadian River near Wetumka (d)	07242000	434
Deep Fork near Warwick (d)	07242380	436
Deep Fork near Beggs (d)	07243500	438
Canadian River near Whitefield (d)	07245000	440
Poteau River at Cauthron, AR (d)	07247000	442
Poteau River at Loving (dc)	07247015	444
Black Fork Below Big Creek near Page (dc)	07247250	448
Black Fork at Hodgen (c)	07247345	451
Fourche Maline near Red Oak (d)	07247500	452
Fourche Maline near Leflore (c)	07247650	454
Holson Creek at Summerfield (c)	07247800	455
Poteau River near Panama (d)	07249413	456
Arkansas River at Ft. Smith, AR (dc)	07249455	458

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER DISCHARGE STATIONS
DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations (gaging stations) in Oklahoma have been discontinued. Daily streamflow records were collected and published for the period of record, expressed in water years, shown for each station. Discontinued project stations with less than 2 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Arkansas River near Ponca City, OK	07148140	46,530	1976-93
Salt Fork Arkansas River near Winchester, OK	07148350	856	1960-93
Salt Fork Arkansas River near Ingersoll, OK	07148450	1,140	1961-62 1974-79
Salt Fork Arkansas River near Cherokee, OK	07149500	2,439	1941-50
Salt Fork Arkansas River near Jet, OK	07150500	3,202	1938-93
Greasy Creek near Watchorn, OK	07152290	28.0	1974-76
Ranch Creek at Cleveland Dam near Cleveland, OK	07153100	21.9	1945-63
Cimarron River above Ute Creek near Boise City, OK	07155000	1,955	1906-07 1943-46 1947-54
Cimarron River near Boise City, OK	07155500	2,214	1939-42
Cimarron River near Mocane, OK	07157000	8,670	1943-65
Cimarron River near Englewood, KS	07157580	10,096	1982-87
Buffalo Creek near Lovedale, OK	07157960	408	1966-93
Cimarron River at Freedom, OK	07157980	12,706	1974-80
Salt Creek near Hitchcock, OK	07158150	44.4	1968-70
Salt Creek near Okeene, OK	07158400	196	1961-67 1974-79
Preacher Creek near Dover, OK	07158500	14.5	1952-57
Turkey Creek near Drummond, OK	07159000	248	1948-70
Cimarron River near Crescent, OK	07159400	16,453	1971-72
Bluff Creek above Lake Hefner near Oklahoma City, OK	07159500	1.62	1950-58
Cottonwood Creek near Navina, OK	07159720	247	1978-80 1982-89
Cottonwood Creek at Seward, OK	07159750	320	1973-82 1990-02
Cimarron River near Perkins, OK	07161000	17,852	1940-89
Stillwater Creek near Stillwater, OK	07162000	168	1935-38
West Fork Brush Creek near Stillwater, OK	07162500	13.1	1935-38
Council Creek near Stillwater, OK	07163000	31	1934-93
Cimarron River at Oilton, OK	07163500	18,669	1935-45
Cimarron River at Mannford, OK	07164000	18,849	1939-50 1960-63
Arkansas River near Tullahasse, OK	07165600	75,815	1970-72
Verdigris River near Oologah, OK	07171400	4,339	1961-92
Verdigris River near Sageeyah, OK	07171500	4,402	1939-45
Caney River near Hulah, OK	07173000	733	1938-93
Little Caney River near Copan, OK	07174000	424	1944-58
Little Caney River below Cotton Creek near Copan, OK	07174200	502	1959-81

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

xi

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Caney River at Bartlesville, OK	07174500	1,465	1950-56 1986-87
Sand Creek at Okesa, OK	07174600	139	1960-93
Caney River near Ochelata, OK	07174700	1,753	1956-76
Double Creek subwater shed 5 near Ramona, OK	07175000	2.39	1955-69
Caney River near Collinsville, OK	07175550	2,046	1936-38
Birch Creek below Birch Lake near Barnsdall, OK	07176465	66.0	1977-92
Candy Creek near Wolco, OK	07176800	30.6	1970-81
Hominy Creek below Skiatook Lake near Skiatook, OK	07177410	354	1985-93
Bird Creek at 66th Street near Tulsa, OK	07177600	967	1987-91
Hominy Creek near Skiatook, OK	07177000	340	1944-81
Flat Rock Creek at U.S. Highway 75 at Tulsa, OK	07177700	22.6	1987-91
Mingo Creek at 36th Street North at Tulsa, OK	07178035	56.0	1987-89
Mingo Creek at 46th Street North at Tulsa, OK	07178040	59.9	1987-98
Dog Creek South of Claremore	07178520	74.9	1997-2004
Verdigris River near Inola, OK	07178600	7,911	1945-70
Tar Creek at 22nd Street Bridge at Miami, OK	07185095	44.7	1984-93
Tar Creek at Miami, OK	07185100	52.0	1980-84
Lost Creek at Seneca, MO	07188500	42.0	1949-59
Neosho River near Grove, OK	07189500	9,969	1925-39
Big Cabin Creek near Pyramid Corners, OK	07190600	71.1	1964-72
Spavinaw Creek near Row, OK	07191200	128	1959-62
Black Hollow near Spavinaw, OK	07191297	6.0	1998-01
Pryor Creek near Pryor, OK	07192000	229	1948-63
Neosho River near Wagoner, OK	07192500	12,307	1924-25 1938-49
Neosho River below Fort Gibson Lake near Fort Gibson, OK	07193500	12,495	1951-89
Peacheater Creek near Christie, OK	07196973	25.0	1993-2003
Dirty Creek near Warner, OK	07198500	227	1940-46
Deer Creek at Hydro, OK	07228400	274	1961-63 1978-80
Canadian River near Newcastle, OK	07229000	25,763	1939-45
Canadian River near Norman, OK	07229050	25,853	1996-98
Canadian River near Noble, OK	07229100	25,911	1960-61 1964-75
Walnut Creek at Purcell, OK	07229300	202	1966-93
Canadian Sandy Creek near Ada, OK	07229427	198	1987-88
Little River near Norman, OK	07229500	120	1952-55
Little River near Bowlegs, OK	07230597	550	1983-88
Salt Creek near Dewright, OK	07230800	210	1960-63 1966-67
Ti Creek near Blanco, OK	07231965	4.82	1980-81
Brushy Creek near Haileyville, OK	07231975	139	1978-83

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Peaceable Creek near Haileyville, OK	07231990	134	1978-83
Gaines Creek near Krebs, OK	07232000	588	1943-63
Blue Creek near Blocker, OK	07232010	12.1	1976-83
Deer Creek near McAlester, OK	07232024	38.3	1979-80
Beaver River near Felt, OK	07232250	879	1981-02
Beaver River near Goodwell, OK	07232470	2,043	2001-03
Beaver River near Guymon, OK	07232500	2,139	1938-93
Coldwater Creek near Hardesty, OK	07233000	1,967	1940-64
Beaver River near Hardesty, OK	07233210	5,029	1978-86
Clear Creek near Elmwood, OK	07234100	170	1966-93
Wolf Creek near Shattuck, OK	07235500	1,183	1938-46
Wolf Creek near Fargo, OK	07236000	1,624	1943-76
Wolf Creek near Fort Supply, OK	07237000	1,739	1938-93
Bent Creek near Seiling, OK	07237800	139	1967-70
North Canadian River at Canton, OK	07239000	12,484	1937-93 2000-03
North Canadian River near Watonga, OK	07239200	12,692	1980-83
North Canadian River near Oklahoma City, OK	07241500	13,354	1939-53 1960-61
Tecumseh Creek at Tecumseh, OK	07241750	2.38	1991-92
North Canadian River at NE 36th Street at Oklahoma City, OK	07241503	13,356	1989-91
Wewoka Creek near Wetumka, OK	07242100	396	1960-64 1967
Deep Fork at Hefner Rd. at Oklahoma City, OK	07242247	66.7	1995-98
Deep Fork near Arcadia, OK	07242350	105	1970-93
Bellcow Creek at Chandler, OK	07242500	46.0	1949-55
Dry Creek near Kendrick	07243000	69.0	1956-94
Deep Fork near Dewar, OK	07244000	2,307	1938-50
Coal Creek near Henryetta	07244100	22.3	1996-2004
North Canadian River near Eufaula, OK	07244500	17,657	1960-62
Taloka Creek near Stigler, OK	07245030	20.1	1979-81
Sallisaw Creek near Sallisaw, OK	07245500	182	1943-76
Sans Bois Creek near Keota, OK	07246000	346	1939-42
Arkansas River near Sallisaw, OK	07246500	147,757	1948-70
Coal Creek near Spiro, OK	07246615	15.4	1979-82
Fourche Maline near Wilburton, OK	07247450	56.2	1978-81
Red Oak Creek near Red Oak, OK	07247550	12.8	1978-82
Poteau River near Wister, OK	07248500	993	1938-87
Caston Creek at Wister, OK	07248600	72.9	1979-82
Morris Creek at Howe, OK	07248620	19.4	1979-81
Sugarloaf Creek near Monroe, OK	07248700	53.6	1979-81
Poteau River at Poteau, OK	07249000	1,240	1938-45
Brazil Creek near Walls, OK	07249080	69.1	1979-81 1984-85
Owl Creek near McCurtain, OK	07249100	27.9	1978-81

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following stations are discontinued surface-water-quality discontinued stations. Stations with one year's record or less are not included. information regarding these stations may be obtained from the District Office at address given on back of title page of this report.

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Beaver Creek near Kaw City, OK	07148126		1949, 1954-55, 1961
Arkansas River at Kaw City, OK	07148128	8,670	1948-51, 1961
Arkansas River near Ponca City, OK	07148140	46,530	1977-82, 1987-90
Salt Fork Arkansas River near Winchester, OK	07148350	856	1959-62, 1975-77, 1985-90
Greenwood Creek near Winchester, OK	07148360	41.2	1987-88
Salt Fork Arkansas River near Alva, OK	07148400	1,009	1938-54, 1962, 1977-79, 1985-90
Salt Fork Arkansas River near Ingersoll, OK	07148450	1,140	1961-62, 1973-80
Salt Fork Arkansas River near Cherokee, OK	07149500	2,439	1941-49
Cottonwood Canyon Creek near Cherokee, OK	07149704		1944-45
Salt Fork Arkansas River near Jet, OK	07150500	3,202	1924, 1938-63, 1965, 1968-90
Salt Fork Arkansas River near Pond Creek, OK	07150597		1951,1962
Pond Creek near Lamont, OK	07150700		1951-55, 1958, 1962
Deer Creek near Tonkawa, OK	07150900	150	1958,1962
Salt Fork Arkansas River at Tonkawa, OK	07151000	4,528	1943-45, 1948, 1951-64, 1968-79, 1985-90
Chikaskia River near Braman, OK	07151900	1,510	1976-77
Chikaskia River near Blackwell, OK	07152000	1,859	1906, 1938, 1943-45, 1952-53, 1955-56, 1959-64, 1975-80, 1985-90

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Chikaskia River near Tonkawa, OK	07152050		1948, 1952, 1960-63
Salt Fork Arkansas River near Marland, OK	07152200		1959-63
Bois D Arc Creek near Ponca City, OK	07152250	100	1952, 1959-63
Salt Fork Arkansas River near White Eagle, OK	07152260		1977-80
Red Rock Creek near Red Rock, OK	07152350		1951-58, 1961-63
Salt Creek near Shidler, OK	07152400		1954-55, 1958, 1961-63
Arkansas River at Ralston, OK	07152500	54,465	1950-63, 1965-93
Black Bear Creek at Pawnee, OK	07153000	576	1944-50, 1952-53, 1955-65, 1967-71, 1977-80, 1985-90
Cimarron River near Kenton, OK	07154500	1,106	1952-53, 1955-56, 1959-63, 1967-68, 1977, 1982, 1987-90
Cimarron River Ab Ute Creek near Boise City, OK	07155000	1,955	1938-48, 1950
Cimarron River near Forgan, OK	07156900	8,536	1967-68, 1970-71, 1974, 1987-90
Cimarron River near Mocane, OK	07157000	8,670	1942-49, 1952-53, 1955-56, 1959-66, 1977-78
Cimarron River near Englewood, KS	07157580	10,096	1938-42, 1982-87
Buffalo Creek near Lovedale, OK	07157960	408	1917, 1973-80, 1987-90
Cimarron River near Buffalo	07157950	12,004	1953, 1961-63, 1968-94
Cimarron River at Freedom, OK	07157980	12,706	1953, 1973-80

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

xv

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Cimarron River near Waynoka, OK	07158000	13,334	1938-53, 1955-56, 1959-63, 1968-79, 1985-90
Main Creek near Waynoka, OK 23N-16W-03 DDD	07158010	89.7	1986, 1988
Eagle Chief Creek at Cleo Springs, OK 22N-12W-02	07158105	480	1986, 1988, 1991
Salt Creek near Hitchcock, OK	07158150	44.4	1968-70
Salt Creek near Okeene, OK	07158400	196	1973-80, 1986, 1988
Preacher Creek near Dover, OK 18N-08W-13 BBB	07158500	14.5	1952-53, 1986-89
Turkey Creek near Drummond, OK	07159000	248	1947-48, 1952-53, 1955-56, 1976
Cimarron River near Dover, OK	07159100	15,713	1953, 1973-80, 1986-90
Turkey Creek near Dover, OK	07159203		1961-62
Deer Creek Abv Waste Water Trmt Fac near Edmond, OK	07159630		1983-84
Deer Creek Blw Waste Wtr Trmt Fac near Edmond, OK	07159645		1983-84
Cottonwood Creek near Navina, OK	07159720	247	1977-80, 1982-89
Cottonwood Creek near Seward, OK	07159750	320	1973-82, 1989-91
Cottonwood Creek near Guthrie, OK	07159800	366	1953, 1955-56, 1960-61
Cimarron River near Guthrie, OK	07160000	16,892	1905, 1930-31, 1938-57, 1959-71, 1973-80, 1986-90
Skeleton Creek near Lovell, OK	07160500	410	1950-55, 1975-80, 1985-90
Cimarron River at Perkins	07161000	17,852	1950, 1953-63, 1965-94
Council Creek near Stillwater, OK	07163000	31	1986-90
Cimarron River near Ripley, OK	07161450	17,979	1987-90
Stillwater Creek at Stillwater, OK	07162000	168	1954-55

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Council Creek near Stillwater, OK	07163000	31	1986-90
Cimarron River at Oilton, OK	07163500	18,669	1938, 1942, 1944-45, 1981
Cimarron River at Mannford, OK	07164000	18,849	1939-52, 1959-63
Arkansas River at Sand Springs near Tulsa, OK	07164400	74,615	1905, 1946-77, 1980
Polecat Creek Blw Heyburn Res near Heyburn, OK	07165500	123	1944-69, 1971-79
Polecat Creek near Jenks, OK	07165510		1959-63
Arkansas River at Bixby, OK	07165520		1948-49
Snake Creek near Leonard, OK	07165559		1960-61
Arkansas River near Haskell, OK	07165570	75,473	1972-83, 1986-88
Cane Creek near Jamesville, OK	07165581		1960-61
Arkansas River near Tullahassee, OK	07165600	75,815	1969-72
Arkansas River at Muskogee, OK	07165610		1956, 1958, 1961-63, 1969-70
Verdigris River near S Coffeyville, OK	07170950		1952-53, 1974-78
Verdigris River near Lenapah, OK	07171000	3,639	1940-83, 1985-87, 1989-90
California Creek near Nowata, OK	07171080		1952-53, 1959
Verdigris River near Nowata, OK	07171100		1952-53
East Fork Big Creek near Hollow, OK	07171105	14.4	1979-80, 1982-83
Big Creek near Nowata, OK	07171220		1952-53, 1959, 1981
Salt Creek near Alluwe, OK	07171230		1952-53, 1959
Lightning Creek near Alluwe, OK	07171240		1952-53, 1959
Verdigris River near Talala, OK	07171260		1952-53
Verdigris River near Oologah, OK	07171400	4,339	1961-83, 1986, 1988-89

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

xvii

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Verdigris River Ab Caney River near Claremore, OK	07171405		1941, 1945, 1948, 1952-55, 1959, 1961, 1978
Sweetwater Creek near Claremore, OK	07171490		1980-83
Verdigris River near Sageeyah, OK	07171500	4,402	1938, 1940-45, 1961
Caney River near Hulah, OK	07173000	733	1938, 1940-83, 1986
Little Caney River near Copan, OK	07174000	424	1976-77, 1979
Cotton Creek near Copan, OK	07174150		1967-68
Little Caney River Blw Cotton Cr, near Copan, OK	07174200	502	1944-81, 1983, 1986
Caney River Above Coon Creek at Bartlesville, OK	07174400	1,392	1985-86, 1989-90
Caney River at Bartlesville, OK	07174500	1,465	1944-45, 1947, 1949-51, 1966-68, 1978-82
Sand Creek at Okesa, OK	07174600	139	1951-55, 1960-78, 1980-83, 1985-86, 1989-90
Caney River near Ochelata, OK	07174700	1,753	1959-61
Double Creek SWS 5 near Ramona, OK	07175000	2.39	1957-59, 1964-65, 1967-69
Caney River near Ramona, OK	07175500	1,955	1966-93
Caney River near Collinsville, OK	07175550	2,046	1949-53, 1959
Verdigris River near Claremore, OK	07176000	6,534	1944, 1947-54, 1977-81, 1985-87
Bird Creek at Pawhuska, OK	07176320		1944-46
Bird Creek near Barnsdall, OK	07176350		1949-53

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Birch Creek near Barnsdall, OK	07176455		1964-66, 1978, 1980-81, 1983
Birch Creek Blw Birch Lake near Barnsdall, OK	07176465	66	1989-90
Bird Creek at Avant, OK	07176500	364	1945-55, 1957-81, 1983, 1986, 1989-90
Candy Creek near Wolco, OK	07176800	30.6	1978-80
Bird Creek near Skiatook, OK	07176910		1948-50, 1952-53
Hominy Creek near Hominy, OK	07176950		1949-53, 1955
Hominy Creek near Skiatook, OK	07177000	340	1944-55, 1957-71, 1977-78, 1980-81, 1983, 1986
Hominy C Bl Skiatook Lk near Skiatook, OK	07177410	354	1988-89
Bird Creek at 66th Street near Tulsa, OK	07177600	967	1988-90
Flat Rock Creek at Cincinnati Ave at Tulsa, OK	07177650	8.2	1988-89
Flat Rock Creek at Us Hwy 75 at Tulsa, OK	07177700	22.6	1988-90
Bird Creek near Owasso, OK	07178000	1,022	1948-50, 1987-90
Mingo Creek at 46th Street North at Tulsa, OK	07178040	59.9	1987-98
Bird Creek near Catoosa, OK	07178050	1,080	1963-90
Dog Creek South of Claremore	07178520	74.9	1997-2004
Verdigris River near Inola, OK	07178600	7,911	1940-71, 1976-79
Verdigris River (Newt Graham L&D) near Inola, OK	07178620	7,911	1971-86
Verdigris River near Okay, OK	07178670		1959-63
Neosho River near Commerce, OK	07185000	5,876	1944-54, 1959-73, 1975-83, 1985-89
Tar Creek at 22nd Street Bridge at Miami, OK	07185095	44.7	1988-92, 2000
Spring River near Quapaw, OK	07188000	2,510	1948-58 1960-63 1976-80 1986 1988-89 2000

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

xix

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Neosho River near Langley, OK	07190500	10,335	1944-47, 1949-51, 1956-59, 1975-80, 1988
Big Cabin Creek near Welch, OK	07190590	28.1	1979-83
Big Cabin Creek Tributary Blw Wolfe Ck near Welch, OK	07190597		1980-83
West Fork Big Cabin Creek near Centralia, OK	07190620	13.1	1979-83
Middle Fork Big Cabin Creek near Centralia, OK	07190622		1979-80
Middle Fork Big Cabin Creek near Pyramid Corners, OK	07190625	13.4	1979-83
Big Cabin Creek near Vinita, OK	07190650		1944, 1949-51, 1980
Little Cabin Creek near Vinita, OK	07190850		1948-51
Big Cabin Creek near Big Cabin, OK	07191000	450	1948, 1951-60, 1964-71, 1975-77, 1985-89
Spavinaw Creek near Jay, OK	07191223		1958-61
Spavinaw Creek near Spavinaw, OK	07191310		1944, 1948-51
Salina Creek near Salina, OK	07191350		1948-53, 1958-59
Neosho River near Chouteau, OK	07191500	11,534	1921, 1940-48, 1950-58, 1960, 1975-80
Pryor Creek near Pryor, OK	07192000	229	1942-44, 1948-58, 1960-63
Pryor Creek at Elliot St Br near Pryor, OK	07192030		1947, 1966-71
Pryor Creek at Hwy 69a near Pryor, OK	07192050		1962-63
Pryor Creek Blw Sulfur Creek near Pryor, OK	07192060		1966-74
Neosho River near Wagoner, OK	07192500	12,307	1930-31, 1938-50
Neosho River below Fort Gibson Lake near Fort Gibson, OK	07193500	12,495	1952-93
Arkansas River near Muskogee, OK	07194500	96,674	1943-71, 1976-80
Bayou Manard near Fort Gibson, OK	07194512		1960-61
Greenleaf Creek near Braggs, OK	07194545		1951-55
Illinois River at Savoy, AR	07194800	167	1968, 1974-91
Illinois River near Pedro, AR	07194830		1996-01

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Illinois River at Siloam Springs, AR	07195400	509	1984-94 1996-01
Illinois River South of Siloam Springs, AR	07195430		1972-81
Illinois River abv. Flint Creek near Flint, OK	07195610		1996-00
Flint Creek at Springtown, AR	07195800	14.2	1975-79
Flint Creek North of Siloam Springs, AR	07195850		1972-81
Illinois River blw. Flint Creek near Flint, OK	07196040		1996-00
Illinois River near Moodys, OK	07196320		2001-02
Illinois River at No Head Hollow near Tahlequah, OK	07196400		1996-00
Illinois River near Briggs, OK	07196490		1996-00
Tahlequah Creek at Tahlequah, OK	07196510	13.4	1976-77
Illinois River near Park Hill, OK	07196520		1996-02
Illinois River blw. Tahlequah Creek near Tahlequah, OK	07196513		1997-99
Peach eater Creek at Christe, OK	07196973	25	1991-93
Baron Fork at Welling, OK	07197080		1996-01
Illinois River near Barber, OK	07197360		1997-02
Dirty Creek near Warner, OK	07198500	227	1940-46, 1960-61, 1977
South Fork near Porum, OK	07198800		1979-82
Canadian River near Roll, OK	07228200	23,615	1950, 1953, 1961-63, 1974, 1976-77
Canadian River near Taloga, OK	07228250		1938-45
Deer Creek at Hydro, OK	07228400	274	1959-63, 1978-80, 1989
Canadian River at Bridgeport, OK	07228500	25,276	1949-61, 1964, 1970-92
Canadian River near Union City, OK	07228700		1953, 1973
Canadian River Trib near Newcastle, OK	07228960	3.32	1938-45
Canadian River near Noble, OK	07229100	25,911	1963-75
Canadian River at Purcell, OK	07229200	25,939	1953, 1959-63, 1974-80, 1985-90
Walnut Creek at Purcell, OK	07229300	202	1949-50, 1952-53, 1959-61, 1973, 1975-77, 1985-90

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

xxi

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Canadian Sandy Creek near Ada, OK	07229427		1986-88
Elm Creek near Moore, OK	07229441		1959-61
Little River Abv Lake Thunderbird near Norman, OK	07229460		1984-85
Little River near Norman, OK	07229500	120	1953, 1956, 1960-61
Clear Creek near Norman, OK	07229601		1960-61
Hog Creek near Stella, OK	07229801		1959-61
Little River Blw Lk Thunderbird near Norman, OK	07230000	257	1953-65, 1975-80, 1985-90
Little River near Tecumseh, OK	07230500	456	1944-64, 1967-70, 1972-75, 1986-90
Little River near Harjo, OK	07230531		1960-61
Little River near Maud, OK	07230558		1960-61
Little River near Bowlegs, OK	07230597		1960-61, 1983-88
Salt Creek near Pearson, OK	07230700		1959-61
Salt Creek near St Louis, OK	07230731		1959-61
Salt Creek near Dewright, OK	07230800	210	1959-63
Little River near Sasakwa, OK	07231000	865	1951-92
Canadian River at Calvin, OK	07231500	27,952	1944, 1951-53, 1960-61, 1965-95
Gaines Creek near Higgins, OK	07231955	152	1978-93
Pit Creek near Gowen, OK	07231958	5.74	1990-91
Pit Creek near Hartshorne, OK	07231959	8.95	1991-93
Gaines Creek near Gowen, OK	07231960	182	1990-93
Ti Creek near Blanco, OK	07231965	4.82	1980-81
Brushy Creek near Haileyville, OK	07231975	139	1978-81
Peaceable Creek near Haileyville, OK	07231990	134	1978-82
Gaines Creek near Krebs, OK	07232000	588	1944-47, 1949-55, 1959-62
Blue Creek Tributary A near Blocker, OK	07232008		1978-81
Blue Creek Tributary B near Blocker, OK	07232009	0.22	1975-80
Blue Creek near Blocker, OK	07232010	12.1	1975-81
Deer Creek near McAlester, OK	07232024	38.3	1978-81
Coal Creek near McAlester, OK	07232027		1960-61
Mathuldy Creek near Crowder, OK	07232029	5.41	1975-81
Rock Creek near Crowder, OK	07232031		1960-61
Gaines Creek near Canadian, OK	07232050		1959-62

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Beaver River near Guymon, OK	07232500	2,139	1937-65, 1967-77, 1988, 1990
Beaver River near Hooker, OK	07232630	3,017	1972-73, 1975, 1977, 1979
Coldwater Creek near Hardesty, OK	07233000	1,967	1939-64
Beaver River near Hardesty, OK	07233210	5,029	1938-39, 1979-82
Palo Duro Creek near Range, OK	07233700	1,745	1953-54, 1959-62
Beaver River at Beaver	07234000	7,955	1952, 1958-59, 1962-63 1968-94
Clear Creek near Elmwood, OK	07234100	170	1987-90
Kiowa Creek near Slapout, OK	07234200	371	1953-54, 1959-60, 1980
Clear Creek near May, OK	07234300	109	1953-54, 1960
Beaver River near Fort Supply, OK	07234500	9,615	1939-51, 1957, 1976
Wolf Creek near Shattuck, OK	07235500	1,183	1938-46
Wolf Creek near Fargo, OK	07236000	1,624	1941-64, 1967-68, 1971-72, 1976, 1978
Wolf Creek near Fort Supply, OK	07237000	1,739	1938-63, 1971, 1973, 1979, 1987-90
North Canadian River at Woodward, OK	07237500	11,589	1955, 1958-59, 1961-63, 1975-95
North Canadian River near Seiling, OK	07238000	12,261	1943-44, 1946-72, 1974-83, 1987-90
North Canadian River at Canton, OK	07239000	12,484	1938-68, 1971-80, 1986-90

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

xxiii

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
North Canadian River near Watonga, OK	07239200	12,692	1943-44, 1949-51, 1954-57, 1959, 1963, 1965
North Canadian R Blw Weavers Ck near Watonga, OK	07239300	12,736	1985-90
North Canadian River near Yukon, OK	07239700	13,183	1952-53, 1974, 1988-89
Lake Hefner Canal near OK City, OK	07240000		1979, 1988
North Canadian River near OK City, OK	07241500	13,354	1940, 1942, 1944-50, 1952, 1959-63, 1973, 1975
North Canadian River at NE 36th St at OKC, OK	07241503	13,356	1988-91
North Canadian River near Jones, OK	07241530		1973, 1982
North Canadian River near Shawnee, OK	07241700		1973, 1979-80
North Canadian River near Wetumka, OK	07242000	14,290	1944, 1952-95
Wewoka Creek at Wewoka, OK	07242050		1961-63
Little Wewoka Creek near Wetumka, OK	07242080		1960-63, 1978
Grief Creek near Wetumka, OK	07242090		1961-63
Wewoka Creek near Wetumka, OK	07242100	396	1926, 1950-64, 1984
Fish Creek near Wetumka, OK	07242109		1960-61
North Canadian River near Pierce, OK	07242190	17,712	1959-63
Deep Fork at Portland Ave, OK City, OK	07242200	2.98	1979-80
Deep Fork at Eastern Ave, OK City, OK	07242220	28.2	1973-74
Deep Fork near Witcher, OK	07242250		1959, 1973
Deep Fork at Witcher, OK	07242300		1960-62, 1975-76
Deep Fork near Arcadia, OK	07242350	105	1907, 1969-89
Deep Fork at Warwick, OK	07242380	532	1985-90
Deep Fork near Chandler, OK	07242400		1959-62, 1980

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Bellcow Creek at Chandler, OK	07242500	46	1948-50, 1953-54, 1979-80
Deep Fork near Stroud, OK	07242900		1979, 1991
Dry Creek near Kendrick, OK	07243000	69	1960, 1965-68, 1970-71, 1973-74, 1979, 1985-89
Little Deep Fork near Edna, OK	07243450		1951-57, 1960-62
Deep Fork near Beggs, OK	07243500	2,018	1952-93
Deep Fork near Dewar, OK	07244000	2,307	1938-51, 1960-65, 1979
Coal Creek near Henryetta	07244100	22.3	1996-2004
Deep Fork near Pierce, OK	07244200		1959-63
North Canadian River near Eufaula, OK	07244500	17,657	1952-53, 1959-61
Canadian River near Whitefield, OK	07245000	47,576	1900, 1938-90
Taloka Creek at Stigler, OK	07245020	3.98	1921, 1974, 1978-81
Taloka Creek Trib near Stigler, OK	07245025		1978-81
Taloka Creek near Stigler, OK	07245030	20.1	1978-81
Jackson Creek near Stigler, OK	07245040		1980-81
Little Vian Creek near Vian, OK	07245119		1958-60
Sallisaw Creek near Sallisaw, OK	07245500	182	1959-63, 1976-77
Sans Bois Creek near Kinta, OK	07245703		1960-61
Mule Creek at Sr 31 near McCurtain, OK	07245980	3.64	1981-82
Mule Creek, Upper Gage, near McCurtain, OK	07245990	6.45	1980-83
East Pond Outlet to Mule Creek near McCurtain, OK	07245991		1980-83
Mule Creek, Middle Gage, near McCurtain, OK	07245992	6.49	1981-83
Mule Creek, Lower Gage, near McCurtain, OK	07245994	6.74	1980-83
Sans Bois Creek near Keota, OK	07246000	346	1938-42, 1958-63
Arkansas River near Sallisaw, OK	07246500	14,7757	1943-72
Cache Creek near Cowlington, OK	07246600	20.6	1958-61
Coal Creek near Spiro, OK	07246615	15.4	1910, 1978-81
Poteau River East Of Waldron, AR	07246940	15	1983-96
Poteau River Northwest Of Waldron, AR	07246950	46.1	1983-96

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

xxv

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Poteau River near Hon, AR	07246960	69.5	1993-96
Jones Creek near Hon, AR	07246980	93.6	1993-96
Poteau River at Cauthren, AR	07247000	203	1945-61 1975-79 1991-98
Poteau River South Of Bates, AR	07247012		1972-83
Poteau River at Hontubby, OK	07247025	301	1992
Fourche Maline near Wilburton, OK	07247450	56.2	1978-81
Fourche Maline near Red Oak, OK	07247500	122	1954, 1954, 1956-60, 1978-79, 1992-96
Red Oak Creek near Red Oak, OK	07247550	12.8	1978-81
Poteau River near Wister, OK	07248500	993	1938-40, 1942, 1944-50, 1954-60, 1975-80, 1986
Caston Creek at Wister, OK	07248600	72.9	1975, 1977-81
Morris Creek at Howe, OK	07248620	19.4	1908, 1978-81
Sugarloaf Creek near Monroe, OK	07248700	53.6	1978-81
Poteau River at Poteau, OK	07249000	1,240	1938, 1940-42, 1944
Brazil Creek near Red Oak, OK	07249060	2.74	1978-81
Rock Creek near Red Oak, OK	07249070	12	1978-81
Brazil Creek near Lodi, OK	07249073		1980-81
Brazil Creek near Walls, OK	07249080	69.1	1978-81, 1984-86
Owl Creek near McCurtain, OK	07249100	27.9	1978-81
Brazil Creek near Panama, OK	07249200		1959-61
James Fork near Williams, OK	07249410	198	1976-81
Poteau River near Panama, OK	07249413	1,767	1993-98
Coal Creek Tributary near Bokoshe, OK	07249415	1.26	1976-79
Coal Creek near Panama, OK	07249419	6.67	1976-79
Holi-tuska Creek near Panama, OK	07249422	4.39	1978-81
Poteau River near Braden, OK	07249438		1958-59, 1961-63
Poteau River near Fort Smith, AR	07249440		1972-79
Lee Creek near Short, OK	07249800	236	1958-61, 1975-77

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Little Lee Creek near Short, OK	07249900		1960, 1977-79
Arkansas River at L&d #13 near Van Buren, AR	07250550	150,547	1975-77
08N-06E-26 DDA 1	350756096380501		1978, 1980
08N-06E-23 AAD 1	350924096380401		1978, 1980
09N-05E-23 BBB 1	351440096452001		1974-75
09N-06E-13 DDA 1	351455096370401		1978-79
09N-05E-16 ADD 1	351518096464001		1978-79
09N-06E-17 BBA 1	351538096421101		1978-79
09N-06E-09 CDC 1	351540096405801		1978-79
09N-06E-10 DAA 1	351601096391301		1978-79
09N-06E-04 BCA 1	351706096410801		1978-79
09N-06E-03 AAB 1	351723096392301		1978-79
Squirrel Creek near Shawnee, OK	351815096544301		1983-84
North Canadian River at Shawnee Bridge	351857096553001		1983-84
North Canadian River East of Shawnee, OK	351959096520901		1983-84
North Canadian River Above Lake Eufaula, OK	352305095531001		1983-84
N Canadian River near Prague, OK	352359096401201		1983-84
North Canadian River West of Okemah, OK	352546096242701		1983-84
North Canadian River at 63rd St Bridge, OK City, OK	353211097222501		1983-84
Sallisaw Creek at Bunch, OK	354035094452001		1958-59
Bear Creek near Fallis, OK	354512097075301		1953-55
Eagle Creek near Hectorville, OK	355032095580401		1907, 1979
Tributary to Campbell Creek near Cashion, OK	355032097431501	3.15	1986, 1988
Campbell Creek near Cashion, OK	355032097432301	22.6	1986-88
Pawnee Creek near Crescent, OK	355125097371501	13.1	1986, 1988
Gar Creek near Guthrie, OK	355217097315601	10.6	1986-88
Cox Creek near Crescent, OK	355217097361901	7.47	1986, 1988
Kingfisher Creek near Kingfisher, OK	355342097541001	501	1986-88
Bird Creek near Kingfisher, OK	355415097464801	8.5	1986-88
Trail Creek near Kingfisher, OK	355421097521601	16.1	1986-87
Baron Fork near Baron, OK	355510094371001		1958-59
East Fork Sooner Creek near Crescent, OK	355540097440701	11.2	1986-88
West Fork Sooner Creek near Crescent, OK	355540097442301	9.79	1986-88
Treaty Creek near Loyal, OK	355810097590501	6.86	1986, 1988
Turkey Creek at Dover, OK	355842097551201	428	1986-88
Cooper Creek near Dover, OK	355902097594501	116	1986-88

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

xxvii

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
Ballard Creek at Ballard, OK	360540094352001		1958-59
Indian Creek near Ringwood, OK	361723098175701	75.4	1986-89
Sand Creek near Fairview, OK	361835098252601	41.8	1986-88
Gypsum Creek near Fairview, OK	361901098260701	13.8	1986, 1988
Cherokee Creek near Sycamore, OK	361919094394501		1980-81
Spavinaw Creek near Jay, OK	362059094470601		1980-81
Beaty Creek near Sycamore, OK	362119094463001		1980-81
Cheyenne Creek near Orienta, OK	362137098370501	38.8	1986, 1988
Cottonwood Creek at Orienta, OK	362150098282301	54.3	1986, 1988
Barney Creek near Orienta, OK	362414098420201	41.1	1986, 1988
Griever Creek near Waynoka, OK	362446098470001	88.8	1986, 1988
West Creek near Waynoka, OK	362933098554201	31.9	1986, 1988
24N-23E-08 B1 OWRB 24R, Well on Monkey	363324094502501		1980-81
Sand Creek near Belva, OK	363436098590301	54.1	1986, 1988
Chimney Creek near Belva, OK	363731099015301	27.5	1986, 1988
Doe Creek near Freedom, OK	363823099065201	14.2	1986, 1988
Long Creek near Freedom, OK	364244099070801	53.1	1986, 1988
Anderson Creek near Freedom, OK	364521099053901	34.5	1986, 1988
27N-23E-05 BDA 1 OWRB 22B, Neosho R near I-44	365108094511801		1980-82
27N-23E-06 AAD 1 WRB 22a, Neosho R Ab Tar C	365112094514401		1980-82
27N-23E-05 BBB 1 OWRB 22, Tar C Ab Neosho R	365118094513201		1981-82
28N-23E-30 Ddd 1 OWRB 21, Tar C at Hwy 10	365215094514001		1980-81
28N-23E-30 Ddb 1 OWRB 20, Tar C at Central	365230094514301		1980-82, 1984
28N-23E-30 Aac 1 Tar C at Rockdale Blvd	365255094514301		1984-85
28N-23E-19 Abb 1 OWRB 16, Tar C at 22nd Ave	365359094520401		1980-81, 1984-86
28N-23E-18 Abb 1 OWRB 14b, Tar C Blw Spring	365451094520401		1981-82
28N-22E-07 CAA 1 OWRB 14a, Weir Blw Site 14	365522094521301		1981, 1984
28N-23E-09 BCC 1 OWRB 15, Garrett C	365523094503201		1980, 1985
28N-23E-07 BBD 1 OWRB 13, Cactus Mine Disch	365533094522801		1979-83

WATER RESOURCES DATA — OKLAHOMA, 2005
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN			
28N-23E-05 CCC 1 OWRB 5, Tar C near Commerce	365544094513201		1980, 1984-85
29N-23E-31 DCD 1 OWRB 10, Tar C at Hwy 66	365637094511201		1980-82, 1984-85
29N-23E-32 BCA 3 Tar C Below Mine Trib	365710094504401		1984-85
29N-23E-32 BCA 1 Mine Trib at Tar C, South	365714094504401		1983-85
29N-23E-32 BBD 2 Mine Trib Pond	365715094504301		1984-85
29N-23E-32 BBD 3 Outflow from Mine Trib Pd	365715094504302		1984-85
29N-23E-32 BAC 1 Mine Trib S of Rr Culvert	365720094503801		1983-85
29N-23E-32 BAB 1 1132 M from Rr Borehole	365723094503511		1984-85
29N-23E-32 BAB 3 138 M from Rr Borehole	365723094503513		1984-85
29N-23E-32 BAB 20 Mine Trib, N of Rr Culvert	365723094503520		1984-85
29N-23E-29 CDC 3 Lavrion Tailings Pond/col	365730094503301		1984-85
29N-23E-29 CCD 1 OWRB 4t, Tailings Runoff	365730094504601		1980-81, 1985
29N-23E-29 CCD 3 OWRB Site 4 Tar C at Lytl	365732094504400		1980-82
29N-23E-29 CCD 2 OWRB Site 4a Tar C Ab Lyt	365732094504401		1980-82
29N-23E-29 CAC 2 Lytle C 400 M Ab Site 4	365744094503200		1981, 1985
29N-23E-29 CAC 1 Collapse W of Lytle C	365744094503201		1984-85
29N-23E-29 BCA 1 Tar C Above Mine Disch	365807094504301		1984-85
29N-23E-29 ABD 1 Lytle C Above Mine Disch	365811094501301		1984-85
29N-23E-18 AAC 1 OWRB 7, Tar C at State Ln	365956094510701		1980-82, 1984-85
34S-23E-35 DDC 1 Tar C at Rt 166	370153094511101		1984-85

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Oklahoma each water year (Oct. 1 to Sept. 30). These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Oklahoma."

Volumes 1 and 2 of this report includes records on both surface water and ground water in the State. Specifically they contain: (1) Discharge records for 138 streamflow-gaging stations, and 38 partial-record or miscellaneous streamflow stations, (2) stage and content records for 18 lakes, reservoirs and gage height records for 2 stations; (3) water-quality records for 55 streamflow-gaging stations; (4) water-level records for 4 observation wells.

This series of annual reports for Oklahoma began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to include, in one volume, data on quantity and quality of surface water. Data on ground-water levels were added to this format from 1975-79 and 1990 to present.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Oklahoma were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface Water Supply of the United States, Parts 7A and 7B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 under the title "Ground-Water Levels in the United States," and 1980 to 1989 under the title "Ground-Water Levels in Observation Wells in Oklahoma." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-

letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report OK-05-1" For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports also will be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

COOPERATION

The U.S. Geological Survey and organizations of the State of Oklahoma have had cooperative agreements for the systematic collection of streamflow and ground-water records since 1935, and for water-quality records since 1941. Organizations that assisted in collecting the data through cooperative agreement with the Survey are:

Oklahoma Water Resources Board.
Oklahoma Conservation Commission
Oklahoma City Water Utilities Trust.
City of Tulsa.
Oklahoma State University
Oklahoma Geological Survey.

The following Federal agencies assisted in the data collection program by providing funds or services:

Corps of Engineers, U.S. Army
Bureau of Reclamation, U.S. Department of Interior

Assistance in the form of funds or services was rendered by the following organizations through the **Oklahoma Water Resources Board: Grand River Dam Authority; Central Oklahoma Master Conservancy District; Fort Cobb Reservoir Master Conservancy District; Lugert-Altus Irrigation District; Foss Reservoir Master Conservancy District; Mountain Park Master Conservancy District; Chickasaw Nation; Choctaw Nation; the cities of Ada, Henryetta, and Lawton.**

Organizations that supplied data are acknowledged in the station descriptions.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from <http://ny.cf.er.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of five stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

The National Atmospheric Deposition Program/ National Trends Network (NADP/NTN) is a network of monitoring sites that provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring

program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>.

The USGS National Water-Quality Assessment (NAWQA) Program is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents is measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities for collaboration among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsip/>.

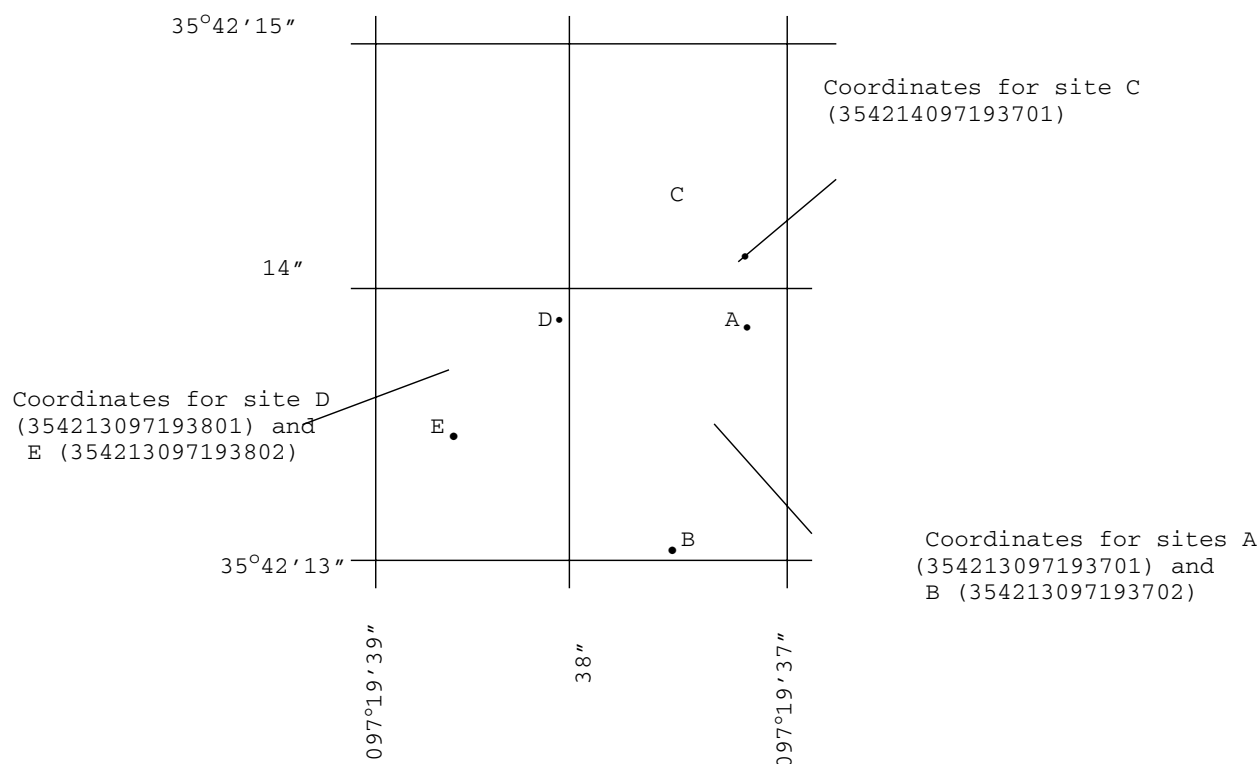


Fig.1: System for numbering miscellaneous and ground-water sites (latitude and longitude)

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 2005 water year that began Oct. 1, 2004 and ended Sept. 30, 2005. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface water and water levels for ground water. The locations of the stations where the data were collected are shown in figures 2-4. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any

tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indentation in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 07152500, which appears just to the left of the station name, includes a 2-digit part number "07" plus the 6-digit (or 8-digit) downstream order number "152500." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 1). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharge may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Location of all complete-record, crest-stage partial-record, and low-flow partial-record stations for which data are given in this report are shown in figure 2.

Data Collection and Computation

The base data collected at gaging stations (fig. 2) consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is

transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors that are based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations, and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, the stage-discharge relation is affected by changing stage. At these stations, the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual

manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge from other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the volume or contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly changes are computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and (5) a hydrograph of discharge.

Station Manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments follow that clarify

information presented under the various headings of the station description.

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.—Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.—This term indicates the time period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that its flow reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.—All periods of estimated daily discharge either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the

USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<http://water.usgs.gov/nwis/nwis>). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations to document the revision in a REVISED RECORDS entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the USGS Water Science Center (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the REMARKS and in the inclusion of a stage-capacity table when daily volumes are given.

Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

Data Table of Daily Mean Values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed TOTAL gives the sum of the daily figures for each month; the line headed MEAN gives the arithmetic average flow in cubic feet per second for the month; and the lines headed MAX and MIN give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month is expressed in cubic feet per second per square mile (line headed CFSM); or in inches (line headed IN); or in acre-feet (line headed AC-FT). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be

omitted if extensive regulation or diversion is in effect or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir volumes are given. These values are identified by a symbol and a corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those values. The designated period will be expressed as FOR WATER YEARS __-__, BY WATER YEAR (WY), and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript.

Summary Statistics

A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS __-__, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the ANNUAL 7-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-

period column may not be within the selected water years listed in the heading. When the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that follow clarify information presented under the various line headings of the SUMMARY STATISTICS table.

ANNUAL TOTAL.—The sum of the daily mean values of discharge for the year.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

HIGHEST ANNUAL MEAN.—The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.—The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.—The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.—The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.—The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1–March 31). The date shown in the summary statistics table is the initial date of the 7-day period. This value should not be confused with the 7-day 10-year low-flow statistic.

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS paragraph in the manuscript or a footnote may be used to provide further

information.

INSTANTANEOUS LOW FLOW.—The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

Inches (INCHES) indicate the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.—The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.—The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.—The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first table lists annual maximum stage and discharge at crest-stage stations, and the second table lists discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e—Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of Field Data and Computed Results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements

of discharge, and interpretations of records.

The degree of accuracy of the records is stated in the REMARKS in the station description. "Excellent" indicates that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair," within 15 percent. "Poor" indicates that daily discharges have less than "fair" accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to the nearest tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to three significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, values of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Records Available

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the USGS Water Science Center. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the USGS Water Science Center (see address that is shown on the back of the title page of this report).

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Surface-water samples for analysis usually are collected at or near stream-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives

the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs. A list of TWRIs is provided in this report.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data are useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuous-record station*

is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A *partial-record station* is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A *miscellaneous sampling site* is a location other than a continuous- or partial-record station, where samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 3.

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Rating classifications for continuous water-quality records

[≤, less than or equal to; ±, plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made onsite when the samples are collected. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. These TWRI's are listed in this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS Water Science Center (see address that is shown on the back of title page in this report).

Measured field parameter	Ratings of accuracy (Based on combined fouling and calibration drift corrections applied to the record)			
	Excellent	Good	Fair	Poor
Water temperature	≤ ± 0.2 °C	> ± 0.2 – 0.5 °C	> ± 0.5 – 0.8 °C	> ± 0.8 °C
Specific conductance	≤ ± 3%	> ± 3 – 10%	> ± 10 – 15%	> ± 15%
Dissolved oxygen	≤ ± 0.3 mg/L or ≤ ± 5%, whichever is greater	> ± 0.3 – 0.5 mg/L or > ± 5 – 10%, whichever is greater	> ± 0.5 – 0.8 mg/L or > ± 10 – 15%, which- ever is greater	> ± 0.8 mg/L or > ± 15%, whichever is greater
pH	≤ ± 0.2 units	> ± 0.2 – 0.5 units	> ± 0.5 – 0.8 units	> ± 0.8 units
Turbidity	≤ ± 0.5 turbidity units or ≤ ± 5%, whichever is greater	> ± 0.5 – 1.0 turbidity units or > ± 5 – 10%, whichever is greater	> ± 1.0 – 1.5 turbidity units or > ± 10 – 15%, whichever is greater	> ± 1.5 turbidity units or > ± 15%, which- ever is greater

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the USGS Water Science Center.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration are computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.—Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this section:

Printed Output	Remark
E or e	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
V	Analyte was detected in both the environmental sample and the associated blanks.

Printed Output	Remark
&	Biological organism estimated as dominant.

Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a nondetection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte either was not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this USGS Water Science Center are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples. These data are not presented in this report but are available from the USGS Water Science Center.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank

solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected by this USGS Water Science Center are:

Field blank—A blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank—A blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic

setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

Sequential samples—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

Site Identification Numbers

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude. Data Collection and Computation

Measurements are made in many types of wells, under varying conditions of access and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Most methods for collecting and analyzing water samples are described in the TWRI's referred to in the Onsite Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and

A4; and Book 9, Chapters A1 through A9. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum above sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth of water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Data Presentation

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown and each well is identified by its local well or county well number on a map in this report (fig. 4).

Each well record consists of three parts: the well description, the data table of water levels observed during the water year, and, for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

The following comments clarify information presented in these various headings.

LOCATION.—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are reported as North American Datum of 1927 unless otherwise specified.

AQUIFER.—This entry designates by name and geologic age the aquifer that the well taps.

WELL CHARACTERISTICS.—This entry describes the well in terms of depth, casing diameter and depth or screened interval, method of construction, use, and changes since construction.

INSTRUMENTATION.—This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on continuous, monthly, or some other frequency of measurement.

DATUM.—This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, and so forth), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above National Geodetic Vertical Datum of 1929 (NGVD 29); it is reported with a precision depending on the method of determination.

REMARKS.—This entry describes factors that may affect the water level in a well or the measurement of the water level, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

PERIOD OF RECORD.—This entry indicates the time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.—This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

Water-Level Tables

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-

level value.

Hydrographs

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder's float mechanism to water-level fluctuations in a well.

GROUND-WATER-QUALITY DATA

Data Collection and Computation

The ground-water-quality data in this report were obtained as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some wells within a county but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide.

Most methods for collecting and analyzing water samples are described in the TWRI. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS Water Science Center (see address shown on back of title page in this report).

Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed onsite. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be

provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each USGS Water Science Center. (See address that is shown on the back of the title page of this report.)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also "Annual runoff")

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also "Biomass" and "Dry weight")

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1–March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that purposely is placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also “Substrate”)

Ash mass is the mass or amount of residue present after the residue from a dry-mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m³), and periphyton and benthic organisms in grams per square meter (g/m²). (See also “Biomass” and “Dry mass”)

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also “Peak flow”)

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed. (See also “Bedload” and “Sediment”)

Bedload is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload,” “Dry weight,” “Sediment,” and “Suspended-sediment discharge”)

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, nec-

essary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This also is called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Bottom material (See “Bed material”)

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada’s first order level network in 1928.

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } 4/3 \pi r^3 \quad \text{cone } 1/3 \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

π (π) is the ratio of the circumference to the diameter of a circle; $\pi = 3.14159\dots$

From cell volume, total algal biomass expressed as biovolume ($\mu\text{m}^3/\text{mL}$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

Clostridium perfringens (*C. perfringens*) is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

Contents is the volume of water in a reservoir or lake.

Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, $[(\text{ft}^3/\text{s})/\text{d}]$) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, $(\text{ft}^3/\text{s})/\text{mi}^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

Daily record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data usually are downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms (*Bacillariophyta*) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/ cm^2) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO_3) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n},$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth’s surface that contains a drainage system with a common outlet for its surface runoff. (See “Drainage area”)

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sedi-

ment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also “Ash mass,” “Biomass,” and “Wet mass”)

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also “Wet weight”)

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also “Substrate embeddedness class”)

Enterococcus bacteria commonly are found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis*, *Streptococcus feacium*, *Streptococcus avium*, and their variants. (See also “Bacteria”)

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that generally are considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli (*E. coli*) are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an E code will be reported with the value. If the analyte is identified qualitatively as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an E code even though the measured value is greater than the MDL. A value reported with an E code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL pre-

ceded by a less than sign (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

Euglenoids (*Euglenophyta*) are a group of algae that usually are free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also “Phytoplankton”)

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Filtered pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

Filtered, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also “Phytoplankton”)

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is exceeded. For example, the 90th percentile of river flow is the streamflow exceeded 90 percent of the time in the period of interest.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae (*Chlorophyta*) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA Web site:
<http://www.csc.noaa.gov/text/glossary.html> (see “High water”)

Hilsenhoff’s Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \sum \frac{(n)(a)}{N},$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected

as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

Inch (IN., in.), in reference to streamflow, as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-

sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-\lambda L},$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_o}.$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike-sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. See NOAA Website: <http://www.csc.noaa.gov/text/glossary.html> (see “Low water”)

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Method code is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

Methylene blue active substances (MBAS) indicate the presence of detergents (anionic surfactants). The determination depends on the formation of a blue color when

methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, $\mu\text{g/kg}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, $\mu\text{S/cm}$) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. See NOAA Web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88> (See "North American Vertical Datum of 1988")

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also "Substrate")

Nekton are the consumers in the aquatic environment and consist of large, free-swimming organisms that are capable of sustained, directed mobility.

Nonfilterable refers to the portion of the total residue retained by a filter.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or volatile mass of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also “Ash mass,” “Biomass,” and “Dry mass”)

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or percent of total is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measure-

ments are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed “acidic,” and solutions with a pH greater than 7.0 are termed “basic.” Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They usually are microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and commonly are known as algae. (See also “Plankton”)

Picocurie (PC, pCi) is one-trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene com-

pounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [$\text{mg C}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg C}/(\text{m}^3/\text{time})$] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [$\text{mg O}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg O}/(\text{m}^3/\text{time})$] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable is the amount of a given constituent that is in solution after a representative water sample has been extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also "Bed material")

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms "return period" and "recurrence interval" do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See "Recurrence interval")

Rifle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged ("runs off") from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also "Annual runoff")

Salinity is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Seawater has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as "fluvial sediment." Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

Stage-discharge relation is the relation between the water-surface elevation, termed stage (gage height), and the volume of water flowing in a channel per unit time.

Streamflow is the discharge that occurs in a natural channel. Although the term “discharge” can be applied to the flow of a canal, the word “streamflow” uniquely describes the discharge in a surface stream course. The term “streamflow” is more general than “runoff” as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2 mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

Suspended is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different proce-

dures are likely to produce different analytical results. (See also “Suspended”)

Suspended sediment is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (See also “Sediment”)

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also “Sediment”)

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as “suspended, total.” Determinations of “suspended, total” constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream

section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric ton per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also "Bacteria")

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total length (fish) is the straight-line distance from the anterior point of a fish specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also "Organism count/volume")

Total recoverable is the amount of a given constituent in a whole-water sample after a sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also "Bedload," "Bedload discharge," "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also "Sediment," "Suspended-sediment load," and "Total load")

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889-00 Standard test method for turbidity of water, *in* ASTM International,

Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400-680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780-900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

NTU (Nephelometric Turbidity Units): white or broadband [400-680 nm] light source, 90 degree detection angle, one detector.

NTRU (Nephelometric Turbidity Ratio Units): white or broadband [400-680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

BU (Backscatter Units): white or broadband [400-680 nm] light source, 30 15 degree detection angle (backscatter).

AU (Attenuation Units): white or broadband [400-680 nm] light source, 180 degree detection angle (attenuation).

NTMU (Nephelometric Turbidity Multibeam Units): white or broadband [400-680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

FNU (Formazin Nephelometric Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, one detector.

FNRU (Formazin Nephelometric Ratio Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

FBU (Formazin Backscatter Units): near infrared [780-900 nm] or monochrome light source, 30 15 degree detection angle.

FAU (Formazin Attenuation Units): near infrared [780-900 nm] light source, 180 degree detection angle.

FNMU (Formazin Nephelometric Multibeam Units): near infrared [780-900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See "Water-table aquifer")

Unfiltered pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

Unfiltered, recoverable is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Vertical datum (See "Datum")

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and, subsequently, analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They often are components of fuels, solvents, hydraulic fluids, paint thinners, and dry-cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human-health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

WDR is used as an abbreviation for “Water-Data Report” in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for “Water-Resources Data” in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also “Plankton”)

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The U.S.G.S. publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S.G.S., Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be made in the form of a check or money order payable to the “U.S. Geological Survey.” Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and mention the “U.S. Geological Survey Techniques of Water-Resources Investigations.”

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

- 1–D1. *Water temperature—influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS–TWRI book 1, chap. D1. 1975. 65 p.
- 1–D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 p.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

- 2–D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 p.
- 2–D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

- 2–E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 p.

- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS-TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS-TWRI book 2, chap. F1. 1989. 97 p.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS-TWRI book 3, chap. A1. 1967. 30 p.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS-TWRI book 3, chap. A2. 1967. 12 p.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS-TWRI book 3, chap. A3. 1968. 60 p.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 p.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS-TWRI book 3, chap. A5. 1967. 29 p.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS-TWRI book 3, chap. A6. 1968. 13 p.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A7. 1968. 28 p.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A8. 1969. 65 p.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS-TWRI book 3, chap. A9. 1989. 27 p.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS-TWRI book 3, chap. A10. 1984. 59 p.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS-TWRI book 3, chap. A11. 1969. 22 p.

- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS-TWRI book 3, chap. A12. 1986. 34 p.

- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS-TWRI book 3, chap. A13. 1983. 53 p.

- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS-TWRI book 3, chap. A14. 1983. 46 p.

- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS-TWRI book 3, chap. A15. 1984. 48 p.

- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS-TWRI book 3, chap. A16. 1985. 52 p.

- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS-TWRI book 3, chap. A17. 1985. 38 p.

- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS-TWRI book 3, chap. A18. 1989. 52 p.

- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS-TWRI book 3, chap. A19. 1990. 31 p.

- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS-TWRI book 3, chap. A20. 1993. 38 p.

- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS-TWRI book 3, chap. A21. 1995. 56 p.

Section B. Ground-Water Techniques

- 3B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS-TWRI book 3, chap. B1. 1971. 26 p.

- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS-TWRI book 3, chap. B2. 1976. 172 p.

- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS-TWRI book 3, chap. B3. 1980. 106 p.

- 3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS-TWRI book 3, chap. B4. 1990. 232 p.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow -- Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS-TWRI book 3, chap. B4. 1993. 8 p.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS-TWRI book 3, chap. B5. 1987. 15 p.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS-TWRI book 3, chap. B6. 1987. 28 p.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS-TWRI book 3, chap. B7. 1992. 190 p.
- 3-B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS-TWRI book 3, chap. B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS-TWRI book 3, chap. C1. 1970. 55 p.
- 3-C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS-TWRI book 3, chap. C2. 1999. 89 p.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS-TWRI book 3, chap. C3. 1972. 66 p.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

- 4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS-TWRI book 4, chap. A1. 1968. 39 p.
- 4-A2. *Frequency curves*, by H.C. Riggs: USGS-TWRI book 4, chap. A2. 1968. 15 p.
- 4-A3. *Statistical methods in water resources*, by D.R. Helsel and R.M. Hirsch: USGS-TWRI book 4, chap. A3. 1991. Available only online at <http://water.usgs.gov/pubs/twri/twri4a3/>. (Accessed August 30, 2002.)

Section B. Surface Water

- 4-B1. *Low-flow investigations*, by H.C. Riggs: USGS-TWRI book 4, chap. B1. 1972. 18 p.
- 4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS-TWRI book 4, chap. B2. 1973. 20 p.
- 4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS-TWRI book 4, chap. B3. 1973. 15 p.

Section D. Interrelated Phases of the Hydrologic Cycle

- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS-TWRI book 4, chap. D1. 1970. 17 p.

Book 5. Laboratory Analysis

Section A. Water Analysis

- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS-TWRI book 5, chap. A1. 1989. 545 p.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS-TWRI book 5, chap. A2. 1971. 31 p.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS-TWRI book 5, chap. A3. 1987. 80 p.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS-TWRI book 5, chap. A4. 1989. 363 p.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS-TWRI book 5, chap. A5. 1977. 95 p.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS-TWRI book 5, chap. A6. 1982. 181 p.

Section C. Sediment Analysis

- 5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS-TWRI book 5, chap. C1. 1969. 58 p.

Book 6. Modeling Techniques

Section A. Ground Water

- 6–A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 p.
- 6–A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 p.
- 6–A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 p.
- 6–A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 p.
- 6–A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS–TWRI book 6, chap. A5, 1993. 243 p.
- 6–A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI book 6, chap. A5, 1996. 125 p.
- 6–A7. *User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow*, by Weixing Guo and Christian D. Langevin: USGS–TWRI book 6, chap. A7, 2002. 77 p.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

- 7–C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 p.
- 7–C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI book 7, chap. C2. 1978. 90 p.
- 7–C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek,

R.A. Baltzer, and D.E. Goldberg: USGS–TWRI book 7, chap. C3. 1981. 110 p.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

- 8–A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 p.
- 8–A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

Section B. Instruments for Measurement of Discharge

- 8–B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

- 9–A1. *National field manual for the collection of water-quality data: Preparations for water sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.
- 9–A2. *National field manual for the collection of water-quality data: Selection of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.
- 9–A3. *National field manual for the collection of water-quality data: Cleaning of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.
- 9–A4. *National field manual for the collection of water-quality data: Collection of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.
- 9–A5. *National field manual for the collection of water-quality data: Processing of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999. 149 p.
- 9–A6. *National field manual for the collection of water-quality data: Field measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Various paginated.

- 9–A7. *National field manual for the collection of water-quality data: Biological indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Various paginated.
- 9–A8. *National field manual for the collection of water-quality data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 p.
- 9–A9. *National field manual for the collection of water-quality data: Safety in field activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 p.

Figure 2.--Locations of continuous surface-water stations for water-year 2005

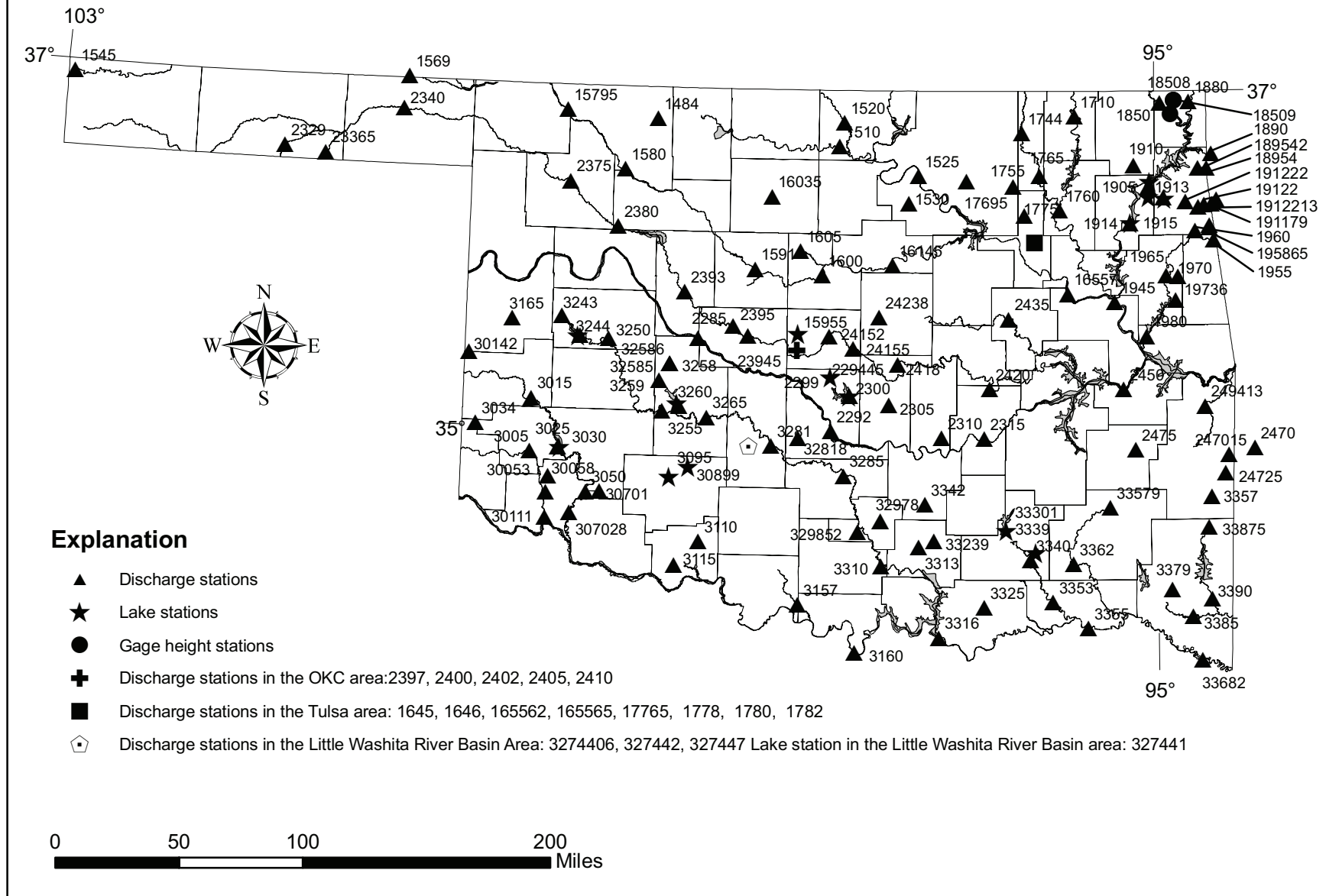
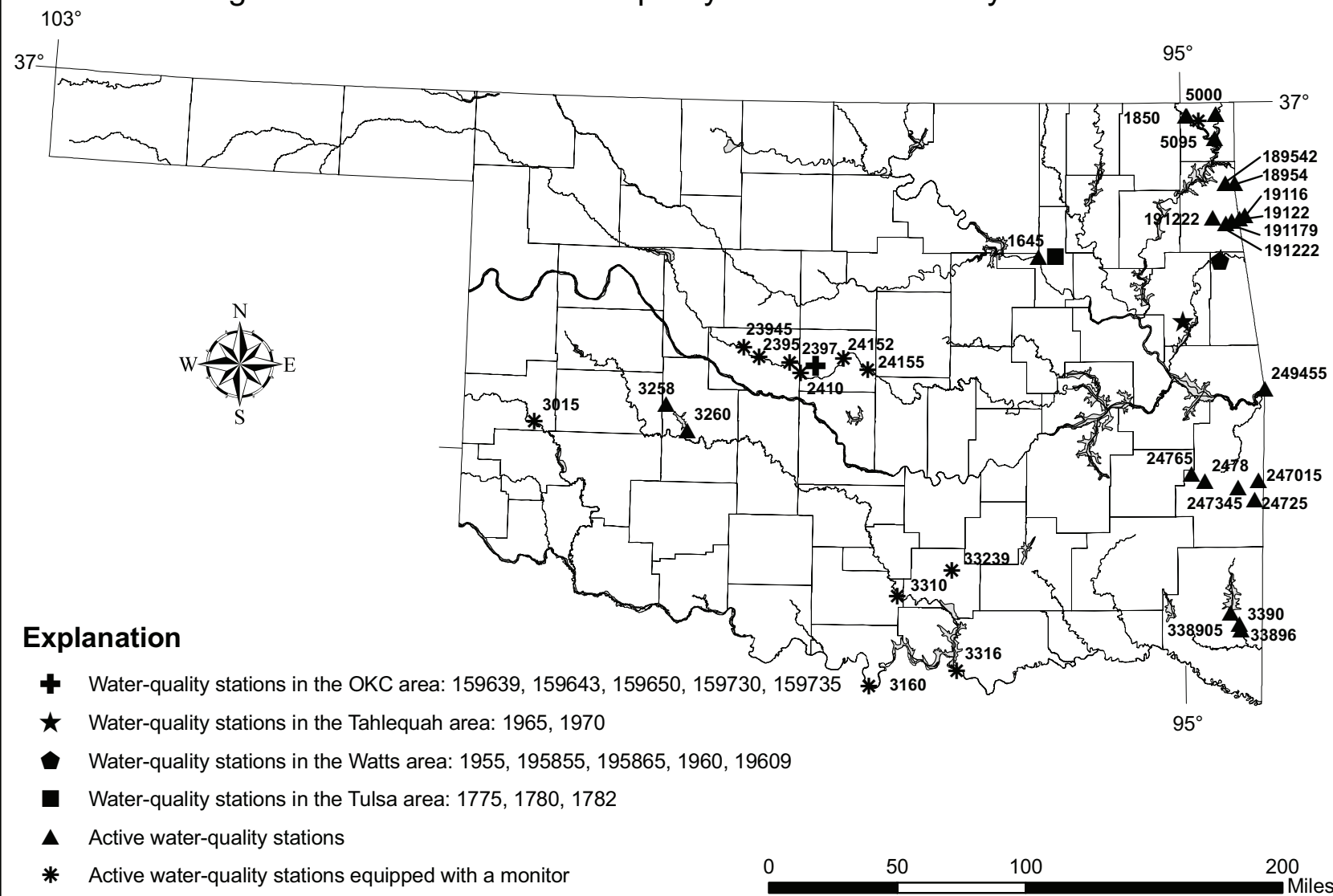
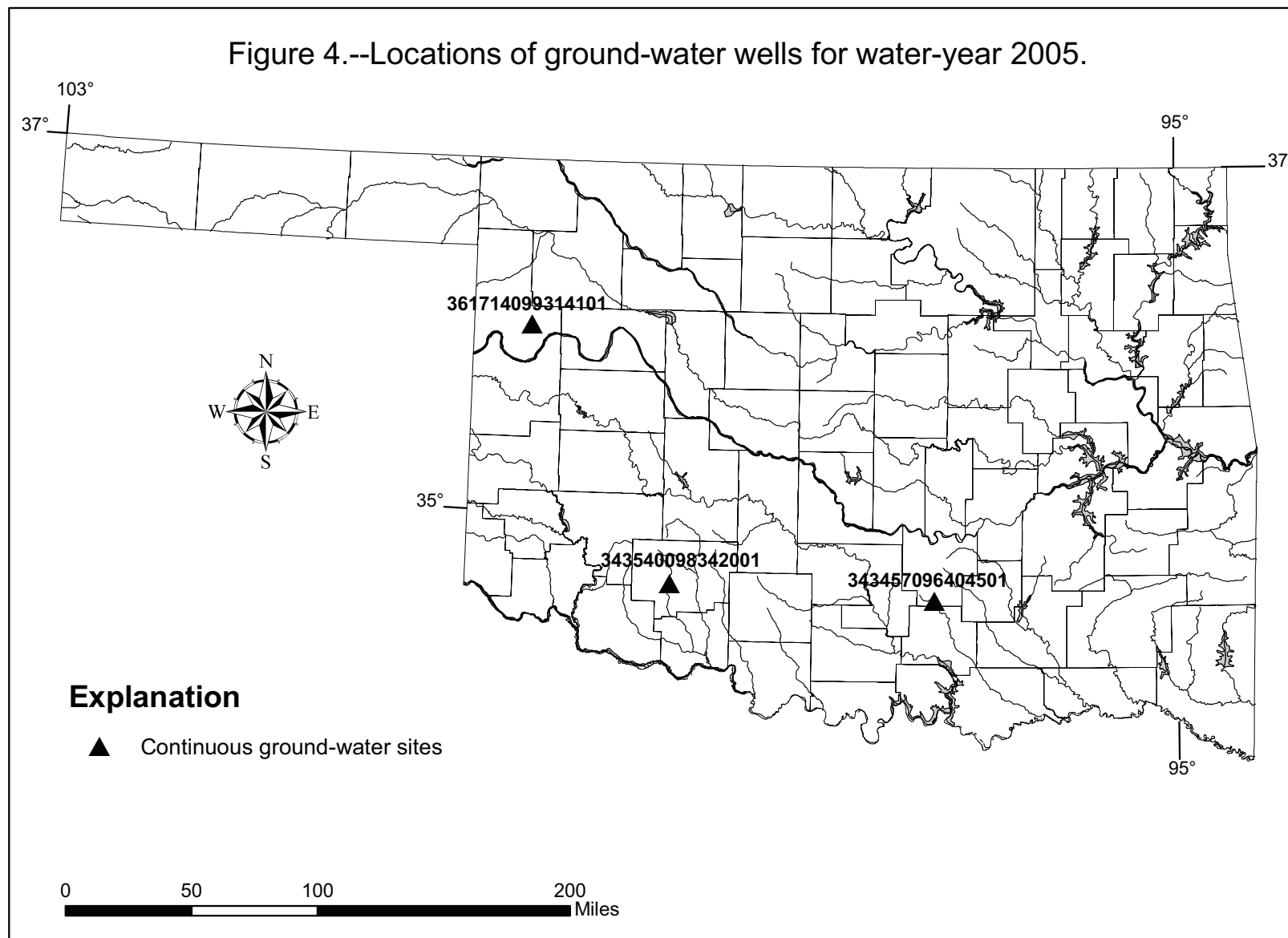


Figure 3.--Locations of water-quality stations for water-year 2005.





07148400 SALT FORK ARKANSAS RIVER NEAR ALVA, OK

LOCATION.--Lat 36°48'54", long 98°38'52", in SW ¼ SW ¼ sec.18, T.27 N., R.13 W., Woods County, Hydrologic Unit 11060002, at bridge on U.S. Highway 281, 1.0 mi northeast of Alva, 23.0 mi upstream from Medicine Lodge River, and at mile 141.0.

DRAINAGE AREA.--1,009 mi².

PERIOD OF RECORD.--April 1904 to December 1905 (gage heights only), October 1937 to September 1951, monthly discharge only for some periods, published in WSP 1311. Occasional low-flow measurements water years 1952-54, 1977-79. October 1979 to current year.

GAGE.--Water stage recorder. Datum of gage is 1,292.04 ft above NGVD of 1929. April 1904 to December 1905, chain gage at site 0.8 mi upstream at different datum, and February 1938 to September 1951, water stage recorder at present site and at datum 5.00 ft higher.

REMARKS.--Records fair. U.S. Army Corps of Engineers telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 13	0500	*4,070	*11.81				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	16	78	49	154	108	83	83	110	75	11	30
2	2.8	21	74	49	161	99	84	82	81	58	11	24
3	2.7	22	75	50	149	101	83	81	65	54	10	21
4	2.7	22	73	154	135	97	80	75	51	130	10	19
5	2.6	21	75	688	124	101	77	71	44	129	9.4	17
6	4.2	23	77	e180	130	100	81	72	46	155	8.9	14
7	4.5	26	74	e120	197	103	79	69	41	136	7.9	14
8	4.4	24	69	e140	169	99	86	66	33	110	7.5	15
9	5.1	22	65	e170	156	99	87	62	28	105	6.8	13
10	4.9	54	60	225	148	98	90	57	60	89	6.6	11
11	18	170	50	188	146	96	88	51	79	77	6.2	10
12	25	71	44	165	143	95	84	47	1,020	69	6.2	9.7
13	22	50	44	158	144	92	80	45	2,850	72	7.1	8.7
14	15	45	42	128	142	86	79	49	1,100	65	15	8.9
15	11	44	41	e88	134	84	76	67	521	58	12	15
16	9.4	43	40	e55	121	86	74	60	396	49	9.2	6.8
17	8.6	63	40	e60	108	86	72	53	1,580	43	9.1	6.4
18	8.5	159	38	e90	105	85	71	48	474	37	6.8	6.1
19	9.0	167	38	e100	110	86	71	46	301	38	5.3	5.6
20	10	107	39	119	122	84	74	43	235	34	38	5.7
21	12	107	38	127	129	87	86	40	198	29	88	5.3
22	12	98	40	110	127	97	143	35	167	26	114	4.6
23	12	94	e28	99	139	114	165	31	146	22	273	4.4
24	11	241	e20	96	160	122	125	29	130	18	266	4.4
25	10	183	e25	97	150	118	108	28	118	16	193	4.6
26	13	135	e36	96	137	110	97	31	105	20	116	4.4
27	24	115	52	86	126	105	89	29	92	17	89	4.5
28	24	95	62	88	117	105	82	26	78	15	69	4.3
29	20	89	53	99	---	103	77	23	65	13	68	4.6
30	16	84	56	108	---	97	76	20	59	13	66	4.7
31	16	---	52	122	---	89	---	110	---	13	39	---
TOTAL	343.2	2,411	1,598	4,104	3,883	3,032	2,647	1,629	10,273	1,785	1,585.0	306.7
MEAN	11.1	80.4	51.5	132	139	97.8	88.2	52.5	342	57.6	51.1	10.2
MAX	25	241	78	688	197	122	165	110	2,850	155	273	30
MIN	2.6	16	20	49	105	84	71	20	28	13	5.3	4.3
AC-FT	681	4,780	3,170	8,140	7,700	6,010	5,250	3,230	20,380	3,540	3,140	608

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY)

MEAN	112	101	72.7	82.4	101	200	200	248	237	115	89.5	68.3
MAX	620	542	251	269	227	822	620	856	689	411	598	557
(WY)	(1986)	(1999)	(1997)	(1998)	(1987)	(1987)	(1999)	(1993)	(1989)	(1982)	(1996)	(1996)
MIN	2.35	0.95	14.8	15.3	17.4	29.2	22.5	27.1	31.3	5.17	2.66	0.94
(WY)	(1992)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1992)	(1994)	(1984)	(1980)	(1980)

e Estimated

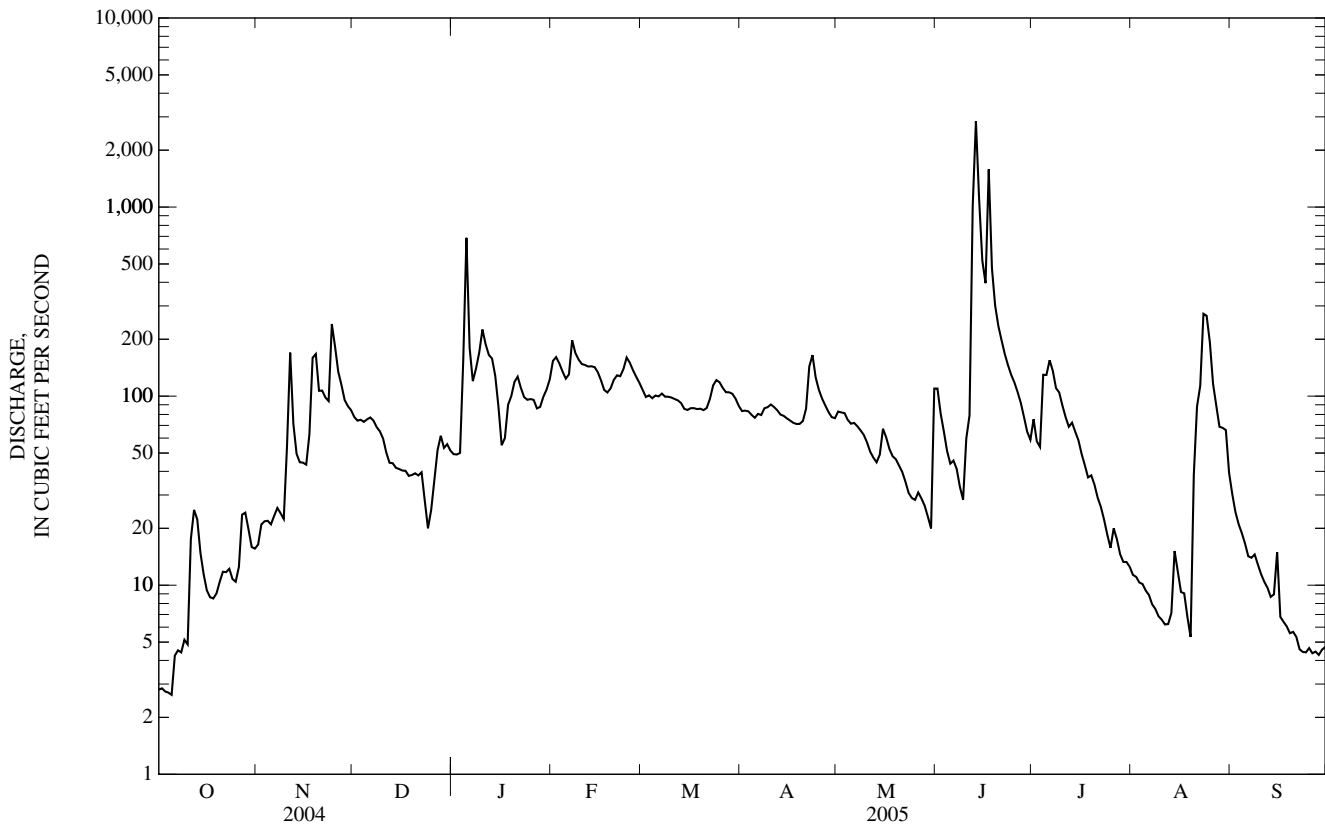
07148400 SALT FORK ARKANSAS RIVER NEAR ALVA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1980 - 2005	
ANNUAL TOTAL	31,529.9		33,596.9		a136	
ANNUAL MEAN	86.1		92.0		295	
HIGHEST ANNUAL MEAN					40.5	
LOWEST ANNUAL MEAN					7,880	
HIGHEST DAILY MEAN	3,730	Mar 5	2,850	Jun 13	1999	1994
LOWEST DAILY MEAN	1.2	Sep 19,20	2.6	Oct 5	Mar 24, 1987	Aug 24, 1984
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 14	3.2	Oct 1	Aug 18, 1984	Oct 10, 1985
MAXIMUM PEAK FLOW			4,070	Jun 13	15.24	Oct 10, 1985
MAXIMUM PEAK STAGE			11.81	Jun 13	98,350	
ANNUAL RUNOFF (AC-FT)	62,540		66,640		282	
10 PERCENT EXCEEDS	172		149		66	
50 PERCENT EXCEEDS	47		69		6.6	
90 PERCENT EXCEEDS	3.5		8.7			

a Average discharge, water years 1938-51, 158 ft³/s.

b No flow in several years 1939-48.

c Maximum discharge for period of record 27,000 ft³/s, Oct. 23, 1941, from rating curve extended above 13,000 ft³/s.



07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK

LOCATION.--Lat 36°40'19", long 97°18'33", in NW ¼ SE ¼ sec.4, T.25 N., R.1 W., Kay County, Hydrologic Unit 11060004, on left bank near end of bridge on U.S. Highway 77 in Tonkawa, 4 mi downstream from Thompson Creek, 7.8 mi upstream from Chikaskia River, and at mile 33.8.

DRAINAGE AREA.--4,528 mi², of which 8 mi² is probably noncontributing.

PERIOD OF RECORD.--September 1903 to October 1905 (gage heights only), October 1935 to current year. Monthly discharge only for some periods, published as Arkansas River (Salt Fork) near Tonkawa 1903-4 and as "near Tonkawa" 1905.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 930.22 ft above NGVD of 1929. September 1903 to October 1905, nonrecording gage near present site at different datum. Jan. 2, 1936 to Jan. 22, 1939, nonrecording gage, and Jan. 23, 1939 to June 20, 1960, water-stage recorder at site 100 ft upstream at same datum.

REMARKS.--Records good. Some regulation since June 1941 by Great Salt Plains Lake, 69.5 mi upstream (station 07150000). U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 10, 1923, reached a stage of 26.8 ft, from information by U.S. Army Corps of Engineers.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 5	2300	*11,600	*16.17				
						No other peak greater than base discharge.	

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	174	652	352	986	731	565	339	146	720	85	666
2	60	141	658	317	1,030	700	368	373	144	608	79	567
3	59	289	588	319	1,000	658	413	350	221	594	76	481
4	58	602	558	385	927	641	410	350	221	851	74	404
5	58	618	533	e8,000	837	628	410	358	201	931	73	351
6	60	467	512	9,600	872	616	387	350	254	1,100	73	297
7	72	322	553	6,120	1,260	568	408	323	248	1,310	86	250
8	78	240	626	4,800	1,550	633	423	322	198	957	111	217
9	77	190	601	3,560	1,410	562	460	292	239	731	91	198
10	79	209	525	3,910	1,120	514	e380	288	194	603	79	190
11	156	2,050	491	4,530	995	484	e337	301	432	510	76	178
12	397	2,380	479	3,460	937	467	304	275	1,820	500	73	161
13	485	1,650	413	2,880	910	485	454	280	5,150	508	78	145
14	338	1,000	380	2,610	991	427	426	265	5,010	496	88	135
15	221	660	382	2,120	1,050	374	313	287	4,790	369	102	162
16	148	508	358	e1,800	932	429	290	262	4,770	376	99	241
17	116	664	362	e1,500	787	414	295	231	4,840	331	92	670
18	100	1,690	349	e1,200	719	424	313	231	4,620	285	93	308
19	90	2,840	343	1,040	722	452	308	224	4,170	267	83	209
20	85	1,920	341	990	692	399	328	212	3,730	245	79	180
21	81	1,680	320	1,030	752	408	290	200	3,320	230	135	169
22	79	2,620	303	1,040	754	450	277	196	2,910	229	249	148
23	77	1,660	e295	997	706	663	278	183	2,500	209	3,260	129
24	75	3,670	e290	875	670	848	324	181	2,100	177	5,910	128
25	73	5,240	e285	811	758	641	328	135	1,750	156	5,950	118
26	77	3,390	e280	760	970	600	377	137	1,480	139	2,590	104
27	85	1,940	e285	734	836	580	404	137	1,240	131	1,520	98
28	114	1,170	e290	694	764	535	446	140	1,060	136	1,200	93
29	360	860	302	675	---	559	384	141	913	112	2,180	92
30	268	685	309	740	---	537	332	155	772	97	1,520	92
31	181	---	306	865	---	549	---	146	---	90	857	---
TOTAL	4,269	41,529	12,969	68,714	25,937	16,976	11,032	7,664	59,443	13,998	27,061	7,181
MEAN	138	1,384	418	2,217	926	548	368	247	1,981	452	873	239
MAX	485	5,240	658	9,600	1,550	848	565	373	5,150	1,310	5,950	670
MIN	58	141	280	317	670	374	277	135	144	90	73	92
AC-FT	8,470	82,370	25,720	136,300	51,450	33,670	21,880	15,200	117,900	27,770	53,680	14,240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2005, BY WATER YEAR (WY)

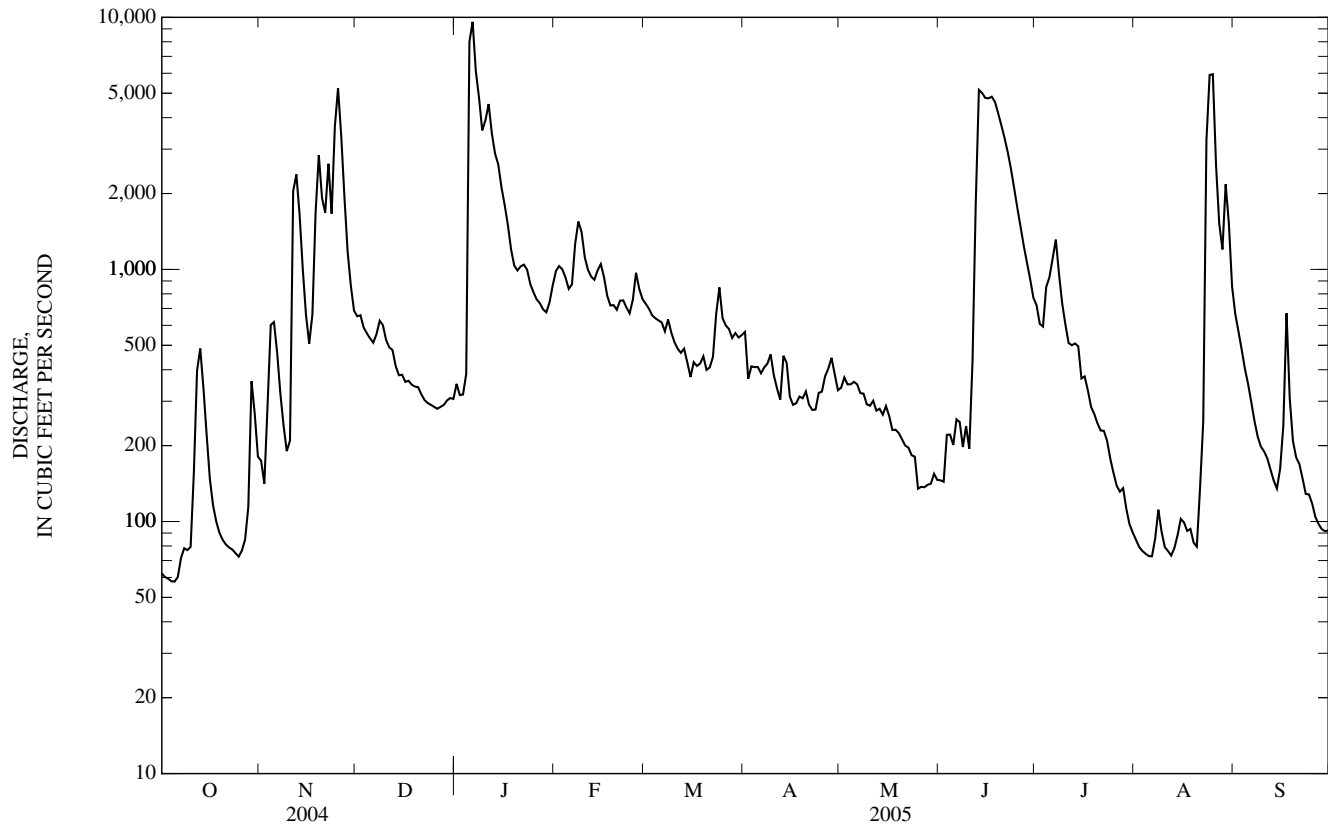
MEAN	925	826	435	434	614	1,168	1,344	1,682	1,598	948	680	625
MAX	9,412	9,203	2,129	2,217	5,171	6,455	7,916	12,770	8,379	8,821	6,157	3,448
(WY)	(1987)	(1999)	(1998)	(2005)	(1949)	(2000)	(1973)	(1993)	(1995)	(1951)	(1995)	(1949)
MIN	0.64	4.82	3.56	7.52	10.9	10.6	13.6	8.78	7.92	5.69	5.50	0.00
(WY)	(1957)	(1955)	(1955)	(1957)	(1957)	(1955)	(1955)	(1956)	(1956)	(1954)	(1956)	(1956)

e Estimated

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1942 - 2005	
ANNUAL TOTAL	358,319		296,773		941	
ANNUAL MEAN	979		813		95.5	
HIGHEST ANNUAL MEAN					3,717	
LOWEST ANNUAL MEAN					1999	
HIGHEST DAILY MEAN	16,900	Mar 5	9,600	Jan 6	57,800	Oct 12, 1973
LOWEST DAILY MEAN	58	Oct 4,5	58	Oct 4,5	a0.00	Aug 31, 1956
ANNUAL SEVEN-DAY MINIMUM	60	Sep 30	61	Oct 1	0.00	Aug 31, 1956
MAXIMUM PEAK FLOW			11,600	Jan 5	97,300	Oct 11, 1973
MAXIMUM PEAK STAGE			16.17	Jan 5	28.98	Oct 11, 1973
ANNUAL RUNOFF (AC-FT)	710,700		588,600		681,500	
10 PERCENT EXCEEDS	2,270		1,930		2,170	
50 PERCENT EXCEEDS	432		387		278	
90 PERCENT EXCEEDS	81		92		37	

a Also occurred Sept. 12, 14-16, 1956.



07152000 CHIKASKIA RIVER NEAR BLACKWELL, OK

LOCATION.--Lat 36°48'41", long 97°16'37", in NE ¼ NW ¼ sec.23, T.27 N., R.1 W., Kay County Hydrologic Unit 11060005, near left bank on downstream side of State Highway 11 bridge at northeast edge of Blackwell, 0.1 mi downstream from Bitter Creek, and at mile 28.3.

DRAINAGE AREA.--1,859 mi².

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 967.41 ft above NGVD of 1929. See WSP 1921 for history of changes prior to April, 1952.

REMARKS.--Records fair. Some regulation at low flow by Lake Blackwell, capacity 3,600 acre-ft, 12.6 mi upstream from station. Small diversion made from reservoir for municipal supply of city of Blackwell. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 10, 1923, reached a stage of about 34 ft, present site and datum, from information provided by local residents, discharge 100,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 5	1730	19,500	29.78	Jul 5	1330	*23,100	*30.78
Jun 12	0700	12,800	25.57				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	187	308	245	1,030	501	400	266	235	199	137	436
2	74	176	300	243	1,160	474	376	253	184	203	128	324
3	72	194	289	238	715	448	360	242	160	186	120	270
4	74	323	282	813	544	429	344	235	367	6,420	109	237
5	76	643	281	15,300	481	414	338	232	710	19,700	112	215
6	81	318	354	e9,040	615	400	339	231	511	5,380	153	199
7	92	224	417	2,120	1,840	390	341	232	327	1,570	299	184
8	101	198	369	1,040	1,480	374	e327	236	231	971	217	172
9	114	179	325	934	931	369	e324	232	190	736	167	164
10	124	215	297	1,670	696	360	e321	221	184	586	155	154
11	213	3,260	277	2,360	608	349	e323	211	3,550	492	137	145
12	337	2,510	269	1,530	563	346	316	201	11,000	422	119	138
13	258	579	261	1,410	604	335	324	208	6,730	518	116	148
14	212	312	251	1,270	776	331	345	221	8,650	555	136	156
15	176	247	242	e690	766	329	321	233	2,540	418	569	695
16	146	228	241	e450	562	326	297	236	2,190	344	503	690
17	132	342	245	e420	488	321	288	217	4,180	302	296	298
18	126	1,700	246	e450	447	321	281	199	1,680	275	223	199
19	122	1,570	243	641	441	315	277	197	872	252	544	170
20	122	760	239	1,210	457	310	275	188	618	241	399	151
21	121	689	239	1,190	482	353	274	181	500	227	245	135
22	129	845	240	870	477	709	283	170	419	213	305	122
23	139	585	e190	604	488	1,650	304	153	358	199	1,020	119
24	136	4,780	e150	478	1,770	1,610	302	147	317	182	4,770	110
25	135	3,180	e152	437	1,290	878	274	143	285	172	5,880	104
26	135	972	195	427	778	648	264	138	261	164	2,520	100
27	140	581	235	405	601	553	258	137	240	155	953	97
28	158	434	292	398	536	495	264	140	217	156	691	99
29	538	364	292	413	---	461	263	133	200	154	930	91
30	274	329	263	482	---	436	266	125	189	154	1,220	92
31	210	---	252	658	---	414	---	133	---	147	693	---
TOTAL	4,844	26,924	8,236	48,436	21,626	15,649	9,269	6,091	48,095	41,693	23,866	6,214
MEAN	156	897	266	1,562	772	505	309	196	1,603	1,345	770	207
MAX	538	4,780	417	15,300	1,840	1,650	400	266	11,000	19,700	5,880	695
MIN	72	176	150	238	441	310	258	125	160	147	109	91
AC-FT	9,610	53,400	16,340	96,070	42,900	31,040	18,390	12,080	95,400	82,700	47,340	12,330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2005, BY WATER YEAR (WY)

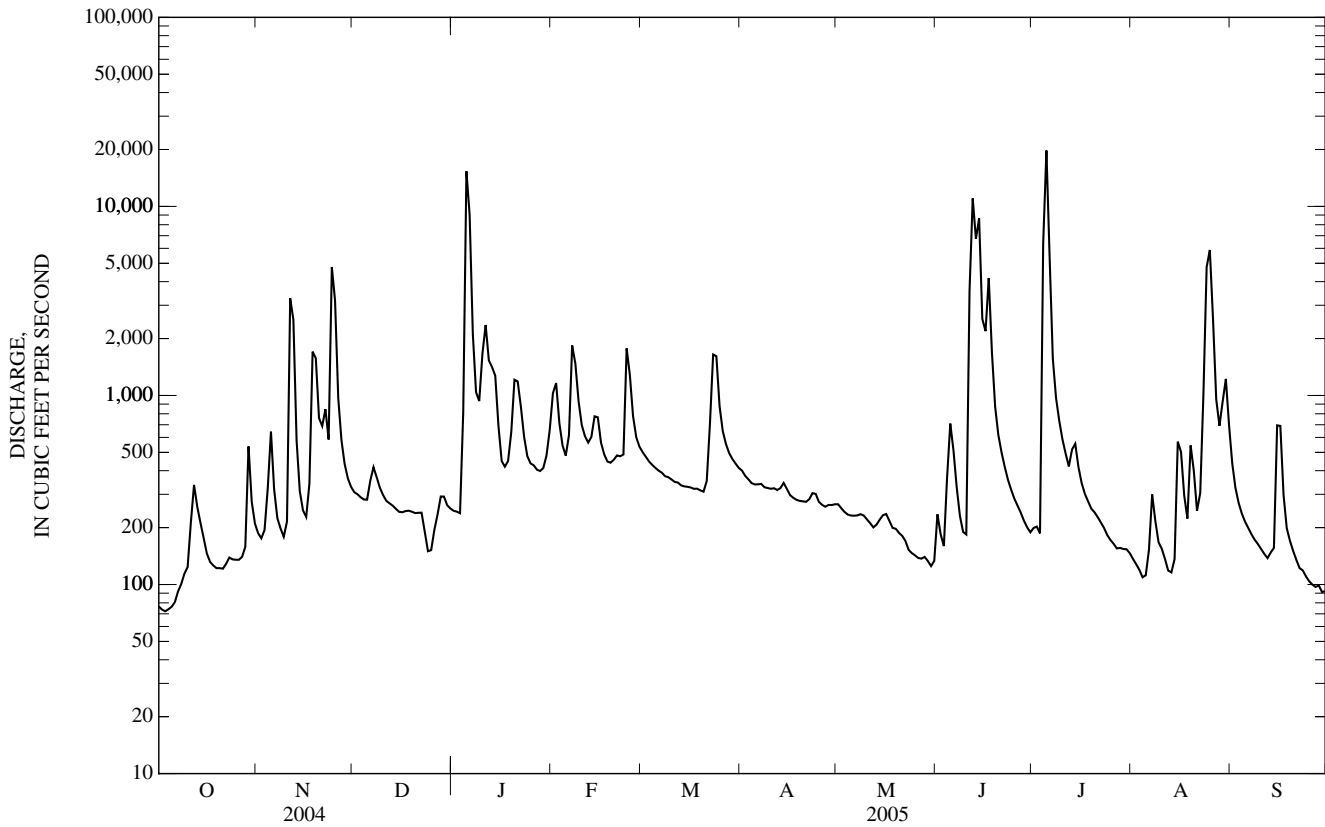
MEAN	577	522	279	273	402	770	816	1,051	1,087	566	347	467
MAX	5,244	5,880	1,649	1,659	3,732	5,342	4,748	8,589	5,093	5,129	2,467	3,395
(WY)	(1960)	(1999)	(1945)	(1949)	(1949)	(2000)	(1944)	(1993)	(1951)	(1951)	(1995)	(1973)
MIN	0.90	1.08	1.34	4.35	10.3	30.7	29.4	27.1	26.1	6.17	0.55	0.64
(WY)	(1957)	(1955)	(1955)	(1957)	(1957)	(1957)	(1955)	(1956)	(1972)	(1954)	(1936)	(1956)

e Estimated

07152000 CHIKASKIA RIVER NEAR BLACKWELL, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1936 - 2005	
ANNUAL TOTAL	346,702		260,943		601	
ANNUAL MEAN	947		715		1,993	
HIGHEST ANNUAL MEAN					71.0	
LOWEST ANNUAL MEAN					69,500	
HIGHEST DAILY MEAN	28,000	Mar 5	19,700	Jul 5	69,500	Jun 22, 1942
LOWEST DAILY MEAN	65	Sep 20	72	Oct 3	a0.00	Jul 18, 1954
ANNUAL SEVEN-DAY MINIMUM	67	Sep 16	78	Oct 1	0.00	Aug 12, 1954
MAXIMUM PEAK FLOW			23,100	Jul 5	85,000	Jun 22, 1942
MAXIMUM PEAK STAGE			30.78	Jul 5	34.40	Nov 1, 1998
ANNUAL RUNOFF (AC-FT)	687,700		517,600		435,100	
10 PERCENT EXCEEDS	1,690		1,210		920	
50 PERCENT EXCEEDS	344		300		152	
90 PERCENT EXCEEDS	121		135		26	

a No flow at times in 1954 and 1956.



07152500 ARKANSAS RIVER AT RALSTON, OK

LOCATION.--Lat 36°30'15", long 96°43'41", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.2, T.23 N., R.5 E., Pawnee County, Hydrologic Unit 11060006, on right upstream abutment of bridge on State Highway 18 at Ralston, 2 mi downstream from Salt Creek, 2 mi upstream from Grayhorse Creek, and at mile 594.0. Prior to Feb. 10, 1988, gage was near left bank on downstream side of pier of bridge.

DRAINAGE AREA.--54,465 mi², of which 7,615 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected in this vicinity since 1922 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 776.70 ft above NGVD of 1929. Oct. 1, 1925 to Nov. 13, 1935, nonrecording gage at site of former highway bridge 1,200 ft downstream at same datum. Nov. 14, 1935 to Feb. 23, 1939, nonrecording gage near left bank on downstream side of bridge at same datum. Feb. 24, 1939 to Feb. 10, 1988, gage was near left bank on downstream side of pier of bridge at same datum.

REMARKS.--Records fair. Flow regulated since April 1976 by Kaw Lake (station 07148130) 59.7 mi upstream; some regulation by Great Salt Plains Lake (station 07150000) since 1941. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 11, 1923, reached a stage of 23.8 ft, referred to outside gage on basis of stages observed in 1923 and 1944 at site 1,200 ft downstream.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	839	953	6,010	1,350	7,150	8,000	9,530	1,920	2,630	7,590	5,070	15,900
2	832	758	5,010	1,300	7,340	7,800	8,800	1,390	3,310	6,790	5,030	12,000
3	812	875	3,890	986	7,960	7,510	7,120	1,380	3,830	5,760	4,730	9,770
4	777	1,510	2,770	1,170	8,020	7,420	6,910	1,790	6,450	8,570	4,760	6,950
5	825	1,990	2,630	10,500	7,610	7,360	6,850	1,830	6,600	7,980	4,770	6,170
6	834	2,370	2,060	e22,900	8,130	7,300	5,090	1,600	9,290	17,900	4,800	6,350
7	933	2,410	2,620	e32,200	9,000	7,210	3,990	1,600	9,710	19,700	4,710	6,300
8	876	2,160	2,950	18,900	9,140	7,110	3,490	1,570	11,800	12,000	4,760	7,020
9	944	1,850	3,370	13,900	10,300	7,040	3,400	1,270	13,100	10,000	4,710	5,870
10	987	1,770	3,770	12,500	9,440	7,040	3,350	1,250	23,300	8,840	4,710	6,360
11	1,330	4,150	3,150	12,900	8,490	6,870	3,270	1,580	26,200	8,430	5,060	3,500
12	1,030	3,460	3,050	14,000	6,370	3,570	3,100	1,590	33,200	8,150	4,980	1,670
13	1,760	9,970	3,180	12,800	5,720	1,700	3,710	1,660	57,400	7,110	4,530	1,310
14	4,520	8,600	3,160	10,900	5,520	1,850	4,690	1,800	50,200	6,770	3,070	5,640
15	3,230	6,250	3,300	10,500	6,990	5,070	4,820	1,660	48,600	6,630	1,640	5,730
16	1,430	5,310	2,930	9,580	7,890	5,740	4,110	1,600	44,100	6,400	2,670	3,720
17	1,000	4,220	2,700	e8,470	7,820	4,550	2,770	1,960	42,800	6,200	6,370	2,810
18	782	3,140	2,110	e7,670	7,480	3,020	1,850	5,400	46,600	6,030	6,790	2,070
19	653	4,290	1,910	7,970	7,400	2,150	1,810	9,330	43,100	5,990	5,940	1,750
20	711	6,800	1,430	7,760	7,420	1,900	2,580	9,190	39,800	5,860	4,610	1,320
21	735	5,960	1,370	7,760	7,480	2,010	2,700	5,880	37,200	5,780	3,540	2,360
22	715	4,640	1,770	8,300	7,700	7,620	2,950	3,190	34,600	5,650	2,740	2,830
23	691	4,770	e1,920	8,220	8,460	5,630	2,870	2,030	27,200	5,660	4,620	3,700
24	666	6,270	e2,180	7,890	8,530	5,780	2,640	2,090	18,000	5,600	11,000	3,780
25	658	8,380	e2,000	7,580	8,430	11,500	2,510	6,280	13,000	5,530	20,100	2,800
26	702	14,400	1,840	7,390	9,450	13,200	2,810	12,900	11,600	5,340	28,100	1,000
27	746	12,100	1,390	7,280	8,900	12,600	2,610	8,280	11,100	5,250	30,700	770
28	755	8,910	1,380	7,250	8,350	12,400	2,500	6,240	10,500	5,310	28,100	637
29	738	5,850	1,090	5,930	---	12,300	2,470	4,510	9,780	5,270	27,200	664
30	713	6,400	1,350	5,370	---	12,100	2,360	2,720	8,010	5,190	29,500	2,520
31	748	---	1,370	6,660	---	11,200	---	1,890	---	4,940	24,000	---
TOTAL	32,972	150,516	79,660	297,886	222,490	216,550	117,660	107,380	703,010	232,220	303,310	133,271
MEAN	1,064	5,017	2,570	9,609	7,946	6,985	3,922	3,464	23,430	7,491	9,784	4,442
MAX	4,520	14,400	6,010	32,200	10,300	13,200	9,530	12,900	57,400	19,700	30,700	15,900
MIN	653	758	1,090	986	5,520	1,700	1,810	1,250	2,630	4,940	1,640	637
AC-FT	65,400	298,500	158,000	590,900	441,300	429,500	233,400	213,000	1,394,000	460,600	601,600	264,300

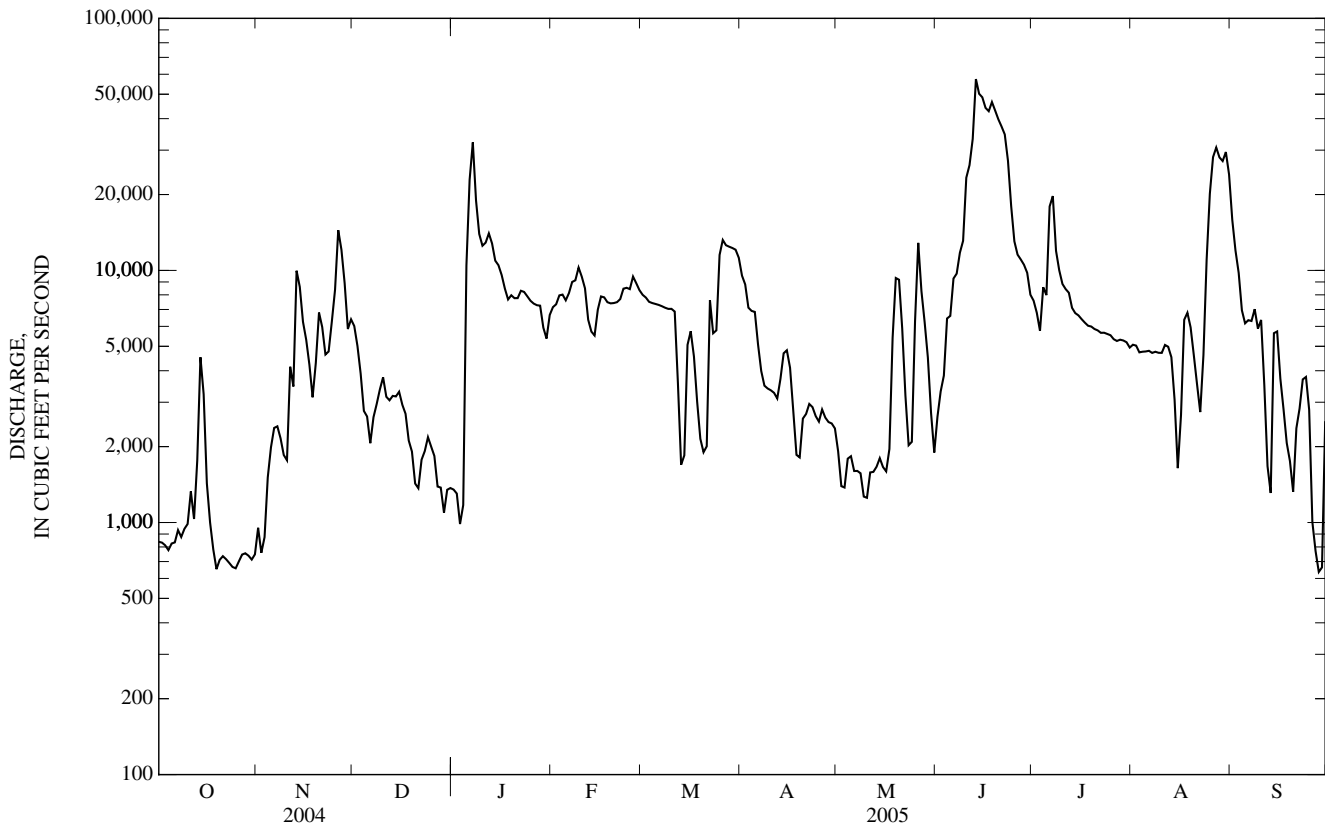
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

	MEAN	4,990	5,316	3,462	3,844	4,724	9,051	8,835	9,619	11,410	7,533	4,654	3,714
MAX	41,580	41,300	10,120	12,450	17,510	27,120	25,300	52,840	41,910	25,780	21,280	17,660	
(WY)	(1987)	(1999)	(2000)	(1993)	(1993)	(1987)	(1984)	(1993)	(1995)	(1999)	(1995)	(1989)	
MIN	161	251	453	500	487	402	305	2,001	2,139	908	390	205	
(WY)	(1992)	(1981)	(1983)	(1977)	(1981)	(1981)	(1981)	(1996)	(1988)	(1991)	(1978)	(1984)	

07152500 ARKANSAS RIVER AT RALSTON, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	2,601,742		2,596,925		a6,432	
ANNUAL MEAN	7,109		7,115		16,810	
HIGHEST ANNUAL MEAN					1,292	
LOWEST ANNUAL MEAN					170,000	
HIGHEST DAILY MEAN	46,200	Mar 10	57,400	Jun 13	Oct 4, 1986	
LOWEST DAILY MEAN	549	Sep 28	637	Sep 28	b52	Sep 18, 1978
ANNUAL SEVEN-DAY MINIMUM	690	Oct 19	690	Oct 19	103	Oct 19, 1991
MAXIMUM PEAK FLOW			61,500	Jun 13	c174,000	Oct 4, 1986
MAXIMUM PEAK STAGE			14.34	Jun 13	d22.20	Oct 4, 1986
ANNUAL RUNOFF (AC-FT)	5,161,000		5,151,000		4,660,000	
10 PERCENT EXCEEDS	15,700		12,800		15,800	
50 PERCENT EXCEEDS	4,320		5,250		3,140	
90 PERCENT EXCEEDS	941		1,220		525	

- a Prior to regulation by Kaw Lake, water years 1926-75, 4,826 ft³/s.
b Minimum daily discharge for period of record, 14 ft³/s, Oct. 12, 1956.
c Maximum for period of record, 211,000 ft³/s, Oct. 13, 1973.
d Maximum for period of record, 22.98 ft, Oct. 13, 1973.



07153000 BLACK BEAR CREEK AT PAWNEE, OK

LOCATION.--Lat 36°20'37", long 96°47'57", on east line of SE 1/4 NE 1/4 sec.31, T.22 N., R.5 E., Pawnee County, Hydrologic Unit 11060006, on downstream side of left pier of bridge on State Highway 18 in north Pawnee, 300 ft downstream from Skedee Creek, and at mile 23.4.

DRAINAGE AREA.--576 mi².

PERIOD OF RECORD.--July 1944 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 802.73 ft, NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Sept. 21, 1944, nonrecording gage at present site and datum; also Aug. 27, 1953 to Apr. 29, 1954, temporary nonrecording gage at site 500 ft downstream at same datum.

REMARKS.--Records good. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 19, 1943, reached a stage of 28.19 ft, from floodmark, discharge 17,800 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 5	2300	*4,180	*9.64				
						No other peak greater than base discharge.	

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	22	60	23	122	90	48	17	16	16	1.5	154
2	1.5	34	50	22	129	80	42	16	20	12	2.0	108
3	1.4	84	43	23	112	70	37	15	20	9.3	2.2	73
4	1.3	102	38	58	96	68	35	14	84	87	1.2	50
5	1.2	91	37	2,770	83	60	33	14	110	63	0.89	36
6	1.4	56	53	3,150	219	55	34	15	39	80	0.71	27
7	2.8	38	229	1,400	570	57	36	14	24	50	0.55	21
8	3.9	28	205	786	364	49	34	15	17	28	0.47	18
9	3.9	22	139	590	309	48	38	14	13	21	0.30	15
10	6.4	24	102	489	224	45	36	14	13	16	0.29	13
11	24	102	77	413	165	42	32	13	16	12	4.7	13
12	50	131	61	340	135	39	33	12	31	9.9	6.9	12
13	136	173	48	272	126	36	27	15	302	8.7	5.3	14
14	103	107	40	207	117	35	25	17	529	25	1.6	134
15	65	71	34	160	104	38	23	15	320	32	0.86	1,570
16	40	62	30	e110	87	39	21	52	237	16	30	769
17	27	54	27	e80	73	37	21	56	330	11	59	298
18	21	63	25	e83	64	43	20	39	907	8.7	41	180
19	17	548	25	e95	61	43	21	33	604	8.8	27	115
20	14	412	27	91	63	40	21	22	424	7.8	23	75
21	12	263	22	82	65	43	21	18	293	7.8	58	51
22	13	182	21	82	64	327	20	14	200	7.3	233	37
23	10	168	20	68	80	248	18	12	150	6.5	2,070	27
24	9.4	299	18	59	184	151	17	11	116	6.1	1,770	22
25	8.3	356	17	54	187	112	17	9.5	91	5.5	988	17
26	41	266	18	54	140	85	16	8.5	70	3.5	794	14
27	54	179	19	68	115	73	16	8.5	52	2.8	543	12
28	21	126	20	68	101	63	17	8.4	36	5.0	396	10
29	40	95	23	71	---	56	18	8.1	24	6.5	337	8.8
30	25	74	25	79	---	56	18	8.5	17	3.9	267	7.8
31	19	---	23	95	---	49	---	12	---	2.3	209	---
TOTAL	775.3	4,232	1,576	11,942	4,159	2,277	795	540.5	5,105	579.4	7,874.47	3,901.6
MEAN	25.0	141	50.8	385	149	73.5	26.5	17.4	170	18.7	254	130
MAX	136	548	229	3,150	570	327	48	56	907	87	2,070	1,570
MIN	1.2	22	17	22	61	35	16	8.1	13	2.3	0.29	7.8
AC-FT	1,540	8,390	3,130	23,690	8,250	4,520	1,580	1,070	10,130	1,150	15,620	7,740

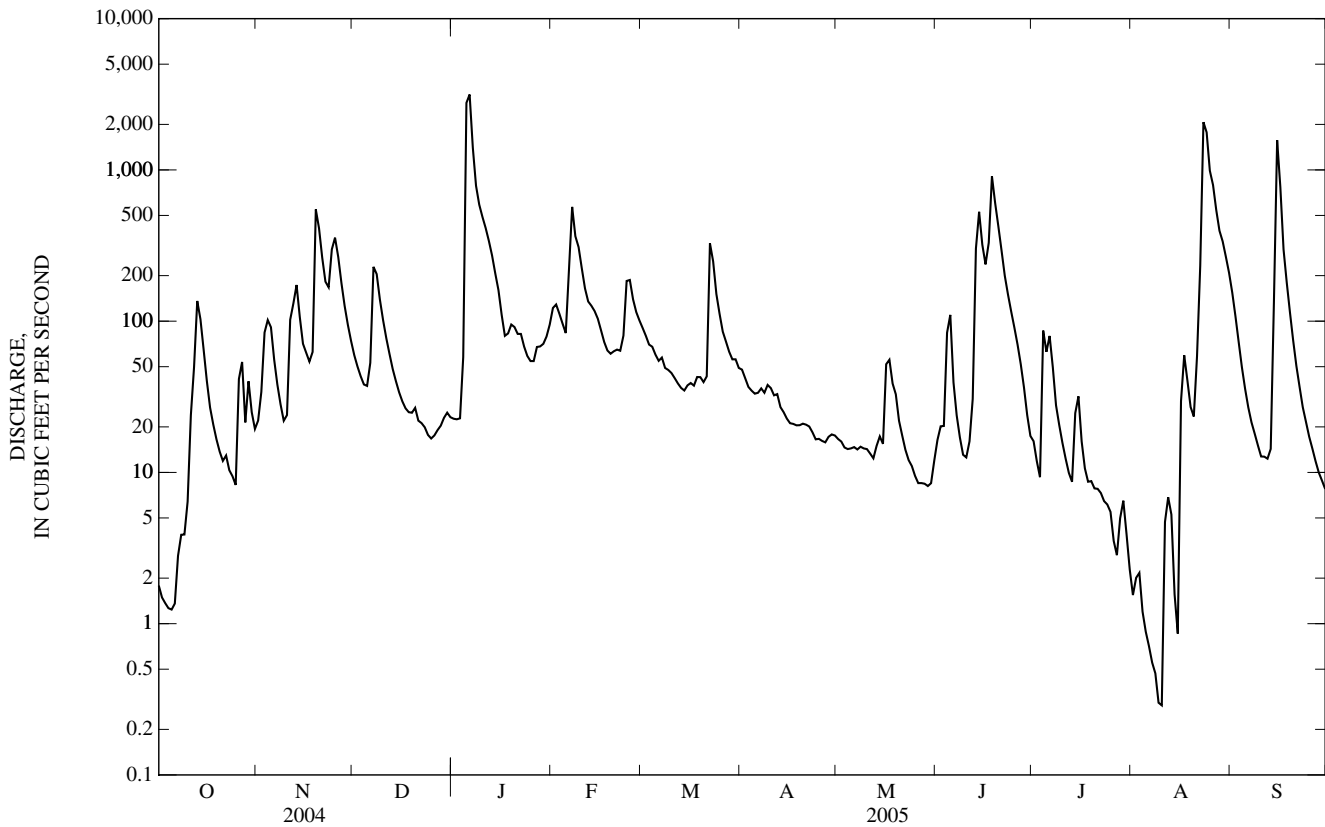
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2005, BY WATER YEAR (WY)

MEAN	213	155	95.9	82.2	131	303	297	476	337	170	106	171
MAX	4,025	2,359	720	595	1,013	1,607	1,583	2,933	2,181	950	1,592	1,354
(WY)	(1987)	(1975)	(2000)	(1993)	(1987)	(1990)	(1999)	(1993)	(1957)	(1997)	(1992)	(1945)
MIN	0.00	0.00	0.02	0.37	0.73	0.90	1.14	2.28	4.68	0.30	0.00	0.00
(WY)	(1955)	(1955)	(1967)	(1957)	(1968)	(1954)	(1955)	(1956)	(1966)	(1954)	(1954)	(1954)

e Estimated

07153000 BLACK BEAR CREEK AT PAWNEE, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1945 - 2005	
ANNUAL TOTAL	91,019.9		43,757.27		212	
ANNUAL MEAN	249		120		835	
HIGHEST ANNUAL MEAN					23.1	
LOWEST ANNUAL MEAN					25,400	
HIGHEST DAILY MEAN	9,460	Mar 6	3,150	Jan 6	0.00	Oct 3, 1959
LOWEST DAILY MEAN	1.2	Oct 5	0.29	Aug 10	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	1.5	Sep 30	0.63	Aug 4	0.00	Jul 17, 1954
MAXIMUM PEAK FLOW			4,180	Jan 5	30,200	Oct 3, 1959
MAXIMUM PEAK STAGE			9.64	Jan 5	31.43	Oct 3, 1959
ANNUAL RUNOFF (AC-FT)	180,500		86,790		153,300	
10 PERCENT EXCEEDS	358		266		397	
50 PERCENT EXCEEDS	44		38		17	
90 PERCENT EXCEEDS	6.4		7.8		1.2	



07154500 CIMARRON RIVER NEAR KENTON, OK

LOCATION.--Lat 36°55'36", long 102°57'31", in SW $\frac{1}{4}$ sec.4, T.5 N., R.1 E., Cimarron County, Hydrologic Unit 11040001, near right bank on downstream side of pier of county road bridge, 1.5 mi upstream from North Carrizo Creek, 1.7 mi northeast of Kenton, 2.2 mi downstream from Carrizozo Creek, and at mile 594.0.

DRAINAGE AREA.--1,106 mi², of which 68 mi² is probably noncontributing.

PERIOD OF RECORD.--April 1904 to July 1905 (gage heights only), October 1950 to current year.

REVISED RECORDS.--WSP 1711: 1956 (M).

GAGE.--Water-stage recorder. Datum of gage is 4,262.08 ft above NGVD of 1929. April 1904 to July 1905 nonrecording gage at site 0.9 mi upstream at different datum. Oct. 1, 1950 to Sept. 19, 1967, water-stage recorder at same site and at datum 5.00 ft higher.

REMARKS.--No estimated daily discharge. Records fair. Extensive diversions for irrigation upstream from station. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 10	0515	*548	*9.94				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.58	0.05	0.58	0.70	1.1	0.17	1.4	2.9	2.0	0.00	0.00	0.00
2	0.85	0.05	0.58	0.64	0.94	0.16	1.3	3.3	1.8	0.00	0.00	0.00
3	0.56	0.06	0.58	0.72	0.92	0.22	1.1	3.6	0.99	0.00	0.00	0.00
4	0.67	0.06	0.60	0.90	0.91	0.39	1.1	3.4	1.5	0.00	0.00	0.00
5	0.71	0.06	0.61	e0.82	0.93	0.55	1.3	3.2	0.57	0.00	0.00	52
6	0.59	0.05	0.62	e0.80	1.4	0.31	1.5	3.1	0.66	0.00	0.00	40
7	0.50	0.06	0.58	0.77	1.4	0.25	86	3.3	1.2	0.00	0.00	140
8	0.47	0.05	0.58	0.77	1.1	0.25	19	3.1	0.32	0.00	0.00	37
9	0.42	0.08	0.54	0.76	0.98	0.29	5.0	2.8	0.41	0.00	0.00	8.4
10	0.37	0.24	0.53	0.73	0.93	0.32	262	2.6	0.14	0.00	0.00	2.8
11	0.39	0.24	0.55	0.70	0.92	0.36	265	1.0	0.06	0.00	0.00	1.0
12	0.46	0.24	0.58	0.70	1.0	0.24	67	1.1	1.7	0.00	0.07	0.11
13	0.51	0.24	0.56	0.70	0.98	0.17	14	1.2	1.9	0.00	0.00	0.08
14	0.49	0.36	0.53	0.69	0.91	0.24	6.0	1.7	1.1	0.00	0.00	0.01
15	0.39	0.41	0.55	0.71	0.73	0.69	26	0.80	0.48	0.00	0.00	0.00
16	0.35	0.41	0.58	0.72	0.73	0.76	95	1.9	0.15	0.00	0.00	0.00
17	0.32	0.39	0.58	0.73	0.81	0.65	290	2.5	0.06	0.00	0.00	0.00
18	0.34	0.48	0.55	0.75	0.82	0.35	187	1.9	0.15	0.00	0.00	0.00
19	0.28	0.44	0.57	0.75	0.86	0.29	59	1.7	0.08	0.00	0.00	0.00
20	0.23	0.52	0.60	0.78	0.71	0.99	27	1.8	0.06	0.00	0.00	0.00
21	0.18	0.73	0.59	0.86	0.81	0.96	12	1.6	0.08	0.00	0.00	0.00
22	0.13	0.63	0.81	0.74	0.87	1.0	8.8	2.0	0.01	0.00	0.00	0.00
23	0.10	1.0	e0.75	0.66	0.93	1.0	6.3	2.2	0.00	0.00	0.00	0.00
24	0.09	1.3	e0.69	0.58	0.89	1.0	5.2	2.1	0.00	0.00	0.00	0.00
25	0.07	1.2	e0.65	0.73	0.91	1.1	4.7	1.3	0.00	0.00	0.00	0.00
26	0.07	1.1	e0.65	0.65	0.60	1.6	4.2	0.52	0.00	0.00	0.00	0.00
27	0.07	0.90	0.71	0.65	0.33	1.7	3.9	0.47	0.00	0.00	0.00	0.00
28	0.06	0.80	0.72	0.82	0.21	1.5	3.7	1.5	0.00	0.00	0.00	0.00
29	0.05	0.72	0.74	0.83	---	1.1	3.1	0.77	0.00	0.00	0.00	0.00
30	0.05	0.63	0.75	1.1	---	1.1	3.0	1.7	0.00	0.00	0.00	0.00
31	0.05	---	0.71	1.2	---	1.4	---	1.4	---	0.00	0.00	---
TOTAL	10.40	13.50	19.22	23.66	24.63	21.11	1,470.6	62.46	15.42	0.00	0.07	281.40
MEAN	0.34	0.45	0.62	0.76	0.88	0.68	49.0	2.01	0.51	0.00	0.00	9.38
MAX	0.85	1.3	0.81	1.2	1.4	1.7	290	3.6	2.0	0.00	0.07	140
MIN	0.05	0.05	0.53	0.58	0.21	0.16	1.1	0.47	0.00	0.00	0.00	0.00
AC-FT	21	27	38	47	49	42	2,920	124	31	0.00	0.1	558

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2005, BY WATER YEAR (WY)

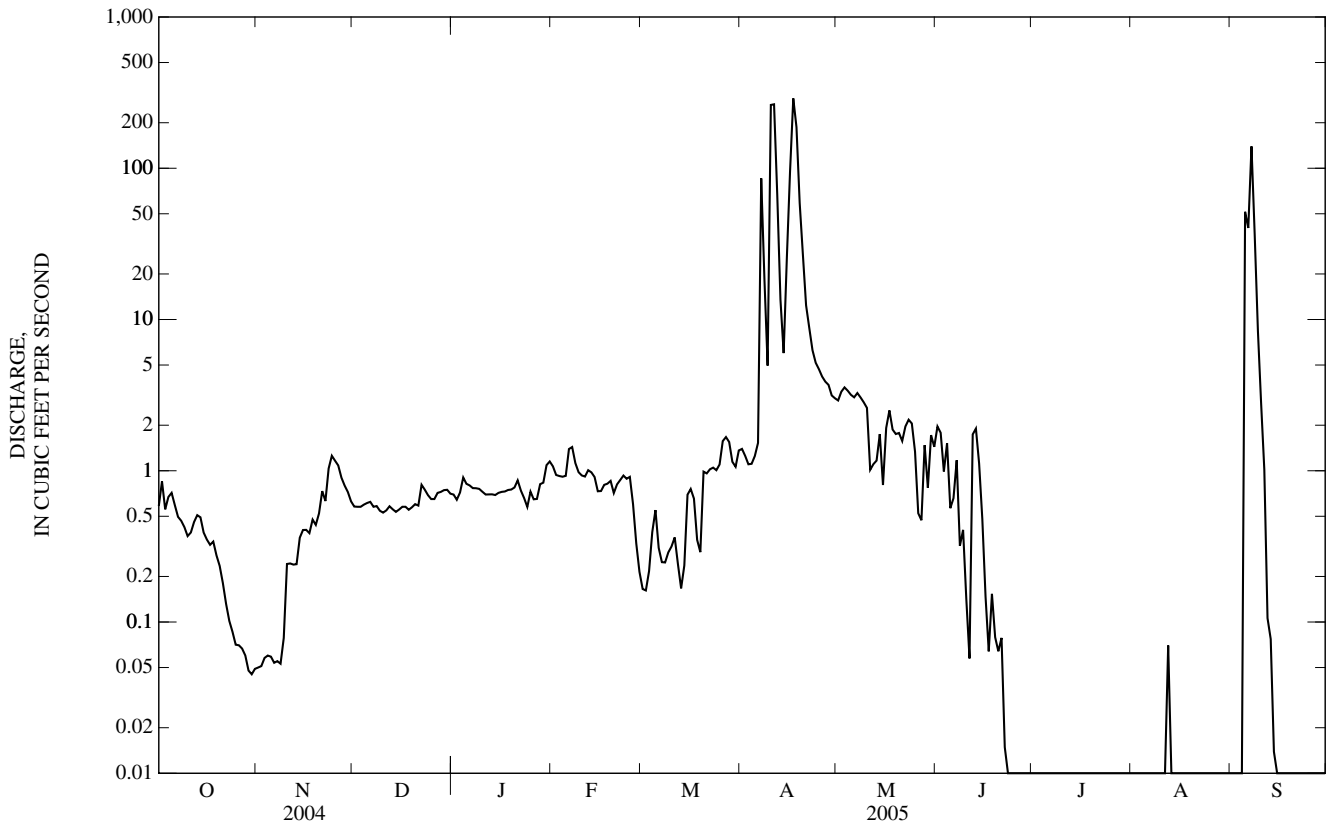
MEAN	9.28	1.80	1.95	1.86	1.65	1.39	5.98	32.6	29.5	31.2	48.5	24.8
MAX	334	12.1	9.59	8.07	6.76	4.42	116	525	514	204	406	235
(WY)	(1966)	(1966)	(1966)	(1988)	(1966)	(1958)	(1977)	(1955)	(1965)	(1958)	(1965)	(1963)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1965)	(1965)	(1965)	(1965)	(1994)	(1994)	(1965)	(2002)	(1954)	(1993)	(1972)	(1956)

07154500 CIMARRON RIVER NEAR KENTON, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005	
ANNUAL TOTAL	2,970.26		1,942.47		16.0	
ANNUAL MEAN	8.12		5.32		95.2	
HIGHEST ANNUAL MEAN					0.65	
LOWEST ANNUAL MEAN					11,000	
HIGHEST DAILY MEAN	678	Aug 14	290	Apr 17		Jun 17, 1965
LOWEST DAILY MEAN	0.00	at times	0.00	at times		0.00 at times
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Jun 23		Jun 14, 1952
MAXIMUM PEAK FLOW			548	Apr 10	a43,400	Oct 17, 1965
MAXIMUM PEAK STAGE			9.94	Apr 10	b22.32	Oct 17, 1965
ANNUAL RUNOFF (AC-FT)	5,890		3,850		11,580	
10 PERCENT EXCEEDS	1.2		2.9		7.0	
50 PERCENT EXCEEDS	0.01		0.58		0.80	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a From rating curve extended above 7,000 ft³/s, on basis on contracted-opening measurement of peak flow.

b Present datum.



07154500 CIMARRON RIVER NEAR KENTON, OK—Continued

07156900 CIMARRON RIVER NEAR FORGAN, OK

LOCATION.--Lat 37°00'40", long 100°29'29", in SE ¼ SE ¼ sec.8, T.35 S., R.29 W., Meade County, KS, Hydrologic Unit 11040006, on downstream side of bridge on Kansas State Highway 23, 0.8 mi north of Oklahoma-Kansas State Line, 7.8 mi north of Forgan, and at mile 375.7.

DRAINAGE AREA.--8,536 mi², of which 4,316 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1965 to September 1986, October 1987 to current year.

REVISED RECORDS.--WDR OK-91-1 gage datum.

GAGE.--Water-stage recorder. Datum of gage is 2,320.05 ft above NGVD of 1929.

REMARKS.--Records good except for estimated periods which are poor. Natural flow affected by irrigational development. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	36	35	34	42	43	39	34	33	23	17	18
2	30	52	36	33	43	42	39	34	31	25	15	20
3	27	45	38	37	40	40	39	33	30	24	15	19
4	29	42	38	39	37	42	37	33	30	23	17	18
5	30	38	36	e37	36	41	37	32	28	34	17	18
6	33	38	36	e33	44	43	39	32	25	30	18	19
7	34	38	36	e36	46	43	38	31	26	29	18	25
8	30	36	36	39	43	42	36	30	26	24	17	24
9	30	36	36	40	40	41	35	30	27	23	17	22
10	30	40	35	41	40	43	35	29	42	21	17	20
11	33	39	35	36	40	43	35	29	36	24	15	21
12	36	36	36	36	41	43	36	29	38	25	20	22
13	35	37	37	35	41	43	36	30	36	25	21	20
14	32	40	36	34	41	42	36	30	30	24	20	20
15	32	41	34	e33	40	41	36	28	31	22	22	20
16	32	37	35	e32	39	40	37	28	30	21	21	21
17	33	36	34	34	40	41	37	27	45	21	19	20
18	33	37	34	34	43	39	40	26	31	20	18	20
19	32	37	34	34	44	38	36	26	30	20	17	21
20	30	40	35	35	42	38	35	25	30	19	18	20
21	32	41	35	35	41	41	34	25	27	18	21	19
22	32	40	35	35	40	41	32	25	25	17	20	19
23	32	46	e34	35	42	37	32	25	24	17	25	19
24	33	53	e30	35	43	38	32	24	23	16	26	19
25	31	46	e31	32	43	37	33	33	24	16	21	21
26	32	42	33	33	42	38	32	31	23	16	20	20
27	33	39	35	33	41	40	33	28	23	17	19	19
28	33	40	35	35	42	41	34	28	22	18	20	20
29	33	40	35	37	---	40	33	30	21	17	19	20
30	32	36	36	40	---	37	33	27	21	16	18	22
31	33	---	35	41	---	39	---	32	---	16	18	---
TOTAL	991	1,204	1,086	1,103	1,156	1,257	1,066	904	868	661	586	606
MEAN	32.0	40.1	35.0	35.6	41.3	40.5	35.5	29.2	28.9	21.3	18.9	20.2
MAX	36	53	38	41	46	43	40	34	45	34	26	25
MIN	27	36	30	32	36	37	32	24	21	16	15	18
AC-FT	1,970	2,390	2,150	2,190	2,290	2,490	2,110	1,790	1,720	1,310	1,160	1,200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2005, BY WATER YEAR (WY)

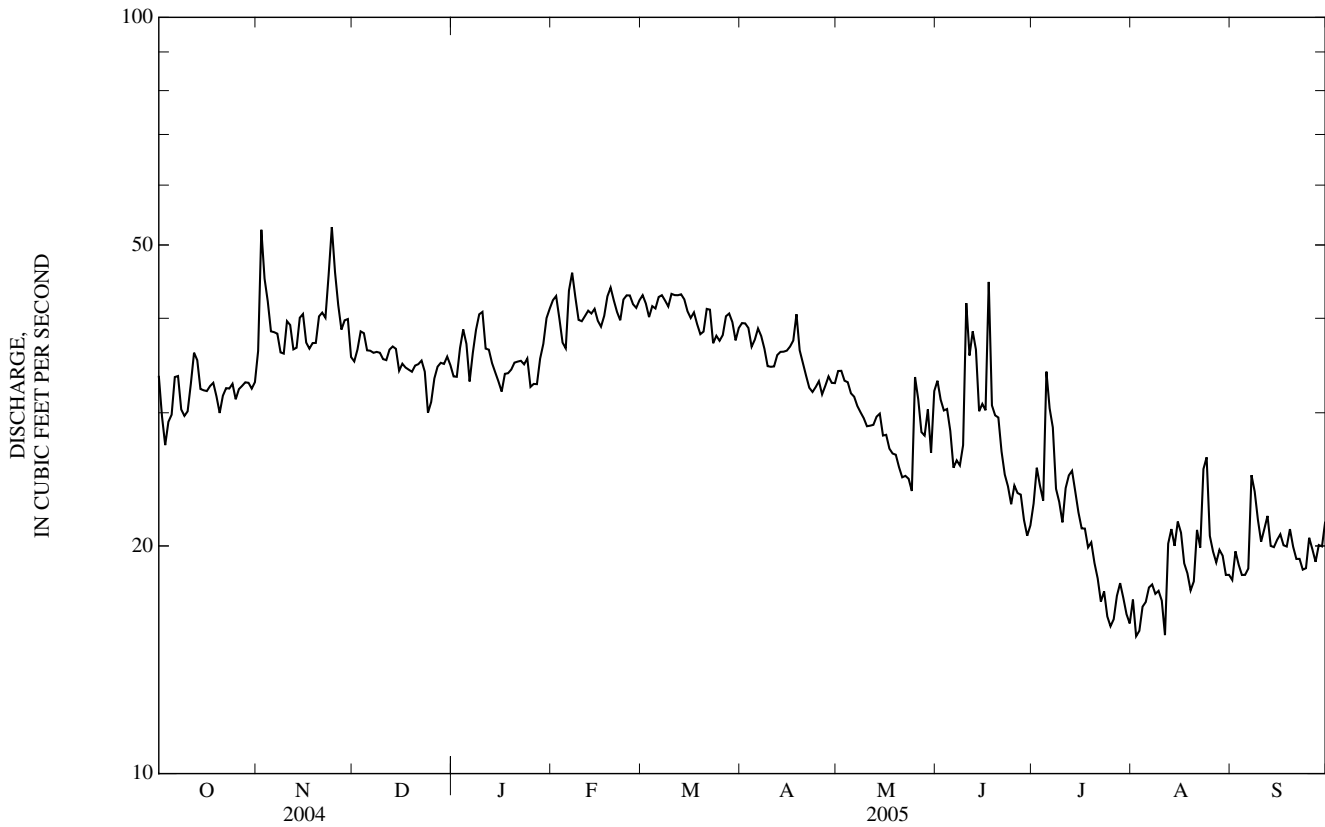
MEAN	62.6	51.5	53.2	53.0	56.7	56.5	65.9	70.0	57.7	44.2	47.0	44.2
MAX	751	114	102	110	167	111	376	476	364	211	208	210
(WY)	(1966)	(1972)	(1973)	(1967)	(1978)	(1973)	(1976)	(1977)	(1978)	(1967)	(1972)	(1966)
MIN	26.1	30.6	30.7	30.7	32.5	32.0	30.0	23.8	20.2	16.8	18.9	20.2
(WY)	(1992)	(2004)	(1990)	(2004)	(2003)	(2002)	(2003)	(1986)	(2002)	(2002)	(2005)	(2005)

e Estimated

07156900 CIMARRON RIVER NEAR FORGAN, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1966 - 2005	
ANNUAL TOTAL	12,568		11,488		55.2	
ANNUAL MEAN	34.3		31.5		145	
HIGHEST ANNUAL MEAN					31.4	
LOWEST ANNUAL MEAN					1966	
HIGHEST DAILY MEAN	724	Apr 20	53	Nov 24	7,490	Oct 20, 1965
LOWEST DAILY MEAN	18	Jun 13, Sep 14	15	Aug 2, 3, 11	a12	Jul 21, 2002
ANNUAL SEVEN-DAY MINIMUM	20	Jun 8	16	Jul 29	14	Jul 16, 2002
MAXIMUM PEAK FLOW			60	Nov 2	21,200	Oct 20, 1965
MAXIMUM PEAK STAGE			2.50	Nov 2	8.10	Oct 20, 1965
ANNUAL RUNOFF (AC-FT)	24,930		22,790		39,990	
10 PERCENT EXCEEDS	40		41		79	
50 PERCENT EXCEEDS	32		33		43	
90 PERCENT EXCEEDS	22		19		26	

a Also occurred July 22, 2002.



07157950 CIMARRON RIVER NEAR BUFFALO, OK

LOCATION.--Lat 36°51'07", long 99°18'54", in SE ¼ NE ¼ sec.2, T.27 N., R.20 W., Harper County, Hydrologic Unit 11050001, near left bank on downstream side of pier of U.S. Highway 64, 0.5 mi downstream from Keno Creek, 17.0 mi northeast of Buffalo, and at mile 289.1.

DRAINAGE AREA.--12,004 mi², of which 4,813 mi² is probably noncontributing.

PERIOD OF RECORD.--May 1960 to September 1994, October 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,599.67 ft above NGVD of 1929. Prior to Oct. 1, 1979, at site 6.9 mi upstream at elevation 1,650 ft.

REMARKS.--Records fair except for estimated ice periods which are poor. U.S. Geological Survey satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jun. 19	0330	*676	*6.09				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.34	28	109	69	177	113	93	61	36	84	3.5	8.3
2	0.34	47	105	69	192	112	88	73	27	53	2.4	6.1
3	0.33	38	101	91	199	107	83	70	24	52	1.8	4.7
4	11	56	98	e150	191	105	83	72	24	165	1.6	4.0
5	5.5	55	102	e140	173	102	80	72	19	134	12	3.4
6	13	51	103	e120	212	101	89	68	17	227	2.5	11
7	20	48	103	e118	211	99	85	63	18	170	1.6	17
8	26	46	101	118	256	98	82	61	13	132	0.87	20
9	25	44	98	159	229	100	78	55	8.4	94	0.64	5.9
10	23	55	91	199	202	98	97	49	52	70	0.37	4.2
11	48	55	88	177	179	93	79	44	176	57	0.31	3.1
12	35	50	87	161	173	88	74	59	262	49	0.37	3.4
13	36	54	84	147	178	79	70	75	401	45	12	3.0
14	37	61	81	e120	163	72	60	59	536	41	6.6	2.5
15	33	98	78	e95	159	76	55	51	333	39	5.0	2.4
16	32	75	79	e75	144	78	50	48	224	36	3.5	2.0
17	29	84	77	e70	142	78	47	42	344	32	2.9	1.8
18	28	118	76	72	133	85	61	40	461	27	1.6	1.6
19	26	97	75	97	134	81	53	35	576	24	0.66	1.2
20	26	101	78	123	133	79	53	31	317	21	0.52	1.1
21	25	111	76	142	137	91	70	27	213	18	7.2	1.00
22	24	103	76	121	133	126	91	23	173	16	11	0.76
23	25	135	e70	107	135	166	71	20	149	13	58	0.66
24	23	146	e38	107	138	136	62	19	127	11	130	0.61
25	21	179	e50	102	140	124	66	19	108	8.3	46	0.55
26	42	174	62	95	133	120	62	21	90	9.8	37	0.45
27	32	140	66	89	126	114	56	20	75	10	30	0.42
28	34	119	100	120	121	105	63	18	62	7.8	23	0.38
29	32	117	88	132	---	103	56	17	51	6.5	34	0.43
30	30	111	76	143	---	101	59	104	44	5.2	18	0.88
31	28	---	72	164	---	95	---	48	---	4.1	12	---
TOTAL	770.51	2,596	2,588	3,692	4,643	3,125	2,116	1,464	4,960.4	1,661.7	466.94	112.84
MEAN	24.9	86.5	83.5	119	166	101	70.5	47.2	165	53.6	15.1	3.76
MAX	48	179	109	199	256	166	97	104	576	227	130	20
MIN	0.33	28	38	69	121	72	47	17	8.4	4.1	0.31	0.38
AC-FT	1,530	5,150	5,130	7,320	9,210	6,200	4,200	2,900	9,840	3,300	926	224

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2005, BY WATER YEAR (WY)

MEAN	84.1	76.4	80.8	89.8	117	174	140	191	214	83.7	75.9	114
MAX	788	482	270	155	225	1,848	1,304	851	1,227	461	476	1,100
(WY)	(1966)	(1972)	(1974)	(1964)	(1993)	(1973)	(1973)	(1987)	(1965)	(1962)	(1968)	(1973)
MIN	0.00	0.47	8.61	31.2	40.2	26.1	8.69	4.45	6.70	0.21	0.00	0.00
(WY)	(1981)	(1981)	(1981)	(1981)	(1981)	(1992)	(1981)	(1992)	(1966)	(1991)	(1976)	(1980)

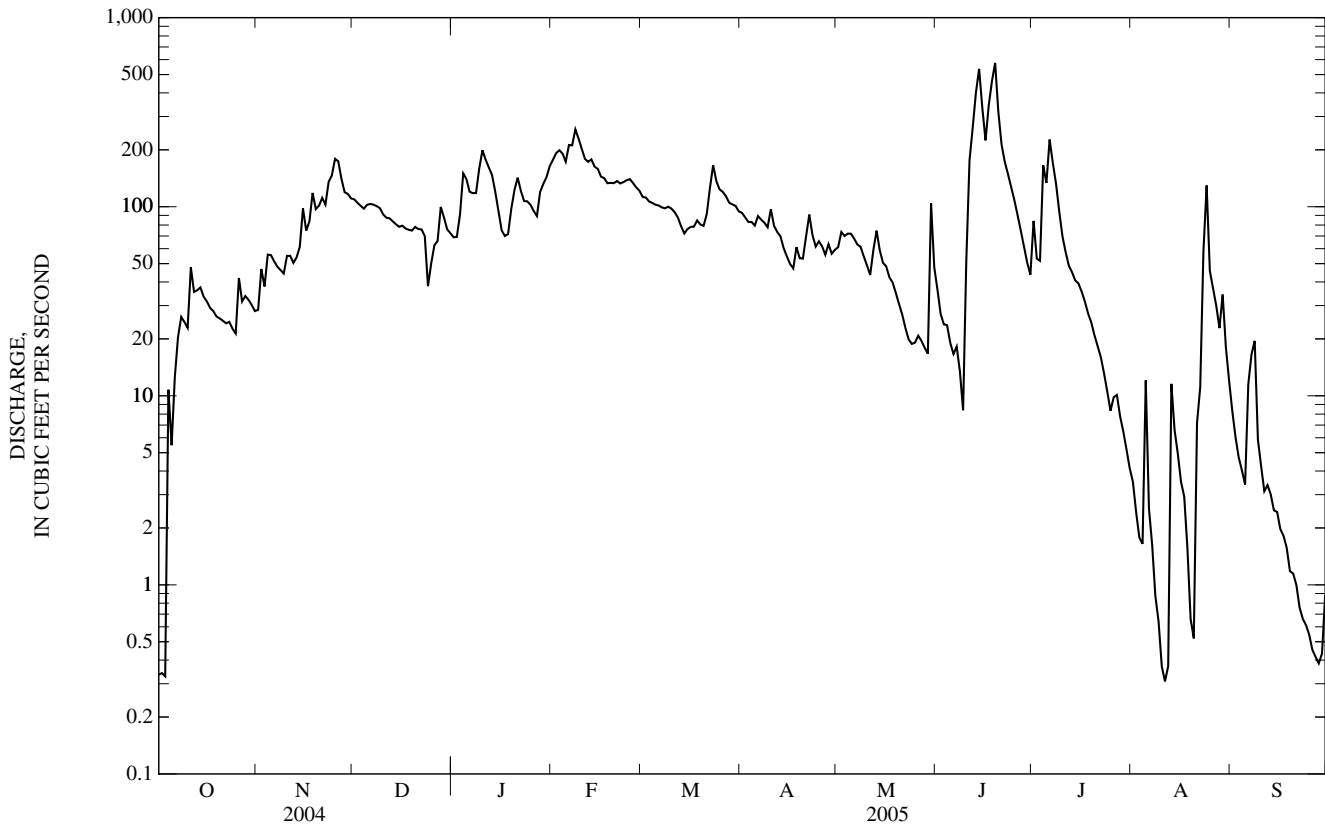
e Estimated

07157950 CIMARRON RIVER NEAR BUFFALO, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1960 - 2005	
ANNUAL TOTAL	19,909.24		28,196.39		120	
ANNUAL MEAN	54.4		77.3		430	
HIGHEST ANNUAL MEAN					18.8	
LOWEST ANNUAL MEAN					12,500	
HIGHEST DAILY MEAN	499	Apr 22	576	Jun 19	26,400	Sep 26, 1973
LOWEST DAILY MEAN	0.07	Sep 20	0.31	Aug 11	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.10	Sep 14	0.50	Sep 23	0.00	Jul 19, 1960
MAXIMUM PEAK FLOW			676	Jun 19	26,400	Sep 26, 1973
MAXIMUM PEAK STAGE			a6.09	Jun 19	b5.57	Sep 26, 1973
ANNUAL RUNOFF (AC-FT)	39,490		55,930		87,130	
10 PERCENT EXCEEDS	103		160		219	
50 PERCENT EXCEEDS	46		66		53	
90 PERCENT EXCEEDS	2.0		3.3		0.08	

a Maximum gage height for this site and datum, 9.04 ft., May 27, 1987, 12,100 ft³/s.

b Site and datum then in use.



07158000 CIMARRON RIVER NEAR WAYNOKA, OK

LOCATION.--Lat 36°31'02", long 98°52'45", in NW ¼ NE ¼ sec.35, T.24 N., R.16 W., Woods County, Hydrologic Unit 11050001, near left bank on downstream side of bridge on U.S. Highway 281, 4.0 mi south of Waynoka, and at mile 247.0.

DRAINAGE AREA.--13,334 mi², of which 4,830 mi² is probably noncontributing.

PERIOD OF RECORD.--September 1903 to December 1905 (gage heights and discharge measurements only), October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 1,367.35 ft above NGVD of 1929. September 1903 to December 1905, nonrecording gage at the Atchison, Topeka and Santa Fe Railway Co. bridge 5 mi upstream at different datum. Feb. 4 to Mar. 3, 1938, nonrecording gage and Mar. 4, 1938, to Oct. 24, 1956, water-stage recorder, on former highway bridge 50 ft downstream at datum 0.15 ft higher. Oct. 25, 1956 to Sept. 1978 at same site and datum 0.15 ft higher.

REMARKS.--Records fair. Diversions for irrigation above station. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of about 14 ft occurred probably in 1914.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jun 12	2330	*15,300	*10.75	Jun 17	1300	13,300	10.45

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	67	214	181	384	293	168	132	117	285	42	255
2	2.0	91	195	183	385	281	170	132	116	653	37	165
3	1.7	111	196	181	373	275	167	137	98	305	32	118
4	1.1	100	202	407	357	261	158	144	85	1,350	29	90
5	0.77	84	224	1,620	344	252	149	144	70	2,570	28	72
6	26	105	243	580	397	250	154	143	56	2,600	29	62
7	46	103	238	488	510	240	180	142	44	2,100	32	68
8	95	97	229	444	467	223	172	136	37	1,070	28	93
9	87	95	226	447	475	210	164	131	34	724	24	69
10	76	106	216	515	431	194	170	117	304	529	21	55
11	141	215	203	455	384	193	205	103	5,020	422	19	49
12	234	174	200	423	365	202	189	99	5,700	358	18	46
13	153	126	191	369	357	204	181	98	8,550	316	24	44
14	104	124	181	314	342	200	e178	102	3,170	283	150	46
15	95	143	178	e290	327	206	166	118	1,850	253	109	48
16	83	154	182	e260	331	221	146	117	2,130	234	69	44
17	74	191	184	e230	328	228	137	109	9,970	200	54	43
18	70	364	186	e220	316	229	136	100	5,700	173	42	42
19	70	332	190	237	319	230	148	92	2,960	148	30	38
20	69	250	195	259	322	226	143	83	2,150	124	26	35
21	66	288	197	272	305	221	140	73	1,380	104	118	33
22	63	265	193	276	300	239	135	61	949	90	240	30
23	60	269	182	244	324	254	128	55	750	79	837	29
24	56	610	e130	230	344	274	142	50	601	66	1,070	28
25	52	421	e150	227	320	264	137	47	484	56	642	27
26	59	347	e170	221	311	231	137	47	403	55	418	26
27	99	327	178	205	306	213	134	49	335	70	282	25
28	99	282	189	240	305	207	131	47	286	72	213	23
29	77	257	182	331	---	189	134	42	243	61	1,880	23
30	68	241	213	344	---	180	133	37	207	53	1,060	23
31	64	---	191	348	---	170	---	53	---	46	437	---
TOTAL	2,194.77	6,339	6,048	11,041	10,029	7,060	4,632	2,940	53,799	15,449	8,040	1,749
MEAN	70.8	211	195	356	358	228	154	94.8	1,793	498	259	58.3
MAX	234	610	243	1,620	510	293	205	144	9,970	2,600	1,880	255
MIN	0.77	67	130	181	300	170	128	37	34	46	18	23
AC-FT	4,350	12,570	12,000	21,900	19,890	14,000	9,190	5,830	106,700	30,640	15,950	3,470

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)

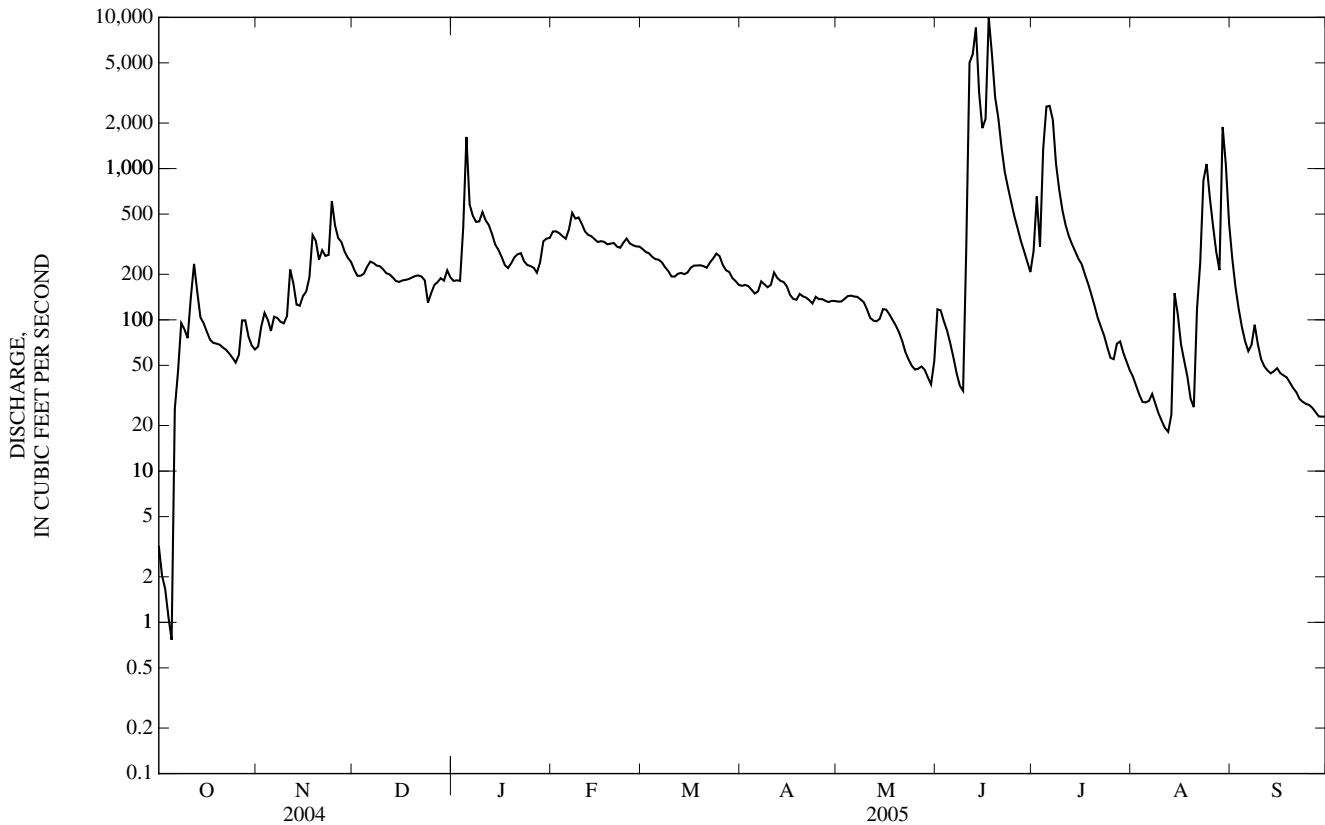
MEAN	209	130	119	137	188	257	358	740	597	324	215	243
MAX	2,644	651	493	465	1,011	2,196	2,944	5,673	3,674	3,826	2,507	1,475
(WY)	(1942)	(1999)	(1974)	(1998)	(1949)	(1973)	(1942)	(1957)	(1957)	(1950)	(1950)	(1973)
MIN	0.00	0.00	1.98	2.65	30.1	12.6	6.00	10.6	0.60	0.01	0.00	0.00
(WY)	(1940)	(1981)	(1955)	(1940)	(1957)	(1955)	(1956)	(1967)	(1966)	(1974)	(1970)	(1956)

e Estimated

07158000 CIMARRON RIVER NEAR WAYNOKA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1938 - 2005	
ANNUAL TOTAL	53,527.13		129,320.77		293	
ANNUAL MEAN	146		354		43.2	
HIGHEST ANNUAL MEAN					1,081	
LOWEST ANNUAL MEAN					43.2	
HIGHEST DAILY MEAN	2,250	Jun 21	9,970	Jun 17	51,600	May 16, 1957
LOWEST DAILY MEAN	0.00	at times	0.77	Oct 5	0.00	most years
ANNUAL SEVEN-DAY MINIMUM	0.02	Jun 11	12	Oct 1	0.00	Sep 3, 1939
MAXIMUM PEAK FLOW			15,300	Jun 12	a94,500	May 16, 1957
MAXIMUM PEAK STAGE			10.75	Jun 12	15.10	May 16, 1957
ANNUAL RUNOFF (AC-FT)	106,200		256,500		212,600	
10 PERCENT EXCEEDS	249		460		480	
50 PERCENT EXCEEDS	100		180		89	
90 PERCENT EXCEEDS	2.9		42		0.63	

a From rating curve extended above 45,000 ft³/s on basis of contracted-opening measurement of peak flow.



07159100 CIMARRON RIVER NEAR DOVER, OK

LOCATION.--Lat 35°57'06", long 97°54'51", in SW ¼ NE ¼ sec.14, T.17 N., R.7 W., Kingfisher County, Hydrologic Unit 11050002, near right bank on downstream bridge on U.S. Highway 81, 1.0 mi downstream from Turkey Creek, 2.0 mi south of Dover, 2.5 mi upstream from Kingfisher Creek, and at mile 160.6.

DRAINAGE AREA.--15,713 mi², of which 4,926 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORDS.--OK-95-1: 1994

GAGE.--Water-stage recorder. Datum of gage is 999.19 ft above NGVD of 1929.

REMARKS.--Records fair. U.S. Army Corps of Engineers' telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 19	0530	*11,800	*17.58				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	93	851	396	1,290	768	412	e252	234	440	136	1,120
2	29	102	794	413	1,390	724	409	e257	249	419	125	711
3	26	128	758	407	1,540	686	380	e265	178	405	117	537
4	25	225	716	429	1,390	651	356	e270	166	715	109	449
5	25	225	694	1,960	1,240	632	344	e275	201	1,160	108	395
6	25	199	693	5,460	1,210	612	361	e280	196	3,060	155	354
7	37	155	798	3,910	1,280	589	358	e275	154	2,350	145	324
8	52	127	908	2,220	1,270	567	346	e265	134	1,820	122	300
9	52	116	750	1,980	1,430	537	347	e255	131	1,380	113	286
10	59	119	670	2,360	1,270	522	354	e245	125	940	98	272
11	114	122	614	3,120	1,160	497	347	e234	166	728	90	267
12	249	131	576	2,570	1,110	479	321	e220	3,370	600	84	264
13	167	148	541	1,870	1,040	464	313	e240	4,520	566	92	253
14	151	259	505	1,600	990	438	342	516	9,190	474	141	286
15	176	226	485	1,420	931	458	324	679	6,220	430	290	1,020
16	134	376	476	1,140	885	492	e310	340	3,420	390	230	389
17	109	458	464	999	802	506	e300	265	4,580	350	180	361
18	94	3,940	451	929	763	476	e292	259	9,290	317	168	304
19	88	4,760	449	928	749	460	e297	250	9,490	299	134	243
20	84	2,850	435	910	742	432	e272	228	3,760	473	113	217
21	86	2,160	435	896	738	442	e262	206	2,320	331	139	204
22	82	2,680	421	912	754	446	e266	188	1,770	250	1,150	192
23	77	1,780	383	888	786	436	e252	173	1,350	227	5,250	183
24	75	2,860	e375	847	816	432	e240	159	1,080	209	4,060	178
25	68	3,260	e370	824	796	473	e242	149	903	192	4,930	171
26	76	2,780	e380	781	878	496	e240	165	774	175	2,500	163
27	118	1,690	403	756	887	505	e251	313	673	170	1,280	159
28	151	1,240	415	772	824	478	e254	215	595	167	922	153
29	218	1,070	413	837	---	441	e257	157	531	160	882	147
30	102	948	403	950	---	426	e256	142	473	152	1,050	148
31	104	---	404	1,140	---	413	---	162	---	146	1,180	---
TOTAL	2,886	35,227	17,030	44,624	28,961	15,978	9,305	7,899	66,243	19,495	26,093	10,050
MEAN	93.1	1,174	549	1,439	1,034	515	310	255	2,208	629	842	335
MAX	249	4,760	908	5,460	1,540	768	412	679	9,490	3,060	5,250	1,120
MIN	25	93	370	396	738	413	240	142	125	146	84	147
AC-FT	5,720	69,870	33,780	88,510	57,440	31,690	18,460	15,670	131,400	38,670	51,760	19,930

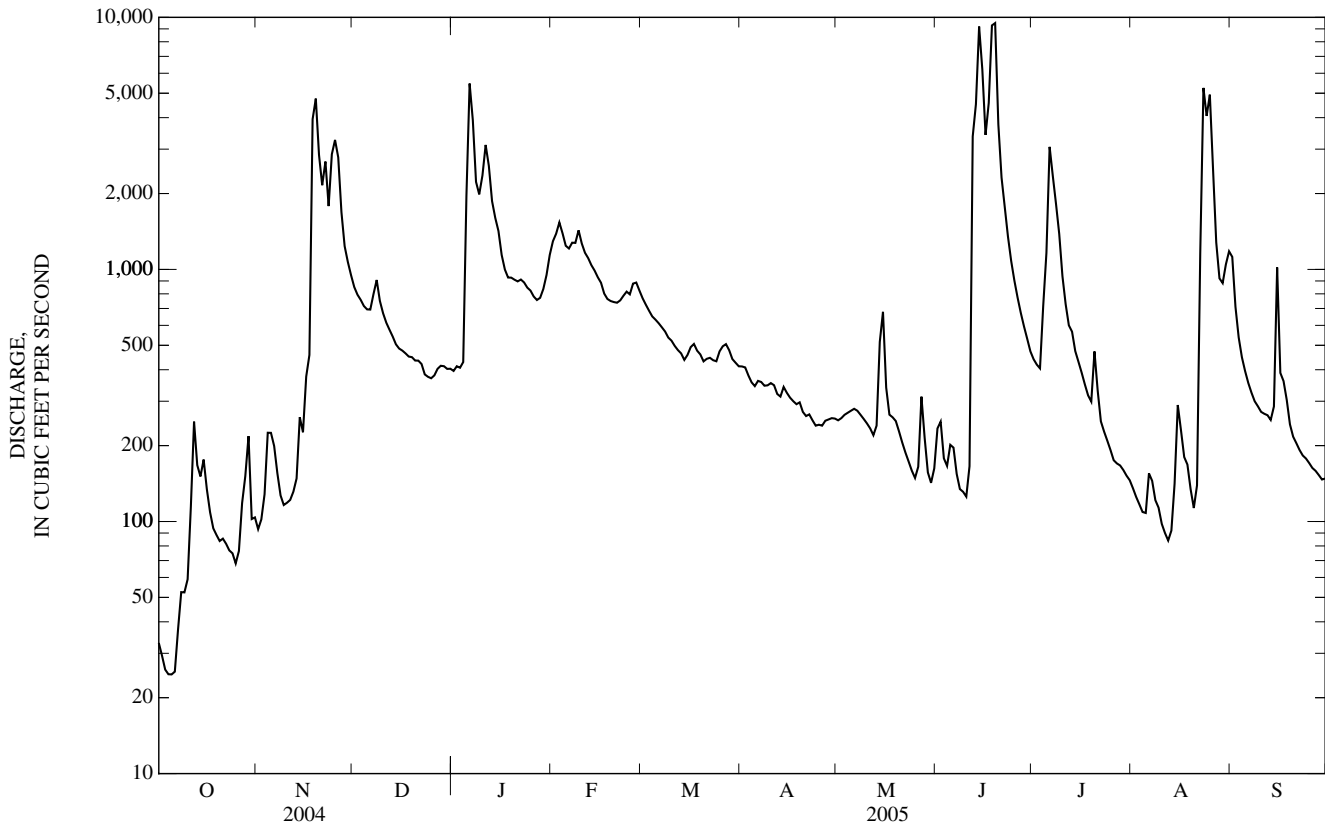
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

MEAN	820	861	481	434	600	1,255	1,095	2,015	1,530	559	513	557
MAX	9,071	5,171	1,864	1,549	2,410	4,840	6,442	11,750	6,969	2,131	2,622	2,311
(WY)	(1987)	(1999)	(1998)	(1998)	(1987)	(1998)	(1999)	(1993)	(1995)	(1999)	(1995)	(1996)
MIN	40.2	45.1	70.2	61.8	75.6	77.4	60.7	146	207	45.3	29.5	13.8
(WY)	(1985)	(1985)	(1977)	(1977)	(1981)	(1977)	(1981)	(1996)	(1984)	(1974)	(1984)	(1984)

07159100 CIMARRON RIVER NEAR DOVER, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	239,296		283,791		894	
ANNUAL MEAN	654		778		2,804	
HIGHEST ANNUAL MEAN					250	
LOWEST ANNUAL MEAN					80,200	
HIGHEST DAILY MEAN	20,500	Mar 5	9,490	Jun 19	Oct 3, 1986	
LOWEST DAILY MEAN	20	Sep 22	25	Oct 4,5,6	Sep 23, 1980	
ANNUAL SEVEN-DAY MINIMUM	26	Sep 17	29	Oct 1	Sep 19, 1980	
MAXIMUM PEAK FLOW			11,800	Jun 19	Oct 3, 1986	
MAXIMUM PEAK STAGE			17.58	Jun 19	a26.10	Oct 3, 1986
ANNUAL RUNOFF (AC-FT)	474,600		562,900		647,800	
10 PERCENT EXCEEDS	1,320		1,720		1,800	
50 PERCENT EXCEEDS	240		403		293	
90 PERCENT EXCEEDS	52		119		61	

a From high-water mark.



07159550 LAKE HEFNER AT OKLAHOMA CITY, OK

LOCATION.--Lat 35°34'58", long 97°35'43", in NW ¼ SE ¼ sec.23, T.13 N., R.4 W., Oklahoma County, Hydrologic Unit 11050002, on south side of dam on Bluff Creek, 50 ft north of intake structure, 3.0 mi northeast of Hefner Canal at Oklahoma City (07240000) and 6.0 mi northeast of Bethany.

DRAINAGE AREA.--9.69 mi². The source of water for Lake Hefner is mainly diversion of water from the North Canadian River at Lake Overholser through Bluff Creek Canal and runoff in the drainage basin.

PERIOD OF RECORD.--November 17, 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.--Reservoir is formed by an earthen dam which is more than 3 mi long and has a maximum height of 112 ft. The reservoir was constructed in 1947 by the City of Oklahoma City. Capacity, 107,000 acre-ft, elevation, 1209.0 ft, top of stone wall; normal pool, 75,355 acre-ft, elevation, 1199.0 ft. Figures given herein represent total contents. Capacity table supplied by City of Oklahoma City.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 78,010 acre-ft, June 17, 2005, elevation 1,199.97 ft; minimum, 55,000 acre-ft, at times in WY 2000, elevation, 1,190.36 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 78,010 acre-ft, June 17, elevation 1,199.97 ft; minimum, 63,890 acre-ft, May 4, elevation, 1,194.33 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

1186.0	44,834	1199.0	75,355
1190.0	54,250	1202.0	99,000
1195.0	65,441	1209.0	107,000

RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70,390	75,490	76,840	e73,870	74,970	72,620	68,990	64,220	69,140	76,330	74,380	77,730
2	70,240	75,520	76,710	e73,830	74,950	72,490	68,870	64,080	69,460	76,190	74,200	77,710
3	70,070	75,650	76,600	e73,840	74,820	72,420	68,770	63,990	69,530	76,030	74,050	77,630
4	69,920	76,060	76,490	e73,870	74,740	72,320	68,480	63,890	69,480	76,300	73,870	77,440
5	69,800	76,760	76,380	73,870	74,610	72,190	68,380	64,670	69,680	76,270	73,720	77,270
6	69,630	76,790	76,330	75,100	74,590	72,090	68,300	65,040	69,700	76,170	73,560	77,060
7	69,550	76,710	76,330	76,600	74,590	71,990	68,210	65,420	69,680	76,030	73,460	77,000
8	69,480	76,600	76,250	77,110	74,480	71,840	68,080	65,510	69,630	75,920	73,360	76,950
9	69,700	76,460	76,140	77,090	74,410	71,720	67,890	65,630	69,430	75,900	73,230	76,900
10	69,920	76,380	76,000	77,060	74,310	71,590	67,670	65,750	69,970	75,870	73,050	76,710
11	71,340	76,490	75,920	76,980	74,180	71,470	67,720	65,700	71,690	75,920	72,870	76,540
12	73,050	76,520	75,810	76,900	74,100	71,370	67,530	65,750	73,540	76,110	72,720	76,460
13	74,330	76,540	75,680	76,810	74,020	71,190	67,360	65,900	75,710	76,410	72,640	76,330
14	74,720	76,600	75,570	76,710	73,920	71,090	67,190	66,140	77,760	76,710	72,870	76,270
15	74,690	76,810	75,460	76,570	73,790	70,990	67,020	66,230	77,650	76,950	73,200	76,330
16	74,590	76,980	75,300	76,460	73,670	70,940	66,860	66,280	77,600	77,140	73,330	76,790
17	74,460	77,190	75,230	76,360	73,560	70,840	66,710	66,330	77,880	77,140	73,560	77,300
18	74,410	77,440	75,120	76,250	73,460	70,620	66,520	66,420	77,760	77,090	73,610	77,440
19	74,310	77,380	75,020	76,140	73,380	70,540	66,420	66,810	77,540	76,950	73,640	77,410
20	74,200	77,300	74,950	76,060	73,260	70,440	66,280	67,740	77,380	76,710	73,590	77,460
21	74,150	77,680	74,790	75,980	73,150	70,370	66,140	68,650	77,440	76,490	73,610	77,520
22	74,080	77,600	74,690	75,870	73,080	70,290	65,900	68,940	77,570	76,250	73,950	77,520
23	74,020	77,570	74,540	75,760	73,130	70,170	65,700	69,060	77,540	76,110	74,690	77,540
24	73,950	77,600	74,410	75,600	73,080	69,970	65,510	69,020	77,680	75,950	76,410	77,520
25	73,840	77,490	e74,280	75,600	73,000	69,950	65,370	68,920	77,540	75,710	77,250	77,490
26	73,840	77,330	e74,130	75,490	72,900	69,800	65,180	68,920	77,360	75,490	77,520	77,460
27	73,770	77,270	e74,080	75,410	72,870	69,680	65,000	68,970	77,170	75,280	77,570	77,460
28	73,770	77,140	e74,010	75,410	72,740	69,550	64,760	69,040	76,950	75,050	77,630	77,410
29	75,280	77,030	e73,960	75,300	---	69,410	64,600	69,060	76,730	74,890	77,650	77,220
30	75,540	76,980	e73,920	75,180	---	69,260	64,410	69,090	76,490	74,720	77,680	77,250
31	75,440	---	e73,890	75,070	---	69,160	---	69,060	---	74,560	77,730	---
MAX	75,540	77,680	76,840	77,110	74,970	72,620	68,990	69,090	77,880	77,140	77,730	77,730
MIN	69,480	75,490	73,890	73,830	72,740	69,160	64,410	63,890	69,140	74,560	72,640	76,270
(±)	1190.05	1199.57	---	1198.86	1197.95	1196.50	1194.51	1196.54	1199.37	1198.65	1199.88	1199.73
(±±)	+4850	+1540	-3090	+1180	-2330	-3580	-4750	+4650	+7430	-1930	+3170	-480

CAL YR 2004 MAX 77770 MIN 59620 (±±) -11690

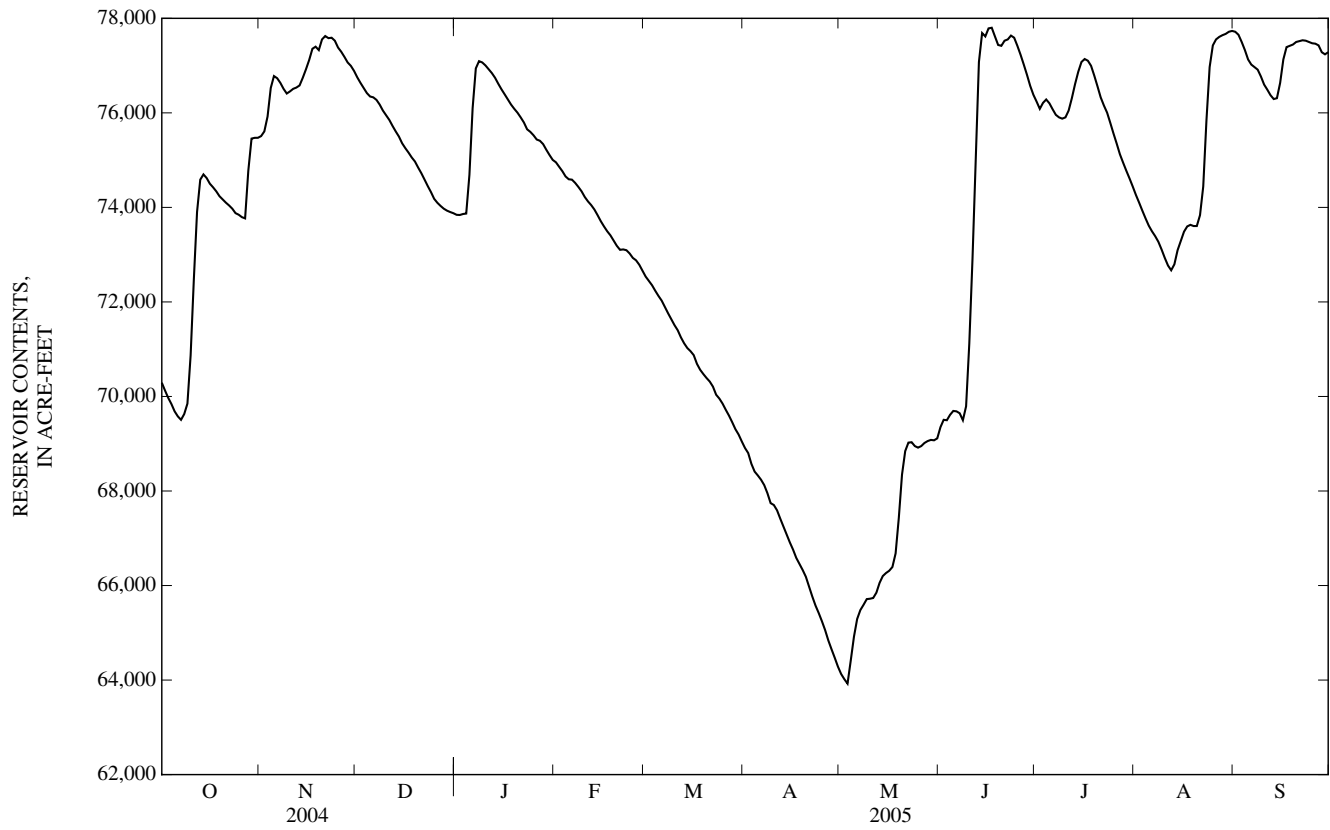
WTR YR 2005 MAX 77880 MIN 63890 (±±) +6660

e Estimated

(±) ELEVATION, IN FEET, AT END OF MONTH

(±±) CHANGE IN CONTENTS, IN ACRE-FEET

07159550 LAKE HEFNER AT OKLAHOMA CITY, OK—Continued



07159639 BLUFF CREEK ABOVE BETHANY AND WARR ACRES SEWAGE TREATMENT PLANT NEAR EDMOND, OK

LOCATION.--Lat 35°40'02", long 97°35'45", in NE 1/4, NW 1/4, sec 26, T.14 N., R.4 W., Oklahoma County, Hydrologic Unit 11050002, at county road bridge 0.4 mi upstream of Deer Creek and 0.6 mi west of State Highway 74.

PERIOD OF RECORD.--November 1983 to September 1984; August 1993 to current year.

REMARKS.--Samples were collected monthly from May through September and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Alka- linity, wat flt inc tit mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., mg/L field, (00453)	Carbon- ate, wat flt incrm. titr., mg/L field, (00452)
MAY 23...	1200	1028	80020	4.5	735	8.4	7.6	1,230	28.5	25.6	219	264	1
JUN 28...	1115	1028	80020	3.5	740	7.6	7.5	1,010	35.0	26.0	213	258	.0
JUL 26...	1015	1028	80020	2.8	738	3.1	7.9	1,070	32.0	26.2	217	261	2
AUG 26...	1015	1028	80020	2.5	739	7.7	7.7	640	33.0	26.9	228	275	1
SEP 07...	1200	1028	80020	2.1	744	4.1	7.8	1,060	30.0	23.5	237	286	1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbo- pheno- thion, water, unfltrd ug/L (39786)	Chlor- pyrifos water unfltrd ug/L (38932)	Diazi- non, water, unfltrd ug/L (39570)	Disul- foton, water, unfltrd ug/L (39011)	Ethion, water, unfltrd ug/L (39398)	Fonofos water unfltrd ug/L (82614)	Iso- fenfos, surrog, Sch1319 wat unf percent recovry (90712)	Mala- thion, water, unfltrd ug/L (39530)	Methyl para- thion, water, unfltrd ug/L (39600)	Para- thion, water, unfltrd ug/L (39540)	Phorate water unfltrd ug/L (39023)	Tribu- phos, water, unfltrd ug/L (39040)
MAY 23...	<.02	<.01	<.02	<.10	<.01	<.01	87.4	<.10	<.01	<.01	<.02	<.02
JUN 28...	<.02	<.01	E.01	<.10	<.01	<.01	20.0	<.10	<.01	<.01	<.02	<.02
JUL 26...	<.02	<.01	<.02	<.10	<.01	<.01	66.8	<.10	<.01	<.01	<.02	<.02
AUG 26...	<.02	<.01	<.02	<.10	<.01	<.01	85.6	<.10	<.01	<.01	<.02	<.02
SEP 07...	<.02	<.01	<.02	<.10	<.01	<.01	58.9	<.10	<.01	<.01	<.02	<.02

07159643 DEER CREEK BELOW BLUFF CREEK AT OKLAHOMA CITY, OK

LOCATION.--Lat 35°40'56", long 97°35'26", in NE ¼, NW ¼, sec 23, T.14 N., R.4 W., Oklahoma County, Hydrologic Unit 11050002, 0.3 mi upstream of County Road and 0.5 mi downstream of confluence of Bluff Creek.

PERIOD OF RECORD.--August 1993 to current year.

REMARKS.--Samples were collected monthly from May to September and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Alka- linity, wat flt inc tit mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)
MAY 23...	1300	1028	80020	10	734	9.1	7.5	1,330	28.0	26.5	229	277	1
JUN 28...	1245	1028	80020	11	738	8.1	7.5	1,250	32.5	25.1	241	292	1
JUL 26...	1115	1028	80020	10	738	4.3	7.7	1,140	30.0	25.7	223	267	2
AUG 26...	1300	1028	80020	--	738	7.3	7.7	804	33.0	26.9	228	274	2
SEP 07...	1315	1028	80020	4.9	744	6.6	7.7	1,240	30.0	24.3	246	298	.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbo- pheno- thion, water, unfltrd ug/L (39786)	Chlor- pyrifos water unfltrd ug/L (38932)	Diazi- non, water, unfltrd ug/L (39570)	Disul- foton, water, unfltrd ug/L (39011)	Ethion, water, unfltrd ug/L (39398)	Fonofos water unfltrd ug/L (82614)	Iso- fenfos, surrog, Sch1319 wat unf percent recovry (90712)	Mala- thion, water, unfltrd ug/L (39530)	Methyl para- thion, water, unfltrd ug/L (39600)	Para- thion, water, unfltrd ug/L (39540)	Phorate water unfltrd ug/L (39023)	Tribu- phos, water, unfltrd ug/L (39040)
MAY 23...	<.02	<.01	<.02	<.10	<.01	<.01	80.5	<.10	<.01	<.01	<.02	<.02
JUN 28...	<.02	<.01	<.02	<.10	<.01	<.01	23.4	<.10	<.01	<.01	<.02	<.02
JUL 26...	<.02	<.01	<.02	<.10	<.01	<.01	73.6	<.10	<.01	<.01	<.02	<.02
AUG 26...	<.02	<.01	<.02	<.10	<.01	<.01	77.9	<.10	<.01	<.01	<.02	<.02
SEP 07...	<.02	<.01	<.02	<.10	<.01	<.01	52.9	<.10	<.01	<.01	<.02	<.02

07159650 DEER CREEK AT OKLAHOMA CITY, OK

LOCATION.--Lat 35°41'24", long 97°35'06", in SW 1/4, NW 1/4, sec 13, T.14 N., R.4 W., Oklahoma County, Hydrologic Unit 11050002, at bridge on 220th St., 0.4 mi east of State Highway 74.

PERIOD OF RECORD.--August 1993 to current year.

REMARKS.--Samples were collected monthly from May to September and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Alka- linity, wat flt inc tit mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)
MAY 23...	1045	1028	80020	20	735	7.9	7.3	1,340	28.0	25.6	166	202	.0
JUN 28...	1015	1028	80020	16	738	7.3	7.3	1,270	31.0	24.5	198	240	.0
JUL 26...	0915	1028	80020	16	734	3.1	7.5	1,220	30.0	25.2	175	212	.0
AUG 26...	1030	1028	80020	28	738	6.3	7.6	949	30.0	26.6	186	224	1
SEP 07...	1030	1028	80020	18	744	5.7	7.5	1,280	27.5	24.0	204	245	2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbo- pheno- thion, water, unfltrd ug/L (39786)	Chlor- pyrifos water unfltrd ug/L (38932)	Diazi- non, water, unfltrd ug/L (39570)	Disul- foton, water, unfltrd ug/L (39011)	Ethion, water, unfltrd ug/L (39398)	Fonofos water unfltrd ug/L (82614)	Iso- fenfos, surrog, Sch1319 wat unf percent recovry (90712)	Mala- thion, water, unfltrd ug/L (39530)	Methyl para- thion, water, unfltrd ug/L (39600)	Para- thion, water, unfltrd ug/L (39540)	Phorate water unfltrd ug/L (39023)	Tribu- phos, water, unfltrd ug/L (39040)
MAY 23...	<.02	<.01	E.01	<.10	<.01	<.01	95.5	<.10	<.01	<.01	<.02	<.02
JUN 28...	<.02	<.01	<.02	<.10	<.01	<.01	50.7	<.10	<.01	<.01	<.02	<.02
JUL 26...	<.02	<.01	E.01	<.10	<.01	<.01	77.5	<.10	<.01	<.01	<.02	<.02
AUG 26...	<.02	<.01	<.02	<.10	<.01	<.01	85.9	<.10	<.01	<.01	<.02	<.02
SEP 07...	<.02	<.01	<.02	<.10	<.01	<.01	90.5	<.10	<.01	<.01	<.02	<.02

07159730 CHISHOLM CREEK AT EDMOND, OK

LOCATION.--Lat 35°40'55", long 97°32'06", in SE ¼, SE ¼, sec 17, T.14 N., R.3 W., Oklahoma County, Hydrologic Unit 11050002, at bridge on 206th St., 0.2 mi west of Western Ave., 1.8 mi south of Logan County line.

PERIOD OF RECORD.--August 1993 to current year, previously published as 07159690.

REMARKS.--Samples were collected monthly from May to July and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Alka- linity, wat flt inc tit mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)
MAY 23...	1000	1028	80020	E1.0	733	5.9	7.3	685	26.5	25.1	153	185	.0
JUN 28...	0900	1028	80020	.69	738	6.3	7.5	810	28.5	26.1	152	184	.0
JUL 26...	1230	1028	80020	.99	739	3.3	7.7	829	34.0	26.8	154	185	.0
AUG 26...	0900	1028	80020	2.0	738	3.9	7.5	358	29.0	26.8	148	179	.0
SEP 07...	0930	1028	80020	.85	742	6.3	7.6	569	27.0	23.7	167	201	1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbo- pheno- thion, water, unfltrd ug/L (39786)	Chlor- pyrifos water unfltrd ug/L (38932)	Diazi- non, water, unfltrd ug/L (39570)	Disul- foton, water, unfltrd ug/L (39011)	Ethion, water, unfltrd ug/L (39398)	Fonofos water unfltrd ug/L (82614)	Iso- fenfos, surrog, Sch1319 wat unf percent recovry (90712)	Mala- thion, water, unfltrd ug/L (39530)	Methyl para- thion, water, unfltrd ug/L (39600)	Para- thion, water, unfltrd ug/L (39540)	Phorate water unfltrd ug/L (39023)	Tribu- phos, water, unfltrd ug/L (39040)
MAY 23...	<.02	<.01	E.01	<.10	<.01	<.01	91.5	<.10	<.01	<.01	<.02	<.02
JUN 28...	<.02	<.01	.06	<.10	<.01	<.01	63.6	<.10	<.01	<.01	<.02	<.02
JUL 26...	<.02	<.01	<.02	<.10	<.01	<.01	63.8	<.10	<.01	<.01	<.02	<.02
AUG 26...	<.02	<.01	<.02	<.10	<.01	<.01	81.8	<.10	<.01	<.01	<.02	<.02
SEP 07...	<.02	<.01	<.02	<.10	<.01	<.01	73.0	<.10	<.01	<.01	<.02	<.02

07159735 CHISHOLM CREEK NEAR EDMOND, OK

LOCATION.--Lat 35°43'32", long 97°31'37", in NW ¼, NW ¼, sec 4, T.14 N., R.3 W., Oklahoma County, Hydrologic Unit 11050002, at county road bridge 0.2 mi east of Western Avenue on the Logan County line.

PERIOD OF RECORD.--August 1993 to current year, previously published as 07159695.

REMARKS.--Samples were collected monthly from May through September and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Alka- linity, wat flt inc tit mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)
MAY 23...	0900	1028	80020	7.0	735	8.6	7.2	1,080	26.5	25.7	137	166	.0
JUN 28...	0745	1028	80020	7.8	739	7.3	7.3	1,090	27.0	26.5	128	154	.0
JUL 26...	0800	1028	80020	6.8	734	2.9	7.5	1,060	28.0	27.2	138	166	1
AUG 26...	0730	1028	80020	11	737	8.0	7.4	749	29.0	27.5	117	142	.0
SEP 07...	0815	1028	80020	6.7	742	8.9	7.5	1,100	27.0	24.8	170	207	.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbo- pheno- thion, water, unfltrd ug/L (39786)	Chlor- pyrifos water unfltrd ug/L (38932)	Diazi- non, water, unfltrd ug/L (39570)	Disul- foton, water, unfltrd ug/L (39011)	Ethion, water, unfltrd ug/L (39398)	Fonofos water unfltrd ug/L (82614)	Iso- fenfos, surrog, Sch1319 wat unf percent recovry (90712)	Mala- thion, water, unfltrd ug/L (39530)	Methyl para- thion, water, unfltrd ug/L (39600)	Para- thion, water, unfltrd ug/L (39540)	Phorate water unfltrd ug/L (39023)	Tribu- phos, water, unfltrd ug/L (39040)
MAY 23...	<.02	<.01	.05	<.10	<.01	<.01	92.1	<.10	<.01	<.01	<.02	<.02
JUN 28...	<.02	<.01	E.01	<.10	<.01	<.01	71.6	<.10	<.01	<.01	<.02	<.02
JUL 26...	<.02	<.01	E.02	<.10	<.01	<.01	79.7	<.10	<.01	<.01	<.02	<.02
AUG 26...	<.02	<.01	E.01	<.10	<.01	<.01	82.6	<.10	<.01	<.01	<.02	<.02
SEP 07...	<.02	<.01	<.02	<.10	<.01	<.01	91.7	<.10	<.01	<.01	<.02	<.02

THIS PAGE IS INTENTIONALLY BLANK

07160000 CIMARRON RIVER NEAR GUTHRIE, OK

LOCATION.--Lat 35°55'14", long 97°25'32", near center of east line of sec.29, T.17 N., R.2 W, Logan County, Hydrologic Unit 11050002, on downstream side left bank of State Highway 77 bridge, 1.6 mi downstream from Cottonwood Creek, 2.5 mi north of Guthrie, 6.1 mi upstream from Skeleton Creek, and at mile 121.4.

DRAINAGE AREA.--16,892 mi², of which 4,926 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1937 to September 1976, October 1983 to current year. Monthly discharge only for some periods, published in WSP's 1311 and 1731.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 896.50 ft above NGVD of 1929 (U.S. Army Corps of Engineers' bench mark). Prior to Mar. 19, 1939, nonrecording gage at railway bridge 1,200 ft upstream at datum 4.00 ft higher. From Mar. 19, 1939, to Sept. 21, 1967, the datum was 4.00 ft higher, from Sept. 21, 1967, to Sept. 30, 1976, the datum was 2.00 ft higher at recording gage 125 ft upstream from railway bridge. From Sept. 14, 1967, to Sept. 30, 1976, supplementary water-stage recorder at present site and datum.

REMARKS.--Records fair. U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 19	2330	*15,400	*8.46				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	468	1,250	621	1,410	1,180	736	370	480	754	302	1,280
2	82	392	1,130	612	1,540	1,080	699	378	787	753	297	1,190
3	83	395	1,020	610	1,650	1,000	679	400	506	850	283	814
4	83	e1,300	957	699	1,790	948	625	423	368	1,160	272	650
5	78	e1,200	927	2,530	1,670	905	592	416	302	1,860	282	552
6	82	e970	930	8,100	1,620	866	582	414	e270	2,320	372	492
7	97	e800	1,080	7,250	1,830	845	611	413	e250	3,750	310	458
8	121	e500	1,220	4,070	1,860	810	619	419	227	2,780	364	427
9	156	368	1,220	2,770	1,770	782	561	415	e187	2,280	328	405
10	220	344	1,040	2,630	1,890	753	540	408	e172	1,710	300	384
11	1,640	347	936	2,980	1,650	737	542	381	603	1,270	276	365
12	2,120	332	868	3,540	1,530	705	528	353	1,170	1,030	268	351
13	1,270	338	814	2,830	1,500	682	487	407	5,070	869	273	344
14	e760	332	767	2,170	1,420	672	464	668	8,890	821	505	398
15	e590	e500	712	1,850	1,340	657	476	958	9,950	802	1,400	4,720
16	e540	e1,450	695	1,640	1,230	711	472	1,020	5,230	787	954	8,870
17	e440	2,020	687	1,370	1,160	783	437	610	5,700	674	901	2,370
18	e360	5,360	686	1,260	1,080	801	419	445	8,850	592	630	1,040
19	e320	11,700	661	1,210	1,030	765	416	378	11,900	545	488	740
20	e270	5,770	651	1,220	1,020	739	417	351	7,710	508	419	553
21	206	4,180	649	1,210	1,020	740	418	337	3,960	607	1,000	455
22	186	5,650	642	1,200	1,020	751	412	307	2,900	607	3,640	410
23	169	3,900	608	1,180	995	764	395	278	2,230	474	9,840	381
24	158	3,580	584	1,130	1,770	742	392	258	1,750	414	7,930	356
25	151	4,710	513	1,090	1,410	735	392	240	1,470	375	5,340	339
26	155	4,110	564	1,070	1,200	773	391	236	1,330	343	5,170	319
27	168	3,270	582	1,020	1,200	812	387	239	1,120	336	2,370	301
28	283	2,130	596	1,010	1,290	826	385	276	961	328	1,400	292
29	614	1,640	615	1,060	---	811	376	350	858	328	1,060	273
30	545	1,420	620	1,150	---	792	371	300	793	318	1,530	275
31	523	---	619	1,260	---	763	---	264	---	309	1,230	---
TOTAL	12,555	69,476	24,843	62,342	39,895	24,930	14,821	12,712	85,994	30,554	49,734	29,804
MEAN	405	2,316	801	2,011	1,425	804	494	410	2,866	986	1,604	993
MAX	2,120	11,700	1,250	8,100	1,890	1,180	736	1,020	11,900	3,750	9,840	8,870
MIN	78	332	513	610	995	657	371	236	172	309	268	273
AC-FT	24,900	137,800	49,280	123,700	79,130	49,450	29,400	25,210	170,600	60,600	98,650	59,120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)

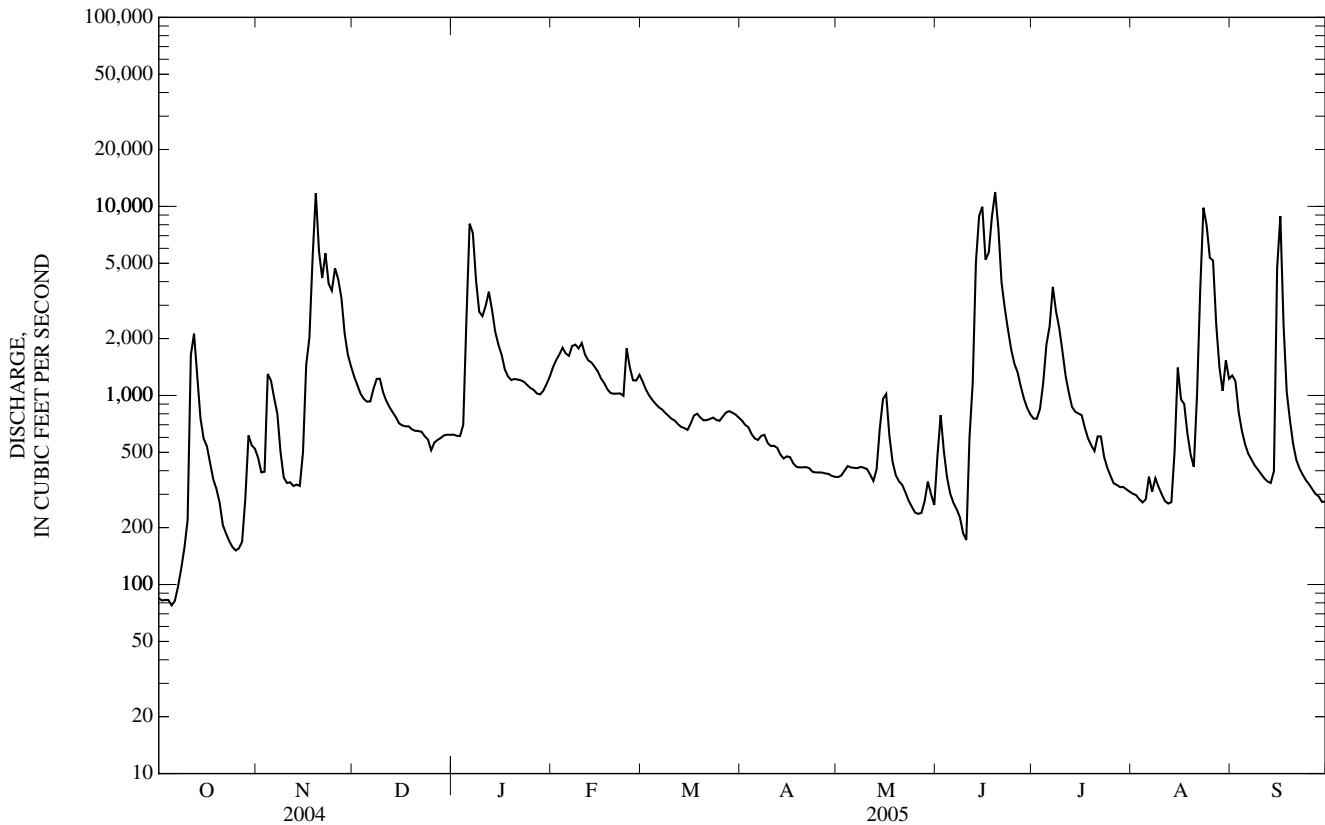
MEAN	1,096	888	561	519	711	1,309	1,556	2,464	2,233	888	666	882
MAX	13,800	8,748	2,874	2,266	4,063	6,603	9,372	20,630	14,860	4,220	4,182	3,988
(WY)	(1987)	(1999)	(1993)	(1993)	(1987)	(1998)	(1999)	(1993)	(1995)	(1950)	(1995)	(1989)
MIN	0.79	0.70	1.39	6.38	21.7	24.7	66.5	63.0	58.6	9.58	26.1	8.03
(WY)	(1953)	(1955)	(1955)	(1940)	(1957)	(1955)	(1956)	(1971)	(1953)	(1954)	(1943)	(1954)

e Estimated

07160000 CIMARRON RIVER NEAR GUTHRIE, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1938 - 2005	
ANNUAL TOTAL	515,912		457,660		1,144	
ANNUAL MEAN	1,410		1,254		3,901	
HIGHEST ANNUAL MEAN					192	
LOWEST ANNUAL MEAN					112,000	
HIGHEST DAILY MEAN	46,000	Mar 5	11,900	Jun 19	112,000	May 17, 1957
LOWEST DAILY MEAN	78	Sep 23	78	Oct 5	a0.30	Oct 20, 1939
ANNUAL SEVEN-DAY MINIMUM	83	Sep 30	84	Oct 1	0.39	Oct 19, 1939
MAXIMUM PEAK FLOW			15,400	Jun 19	158,000	May 17, 1957
MAXIMUM PEAK STAGE			8.46	Jun 19	18.58	May 17, 1957
ANNUAL RUNOFF (AC-FT)	1,023,000		907,800		828,900	
10 PERCENT EXCEEDS	2,940		2,690		2,220	
50 PERCENT EXCEEDS	450		699		356	
90 PERCENT EXCEEDS	146		280		61	

a Also occurred Oct. 21-22, Nov. 2, 1939.



07160350 SKELETON CREEK AT ENID, OK

LOCATION.--Lat 36°22'34", long 97°48'00", in NW ¼ NW ¼ sec.24, T.22 N., R.6 W., Garfield County, Hydrologic Unit 11050002, on left bank, 600 ft below confluence of Boggy Creek, at mile 47.5.

DRAINAGE AREA.--70.3 mi².

PERIOD OF RECORD.--February 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,110.48 ft above NGVD of 1929.

REMARKS.--No estimated daily discharge. Records good. Low flows regulated by releases of effluent from the City of Enid water treatment plant, 1 mile upstream. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1973, stage unknown, discharge 81,000 ft³/s, from slope-area measurement of peak flow at Southgate Road, one mile below gage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug 22	0945	2,760	9.19	Aug 25	0100	2,050	8.07

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

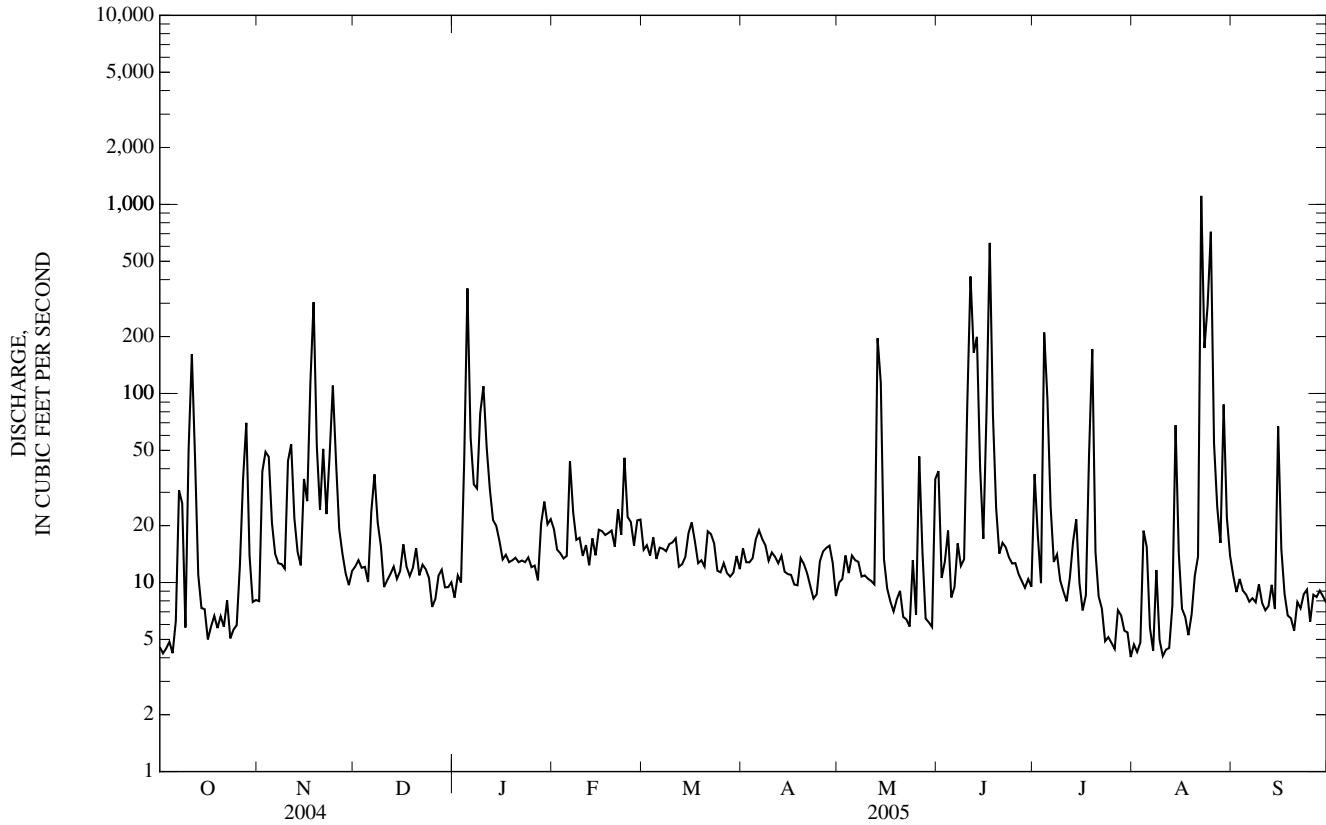
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	8.0	12	8.3	19	15	15	10	39	37	4.7	11
2	4.2	39	13	11	15	16	13	10	11	18	4.3	8.9
3	4.5	49	12	10	14	14	13	14	13	9.9	4.8	10
4	4.9	46	12	45	13	17	13	11	19	210	19	9.1
5	4.2	21	10	359	14	13	17	14	8.3	93	15	8.6
6	6.3	14	24	58	44	15	19	13	9.5	25	5.8	7.9
7	31	13	37	33	24	15	17	13	16	13	4.4	8.3
8	26	13	21	31	17	15	16	11	12	14	12	7.9
9	5.8	12	16	79	17	16	13	11	13	10	5.0	9.8
10	51	44	9.5	109	14	16	14	10	88	9.0	4.1	7.8
11	161	54	10	52	16	17	14	10	416	8.0	4.4	7.1
12	45	22	11	31	12	12	13	9.8	164	11	4.5	7.5
13	11	15	12	21	17	13	14	196	199	16	7.6	9.7
14	7.3	12	10	20	14	14	11	114	41	22	68	7.2
15	7.2	35	11	17	19	18	11	13	17	9.9	14	67
16	5.0	27	16	13	19	21	11	9.3	81	7.1	7.3	15
17	5.9	115	12	14	18	16	9.8	7.9	626	8.6	6.6	8.7
18	6.7	304	11	13	18	13	9.7	7.0	77	48	5.3	6.7
19	5.7	53	12	13	19	13	13	8.2	25	172	6.8	6.5
20	6.6	24	15	14	15	12	13	9.0	14	15	11	5.6
21	5.8	51	11	13	24	19	11	6.6	16	8.4	14	7.9
22	8.0	23	12	13	18	18	9.6	6.4	15	7.3	1,110	7.3
23	5.1	47	12	13	46	16	8.2	5.9	14	4.9	174	8.7
24	5.6	110	11	14	22	12	8.7	13	13	5.1	293	9.2
25	6.0	44	7.4	12	21	11	13	6.7	13	4.8	717	6.2
26	12	19	8.2	12	16	13	15	46	11	4.5	54	8.6
27	36	14	11	10	21	11	15	15	10	7.1	25	8.4
28	70	11	12	20	22	11	16	6.4	9.4	6.7	16	9.1
29	14	9.7	9.4	27	---	11	13	6.2	10	5.6	87	8.5
30	7.9	12	9.5	20	---	14	8.5	5.8	9.5	5.4	22	7.8
31	8.1	---	10	22	---	12	---	35	---	4.0	14	---
TOTAL	582.4	1,260.7	400.0	1,127.3	548	449	387.5	654.2	2,009.7	820.3	2,740.6	312.0
MEAN	18.8	42.0	12.9	36.4	19.6	14.5	12.9	21.1	67.0	26.5	88.4	10.4
MAX	161	304	37	359	46	21	19	196	626	210	1,110	67
MIN	4.2	8.0	7.4	8.3	12	11	8.2	5.8	8.3	4.0	4.1	5.6
AC-FT	1,160	2,500	793	2,240	1,090	891	769	1,300	3,990	1,630	5,440	619

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1996	42.5	145	(1999)	4.64	(2002)
1997	36.0	147	(1999)	6.86	(2004)
1998	29.3	66.2	(1998)	6.15	(2002)
1999	26.6	60.2	(1999)	8.60	(2002)
2000	35.2	101	(1997)	10.0	(2002)
2001	60.2	200	(1998)	7.28	(2002)
2002	53.0	205	(1999)	8.27	(1996)
2003	41.6	71.3	(1999)	9.25	(1996)
2004	50.7	224	(1999)	14.4	(2003)
2005	34.4	120	(1997)	5.93	(2003)
2006	26.0	88.4	(2005)	5.34	(2001)
2007	26.6	71.4	(1997)	6.66	(2000)

07160350 SKELETON CREEK AT ENID, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL TOTAL	11,468.3		11,291.7		39.7	
ANNUAL MEAN	31.3		30.9		17.5	
HIGHEST ANNUAL MEAN					98.4	
LOWEST ANNUAL MEAN					17.5	
HIGHEST DAILY MEAN	1,680	Mar 4	1,110	Aug 22	3,350	Nov 1, 1998
LOWEST DAILY MEAN	4.2	Sep 20	4.0	Jul 31	2.1	Aug 22, 2003
ANNUAL SEVEN-DAY MINIMUM	4.8	Sep 29	5.1	Jul 28	2.6	Sep 6, 2003
MAXIMUM PEAK FLOW			2,760	Aug 22	8,180	Nov 1, 1998
MAXIMUM PEAK STAGE			9.19	Aug 22	14.70	Nov 1, 1998
ANNUAL RUNOFF (AC-FT)	22,750		22,400		28,740	
10 PERCENT EXCEEDS	45		47		52	
50 PERCENT EXCEEDS	11		13		13	
90 PERCENT EXCEEDS	6.0		6.4		5.8	



07160500 SKELETON CREEK NEAR LOVELL, OK

LOCATION.--Lat 36°03'36", long 97°35'05", in NW ¼ SW ¼ sec.1, T.18 N., R.4 W., Logan County, Hydrologic Unit 11050002, on right bank downstream bridge abutment on State Highway 74, 2 mi upstream from Otter Creek, 2.8 mi east of Lovell, and at mile 14.6.

DRAINAGE AREA.--410 mi².

PERIOD OF RECORD.--October 1949 to September 1993, October 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 899.76 ft above NGVD of 1929 (Oklahoma State Highway Department datum). Prior to Dec. 5, 1949, nonrecording gage at site 60 ft downstream at datum 14.70 ft higher. Prior to Oct. 1, 1979, gage at present site and datum 15.00 ft higher, prior to Oct. 1, 2001, 10 ft higher.

REMARKS.--Records fair. U.S. Geological Survey satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 18	1930	3,590	22.42	Aug 22	1400	*7,910	*32.64
Jan 5	1930	3,230	21.48	Aug 26	0030	2,680	20.65
Jun 18	0030	5,270	26.28				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	16	74	46	109	83	41	21	159	24	12	61
2	6.4	18	72	47	107	75	40	20	133	36	10	49
3	7.0	49	68	48	104	70	40	21	44	34	10	40
4	6.9	153	68	70	92	68	37	21	32	114	9.7	36
5	6.5	104	67	2,130	85	66	34	23	31	816	10	38
6	6.5	54	71	1,540	146	63	37	22	27	1,380	143	32
7	7.9	35	123	358	252	62	43	22	19	159	31	31
8	9.6	26	188	209	167	61	44	22	18	75	15	29
9	32	24	119	233	125	59	37	20	19	50	11	26
10	26	24	91	372	105	59	36	19	18	37	15	25
11	161	82	74	318	96	57	33	18	446	31	10	25
12	267	165	68	206	93	56	32	17	1,280	47	9.1	24
13	104	75	62	157	97	55	31	19	1,270	188	10	24
14	41	46	57	124	97	51	29	1,420	653	216	59	42
15	22	41	52	100	86	55	29	492	131	105	169	1,000
16	16	90	52	e88	80	66	28	97	165	44	53	196
17	14	222	54	e87	76	74	27	57	4,220	31	25	84
18	12	2,980	56	e88	74	68	27	41	3,600	24	19	53
19	11	1,650	51	e90	76	60	26	35	334	47	15	40
20	11	252	53	93	80	59	26	31	152	119	16	34
21	10	146	50	93	79	64	27	29	97	36	270	32
22	11	136	53	90	78	76	25	26	76	20	4,930	28
23	11	130	43	80	84	e70	22	22	62	18	5,480	30
24	12	523	e32	77	129	e64	21	21	50	16	1,470	30
25	11	417	e45	78	111	57	20	22	41	12	1,370	29
26	11	190	e46	77	88	55	21	28	36	12	1,140	28
27	117	129	49	74	83	52	25	44	34	11	161	25
28	43	100	50	77	88	e51	25	40	30	11	101	28
29	81	87	50	91	---	e49	24	26	25	14	211	25
30	32	79	50	107	---	48	25	20	24	13	351	25
31	20	---	47	110	---	46	---	34	---	11	96	---
TOTAL	1,133.7	8,043	2,035	7,358	2,887	1,899	912	2,750	13,226	3,751	16,231.8	2,169
MEAN	36.6	268	65.6	237	103	61.3	30.4	88.7	441	121	524	72.3
MAX	267	2,980	188	2,130	252	83	44	1,420	4,220	1,380	5,480	1,000
MIN	6.4	16	32	46	74	46	20	17	18	11	9.1	24
AC-FT	2,250	15,950	4,040	14,590	5,730	3,770	1,810	5,450	26,230	7,440	32,200	4,300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2005, BY WATER YEAR (WY)

MEAN	170	103	51.6	54.2	71.3	152	127	370	225	99.7	84.2	131
MAX	2,450	1,285	369	357	667	1,320	847	2,850	1,390	739	966	1,046
(WY)	(1987)	(1975)	(1993)	(1993)	(1975)	(2004)	(1988)	(1957)	(1957)	(1950)	(1992)	(1961)
MIN	0.40	1.34	2.13	3.23	3.81	2.55	2.80	4.72	8.41	0.34	3.45	0.40
(WY)	(1953)	(1955)	(1955)	(1953)	(1953)	(1955)	(1955)	(1971)	(1959)	(1954)	(1971)	(1956)

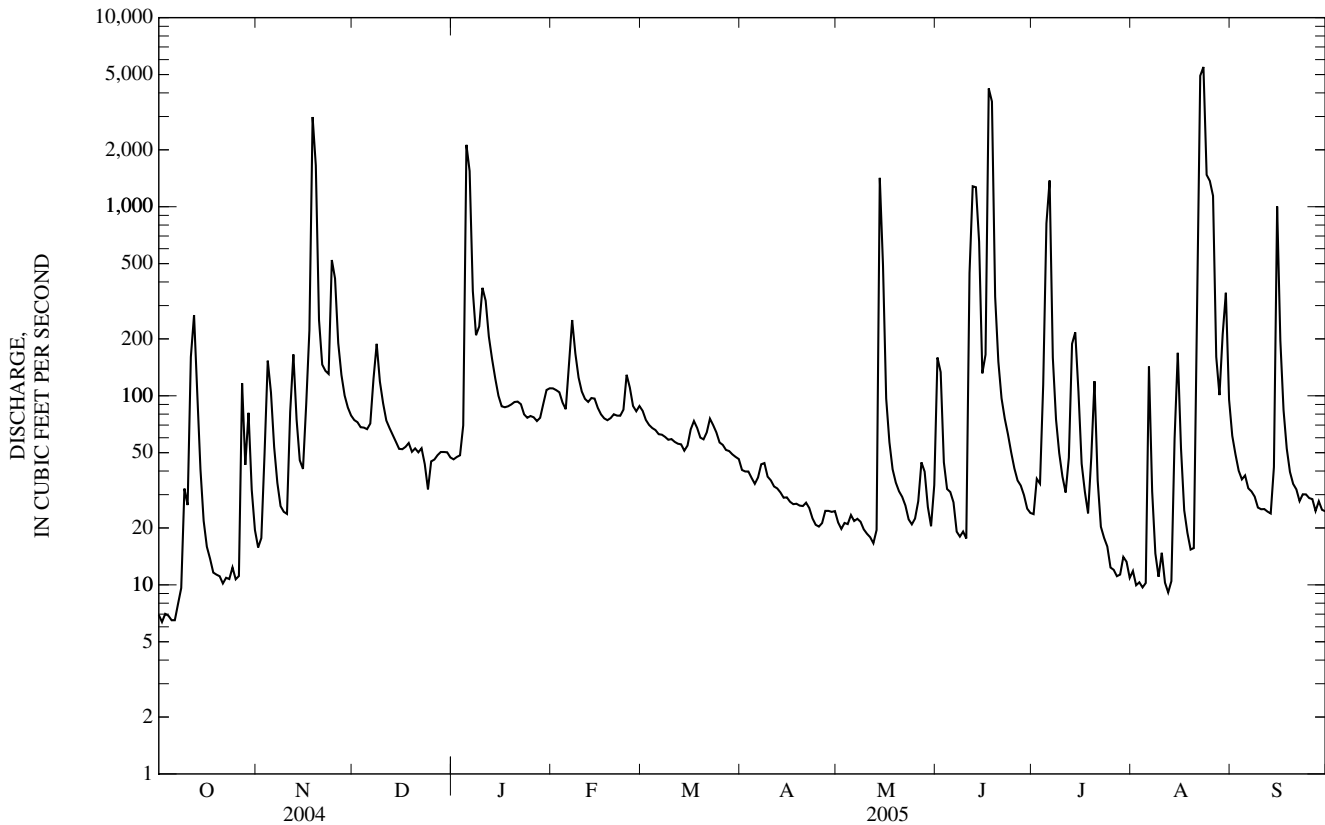
e Estimated

07160500 SKELETON CREEK NEAR LOVELL, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1950 - 2005	
ANNUAL TOTAL	74,587.7		62,395.5		137	
ANNUAL MEAN	204		171		501	
HIGHEST ANNUAL MEAN					1987	
LOWEST ANNUAL MEAN					16.9	
HIGHEST DAILY MEAN	23,200	Mar 5	5,480	Aug 23	39,200	May 16, 1957
LOWEST DAILY MEAN	6.4	Oct 2	6.4	Oct 2	a0.00	Sep 23, 1953
ANNUAL SEVEN-DAY MINIMUM	6.8	Sep 30	6.9	Oct 1	0.00	Sep 23, 1953
MAXIMUM PEAK FLOW			7,910	Aug 22	b75,200	May 16, 1957
MAXIMUM PEAK STAGE			32.64	Aug 22	45.47	May 9, 1993
ANNUAL RUNOFF (AC-FT)	147,900		123,800		99,220	
10 PERCENT EXCEEDS	165		207		177	
50 PERCENT EXCEEDS	41		50		16	
90 PERCENT EXCEEDS	10		15		4.0	

a No flow at times in 1953, 1954, 1956.

b Gage height 44.58 ft.



07161450 CIMARRON RIVER NEAR RIPLEY, OK

LOCATION.--Lat 35°59'09", long 96°54'43", in SE ¼ SE ¼ sec.31, T.18 N., R.4 E., Payne County, Hydrologic Unit 11050003, on right bank at downstream side of bridge on State Highway 33, 2.2 mi upstream from Stillwater Creek, 2.5 mi south of Ripley, 2.8 mi downstream from Sand Creek, 7.0 mi east of Perkins, and at mile 79.2.

DRAINAGE AREA.--17,979 mi² of which 4,926 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 795.86 ft above NGVD of 1929.

REMARKS.--No estimated daily discharge. Records good. U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jun 17	0900	21,400	16.98	Aug 23	1500	*24,000	*17.70

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

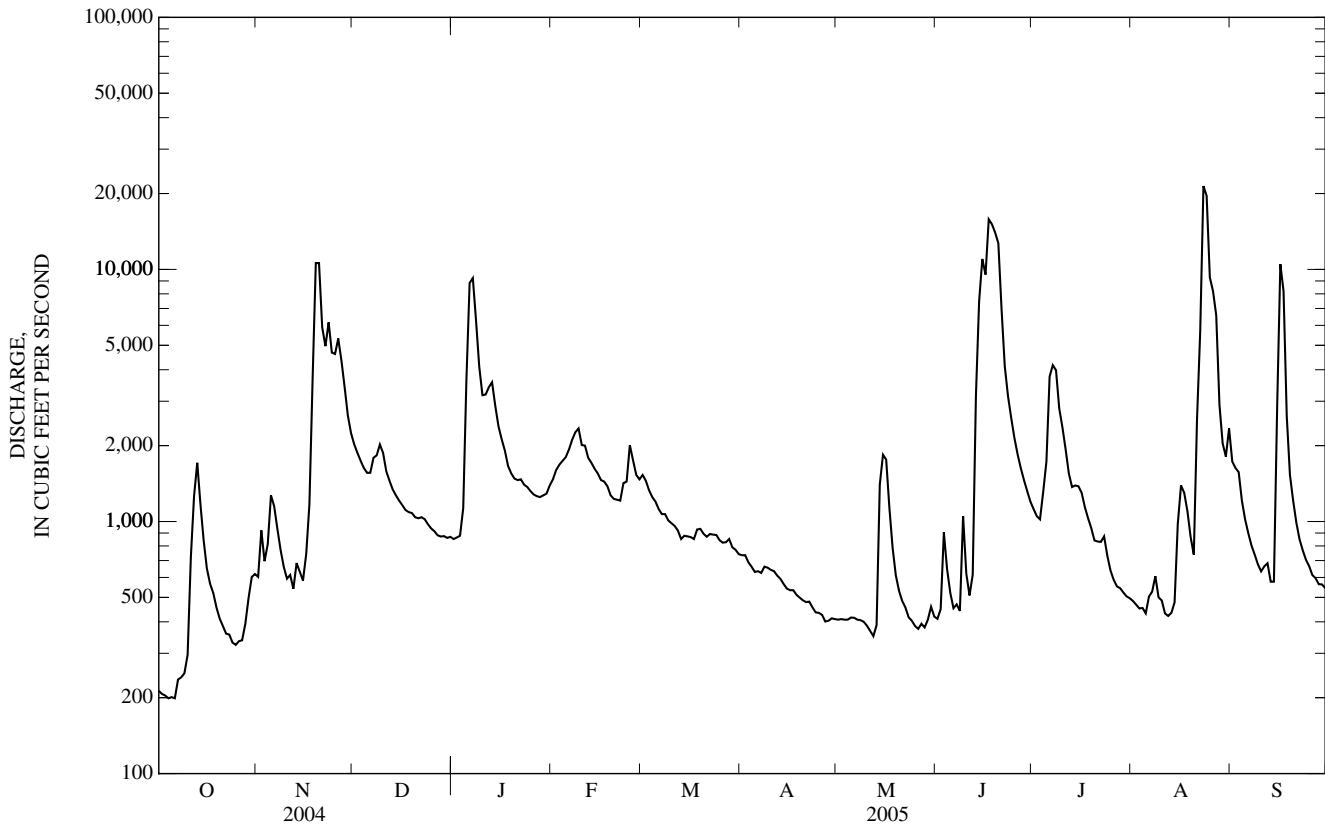
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	603	2,020	852	1,470	1,530	735	408	411	1,120	484	1,730
2	207	922	1,870	864	1,600	1,450	735	410	449	1,050	468	1,630
3	204	696	1,740	878	1,680	1,330	689	408	906	1,020	452	1,570
4	199	814	1,630	1,130	1,740	1,250	661	408	648	1,310	454	1,210
5	201	1,270	1,560	3,660	1,800	1,200	631	416	521	1,730	432	1,020
6	199	1,150	1,560	8,830	1,930	1,120	635	415	453	3,760	504	899
7	236	937	1,790	9,240	2,110	1,070	625	408	469	4,170	527	803
8	241	773	1,830	6,280	2,260	1,070	662	406	442	3,980	607	739
9	250	661	2,020	4,120	2,340	1,010	656	400	1,050	2,810	500	676
10	296	593	1,870	3,170	2,010	984	643	386	622	2,360	486	634
11	722	614	1,580	3,190	2,000	960	635	368	509	1,930	432	664
12	1,260	541	1,450	3,410	1,790	920	610	351	615	1,550	422	683
13	1,710	684	1,340	3,570	1,710	852	592	388	3,150	1,370	434	577
14	1,170	632	1,270	2,880	1,620	878	565	1,400	7,460	1,390	478	577
15	842	583	1,210	2,390	1,550	873	542	1,840	11,000	1,380	978	2,830
16	652	743	1,160	2,120	1,460	867	534	1,760	9,540	1,300	1,390	10,500
17	566	1,170	1,110	1,910	1,440	852	534	1,130	15,800	1,140	1,300	8,190
18	520	3,670	1,090	1,660	1,380	930	512	786	15,100	1,030	1,100	2,620
19	456	10,600	1,080	1,550	1,270	935	499	612	14,000	941	869	1,530
20	412	10,600	1,040	1,480	1,230	894	487	531	12,700	841	738	1,210
21	385	5,890	1,030	1,460	1,220	870	479	484	6,970	833	2,540	988
22	359	4,960	1,040	1,470	1,210	892	481	456	4,130	830	5,720	849
23	356	6,170	1,020	1,400	1,420	887	456	417	3,150	873	21,400	768
24	331	4,680	975	1,370	1,440	884	436	404	2,580	732	19,600	705
25	324	4,620	939	1,320	2,010	843	434	385	2,150	639	9,290	665
26	335	5,320	915	1,280	1,750	824	426	375	1,850	587	8,190	613
27	338	4,350	882	1,260	1,530	828	401	393	1,630	553	6,570	596
28	392	3,410	872	1,250	1,470	852	404	380	1,460	544	2,900	564
29	496	2,630	875	1,270	---	790	413	408	1,320	523	2,040	563
30	602	2,240	861	1,290	---	772	410	459	1,200	505	1,810	544
31	619	---	869	1,390	---	742	---	420	---	496	2,340	---
TOTAL	15,093	82,526	40,498	77,944	46,440	30,159	16,522	17,812	122,285	43,297	95,455	47,147
MEAN	487	2,751	1,306	2,514	1,659	973	551	575	4,076	1,397	3,079	1,572
MAX	1,710	10,600	2,020	9,240	2,340	1,530	735	1,840	15,800	4,170	21,400	10,500
MIN	199	541	861	852	1,210	742	401	351	411	496	422	544
AC-FT	29,940	163,700	80,330	154,600	92,110	59,820	32,770	35,330	242,600	85,880	189,300	93,520

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2005, BY WATER YEAR (WY)

MEAN	1,149	1,904	1,607	1,370	1,548	3,397	3,329	3,877	3,945	1,373	1,452	1,381
MAX	4,454	11,490	4,585	3,541	4,723	9,824	12,610	26,790	18,300	4,301	5,520	4,554
(WY)	(2003)	(1999)	(1999)	(1993)	(1999)	(1990)	(1999)	(1999)	(1995)	(1999)	(1995)	(1989)
MIN	193	210	233	287	244	234	402	317	593	246	102	119
(WY)	(1991)	(2002)	(1991)	(1991)	(1991)	(1991)	(1991)	(1996)	(1996)	(2003)	(2003)	(2000)

07161450 CIMARRON RIVER NEAR RIPLEY, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1988 - 2005	
ANNUAL TOTAL	673,721		635,178		2,194	
ANNUAL MEAN	1,841		1,740		5,533	
HIGHEST ANNUAL MEAN					437	
LOWEST ANNUAL MEAN					137,000	
HIGHEST DAILY MEAN	61,000	Mar 5	21,400	Aug 23	137,000	May 10, 1993
LOWEST DAILY MEAN	199	Oct 4	199	Oct 4,6	36	Aug 28, 2003
ANNUAL SEVEN-DAY MINIMUM	208	Oct 1	208	Oct 1	45	Aug 23, 2003
MAXIMUM PEAK FLOW			24,000	Aug 23	141,000	May 10, 1993
MAXIMUM PEAK STAGE			17.70	Aug 23	28.36	May 10, 1993
ANNUAL RUNOFF (AC-FT)	1,336,000		1,260,000		1,590,000	
10 PERCENT EXCEEDS	3,350		3,470		4,610	
50 PERCENT EXCEEDS	665		930		849	
90 PERCENT EXCEEDS	275		409		248	



ARKANSAS RIVER BASIN

07164500 ARKANSAS RIVER AT TULSA, OK

LOCATION.--Lat 36°08'26", long 96°00'22", in NE ¼ SW ¼ sec.11, T.19 N., R.12 E., Tulsa County, Hydrologic Unit 11110101, at right abutment on downstream side of 11th Street bridge in Tulsa, 10.1 mi upstream from Polecat Creek, 15.1 mi downstream from Keystone Dam, and at mile 523.7.

DRAINAGE AREA.--74,615 mi², of which 12,541 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage- height records collected in this vicinity since 1904 are published in reports of the National Weather Service.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 615.23 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Feb. 2, 1939, nonrecording gage and Feb. 2, 1939 to Sept. 30, 1952, water-stage recorder at datum 3.00 ft higher.

REMARKS.--No estimated daily discharge. Records fair. Except for 109 mi² intervening area, flow completely regulated by Keystone Lake (station 07164200) since September 1964. Prior to September 1964, minor regulation by John Martin Lake in Colorado and by Great Salt Plains Lake (station 07150000). U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1904, 22.8 ft, June 13, 1923, present datum, from reports of National Weather Service.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,540	332	12,800	1,990	11,900	12,600	12,500	652	4,560	8,640	8,070	29,100
2	1,830	749	13,400	372	12,100	12,500	12,400	2,190	4,720	7,270	6,030	18,700
3	186	1,730	9,520	2,380	12,100	12,800	12,400	1,050	3,900	6,090	6,620	8,460
4	606	1,880	2,770	1,820	12,000	11,700	12,400	2,960	5,410	3,400	6,820	7,450
5	1,540	1,780	381	6,160	12,100	10,100	12,300	5,340	6,030	9,370	7,210	7,540
6	836	1,650	6,720	5,010	12,300	10,100	11,900	5,590	5,630	12,000	5,040	7,690
7	1,790	151	8,500	12,900	12,200	10,000	9,470	3,040	7,470	12,000	4,540	10,700
8	1,580	228	9,210	13,500	12,200	10,100	10,400	1,530	7,730	11,900	5,260	7,080
9	1,040	3,280	9,030	13,600	12,300	10,100	7,160	3,530	8,380	11,800	6,110	7,190
10	160	3,180	9,270	14,200	12,100	10,100	6,740	6,120	15,000	11,800	6,290	2,480
11	701	2,740	5,040	16,800	12,100	9,170	6,080	6,000	9,930	11,800	6,090	217
12	1,270	6,040	3,190	16,400	12,200	6,580	795	6,090	21,800	11,800	7,000	4,370
13	174	4,650	7,190	12,900	12,200	4,850	1,100	4,870	23,200	11,300	4,500	7,330
14	1,030	4,060	8,420	15,200	12,100	378	3,330	3,030	26,500	11,800	5,910	6,490
15	679	7,350	5,510	18,600	12,100	3,740	2,860	349	33,700	11,700	6,770	6,430
16	1,880	9,640	3,540	18,600	12,100	3,900	1,840	486	38,800	7,790	6,670	7,700
17	172	10,500	2,260	18,300	9,190	3,790	410	2,370	48,200	7,810	6,590	7,110
18	4,170	9,510	1,550	18,200	3,750	3,400	807	2,480	74,600	7,360	6,000	7,300
19	5,920	9,500	383	18,100	736	1,660	3,260	4,660	72,200	7,320	8,720	7,360
20	5,970	2,900	2,440	18,000	525	2,410	4,830	3,070	69,200	8,560	4,530	8,730
21	3,180	5,470	4,690	15,700	4,950	535	4,910	1,750	58,000	8,110	2,380	9,400
22	2,400	12,400	6,770	12,300	11,900	3,280	4,060	351	39,200	8,140	5,950	10,200
23	1,200	12,600	3,880	12,100	12,300	8,350	3,630	635	37,600	7,880	13,400	10,300
24	173	13,100	3,230	12,000	12,900	12,400	1,690	4,200	34,700	7,880	15,000	3,200
25	73	15,000	813	12,400	12,700	12,100	4,180	12,200	34,100	8,150	20,200	212
26	3,340	14,800	280	11,800	12,500	12,100	4,760	9,530	33,200	8,770	29,800	419
27	2,840	13,900	1,700	11,800	12,700	12,500	5,070	7,760	32,100	7,750	30,500	2,140
28	2,450	13,900	2,660	11,900	12,200	12,600	5,010	2,290	29,600	7,130	31,600	2,770
29	828	13,800	2,970	11,900	---	12,600	3,430	217	19,700	6,830	31,800	1,910
30	1,720	12,700	1,700	11,900	---	12,200	4,070	1,040	12,000	6,950	31,900	421
31	228	---	2,840	11,900	---	12,300	---	4,790	---	7,050	31,500	---
TOTAL	51,506	209,520	152,657	378,732	300,451	260,943	173,792	110,170	817,160	276,150	368,800	210,399
MEAN	1,661	6,984	4,924	12,220	10,730	8,418	5,793	3,554	27,240	8,908	11,900	7,013
MAX	5,970	15,000	13,400	18,600	12,900	12,800	12,500	12,200	74,600	12,000	31,900	29,100
MIN	73	151	280	372	525	378	410	217	3,900	3,400	2,380	212
AC-FT	102,200	415,600	302,800	751,200	595,900	517,600	344,700	218,500	1,621,000	547,700	731,500	417,300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

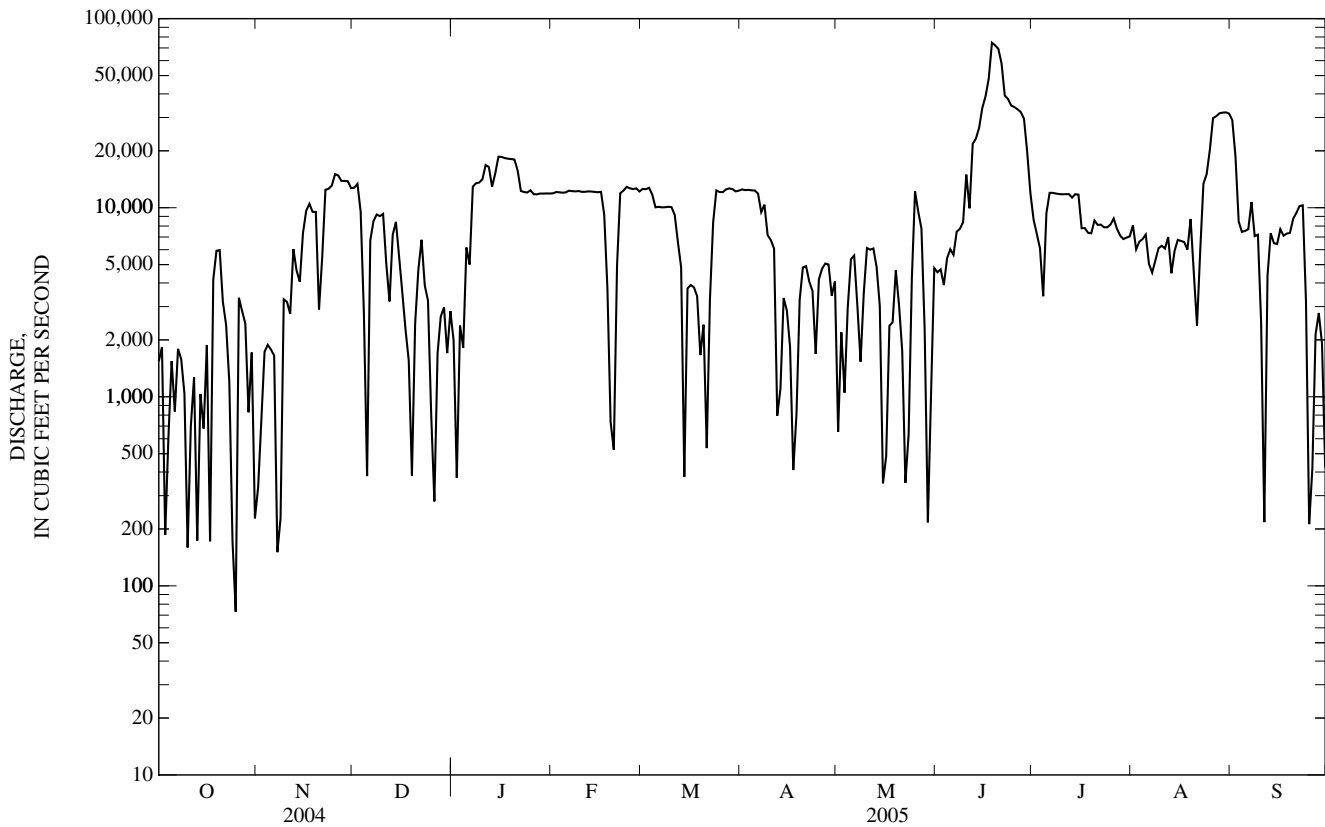
	MEAN	7,465	7,523	4,955	5,259	5,903	11,800	12,070	13,770	15,120	9,718	5,879	5,348
MAX	72,720	54,540	16,830	19,850	22,500	42,890	44,460	81,400	69,820	37,630	32,970	23,280	
(WY)	(1987)	(1999)	(1993)	(1998)	(1993)	(1987)	(1973)	(1993)	(1995)	(1999)	(1995)	(1989)	
MIN	491	457	545	483	494	490	557	881	2,595	1,314	783	893	
(WY)	(1965)	(1983)	(2002)	(1967)	(1967)	(1977)	(1981)	(1967)	(1966)	(1991)	(2001)	(1998)	

07164500 ARKANSAS RIVER AT TULSA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1965 - 2005	
ANNUAL TOTAL	3,584,811		3,310,280		a8,741	
ANNUAL MEAN	9,795		9,069		22,930	
HIGHEST ANNUAL MEAN					1,813	
LOWEST ANNUAL MEAN					261,000	
HIGHEST DAILY MEAN	69,700	Mar 8	74,600	Jun 18	261,000	Oct 5, 1986
LOWEST DAILY MEAN	73	Oct 25	73	Oct 25	b33	Feb 25, 1977
ANNUAL SEVEN-DAY MINIMUM	722	Oct 9	722	Oct 9	277	Oct 20, 1982
MAXIMUM PEAK FLOW			75,600	Jun 18	307,000	Oct 5, 1986
MAXIMUM PEAK STAGE			13.26	Jun 18	25.21	Oct 5, 1986
ANNUAL RUNOFF (AC-FT)	7,110,000		6,566,000		6,333,000	
10 PERCENT EXCEEDS	20,300		15,400		22,100	
50 PERCENT EXCEEDS	6,300		7,110		4,420	
90 PERCENT EXCEEDS	1,090		822		709	

a Prior to regulation 1926-64, 6,554 ft³/s.

b Minimum daily for period of record, 27 ft³/s, Oct.12, 13. 1956.



07164500 ARKANSAS RIVER AT TULSA, OK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, March 1977 to current year.

CHEMICAL QUALITY DATA.--Water years 1960-61, March 1977 to September 1995.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1977 to July 1985, October 1987 to May 1998.

WATER TEMPERATURE: March 1977 to July 1985, October 1987 to current year.

INSTRUMENTATION.--Water temperature monitor provides continuous readings.

REMARKS.--Prior to September 1985, once-daily observer's readings were published. Water-quality monitor records for these periods are available upon request at the District office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 7,820 microsiemens, Feb. 16, 1978; minimum, 299 microsiemens, Nov. 5, 1994.

WATER TEMPERATURE: Maximum, 34.2 C, Aug. 4, 2001; minimum, -0.2 C, Dec. 25, 2000, Jan. 2, 2001.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded (more than 20% missing record), 32.7°C, July 22; minimum recorded (more than 20% missing record), 2.9°C, Jan. 23.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	12.3	10.2	11.1	---	---	---
2	---	---	---	---	---	---	11.9	10.4	11.1	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	7.3	4.8	6.2
6	---	---	---	---	---	---	---	---	---	5.2	3.2	4.3
7	---	---	---	---	---	---	---	---	---	6.8	4.4	5.9
8	---	---	---	---	---	---	---	---	---	7.9	6.3	6.9
9	---	---	---	---	---	---	---	---	---	8.5	6.4	7.3
10	---	---	---	---	---	---	---	---	---	8.6	6.7	7.5
11	---	---	---	---	---	---	---	---	---	7.6	6.1	6.6
12	---	---	---	---	---	---	---	---	---	7.7	6.1	6.9
13	---	---	---	---	---	---	---	---	---	7.1	5.5	6.1
14	---	---	---	---	---	---	---	---	---	5.7	4.5	5.0
15	---	---	---	---	---	---	---	---	---	5.0	3.9	4.4
16	---	---	---	---	---	---	---	---	---	4.8	3.7	4.1
17	---	---	---	---	---	---	---	---	---	4.7	3.3	3.9
18	---	---	---	---	---	---	---	---	---	5.5	3.6	4.4
19	---	---	---	---	---	---	---	---	---	6.0	4.3	5.0
20	---	---	---	---	---	---	---	---	---	6.2	4.3	5.2
21	---	---	---	---	---	---	---	---	---	6.2	4.5	5.2
22	---	---	---	---	---	---	---	---	---	5.2	3.7	4.4
23	---	---	---	---	---	---	---	---	---	5.0	2.9	3.8
24	---	---	---	14.3	12.6	13.2	---	---	---	5.9	3.4	4.5
25	---	---	---	14.3	12.2	13.1	---	---	---	6.3	4.0	5.0
26	---	---	---	14.5	12.6	13.5	---	---	---	6.2	4.4	5.2
27	---	---	---	13.9	12.3	13.1	---	---	---	5.1	4.1	4.6
28	---	---	---	12.5	11.7	12.2	---	---	---	4.7	3.9	4.3
29	---	---	---	12.3	11.5	12.0	---	---	---	4.9	4.0	4.5
30	---	---	---	11.8	10.8	11.3	---	---	---	4.6	4.2	4.4
31	---	---	---	---	---	---	---	---	---	5.2	4.5	4.8

07164500 ARKANSAS RIVER AT TULSA, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.3	4.6	4.9	10.1	7.3	8.6	14.2	11.3	12.6	18.6	15.9	16.9
2	5.4	4.5	4.9	11.1	7.9	9.3	15.1	11.1	13.0	18.3	14.3	16.1
3	6.7	4.1	5.2	11.3	8.5	9.7	15.4	11.6	13.3	19.9	14.8	17.3
4	6.9	4.2	5.4	12.2	8.9	10.3	16.5	12.3	14.1	19.1	15.8	17.6
5	6.8	4.9	5.7	11.8	9.4	10.6	15.8	13.5	14.5	18.5	16.6	17.6
6	6.3	5.4	5.9	12.2	9.0	10.5	14.6	13.4	14.1	21.3	16.3	18.6
7	6.1	5.3	5.7	11.2	9.9	10.6	16.1	13.7	14.7	19.7	16.9	18.4
8	5.7	5.1	5.3	12.4	8.9	10.4	16.8	13.4	15.0	20.4	18.0	18.9
9	6.7	4.3	5.4	10.9	9.4	10.1	17.9	13.3	15.7	24.1	17.2	20.0
10	7.4	4.7	5.9	12.3	8.9	10.4	---	---	---	24.1	17.7	20.1
11	7.8	5.2	6.4	12.6	9.3	10.9	---	---	---	24.9	18.4	20.7
12	7.2	5.9	6.6	14.8	10.0	12.2	---	---	---	22.5	17.8	19.6
13	9.3	7.0	7.9	---	---	---	---	---	---	22.0	18.2	19.6
14	---	---	---	---	---	---	20.2	14.0	16.6	23.4	18.1	20.6
15	---	---	---	---	---	---	21.2	14.9	17.4	23.2	19.8	21.4
16	---	---	---	---	---	---	20.1	15.3	17.8	24.3	18.8	21.3
17	---	---	---	---	---	---	21.9	18.9	20.2	23.2	17.8	20.5
18	---	---	---	---	---	---	21.4	18.2	19.8	23.9	18.4	21.4
19	---	---	---	---	---	---	19.8	16.3	17.9	26.1	19.6	22.2
20	---	---	---	---	---	---	21.7	16.7	18.5	27.2	20.0	23.3
21	---	---	---	---	---	---	22.1	16.9	19.0	27.1	20.9	24.1
22	9.6	7.8	8.6	---	---	---	19.1	15.8	17.5	30.3	25.2	27.6
23	8.5	8.0	8.2	11.5	9.9	10.6	18.6	14.4	16.5	29.5	25.5	27.6
24	10.3	7.4	8.7	13.2	9.9	11.3	19.4	14.9	17.1	25.5	20.9	22.5
25	10.5	7.5	8.9	12.1	10.8	11.4	18.6	16.4	17.3	23.7	19.8	21.6
26	10.1	8.2	9.1	11.2	10.4	10.7	18.5	15.1	16.8	22.8	19.7	21.1
27	9.4	8.5	9.0	12.2	10.0	10.9	20.1	15.6	17.7	23.1	19.9	21.3
28	9.5	8.1	8.7	14.2	10.2	12.0	20.5	15.8	18.2	24.5	19.7	22.2
29	---	---	---	14.1	11.3	12.6	19.0	15.0	16.5	26.8	22.9	24.7
30	---	---	---	14.7	11.9	13.1	19.8	14.6	16.8	27.0	23.0	24.9
31	---	---	---	13.6	11.4	12.5	---	---	---	25.1	21.4	22.9
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.9	20.9	22.3	29.0	24.9	27.1	31.5	26.7	28.9	28.9	26.8	27.8
2	27.7	20.7	23.3	29.9	26.0	27.9	31.7	27.1	29.2	29.3	26.9	28.0
3	26.1	21.5	23.5	30.6	26.3	28.3	31.6	27.3	29.2	29.3	26.3	27.8
4	25.7	21.6	23.5	29.6	24.9	27.4	29.7	27.3	28.5	27.8	24.7	26.3
5	25.0	21.2	23.1	29.0	26.4	27.7	31.0	26.9	28.7	28.6	25.3	26.8
6	27.2	22.0	24.2	29.7	26.6	28.1	30.9	26.8	28.7	28.5	25.0	26.7
7	25.5	22.4	23.9	30.0	26.6	28.2	31.7	27.2	29.4	28.2	25.3	26.9
8	27.1	22.2	24.5	30.5	26.8	28.5	31.9	27.4	29.6	28.4	25.1	26.8
9	24.4	22.0	23.1	30.6	26.8	28.6	31.7	27.5	29.4	28.3	25.2	26.7
10	26.2	22.6	24.3	30.5	26.9	28.7	31.8	27.5	29.4	27.7	24.8	26.4
11	28.2	23.9	25.7	30.8	27.0	28.8	31.2	27.6	29.2	27.3	24.6	25.5
12	27.4	24.6	25.7	29.8	27.2	28.5	31.1	27.5	29.0	27.6	23.9	25.6
13	27.1	24.2	25.3	31.6	27.1	29.0	29.2	27.4	28.4	28.3	25.0	26.7
14	27.0	24.5	25.8	30.9	27.6	29.1	28.6	26.5	27.5	27.1	24.9	25.9
15	27.2	24.8	25.9	30.9	27.6	29.3	28.7	26.0	27.4	25.8	23.6	24.5
16	27.0	24.9	25.7	31.6	27.4	29.4	28.4	26.8	27.7	26.3	23.0	24.7
17	26.4	24.2	25.2	31.6	27.4	29.3	30.6	26.8	28.4	26.2	22.7	24.5
18	26.5	25.0	25.6	31.2	27.2	29.2	31.3	27.1	29.1	27.0	23.9	25.4
19	26.7	25.3	25.9	31.7	27.6	29.4	30.6	27.3	28.9	27.4	24.4	25.9
20	27.2	25.5	26.2	31.5	27.6	29.4	29.7	27.2	28.3	27.4	24.3	25.8
21	27.5	25.7	26.4	31.8	27.6	29.5	29.4	26.1	27.8	27.0	24.1	25.5
22	27.7	25.8	26.6	32.7	28.0	30.0	28.7	26.5	27.6	26.9	23.9	25.3
23	27.8	25.6	26.6	32.4	28.0	30.1	29.3	26.1	27.6	26.7	23.7	25.2
24	28.1	25.8	26.8	31.9	27.9	29.5	30.0	26.9	28.2	26.0	23.9	25.0
25	28.2	26.0	27.0	31.6	27.8	29.5	29.8	27.0	28.2	27.5	23.4	25.3
26	28.5	26.1	27.2	30.3	27.4	28.8	29.6	27.4	28.4	27.3	25.1	26.1
27	28.7	26.3	27.3	29.2	26.3	27.7	29.1	27.0	27.9	26.8	22.9	24.8
28	29.0	26.6	27.7	30.9	25.9	28.2	29.1	27.2	28.1	25.7	23.0	24.3
29	29.9	26.8	28.2	31.4	26.4	28.7	29.0	27.2	28.0	23.0	20.1	21.4
30	30.0	26.5	28.3	31.3	26.8	28.9	29.3	27.1	28.0	22.2	19.5	20.7
31	---	---	---	31.2	26.9	28.9	28.9	26.9	27.8	---	---	---

07164600 JOE CREEK AT 61ST STREET AT TULSA, OK

LOCATION.--Lat 36°04'32", long 95°57'37", in SE ¼ SE ¼ sec.31, T.19 N., R.13 E., Tulsa County, Hydrologic Unit 11110101, at right upstream abutment of 61st Street bridge, .2 mi west of Lewis Avenue, 4 mi north of Jenks and at mile 2.1.

DRAINAGE AREA.--12.2 mi².

PERIOD OF RECORD.--March 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 620.96 ft above NGVD of 1929.

REMARKS.--Records fair except for estimated periods, which are poor. U.S. Geological Survey satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--23,000 ft³/s, May 26, 1984, slope-area measurement at 71st Street, gage height undetermined at 61st Street.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 7	1945	*5,400	*6.03	Apr 5	1715	4,490	5.35

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	55	4.7	2.8	3.3	2.1	79	e1.3	4.3	15	0.96	0.83
2	0.70	57	3.9	2.9	25	2.4	3.1	e1.2	1.0	1.3	1.2	0.87
3	0.86	151	3.4	36	4.2	2.0	3.0	e1.3	1.0	1.3	0.96	0.84
4	1.4	8.7	3.8	239	3.5	2.0	3.4	e1.1	1.0	156	19	31
5	1.0	4.6	32	268	3.4	1.7	218	e1.0	0.91	2.0	2.3	1.4
6	1.1	3.7	138	13	102	1.7	174	e0.93	0.81	1.1	1.4	2.9
7	513	2.7	22	7.4	10	1.7	39	e0.85	0.89	1.1	1.0	1.4
8	24	2.3	7.1	4.4	26	1.3	7.5	e39	0.91	1.0	0.87	1.2
9	4.1	2.3	6.0	3.4	10	1.3	e4.4	e5.3	1.2	0.95	0.87	1.2
10	53	90	4.9	e2.9	5.2	1.3	e3.1	e1.2	79	0.93	0.89	1.1
11	474	63	4.3	e2.4	4.4	1.3	e4.6	e1.0	41	0.97	0.87	2.3
12	10	4.5	4.1	118	26	1.4	e2.5	e0.98	15	1.3	1.2	3.0
13	3.5	3.2	3.5	11	18	1.0	e2.1	e5.4	19	1.1	2.5	3.1
14	21	2.7	e3.4	3.6	4.9	1.1	e1.8	e93	1.1	0.93	271	86
15	2.6	2.5	e3.3	e3.2	4.1	2.5	e1.6	e3.5	0.77	76	316	245
16	1.8	3.1	3.3	e3.2	2.3	1.4	e1.5	e1.3	123	11	5.2	6.5
17	1.7	19	3.2	e3.0	2.2	1.5	e1.4	e1.6	129	1.2	2.0	3.5
18	1.8	9.3	3.4	e3.1	2.3	1.4	e1.4	e1.1	2.2	3.4	1.2	2.6
19	1.5	3.1	3.1	3.1	2.5	1.0	e1.2	199	0.83	0.87	1.0	3.9
20	1.5	2.3	3.7	4.0	2.6	1.2	e1.1	2.2	0.72	0.80	90	4.3
21	1.7	71	2.3	3.6	19	46	e1.0	1.8	0.81	0.80	4.2	1.6
22	2.7	7.5	e3.6	3.9	4.2	14	e1.6	1.0	1.1	0.83	38	1.5
23	1.8	30	e3.3	e3.9	93	2.8	e1.0	6.4	1.1	83	109	1.5
24	1.4	13	e3.4	3.9	14	9.7	e0.95	0.99	1.1	7.7	3.2	1.2
25	1.5	6.0	e3.2	3.6	7.2	10	e58	0.91	0.98	1.9	1.7	1.4
26	48	5.5	e2.9	4.6	2.8	1.6	e2.6	1.2	1.0	1.8	1.3	1.4
27	36	3.9	4.2	2.4	9.1	1.9	e1.3	1.0	0.99	2.7	87	1.5
28	21	3.5	3.1	30	2.7	1.8	e3.3	0.98	0.96	0.91	1.8	1.7
29	8.0	93	2.7	17	---	2.3	e1.7	1.2	1.8	0.88	4.6	1.3
30	2.1	8.3	3.7	5.1	---	2.3	e1.5	0.75	1.0	1.0	1.0	1.3
31	56	---	2.6	7.4	---	1.5	---	0.86	---	1.0	0.90	---
TOTAL	1,301.86	731.7	296.1	819.8	413.9	125.2	626.65	379.35	434.48	380.77	973.12	417.34
MEAN	42.0	24.4	9.55	26.4	14.8	4.04	20.9	12.2	14.5	12.3	31.4	13.9
MAX	513	151	138	268	102	46	218	199	129	156	316	245
MIN	0.70	2.3	2.3	2.4	2.2	1.0	0.95	0.75	0.72	0.80	0.87	0.83
AC-FT	2,580	1,450	587	1,630	821	248	1,240	752	862	755	1,930	828

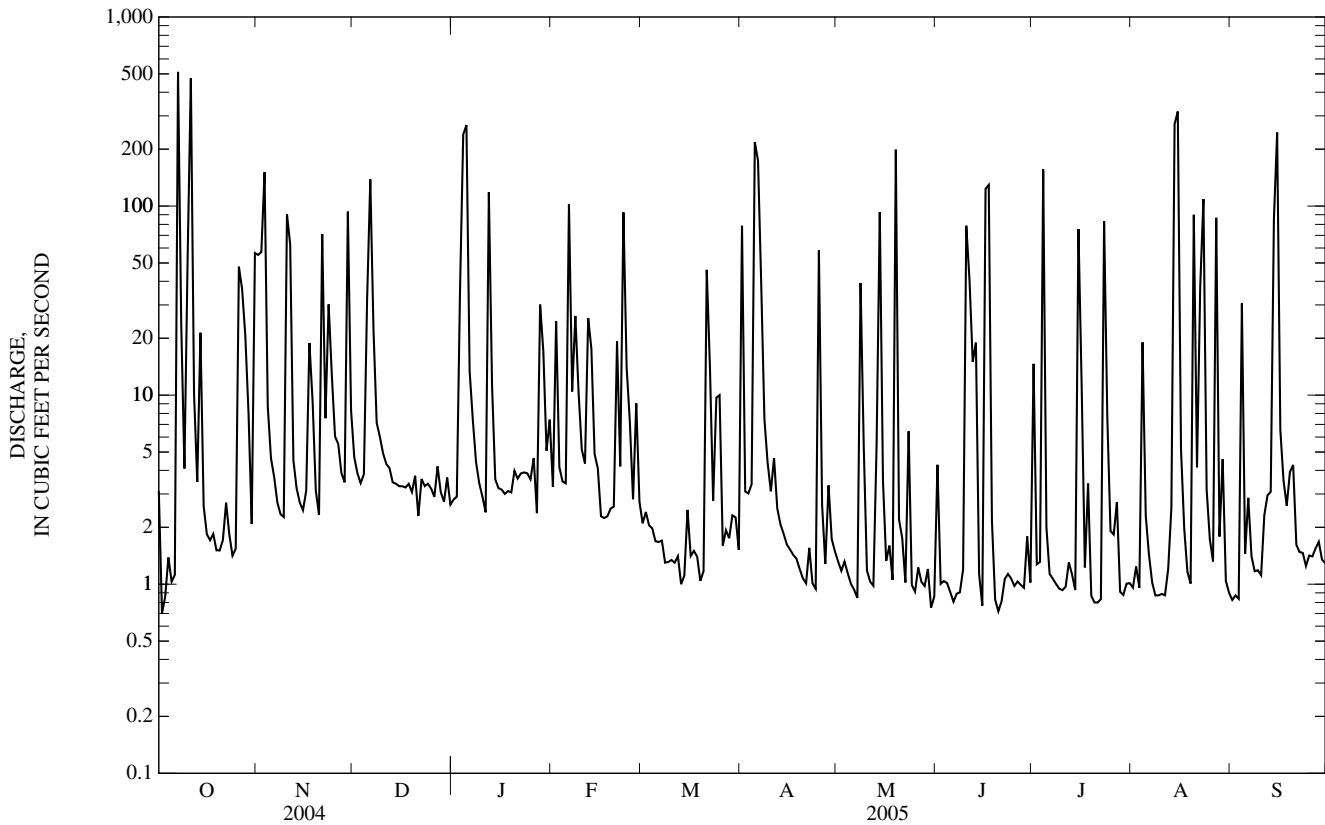
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2005, BY WATER YEAR (WY)

	18.4	18.9	16.5	13.1	14.6	22.9	29.1	41.0	28.8	17.0	15.4	18.1
MEAN												
MAX	53.4	54.1	45.3	28.1	37.2	65.6	71.3	107	86.9	56.8	57.7	43.5
(WY)	(1999)	(1997)	(1993)	(2001)	(1997)	(1998)	(1999)	(1995)	(1995)	(2004)	(2003)	(1999)
MIN	3.29	2.02	2.36	1.66	2.02	4.04	2.85	12.2	1.87	2.39	1.19	3.59
(WY)	(1998)	(1990)	(1990)	(2003)	(1998)	(2005)	(1989)	(1997)	(1988)	(2001)	(2000)	(2002)

e Estimated

07164600 JOE CREEK AT 61ST STREET AT TULSA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1988 - 2005	
ANNUAL TOTAL	8,825.35		6,900.27		21.6	
ANNUAL MEAN	24.1		18.9		35.2	
HIGHEST ANNUAL MEAN					9.49	
LOWEST ANNUAL MEAN					1,470	
HIGHEST DAILY MEAN	722	Jul 2	513	Oct 7	May 6, 2000	1996
LOWEST DAILY MEAN	0.70	Oct 2	0.70	Oct 2	0.28	Jul 4, 1996
ANNUAL SEVEN-DAY MINIMUM	1.00	Sep 16	0.93	Jun 2	0.31	Sep 24, 2002
MAXIMUM PEAK FLOW			5,400	Oct 7	11,600	May 6, 2000
MAXIMUM PEAK STAGE			6.03	Oct 7	10.00	May 6, 2000
ANNUAL RUNOFF (AC-FT)	17,510		13,690		15,610	
10 PERCENT EXCEEDS	42		50		39	
50 PERCENT EXCEEDS	3.1		2.7		3.0	
90 PERCENT EXCEEDS	1.3		0.97		1.1	



07165562 HAIKEY CREEK AT 101ST STREET SOUTH AT TULSA, OK

LOCATION.--Lat 36°01'01", long 95°50'55", in NW ¼ NW ¼ sec.29, T.18 N., R.14 E., Tulsa County, Hydrologic Unit 11110101, near right upstream abutment of 101st Street South bridge, 1.0 mi downstream from unnamed tributary, 2.0 mi upstream from Little Haikey Creek, and at mile 6.4.

DRAINAGE AREA.--17.8 mi².

PERIOD OF RECORD.--January 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 617.82 ft above NGVD of 1929.

REMARKS.--Records poor. U.S. Geological Survey satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	1030	*942	*12.72				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.16	81	6.5	1.5	4.9	4.7	e48	1.1	5.8	e5.0	0.00	0.93
2	0.69	15	4.4	1.6	22	3.9	e7.9	0.86	1.7	e2.1	0.00	0.83
3	0.37	71	3.6	55	e7.3	3.5	3.6	0.83	0.70	0.54	0.00	0.76
4	0.21	12	3.0	315	3.9	3.5	3.0	0.83	0.58	e63	0.00	5.8
5	0.10	4.3	23	346	e4.3	3.1	2.6	0.84	0.51	4.7	e5.8	3.7
6	0.02	2.5	110	36	e90	2.8	e124	0.87	0.56	e2.0	e6.1	1.1
7	0.21	1.7	75	15	e5.0	2.9	116	0.87	0.47	e1.0	0.39	0.75
8	8.5	1.3	11	11	e20	2.5	e15	11	0.41	e0.85	0.25	0.66
9	1.3	1.1	6.4	7.7	e11	3.0	7.1	4.8	0.39	e0.42	0.39	0.59
10	9.0	26	4.6	6.5	7.7	2.3	5.0	1.7	38	e0.31	0.22	0.51
11	245	113	3.7	6.0	5.8	2.2	6.7	0.97	8.2	e0.24	0.08	0.53
12	14	8.2	3.0	9.7	6.5	2.2	3.8	0.77	2.3	e0.70	0.04	0.49
13	3.4	3.8	2.5	13	42	1.9	3.0	1.1	27	e0.41	0.00	0.63
14	12	2.5	2.1	4.4	8.0	1.4	2.7	86	1.4	e0.32	247	e60
15	3.4	1.9	1.8	3.4	5.4	2.4	2.4	3.1	0.69	e0.18	228	e144
16	1.1	1.5	1.6	2.9	7.9	5.0	2.4	1.2	59	e1.4	20	e55
17	0.80	1.3	1.6	2.5	6.1	2.4	2.0	0.90	138	0.64	12	2.8
18	0.66	44	1.6	2.5	4.3	1.7	1.7	0.80	4.6	0.28	e7.9	e2.3
19	0.56	19	1.3	2.5	3.6	1.3	1.6	e58	1.1	0.15	e6.5	e1.8
20	0.51	4.8	1.2	e3.2	3.4	e16	1.7	4.7	0.78	0.11	e15	e1.3
21	0.52	92	1.3	e3.1	10	e90	1.8	1.6	0.66	0.00	12	e1.1
22	2.1	21	1.3	e3.0	4.2	e29	1.5	0.88	0.58	0.00	e35	0.64
23	5.2	39	1.1	e13	85	e14	e1.3	2.8	0.57	10	e155	1.6
24	1.3	28	1.4	e1.8	21	e5.5	0.92	1.5	0.49	8.9	e37	2.2
25	0.70	8.3	1.1	1.7	7.5	e20	0.95	0.79	0.43	0.54	e8.0	0.94
26	26	4.9	1.1	1.6	5.5	e5.4	e5.6	0.66	0.40	0.26	e6.0	0.67
27	5.1	3.8	1.2	1.4	9.1	4.1	1.6	0.62	0.41	0.12	e127	0.55
28	47	2.7	1.9	17	8.1	3.4	e5.6	0.67	0.38	0.01	7.6	0.48
29	5.0	91	1.6	e9.2	---	2.9	4.7	0.66	0.34	0.00	3.2	0.41
30	3.1	16	1.6	e3.7	---	3.0	2.7	0.75	e0.32	0.00	1.9	0.35
31	46	---	2.2	e9.5	---	2.7	---	0.71	---	0.00	1.1	---
TOTAL	444.01	722.6	283.7	910.4	419.5	248.7	386.87	192.88	296.77	104.18	943.47	293.42
MEAN	14.3	24.1	9.15	29.4	15.0	8.02	12.9	6.22	9.89	3.36	30.4	9.78
MAX	245	113	110	346	90	90	124	86	138	63	247	144
MIN	0.02	1.1	1.1	1.4	3.4	1.3	0.92	0.62	0.32	0.00	0.00	0.35
AC-FT	881	1,430	563	1,810	832	493	767	383	589	207	1,870	582

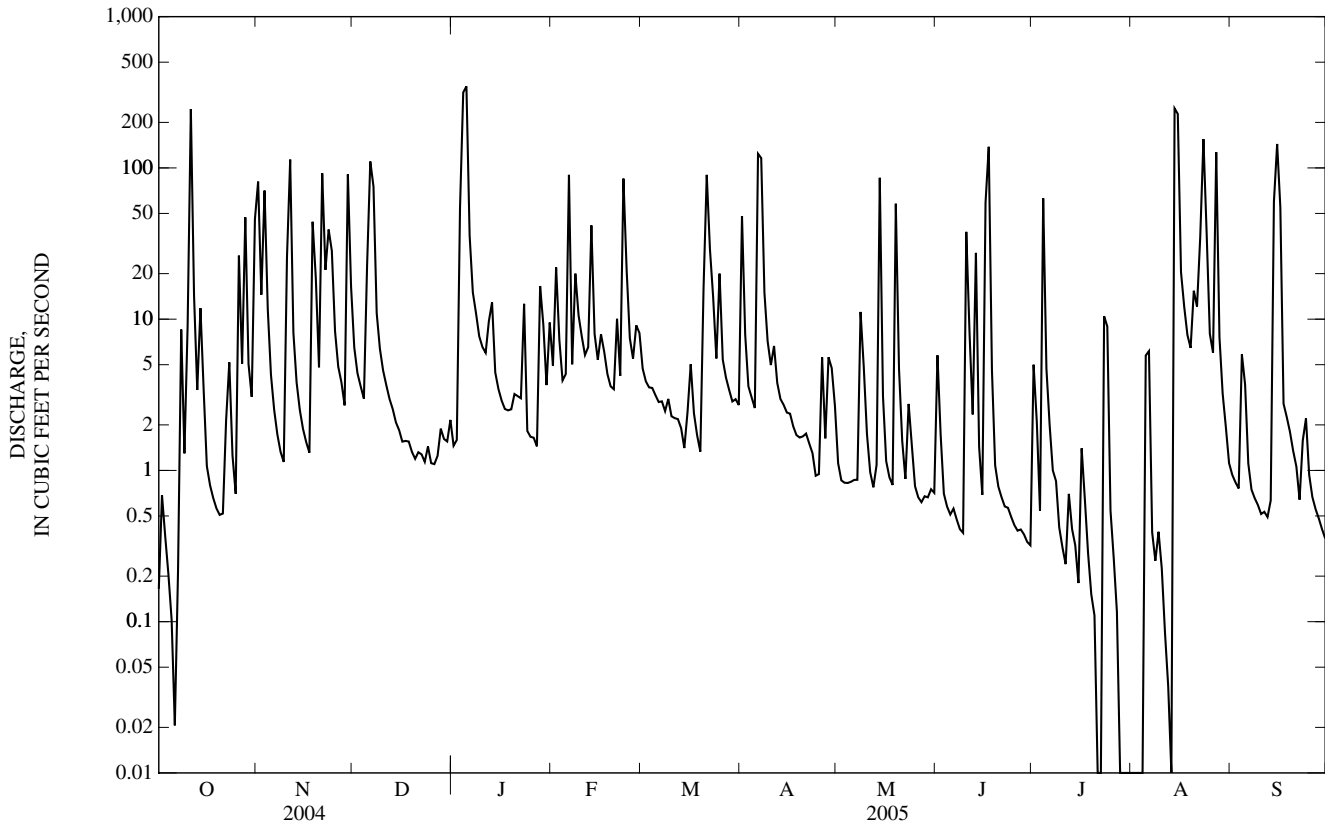
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2005, BY WATER YEAR (WY)

MEAN	18.6	22.0	19.2	14.5	17.1	30.5	29.7	36.7	31.8	18.3	14.2	16.4
MAX	75.9	68.2	62.3	41.9	41.5	120	82.3	125	97.2	72.3	49.6	54.3
(WY)	(1999)	(1995)	(1993)	(1998)	(2001)	(1990)	(1990)	(2000)	(1995)	(1994)	(1989)	(1993)
MIN	0.74	0.39	1.67	1.59	0.65	6.22	5.07	6.22	3.63	0.47	0.36	1.33
(WY)	(1989)	(1996)	(1990)	(1997)	(1996)	(1991)	(1989)	(2005)	(1990)	(1990)	(1991)	(2000)

e Estimated

07165562 HAIKEY CREEK AT 101ST STREET SOUTH AT TULSA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1989 - 2005	
ANNUAL TOTAL	7,791.26		5,246.50		22.4	
ANNUAL MEAN	21.3		14.4		33.8	
HIGHEST ANNUAL MEAN					11.0	
LOWEST ANNUAL MEAN					2,150	
HIGHEST DAILY MEAN	724	Jul 2	346	Jan 5	11.0	1995
LOWEST DAILY MEAN	0.00	Sep 28	0.00	several days	0.00	1991
ANNUAL SEVEN-DAY MINIMUM	0.03	Sep 24	0.00	Jul 29	0.00	Oct 5, 1998
MAXIMUM PEAK FLOW			942	Jan 4	0.00	at times
MAXIMUM PEAK STAGE			12.72	Jan 4	0.00	Oct 12, 1988
ANNUAL RUNOFF (AC-FT)	15,450		10,410		7,100	May 6, 2000
10 PERCENT EXCEEDS	47		36		17.56	May 6, 2000
50 PERCENT EXCEEDS	2.5		2.5		16,240	
90 PERCENT EXCEEDS	0.52		0.39		36	
					2.3	
					0.00	



07165565 LITTLE HAIKEY CREEK AT 101ST STREET SOUTH AT TULSA, OK

LOCATION.--Lat 36°01'03", long 95°51'38", in SE 1/4 SW 1/4 sec.19, T.18 N., R.14 E., Tulsa County, Hydrologic Unit 11110101, near right upstream abutment of 101st Street South bridge, and at mile 2.0.

DRAINAGE AREA.--5.45 mi².

PERIOD OF RECORD.--October 1987 to current year.

REVISED RECORDS.--WDR OK-92-1: 1988, 89 (M).

GAGE.--Water-stage recorder. Datum of gage is 626.21 ft above NGVD of 1929.

REMARKS.--Records poor. U.S. Geological Survey satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 15	0445	*523	*12.42				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.32	23	2.2	0.46	1.9	1.5	13	0.21	0.31	3.7	0.23	0.11
2	0.93	5.0	1.6	0.46	10	1.2	1.7	0.18	0.30	1.8	0.19	0.09
3	0.52	33	1.7	16	3.2	0.99	0.75	0.19	0.27	0.85	0.18	1.2
4	0.37	5.6	1.3	86	1.7	0.90	0.53	0.15	0.34	25	0.15	4.7
5	0.37	1.4	7.4	90	1.2	0.82	e0.55	0.13	0.28	3.2	5.7	0.52
6	0.35	0.75	38	12	29	0.75	21	0.13	0.20	1.5	6.7	0.12
7	5.8	0.66	15	5.6	e2.9	0.78	19	0.12	0.19	1.1	1.3	0.05
8	6.7	e0.73	4.0	3.8	e6.7	0.65	3.5	4.7	0.21	0.98	0.58	0.01
9	1.2	0.73	1.9	2.6	e5.0	0.58	1.7	2.2	0.29	0.84	0.32	0.00
10	6.9	23	1.2	2.0	3.0	0.54	1.1	0.30	12	0.73	0.21	0.01
11	80	24	0.83	1.7	2.0	0.48	0.98	0.13	7.6	0.68	0.12	0.08
12	6.0	3.0	e1.0	7.3	4.1	0.48	0.62	0.14	1.6	1.4	0.03	0.00
13	1.4	1.2	e0.90	5.7	12	0.66	0.41	0.59	6.0	1.0	0.00	0.00
14	5.6	0.83	e0.90	2.0	2.8	e0.51	0.37	22	0.97	0.80	81	15
15	0.86	0.87	e0.67	1.4	1.6	e0.75	0.39	0.82	0.44	0.76	99	43
16	0.42	0.68	e0.67	1.1	1.3	e2.4	0.39	0.34	20	2.2	8.6	2.0
17	e0.53	0.74	e0.73	0.98	1.6	0.97	0.31	0.14	43	1.3	3.7	0.50
18	e0.37	6.1	0.52	0.93	1.0	0.35	0.29	0.12	4.3	0.78	0.88	0.21
19	e0.28	0.95	0.45	0.93	0.95	0.33	0.32	21	2.0	0.62	0.26	0.09
20	e0.25	0.47	0.48	0.87	0.96	0.29	0.28	2.7	1.5	0.51	4.2	0.01
21	e0.22	26	0.79	0.99	3.8	17	0.32	1.1	1.2	0.40	2.3	0.00
22	0.18	6.1	0.76	e1.1	1.1	5.7	0.32	0.69	1.1	0.36	10	0.00
23	1.2	12	e0.62	e5.0	29	2.7	0.26	2.0	0.98	17	47	0.00
24	0.37	8.8	e0.67	0.68	8.0	0.92	0.27	0.96	0.77	6.7	3.9	0.00
25	0.17	2.2	e0.45	0.75	3.3	1.1	0.56	0.69	0.67	0.96	0.86	0.00
26	8.3	1.1	e0.45	e0.69	2.1	0.63	2.6	0.50	0.62	0.64	0.36	0.00
27	1.3	0.86	0.61	e0.54	3.9	1.6	0.33	0.78	0.55	1.1	41	0.00
28	16	0.74	0.59	e9.4	2.7	0.73	1.9	0.52	0.50	0.93	3.0	0.00
29	1.4	24	0.52	e4.9	---	0.52	1.5	0.43	0.50	0.59	1.1	0.00
30	0.50	5.9	0.48	e2.4	---	0.40	0.46	0.37	0.49	0.40	0.35	0.00
31	9.0	---	0.46	e3.9	---	0.40	---	0.36	---	0.28	0.19	---
TOTAL	157.81	220.41	87.85	272.18	146.81	47.63	75.71	64.69	109.18	79.11	323.41	67.70
MEAN	5.09	7.35	2.83	8.78	5.24	1.54	2.52	2.09	3.64	2.55	10.4	2.26
MAX	80	33	38	90	29	17	21	22	43	25	99	43
MIN	0.17	0.47	0.45	0.46	0.95	0.29	0.26	0.12	0.19	0.28	0.00	0.00
AC-FT	313	437	174	540	291	94	150	128	217	157	641	134

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2005, BY WATER YEAR (WY)

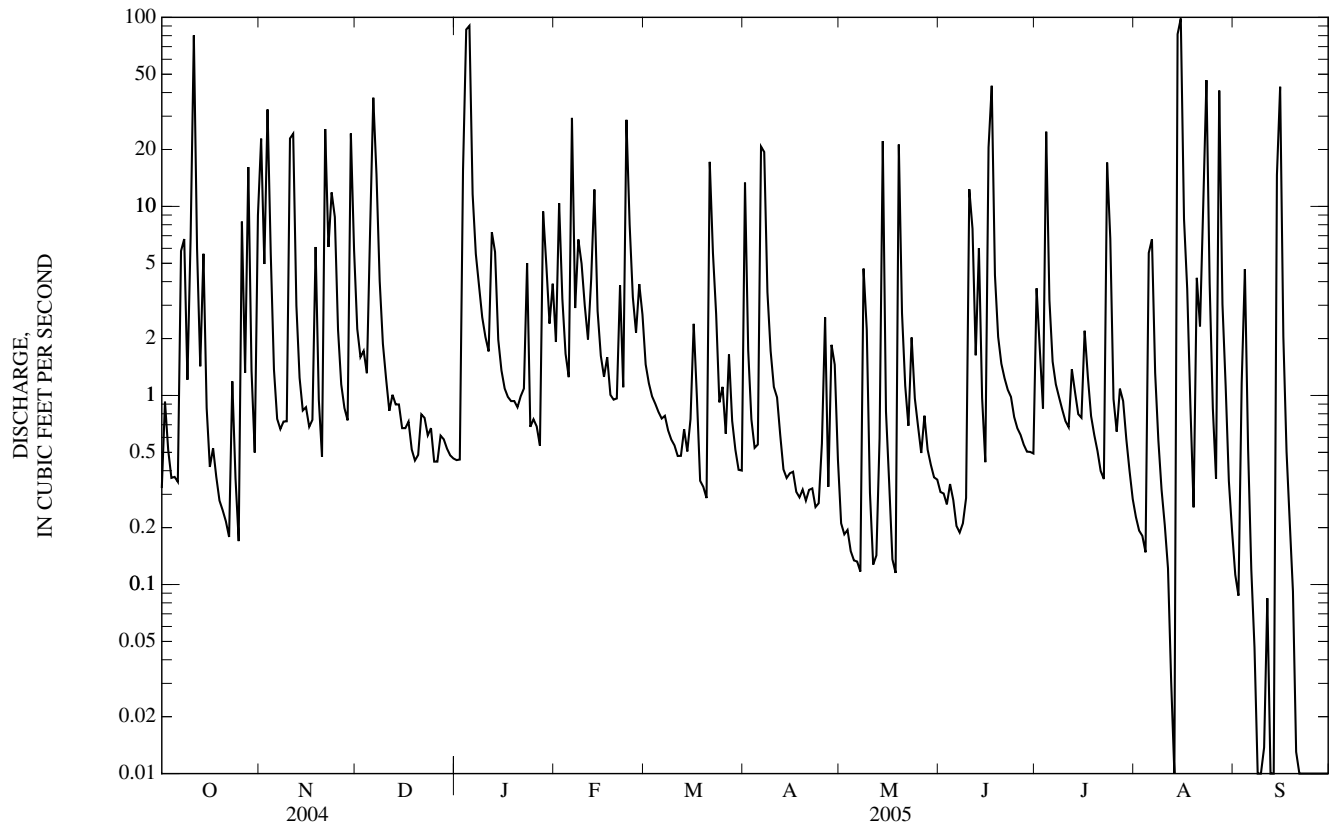
	MEAN	5.85	7.96	6.38	4.40	5.16	10.1	9.00	13.7	9.67	5.44	5.13	5.37
MAX		24.0	32.9	19.9	13.1	16.0	28.3	23.1	45.2	42.1	18.5	23.5	15.2
(WY)		(1999)	(1995)	(1993)	(1998)	(2001)	(1990)	(1999)	(1995)	(1995)	(2004)	(2003)	(1993)
MIN		0.12	0.15	0.40	0.27	0.12	1.54	1.44	2.09	0.15	0.04	0.13	0.78
(WY)		(1989)	(1996)	(1990)	(1997)	(1996)	(2005)	(1989)	(2005)	(1988)	(1990)	(2000)	(2000)

e Estimated

07165565 LITTLE HAIKEY CREEK AT 101ST STREET SOUTH AT TULSA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1988 - 2005	
ANNUAL TOTAL	2,438.47		1,652.49		7.35	
ANNUAL MEAN	6.66		4.53		15.7	
HIGHEST ANNUAL MEAN					2.73	
LOWEST ANNUAL MEAN					589	
HIGHEST DAILY MEAN	265	Jul 2	99	Aug 15	589	May 6, 2000
LOWEST DAILY MEAN	0.00	at times	0.00	at times	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 12	0.00	Sep 21	0.00	Sep 5, 1988
MAXIMUM PEAK FLOW			523	Aug 15	4,300	May 6, 2000
MAXIMUM PEAK STAGE			12.42	Aug 15	a19.00	May 6, 2000
ANNUAL RUNOFF (AC-FT)	4,840		3,280		5,330	
10 PERCENT EXCEEDS	14		10		14	
50 PERCENT EXCEEDS	0.90		0.86		0.91	
90 PERCENT EXCEEDS	0.22		0.18		0.01	

a From high-water mark..



07165570 ARKANSAS RIVER NEAR HASKELL, OK

LOCATION.--Lat 35°49'15", long 95°38'19", in SW 1/4 NW 1/4 sec.32, T.16 N., R.16 E., Wagoner County, Hydrologic Unit 11110101, near left, downstream abutment of old bridge downstream from State Highway 104, 2.0 mi east of Haskell, 23.5 mi upstream from Verdigris River, and at mile 483.7.

DRAINAGE AREA.--75,473 mi², of which 12,541 mi² probably is noncontributing.

PERIOD OF RECORD.--June 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 530.00 ft above NGVD of 1929.

REMARKS.--Records poor. Except for 858 mi² intervening area, flow regulated by Keystone Lake (station 07164200) 55.1 mi upstream. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,330	1,720	15,400	2,610	14,500	13,700	13,100	4,350	4,950	13,700	8,510	33,000
2	3,020	1,770	14,700	2,900	14,700	e14,000	13,700	1,610	5,090	11,300	8,820	26,900
3	2,580	1,840	12,400	1,470	14,400	e14,300	13,700	2,330	4,860	9,850	7,720	17,500
4	1,050	3,370	9,320	e4,340	14,300	e15,200	13,500	1,660	4,100	9,090	7,860	10,700
5	857	3,030	3,690	e10,900	14,400	13,000	13,300	3,180	5,770	6,870	8,100	10,200
6	2,080	2,530	1,910	e13,300	15,000	10,900	13,400	5,620	6,380	11,900	8,330	10,100
7	1,830	2,430	10,800	e7,200	17,000	10,800	13,700	6,270	6,420	13,400	6,510	10,200
8	4,080	1,140	12,400	e14,000	15,500	10,700	11,400	3,260	7,890	13,300	6,020	12,700
9	2,870	853	11,600	e14,200	15,100	10,800	11,300	1,990	8,000	13,100	7,240	9,400
10	2,070	2,760	11,100	e14,500	14,700	10,900	7,760	4,010	9,550	12,900	7,660	9,400
11	1,630	4,830	10,700	e15,100	14,200	10,900	7,530	6,540	17,700	12,800	7,460	4,110
12	3,890	3,980	6,480	e17,100	14,100	9,270	6,130	6,300	12,200	12,700	7,110	2,040
13	2,380	7,610	5,120	e16,400	14,600	7,070	2,430	6,150	24,500	13,000	7,880	6,160
14	1,210	6,160	9,270	e13,900	14,500	5,830	2,140	7,310	25,500	12,800	6,240	9,790
15	1,620	5,630	10,000	e17,100	14,200	2,800	4,080	4,890	32,800	13,000	9,810	9,640
16	1,200	10,300	7,830	e19,100	14,000	5,250	3,800	1,420	40,700	12,500	9,680	8,800
17	2,510	12,500	5,520	e18,900	13,400	5,130	2,890	1,100	48,600	9,430	8,150	9,620
18	1,100	13,600	4,440	e18,600	10,500	5,160	1,380	2,480	75,800	9,270	7,410	9,400
19	3,720	13,000	3,290	e18,500	5,050	5,170	1,370	2,920	79,300	9,270	7,620	9,220
20	6,670	12,900	1,660	19,700	2,870	3,960	4,190	6,110	76,600	9,290	9,620	8,700
21	7,070	5,290	3,270	20,400	2,310	4,010	5,290	3,580	75,500	9,860	5,480	10,100
22	3,910	11,800	5,510	16,100	7,520	2,890	5,340	2,160	e54,900	9,760	4,030	10,300
23	3,020	17,400	7,280	14,000	14,200	5,150	5,030	928	e48,300	9,950	9,090	10,800
24	1,910	17,900	5,130	13,900	15,900	10,500	3,740	1,170	e43,300	9,800	15,900	10,600
25	1,020	19,300	4,080	14,200	15,200	13,800	2,420	4,860	e41,300	9,850	16,400	3,760
26	846	20,600	2,360	14,600	14,400	13,200	4,940	12,200	e39,600	10,200	26,300	1,530
27	3,300	19,500	1,320	14,200	14,200	13,400	5,310	9,910	e38,000	10,000	32,400	1,430
28	4,120	16,900	1,980	15,000	14,100	13,400	5,950	7,170	e35,700	9,210	32,700	3,370
29	3,380	17,100	3,510	14,800	---	13,300	5,170	2,870	e29,400	8,830	32,000	3,710
30	1,550	17,200	3,480	14,700	---	13,100	4,300	930	e18,200	8,040	32,500	2,890
31	2,280	---	2,530	14,700	---	12,700	---	1,100	---	8,940	33,000	---
TOTAL	81,103	274,943	208,080	426,420	364,850	300,290	208,290	126,378	920,910	333,910	397,550	286,070
MEAN	2,616	9,165	6,712	13,760	13,030	9,687	6,943	4,077	30,700	10,770	12,820	9,536
MAX	7,070	20,600	15,400	20,400	17,000	15,200	13,700	12,200	79,300	13,700	33,000	33,000
MIN	846	853	1,320	1,470	2,310	2,800	1,370	928	4,100	6,870	4,030	1,430
AC-FT	160,900	545,300	412,700	845,800	723,700	595,600	413,100	250,700	1,827,000	662,300	788,500	567,400

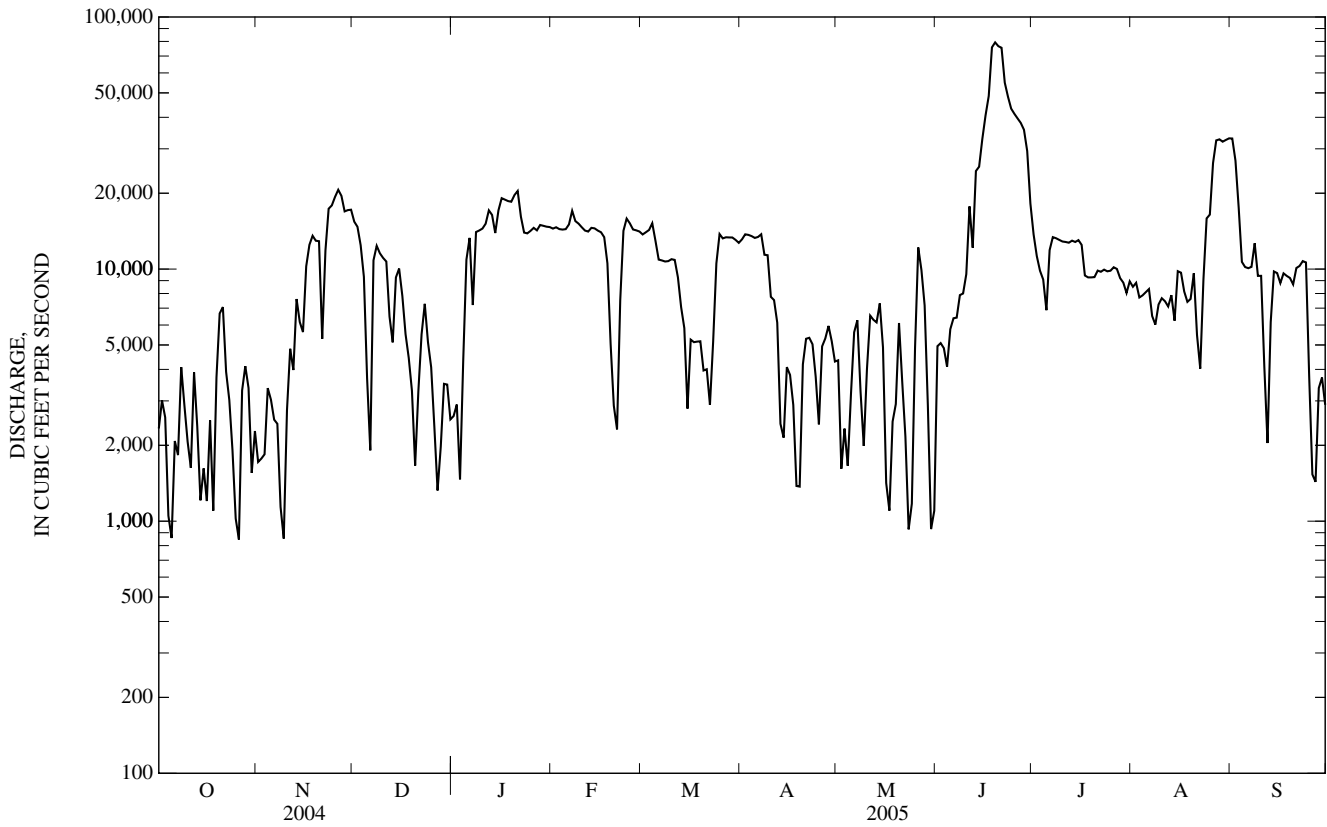
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2005, BY WATER YEAR (WY)

MEAN	9,117	9,022	6,145	6,578	7,758	15,420	14,830	17,120	18,390	11,440	6,984	5,711
MAX	75,500	58,300	19,930	23,470	25,540	50,990	46,910	85,550	78,480	44,980	32,540	23,690
(WY)	(1987)	(1999)	(1993)	(1998)	(1993)	(1987)	(1973)	(1993)	(1995)	(1999)	(1995)	(1989)
MIN	576	646	802	567	549	722	638	2,472	5,074	1,671	1,171	870
(WY)	(1979)	(1981)	(1981)	(1981)	(1977)	(1977)	(1977)	(1981)	(1988)	(1991)	(1984)	(1998)

e Estimated

07165570 ARKANSAS RIVER NEAR HASKELL, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1973 - 2005	
ANNUAL TOTAL	4,287,316		3,928,794		10,720	
ANNUAL MEAN	11,710		10,760		25,680	
HIGHEST ANNUAL MEAN					2,097	
LOWEST ANNUAL MEAN					243,000	
HIGHEST DAILY MEAN	70,400	Mar 8	79,300	Jun 19	87	Oct 5, 1986
LOWEST DAILY MEAN	846	Oct 26	846	Oct 26	369	Sep 13, 1988
ANNUAL SEVEN-DAY MINIMUM	1,920	Sep 30	1,960	Oct 13	259,000	Feb 25, 1977
MAXIMUM PEAK FLOW			86,500	Jun 18	22.82	Oct 5, 1986
MAXIMUM PEAK STAGE			15.22	Jun 18		
ANNUAL RUNOFF (AC-FT)	8,504,000		7,793,000		7,765,000	
10 PERCENT EXCEEDS	23,100		17,800		26,400	
50 PERCENT EXCEEDS	7,790		9,210		5,990	
90 PERCENT EXCEEDS	1,910		2,060		937	



07171000 VERDIGRIS RIVER NEAR LENAPAH, OK

LOCATION.--Lat 36°51'04", long 95°35'09", NE ¼, SW ¼, sec.3, T.27 N., R.16 E., Nowata County, Hydrologic Unit 11070103, on right bank on downstream side of county road bridge, 2.8 mi east of Lenapah, 5.5(revised) mi upstream from Cedar Creek, and at mile 144.6.

DRAINAGE AREA.--3,639 mi².

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 977: 1942 (M). WSP 1117: drainage area.

GAGE.--Water-stage recorder. Datum of gage is 644.90 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Some regulation since April 1949 by Fall River Reservoir in Kansas. Flow regulated since 1960 by Toronto Lake in Kansas. Flow has been further regulated since 1966 by Elk City Lake in Kansas. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	310	4,600	379	3,880	2,110	3,530	259	4,480	9,030	68	10,900
2	52	366	4,670	370	3,570	2,000	3,010	200	2,960	8,240	61	10,600
3	177	444	4,410	394	3,300	1,910	2,690	177	1,660	7,940	55	10,100
4	214	2,100	3,810	2,190	2,550	1,870	2,130	163	4,610	7,440	66	9,140
5	212	2,720	2,350	23,600	2,150	1,740	2,050	155	11,200	7,460	93	7,780
6	211	1,560	3,150	28,700	2,170	1,630	1,980	150	12,800	5,770	85	2,780
7	221	661	9,850	20,300	3,220	1,590	2,500	145	7,000	4,410	68	2,350
8	260	552	5,760	7,610	3,320	1,580	1,720	149	8,670	4,640	58	6,040
9	224	555	3,700	7,790	3,100	1,530	1,640	172	12,800	6,980	50	6,780
10	295	517	3,160	8,620	2,870	1,500	1,540	172	12,600	9,570	44	5,840
11	317	6,700	2,940	10,400	2,880	1,370	1,490	176	13,600	10,300	45	4,450
12	251	12,600	2,730	9,390	2,860	1,050	1,470	193	23,600	10,200	69	1,920
13	219	5,130	2,600	13,800	3,240	947	1,230	210	27,600	9,520	74	619
14	202	3,310	2,500	9,870	4,270	916	1,310	1,080	25,700	7,560	74	1,690
15	210	3,510	2,440	6,840	4,190	797	1,480	3,470	20,100	4,640	135	3,980
16	183	3,320	2,100	5,410	3,250	454	1,250	2,640	17,200	2,760	216	4,960
17	141	3,210	1,610	4,930	2,900	378	606	2,430	16,900	1,630	368	4,880
18	120	3,160	1,120	4,950	2,580	324	347	2,890	16,900	1,190	247	5,000
19	110	3,160	851	4,970	2,390	305	275	3,830	17,200	1,170	167	4,970
20	101	2,350	745	5,060	2,370	292	236	5,040	16,600	1,140	114	4,910
21	96	1,470	677	5,160	2,490	304	259	3,880	16,400	1,120	1,660	4,280
22	99	1,190	655	5,300	2,470	1,330	366	2,040	16,100	930	1,500	4,180
23	147	1,160	621	5,230	2,570	9,760	333	2,580	14,900	478	1,050	5,430
24	112	4,220	585	5,080	4,470	8,810	335	2,960	12,900	328	1,710	4,690
25	79	9,200	576	5,000	4,540	7,200	335	6,410	11,200	249	1,640	2,980
26	70	6,800	494	4,960	3,280	7,990	346	9,080	11,000	191	8,290	2,060
27	211	4,280	539	5,100	2,470	7,820	351	4,740	11,700	178	16,400	1,750
28	325	3,710	560	5,090	2,130	7,570	293	4,010	11,400	178	19,400	1,520
29	299	3,460	567	4,190	---	7,300	300	3,330	11,000	139	20,000	733
30	438	3,500	485	3,820	---	6,140	413	2,950	10,100	101	13,400	313
31	469	---	401	3,830	---	4,730	---	2,860	---	80	10,300	---
TOTAL	6,128	95,225	71,256	228,333	85,480	93,247	35,815	68,541	400,880	125,562	97,507	137,625
MEAN	198	3,174	2,299	7,366	3,053	3,008	1,194	2,211	13,360	4,050	3,145	4,588
MAX	469	12,600	9,850	28,700	4,540	9,760	3,530	9,080	27,600	10,300	20,000	10,900
MIN	52	310	401	370	2,130	292	236	145	1,660	80	44	313
AC-FT	12,150	188,900	141,300	452,900	169,500	185,000	71,040	136,000	795,100	249,100	193,400	273,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2005, BY WATER YEAR (WY)

	MEAN	2,152	2,794	1,974	1,775	2,225	4,427	3,954	4,403	5,165	2,337	853	1,123
MAX	27,970	15,440	11,000	7,998	8,983	17,130	16,300	12,540	19,160	13,920	5,364	5,614	
(WY)	(1987)	(1975)	(1993)	(1973)	(1985)	(1973)	(1988)	(1994)	(1995)	(1976)	(1985)	(1989)	
MIN	15.5	20.0	29.2	17.6	20.0	19.7	30.2	366	84.3	17.9	16.1	9.99	
(WY)	(1981)	(1981)	(1967)	(1981)	(1981)	(1981)	(1981)	(1992)	(1972)	(1980)	(1983)	(1980)	

07171000 VERDIGRIS RIVER NEAR LENAPAH, OK—Continued

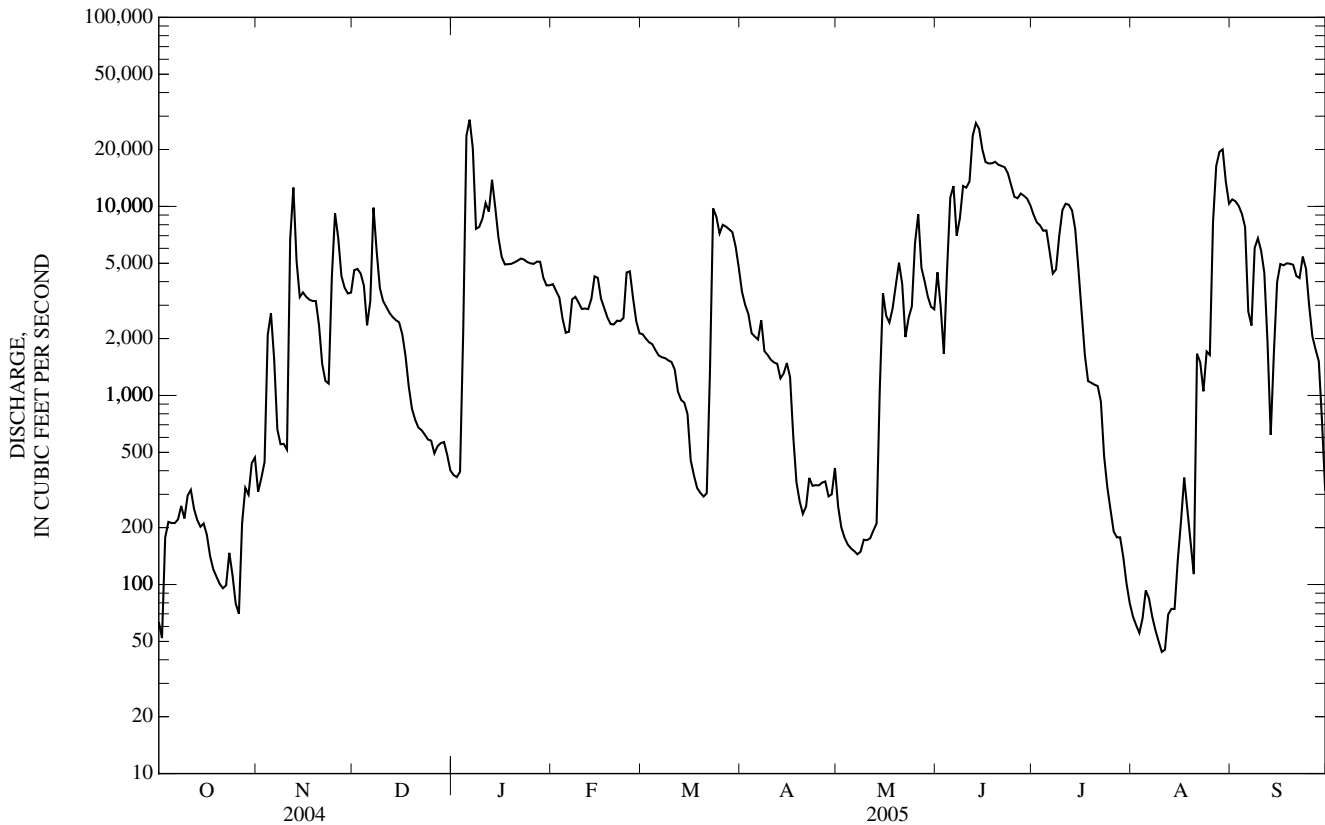
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1967 - 2005	
ANNUAL TOTAL	1,279,322		1,445,599		a2,764	
ANNUAL MEAN	3,495		3,961		6,227	
HIGHEST ANNUAL MEAN					301	
LOWEST ANNUAL MEAN					76,200	
HIGHEST DAILY MEAN	36,200	Mar 5	28,700	Jan 6	76,200	Oct 5, 1986
LOWEST DAILY MEAN	26	Sep 23	44	Aug 10	b5.5	Sep 30, 1980
ANNUAL SEVEN-DAY MINIMUM	28	Sep 20	58	Aug 7	5.7	Sep 26, 1980
MAXIMUM PEAK FLOW			29,900	Jan 6	c81,500	Oct 5, 1986
MAXIMUM PEAK STAGE			28.37	Jan 6	d38.60	Jul 4, 1976
ANNUAL RUNOFF (AC-FT)	2,538,000		2,867,000		2,002,000	
10 PERCENT EXCEEDS	8,600		10,300		8,630	
50 PERCENT EXCEEDS	2,120		2,390		645	
90 PERCENT EXCEEDS	63		165		40	

a Prior to regulation, water years 1939-59, 2,084 ft³/s.

b Minimum daily discharge for period of record, no flow at times in 1939, 1940, and 1956.

c Maximum discharge for period of record, 137,000 ft³/s, May 20, 1943.

d Maximum gage height for period of record, 40.44 ft, May 20, 1943 (from floodmark).



07174400 CANEY RIVER ABOVE COON CREEK AT BARTLESVILLE, OK

LOCATION.--Lat 36°45'20", long 95°58'19", in NE ¼ NE ¼ sec.12, T.26 N, R.12 E, Washington County, Hydrologic Unit 11070106, at right bank in city of Bartlesville water intake tower, 0.2 mi upstream from State Highway 123 bridge and low-water dam, 0.5 mi downstream from Atchison, Topeka, and Santa Fe railroad bridge, 1.0 mi upstream from confluence with Coon Creek, 2.7 mi downstream from confluence with Butler Creek, 5.0 mi upstream from confluence with Sand Creek, and at mile 68.7.

DRAINAGE AREA.--1,392 mi².

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 653.33 ft above NGVD of 1929.

REMARKS.--Records fair except for estimated periods which are poor. Considerable regulation by Hulah Lake (station 07172500) 27.0 mi upstream, and Copan Lake (station 07174300) 12.0 mi upstream. Diversion at gage for municipal water supply by the city of Bartlesville. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	270	1,210	27	743	1,110	1,080	24	2,750	e2,390	21	22
2	8.1	782	1,090	29	917	699	403	24	2,030	2,300	20	22
3	9.4	1,180	1,040	38	1,040	654	353	24	1,720	2,260	22	28
4	11	1,670	533	343	1,540	658	354	24	1,760	2,910	21	21
5	11	1,620	508	4,180	1,540	649	371	24	1,430	2,460	20	20
6	11	1,470	699	1,400	1,650	647	421	24	1,550	2,280	19	23
7	30	1,410	1,780	1,600	1,860	617	522	24	2,510	2,240	22	22
8	33	1,370	1,660	4,240	2,000	268	429	30	2,580	2,210	21	16
9	25	1,170	1,400	4,380	994	209	406	30	2,930	2,170	29	12
10	27	507	1,300	4,440	2,060	135	405	21	3,970	2,140	25	12
11	174	1,330	1,270	5,020	2,130	104	513	19	4,620	1,910	24	10
12	255	770	1,250	6,090	1,980	105	533	18	4,910	460	23	10
13	60	1,940	1,230	6,310	2,020	102	694	25	7,100	321	26	9.7
14	34	1,990	1,050	6,030	1,990	102	1,060	61	5,940	128	39	11
15	30	1,930	359	5,870	1,950	104	508	53	6,660	52	37	48
16	30	2,100	323	5,780	1,910	67	449	24	6,830	39	32	28
17	30	e3,040	323	5,690	826	48	448	273	6,710	36	28	483
18	30	e3,240	327	5,420	64	50	446	316	6,650	32	28	552
19	30	e2,960	322	4,650	36	48	445	437	6,550	29	21	524
20	30	2,920	328	4,520	36	49	444	349	6,150	30	13	187
21	29	2,810	323	4,140	85	63	441	310	5,470	29	11	318
22	37	2,380	319	3,080	405	223	418	302	4,610	29	13	833
23	68	277	145	e2,920	3,430	337	337	1,300	4,470	26	32	60
24	39	548	29	e2,710	2,580	1,540	334	1,450	4,440	30	18	18
25	29	272	21	2,110	1,770	2,210	317	2,700	4,390	27	16	e17
26	94	159	20	1,960	1,220	2,900	85	3,160	4,350	25	e22	e17
27	270	1,800	19	1,830	1,150	2,970	38	2,890	4,300	22	e424	e16
28	125	e1,910	20	437	1,150	2,940	32	994	4,250	20	e822	e15
29	119	e1,910	21	175	---	2,900	27	762	4,190	21	e797	e15
30	60	e1,860	23	168	---	2,750	26	750	e3,430	19	667	15
31	47	---	27	172	---	1,920	---	752	---	22	87	---
TOTAL	1,794.9	47,595	18,969	95,759	39,076	27,178	12,339	17,194	129,250	26,667	3,400	3,384.7
MEAN	57.9	1,586	612	3,089	1,396	877	411	555	4,308	860	110	113
MAX	270	3,240	1,780	6,310	3,430	2,970	1,080	3,160	7,100	2,910	822	833
MIN	8.1	159	19	27	36	48	26	18	1,430	19	11	9.7
AC-FT	3,560	94,400	37,630	189,900	77,510	53,910	24,470	34,100	256,400	52,890	6,740	6,710

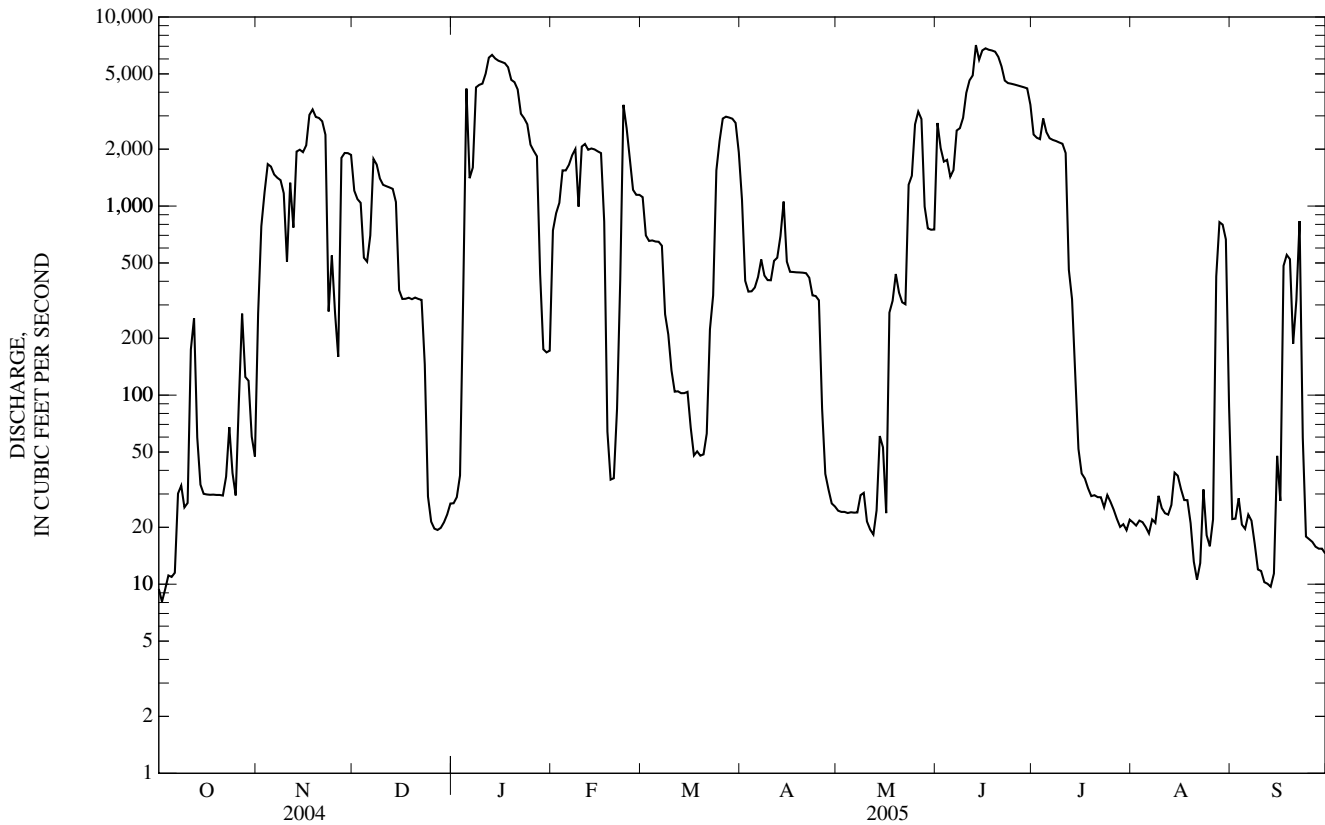
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2005, BY WATER YEAR (WY)

MEAN	1,206	939	810	895	803	1,988	1,572	2,002	2,257	1,198	173	318
MAX	14,800	3,512	2,663	4,075	2,721	4,606	5,185	5,054	5,315	6,486	1,448	2,635
(WY)	(1987)	(1999)	(1987)	(1993)	(1987)	(1990)	(1988)	(1993)	(1999)	(1995)	(1995)	(1989)
MIN	13.2	22.5	2.76	4.16	2.87	5.06	11.5	31.1	46.5	29.4	22.5	12.8
(WY)	(1988)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1996)	(1996)	(1988)	(1988)	(1987)

e Estimated

07174400 CANEY RIVER ABOVE COON CREEK AT BARTLESVILLE, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1986 - 2005	
ANNUAL TOTAL	493,799.7		422,606.6		1,182	
ANNUAL MEAN	1,349		1,158		2,888	
HIGHEST ANNUAL MEAN					43.7	
LOWEST ANNUAL MEAN					64,900	
HIGHEST DAILY MEAN	13,200	Mar 5	7,100	Jun 13	Oct 5, 1986	
LOWEST DAILY MEAN	7.5	Sep 29	8.1	Oct 2	at times	
ANNUAL SEVEN-DAY MINIMUM	8.3	Sep 24	12	Sep 8	Dec 30, 2001	
MAXIMUM PEAK FLOW			8,340	Jun 13	Oct 4, 1986	
MAXIMUM PEAK STAGE			9.17	Jun 13	27.70	Oct 4, 1986
ANNUAL RUNOFF (AC-FT)	979,500		838,200		856,300	
10 PERCENT EXCEEDS	3,800		3,430		4,180	
50 PERCENT EXCEEDS	471		371		135	
90 PERCENT EXCEEDS	27		21		24	



07175500 CANEY RIVER NEAR RAMONA, OK

LOCATION.--Lat 36°30'32", long 95°50'30", in NE ¼ NW ¼ sec.5, T.23 N., R.14 E., Washington County, Hydrologic Unit 11070106, on left bank near downstream abutment of county road bridge, 1 mi upstream from Buck Creek, 2.2 mi downstream from Double Creek, 4.5 mi southeast of Ramona, and at mile 32.0.

DRAINAGE AREA.--1,955 mi².

PERIOD OF RECORD.--September 1945 to current year. Monthly discharge only for some periods, published in WSP 1311. Previous reports have included Caney River near Collinsville from Oct. 1935 to Feb. 1939; this record has been separated from Ramona.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1241: 1939.

GAGE.--Water-stage recorder. Datum of gage is 586.43 ft above NGVD of 1929. Sept. 1, 1945, to Feb. 15, 1946, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharge. Records fair. Flow regulated since February 1950 by Hulah Lake (station 07172500), and since April 1983 by Copan Lake (station 07174300). U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	350	1,770	100	505	1,370	1,820	92	1,480	3,420	26	199
2	17	1,010	1,250	97	1,080	1,190	1,040	84	6,000	2,360	26	70
3	16	1,670	1,170	101	1,110	849	603	78	2,250	2,250	28	47
4	16	3,590	991	934	1,370	813	558	73	2,050	2,790	28	47
5	16	2,320	591	9,610	1,640	788	536	70	1,700	3,970	27	45
6	16	1,810	1,040	13,100	1,860	767	701	67	1,440	2,680	26	42
7	18	1,590	5,320	5,740	3,510	759	2,170	68	1,930	2,370	27	38
8	44	1,480	4,100	3,470	3,050	662	1,610	66	2,580	2,260	30	40
9	267	1,400	2,280	4,730	3,400	434	892	75	2,600	2,200	32	37
10	126	1,000	1,800	4,680	2,010	385	718	100	3,460	2,160	33	31
11	126	2,310	1,580	4,770	2,580	320	694	84	4,040	2,120	40	26
12	1,070	4,600	1,460	5,630	2,370	280	856	71	6,210	1,470	46	25
13	543	1,900	1,370	7,290	2,530	257	715	59	8,810	483	47	24
14	240	2,280	1,300	7,520	2,660	244	946	71	10,600	394	48	34
15	148	2,100	901	6,950	2,350	238	1,040	106	7,710	224	118	73
16	110	2,040	463	6,610	2,150	234	628	122	7,690	124	124	227
17	91	2,550	440	6,430	1,840	196	592	86	8,270	72	76	120
18	79	3,350	433	6,300	736	160	582	345	7,830	61	56	592
19	71	3,350	425	5,620	322	159	565	538	7,460	55	49	668
20	63	3,110	413	4,860	283	159	539	968	7,290	50	44	582
21	59	2,810	415	4,750	289	159	537	613	6,970	47	37	338
22	104	2,780	401	3,850	437	784	529	496	5,740	44	29	665
23	206	1,890	382	3,070	2,360	1,770	493	764	4,820	41	38	689
24	310	1,920	237	2,970	4,750	1,400	442	2,420	4,690	39	115	151
25	167	2,230	127	2,650	2,980	2,210	441	2,110	4,610	36	134	48
26	343	939	99	2,030	1,990	2,790	414	3,230	4,540	37	78	31
27	910	895	91	1,950	1,480	3,340	209	3,360	4,480	35	336	28
28	548	2,010	93	1,520	1,410	3,310	132	2,340	4,420	33	1,050	27
29	393	1,970	93	526	---	3,240	115	885	4,340	30	893	25
30	344	1,940	97	422	---	3,160	100	790	4,260	30	848	25
31	201	---	100	425	---	2,650	---	768	---	28	641	---
TOTAL	6,680	63,194	31,232	128,705	53,052	35,077	21,217	20,999	150,270	31,913	5,130	4,994
MEAN	215	2,106	1,007	4,152	1,895	1,132	707	677	5,009	1,029	165	166
MAX	1,070	4,600	5,320	13,100	4,750	3,340	2,170	3,360	10,600	3,970	1,050	689
MIN	16	350	91	97	283	159	100	59	1,440	28	26	24
AC-FT	13,250	125,300	61,950	255,300	105,200	69,580	42,080	41,650	298,100	63,300	10,180	9,910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2005, BY WATER YEAR (WY)

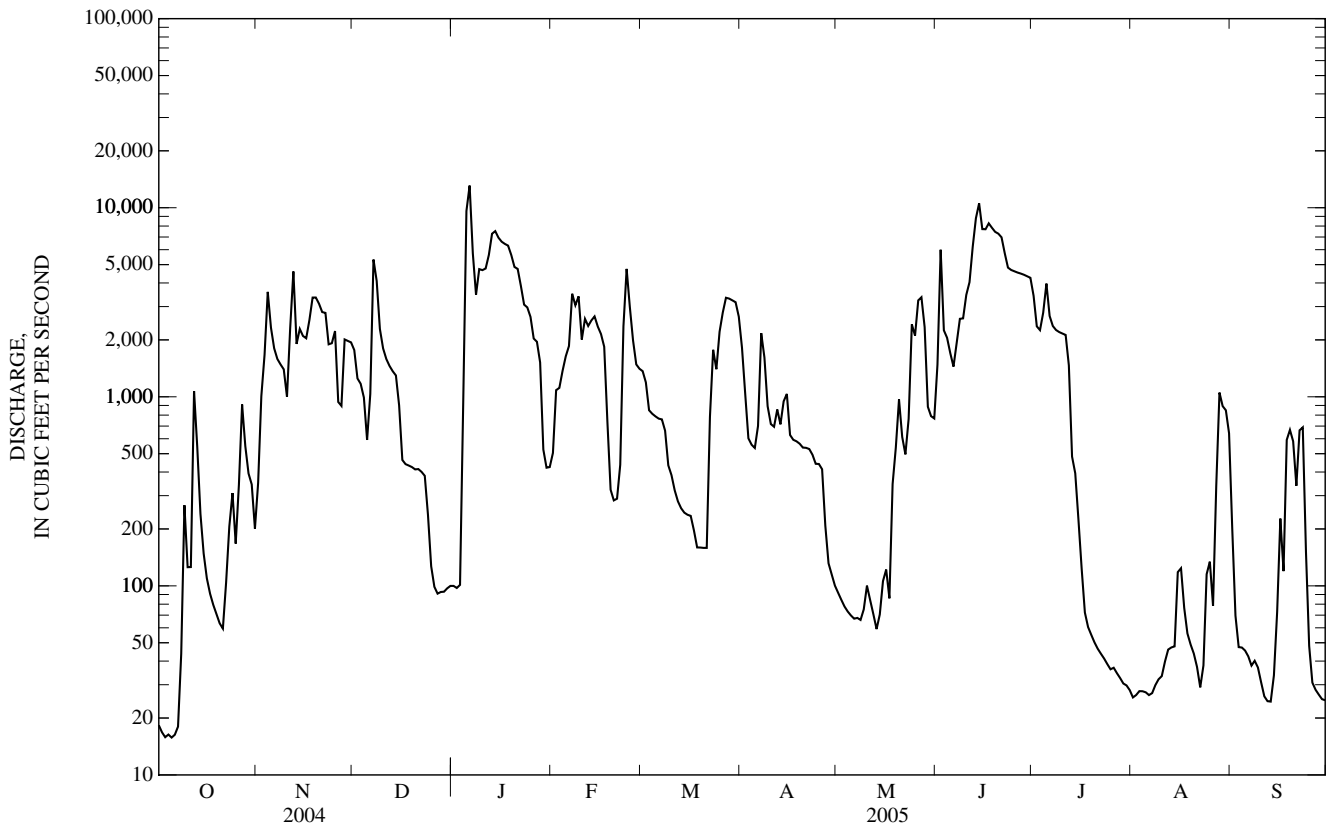
MEAN	1,512	1,306	1,176	1,194	1,255	2,979	2,552	2,831	2,943	1,404	260	508
MAX	19,540	4,390	3,596	5,204	4,208	7,228	6,989	8,547	9,766	8,233	2,021	3,178
(WY)	(1987)	(1987)	(1993)	(1993)	(1987)	(1990)	(1988)	(1993)	(1995)	(1995)	(1995)	(1989)
MIN	35.4	47.9	17.9	48.2	43.9	41.4	114	62.7	70.1	30.2	34.9	32.7
(WY)	(1993)	(2002)	(2002)	(1996)	(1996)	(1996)	(1996)	(1996)	(1988)	(1984)	(1984)	(2000)

07175500 CANEY RIVER NEAR RAMONA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1984 - 2005	
ANNUAL TOTAL	668,183		552,463		a1,661	
ANNUAL MEAN	1,826		1,514		3,887	
HIGHEST ANNUAL MEAN					107	
LOWEST ANNUAL MEAN					71,700	
HIGHEST DAILY MEAN	20,700	Mar 6	13,100	Jan 6	107	1987
LOWEST DAILY MEAN	16	Oct 3,4,5,6	16	Oct 3,4,5,6	107	1996
ANNUAL SEVEN-DAY MINIMUM	17	Oct 1	17	Oct 1	107	1996
MAXIMUM PEAK FLOW			13,800	Jan 6	107	1996
MAXIMUM PEAK STAGE			25.19	Jan 6	107	1996
ANNUAL RUNOFF (AC-FT)	1,325,000		1,096,000		1,203,000	
10 PERCENT EXCEEDS	4,970		4,440		5,310	
50 PERCENT EXCEEDS	906		628		312	
90 PERCENT EXCEEDS	51		37		42	

a Average discharge since regulation by Hulah Lake and before regulation by Copan Lake, 32 years (water years 1951-82), 925 ft³/s.

b No flow Sept. 11-Nov. 3, 1956.



07176000 VERDIGRIS RIVER NEAR CLAREMORE, OK

LOCATION.--Lat 36°18'26", long 95°41'52", NE ¼ NW ¼ sec.15, T.21 N., R.15 E., Rogers County, Hydrologic Unit 11070105, on left bank on downstream side of bridge on State Highway 20, 2.3 mi downstream from Caney River, 4.5 mi west of Claremore, 12.4 mi upstream from Bird Creek, and at mile 76.0.

DRAINAGE AREA.--6,534 mi².

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 538.62 ft above NGVD of 1929. Prior to Feb. 24, 1939, and May 17 to Aug. 24, 1967, non-recording gage at same site and datum.

REMARKS.--Records fair except for estimated periods which are poor. Some regulation since 1949 by dams in Kansas, and since February 1950 by Hulah Lake (station 07172500). Flow regulated since May 1963 by Oologah Lake (station 07171300), 14.3 mi upstream from station, and since April 1983 by Copan Lake (station 07174300). U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e81	e488	6,690	e151	10,700	9,780	7,170	784	5,760	19,500	e67	5,920
2	e56	1,190	6,300	268	12,400	9,710	7,190	707	8,430	18,200	280	6,170
3	e52	1,730	5,460	276	14,900	9,370	6,600	243	6,160	17,800	2,210	8,980
4	e40	3,710	4,570	1,410	14,800	7,580	6,380	168	4,970	17,800	347	8,980
5	e40	3,120	4,260	10,100	15,200	5,590	5,650	177	4,930	19,100	347	8,980
6	e40	2,090	4,250	14,500	15,400	5,540	1,370	165	4,560	18,500	348	8,970
7	e40	1,800	8,000	14,000	17,000	5,520	2,580	158	4,600	17,700	352	8,940
8	e81	1,630	8,840	12,500	15,700	5,480	4,510	164	5,430	17,500	362	8,910
9	e314	1,610	6,270	13,400	12,800	5,250	5,820	163	6,750	17,400	350	8,110
10	e155	1,480	5,310	13,100	8,960	e4,750	5,460	170	8,640	17,200	117	5,420
11	e196	1,680	4,990	10,100	7,850	3,530	5,330	190	9,490	17,100	85	5,400
12	717	6,040	4,840	9,870	5,360	1,550	5,370	182	10,500	16,900	86	5,390
13	1,150	8,460	4,770	7,990	5,400	1,470	5,310	192	13,200	15,800	93	5,370
14	534	10,500	4,680	13,600	5,670	1,260	5,260	238	16,800	15,300	127	5,380
15	e247	8,740	4,590	15,800	6,190	389	4,850	227	16,000	13,500	178	5,450
16	e165	5,430	4,090	15,300	8,590	334	3,680	232	15,900	10,200	197	3,620
17	e138	5,370	3,920	14,900	6,550	315	3,620	252	16,500	10,100	194	1,150
18	e131	6,270	3,910	14,700	1,660	267	2,500	e240	16,500	9,670	154	1,170
19	e104	6,500	3,890	14,300	732	242	1,120	e1,200	15,800	7,830	119	1,590
20	e124	6,410	3,040	13,400	525	237	1,080	4,040	18,700	5,290	112	1,580
21	e111	6,080	1,030	14,100	469	255	1,160	3,900	22,500	5,240	117	1,380
22	144	5,260	999	14,900	1,690	330	1,150	3,670	21,700	4,670	108	7,100
23	181	3,590	960	13,700	6,020	1,500	1,130	3,660	20,700	3,860	151	16,000
24	302	3,800	921	13,500	9,140	1,640	1,060	4,950	20,300	3,840	216	13,500
25	363	6,140	e679	13,300	8,390	2,620	886	4,970	20,300	2,570	205	5,460
26	345	5,610	e592	12,700	7,210	4,460	735	5,740	20,200	132	221	5,330
27	941	5,690	e449	12,400	6,600	5,020	1,050	6,170	20,100	e93	2,170	5,320
28	e616	6,400	347	12,300	7,690	6,240	881	5,950	20,000	e88	6,610	5,310
29	e449	6,900	e226	11,400	---	7,880	835	4,460	19,900	e83	6,870	5,310
30	e383	6,830	e139	10,800	---	7,820	820	3,970	19,800	e74	6,710	3,980
31	e273	---	e164	10,800	---	7,670	---	4,840	---	e67	6,260	---
TOTAL	8,513	140,548	109,176	349,565	233,596	123,599	100,557	62,172	415,120	323,107	35,763	184,170
MEAN	275	4,685	3,522	11,280	8,343	3,987	3,352	2,006	13,840	10,420	1,154	6,139
MAX	1,150	10,500	8,840	15,800	17,000	9,780	7,190	6,170	22,500	19,500	6,870	16,000
MIN	40	488	139	151	469	237	735	158	4,560	67	67	1,150
AC-FT	16,890	278,800	216,600	693,400	463,300	245,200	199,500	123,300	823,400	640,900	70,940	365,300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

MEAN	3,043	4,243	3,600	3,458	3,501	6,946	7,481	7,354	8,034	4,649	1,189	1,447
MAX	47,570	23,150	16,250	15,850	11,470	23,920	25,200	23,480	25,370	22,340	7,284	7,538
(WY)	(1987)	(1975)	(1993)	(1993)	(1975)	(1985)	(1988)	(1973)	(1995)	(1995)	(1995)	(1989)
MIN	24.1	18.0	47.4	37.9	31.3	23.2	107	87.2	84.0	42.5	52.7	53.3
(WY)	(1967)	(1967)	(1979)	(1981)	(1967)	(1967)	(1971)	(1971)	(1972)	(1966)	(1965)	(2000)

e Estimated

07176000 VERDIGRIS RIVER NEAR CLAREMORE, OK—Continued

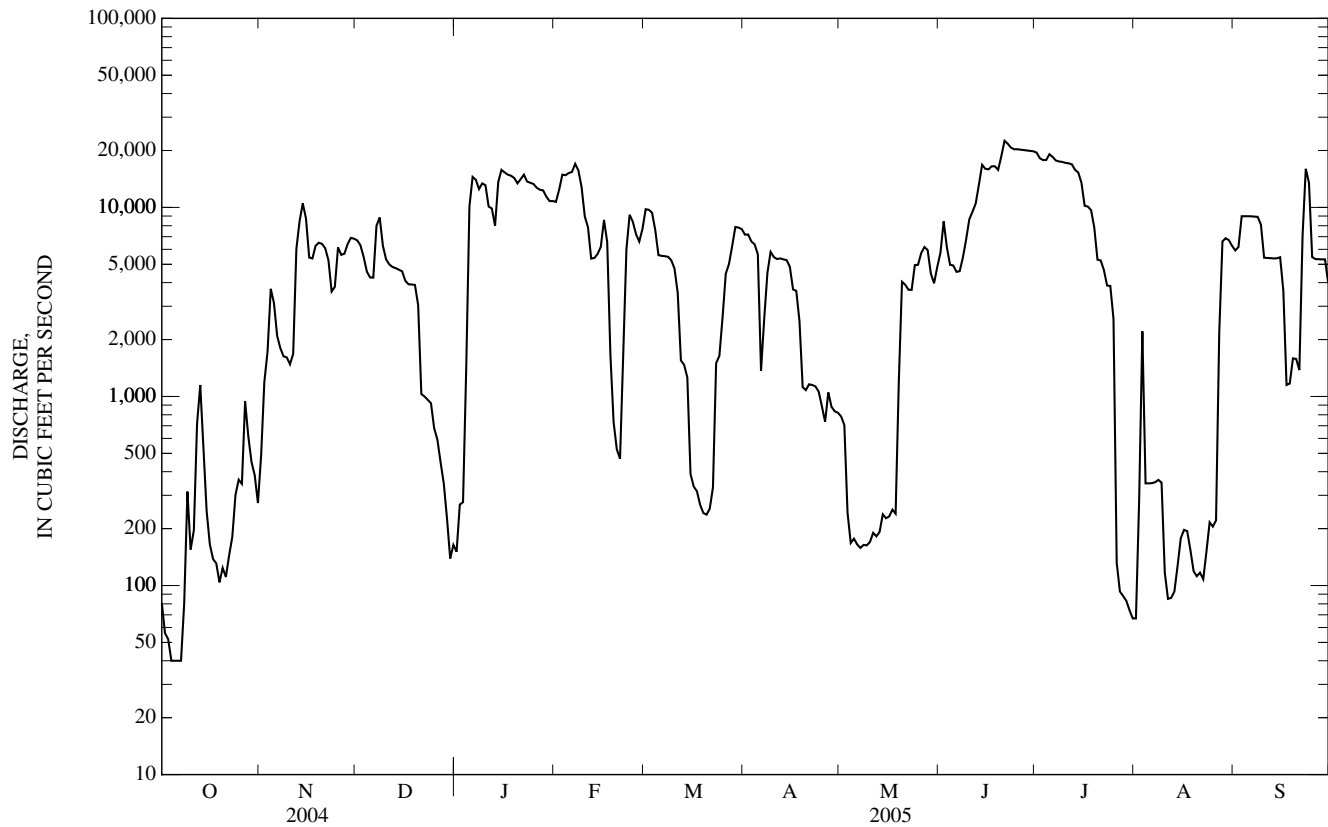
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1965 - 2005	
ANNUAL TOTAL	2,193,252		2,085,886		a4,579	
ANNUAL MEAN	5,992		5,715		10,940	
HIGHEST ANNUAL MEAN					234	
LOWEST ANNUAL MEAN					77,700	
HIGHEST DAILY MEAN	22,300	Mar 11	22,500	Jun 21	77,700	Oct 13, 1986
LOWEST DAILY MEAN	37	Sep 30	40	Oct 4-7	b3.4	Aug 9, 1997
ANNUAL SEVEN-DAY MINIMUM	45	Sep 24	50	Oct 1	8.6	Jul 12, 1966
MAXIMUM PEAK FLOW			22,700	Jun 21	c78,400	Oct 12, 1986
MAXIMUM PEAK STAGE			18.67	Jun 21	d44.99	Oct 12, 1986
ANNUAL RUNOFF (AC-FT)	4,350,000		4,137,000		3,317,000	
10 PERCENT EXCEEDS	14,600		15,300		14,100	
50 PERCENT EXCEEDS	4,920		4,840		1,080	
90 PERCENT EXCEEDS	80		161		63	

a Prior to regulation by Oologah Lake, water years 1936-62, 3,723 ft³/s.

b No flow at times in 1936, 1939, 1940, 1956.

c Maximum discharge for period of record, 182,000 ft³/s, May 21, 1943.

d Maximum gage height for period of record, 55.05 ft, May 21, 1943.



07176500 BIRD CREEK AT AVANT, OK

LOCATION.--Lat 36°29'12", long 96°03'50", in SW ¼ NW ¼ sec.7, T.23 N., R.12 E., Osage County, Hydrologic Unit 11070107, 150 ft upstream from county road bridge at Avant, 2.4 mi upstream from Candy Creek, and at mile 54.2.

DRAINAGE AREA.--364 mi².

PERIOD OF RECORD.--August 1945 to current year, published as Bird Creek near Avant Oct. 1, 1973, to Sept. 30, 1993.

GAGE.--Water-stage recorder. Datum of gage is 651.28 ft above NGVD of 1929.

REMARKS.--Records fair except for estimated periods which are poor. Flow slightly regulated since 1958 by Bluestem Lake (capacity 17,000 acre-ft). Flow regulated since March 1977 by Birch Lake (capacity 19,200 acre-ft), located on Birch Creek, 12.1 mi upstream. Small diversions upstream for municipal water supply for the cities of Pawhuska and Barnsdall. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	587	173	54	240	377	73	30	24	64	9.3	23
2	13	380	181	61	250	225	83	29	23	63	8.7	22
3	13	663	169	72	203	195	92	28	24	58	8.9	23
4	13	971	102	876	176	179	88	28	28	888	10	25
5	13	555	107	6,370	153	171	183	27	54	939	11	23
6	13	404	555	1,910	501	166	262	27	79	415	11	22
7	19	347	1,420	e892	1,040	165	448	26	60	218	12	23
8	104	312	766	e1,280	770	178	174	25	56	136	20	23
9	94	277	502	e1,080	671	297	112	27	61	92	22	23
10	65	244	402	e985	451	194	92	27	64	72	30	22
11	375	1,160	330	790	348	68	e391	29	75	61	32	22
12	741	913	289	795	250	60	173	27	896	51	22	23
13	252	569	266	917	374	56	303	27	e2,720	48	23	24
14	121	478	241	823	354	54	257	26	e1,940	41	26	27
15	80	418	224	618	269	53	196	24	835	38	28	37
16	60	398	190	585	224	51	62	24	1,680	34	24	29
17	48	381	73	540	192	49	54	24	1,290	28	23	29
18	39	258	63	e340	167	49	51	24	802	25	21	32
19	30	353	61	e329	112	53	44	159	497	22	19	28
20	26	303	57	301	108	55	35	345	336	20	17	27
21	26	367	54	143	109	67	29	147	244	19	17	24
22	32	292	52	137	130	754	24	72	190	18	17	21
23	118	325	47	122	743	1,190	22	54	155	18	32	18
24	113	1,000	e32	106	746	505	28	43	132	18	41	17
25	62	621	e30	96	583	306	45	35	120	17	36	18
26	708	394	e32	91	469	196	32	28	101	16	30	17
27	450	286	36	89	414	127	32	27	87	14	24	19
28	199	235	38	89	391	101	33	26	80	12	21	16
29	202	197	41	91	---	87	31	24	70	11	21	15
30	147	181	45	114	---	79	30	23	64	10	23	15
31	99	---	50	166	---	72	---	23	---	10	23	---
TOTAL	4,288	13,869	6,628	20,862	10,438	6,179	3,479	1,485	12,787	3,476	662.9	687
MEAN	138	462	214	673	373	199	116	47.9	426	112	21.4	22.9
MAX	741	1,160	1,420	6,370	1,040	1,190	448	345	2,720	939	41	37
MIN	13	181	30	54	108	49	22	23	23	10	8.7	15
AC-FT	8,510	27,510	13,150	41,380	20,700	12,260	6,900	2,950	25,360	6,890	1,310	1,360

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2005, BY WATER YEAR (WY)

MEAN	161	249	194	181	314	583	499	621	549	170	67.0	143
MAX	1,940	1,319	753	749	1,376	2,264	1,214	2,177	2,642	1,174	400	1,059
(WY)	(1987)	(1986)	(1993)	(1993)	(1985)	(1990)	(1988)	(1993)	(1995)	(1995)	(1989)	(1986)
MIN	3.94	4.19	5.63	3.61	4.87	12.5	6.95	12.4	22.0	10.3	6.07	5.20
(WY)	(1980)	(1981)	(1979)	(1981)	(1981)	(1996)	(1981)	(1996)	(1988)	(1984)	(1985)	(1982)

e Estimated

07176500 BIRD CREEK AT AVANT, OK—Continued

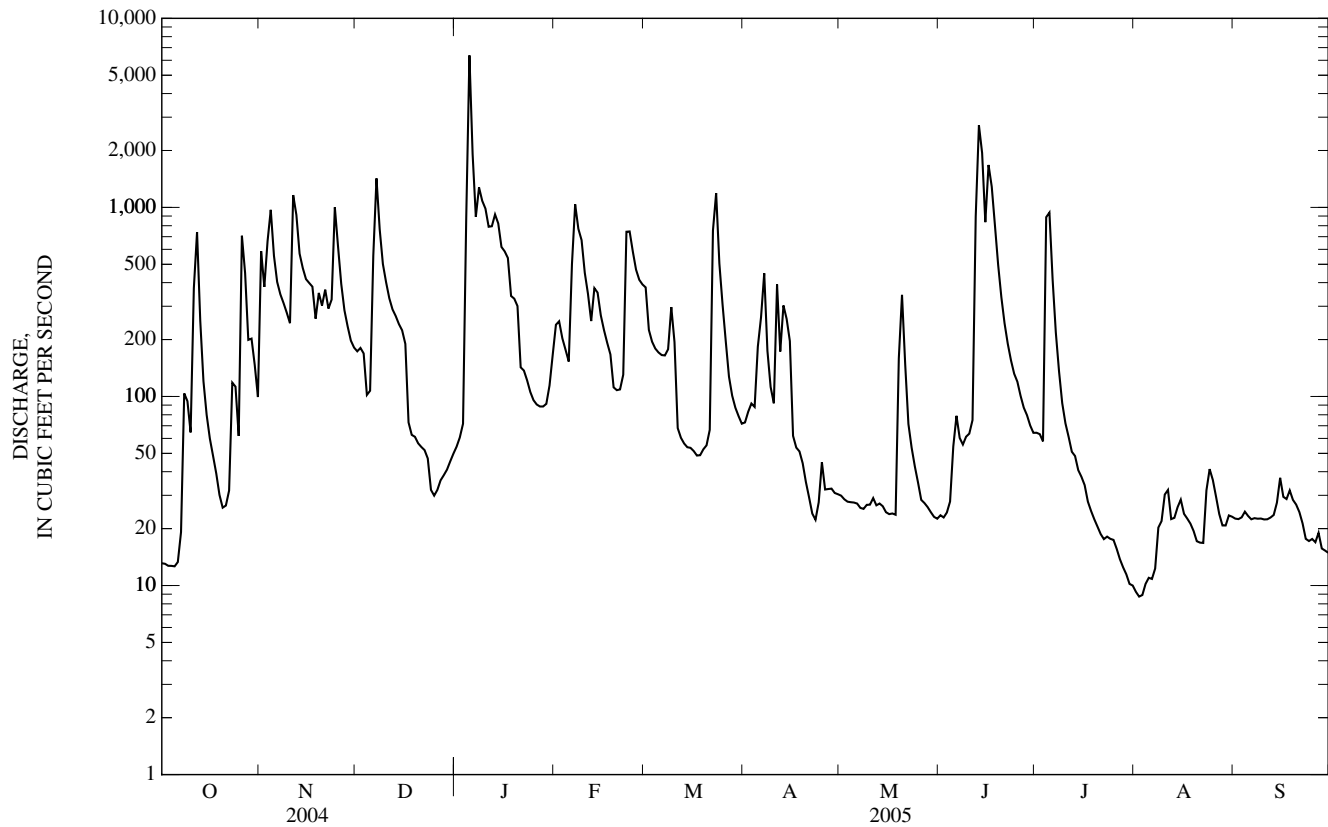
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1978 - 2005	
ANNUAL TOTAL	137,383		84,840.9		a310	
ANNUAL MEAN	375		232		673	
HIGHEST ANNUAL MEAN					43.9	
LOWEST ANNUAL MEAN					25,900	
HIGHEST DAILY MEAN	14,600	Mar 5	6,370	Jan 5	25,900	May 9, 1993
LOWEST DAILY MEAN	13	at times	8.7	Aug 2	b0.05	Aug 8, 1984
ANNUAL SEVEN-DAY MINIMUM	13	Sep 28	9.7	Jul 29	0.29	Aug 3, 1984
MAXIMUM PEAK FLOW			10,700	Jan 5	c27,900	Jun 10, 1985
MAXIMUM PEAK STAGE			13.88	Jan 5	d30.70	Jun 10, 1985
ANNUAL RUNOFF (AC-FT)	272,500		168,300		224,800	
10 PERCENT EXCEEDS	753		638		697	
50 PERCENT EXCEEDS	129		72		45	
90 PERCENT EXCEEDS	28		19		8.3	

a Prior to regulation, water years 1946-76, 200 ft³/s.

b No flow at times most years 1946-76.

c Maximum discharge for period of record, 32,400 ft³/s, gage height 31.40 ft, Oct. 2, 1959.

d Maximum gage height for period of record, 32.03 ft, Mar. 11, 1974.



07176950 HOMINY CREEK NEAR HOMINY, OK

LOCATION.--Lat 36°28'25", long 96°22'43", in SW ¼ NE ¼ sec.18, T.23 N., R.9 E., Osage County, Hydrologic Unit 11070107, near the downstream right abutment of U.S. Highway 99 bridge, 4.0 miles north of Hominy, Oklahoma.

DRAINAGE AREA.--116 mi².

PERIOD OF RECORD.--September 2003 to current year.

GAGE.--Water-stage recorder. Datum of gage is 727.60 ft above NGVD of 1929.

REMARKS.--Records fair except for estimated periods which are poor.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	249	31	19	83	63	29	10	7.0	2.6	1.1	1.3
2	7.0	68	29	19	55	55	37	9.6	6.8	2.7	1.0	1.2
3	6.7	762	28	20	45	49	30	8.8	6.4	2.2	0.86	1.1
4	e6.7	264	25	357	38	44	27	8.3	6.4	361	0.79	0.99
5	6.7	79	30	3,140	34	40	25	7.9	6.5	68	0.80	1.0
6	7.0	55	211	305	415	37	29	8.2	6.3	23	0.82	0.95
7	13	43	668	123	269	37	37	8.6	6.1	14	1.0	0.88
8	19	35	129	98	110	36	32	8.5	5.3	10	0.91	0.80
9	15	29	73	97	159	34	26	8.7	5.3	8.4	0.77	0.71
10	13	63	54	80	80	33	24	8.4	5.3	6.8	0.80	0.66
11	362	627	42	68	61	31	23	7.9	6.9	5.8	0.69	0.69
12	121	131	37	62	54	30	22	7.6	10	6.8	0.66	0.75
13	30	e55	36	63	90	29	20	8.1	97	12	1.2	0.70
14	17	e39	30	50	77	28	18	10	32	5.7	1.6	4.8
15	12	e27	27	39	55	27	18	9.7	15	4.3	1.7	34
16	10	51	27	35	46	28	18	8.3	22	3.6	1.4	6.9
17	8.5	46	27	33	40	28	17	7.4	90	3.2	1.2	3.2
18	7.6	91	26	31	39	27	16	6.8	21	2.9	1.4	3.3
19	6.7	79	25	32	40	26	16	363	13	2.8	1.0	2.9
20	6.3	53	23	35	43	25	15	42	9.5	2.3	1.3	2.2
21	6.1	46	23	34	45	71	15	20	7.8	2.1	1.2	1.8
22	227	48	20	32	43	349	14	14	6.3	1.8	1.5	1.3
23	115	142	21	27	449	152	12	12	5.4	1.9	16	1.3
24	25	332	21	25	202	75	11	11	4.6	2.6	e6.0	e1.1
25	13	e122	18	25	98	55	11	11	3.8	2.6	3.1	0.99
26	206	e64	18	26	74	45	12	9.3	3.1	2.0	2.3	e0.90
27	102	51	19	26	66	40	12	8.4	2.8	1.7	3.3	0.81
28	108	e35	21	25	69	36	12	8.0	2.3	1.4	3.1	0.80
29	49	e33	21	31	---	33	12	7.5	1.9	1.4	2.2	0.73
30	26	33	20	41	---	31	11	7.2	1.7	1.3	1.7	0.65
31	18	---	19	76	---	28	---	7.0	---	1.1	1.5	---
TOTAL	1,577.3	3,752	1,799	5,074	2,879	1,622	601	673.2	417.5	568.0	62.90	79.41
MEAN	50.9	125	58.0	164	103	52.3	20.0	21.7	13.9	18.3	2.03	2.65
MAX	362	762	668	3,140	449	349	37	363	97	361	16	34
MIN	6.1	27	18	19	34	25	11	6.8	1.7	1.1	0.66	0.65
AC-FT	3,130	7,440	3,570	10,060	5,710	3,220	1,190	1,340	828	1,130	125	158

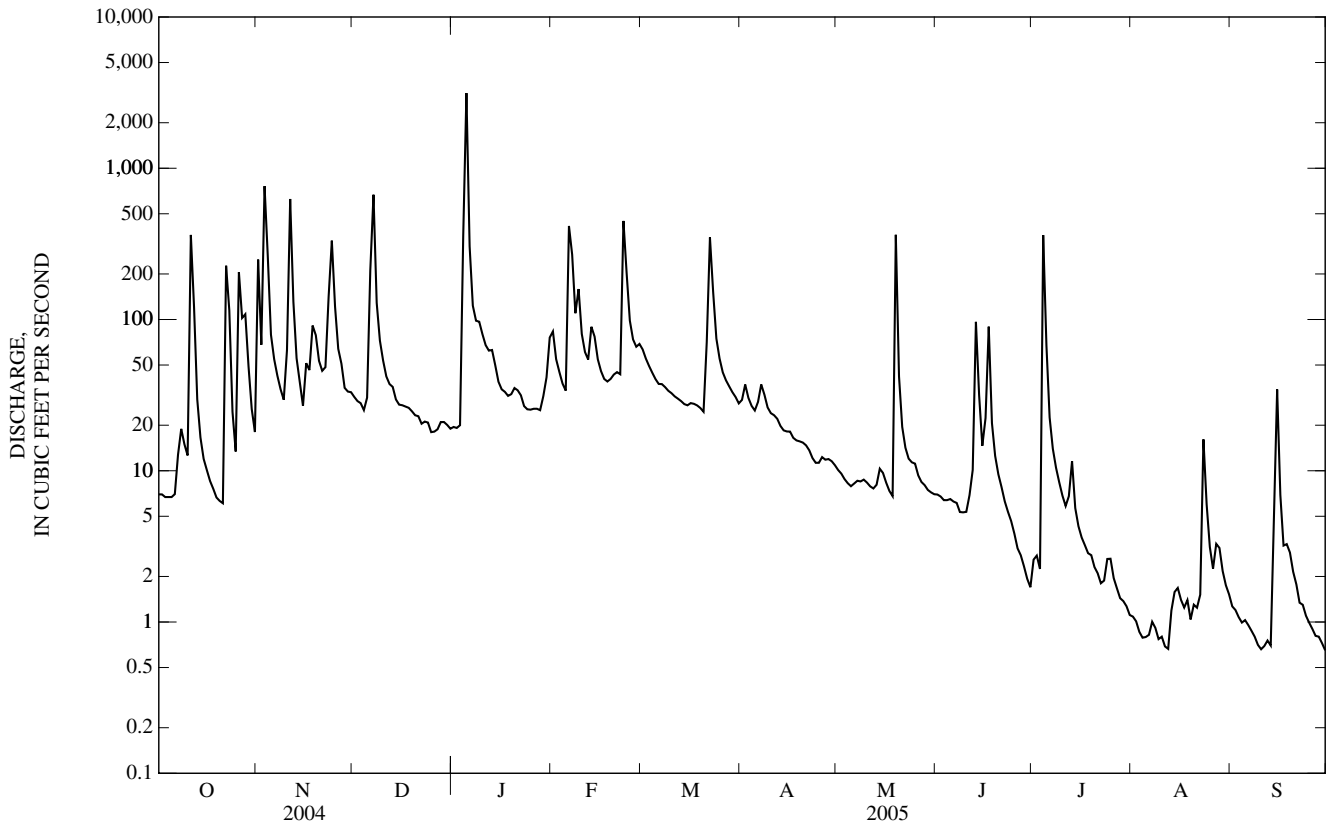
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2005, BY WATER YEAR (WY)

MEAN	40.9	74.6	59.2	130	83.2	257	40.0	34.5	45.6	85.9	23.5	4.14
MAX	50.9	125	60.3	164	103	461	60.0	47.2	77.4	153	44.9	5.63
(WY)	(2005)	(2005)	(2004)	(2005)	(2005)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)
MIN	31.0	24.0	58.0	95.6	64.3	52.3	20.0	21.7	13.9	18.3	2.03	2.65
(WY)	(2004)	(2004)	(2005)	(2004)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)

e Estimated

07176950 HOMINY CREEK NEAR HOMINY, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2003 - 2005	
ANNUAL TOTAL	38,155.2		19,105.31		73.4	
ANNUAL MEAN	104		52.3		94.5	
HIGHEST ANNUAL MEAN					52.3	
LOWEST ANNUAL MEAN					7,990	
HIGHEST DAILY MEAN	7,990	Mar 4	3,140	Jan 5	7,990	Mar 4, 2004
LOWEST DAILY MEAN	3.1	Sep 5	0.65	Sep 30	0.40	Nov 15, 2003
ANNUAL SEVEN-DAY MINIMUM	3.7	Aug 30	0.74	Sep 7	0.64	Nov 10, 2003
MAXIMUM PEAK FLOW			6,310	Jan 5	20,500	Mar 4, 2004
MAXIMUM PEAK STAGE			24.67	Jan 5	36.58	Mar 4, 2004
ANNUAL RUNOFF (AC-FT)	75,680		37,900		53,200	
10 PERCENT EXCEEDS	130		93		98	
50 PERCENT EXCEEDS	26		19		20	
90 PERCENT EXCEEDS	6.7		1.3		1.9	



07176950 HOMINY CREEK NEAR HOMINY, OK —Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--May 1949 to February 1953, November 1955, February 1999, September 2003 to September 2005 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 2004 to September 2005 (discontinued).

pH: April 2004 to September 2004.

WATER TEMPERATURE: April 2004 to September 2005 (discontinued).

DISSOLVED OXYGEN: April 2004 to September 2004.

TURBIDITY: April 2004 to September 2004.

INSTRUMENTATION.--Water-quality monitor since April 2004.

REMARKS.--Interruptions in record were due to malfunction of the recording instrument or sensors. Samples were collected periodically and specific conductance, pH, water temperature, alkalinity, dissolved oxygen, and turbidity were determined in the field.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,100 microsiemens, Aug. 26, 2005; minimum, 111 microsiemens, July 9, 2004.

pH: Maximum, 8.6 standard units, Aug. 30, 2004; minimum, 7.3 standard units, Sept. 25, 2004.

WATER TEMPERATURE: Maximum, 34.3°C, July 22, 23, 2005; minimum, 0.0°C, several days in winter months.

DISSOLVED OXYGEN: Maximum, 12.9 mg/l, Sept. 2, 2004; minimum, 2.8 mg/l, June 17, 2004.

TURBIDITY: Maximum, 1,000 NTU, July 2, 2004; minimum, 0.9 NTU, Aug. 31, 2004.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 2,100 microsiemens, Aug. 26; minimum, 117 microsiemens, June 5.

WATER TEMPERATURE: Maximum, 34.3°C, July 22, 23; minimum, 0.0°C, several days in winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Turb- idity, IR LED light, det ang 90 deg, FNU (63680)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)
NOV 16...	1445	1028	80020	52	26	749	10.4	100	8.1	558	--	12.4	180
DEC 07...	1145	1028	80020	744	130	740	11.6	101	7.9	349	15.8	8.0	120
JAN 20...	1220	1028	80020	35	8.7	743	13.3	99	8.1	852	14.0	2.0	290
MAR 29...	1245	1028	80020	34	14	730	10.9	114	8.0	671	21.7	15.2	240
APR 21...	1115	1028	80020	14	10	741	7.9	91	8.0	1,550	26.0	21.0	400
MAY 19...	1237	1028	80020	1,140	820	738	8.3	96	7.7	341	28.1	21.0	110
JUN 27...	1000	1028	80020	2.8	13	743	7.4	98	7.8	795	28.0	28.4	210
JUL 20...	1000	1028	80020	2.4	15	744	7.9	107	7.5	857	32.5	29.4	190

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Noncarb hard- ness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium adsorp- tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
NOV 16...	42	52.9	11.4	3.13	1	37.1	31	137	166	.0	.09	75.8	.1
DEC 07...	20	35.0	7.56	3.56	.8	21.1	27	99	E118	E.0	--	35.0	.1
JAN 20...	100	86.8	18.9	2.12	2	62.8	32	194	234	1	.39	131	.2
MAR 29...	70	71.1	16.1	2.00	1	45.8	29	174	208	2	.36	84.7	.2
APR 21...	190	119	24.9	2.98	4	161	46	211	255	.0	1.52	330	.2
MAY 19...	19	31.8	7.40	2.80	1	22.9	31	91	E110	E.0	.16	35.8	.1
JUN 27...	79	56.9	16.0	3.65	2	74.7	43	129	156	.0	.65	147	.3
JUL 20...	85	54.6	14.2	4.20	3	87.6	49	110	133	.0	.73	174	.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	E coli, modif. m-TEC, water, col/ 100 mL (90902)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Alum- inum, water, fltrd, ug/L (01106)	Anti- mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll- ium, water, fltrd, ug/L (01010)
NOV 16...	12.1	23.5	.45	46.0	327	--	90	100	3	<.20	<2	78	<.06
DEC 07...	11.5	17.7	.28	418	208	--	E5,500	8,600	6	<.20	<2	49	<.06
JAN 20...	10.5	39.5	.63	43.6	464	--	260	490	E1	<.20	<2	97	<.06
MAR 29...	8.21	37.0	.54	36.1	393	--	100	66	2	<.20	<2	80	<.06
APR 21...	6.90	43.2	1.15	31.9	844	--	E41	60	3	<.20	M	268	<.06
MAY 19...	5.89	19.8	.29	657	214	--	E10,000	E12,000	4	<.20	E1	48	<.06
JUN 27...	8.70	25.1	.60	3.34	441	--	30	E43	2	E.16	E1	104	<.06
JUL 20...	7.59	19.2	.66	3.12	482	43	--	73	3	E.16	E1	108	<.06

Date	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	1,2-Di- phenyl- hydrazine, water, unfltrd ug/L (82626)	246-Tri bromo- phenol, sur Sch 1383/85 wat unfltrd pct rcv (90652)
NOV 16...	<.04	<.8	.296	1.1	38	<.08	54.6	E.2	1.43	<3	<.2	<2	112
DEC 07...	<.04	E.4	.346	2.1	65	E.07	20.6	E.2	1.84	<3	<.2	<2	89.9
JAN 20...	<.04	<.8	.542	1.0	6	<.08	210	E.3	1.96	<3	<.2	<2	112
MAR 29...	<.04	<.8	.413	--	14	<.08	76.4	E.3	4.39	<3	<.2	--	--
APR 21...	<.04	<.8	.575	1.9	E6	.10	114	.7	7.50	<3	<.2	--	--
MAY 19...	<.04	<.8	.344	1.2	29	E.08	6.3	.5	1.50	<3	<.2	--	--
JUN 27...	<.04	<.8	.276	--	<6	<.08	14.7	1.1	4.15	<3	<.2	--	--
JUL 20...	E.02	<.8	.237	--	E3	<.08	1.6	1.2	3.07	<3	<.2	--	--

[illegible]

07176950 HOMINY CREEK NEAR HOMINY, OK —Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	4-Chloro-phenyl ether, wat unfltrd ug/L (34641)	4-Nitro-phenol, water, unfltrd ug/L (34646)	9H-Fluorene, water, unfltrd ug/L (34381)	Ace-naphthene, water, unfltrd ug/L (34205)	Ace-naphthylene, water, unfltrd ug/L (34200)	Anthra-cene, water, unfltrd ug/L (34220)	Benzo-[a]-anthra-cene, water, unfltrd ug/L (34526)	Benzo-[a]-pyrene, water, unfltrd ug/L (34247)	Benzo-[b]-fluor-anthene, water, unfltrd ug/L (34230)	Benzo-[ghi]-per-ylene, water, unfltrd ug/L (34521)	Benzo-[k]-fluor-anthene, water, unfltrd ug/L (34242)	Benzyln-butyl phthal-ate, water, unfltrd ug/L (34292)	Bis(2-chloro-ethoxy) methane, water, unfltrd ug/L (34278)
NOV 16...	<1	M	<1	<2	<2	<2	<2	<1	<2	<2	<1	<2	<1
DEC 07...	<1	M	<1	<2	<2	<2	<2	<1	<2	<2	<1	<2	<1
JAN 20...	<1	<2	<1	<2	<2	<2	<2	<1	<2	<2	<1	<2	<1
MAR 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Bis(2-chloro-ethyl) ether, water, unfltrd ug/L (34273)	Bis(2-chloro-isopropyl) ether, wat unfltrd ug/L (34283)	Bis(2-ethyl-hexyl) phthal-ate, wat unfltrd ug/L (39100)	Chrys-ene, water, unfltrd ug/L (34320)	Di-benzo-[a,h]-anthra-cene, wat unfltrd ug/L (34556)	Di-ethyl phthal-ate, water, unfltrd ug/L (34336)	Di-methyl phthal-ate, water, unfltrd ug/L (34341)	Di-n-butyl phthal-ate, water, unfltrd ug/L (39110)	Di-n-octyl phthal-ate, water, unfltrd ug/L (34596)	Fluor-anthene, water, unfltrd ug/L (34376)	Hexa-chloro-benzene, water, unfltrd ug/L (39700)	Hexa-chloro-cyclo-penta-diene, wat unfltrd ug/L (34386)	Indeno-[1,2,3-cd]-pyrene, water, unfltrd ug/L (34403)
NOV 16...	<1	<1	<2	<1	<2	<2	<1	<2	<2	<1	<1	<1	<2
DEC 07...	<1	<1	<2	<1	<2	<2	<1	<2	<2	<1	<1	<1	<2
JAN 20...	<1	<1	<2	<1	<2	<2	<1	<2	<2	<1	<1	<1	<2
MAR 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Iso-phorone, water, unfltrd ug/L (34408)	Nitro-benzene, water, unfltrd ug/L (34447)	N-Nitroso-di-methyl-amine, wat unfltrd ug/L (34438)	N-Nitroso-di-n-propyl-amine, wat unfltrd ug/L (34428)	N-Nitroso-di-phenyl-amine, wat unfltrd ug/L (34433)	Penta-chloro-phenol, water, unfltrd ug/L (39032)	Petrol-eum hydro-carbons, wat unfltrd mg/L (45501)	Phenan-threne, water, unfltrd ug/L (34461)	Phenol, water, unfltrd ug/L (34694)	Phenol-d5, surrog, Sched. 1383/85, wat unfltrd pct rcv (90630)	Pyrene, water, unfltrd ug/L (34469)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	CFC-113, water, unfltrd ug/L (77652)
NOV 16...	M	<1	<2	<2	<2	<2	<2	<1	E.5	67.2	<2	<1	<1
DEC 07...	M	<1	<2	<2	<2	<2	<2	<1	<1.6	49.1	<2	<1	<1
JAN 20...	<2	<1	<2	<2	<2	<2	<2	<1	E.1	59.6	<2	<1	<1
MAR 29...	--	--	--	--	--	--	3	--	--	--	--	<1	<1
APR 21...	--	--	--	--	--	--	<2	--	--	--	--	<1	<1
MAY 19...	--	--	--	--	--	--	<2	--	--	--	--	<1	<1
JUN 27...	--	--	--	--	--	--	<2	--	--	--	--	<1	<1
JUL 20...	--	--	--	--	--	--	3	--	--	--	--	<1	<1

07176950 HOMINY CREEK NEAR HOMINY, OK —Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water unfltrd ug/L (34501)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water unfltrd ug/L (32103)	1,2-Di-chloro-ethane-d4, sur Sch2090 wat unf pct rcv (99832)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	14Bromo fluoro-benzene surrog. VOC Sch wat unf pct rcv (99834)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)
NOV 16...	<.1	<.1	<.1	<.1	<.2	115	<.1	<.1	<.1	99.1	<.1	<.1	<.1
DEC 07...	<.1	<.1	<.1	<.1	<.2	111	<.1	<.1	<.1	97.4	<.1	<.1	<.1
JAN 20...	<.1	<.1	<.1	<.1	<.2	106	<.1	<.1	<.1	115	<.1	<.1	<.1
MAR 29...	<.1	<.1	--	<.1	<.2	97.8	<.1	<.1	<.1	76.2	<.1	<.1	<.1
APR 21...	<.1	<.1	--	<.1	<.2	100	<.1	<.1	<.1	93.7	<.1	.2	<.1
MAY 19...	<.1	<.1	--	<.1	<.2	101	<.1	<.1	<.1	100	<.1	<.1	<.1
JUN 27...	<.1	<.1	--	<.1	<.2	99.1	<.1	<.1	<.1	75.9	<.1	.7	<.1
JUL 20...	<.1	<.1	--	<.1	<.2	129	<.1	<.1	<.1	72.6	<.1	.7	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	cis-1,2-Di-chloro-ethene, water unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unf ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water unfltrd ug/L (81576)	Diiso-propyl ether, water unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water unfltrd ug/L (39702)	Hexa-chloro-ethane, water unfltrd ug/L (34396)	Methyl tert-pentyl ether, water unfltrd ug/L (50005)	meta+ para-Xylene, water unfltrd ug/L (85795)	Naphth-alene, water unfltrd ug/L (34696)	o-Xylene, water unfltrd ug/L (77135)
NOV 16...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.1	<.2	<.2	<.2	<.2	<.1
DEC 07...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.1	<.2	<.2	<.2	<.2	<.1
JAN 20...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.1	<.2	<.2	<.2	<.2	<.1
MAR 29...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	--	--	<.2	<.2	--	<.1
APR 21...	<.1	.3	<.2	<.2	<.2	<.2	<.1	--	--	<.2	<.2	--	<.1
MAY 19...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	--	--	<.2	<.2	--	<.1
JUN 27...	<.1	1.3	<.2	<.2	<.2	<.2	<.1	--	--	<.2	<.2	--	<.1
JUL 20...	<.1	.6	<.2	<.2	<.2	<.2	<.1	--	--	<.2	<.2	--	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water unfltrd ug/L (50004)	Methyl t-butyl ether, water unfltrd ug/L (78032)	Tetra-chloro-ethene, water unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	Toluene -d8, surrog. Sch2090 wat unf percent recovry (99833)	trans-1,2-Di-chloro-ethene, water unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water unfltrd ug/L (39175)
NOV 16...	<.1	<.1	<.2	<.1	<.2	<.1	99.7	<.1	<.2	<.1	<.2	<.1	<.2
DEC 07...	<.1	<.1	<.2	<.1	<.2	<.1	98.4	<.1	<.2	<.1	<.2	<.1	<.2
JAN 20...	<.1	<.1	<.2	<.1	<.2	<.1	102	<.1	<.2	<.1	<.2	<.1	<.2
MAR 29...	<.1	<.1	<.2	<.1	<.2	<.1	90.2	<.1	<.2	<.1	<.2	<.1	<.2
APR 21...	<.1	<.1	<.2	--	<.2	<.1	101	<.1	.2	<.1	<.2	.3	<.2
MAY 19...	<.1	<.1	<.2	<.1	<.2	<.1	105	<.1	<.2	<.1	<.2	<.1	<.2
JUN 27...	<.1	<.1	<.2	<.1	<.2	<.1	95.5	<.1	.7	<.1	<.2	1.0	<.2
JUL 20...	<.1	<.1	<.2	<.1	<.2	<.1	105	<.1	<.2	<.1	<.2	1.5	<.2

07176950 HOMINY CREEK NEAR HOMINY, OK —Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	2Fluoro -bi- phenyl, surrog, bed sed <2 mm, pct rcv (49279)	Nitro- benzene -d5, surrog, bed sed <2 mm, pct rcv (49280)	Ter- phenyl- d14, surrog, bed sed <2 mm, pct rcv (49278)	Uranium natural water, fltrd, ug/L (22703)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
NOV 16...	96	100	82	.68	94	34	4.8
DEC 07...	85	97	45	.52	70	257	516
JAN 20...	94	94	94	1.28	74	71	6.7
MAR 29...	--	--	--	.95	87	22	2.0
APR 21...	--	--	--	1.42	81	185	7.0
MAY 19...	--	--	--	.58	78	1,800	5,530
JUN 27...	--	--	--	.62	98	87	.66
JUL 20...	--	--	--	.58	96	100	.65

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	1,440	1,390	1,420	590	404	461	664	634	651	939	893	916
2	1,470	1,430	1,450	435	410	419	684	664	675	916	897	912
3	---	---	---	445	233	351	705	684	694	937	905	925
4	---	---	---	303	238	276	715	705	710	1,290	500	813
5	---	---	---	371	303	338	745	708	723	500	117	205
6	1,380	631	1,320	438	371	404	870	556	769	273	151	212
7	1,460	756	1,320	492	438	467	699	292	376	375	273	328
8	1,170	889	1,010	537	492	514	353	293	323	441	375	416
9	1,310	1,100	1,230	572	537	554	421	353	381	480	441	464
10	1,340	1,240	1,300	647	519	576	482	421	457	527	480	505
11	1,900	325	865	629	295	397	503	459	480	583	527	556
12	325	308	314	354	338	342	550	503	524	625	582	602
13	372	317	344	---	---	---	591	550	572	651	623	641
14	416	372	395	---	---	---	616	591	601	648	634	639
15	449	415	433	---	---	---	645	616	628	679	648	667
16	477	448	460	585	498	542	685	645	657	728	679	709
17	530	477	497	586	572	577	724	685	703	760	706	740
18	556	530	541	663	575	620	751	724	737	790	756	779
19	579	556	566	636	576	603	775	751	762	825	790	810
20	606	579	596	578	567	571	786	775	782	850	825	839
21	628	605	617	630	575	598	810	779	791	839	825	832
22	1,060	275	570	689	630	653	849	810	828	836	825	831
23	344	293	314	804	610	684	897	849	879	843	835	839
24	380	327	355	688	415	455	939	897	923	842	820	830
25	412	380	396	---	---	---	948	918	937	837	821	830
26	449	304	402	---	---	---	936	912	926	878	837	854
27	344	285	313	530	481	506	934	919	927	915	878	903
28	566	342	398	---	---	---	971	934	953	904	862	884
29	459	420	444	---	---	---	993	971	983	925	862	887
30	490	459	472	634	586	610	983	939	964	1,000	923	979
31	505	490	498	---	---	---	940	925	936	993	863	919

07176950 HOMINY CREEK NEAR HOMINY, OK —Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	863	741	766	562	537	545	766	732	750	1,300	1,240	1,260
2	749	737	741	588	562	574	835	755	800	1,240	1,190	1,210
3	745	731	738	618	587	601	829	761	781	1,190	1,180	1,190
4	784	743	763	650	616	630	783	765	770	1,200	1,180	1,190
5	786	768	778	683	650	667	808	771	790	1,200	1,190	1,200
6	890	398	674	705	683	692	991	806	841	1,200	1,170	1,190
7	428	352	382	732	705	717	1,000	854	900	1,180	1,170	1,180
8	423	352	382	747	732	739	879	846	866	1,190	1,180	1,180
9	477	413	430	761	746	753	846	812	829	1,210	1,160	1,190
10	497	436	469	949	761	807	832	811	820	1,240	1,200	1,230
11	551	497	527	973	820	891	839	832	835	1,240	1,210	1,220
12	556	546	549	845	807	828	877	839	851	1,270	1,220	1,240
13	641	556	593	819	803	812	900	877	892	1,270	1,230	1,250
14	593	552	569	839	819	828	905	887	898	1,260	1,200	1,220
15	618	585	599	845	836	841	924	904	910	1,260	1,230	1,240
16	633	618	626	859	833	848	954	916	938	1,310	1,260	1,280
17	655	633	639	896	859	880	945	933	937	1,350	1,310	1,330
18	691	655	671	914	896	905	952	935	940	1,360	1,340	1,350
19	719	691	704	916	902	910	1,190	952	1,060	1,360	271	720
20	727	717	722	921	898	915	1,440	1,190	1,330	489	366	432
21	729	712	720	951	871	909	1,610	1,440	1,530	567	489	538
22	726	710	722	956	400	589	1,710	1,610	1,670	618	567	591
23	773	364	588	404	366	382	1,710	1,680	1,690	633	615	624
24	365	332	342	465	404	434	1,700	1,650	1,670	668	633	648
25	392	347	365	527	465	496	1,660	1,640	1,650	744	668	730
26	455	392	423	577	527	551	1,780	1,650	1,700	746	734	741
27	504	455	478	615	577	596	1,810	1,780	1,790	768	735	747
28	538	504	526	649	615	631	1,810	1,460	1,630	791	757	774
29	---	---	---	682	647	664	1,460	1,340	1,390	812	790	797
30	---	---	---	705	682	694	1,340	1,290	1,310	833	807	815
31	---	---	---	738	705	724	---	---	---	867	833	846
	JUNE			JULY			AUGUST			SEPTEMBER		
1	904	867	886	882	705	839	1,040	1,010	1,020	1,520	1,470	1,500
2	939	904	921	870	840	858	1,050	1,030	1,040	1,540	1,500	1,520
3	---	---	---	885	845	869	1,120	1,050	1,090	1,580	1,520	1,560
4	---	---	---	878	248	521	1,150	1,120	1,140	1,580	1,560	1,570
5	---	---	---	331	252	290	1,160	1,150	1,160	1,580	1,510	1,540
6	---	---	---	371	331	351	1,160	1,130	1,150	1,520	1,500	1,510
7	1,030	1,010	1,020	433	371	410	---	---	---	1,560	1,520	1,540
8	1,080	1,030	1,060	481	423	448	---	---	---	1,570	1,550	1,560
9	1,080	1,010	1,070	520	480	496	1,180	1,160	1,170	1,550	1,520	1,540
10	1,100	1,070	1,090	538	520	529	1,170	1,150	1,160	1,520	1,490	1,500
11	1,110	705	1,070	557	538	549	1,190	1,160	1,180	1,490	1,440	1,450
12	1,080	897	1,030	607	557	584	1,210	1,180	1,190	1,440	1,390	1,410
13	1,590	648	858	814	582	741	1,190	784	1,110	1,390	621	1,350
14	697	643	661	742	728	736	1,200	1,050	1,120	1,580	621	1,300
15	649	644	646	762	736	746	1,280	1,150	1,240	1,670	741	1,100
16	649	590	619	782	758	769	1,350	1,280	1,330	819	730	765
17	702	575	640	825	776	810	1,340	1,320	1,330	848	819	836
18	649	600	622	836	808	825	1,320	1,230	1,270	956	843	880
19	607	596	601	852	827	841	1,270	1,240	1,260	---	---	---
20	615	599	605	884	850	866	---	---	---	1,110	1,070	1,100
21	638	615	626	906	882	892	1,220	1,130	1,160	1,070	1,030	1,050
22	679	632	652	918	899	906	1,220	1,120	1,170	1,030	1,010	1,020
23	---	---	---	940	765	908	1,230	617	1,100	---	---	---
24	---	---	---	962	907	941	---	---	---	---	---	---
25	---	---	---	999	962	983	2,080	2,030	2,060	---	---	---
26	---	---	---	1,020	999	1,000	2,100	1,980	2,050	---	---	---
27	---	---	---	1,020	998	1,010	1,980	1,570	1,750	---	---	---
28	817	778	803	1,000	982	991	1,570	1,400	1,440	---	---	---
29	835	793	814	987	964	973	1,430	1,360	1,380	1,010	971	987
30	866	826	842	1,010	964	984	---	---	---	1,040	1,000	1,020
31	---	---	---	1,040	1,000	1,010	1,480	1,420	1,470	---	---	---

07176950 HOMINY CREEK NEAR HOMINY, OK —Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	22.5	20.0	21.3	17.6	16.7	17.2	6.7	3.7	5.1	12.7	9.9	11.3
2	20.0	15.9	17.7	17.1	14.4	15.8	6.2	3.8	5.0	12.2	11.2	11.8
3	---	---	---	14.4	11.9	12.8	5.8	2.9	4.4	11.2	9.1	9.9
4	---	---	---	12.7	11.0	11.8	6.0	3.0	4.5	9.1	6.0	7.2
5	---	---	---	13.3	10.5	11.8	6.3	4.6	5.4	6.1	1.8	3.8
6	18.4	16.3	17.5	14.2	10.7	12.2	8.6	5.7	6.8	1.8	0.2	0.8
7	20.2	18.0	19.0	14.6	10.9	12.7	8.4	7.7	8.0	1.0	0.0	0.5
8	22.1	18.8	20.3	13.9	11.3	12.6	8.3	6.8	7.5	2.7	0.6	1.5
9	21.6	19.4	20.0	13.2	11.2	12.1	8.7	6.5	7.4	4.3	2.0	3.0
10	19.6	18.1	18.9	12.0	10.5	11.2	8.1	6.2	7.1	5.8	3.5	4.5
11	18.1	15.2	16.4	11.8	10.3	11.2	7.4	5.1	6.1	5.3	4.8	5.0
12	15.6	14.6	15.0	11.1	9.6	10.2	7.6	4.8	6.1	6.8	4.7	5.6
13	17.6	13.8	15.4	---	---	---	6.2	4.4	5.3	6.1	4.1	5.2
14	16.2	14.0	15.1	---	---	---	4.5	2.4	3.3	4.1	2.2	3.2
15	15.5	12.5	14.3	---	---	---	3.5	1.0	2.3	2.2	0.7	1.5
16	16.3	13.6	15.0	12.8	10.7	11.7	4.6	2.1	3.1	1.3	0.0	0.4
17	16.4	13.5	15.1	14.7	12.0	13.3	4.6	1.8	3.2	0.8	0.0	0.3
18	19.9	16.1	17.6	14.7	13.6	14.1	4.8	2.7	3.7	1.9	0.0	0.7
19	17.7	16.2	16.9	14.4	13.7	14.1	3.9	2.2	2.9	3.9	0.8	2.1
20	18.0	15.9	16.6	13.7	12.5	13.2	5.0	1.4	3.0	4.9	1.0	2.8
21	20.2	16.2	18.0	12.5	11.4	11.9	4.2	2.9	3.6	5.6	2.0	3.7
22	20.9	18.7	19.7	11.5	11.0	11.2	3.1	0.1	1.6	5.1	2.3	3.6
23	19.9	17.5	18.7	11.9	11.2	11.5	0.4	0.0	0.1	3.0	0.5	1.7
24	19.4	15.3	17.3	11.6	8.8	10.2	0.6	0.0	0.1	4.8	1.3	2.8
25	19.7	17.3	18.4	---	---	---	0.7	0.0	0.2	6.1	2.5	4.1
26	19.6	18.9	19.2	---	---	---	1.1	0.0	0.5	6.5	3.9	5.1
27	21.0	19.3	20.1	10.1	8.1	9.2	3.1	0.5	1.6	5.7	4.2	5.0
28	21.1	20.1	20.6	---	---	---	5.1	1.8	3.3	5.4	3.1	4.2
29	22.6	20.1	21.2	---	---	---	6.2	2.8	4.4	4.6	3.1	3.8
30	20.1	17.6	18.9	7.2	5.2	6.5	10.7	5.9	8.1	4.0	3.4	3.7
31	18.3	16.2	17.0	---	---	---	10.7	7.8	9.3	4.3	3.3	3.8
FEBRUARY			MARCH			APRIL			MAY			
1	4.6	3.9	4.2	9.0	5.2	6.8	17.0	12.9	14.8	17.2	14.4	15.7
2	5.2	3.9	4.4	10.6	5.6	7.7	18.1	11.5	14.8	16.2	14.0	15.1
3	6.5	2.8	4.4	12.4	6.5	9.3	18.6	12.5	15.5	16.8	12.8	15.2
4	7.2	2.7	4.8	14.3	8.4	11.1	20.4	14.5	17.4	16.5	13.7	15.5
5	7.5	4.0	5.7	14.5	9.9	12.1	20.1	16.7	18.3	17.1	15.4	16.3
6	7.3	6.5	6.9	15.0	10.2	12.6	19.1	16.8	17.6	21.0	16.0	18.5
7	7.4	6.6	7.2	13.7	11.6	12.8	19.1	15.5	17.1	20.6	18.8	19.4
8	6.6	5.1	5.8	13.8	8.9	11.3	19.6	15.2	17.3	20.1	18.5	19.2
9	5.4	3.7	4.5	12.4	9.7	10.8	20.3	15.8	18.0	24.2	18.3	21.2
10	6.3	3.2	4.5	13.3	8.1	10.5	19.3	17.2	17.6	26.9	21.3	24.0
11	7.2	3.7	5.1	13.4	8.9	11.2	20.6	16.5	18.2	27.5	23.9	25.5
12	7.4	5.2	6.4	16.3	10.3	13.0	19.5	14.9	17.2	25.2	23.3	24.0
13	11.1	7.2	9.1	14.0	10.0	12.0	17.7	14.5	15.8	23.5	21.4	22.2
14	11.9	8.5	10.0	13.2	8.9	11.1	19.9	13.8	16.7	25.4	20.0	22.6
15	13.1	9.5	10.9	12.3	10.0	10.9	21.5	15.3	18.4	24.0	20.0	22.0
16	10.2	8.6	9.3	11.9	8.8	10.2	22.2	16.9	19.6	23.9	19.0	21.6
17	10.5	6.9	8.7	12.7	7.9	10.4	21.6	18.4	20.3	25.3	20.3	22.6
18	9.9	6.1	8.1	14.7	9.4	11.9	21.0	18.6	19.7	25.0	21.6	23.4
19	9.4	8.0	8.6	14.1	10.1	12.2	21.1	18.4	19.8	24.2	20.9	22.7
20	13.9	8.9	11.2	15.5	10.8	13.1	22.7	19.7	21.2	29.2	22.0	25.3
21	12.1	10.6	11.3	14.8	12.9	13.4	24.2	20.6	22.4	29.9	23.7	26.9
22	11.0	9.8	10.4	12.9	10.3	11.8	23.2	19.0	20.3	31.4	26.2	28.8
23	10.0	7.3	8.5	10.3	9.0	9.6	19.0	15.2	17.4	30.4	27.2	28.7
24	8.8	6.3	7.5	12.4	8.5	10.2	18.7	14.4	17.0	28.8	25.7	27.1
25	9.8	6.3	7.9	11.9	10.6	11.1	18.3	16.0	16.8	28.0	23.3	25.7
26	10.1	7.4	8.5	10.7	9.3	10.0	17.9	14.2	16.2	27.4	22.7	25.1
27	9.9	8.7	9.2	12.7	8.3	10.2	19.2	14.6	17.2	25.8	22.1	23.4
28	8.8	6.7	7.9	15.7	8.5	11.9	19.5	16.2	18.2	26.7	20.7	23.6
29	---	---	---	17.2	12.0	14.5	18.7	14.2	15.9	27.8	22.0	24.8
30	---	---	---	18.2	13.7	15.9	17.8	12.4	15.1	27.8	23.2	25.4
31	---	---	---	16.3	13.0	14.8	---	---	---	27.3	22.8	25.0

07176950 HOMINY CREEK NEAR HOMINY, OK —Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	26.3	22.7	24.2	30.6	24.7	27.7	31.3	24.7	28.0	30.3	25.1	27.7
2	28.5	21.8	24.9	30.3	25.2	27.7	31.5	25.9	28.7	29.5	25.6	27.7
3	---	---	---	31.1	25.7	28.3	31.7	26.5	29.2	30.4	25.5	28.0
4	---	---	---	27.6	23.3	24.4	30.7	26.8	28.3	27.5	25.0	26.1
5	---	---	---	27.3	22.6	24.6	29.7	25.3	27.5	28.0	23.0	25.6
6	---	---	---	28.5	23.5	25.9	31.3	25.6	28.2	28.4	23.1	25.9
7	29.6	26.0	27.5	29.8	25.0	27.4	31.6	26.4	29.0	28.6	24.3	26.5
8	31.1	25.8	28.1	30.0	26.1	28.2	31.8	26.5	29.2	29.2	24.4	26.9
9	28.7	24.2	25.7	31.3	26.4	28.8	31.5	26.6	29.2	28.8	24.2	26.5
10	28.6	23.9	26.1	31.8	26.7	29.1	31.4	26.6	29.1	28.3	23.5	25.9
11	29.2	22.6	26.6	31.9	27.1	29.4	31.1	26.3	28.7	27.1	24.1	25.5
12	29.1	25.4	27.0	30.3	27.1	28.4	31.9	26.9	29.0	27.6	24.5	25.9
13	26.4	23.1	25.0	30.9	25.7	28.3	28.4	25.8	27.2	30.2	24.8	27.3
14	29.8	23.5	26.4	32.3	27.4	29.6	25.9	24.4	25.3	28.0	24.1	26.0
15	30.5	24.1	27.3	30.7	27.5	29.4	27.3	23.8	25.3	26.2	23.0	24.3
16	31.1	25.4	28.3	33.5	27.3	30.1	27.4	25.0	26.2	25.4	21.5	23.1
17	29.8	24.8	27.0	32.0	27.5	29.7	29.9	25.5	27.5	25.5	20.6	23.1
18	30.7	24.8	27.6	33.0	27.2	29.8	32.0	26.8	29.2	28.6	23.4	25.8
19	30.7	25.9	28.4	32.7	27.8	30.1	32.7	27.5	30.0	---	---	---
20	31.4	26.2	28.9	32.9	27.9	30.2	---	---	---	30.5	25.7	28.0
21	30.4	26.3	28.6	33.2	27.8	30.3	28.8	26.2	27.6	30.2	25.7	28.0
22	32.1	26.4	29.0	34.3	28.2	31.1	28.8	25.9	27.2	29.9	25.4	27.8
23	32.3	26.8	29.2	34.3	28.2	30.8	29.2	24.7	27.2	---	---	---
24	32.8	27.1	29.7	33.0	27.6	30.0	---	---	---	---	---	---
25	32.9	27.4	30.1	32.6	28.0	30.2	32.5	27.8	30.1	---	---	---
26	33.1	27.4	30.2	30.5	26.5	28.7	33.4	28.2	30.5	---	---	---
27	32.4	27.5	30.0	26.7	23.1	25.1	32.4	27.8	30.0	---	---	---
28	32.2	26.7	29.5	29.1	22.1	25.5	31.5	27.7	29.4	25.9	21.9	24.4
29	31.8	26.7	29.5	29.7	22.8	26.3	30.3	26.1	28.2	22.7	18.8	20.7
30	32.5	27.0	29.8	30.0	23.6	26.9	---	---	---	22.9	18.1	20.5
31	---	---	---	30.7	24.4	27.5	30.2	24.7	27.6	---	---	---

07176976 WILDHORSE CREEK NEAR PRUE, OK

LOCATION.--Lat 36°20'01", long 96°14'52", in SE ¼, SE ¼, sec32, T.22 N., R.10 E., Osage County, Hydrologic Unit 11070107, at county road, 5.6 mi northeast of New Prue and 3.5 mi southwest of Morgans Corner.

PERIOD OF RECORD.--February 1999, May 2004 to June 2005 (discontinued).

REMARKS.--Samples were collected periodically and specific conductance, pH, water temperature, alkalinity, dissolved oxygen, and turbidity were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
JAN 20...	0940	1028	80020	1.3	32	741	12.3	98	7.2	4,240	13.8	3.9	450
APR 21...	1315	1028	80020	.28	11	748	11.3	143	7.6	6,300	29.3	25.0	740
JUN 28...	1045	1028	80020	.01	--	744	8.2	113	7.6	3,080	29.0	30.0	350

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Noncarb hard-ness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
JAN 20...	410	124	33.7	4.34	12	602	74	46	56	.0	5.42	1,280	E.1
APR 21...	680	209	51.3	6.79	16	969	74	62	75	.0	9.02	1,960	.1
JUN 28...	320	98.8	25.6	5.07	10	427	72	39	47	.0	4.13	939	.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC, 0.7u MF col/100 mL (31625)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)
JAN 20...	9.87	19.5	2,120	3.18	8.23	2,340	92	140	10	<.40	<2	6,980	<.12
APR 21...	5.72	18.5	3,280	4.99	2.81	3,670	E20	E39	21	<.60	<2	8,500	<.18
JUN 28...	6.64	4.0	1,540	2.44	.05	1,790	E57	73	6	<.40	E1	3,510	<.12

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	1,2-Diphenylhydrazine, water, unfltrd ug/L (82626)
JAN 20...	<.32	<.8	2.11	2.2	128	<.16	172	<3.2	4.77	<3	<.4	2.4	<2
APR 21...	<.36	E.7	3.44	<3.6	31	<.24	558	E.6	15.0	<3	<.6	E5.2	<2
JUN 28...	<.08	<.8	.650	3.2	E17	.17	270	E.4	5.29	<3	<.4	2.0	<2

07176976 WILDHORSE CREEK NEAR PRUE, OK—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	246-Tri- bromo- phenol, sur Sch 1383/85 wat unf pct rcv (90652)	2,4,6- Tri- chloro- phenol, water, unfltrd ug/L (34621)	2,4-Di- chloro- phenol, water, unfltrd ug/L (34601)	2,4-Di- methyl- phenol, water, unfltrd ug/L (34606)	2,4-Di- nitro- phenol, water, unfltrd ug/L (34616)	2,4-Di- nitro- toluene water, unfltrd ug/L (34611)	2,6-Di- nitro- toluene water, unfltrd ug/L (34626)	2- Chloro- naphth- alene, water, unfltrd ug/L (34581)	2- chloro- phenol, water, unfltrd ug/L (34586)	2- Methyl- 4,6-di- nitro- phenol, wat unf ug/L (34657)	2- nitro- phenol, water, unfltrd ug/L (34591)	3,3'-Di- chloro- benzi- dine, water, unfltrd ug/L (34631)	4- Bromo- phenyl ether, wat unf ug/L (34636)
JAN 20...	124	M	<2	M	<3	<1	<2	<1	<1	<2	<1	<.9	<2
APR 21...	69.4	<1	<2	<2.0	<3	<1	<2	<1	<1	<2	<1	<.9	<2
JUN 28...	122	<1	<2	<2.0	<3	<1	<2	<1	<1	<2	<1	<.9	<2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	4- Chloro- 3- methyl- phenol, wat unf ug/L (34452)	4- Chloro- phenyl ether, wat unf ug/L (34641)	4- Nitro- phenol, water, unfltrd ug/L (34646)	9H- Fluor- ene, water, unfltrd ug/L (34381)	Ace- naphth- ene, water, unfltrd ug/L (34205)	Ace- naphth- ylene, water, unfltrd ug/L (34200)	Anthra- cene, water, unfltrd ug/L (34220)	Benzo- [a]- anthra- cene, water, unfltrd ug/L (34526)	Benzo- [a]- pyrene, water, unfltrd ug/L (34247)	Benzo- [b]- fluor- anthene water, unfltrd ug/L (34230)	Benzo- [ghi]- per- ylene, water, unfltrd ug/L (34521)	Benzo- [k]- fluor- anthene water, unfltrd ug/L (34242)	Benzyl n-butyl phthal- ate, water, unfltrd ug/L (34292)
JAN 20...	<2	<1	<2	<1	<2	<2	<2	<2	<1	<2	<2	<1	<2
APR 21...	<2	<1	<2	<1	<2	<2	<2	<2	<1	<2	<2	<1	<2
JUN 28...	<2	<1	<2	<1	<2	<2	<2	<2	<1	<2	<2	<1	<2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Bis(2- chloro- ethoxy) methane water, unfltrd ug/L (34278)	Bis(2- chloro- ethyl) ether, water, unfltrd ug/L (34273)	Bis(2- chloro- iso- propyl) ether, wat unf ug/L (34283)	Bis(2- ethyl- hexyl) phthal- ate, wat unf ug/L (39100)	Chrys- ene, water, unfltrd ug/L (34320)	Di- benzo- [a,h]- anthra- cene, wat unf ug/L (34556)	Di- ethyl phthal- ate, water, unfltrd ug/L (34336)	Di- methyl phthal- ate, water, unfltrd ug/L (34341)	Di-n- butyl phthal- ate, water, unfltrd ug/L (39110)	Di-n- octyl phthal- ate, water, unfltrd ug/L (34596)	Fluor- anthene water, unfltrd ug/L (34376)	Hexa- chloro- benzene water, unfltrd ug/L (39700)	Hexa- chloro- cyclo- penta- diene, wat unf ug/L (34386)
JAN 20...	<1	<1	<1	<2	<1	<2	<2	<1	<2	<2	<1	<1	<1
APR 21...	<1	<1	<1	<2	<1	<2	<2	<1	<2	<2	<1	<1	<1
JUN 28...	<1	<1	<1	<2	<1	<2	<2	<1	<2	<2	<1	<1	<1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Indeno- [1,2,3-cd]- pyrene, water, unfltrd ug/L (34403)	Iso- phorone water, unfltrd ug/L (34408)	Nitro- benzene water, unfltrd ug/L (34447)	N- Nitroso- di- methyl- amine, wat unf ug/L (34438)	N- Nitroso- di-n- propyl- amine, wat unf ug/L (34428)	N- Nitroso- di- phenyl- amine, wat unf ug/L (34433)	Penta- chloro- phenol, water, unfltrd ug/L (39032)	Petrol- eum hydro- carbons wat unf mg/L (45501)	Phenan- threne, water, unfltrd ug/L (34461)	Phenol, water, unfltrd ug/L (34694)	Phenol- d5, surrog, Sched. 1383/85 wat unf pct rcv (90630)	Pyrene, water, unfltrd ug/L (34469)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)
JAN 20...	<2	M	<1	<2	<2	<2	<2	<2	<1	E.2	69.0	<2	<.1
APR 21...	<2	<2	<1	<2	<2	<2	<2	3	<1	E.3	34.3	<2	<.1
JUN 28...	<2	<2	<1	<2	<2	<2	<2	<2	<1	E.3	83.9	<2	<.1

07176976 WILDHORSE CREEK NEAR PRUE, OK—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	CFC-113 water unfltrd ug/L (77652)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)	1,2-Di- chloro- benzene water unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- ethane- d4, sur Sch2090 wat unf pct rcv (99832)	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	14Bromo fluoro- benzene surrog. VOC Sch wat unf pct rcv (99834)	Benzene water unfltrd ug/L (34030)	Bromo- di- chloro- methane water unfltrd ug/L (32101)
JAN 20...	<.1	<.1	<.1	<.1	<.1	<.2	109	<.1	<.1	<.1	115	.1	<.1
APR 21...	<.1	<.1	<.1	<.1	<.1	<.2	104	<.1	<.1	<.1	95.8	<.1	<.1
JUN 28...	<.1	<.1	<.1	<.1	<.2	<.2	107	<.1	<.1	<.1	106	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Chloro- benzene water unfltrd ug/L (34301)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	Di- bromo- chloro- methane water, unfltrd ug/L (32105)	Di- chloro- di- fluoro- methane wat unf ug/L (34668)	Di- chloro- methane water, unfltrd ug/L (34423)	Di- ethyl ether, water, unfltrd ug/L (81576)	Diiso- propyl ether, water, unfltrd ug/L (81577)	Ethyl- benzene wat unf ug/L (34371)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)	Hexa- chloro- ethane, water, unfltrd ug/L (34396)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- + para- Xylene, water, unfltrd ug/L (85795)	Naphth- alene, water, unfltrd ug/L (34696)
JAN 20...	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.1	<.2	<.2	<.2	<.2
APR 21...	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.1	<.2	<.2	<.2	<.2
JUN 28...	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.1	<.2	<.2	<.2	M

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	o- Xylene, water, unfltrd ug/L (77135)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	Toluene -d8, surrog, Sch2090 wat unf percent recovry (99833)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	Tri- bromo- methane water unfltrd ug/L (32104)	Tri- chloro- ethene, water, unfltrd ug/L (39180)	Tri- chloro- fluoro- methane water unfltrd ug/L (34488)	Tri- chloro- methane water unfltrd ug/L (32106)
JAN 20...	<.1	<.1	<.1	<.2	<.1	<.2	<.1	102	<.1	<.2	<.1	<.2	<.1
APR 21...	<.1	<.1	<.1	<.2	<.1	<.2	<.1	101	<.1	<.2	<.1	<.2	<.1
JUN 28...	<.1	<.1	<.1	<.2	<.1	<.2	<.1	101	<.1	<.2	<.1	<.2	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Vinyl chlor- ide, water, unfltrd ug/L (39175)	2Fluoro -bi- phenyl, surrog, bed sed <2 mm, pct rcv (49279)	Nitro- benzene -d5, surrog, bed sed <2 mm, pct rcv (49280)	Ter- phenyl- d14, surrog, bed sed <2 mm, pct rcv (49278)	Uranium natural water, fltrd, ug/L (22703)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Sus- pended sediment concentration mg/L (80154)	Sus- pended sediment discharge, tons/d (80155)
JAN 20...	<.2	98	110	90	.09	97	37	.13
APR 21...	<.2	86	100	61	.16	100	625	.48
JUN 28...	<.2	110	120	73	.10	99	294	.01

THIS PAGE IS INTENTIONALLY BLANK

07177500 BIRD CREEK NEAR SPERRY, OK

LOCATION.--Lat 36°16'42", long 95°57'14", in NW ¼ NW ¼ sec.29, T.21 N., R.13 E., Tulsa County, Hydrologic Unit 11070107, near downstream side of right abutment of county road bridge, 1.5 mi upstream from Delaware Creek, 2.4 mi downstream from Hominy Creek, 2.5 mi southeast of Sperry, and at mile 25.0.

DRAINAGE AREA.--905 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1921: 1943.

GAGE.--Water-stage recorder. Datum of gage is 579.43 ft above NGVD of 1929.

REMARKS.--No estimated daily discharge. Records good. Flow slightly regulated since 1958 by Bluestem Lake (capacity 17,000 acre-ft) and Birch Lake (capacity 19,200 acre-ft). Flow regulated since August 20, 1989 by Skiatook Lake (capacity 322,300 acre-ft) when conservation pool was first reached. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1915 reached a stage similar to flood of Oct. 31, 1941, 30.14 ft, from information provided by local residents.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	664	557	112	358	550	158	145	166	178	161	166
2	157	997	266	115	414	339	204	143	167	178	160	165
3	158	948	259	124	390	230	220	140	164	175	159	167
4	157	1,990	230	1,200	316	207	206	138	162	306	160	185
5	157	1,400	181	8,840	271	191	187	135	161	1,050	161	173
6	156	1,170	354	9,090	480	178	580	132	180	379	160	169
7	177	1,080	3,730	1,780	1,870	171	1,140	162	200	194	161	168
8	190	1,040	1,550	2,440	1,290	163	584	169	181	202	160	165
9	266	1,010	1,380	2,360	1,950	215	366	172	174	197	159	164
10	231	867	1,250	2,300	1,670	329	281	169	170	176	159	163
11	632	1,090	1,160	2,210	1,680	223	289	167	176	166	164	164
12	1,060	1,620	1,110	2,140	1,560	121	404	163	423	174	169	164
13	405	992	1,070	2,350	1,710	105	306	165	2,820	168	166	164
14	167	878	1,050	2,070	1,730	89	342	238	2,190	163	178	192
15	90	799	846	1,300	1,570	83	323	181	629	160	416	395
16	101	761	287	1,190	1,480	77	260	161	768	167	228	250
17	95	752	201	1,140	1,260	70	170	156	1,660	165	180	190
18	87	708	112	1,110	690	63	157	154	632	161	170	178
19	81	742	101	1,100	267	72	152	171	347	158	165	179
20	76	738	95	1,100	188	85	150	562	222	155	164	175
21	73	747	90	1,010	186	93	146	400	230	155	166	171
22	77	852	83	900	181	262	139	260	199	165	165	168
23	192	769	79	889	463	1,170	148	217	221	165	564	165
24	242	1,390	68	871	1,450	740	146	194	204	171	362	161
25	169	1,330	71	693	1,470	482	146	180	193	167	223	158
26	315	926	69	148	1,310	373	147	168	186	165	194	158
27	1,550	789	66	132	1,180	287	144	159	177	165	184	158
28	502	713	66	132	1,030	237	150	188	169	164	173	157
29	344	672	89	144	---	205	155	188	164	162	166	159
30	309	645	108	169	---	181	148	184	163	161	163	172
31	207	---	109	246	---	158	---	179	---	161	165	---
TOTAL	8,579	29,079	16,687	49,405	28,414	7,749	7,948	5,940	13,498	6,473	6,125	5,363
MEAN	277	969	538	1,594	1,015	250	265	192	450	209	198	179
MAX	1,550	1,990	3,730	9,090	1,950	1,170	1,140	562	2,820	1,050	564	395
MIN	73	645	66	112	181	63	139	132	161	155	159	157
AC-FT	17,020	57,680	33,100	97,990	56,360	15,370	15,760	11,780	26,770	12,840	12,150	10,640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2005, BY WATER YEAR (WY)

MEAN	263	435	394	533	568	1,253	1,138	1,544	1,239	647	279	254
MAX	1,504	1,649	1,168	2,208	1,500	4,949	2,891	4,824	4,890	3,421	1,148	689
(WY)	(1999)	(1995)	(1993)	(1998)	(1999)	(1990)	(1994)	(1995)	(1995)	(1995)	(1997)	(1996)
MIN	112	47.4	61.9	65.2	66.8	59.7	183	151	175	117	124	144
(WY)	(1993)	(1996)	(1990)	(1994)	(1996)	(1996)	(2001)	(1996)	(1998)	(2001)	(2001)	(2000)

07177500 BIRD CREEK NEAR SPERRY, OK—Continued

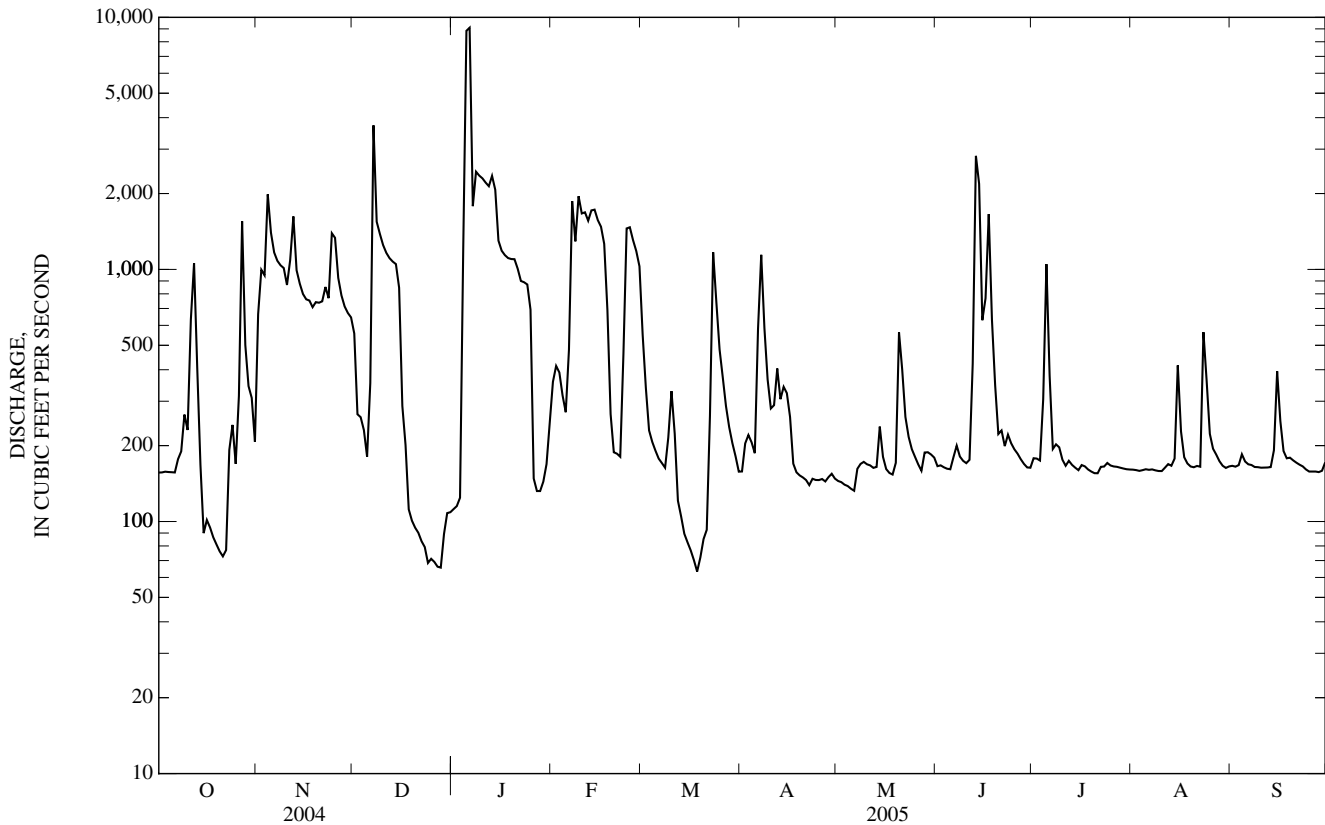
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1990 - 2005	
ANNUAL TOTAL	282,965		185,260		a713	
ANNUAL MEAN	773		508		1,669	
HIGHEST ANNUAL MEAN					168	
LOWEST ANNUAL MEAN					27,500	
HIGHEST DAILY MEAN	15,000	Mar 5	9,090	Jan 6	b23	May 10, 1993
LOWEST DAILY MEAN	59	Jan 9	63	Mar 18	34	Jul 22, 1996
ANNUAL SEVEN-DAY MINIMUM	71	Jan 8	72	Dec 22	c30,600	Oct 19, 1995
MAXIMUM PEAK FLOW			12,100	Jan 6	d29.88	May 10, 1993
MAXIMUM PEAK STAGE			21.94	Jan 6	516,400	
ANNUAL RUNOFF (AC-FT)	561,300		367,500		2,050	
10 PERCENT EXCEEDS	1,500		1,270		170	
50 PERCENT EXCEEDS	339		184		68	
90 PERCENT EXCEEDS	104		132			

a Prior to regulation, water years 1939-84, 484 ft³/s.

b No flow at times in 1939, 1954-57, 1964-66, 1970.

c Maximum discharge for period of record, 90,000 ft³/s, Oct. 3, 1959, from rating curve extended.

d Maximum gage height for period of record, 32.60 ft, Oct. 3, 1959.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1987 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1987 to current year.

pH: April 1987 to current year.

WATER TEMPERATURE: April 1987 to current year.

DISSOLVED OXYGEN: April 1987 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1987.

REMARKS.--Interruptions in record were due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, greater than 2,000 microsiemens, Nov. 1, 1992 and Mar. 31, 1996; minimum, 80 microsiemens, Aug. 20, 1989.

pH: Maximum, 8.8 units, Mar. 13, 2002; minimum, 5.7 units Sept. 2, 1987.

WATER TEMPERATURE: Maximum, 35.5°C, July 14-16, 1988; minimum, 0.0°C, several days in winter months.

DISSOLVED OXYGEN: Maximum, 17.5 mg/L, Feb. 4, 2004; minimum, 1.4 mg/L, Sept. 26, 1996.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 645 microsiemens, Dec. 20; minimum, 142 microsiemens, Jan. 6.

pH: Maximum, 8.3 units, several days; minimum, 7.3 units, Oct. 27, June 13, Aug. 22, 23.

WATER TEMPERATURE: Maximum, 31.8°C, July 22; minimum 0.3°C, Dec. 25.

DISSOLVED OXYGEN: Maximum, 14.3 mg/L, Jan. 17; minimum, 5.0 mg/L, June 13.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	278	277	277	443	297	332	307	291	294	417	412	414
2	278	277	277	305	241	258	332	307	323	414	412	413
3	280	277	278	299	231	270	339	328	332	421	412	415
4	279	278	279	274	213	242	329	322	326	579	231	388
5	280	278	279	271	257	265	325	320	322	286	168	204
6	280	278	279	269	262	266	351	313	336	178	142	152
7	281	267	277	265	262	264	394	204	242	242	170	199
8	383	265	286	265	262	264	238	208	219	254	242	248
9	298	282	289	266	264	265	265	238	253	254	249	251
10	283	271	276	265	260	264	278	265	275	254	251	252
11	310	199	251	341	203	263	291	272	277	259	254	257
12	258	182	220	278	190	230	302	285	296	264	258	261
13	309	258	298	271	191	240	286	272	276	271	261	267
14	302	289	294	282	266	277	272	268	269	271	261	264
15	319	302	311	266	263	264	272	266	267	272	267	269
16	386	319	345	264	262	264	272	268	270	271	270	270
17	371	312	327	262	256	260	280	268	272	276	271	275
18	314	309	310	266	256	260	299	280	290	276	274	275
19	311	309	310	265	262	264	324	299	312	276	274	275
20	311	310	310	265	259	262	342	324	334	277	275	276
21	---	---	---	302	265	280	350	342	347	276	272	274
22	315	312	314	298	287	293	361	350	357	274	273	273
23	319	311	314	316	278	286	365	358	362	279	274	277
24	316	254	284	305	273	290	377	365	369	---	---	---
25	283	256	274	313	280	301	384	372	378	297	277	281
26	460	233	277	291	276	283	405	382	392	347	297	327
27	249	153	175	278	274	276	451	405	429	402	347	369
28	221	174	199	283	278	282	466	451	460	459	402	438
29	271	213	239	289	283	285	565	466	477	490	452	469
30	293	271	284	296	289	294	649	469	565	501	483	489
31	311	293	302	---	---	---	469	417	452	507	489	498

07177500 BIRD CREEK NEAR SPERRY, OK—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	498	473	482	337	298	319	408	394	399	368	366	367
2	473	453	461	338	318	328	435	393	422	371	366	368
3	465	454	459	361	338	349	393	385	389	371	367	368
4	472	465	470	373	361	369	388	381	384	373	367	369
5	472	470	472	379	373	376	388	381	384	372	370	371
6	572	422	481	389	378	381	389	308	361	375	371	373
7	438	356	394	454	389	423	405	293	328	374	349	362
8	394	327	373	468	454	462	295	272	281	355	341	345
9	350	240	300	481	468	475	335	295	317	358	347	352
10	274	259	266	476	447	463	367	335	353	352	346	348
11	279	274	277	465	446	453	399	367	377	350	346	347
12	277	271	273	479	465	474	408	399	403	347	341	345
13	295	272	287	472	407	437	402	384	390	343	337	340
14	289	272	279	415	402	407	391	347	362	450	339	374
15	273	271	272	440	415	426	370	354	363	375	355	367
16	276	273	274	459	440	452	371	319	345	357	306	325
17	293	275	278	462	456	457	323	318	320	325	307	315
18	320	293	301	466	462	463	330	323	327	333	325	329
19	342	308	331	484	466	474	342	330	336	---	---	---
20	360	342	350	575	484	549	348	341	344	---	---	---
21	380	359	367	565	477	503	352	347	349	405	345	377
22	386	380	383	491	436	474	352	350	352	384	344	361
23	390	348	379	482	421	460	352	342	348	386	377	383
24	401	346	367	490	456	475	342	335	338	377	363	368
25	397	274	298	482	463	477	340	333	336	368	362	363
26	279	272	275	480	435	462	473	336	370	365	360	362
27	272	268	269	435	412	419	366	351	355	361	351	356
28	298	270	277	412	407	409	361	355	357	352	334	343
29	---	---	---	409	402	406	366	361	363	340	331	333
30	---	---	---	403	398	400	366	365	366	333	329	331
31	---	---	---	398	396	397	---	---	---	329	325	326
	JUNE			JULY			AUGUST			SEPTEMBER		
1	337	325	330	303	296	299	312	311	311	303	301	302
2	338	333	335	303	297	299	313	311	312	303	302	302
3	338	334	336	302	299	301	313	312	312	304	301	303
4	335	331	333	351	293	306	313	310	311	303	294	298
5	333	329	331	332	251	277	312	306	309	310	302	306
6	359	321	331	303	265	291	311	309	310	309	303	305
7	363	356	361	265	259	262	311	309	310	306	302	304
8	359	344	350	400	248	291	311	310	311	303	302	302
9	344	334	338	298	278	285	313	310	311	304	302	303
10	339	334	337	303	290	297	313	311	312	304	303	303
11	364	330	337	311	303	308	316	311	313	305	303	304
12	443	335	366	314	310	312	320	316	318	305	303	304
13	451	235	344	314	307	310	318	315	317	307	304	305
14	297	238	261	318	311	315	320	310	314	311	299	305
15	260	247	253	317	315	316	334	243	297	353	287	305
16	288	260	271	317	313	314	278	221	242	287	261	271
17	316	219	254	314	312	313	293	278	290	297	278	288
18	275	240	264	314	312	313	293	291	293	302	296	300
19	302	264	281	313	311	312	293	289	290	304	300	302
20	308	299	305	313	311	312	292	289	290	308	303	305
21	356	295	321	314	311	312	294	290	293	312	308	310
22	316	288	293	314	309	310	302	294	299	311	309	310
23	292	286	288	312	309	310	304	203	275	311	308	310
24	292	286	289	319	306	313	246	212	229	308	306	307
25	294	291	292	317	314	315	269	246	260	306	304	305
26	297	293	295	316	313	314	281	268	274	305	302	304
27	299	296	298	315	313	314	296	279	286	304	302	303
28	301	298	299	313	310	312	301	296	298	304	301	303
29	301	299	300	312	310	311	302	300	301	304	301	302
30	303	300	301	312	310	311	303	300	302	302	299	300
31	---	---	---	312	310	311	302	300	301	---	---	---

ARKANSAS RIVER BASIN

07177500 BIRD CREEK NEAR SPERRY, OK—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.8	7.7	7.7	7.8	7.6	7.7	8.1	8.0	8.0	8.2	8.0	8.1
2	7.8	7.7	7.8	7.8	7.6	7.6	8.1	8.0	8.1	8.2	8.0	8.0
3	7.8	7.8	7.8	7.8	7.6	7.7	8.1	8.1	8.1	8.1	8.0	8.0
4	7.8	7.7	7.8	7.7	7.6	7.7	8.1	8.0	8.0	8.1	7.7	8.0
5	7.8	7.7	7.8	7.7	7.6	7.7	8.1	8.0	8.0	7.8	7.6	7.7
6	7.8	7.7	7.8	7.7	7.7	7.7	8.1	8.0	8.0	7.9	7.7	7.8
7	7.8	7.7	7.7	7.8	7.7	7.7	8.0	7.7	7.8	7.9	7.8	7.9
8	7.7	7.5	7.6	7.8	7.8	7.8	7.9	7.8	7.8	8.0	7.9	8.0
9	7.8	7.6	7.7	7.8	7.8	7.8	8.0	7.9	7.9	8.0	8.0	8.0
10	7.7	7.7	7.7	7.8	7.8	7.8	8.1	8.0	8.0	8.0	7.8	8.0
11	7.7	7.5	7.6	7.9	7.6	7.8	8.1	8.0	8.1	7.8	7.8	7.8
12	7.7	7.5	7.5	7.7	7.7	7.7	8.1	8.0	8.0	7.9	7.8	7.9
13	7.8	7.7	7.8	7.9	7.7	7.8	8.2	7.9	8.1	7.9	7.9	7.9
14	7.8	7.8	7.8	8.0	7.9	7.9	---	---	---	8.0	7.9	7.9
15	7.8	7.7	7.7	7.9	7.9	7.9	---	---	---	8.0	8.0	8.0
16	7.7	7.6	7.7	8.0	7.9	7.9	---	---	---	8.0	8.0	8.0
17	7.8	7.7	7.7	7.9	7.9	7.9	---	---	---	8.1	8.0	8.0
18	7.7	7.7	7.7	7.9	7.9	7.9	---	---	---	8.1	8.1	8.1
19	7.7	7.7	7.7	7.9	7.9	7.9	---	---	---	8.1	8.1	8.1
20	7.7	7.7	7.7	7.9	7.9	7.9	---	---	---	8.2	8.1	8.2
21	---	---	---	8.0	7.9	7.9	---	---	---	8.2	8.2	8.2
22	7.7	7.6	7.7	8.0	8.0	8.0	---	---	---	8.2	8.2	8.2
23	7.7	7.6	7.7	8.0	7.9	7.9	8.0	8.0	8.0	8.3	8.2	8.3
24	7.7	7.6	7.7	7.9	7.9	7.9	8.1	8.0	8.0	---	---	---
25	7.7	7.7	7.7	8.0	7.9	8.0	8.0	8.0	8.0	8.0	7.9	8.0
26	7.7	7.5	7.6	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.9	7.9
27	7.5	7.3	7.4	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.9	8.0
28	7.5	7.5	7.5	8.0	8.0	8.0	8.1	8.0	8.0	8.1	8.0	8.0
29	7.6	7.5	7.6	8.0	8.0	8.0	8.1	8.0	8.0	8.2	8.1	8.1
30	7.7	7.6	7.7	8.0	8.0	8.0	8.1	8.0	8.0	8.2	8.1	8.1
31	7.7	7.7	7.7	---	---	---	8.1	8.0	8.1	8.2	8.1	8.1
FEBRUARY			MARCH			APRIL			MAY			
1	8.2	8.1	8.2	8.0	7.9	7.9	8.3	7.8	8.0	7.9	7.8	7.8
2	8.2	8.1	8.2	8.1	7.9	8.0	8.3	7.8	8.0	7.9	7.8	7.8
3	8.2	8.1	8.1	8.2	7.9	8.0	8.3	7.8	8.0	7.9	7.8	7.8
4	8.2	8.1	8.1	8.2	7.9	8.0	8.3	7.8	8.0	7.9	7.8	7.8
5	8.2	8.1	8.2	8.2	7.9	8.1	8.3	7.8	7.9	7.9	7.7	7.7
6	8.2	7.9	8.1	8.2	7.9	8.1	8.0	7.6	7.8	7.8	7.7	7.7
7	8.0	7.8	7.9	8.2	7.9	8.1	7.6	7.6	7.6	7.8	7.6	7.7
8	8.0	8.0	8.0	8.3	8.0	8.2	7.6	7.6	7.6	7.7	7.6	7.7
9	8.0	7.8	7.9	8.3	8.0	8.1	7.8	7.6	7.7	7.8	7.7	7.7
10	7.9	7.9	7.9	8.2	8.0	8.1	7.8	7.7	7.7	7.8	7.6	7.7
11	8.0	7.9	8.0	8.2	8.1	8.2	7.9	7.6	7.7	7.8	7.6	7.7
12	8.0	7.9	8.0	8.2	8.0	8.1	7.9	7.8	7.8	7.7	7.6	7.7
13	8.0	7.9	7.9	8.2	7.9	8.0	7.9	7.7	7.8	7.7	7.6	7.7
14	8.0	8.0	8.0	8.0	7.8	8.0	7.8	7.7	7.7	7.9	7.7	7.8
15	8.0	7.9	8.0	7.9	7.8	7.8	7.8	7.6	7.7	7.8	7.7	7.7
16	8.0	8.0	8.0	8.0	7.8	7.8	7.8	7.6	7.6	7.8	7.6	7.7
17	8.0	8.0	8.0	8.1	7.8	7.8	7.9	7.6	7.7	7.8	7.6	7.7
18	8.0	8.0	8.0	7.9	7.7	7.8	7.9	7.6	7.7	7.8	7.6	7.7
19	8.0	8.0	8.0	7.9	7.7	7.8	7.8	7.5	7.7	---	---	---
20	8.1	8.0	8.0	7.9	7.8	7.8	7.9	7.6	7.8	---	---	---
21	8.1	7.9	8.0	7.9	7.7	7.8	7.9	7.6	7.8	7.9	7.7	7.8
22	8.0	7.8	7.9	7.9	7.8	7.8	7.9	7.6	7.8	7.8	7.6	7.7
23	8.0	7.8	7.9	8.0	7.8	7.9	7.9	7.7	7.8	7.8	7.7	7.7
24	8.0	7.8	7.9	8.0	8.0	8.0	7.9	7.7	7.8	7.7	7.6	7.6
25	7.9	7.8	7.9	8.0	8.0	8.0	7.9	7.6	7.7	8.0	7.7	7.8
26	7.9	7.8	7.9	8.0	8.0	8.0	7.8	7.6	7.8	7.9	7.7	7.8
27	7.9	7.8	7.8	8.0	8.0	8.0	7.9	7.7	7.8	7.8	7.7	7.7
28	7.9	7.8	7.9	8.1	7.9	8.0	7.9	7.7	7.8	7.8	7.7	7.7
29	---	---	---	8.1	7.9	8.0	7.9	7.7	7.8	7.8	7.6	7.7
30	---	---	---	8.2	7.9	8.0	7.9	7.7	7.8	7.7	7.6	7.7
31	---	---	---	8.2	7.8	8.0	---	---	---	7.7	7.6	7.7

07177500 BIRD CREEK NEAR SPERRY, OK—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.7	7.6	7.7	7.8	7.6	7.7	7.9	7.7	7.8	7.8	7.6	7.7
2	7.8	7.6	7.7	7.9	7.6	7.7	7.9	7.6	7.8	7.8	7.6	7.7
3	7.8	7.6	7.7	7.9	7.7	7.8	7.9	7.7	7.8	7.8	7.6	7.7
4	7.7	7.6	7.6	7.9	7.7	7.8	7.9	7.7	7.8	7.8	7.6	7.7
5	7.7	7.6	7.6	7.8	7.6	7.6	7.9	7.6	7.8	7.8	7.7	7.7
6	8.0	7.6	7.8	7.8	7.7	7.7	7.9	7.7	7.8	7.8	7.6	7.7
7	7.9	7.8	7.8	7.7	7.7	7.7	7.9	7.7	7.8	7.9	7.7	7.8
8	7.9	7.7	7.8	7.7	7.5	7.6	7.9	7.7	7.8	7.9	7.7	7.8
9	7.8	7.7	7.7	7.8	7.6	7.6	7.9	7.7	7.8	7.9	7.7	7.8
10	7.8	7.7	7.7	7.8	7.7	7.7	7.9	7.7	7.8	7.9	7.7	7.8
11	7.8	7.7	7.7	7.9	7.6	7.8	7.9	7.7	7.8	7.9	7.7	7.8
12	7.9	7.6	7.7	7.9	7.6	7.7	8.1	7.8	7.9	7.9	7.7	7.8
13	7.8	7.3	7.5	8.1	7.6	7.9	8.1	7.7	7.8	7.9	7.7	7.8
14	7.7	7.5	7.6	8.1	7.8	8.0	7.9	7.8	7.8	7.8	7.6	7.7
15	7.7	7.7	7.7	8.1	7.8	7.9	7.8	7.6	7.8	7.8	7.4	7.6
16	7.8	7.6	7.7	8.1	7.8	8.0	7.6	7.5	7.6	7.5	7.5	7.5
17	7.6	7.5	7.5	8.0	7.5	7.8	7.7	7.6	7.6	7.6	7.5	7.6
18	7.6	7.6	7.6	7.9	7.6	7.7	7.7	7.6	7.7	7.7	7.6	7.6
19	7.8	7.6	7.6	7.9	7.6	7.7	7.8	7.6	7.7	7.7	7.6	7.6
20	7.8	7.7	7.7	7.9	7.6	7.8	7.8	7.7	7.7	7.7	7.6	7.6
21	7.7	7.5	7.6	7.9	7.5	7.8	7.8	7.7	7.7	7.7	7.6	7.6
22	7.7	7.6	7.6	7.9	7.6	7.8	7.8	7.7	7.7	7.8	7.6	7.7
23	7.8	7.6	7.7	7.8	7.6	7.7	7.8	7.3	7.7	7.8	7.6	7.7
24	7.8	7.6	7.7	7.9	7.6	7.7	7.5	7.3	7.4	7.8	7.6	7.7
25	7.8	7.6	7.7	7.9	7.6	7.8	7.6	7.5	7.5	7.8	7.6	7.7
26	7.8	7.6	7.7	7.9	7.7	7.8	7.6	7.5	7.5	7.8	7.6	7.7
27	7.8	7.6	7.7	7.9	7.7	7.8	7.8	7.6	7.6	7.8	7.7	7.8
28	7.8	7.6	7.7	7.9	7.7	7.8	7.8	7.6	7.7	7.8	7.7	7.7
29	7.8	7.6	7.7	7.9	7.7	7.8	7.8	7.6	7.7	7.9	7.7	7.8
30	7.8	7.6	7.7	7.9	7.6	7.8	7.8	7.6	7.7	7.9	7.7	7.8
31	---	---	---	7.9	7.6	7.8	7.8	7.6	7.7	---	---	---

07177500 BIRD CREEK NEAR SPERRY, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	23.1	22.2	22.7	18.1	17.6	17.8	10.4	9.2	9.9	11.6	9.5	10.7
2	22.8	20.7	21.3	17.8	15.6	16.6	9.2	7.2	7.8	12.3	11.6	12.1
3	20.7	18.9	19.9	15.6	12.8	14.4	7.4	6.2	6.8	12.1	10.8	11.5
4	21.5	19.8	20.6	14.8	12.7	13.4	7.5	6.2	6.8	10.8	6.5	9.0
5	21.3	20.0	20.7	15.3	14.3	14.9	8.0	6.9	7.4	7.0	4.5	5.9
6	21.0	19.6	20.1	16.1	15.0	15.5	8.5	7.9	8.1	4.5	2.2	3.2
7	21.4	20.1	20.7	16.4	15.4	16.0	9.2	8.5	9.0	5.2	1.9	2.3
8	22.3	20.8	21.4	16.4	15.5	16.0	10.0	8.1	8.5	5.6	5.1	5.4
9	22.2	20.7	21.3	16.4	15.6	16.0	10.3	9.8	10.1	6.6	5.6	6.2
10	21.0	20.2	20.6	16.0	15.2	15.7	10.3	9.9	10.1	7.1	6.4	6.7
11	20.2	16.6	18.6	15.2	12.5	13.4	10.0	9.5	9.8	7.1	6.7	6.9
12	17.0	15.7	16.5	12.5	11.4	11.8	10.3	9.5	9.9	7.2	6.7	6.9
13	17.7	16.1	16.8	12.7	10.9	12.0	9.9	9.3	9.6	7.1	6.4	6.8
14	17.3	16.1	16.5	13.1	12.5	12.7	9.3	8.6	8.9	6.4	5.3	6.0
15	16.5	15.2	15.8	13.8	13.1	13.4	8.6	6.4	8.1	5.3	4.7	4.9
16	16.3	15.3	15.7	14.5	13.8	14.1	6.4	5.0	5.4	4.9	4.2	4.5
17	15.9	14.8	15.3	15.1	14.3	14.7	5.9	4.7	5.3	4.5	3.8	4.2
18	17.9	15.9	17.0	15.5	14.9	15.2	5.9	5.3	5.5	4.7	3.8	4.3
19	18.2	17.3	17.7	15.3	14.9	15.1	5.6	4.4	5.0	5.6	4.5	5.0
20	17.8	17.2	17.5	14.9	14.3	14.5	4.7	4.0	4.4	6.2	4.9	5.5
21	---	---	---	14.4	13.2	13.8	5.0	4.5	4.7	6.7	5.5	6.1
22	19.6	18.3	19.1	13.3	13.0	13.1	4.7	2.6	3.7	6.6	5.2	5.7
23	19.9	18.8	19.5	13.6	13.3	13.4	2.6	1.0	1.7	5.3	4.4	4.9
24	19.7	17.8	18.6	13.3	11.4	12.1	1.1	0.4	0.9	---	---	---
25	19.1	18.1	18.5	11.4	10.4	10.8	0.9	0.3	0.5	6.4	5.4	5.9
26	19.6	18.8	19.1	12.1	11.0	11.5	1.2	0.4	0.7	6.2	5.2	5.8
27	20.0	18.9	19.6	12.3	11.8	12.1	2.0	0.6	1.4	6.2	5.6	5.9
28	20.8	19.8	20.2	11.8	11.0	11.4	3.0	1.3	2.1	6.2	4.8	5.7
29	21.5	20.5	20.9	11.5	11.2	11.4	3.8	2.1	3.0	4.9	4.6	4.8
30	20.9	19.4	20.0	11.2	10.3	10.8	7.8	3.8	6.0	4.9	4.3	4.4
31	19.4	18.1	18.4	---	---	---	9.5	7.8	8.6	4.6	4.1	4.4
FEBRUARY			MARCH			APRIL			MAY			
1	5.1	4.5	4.8	8.5	7.0	7.7	16.4	14.5	15.5	16.9	15.3	15.8
2	5.2	4.7	4.9	9.8	7.6	8.5	16.3	13.7	15.1	16.1	15.2	15.6
3	5.6	4.1	4.8	10.9	8.2	9.4	17.2	14.2	15.5	16.6	14.3	15.4
4	6.1	4.2	5.1	12.3	9.9	10.8	18.8	15.3	16.7	17.1	15.2	16.1
5	6.9	5.2	6.0	13.0	11.1	11.9	18.8	17.1	17.9	17.2	16.5	16.8
6	7.6	6.6	6.9	14.0	11.6	12.6	18.5	16.4	17.2	19.4	16.7	17.7
7	7.7	7.0	7.4	13.9	12.8	13.2	16.4	15.3	16.0	19.8	18.4	19.0
8	7.0	6.1	6.5	13.5	11.1	12.3	17.4	15.7	16.4	19.4	18.4	18.8
9	6.1	4.8	5.3	13.5	10.9	11.9	18.6	16.2	17.2	21.4	18.1	19.3
10	5.9	4.8	5.4	12.1	10.2	11.0	18.1	17.3	17.6	22.9	19.8	20.9
11	6.6	5.3	5.9	12.7	10.3	11.3	19.1	17.0	17.8	24.0	21.5	22.6
12	6.9	6.1	6.5	13.7	11.6	12.7	19.0	17.1	18.0	24.0	22.1	22.7
13	8.6	6.9	7.8	14.1	11.9	12.9	17.9	16.4	16.9	22.7	21.4	21.8
14	8.7	7.7	8.2	12.4	11.8	12.1	18.2	15.3	16.7	23.5	20.4	21.9
15	9.0	7.9	8.4	13.0	11.1	12.3	19.5	16.2	17.6	22.5	19.9	20.8
16	8.5	7.2	7.7	12.0	10.7	11.3	20.2	17.4	18.7	21.4	18.8	20.0
17	8.0	6.9	7.4	12.5	10.3	11.3	20.1	18.1	19.1	22.4	19.3	20.7
18	8.6	7.0	7.8	13.5	10.4	11.9	20.2	18.6	19.4	23.2	20.8	21.9
19	9.1	8.6	8.8	14.1	11.2	12.5	20.2	18.8	19.4	---	---	---
20	11.9	9.1	10.3	13.8	11.9	13.0	20.8	19.1	19.8	---	---	---
21	12.2	10.7	11.4	14.2	13.1	13.6	21.4	20.0	20.7	27.3	24.4	25.7
22	12.2	10.9	11.3	13.6	12.8	13.4	21.5	19.4	20.2	27.7	24.6	25.9
23	11.2	8.9	10.1	12.8	11.1	11.7	20.1	17.3	18.4	27.3	25.2	26.3
24	9.1	8.4	8.8	11.9	10.5	11.1	18.7	16.5	17.3	26.9	24.2	25.1
25	9.0	7.5	8.3	12.0	11.4	11.7	18.0	16.7	17.1	25.1	22.7	23.9
26	8.9	7.8	8.3	11.7	10.4	11.1	17.6	16.1	16.7	25.1	21.8	23.0
27	8.7	8.2	8.5	11.0	9.9	10.4	18.3	16.3	17.3	23.4	21.0	21.7
28	8.5	7.7	7.9	13.2	9.6	11.1	19.0	17.1	18.0	23.3	20.4	21.8
29	---	---	---	15.0	12.0	13.2	19.0	15.8	17.3	24.6	21.9	23.1
30	---	---	---	16.8	14.2	15.4	16.8	14.7	15.6	24.6	22.8	23.7
31	---	---	---	16.7	14.5	15.5	---	---	---	24.0	22.3	23.2

07177500 BIRD CREEK NEAR SPERRY, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.8	22.2	23.0	30.7	27.6	28.8	29.0	26.8	28.0	28.9	26.9	27.9
2	25.3	22.4	23.7	29.2	26.7	27.8	29.7	27.5	28.6	28.8	27.2	28.1
3	25.2	23.6	24.4	29.4	26.9	28.1	30.1	28.1	29.1	29.1	27.3	28.3
4	25.9	23.4	24.6	29.4	26.8	28.0	30.0	28.3	29.0	28.8	26.4	27.0
5	25.9	24.0	24.9	29.3	26.9	27.6	29.0	27.6	28.3	27.4	25.3	26.3
6	27.3	24.2	25.5	28.9	26.7	27.7	29.0	27.6	28.4	27.6	25.7	26.7
7	27.1	25.2	26.1	29.3	26.8	27.9	29.7	27.5	28.6	27.9	26.1	27.0
8	27.9	25.4	26.5	29.6	27.5	28.5	30.0	28.0	29.1	28.0	26.4	27.2
9	27.9	24.9	25.9	30.0	27.0	28.5	30.2	28.3	29.3	28.0	26.3	27.2
10	25.7	24.2	24.8	30.2	27.7	28.9	30.2	28.4	29.4	27.9	26.3	27.1
11	27.0	24.4	25.5	30.1	27.9	29.0	30.0	28.3	29.2	27.6	26.2	26.5
12	28.4	25.2	26.5	29.8	27.8	28.6	30.2	28.4	29.3	27.3	25.8	26.5
13	27.0	23.9	25.2	29.7	27.0	28.3	29.8	28.1	28.7	28.3	26.2	27.2
14	24.8	23.4	24.1	30.4	28.1	29.2	28.5	27.0	27.4	28.1	26.5	26.9
15	26.7	24.3	25.3	30.5	28.1	29.3	27.3	25.4	26.4	26.7	24.4	25.3
16	27.6	25.3	26.3	30.7	28.3	29.5	26.8	24.8	25.7	24.8	23.4	24.2
17	26.4	24.8	25.5	30.6	28.4	29.5	28.5	26.4	27.2	24.8	23.1	23.9
18	28.1	25.8	26.7	30.5	28.6	29.5	29.9	27.5	28.6	26.5	24.0	25.1
19	29.3	26.2	27.5	31.1	28.6	29.7	30.4	28.3	29.3	27.5	25.5	26.4
20	29.8	26.9	28.2	31.2	29.2	30.2	30.3	28.6	29.1	27.9	26.2	27.0
21	29.5	26.9	28.3	31.6	29.1	30.4	28.6	27.1	27.8	27.8	26.3	27.1
22	29.6	27.1	28.3	31.8	29.3	30.6	27.8	27.0	27.4	27.6	26.0	26.8
23	29.6	26.9	28.2	31.7	29.6	30.8	27.7	25.5	26.6	27.8	26.3	27.1
24	29.9	27.4	28.6	31.4	29.2	30.3	28.6	25.5	26.9	27.7	26.2	26.8
25	29.6	27.6	28.6	31.2	29.2	30.3	29.7	27.4	28.4	27.2	25.8	26.6
26	30.2	27.4	28.7	31.1	28.9	29.8	30.4	28.2	29.2	27.1	25.8	26.4
27	30.3	28.1	29.2	29.9	27.4	28.3	29.9	28.0	29.0	26.4	24.7	25.5
28	30.6	28.1	29.3	28.0	25.5	26.8	29.6	27.9	28.8	25.8	24.8	25.3
29	30.5	28.1	29.3	28.5	25.9	27.3	29.3	27.7	28.6	25.2	22.9	23.5
30	30.8	28.2	29.5	28.8	26.3	27.6	29.0	27.1	28.1	23.1	21.4	22.3
31	---	---	---	29.0	26.7	27.9	28.9	26.7	27.8	---	---	---

07177500 BIRD CREEK NEAR SPERRY, OK—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.2	7.5	7.8	9.1	8.6	8.8	12.4	12.0	12.2	---	---	---
2	8.5	7.6	8.0	9.9	9.1	9.3	13.0	12.4	12.8	---	---	---
3	8.8	8.1	8.4	10.5	9.7	10.0	13.3	12.9	13.1	---	---	---
4	8.7	8.0	8.3	10.5	10.1	10.3	13.3	13.0	13.1	---	---	---
5	8.7	8.0	8.3	10.4	10.1	10.3	13.0	12.6	12.8	---	---	---
6	8.7	8.1	8.5	10.4	10.2	10.3	12.8	12.3	12.5	---	---	---
7	8.6	8.1	8.3	10.4	10.2	10.3	12.4	11.1	11.6	---	---	---
8	8.1	6.7	7.5	10.7	10.3	10.4	12.3	11.9	12.1	---	---	---
9	8.3	7.5	7.9	11.1	10.5	10.6	12.0	11.9	11.9	---	---	---
10	8.2	7.5	8.0	10.6	10.5	10.5	12.0	11.9	12.0	---	---	---
11	8.4	8.1	8.3	11.1	10.4	10.8	12.1	12.0	12.0	13.0	12.4	12.7
12	8.9	8.3	8.6	11.7	10.5	11.2	12.0	11.9	12.0	13.1	12.9	13.0
13	9.1	8.5	8.9	11.7	11.5	11.6	---	---	---	13.6	13.0	13.3
14	8.9	8.7	8.8	11.6	11.5	11.6	---	---	---	13.9	13.6	13.8
15	8.8	8.6	8.7	11.5	11.4	11.5	---	---	---	14.1	13.7	13.9
16	9.3	8.5	8.7	11.4	11.1	11.3	---	---	---	14.2	14.0	14.1
17	9.3	8.7	9.0	11.1	10.9	11.1	---	---	---	14.3	14.1	14.2
18	9.1	8.2	8.8	10.9	10.7	10.8	---	---	---	14.2	14.0	14.2
19	8.7	8.1	8.4	10.8	10.6	10.7	---	---	---	14.0	13.8	13.9
20	8.7	8.3	8.6	11.0	10.8	10.9	---	---	---	13.8	13.3	13.6
21	---	---	---	11.2	10.9	11.0	---	---	---	13.4	12.9	13.2
22	8.8	7.8	8.3	11.2	11.1	11.2	---	---	---	13.5	12.9	13.2
23	8.5	7.9	8.2	11.1	10.9	11.0	---	---	---	13.6	13.4	13.5
24	8.3	7.7	8.0	11.5	10.9	11.2	---	---	---	---	---	---
25	8.6	8.3	8.5	11.9	11.5	11.8	---	---	---	12.9	12.6	12.9
26	8.7	7.7	8.3	11.8	11.5	11.7	---	---	---	13.0	12.6	12.8
27	7.9	6.8	7.5	11.5	11.4	11.5	---	---	---	12.9	12.4	12.6
28	8.0	7.2	7.7	11.8	11.5	11.7	---	---	---	12.9	12.3	12.6
29	---	---	---	11.8	11.6	11.7	---	---	---	13.3	12.6	12.9
30	---	---	---	12.0	11.8	11.9	---	---	---	13.3	12.8	13.0
31	8.7	8.2	8.5	---	---	---	---	---	---	13.2	12.9	13.0
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	11.1	8.9	9.8	9.6	8.5	9.1
2	---	---	---	---	---	---	11.2	8.9	10.1	9.5	8.5	9.0
3	---	---	---	11.9	11.0	11.4	10.9	9.0	9.9	9.6	8.7	9.3
4	---	---	---	11.7	10.5	11.1	10.5	8.8	9.7	9.5	8.6	9.1
5	---	---	---	11.3	10.0	10.8	10.0	8.2	8.7	9.2	8.1	8.6
6	---	---	---	11.2	9.8	10.6	8.9	7.7	8.1	8.9	7.5	8.5
7	---	---	---	10.9	9.6	10.2	8.4	7.7	8.2	8.7	7.7	8.2
8	---	---	---	11.1	9.7	10.5	8.5	8.1	8.3	8.3	7.5	7.9
9	---	---	---	11.1	9.8	10.5	8.8	7.8	8.3	8.4	7.5	8.0
10	---	---	---	11.2	10.1	10.6	8.4	7.7	8.0	8.3	7.3	7.7
11	---	---	---	11.3	10.2	10.7	9.1	7.5	8.1	7.8	7.0	7.4
12	---	---	---	10.8	9.8	10.4	8.6	7.2	7.9	7.5	6.0	7.1
13	---	---	---	10.6	9.8	10.2	8.6	7.3	7.9	7.5	6.9	7.2
14	---	---	---	10.3	9.4	10.0	9.3	7.8	8.6	8.1	7.3	7.6
15	---	---	---	10.0	9.1	9.6	9.6	8.1	8.7	8.3	7.4	7.8
16	---	---	---	10.4	9.2	9.9	9.7	8.0	8.8	8.3	7.6	7.9
17	---	---	---	11.2	9.6	10.3	9.3	7.8	8.7	8.1	7.4	7.8
18	---	---	---	10.8	9.5	10.2	9.2	7.4	8.3	8.0	7.0	7.5
19	---	---	---	10.8	9.2	9.8	8.7	7.3	8.0	---	---	---
20	---	---	---	10.5	9.2	10.1	8.5	7.4	8.0	---	---	---
21	---	---	---	10.2	8.9	9.5	8.5	7.3	7.9	7.8	7.0	7.3
22	---	---	---	9.4	8.7	9.1	8.6	7.2	8.0	7.6	6.8	7.1
23	---	---	---	10.1	9.2	9.8	9.1	7.7	8.5	7.4	6.6	6.9
24	---	---	---	10.7	10.1	10.3	9.3	8.0	8.8	7.6	6.5	6.9
25	---	---	---	10.4	10.2	10.3	9.3	8.0	8.6	8.7	7.0	7.7
26	---	---	---	10.5	10.2	10.3	9.0	7.9	8.6	8.1	7.1	7.5
27	---	---	---	10.9	10.3	10.5	9.3	8.1	8.8	7.9	6.9	7.4
28	---	---	---	11.1	10.4	10.8	9.1	8.0	8.7	8.3	7.3	7.9
29	---	---	---	10.7	9.9	10.3	8.8	7.5	8.3	8.2	7.4	7.8
30	---	---	---	10.4	9.2	9.7	9.8	8.3	9.0	8.1	7.2	7.7
31	---	---	---	10.5	8.8	9.5	---	---	---	8.2	7.4	7.8

07177500 BIRD CREEK NEAR SPERRY, OK—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.2	7.3	7.8	7.1	6.1	6.7	7.9	6.6	7.4	8.2	7.2	7.7
2	8.4	7.3	7.9	7.8	6.4	7.1	7.9	6.9	7.4	8.1	7.2	7.7
3	8.2	7.2	7.5	7.8	6.6	7.2	7.7	6.8	7.3	8.1	7.1	7.6
4	7.9	7.0	7.5	7.5	6.8	7.1	7.6	6.7	7.1	8.0	6.9	7.3
5	7.9	6.9	7.4	7.1	6.4	6.9	7.8	6.7	7.3	8.2	7.3	7.7
6	8.2	7.0	7.7	7.2	6.8	7.0	8.1	7.0	7.6	8.0	7.3	7.6
7	7.8	6.8	7.2	7.2	6.8	6.9	7.9	7.0	7.5	---	---	---
8	7.7	6.7	7.2	7.0	6.1	6.6	7.9	6.9	7.4	---	---	---
9	7.2	6.6	6.8	7.5	6.1	6.9	7.7	6.8	7.3	---	---	---
10	7.8	6.8	7.3	7.7	6.3	7.0	7.7	6.7	7.2	---	---	---
11	7.8	7.0	7.4	8.0	6.3	7.1	7.7	6.6	7.3	---	---	---
12	7.9	6.7	7.1	7.8	6.6	7.1	7.7	6.8	7.3	---	---	---
13	7.2	5.0	6.2	7.6	6.5	7.0	7.7	6.8	7.2	---	---	---
14	7.3	5.8	6.8	7.5	6.3	6.9	7.6	6.9	7.3	---	---	---
15	7.5	7.0	7.3	7.4	6.3	6.8	7.5	7.2	7.4	---	---	---
16	7.4	6.9	7.3	7.6	6.4	7.0	7.3	7.0	7.1	---	---	---
17	7.3	6.5	6.9	7.4	6.3	6.9	7.5	7.0	7.2	---	---	---
18	7.1	6.7	7.0	7.1	6.2	6.7	7.3	6.8	7.0	---	---	---
19	7.1	6.8	7.0	7.6	6.1	6.8	7.1	6.5	6.8	---	---	---
20	7.0	6.5	6.8	7.6	6.2	6.9	7.1	6.4	6.8	---	---	---
21	6.9	6.2	6.6	7.5	6.2	6.8	7.6	6.7	7.1	---	---	---
22	7.4	6.6	7.0	7.4	6.2	6.8	7.6	6.9	7.2	---	---	---
23	7.7	6.8	7.3	7.3	6.1	6.7	7.5	6.6	7.1	---	---	---
24	7.8	6.8	7.3	7.4	6.1	6.7	6.7	6.5	6.6	---	---	---
25	7.5	6.8	7.1	7.6	6.2	6.9	7.2	6.5	6.8	---	---	---
26	7.6	6.6	7.1	7.4	6.4	6.9	7.5	6.5	6.9	---	---	---
27	7.5	6.6	7.0	7.9	6.5	7.2	7.7	6.5	7.1	---	---	---
28	7.5	6.6	7.0	8.1	7.0	7.6	8.0	6.9	7.5	---	---	---
29	7.5	6.4	6.9	8.0	7.1	7.6	8.0	6.7	7.5	---	---	---
30	7.4	6.4	6.9	8.0	7.0	7.5	8.0	6.9	7.5	---	---	---
31	---	---	---	8.0	6.9	7.5	8.1	7.1	7.7	---	---	---

07177650 FLAT ROCK CREEK AT CINCINNATI AVENUE AT TULSA, OK.

LOCATION.--Lat 36°12'55", long 95°59'42", in SE ¼ NE ¼ sec.14, T.20 N., R.12 E., Tulsa County, Hydrologic Unit 11070107, near right upstream abutment of Cincinnati Avenue bridge, 0.5 mi north of Cincinnati Avenue-36th Street North intersection, 2.0 mi south of Turley, and at mile 5.6.

DRAINAGE AREA.--8.2 mi².

PERIOD OF RECORD.--December 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 615.56 ft above NGVD of 1929.

REMARKS.--Records poor. U.S. Geological Survey satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	0645	*422	*6.82				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	23	5.4	1.5	4.0	5.1	9.5	0.30	0.12	e0.14	e0.05	0.19
2	0.04	58	4.1	1.5	5.4	5.0	4.2	0.29	e0.04	0.07	e0.06	0.19
3	0.02	66	2.8	2.2	4.6	4.8	3.2	0.29	e0.03	e0.06	e0.10	0.18
4	0.00	11	2.4	60	3.3	4.6	2.3	0.28	e0.02	0.70	e0.55	0.46
5	0.00	4.5	4.2	147	2.9	4.3	2.0	0.31	e0.02	0.11	e0.13	0.31
6	0.00	2.7	35	17	23	3.7	8.1	0.28	e0.01	e0.08	e0.47	0.25
7	0.55	2.0	32	8.8	17	3.6	19	0.28	e0.01	e0.05	e0.83	0.22
8	0.02	1.6	9.2	7.2	16	3.6	4.0	0.58	e0.01	e0.03	e0.09	0.22
9	0.00	1.2	6.3	5.8	22	3.6	2.4	0.34	0.14	e0.01	e0.08	0.21
10	0.16	1.8	4.4	4.6	8.1	3.7	1.4	0.22	0.13	e0.00	e0.06	0.20
11	19	14	3.3	4.2	e6.5	3.9	1.1	0.19	0.65	0.00	e0.04	0.20
12	2.4	4.2	3.0	4.5	e7.5	4.8	0.79	0.27	0.60	0.11	e0.05	0.21
13	0.54	2.9	2.6	5.3	e11	3.8	0.63	0.35	0.85	0.06	e0.21	0.17
14	0.34	2.1	2.5	3.6	e8.4	3.8	0.62	1.1	0.30	0.01	0.54	1.5
15	0.24	1.4	2.0	2.5	e6.7	4.0	0.56	0.37	0.15	0.00	3.6	20
16	0.18	1.4	1.9	3.0	e8.5	3.9	0.53	0.22	1.4	0.00	0.99	1.9
17	0.14	1.5	1.8	2.2	e7.2	4.3	0.48	0.19	2.0	0.00	0.42	0.87
18	0.11	4.1	1.7	1.8	e6.2	4.5	0.47	0.19	0.60	0.00	0.22	0.54
19	0.15	3.2	1.7	1.8	e5.1	4.5	0.44	1.0	0.26	0.00	0.15	0.39
20	0.14	2.3	2.1	1.9	e5.0	4.6	0.43	0.53	0.17	0.00	2.2	0.29
21	0.13	4.4	1.6	1.9	e8.9	4.9	0.41	0.29	0.11	0.22	1.4	0.27
22	0.27	4.4	e1.4	1.6	e7.0	4.6	0.38	0.22	0.09	0.47	1.3	0.26
23	0.18	12	e1.3	1.4	15	4.3	0.33	0.25	e0.08	0.54	12	0.26
24	0.16	11	e1.2	1.3	13	5.0	0.33	0.19	e0.07	0.54	1.5	0.27
25	0.16	5.5	e1.1	1.4	7.8	4.9	0.43	0.18	e0.06	e0.46	0.57	0.29
26	12	4.0	1.2	1.8	6.2	3.9	0.58	0.15	e0.05	e0.10	0.34	0.29
27	3.2	3.2	1.4	1.3	5.5	3.9	0.41	0.13	e0.04	e0.37	1.3	0.29
28	6.6	2.8	1.3	1.7	5.6	4.4	0.38	0.12	e0.03	e0.08	0.69	0.31
29	2.2	18	1.3	3.0	---	4.1	0.35	0.12	e0.02	e0.04	0.39	0.31
30	1.8	9.2	1.3	4.6	---	3.6	0.30	0.09	e0.01	e0.06	0.28	0.29
31	1.8	---	1.4	5.2	---	3.1	---	0.08	---	e0.05	0.22	---
TOTAL	52.56	283.4	142.9	311.6	247.4	130.8	66.05	9.40	8.07	4.36	30.83	31.34
MEAN	1.70	9.45	4.61	10.1	8.84	4.22	2.20	0.30	0.27	0.14	0.99	1.04
MAX	19	66	35	147	23	5.1	19	1.1	2.0	0.70	12	20
MIN	0.00	1.2	1.1	1.3	2.9	3.1	0.30	0.08	0.01	0.00	0.04	0.17
AC-FT	104	562	283	618	491	259	131	19	16	8.6	61	62

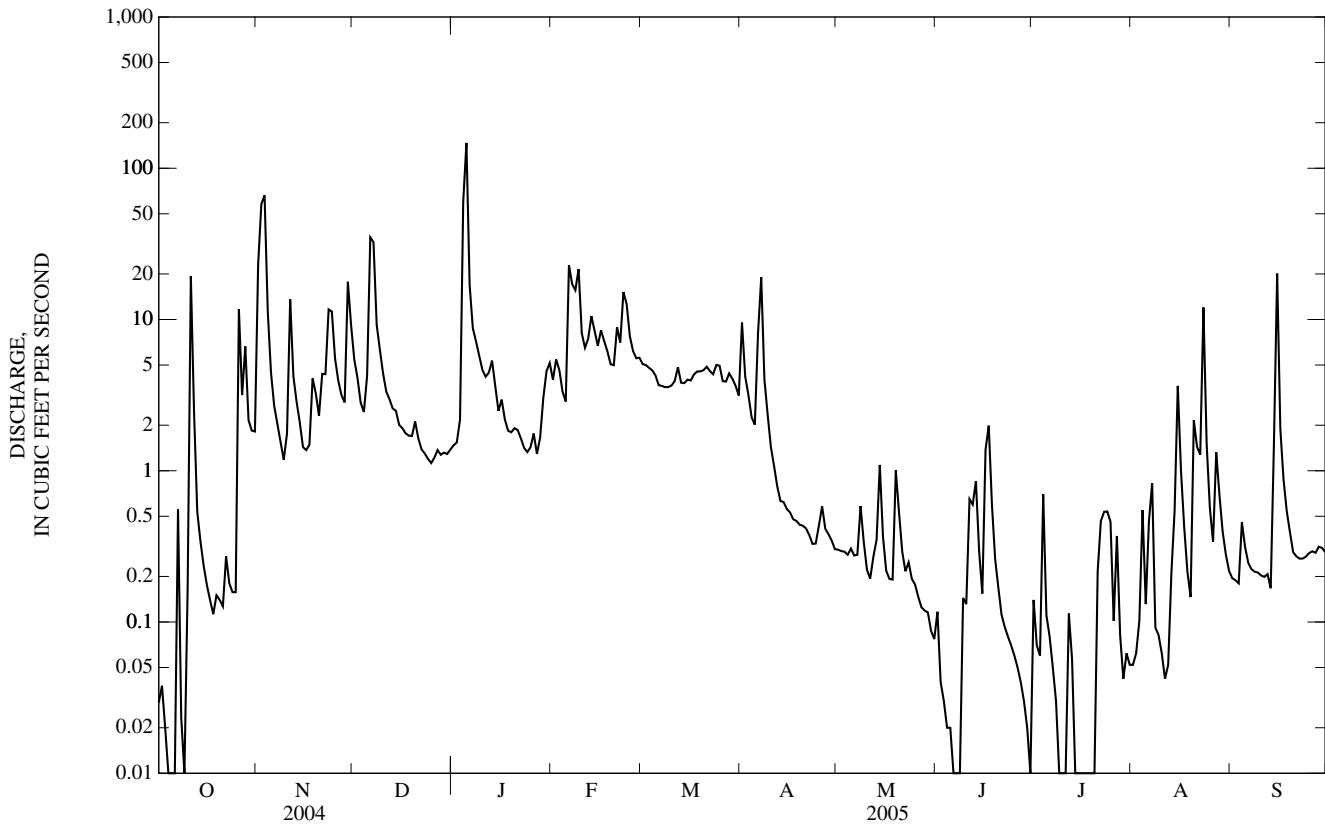
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2005, BY WATER YEAR (WY)

MEAN	3.03	5.96	5.74	5.90	5.94	13.9	11.3	14.5	7.00	1.66	2.32	1.80
MAX	19.2	31.1	23.0	33.0	16.1	47.8	39.6	59.2	55.7	8.28	17.7	9.78
(WY)	(1999)	(1997)	(1988)	(1998)	(2001)	(1988)	(1999)	(2000)	(1995)	(1994)	(1997)	(2003)
MIN	0.12	0.01	0.10	0.13	0.01	0.07	0.16	0.21	0.00	0.04	0.01	0.00
(WY)	(1993)	(1996)	(1996)	(2003)	(1996)	(1996)	(1996)	(1988)	(1988)	(1991)	(2000)	(2000)

07177650 FLAT ROCK CREEK AT CINCINNATI AVENUE AT TULSA, OK.—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1988 - 2005	
ANNUAL TOTAL	2,101.77		1,318.71		6.47	
ANNUAL MEAN	5.74		3.61		15.3	
HIGHEST ANNUAL MEAN					0.56	
LOWEST ANNUAL MEAN					1,480	
HIGHEST DAILY MEAN	191	Mar 4	147	Jan 5	1,480	May 6, 2000
LOWEST DAILY MEAN	0.00	at times	0.00	at times	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.02	Sep 30	0.00	Jul 14	0.00	May 13, 1988
MAXIMUM PEAK FLOW			422	Jan 5	8,290	May 6, 2000
MAXIMUM PEAK STAGE			6.82	Jan 5	a16.50	May 6, 2000
ANNUAL RUNOFF (AC-FT)	4,170		2,620		4,690	
10 PERCENT EXCEEDS	9.3		7.3		7.5	
50 PERCENT EXCEEDS	1.4		1.1		0.67	
90 PERCENT EXCEEDS	0.15		0.05		0.03	

a From high-water mark.



07177800 COAL CREEK AT TULSA, OK

LOCATION.--Lat 36°11'40", long 95°54'50", in SE 1/4 SW 1/4 sec.22, T.20 N., R.13 E., Tulsa County, Hydrologic Unit 11070107, near right downstream abutment of bridge on State Highway 11, .2 mile Northwest of intersection of SH 11 and Apache Street in Tulsa, and at mile 4.1.

DRAINAGE AREA.--7.53 mi².

PERIOD OF RECORD.--January 29, 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 596.84 ft above NGVD of 1929.

REMARKS.--No estimated daily discharge. Records fair. U.S. Geological Survey satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 7	2015	*2,280	*11.30				
						No other peak greater than base discharge.	

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

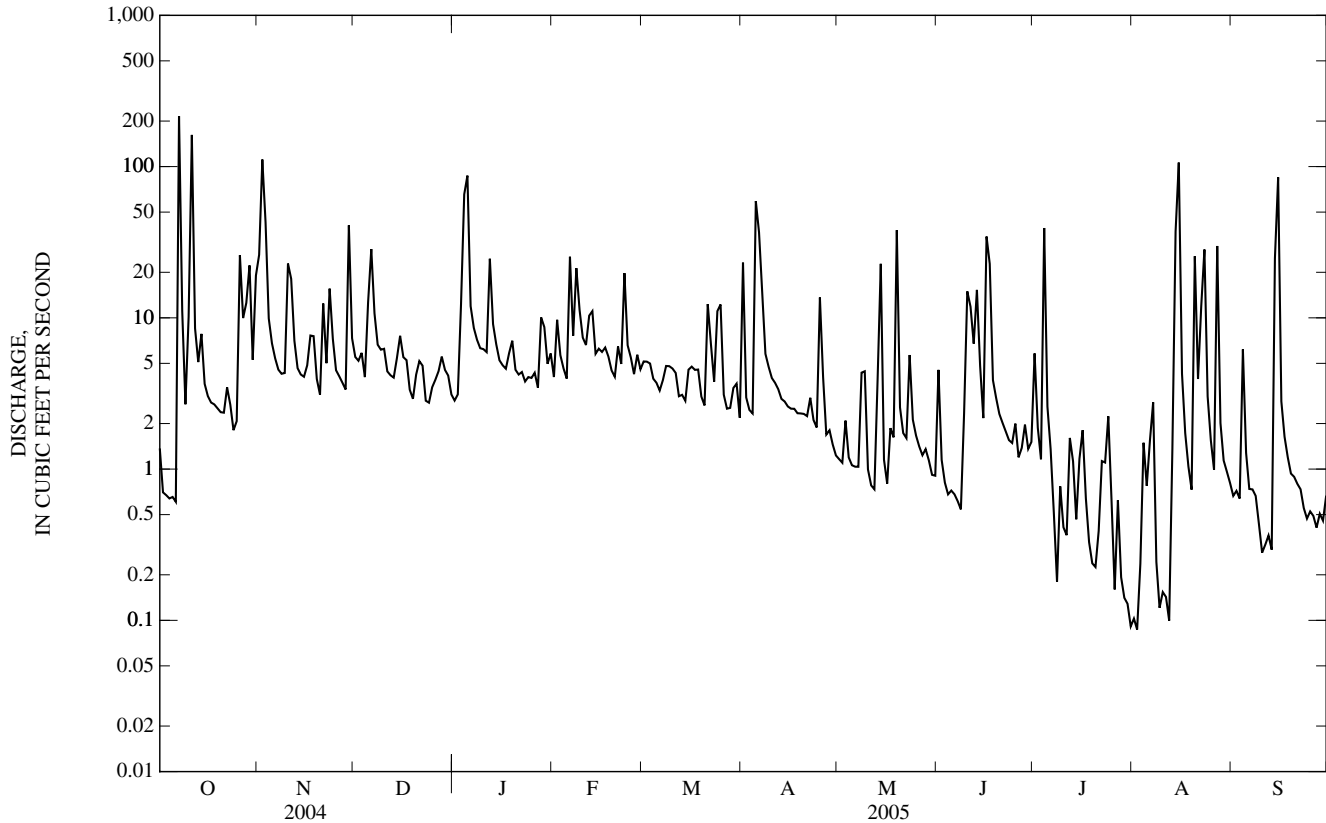
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	26	5.5	2.8	4.1	5.1	23	1.2	4.5	5.8	0.10	0.67
2	0.70	111	5.2	3.1	9.7	5.1	3.0	1.1	1.2	1.9	0.09	0.72
3	0.67	43	5.9	12	5.7	5.0	2.5	2.1	0.81	1.2	0.24	0.64
4	0.64	9.9	4.1	66	4.6	4.0	2.3	1.2	0.68	39	1.5	6.2
5	0.65	6.8	13	87	4.0	3.7	59	1.1	0.72	2.6	0.77	1.3
6	0.61	5.4	28	12	25	3.3	37	1.0	0.68	1.4	1.6	0.74
7	216	4.5	11	8.6	7.6	3.9	15	1.0	0.61	0.52	2.8	0.73
8	11	4.3	6.6	7.2	21	4.8	5.8	4.3	0.54	0.18	0.24	0.66
9	2.7	4.3	6.2	6.3	11	4.8	4.7	4.4	2.3	0.77	0.12	0.43
10	10	23	6.2	6.2	7.4	4.6	4.0	1.00	15	0.41	0.15	0.28
11	162	18	4.4	5.9	6.6	4.3	3.7	0.78	12	0.37	0.14	0.32
12	8.5	7.1	4.2	25	10	3.0	3.4	0.74	6.8	1.6	0.10	0.36
13	5.1	4.6	4.0	9.1	11	3.1	2.9	3.9	15	1.1	1.4	0.29
14	7.8	4.2	5.4	6.7	5.8	2.8	2.8	23	4.8	0.47	37	25
15	3.7	4.1	7.6	5.2	6.3	4.5	2.6	1.2	2.2	1.2	106	85
16	3.0	4.9	5.5	4.9	5.9	4.8	2.5	0.80	34	1.8	4.3	2.8
17	2.8	7.6	5.2	4.6	6.4	4.5	2.5	1.9	23	0.64	1.7	1.6
18	2.7	7.6	3.3	5.8	5.5	4.6	2.3	1.6	3.9	0.33	1.0	1.2
19	2.5	3.9	2.9	7.1	4.5	3.0	2.3	38	3.0	0.24	0.73	0.93
20	2.4	3.1	4.2	4.5	4.1	2.6	2.3	2.6	2.3	0.23	26	0.89
21	2.4	12	5.2	4.2	6.5	12	2.2	1.7	2.0	0.39	3.9	0.80
22	3.5	5.0	4.8	4.4	5.0	6.7	3.0	1.6	1.8	1.1	12	0.74
23	2.7	16	2.8	3.8	20	3.8	2.1	5.7	1.6	1.1	28	0.55
24	1.8	7.3	2.7	4.1	6.6	11	1.9	2.1	1.5	2.2	3.0	0.47
25	2.1	4.5	3.5	4.0	5.5	12	14	1.7	2.0	0.63	1.5	0.53
26	26	4.1	3.9	4.3	4.2	3.1	4.0	1.4	1.2	0.16	0.99	0.49
27	10	3.7	4.4	3.5	5.7	2.5	1.7	1.2	1.4	0.62	30	0.41
28	13	3.4	5.5	10	4.6	2.5	1.8	1.4	2.0	0.19	2.0	0.51
29	22	41	4.5	8.7	---	3.4	1.5	1.1	1.4	0.14	1.1	0.46
30	5.3	7.3	4.2	5.0	---	3.7	1.2	0.92	1.5	0.13	0.96	0.67
31	19	---	3.1	5.8	---	2.2	---	0.90	---	0.09	0.81	---
TOTAL	552.67	407.6	183.0	347.8	224.3	144.4	217.0	112.64	150.44	68.51	270.24	136.39
MEAN	17.8	13.6	5.90	11.2	8.01	4.66	7.23	3.63	5.01	2.21	8.72	4.55
MAX	216	111	28	87	25	12	59	38	34	39	106	85
MIN	0.61	3.1	2.7	2.8	4.0	2.2	1.2	0.74	0.54	0.09	0.09	0.28
AC-FT	1,100	808	363	690	445	286	430	223	298	136	536	271

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2005, BY WATER YEAR (WY)

MEAN	8.20	8.27	7.53	6.31	6.14	11.6	11.7	14.4	10.5	7.46	6.11	6.34
MAX	33.6	24.9	20.3	13.3	15.2	33.2	34.9	46.3	42.1	24.8	23.9	18.0
(WY)	(1999)	(1995)	(1993)	(1998)	(2001)	(1990)	(1999)	(1995)	(1995)	(1994)	(2003)	(1999)
MIN	1.11	0.55	0.37	0.32	0.96	1.71	1.62	2.86	1.79	0.29	0.75	1.81
(WY)	(1993)	(1996)	(1997)	(1997)	(1996)	(1992)	(1989)	(1988)	(1988)	(1991)	(1991)	(2000)

07177800 COAL CREEK AT TULSA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1988 - 2005	
ANNUAL TOTAL	4,552.72		2,814.99		8.76	
ANNUAL MEAN	12.4		7.71		15.8	
HIGHEST ANNUAL MEAN					3.60	
LOWEST ANNUAL MEAN					782	
HIGHEST DAILY MEAN	248	Apr 21	216	Oct 7	at times	Oct 5, 1998
LOWEST DAILY MEAN	0.50	Sep 21	0.09	Jul 31, Aug 2	at times	Jul 30, 1991
ANNUAL SEVEN-DAY MINIMUM	0.62	Sep 19	0.14	Jul 28	0.00	Jul 30, 1991
MAXIMUM PEAK FLOW			2,280	Oct 7	5,190	Jun 23, 1995
MAXIMUM PEAK STAGE			11.30	Oct 7	14.18	Jun 23, 1995
ANNUAL RUNOFF (AC-FT)	9,030		5,580		6,350	
10 PERCENT EXCEEDS	20		15		16	
50 PERCENT EXCEEDS	4.2		3.5		2.3	
90 PERCENT EXCEEDS	1.7		0.61		0.36	



07178000 BIRD CREEK NEAR OWASSO, OK

LOCATION.--Lat 36°14'54", long 95°52'01", in NW ¼ NW ¼ sec.6, T.20 N., R.14 E., Tulsa County, Hydrologic Unit 11070107, at bridge on Mingo Road 1.4 mi upstream from Mingo Creek, 1.5 mi downstream from Coal Creek, 2 mi southwest of Owasso, and at mile 14.1.

DRAINAGE AREA.--1,022 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1935 to March 1939, April 1987 to current year.

REVISED RECORDS.--WSP 1311: Drainage area. WRD OK-94-1; 1993 (M).

GAGE.--Water-stage recorder. Datum of gage is 560.17 ft above NGVD of 1929. Prior to Oct. 1, 1939, gage at same site and datum 1.14 ft lower.

REMARKS.--No estimated daily discharge. Records good. Flow slightly regulated since 1958 by Bluestem Lake (capacity 17,000 acre-ft) and since March 1977 by Birch Lake (capacity 19,200 acre-ft). Flow regulated since August 20, 1989 by Skiatook Lake (capacity 322,300 acre-ft) when conservation pool was first reached. U.S. Geological Survey satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peak stages, 34.0 ft, Oct. 25, 1908; 28.5 ft, Apr. 15, 1927; 26.3 ft, Apr. 15, 1929; 26.2 ft, June 1935, from information provided by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	844	789	130	405	660	233	174	187	188	166	186
2	188	2,250	406	131	488	432	226	172	181	185	166	184
3	187	1,640	358	175	481	275	250	165	180	181	166	181
4	189	2,860	332	1,120	397	246	227	162	175	268	168	205
5	187	2,100	290	8,910	344	227	272	158	171	1,130	171	200
6	186	1,630	462	10,800	534	209	723	157	176	465	169	186
7	355	1,470	3,700	2,340	2,230	200	1,810	174	211	231	172	184
8	746	1,390	2,380	2,680	1,670	192	896	195	195	193	167	181
9	310	1,330	1,970	2,660	2,370	197	476	201	191	210	165	179
10	309	1,250	1,740	2,590	1,980	322	348	197	200	187	165	178
11	1,340	1,150	1,580	2,510	1,930	268	290	193	226	174	167	178
12	1,680	2,460	1,480	2,460	1,760	151	439	184	304	180	178	178
13	690	1,330	1,420	2,630	1,970	132	313	193	2,260	181	174	178
14	287	1,180	1,380	2,470	2,040	113	356	272	2,780	171	230	230
15	150	1,030	1,230	1,510	1,780	104	338	217	756	167	638	697
16	119	956	412	1,310	1,630	98	306	185	727	184	374	358
17	123	937	299	1,240	1,470	90	213	172	2,420	183	231	235
18	110	921	173	1,200	746	83	190	169	868	167	202	201
19	100	903	141	1,180	366	80	182	261	421	163	191	196
20	96	939	130	1,180	246	97	179	492	271	161	208	190
21	90	920	123	1,110	242	112	178	472	245	159	226	184
22	92	1,150	113	947	226	155	170	301	218	167	215	179
23	200	1,030	103	922	325	1,190	167	256	229	170	595	176
24	264	1,800	94	900	1,690	905	166	223	218	193	569	172
25	245	2,120	96	828	1,600	554	165	204	204	176	276	168
26	350	1,340	98	266	1,540	394	195	188	195	171	231	165
27	2,040	1,040	94	196	1,430	304	171	178	186	174	270	165
28	766	904	90	196	1,330	247	177	191	177	170	212	164
29	467	1,060	97	229	---	213	180	202	171	169	196	163
30	426	893	129	243	---	190	179	199	168	169	186	175
31	310	---	129	307	---	175	---	196	---	166	185	---
TOTAL	12,786	40,827	21,838	55,370	33,220	8,615	10,015	6,703	14,911	6,853	7,429	6,216
MEAN	412	1,361	704	1,786	1,186	278	334	216	497	221	240	207
MAX	2,040	2,860	3,700	10,800	2,370	1,190	1,810	492	2,780	1,130	638	697
MIN	90	844	90	130	226	80	165	157	168	159	165	163
AC-FT	25,360	80,980	43,320	109,800	65,890	17,090	19,860	13,300	29,580	13,590	14,740	12,330

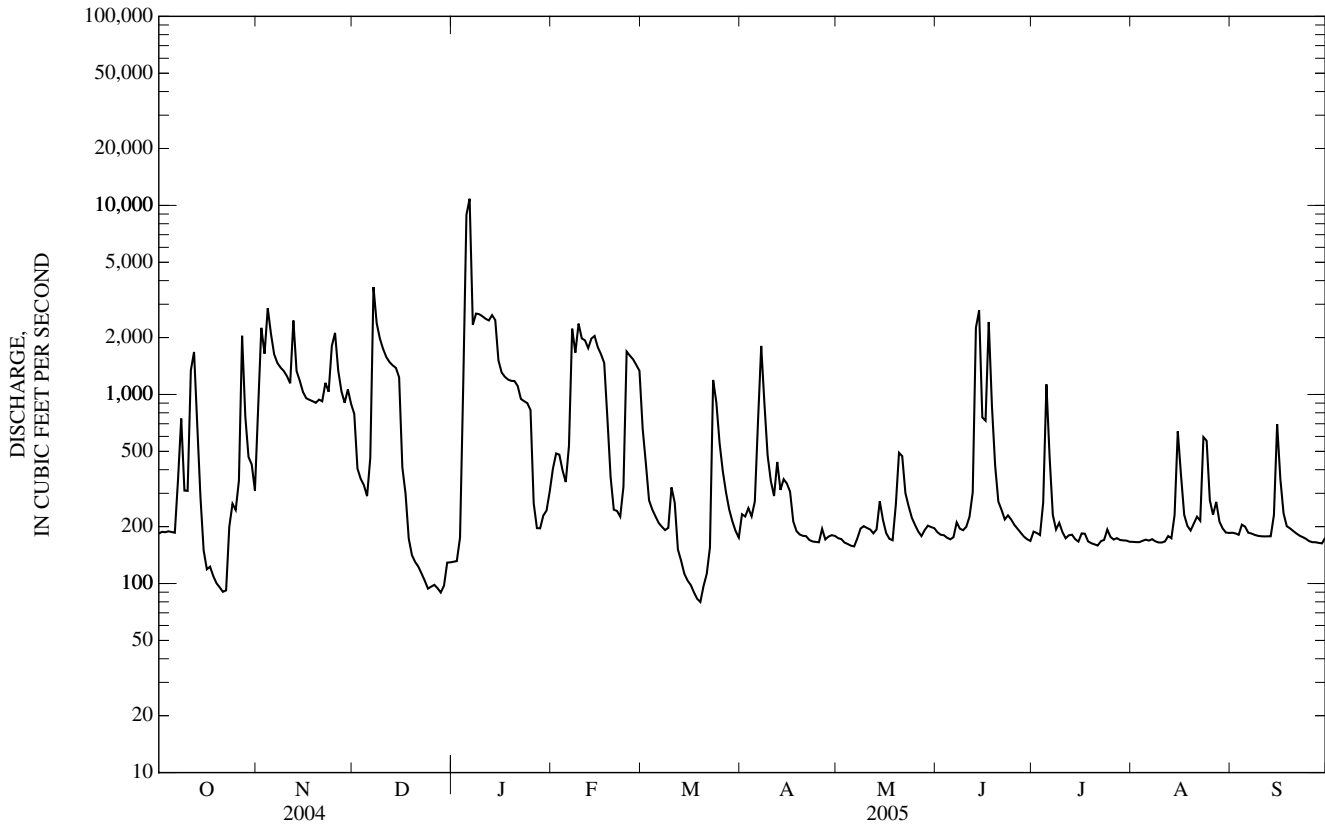
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2005, BY WATER YEAR (WY)

	342	580	553	601	621	1,482	1,451	1,655	1,326	679	367	371
MEAN												
MAX	1,873	2,362	1,599	2,464	1,618	5,861	3,794	5,565	5,579	3,195	1,317	1,376
(WY)	(1999)	(1995)	(1988)	(1998)	(1999)	(1990)	(1988)	(1995)	(1995)	(1995)	(1989)	(1989)
MIN	131	74.0	85.7	79.5	83.9	91.9	222	160	166	181	162	160
(WY)	(1993)	(1996)	(1990)	(2000)	(1996)	(1991)	(2001)	(1996)	(1988)	(1991)	(1988)	(2000)

07178000 BIRD CREEK NEAR OWASSO, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1988 - 2005	
ANNUAL TOTAL	346,023		224,783		836	
ANNUAL MEAN	945		616		1,906	
HIGHEST ANNUAL MEAN					202	
LOWEST ANNUAL MEAN					27,700	
HIGHEST DAILY MEAN	17,100	Mar 6	10,800	Jan 6	27,700	May 11, 1993
LOWEST DAILY MEAN	85	Jan 9	80	Mar 19	a45	Nov 6, 1993
ANNUAL SEVEN-DAY MINIMUM	96	Dec 23	95	Mar 15	58	Jan 1, 1994
MAXIMUM PEAK FLOW			13,000	Jan 5	29,200	May 11, 1993
MAXIMUM PEAK STAGE			16.34	Jan 5	26.94	May 11, 1993
ANNUAL RUNOFF (AC-FT)	686,300		445,900		605,800	
10 PERCENT EXCEEDS	2,040		1,650		2,340	
50 PERCENT EXCEEDS	422		223		203	
90 PERCENT EXCEEDS	141		159		89	

a Minimum daily discharge for period of record, 2.0 ft³/s, July 31, Aug. 1, 13-16, 1936, and July 5, 1937.



WATER QUALITY RECORDS

PERIOD OF RECORD.--May 1987 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1987 to current year.

pH: May 1987 to current year.

WATER TEMPERATURE: May 1987 to current year.

DISSOLVED OXYGEN: May 1987 to current year.

INSTRUMENTATION.--Water-quality monitor since May 1987.

REMARKS.--Interruptions in record were due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,950 microsiemens, Apr. 1, 1996; minimum, 48 microsiemens, July 18, 1989.

pH: Maximum, 8.9 units, May 17, 1988; minimum, 5.5 units June 14, 15, 1987.

WATER TEMPERATURE: Maximum, 35.0°C, Aug. 2, 3, 1987; minimum, 0.0°C, several days during winter periods.

DISSOLVED OXYGEN: Maximum, 16.3 mg/L, Jan. 17, 1988; minimum, 1.2 mg/L, Sept. 8, 1995.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 656 microsiemens, Mar. 23; minimum, 155 microsiemens, Oct. 8.

pH: Maximum, 8.3 units, Apr. 4, 23, 24; minimum, 7.2 units, Oct. 27, 28, Jan. 5.

WATER TEMPERATURE: Maximum, 33.3°C, July 23; minimum, 0.8°C, Dec. 26.

DISSOLVED OXYGEN: Maximum, 14.6 mg/L, Dec. 27; minimum, 3.8 mg/L, Aug. 17.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	298	293	296	405	311	348	323	314	319	593	500	526
2	298	293	295	383	253	291	342	314	323	594	490	537
3	294	291	292	337	252	268	360	342	354	490	443	468
4	294	292	293	287	227	249	366	360	363	471	322	434
5	294	292	293	287	248	272	361	356	358	323	166	226
6	295	293	294	289	267	283	423	352	375	---	---	---
7	295	261	290	---	---	---	---	---	---	---	---	---
8	287	155	221	---	---	---	---	---	---	---	---	---
9	345	262	300	---	---	---	262	225	247	---	---	---
10	321	299	308	---	---	---	285	262	276	---	---	---
11	303	182	252	---	---	---	285	280	282	263	257	259
12	291	190	243	---	---	---	310	283	299	283	261	266
13	285	244	256	---	---	---	308	281	293	284	276	279
14	312	285	303	---	---	---	281	274	277	281	275	277
15	325	312	318	---	---	---	275	272	273	294	281	288
16	323	316	318	---	---	---	298	275	287	288	286	287
17	339	319	331	---	---	---	305	298	302	293	286	289
18	350	339	344	---	---	---	312	299	304	295	292	292
19	391	350	373	---	---	---	335	312	322	295	292	293
20	386	353	362	---	---	---	350	335	343	295	293	294
21	355	348	351	---	---	---	369	350	360	296	293	294
22	351	348	349	---	---	---	390	369	379	296	294	295
23	357	349	352	335	299	308	406	390	398	297	295	296
24	390	340	358	348	231	317	416	406	412	300	297	299
25	342	314	332	325	290	306	418	415	417	302	298	300
26	361	279	298	326	296	307	428	418	423	327	302	312
27	365	172	230	296	289	291	449	428	440	386	327	349
28	252	184	211	295	289	292	455	444	449	416	377	396
29	257	218	244	373	280	304	455	441	446	465	416	431
30	354	257	306	330	305	322	473	440	450	603	465	547
31	330	307	319	---	---	---	504	473	492	563	542	551

07178000 BIRD CREEK NEAR OWASSO, OK—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	578	558	568	350	296	323	482	446	458	403	398	401
2	558	515	530	369	350	356	568	432	478	400	392	397
3	522	502	512	380	353	365	520	462	504	394	391	393
4	513	507	510	404	380	391	506	447	474	394	392	393
5	511	507	509	421	404	412	459	319	432	398	394	397
6	560	491	510	432	421	427	464	327	404	402	398	400
7	565	374	457	441	432	437	408	321	361	405	402	404
8	407	385	399	452	441	443	321	302	309	405	403	405
9	426	299	357	506	452	477	323	299	306	443	383	400
10	299	262	277	514	504	510	358	323	341	443	376	393
11	296	282	291	504	490	497	387	358	373	389	377	383
12	296	291	294	490	485	487	411	386	394	378	372	374
13	327	291	313	505	489	496	421	411	418	375	371	373
14	319	293	305	541	505	523	421	401	410	404	371	383
15	293	290	291	595	541	566	---	---	---	390	363	370
16	295	291	293	586	506	541	380	367	375	441	376	411
17	298	294	295	506	496	499	385	380	383	396	389	393
18	345	298	321	524	497	512	380	353	362	391	343	363
19	353	331	339	543	523	533	362	354	357	361	338	346
20	400	353	375	562	539	552	369	362	365	429	317	368
21	422	400	413	577	562	566	379	369	373	466	417	444
22	439	422	432	581	566	571	393	379	381	442	384	411
23	458	432	442	656	424	508	404	389	393	384	365	370
24	499	375	416	491	453	479	409	397	404	408	374	395
25	408	305	354	529	486	505	398	384	393	404	390	397
26	305	293	297	514	496	507	385	372	377	390	380	383
27	297	289	292	504	481	496	404	369	381	382	379	380
28	296	291	293	481	456	465	436	377	392	382	380	381
29	---	---	---	457	451	453	436	389	402	381	371	376
30	---	---	---	455	451	453	404	399	402	371	361	364
31	---	---	---	460	450	454	---	---	---	362	354	357
	JUNE			JULY			AUGUST			SEPTEMBER		
1	356	350	352	318	313	316	327	321	323	316	315	315
2	356	351	353	338	315	322	329	324	326	319	316	317
3	357	352	354	335	318	322	329	325	327	322	319	320
4	357	354	355	320	313	316	331	329	330	324	320	322
5	363	351	356	348	274	300	333	326	330	323	317	320
6	355	351	353	293	256	272	329	327	328	326	315	318
7	352	347	349	311	293	306	332	326	329	320	314	318
8	381	344	357	306	277	291	332	324	329	317	311	313
9	381	371	377	281	269	277	324	322	323	314	312	313
10	371	358	362	362	271	318	325	321	323	314	312	312
11	387	359	370	306	296	300	325	322	323	317	314	316
12	385	350	367	317	306	311	328	323	325	318	310	313
13	460	286	373	322	317	320	329	324	327	312	310	311
14	307	233	272	326	322	324	329	323	326	315	307	310
15	263	253	254	325	323	323	324	164	258	323	197	260
16	289	240	257	332	325	329	307	269	292	329	280	314
17	295	206	253	348	331	338	275	256	268	303	283	295
18	263	236	243	339	306	318	315	256	288	295	282	290
19	272	263	269	324	322	324	316	308	311	305	295	301
20	291	267	277	325	324	325	308	299	307	308	305	306
21	317	291	307	326	324	325	332	287	302	310	306	308
22	355	312	322	326	325	325	323	287	297	316	309	311
23	356	307	329	326	324	325	305	225	293	319	315	317
24	310	305	307	325	322	323	292	251	267	319	315	317
25	309	304	306	370	316	331	290	266	279	318	316	317
26	314	309	312	328	315	322	289	265	274	318	314	315
27	315	312	313	328	326	327	300	281	288	---	---	---
28	315	311	313	330	325	327	325	286	299	---	---	---
29	316	312	314	330	328	329	310	297	303	---	---	---
30	317	315	316	329	326	327	314	310	311	313	309	311
31	---	---	---	328	326	327	315	314	314	---	---	---

ARKANSAS RIVER BASIN

07178000 BIRD CREEK NEAR OWASSO, OK—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.8	7.7	7.8	7.6	7.5	7.6	7.8	7.5	7.6	7.8	7.7	7.7
2	7.9	7.7	7.8	7.7	7.4	7.5	7.8	7.6	7.7	7.8	7.7	7.7
3	7.9	7.7	7.8	7.6	7.4	7.5	7.6	7.5	7.5	7.7	7.6	7.7
4	7.9	7.7	7.8	7.6	7.4	7.5	7.6	7.4	7.5	7.7	7.4	7.6
5	7.9	7.7	7.8	7.6	7.5	7.5	7.6	7.5	7.5	7.5	7.2	7.4
6	7.9	7.7	7.8	7.6	7.5	7.6	7.7	7.5	7.6	---	---	---
7	7.9	7.7	7.8	7.6	7.6	7.6	---	---	---	---	---	---
8	7.8	7.6	7.7	7.7	7.6	7.6	---	---	---	---	---	---
9	7.6	7.5	7.5	7.7	7.6	7.7	7.9	7.8	7.8	---	---	---
10	7.7	7.5	7.7	7.7	7.7	7.7	8.0	7.9	8.0	---	---	---
11	7.7	7.6	7.6	7.7	7.6	7.7	8.0	8.0	8.0	7.8	7.8	7.8
12	7.6	7.4	7.4	7.7	7.6	7.6	8.0	7.9	7.9	7.8	7.8	7.8
13	7.6	7.5	7.6	7.7	7.6	7.6	7.9	7.9	7.9	7.8	7.8	7.8
14	7.6	7.6	7.6	7.8	7.7	7.8	7.9	7.9	7.9	7.8	7.8	7.8
15	7.7	7.6	7.7	7.8	7.8	7.8	7.9	7.9	7.9	7.8	7.8	7.8
16	7.7	7.6	7.6	7.8	7.8	7.8	7.9	7.9	7.9	7.8	7.8	7.8
17	7.6	7.6	7.6	7.8	7.8	7.8	7.9	7.9	7.9	7.8	7.8	7.8
18	7.6	7.6	7.6	7.8	7.7	7.8	7.9	7.9	7.9	7.8	7.8	7.8
19	7.7	7.5	7.6	7.7	7.7	7.7	7.9	7.9	7.9	7.8	7.8	7.8
20	7.6	7.6	7.6	7.8	7.7	7.7	7.9	7.7	7.8	7.8	7.8	7.8
21	7.6	7.5	7.5	7.8	7.7	7.7	7.8	7.7	7.8	7.8	7.8	7.8
22	7.6	7.5	7.5	7.8	7.6	7.7	7.8	7.8	7.8	7.8	7.8	7.8
23	7.5	7.5	7.5	7.8	7.7	7.7	7.9	7.8	7.9	7.8	7.8	7.8
24	7.6	7.5	7.6	7.9	7.6	7.8	7.9	7.8	7.9	7.8	7.8	7.8
25	7.6	7.5	7.6	7.7	7.4	7.5	7.9	7.8	7.8	7.8	7.8	7.8
26	7.5	7.5	7.5	7.7	7.5	7.6	7.9	7.8	7.8	7.9	7.8	7.8
27	7.5	7.2	7.3	7.7	7.6	7.7	7.9	7.7	7.8	7.8	7.7	7.8
28	7.4	7.2	7.3	7.8	7.6	7.7	7.8	7.7	7.7	7.8	7.7	7.7
29	7.4	7.3	7.3	7.8	7.7	7.8	7.8	7.7	7.7	7.8	7.7	7.8
30	7.5	7.3	7.5	7.7	7.6	7.7	7.8	7.7	7.7	7.8	7.8	7.8
31	7.5	7.5	7.5	---	---	---	7.8	7.7	7.7	8.0	7.8	7.9
FEBRUARY			MARCH			APRIL			MAY			
1	8.0	7.9	7.9	8.0	7.9	7.9	8.0	7.7	7.8	8.1	7.8	7.9
2	8.0	7.9	8.0	8.1	7.8	7.9	7.9	7.7	7.7	8.1	7.9	7.9
3	8.1	8.0	8.0	8.1	7.8	7.9	8.2	7.7	7.8	8.1	7.9	8.0
4	8.1	7.9	8.0	8.2	7.8	7.9	8.3	7.8	7.8	8.1	7.9	8.0
5	8.1	7.9	8.0	8.2	7.8	7.9	8.2	7.7	7.8	8.0	7.9	8.0
6	8.0	7.9	8.0	8.2	7.8	7.9	7.8	7.5	7.7	8.0	7.9	7.9
7	7.9	7.7	7.8	8.0	7.8	7.9	7.7	7.5	7.5	8.0	7.8	7.9
8	7.9	7.8	7.8	8.2	7.8	7.9	7.5	7.5	7.5	7.9	7.8	7.8
9	7.9	7.7	7.8	8.1	7.8	8.0	7.5	7.5	7.5	8.0	7.8	7.8
10	7.8	7.7	7.7	8.2	7.9	8.0	7.6	7.5	7.5	8.0	7.7	7.8
11	7.8	7.8	7.8	8.1	8.0	8.0	7.6	7.5	7.6	8.1	7.8	7.9
12	7.8	7.8	7.8	8.2	8.0	8.0	7.9	7.6	7.7	8.0	7.8	7.9
13	7.8	7.8	7.8	8.1	7.9	8.0	7.8	7.7	7.8	7.9	7.8	7.8
14	7.8	7.8	7.8	8.1	7.9	8.0	---	---	---	7.8	7.7	7.8
15	7.8	7.8	7.8	8.0	7.9	7.9	---	---	---	8.0	7.7	7.8
16	7.8	7.8	7.8	8.0	7.8	7.9	8.0	7.7	7.8	8.2	7.9	8.0
17	7.8	7.8	7.8	7.9	7.8	7.8	8.0	7.7	7.8	8.2	7.9	8.0
18	7.8	7.8	7.8	7.9	7.7	7.8	8.1	7.6	7.8	8.0	7.8	7.9
19	7.9	7.8	7.8	7.9	7.7	7.8	8.0	7.7	7.8	7.8	7.7	7.8
20	7.9	7.8	7.8	7.9	7.7	7.8	8.0	7.6	7.8	8.0	7.6	7.8
21	8.0	7.7	7.8	7.8	7.7	7.7	7.9	7.6	7.7	8.0	7.8	7.9
22	7.9	7.7	7.8	7.7	7.7	7.7	8.0	7.7	7.8	8.0	7.8	7.9
23	7.8	7.7	7.8	7.9	7.6	7.8	8.3	7.7	7.9	7.8	7.7	7.8
24	7.9	7.8	7.8	7.9	7.8	7.9	8.3	7.8	8.0	7.8	7.7	7.7
25	7.9	7.8	7.8	7.9	7.9	7.9	8.1	7.8	8.0	7.9	7.7	7.8
26	7.8	7.8	7.8	7.9	7.9	7.9	8.2	7.8	7.9	7.9	7.7	7.8
27	7.8	7.8	7.8	7.9	7.9	7.9	7.9	7.6	7.8	7.9	7.8	7.8
28	7.9	7.8	7.9	8.0	7.8	7.9	8.1	7.8	7.9	7.9	7.7	7.8
29	---	---	---	8.0	7.8	7.8	8.1	7.8	8.0	7.9	7.7	7.8
30	---	---	---	8.1	7.8	7.8	8.2	7.8	8.0	8.0	7.7	7.8
31	---	---	---	8.0	7.7	7.8	---	---	---	7.9	7.7	7.8

07178000 BIRD CREEK NEAR OWASSO, OK—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.9	7.7	7.8	7.9	7.6	7.7	8.0	7.6	7.7	8.0	7.7	7.8
2	8.0	7.7	7.8	7.9	7.6	7.7	7.9	7.6	7.7	7.9	7.7	7.8
3	7.9	7.7	7.8	7.9	7.6	7.7	7.8	7.6	7.7	8.0	7.7	7.8
4	8.0	7.7	7.8	7.8	7.7	7.7	8.0	7.6	7.7	7.8	7.7	7.8
5	7.9	7.7	7.8	7.7	7.5	7.6	8.1	7.7	7.8	7.8	7.7	7.8
6	8.0	7.7	7.8	7.6	7.5	7.6	8.1	7.7	7.8	7.8	7.7	7.7
7	8.0	7.7	7.8	7.7	7.6	7.6	8.1	7.7	7.9	7.8	7.7	7.7
8	8.1	7.7	7.8	7.6	7.5	7.6	8.1	7.7	7.8	7.9	7.6	7.7
9	7.9	7.7	7.8	7.6	7.5	7.6	8.0	7.7	7.8	7.9	7.6	7.7
10	7.9	7.7	7.7	7.7	7.5	7.6	7.9	7.6	7.8	7.9	7.6	7.7
11	7.8	7.6	7.7	7.7	7.5	7.6	8.0	7.6	7.8	7.7	7.6	7.6
12	7.7	7.6	7.6	7.8	7.6	7.6	8.0	7.7	7.8	7.8	7.6	7.6
13	7.8	7.5	7.7	7.9	7.6	7.7	7.8	7.6	7.7	7.8	7.6	7.6
14	7.7	7.6	7.7	8.0	7.6	7.7	7.7	7.6	7.6	7.8	7.6	7.6
15	7.7	7.6	7.6	8.0	7.6	7.8	7.7	7.6	7.6	7.6	7.4	7.6
16	7.7	7.6	7.6	8.1	7.7	7.8	7.7	7.5	7.6	7.6	7.4	7.5
17	7.7	7.4	7.4	8.1	7.7	7.8	7.5	7.4	7.4	7.4	7.4	7.4
18	7.6	7.4	7.5	8.0	7.6	7.8	7.6	7.4	7.4	7.5	7.4	7.4
19	7.6	7.6	7.6	8.1	7.7	7.8	7.9	7.6	7.7	7.6	7.4	7.5
20	7.6	7.5	7.6	8.1	7.7	7.8	7.8	7.6	7.7	7.7	7.5	7.5
21	7.7	7.6	7.6	8.2	7.7	7.8	7.8	7.6	7.7	7.6	7.4	7.5
22	7.6	7.5	7.6	8.2	7.7	7.9	7.8	7.6	7.6	7.6	7.5	7.5
23	7.6	7.5	7.6	8.1	7.7	7.8	7.8	7.7	7.7	7.7	7.5	7.5
24	7.7	7.6	7.6	8.1	7.6	7.8	7.7	7.4	7.5	7.6	7.5	7.6
25	7.7	7.6	7.6	8.0	7.5	7.7	7.5	7.4	7.4	7.7	7.5	7.6
26	7.8	7.6	7.6	8.0	7.6	7.8	7.6	7.5	7.5	7.7	7.5	7.6
27	7.8	7.6	7.6	8.0	7.7	7.8	7.6	7.6	7.6	---	---	---
28	7.8	7.6	7.6	8.0	7.6	7.8	7.7	7.5	7.6	---	---	---
29	7.9	7.6	7.7	8.0	7.6	7.7	7.9	7.6	7.7	---	---	---
30	7.9	7.6	7.7	7.8	7.6	7.7	8.0	7.7	7.8	7.9	7.7	7.8
31	---	---	---	7.7	7.5	7.6	7.9	7.7	7.8	---	---	---

ARKANSAS RIVER BASIN

07178000 BIRD CREEK NEAR OWASSO, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	22.8	22.0	22.5	18.8	17.6	18.1	9.4	9.0	9.2	9.2	7.6	8.5
2	22.2	20.4	21.3	17.6	15.4	16.3	9.3	8.4	8.8	10.5	9.1	10.0
3	21.7	19.7	20.7	15.4	13.3	14.4	8.4	6.7	7.4	10.8	10.5	10.6
4	21.4	19.7	20.5	13.3	12.5	13.0	7.0	6.3	6.6	10.8	7.3	9.6
5	20.9	19.1	20.0	14.6	13.0	14.0	7.0	6.4	6.7	7.3	5.0	6.2
6	20.5	19.4	20.0	15.2	14.4	14.8	8.5	7.0	7.6	---	---	---
7	21.0	19.9	20.4	15.6	15.2	15.4	---	---	---	---	---	---
8	21.9	20.5	21.3	15.6	15.3	15.5	---	---	---	---	---	---
9	21.8	21.2	21.5	15.6	15.4	15.5	10.0	8.3	9.4	---	---	---
10	21.4	20.4	21.0	15.5	15.3	15.4	10.0	9.7	9.8	---	---	---
11	20.4	17.8	18.9	15.3	12.3	14.3	9.7	9.4	9.5	7.1	6.7	6.9
12	17.9	16.1	16.7	12.5	11.4	11.9	9.8	9.4	9.6	7.2	6.6	6.9
13	17.4	16.5	16.9	11.9	10.9	11.2	9.6	8.9	9.3	7.2	6.5	6.9
14	17.3	16.3	16.7	12.3	11.9	12.1	8.9	8.1	8.5	6.5	5.8	6.1
15	17.4	15.7	16.4	13.1	12.3	12.7	8.1	7.7	7.9	5.8	4.5	4.9
16	16.9	15.7	16.2	14.0	13.1	13.6	8.1	6.9	7.6	4.5	3.9	4.2
17	16.8	15.4	16.0	14.6	14.0	14.3	6.9	5.4	5.9	4.0	3.7	3.8
18	18.2	16.4	17.0	15.0	14.5	14.8	6.1	5.1	5.5	4.2	3.8	4.0
19	17.2	16.6	16.9	15.0	14.7	14.9	5.4	4.6	5.0	5.0	4.1	4.6
20	17.8	16.5	17.0	14.7	14.0	14.3	5.7	4.4	4.9	5.7	5.0	5.4
21	19.0	16.6	17.6	14.0	13.1	13.6	5.3	4.6	4.9	6.3	5.6	6.0
22	19.1	18.2	18.6	13.1	12.7	12.9	4.6	3.0	3.9	6.4	5.2	6.1
23	19.7	18.4	18.9	13.0	12.7	12.9	3.0	2.1	2.6	5.2	4.4	4.7
24	19.7	18.1	18.8	12.9	11.0	12.2	2.5	1.5	1.9	5.4	4.3	4.9
25	19.2	18.6	18.8	11.0	10.2	10.5	2.1	1.0	1.5	6.3	5.2	5.8
26	19.4	18.7	19.0	11.2	10.2	10.6	2.1	0.8	1.4	7.0	5.7	6.2
27	19.8	18.9	19.4	11.8	11.2	11.5	2.4	1.1	1.7	6.6	5.9	6.3
28	20.5	19.8	20.2	11.3	10.5	10.9	3.3	1.7	2.4	6.4	5.3	5.8
29	21.1	20.3	20.6	10.7	10.0	10.5	4.3	2.7	3.4	5.3	4.9	5.1
30	20.6	19.8	20.2	10.2	9.4	10	6.7	4.2	5.5	4.9	4.6	4.7
31	19.8	18.8	19.2	---	---	---	8.2	6.4	7.1	4.8	4.5	4.7
FEBRUARY			MARCH			APRIL			MAY			
1	4.8	4.5	4.6	8.1	7.1	7.6	16.1	14.4	15.3	17.3	16.1	16.6
2	5.0	4.6	4.8	9.0	7.4	8.1	16.0	13.9	15.0	16.9	15.5	16.1
3	5.4	4.4	4.8	9.9	8.1	8.9	17.1	14.8	15.8	17.1	14.9	15.9
4	5.6	4.4	5.0	11.6	9.4	10.3	18.1	15.6	16.7	17.4	15.3	16.3
5	6.2	5.2	5.7	12.6	10.4	11.3	18.8	16.0	17.3	17.2	16.3	16.7
6	7.5	6.1	6.6	13.2	11.2	12.1	17.5	16.1	17.0	19.3	16.5	17.7
7	7.7	7.2	7.5	13.0	12.3	12.6	16.4	15.6	16.0	19.1	17.8	18.4
8	7.2	6.2	6.7	13.5	11.4	12.4	16.6	15.7	16.1	19.9	18.8	19.2
9	6.2	5.0	5.5	12.8	11.7	12.1	18.1	16.2	17.0	21.5	18.9	20.1
10	5.5	4.5	5.0	12.4	10.9	11.5	17.8	17.3	17.6	22.8	19.9	21.2
11	6.2	5.4	5.7	12.3	10.7	11.4	18.9	17.4	17.9	24.3	21.5	22.8
12	6.9	6.2	6.4	14.1	11.2	12.4	18.8	17.3	17.9	24.2	22.7	23.4
13	8.5	6.9	7.7	12.6	11.2	11.9	17.8	17.1	17.4	24.1	22.8	23.4
14	8.7	8.2	8.5	13.6	11.1	12.1	---	---	---	24.0	22.4	23.1
15	9.0	8.4	8.7	12.4	11.5	12.1	---	---	---	23.0	21.2	22.0
16	8.8	7.5	8.1	12.4	10.9	11.6	19.4	17.4	18.4	23.6	20.9	22.0
17	7.7	7.1	7.4	13.1	10.2	11.5	20.5	18.8	19.4	23.1	20.7	21.9
18	8.2	7.3	7.8	14.0	10.8	12.1	20.4	19.0	19.7	23.2	21.1	22.2
19	8.5	7.8	8.1	13.8	11.2	12.3	20.1	19.1	19.6	24.1	22.1	23.1
20	10.9	8.5	9.6	14.2	11.6	12.8	20.8	19.4	20.0	25.5	23.2	24.4
21	11.8	10.1	10.8	13.5	12.9	13.1	21.5	19.8	20.6	27.3	25.5	26.3
22	11.7	10.8	11.2	13.2	12.6	13.1	21.3	19.8	20.5	27.7	25.8	26.7
23	11.0	10.1	10.6	12.7	11.2	12.0	20.5	18.7	19.6	27.7	26.7	27.1
24	10.1	8.7	9.1	11.4	10.6	11.1	19.9	17.8	18.8	27.2	25.3	26.5
25	8.9	8.2	8.5	11.7	11.2	11.4	18.8	17.8	18.2	27.0	24.9	25.8
26	8.6	8.3	8.5	11.3	10.7	11.1	18.6	16.8	17.6	25.7	23.8	24.6
27	8.8	8.5	8.6	11.1	10.3	10.6	18.8	16.4	17.5	24.2	22.9	23.4
28	8.6	7.6	8.2	12.2	9.9	11.0	19.3	17.0	18.1	23.7	21.8	22.8
29	---	---	---	13.7	11.4	12.5	18.4	16.9	17.6	24.1	21.8	23.0
30	---	---	---	15.9	13.1	14.3	18.4	16.1	17.1	25.0	22.6	23.7
31	---	---	---	15.8	14.0	14.9	---	---	---	25.3	23.4	24.3

07178000 BIRD CREEK NEAR OWASSO, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	25.2	23.7	24.2	31.0	28.8	30.0	30.3	27.6	28.8	29.6	27.3	28.4
2	25.7	23.0	24.3	30.9	28.5	29.7	30.5	28.1	29.2	29.6	27.4	28.4
3	25.4	23.8	24.7	30.7	28.4	29.5	30.4	28.4	29.4	30.0	27.7	28.7
4	26.8	24.3	25.4	29.6	27.3	28.5	30.5	28.8	29.6	28.8	27.4	27.9
5	26.2	24.6	25.5	28.7	27.1	28.1	30.8	28.7	29.7	28.3	26.5	27.2
6	27.4	25.2	26.1	28.0	26.5	27.3	30.4	28.6	29.4	27.9	25.7	26.7
7	27.4	25.6	26.5	29.2	27.2	28.1	30.6	28.3	29.4	28.1	25.9	26.9
8	28.7	25.9	27.2	29.8	27.7	28.7	31.0	28.6	29.7	28.5	26.3	27.3
9	27.6	26.2	26.9	30.3	27.8	28.9	31.1	28.8	29.8	28.6	26.4	27.4
10	27.7	25.9	26.8	30.9	28.1	29.4	31.0	29.1	30.0	28.5	26.5	27.4
11	27.4	25.4	26.5	30.9	28.3	29.6	31.0	29.1	30.0	27.5	26.4	26.9
12	27.2	25.7	26.4	30.5	28.8	29.7	31.1	29.1	30.0	27.5	26.1	26.7
13	26.8	24.6	25.9	30.7	28.4	29.5	30.1	29.0	29.6	28.0	26.0	26.9
14	24.7	23.4	24.1	30.4	28.4	29.4	29.3	27.8	28.4	27.9	26.3	26.9
15	26.0	24.2	25.1	30.6	28.6	29.6	27.8	25.4	26.4	26.8	23.8	25.0
16	27.0	25.6	26.2	31.6	29.1	30.2	26.9	26.2	26.5	24.9	23.9	24.3
17	27.1	24.4	25.5	31.4	29.1	30.2	27.4	25.9	26.6	24.6	23.1	23.8
18	27.0	25.4	26.2	31.2	29.1	30.1	29.5	26.6	27.8	25.5	23.5	24.4
19	28.4	26.5	27.4	31.6	29.3	30.4	30.7	28.1	29.2	26.9	24.5	25.5
20	28.9	26.9	27.8	32.2	29.8	30.9	30.6	29.1	29.7	28.4	25.8	26.8
21	29.4	27.7	28.5	32.7	30.1	31.3	30.0	28.7	29.2	28.9	26.6	27.6
22	30.2	27.9	28.9	33.2	30.6	31.7	28.9	28.0	28.4	28.9	26.8	27.7
23	30.1	27.9	28.9	33.3	30.9	31.9	28.0	25.8	27.2	28.6	26.7	27.6
24	30.3	28.1	29.1	32.8	30.5	31.7	27.2	26.1	26.7	27.6	26.5	27.1
25	30.5	28.3	29.3	32.4	30.4	31.3	28.8	26.8	27.7	28.2	26.3	27.2
26	30.7	28.4	29.5	31.4	29.8	30.6	30.5	28.4	29.3	27.5	26.4	26.9
27	31.2	28.7	29.8	30.3	28.5	29.4	30.2	28.5	29.3	---	---	---
28	31.6	28.9	30.1	29.9	27.4	28.7	30.4	28.2	29.3	---	---	---
29	31.6	29.2	30.3	29.5	26.9	28.2	30.4	28.4	29.3	---	---	---
30	31.8	29.4	30.6	29.4	26.7	28.0	30.2	27.8	28.9	23.9	22.3	23.1
31	---	---	---	30.0	27.2	28.5	30.0	27.6	28.7	---	---	---

ARKANSAS RIVER BASIN

07178000 BIRD CREEK NEAR OWASSO, OK—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.4	7.5	7.9	8.4	7.5	7.9	11.5	11.1	11.3	13.2	11.6	12.5
2	8.8	7.8	8.2	8.5	8.1	8.3	11.6	11.4	11.5	12.6	11.1	11.8
3	8.9	8.0	8.3	9.7	8.4	9.1	12.2	11.4	11.9	11.6	10.1	11.0
4	9.2	8.0	8.5	9.7	9.5	9.6	12.5	12.1	12.2	11.9	9.8	10.8
5	9.3	8.3	8.7	9.7	9.4	9.6	12.2	12.0	12.2	12.3	10.8	11.8
6	9.1	8.4	8.7	9.6	9.4	9.5	12.0	11.4	11.8	---	---	---
7	9.0	8.2	8.5	9.5	9.4	9.4	---	---	---	---	---	---
8	8.5	6.3	6.8	9.6	9.4	9.5	---	---	---	---	---	---
9	7.1	6.4	6.8	9.7	9.6	9.7	10.9	10.6	10.7	---	---	---
10	8.1	7.0	7.7	9.6	9.5	9.5	10.8	10.6	10.7	---	---	---
11	8.9	8.0	8.5	10.2	9.2	9.5	11.0	10.8	10.9	13.8	13.5	13.6
12	9.1	8.4	8.7	10.3	9.7	10	11.0	10.9	10.9	13.8	13.7	13.8
13	---	---	---	10.7	10.3	10.6	11.3	10.9	11.1	---	---	---
14	---	---	---	10.6	10.5	10.6	11.7	11.3	11.5	---	---	---
15	---	---	---	10.6	10.5	10.5	11.7	11.6	11.7	---	---	---
16	8.2	7.8	8.0	10.5	10.2	10.3	11.8	11.6	11.7	---	---	---
17	8.2	7.8	7.9	10.2	10.1	10.1	12.5	11.8	12.2	---	---	---
18	8.4	7.8	8.0	10.1	9.8	9.9	12.5	12.2	12.3	---	---	---
19	8.9	7.8	8.2	9.8	9.7	9.7	12.5	12.1	12.3	---	---	---
20	8.6	7.9	8.2	10.0	9.7	9.8	12.3	12.0	12.1	---	---	---
21	---	---	---	10.1	10.0	10.0	12.5	11.9	12.2	---	---	---
22	7.8	7.3	7.5	10.4	10.1	10.2	12.6	12.1	12.3	---	---	---
23	7.8	7.2	7.4	10.1	9.9	10.1	13.0	12.4	12.7	---	---	---
24	8.0	7.2	7.5	11.1	9.9	10.1	13.5	12.6	13.0	---	---	---
25	7.8	7.0	7.6	11.1	10.4	10.6	13.6	12.9	13.3	---	---	---
26	7.6	6.9	7.2	10.8	10.6	10.8	14.3	13.3	13.8	---	---	---
27	7.7	6.3	6.8	10.6	10.5	10.5	14.6	14.0	14.2	---	---	---
28	7.2	7.0	7.2	10.8	10.5	10.7	14.5	13.5	14.1	---	---	---
29	7.2	7.0	7.1	10.8	10.7	10.8	14.4	13.2	13.9	---	---	---
30	7.1	7.0	7.0	11.1	10.8	10.9	14.0	12.6	13.5	---	---	---
31	7.6	6.9	7.4	---	---	---	13.3	12.2	12.8	---	---	---
FEBRUARY			MARCH			APRIL			MAY			
1	12.8	12.2	12.4	12.3	11.8	11.9	10.7	8.7	9.5	9.0	6.8	7.9
2	12.7	12.2	12.4	12.2	11.3	11.8	10.7	8.6	9.4	8.8	7.3	8.2
3	13.0	12.3	12.6	12.7	11.3	11.8	11.4	9.0	9.9	10.0	7.1	8.6
4	13.2	12.4	12.7	12.9	11.1	11.7	11.1	8.4	9.6	9.9	7.0	8.7
5	13.4	12.3	12.7	13.4	11.2	12.0	10.1	7.8	8.7	9.8	7.0	8.4
6	12.3	11.1	11.9	13.1	11.2	11.9	8.2	6.5	7.7	9.3	6.6	8.2
7	11.4	11.0	11.2	12.1	10.8	11.3	8.3	7.4	7.9	8.4	6.5	7.5
8	11.7	11.3	11.5	12.5	10.5	11.3	8.6	7.8	8.2	8.2	7.2	7.7
9	12.2	11.7	11.9	11.9	10.2	11.0	8.6	7.9	8.2	8.9	6.5	7.5
10	12.4	12.2	12.3	11.5	10.3	10.8	8.4	7.8	8.1	8.2	5.9	7.2
11	12.5	12.2	12.4	11.2	9.7	10.5	8.8	7.7	8.2	8.0	7.0	7.5
12	12.2	12.0	12.1	10.9	9.4	10.0	9.5	8.0	8.7	8.0	6.3	7.3
13	12.0	11.4	11.7	10.4	9.0	9.7	9.4	8.5	8.8	7.8	6.3	7.0
14	11.6	11.3	11.4	10.1	9.1	9.7	---	---	---	7.6	6.3	6.9
15	11.6	11.5	11.5	10.1	8.9	9.4	---	---	---	7.7	5.6	6.7
16	11.9	11.5	11.7	10.8	8.8	9.7	9.5	7.8	8.5	8.7	6.2	7.4
17	12.2	11.9	12.1	10.5	8.9	9.8	9.7	7.6	8.4	8.7	6.0	7.4
18	12.1	11.7	12.0	11.1	9.0	9.8	9.2	7.6	8.2	8.3	6.3	7.4
19	12.0	11.5	11.8	10.7	9.2	9.8	8.8	7.3	7.9	7.5	6.1	6.8
20	12.0	11.0	11.4	10.6	9.3	9.9	8.7	7.0	7.8	7.1	4.4	6.1
21	11.8	10.6	11.1	10.8	9.0	9.5	8.7	7.0	7.7	5.6	4.7	5.1
22	11.4	10.4	10.8	9.6	8.9	9.1	8.9	7.0	7.8	6.2	4.7	5.5
23	10.8	10.4	10.5	10.8	8.8	9.8	9.5	7.1	8.1	6.2	4.9	5.5
24	11.2	10.5	11.0	11.0	9.1	9.9	9.3	7.2	8.1	6.2	4.5	5.3
25	11.8	11.2	11.5	10.0	8.8	9.5	8.8	7.1	7.7	6.6	5.0	5.7
26	11.8	11.6	11.7	10.1	8.9	9.4	---	---	---	7.4	5.3	6.2
27	11.7	11.6	11.7	10.7	9.2	9.7	---	---	---	7.0	5.6	6.3
28	11.8	11.5	11.7	11.0	9.2	10.2	---	---	---	7.3	5.8	6.5
29	---	---	---	11.4	9.4	10.3	---	---	---	7.9	5.6	6.7
30	---	---	---	11.0	9.1	10.1	9.5	7.5	8.2	8.1	6.2	7.1
31	---	---	---	10.8	8.8	9.6	---	---	---	7.8	6.5	7.1

07178000 BIRD CREEK NEAR OWASSO, OK—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.8	6.4	7.1	7.5	6.2	6.7	7.5	4.8	6.2	---	---	---
2	8.4	4.7	7.2	7.6	6.2	6.7	6.9	4.1	5.5	---	---	---
3	6.2	4.1	5.5	7.8	6.2	6.8	7.4	4.9	6.0	---	---	---
4	7.5	5.3	6.4	7.2	6.6	6.9	8.1	6.1	7.2	---	---	---
5	8.6	6.7	7.6	7.0	5.1	6.6	8.4	6.6	7.4	---	---	---
6	8.8	7.1	7.9	6.7	6.4	6.5	8.6	6.7	7.5	---	---	---
7	---	---	---	6.7	6.1	6.4	8.7	6.8	7.6	---	---	---
8	---	---	---	6.3	5.9	6.1	8.5	6.7	7.5	7.7	6.4	6.9
9	---	---	---	6.6	6.0	6.2	8.2	6.7	7.3	8.0	6.4	7.1
10	7.3	6.2	6.7	7.0	6.0	6.4	7.6	6.3	6.9	8.0	6.5	7.1
11	7.1	6.1	6.5	7.3	6.2	6.6	7.2	5.5	6.3	7.1	6.4	6.8
12	6.6	6.0	6.4	7.3	6.4	6.8	7.8	5.2	6.4	7.5	6.2	6.7
13	---	---	---	8.0	6.4	7.0	7.4	5.5	6.4	7.7	6.3	6.9
14	---	---	---	7.7	6.5	7.0	6.5	5.6	6.1	7.5	6.4	6.8
15	---	---	---	7.9	6.2	7.0	6.6	4.7	6.1	6.7	5.3	6.3
16	6.7	6.2	6.5	8.2	6.4	7.2	6.4	4.5	5.6	6.6	5.9	6.4
17	6.7	5.8	6.2	8.0	6.3	7.0	5.2	3.8	4.6	6.4	5.9	6.1
18	6.3	5.8	6.1	7.7	5.2	6.4	6.1	3.9	5.1	6.9	5.9	6.3
19	6.3	6.1	6.2	8.1	6.2	7.0	7.2	5.2	6.3	7.5	6.5	6.8
20	6.2	5.9	6.1	8.2	6.2	7.1	6.5	5.8	6.1	7.6	6.4	6.8
21	6.5	5.8	6.1	8.3	6.3	7.2	6.4	4.9	5.9	7.5	6.3	6.7
22	6.3	5.8	6.0	8.3	6.3	7.2	6.3	4.6	5.5	7.5	6.3	6.7
23	6.3	5.6	5.9	8.1	6.2	7.0	6.4	5.7	6.0	7.8	6.4	6.9
24	6.9	5.9	6.3	8.0	6.0	6.8	6.4	5.0	5.5	7.6	6.5	7.0
25	6.9	6.1	6.4	7.6	4.9	6.2	---	---	---	7.9	6.5	7.1
26	7.0	6.0	6.4	7.6	5.6	6.5	---	---	---	7.3	6.6	6.9
27	7.1	6.0	6.4	8.0	6.0	6.9	---	---	---	---	---	---
28	7.4	6.0	6.5	8.4	6.2	7.1	---	---	---	---	---	---
29	7.5	6.1	6.6	8.2	6.4	7.2	---	---	---	---	---	---
30	7.6	6.1	6.7	8.0	6.4	7.0	---	---	---	7.9	6.7	7.2
31	---	---	---	7.9	5.8	6.7	---	---	---	---	---	---

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK

LOCATION.--Lat 36°13'23", long 95°49'09", in SE ¼ SE ¼ sec.9, T.20 N., R.14 E., Tulsa County, Hydrologic Unit 11070107, near left downstream abutment of bridge, 2.3 mi downstream from Elm Creek, 5 mi northwest of Catoosa High School, and at mile 9.5.

DRAINAGE AREA.--1,103 mi²

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 545.00 ft above NGVD of 1929.

REMARKS.--Records fair except for estimated periods which are poor. Flow slightly regulated since 1958 by Bluestem Lake (capacity 17,000 acre-ft) and since March 1977 by Birch Lake (capacity 19,200 acre-ft). Flow regulated since August 20, 1989 by Skiatook Lake (capacity 322,300 acre-ft) when conservation pool was first reached. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	1,550	e840	191	500	803	528	207	278	274	201	238
2	199	3,660	536	194	659	548	360	207	227	284	204	237
3	190	2,470	393	346	614	361	352	199	211	261	210	233
4	199	3,250	359	2,610	492	321	318	191	204	690	216	366
5	195	2,240	442	10,300	428	292	736	185	197	1,140	264	304
6	193	1,720	785	12,700	934	271	1,490	184	202	618	216	252
7	636	1,520	4,790	3,190	2,450	260	2,980	195	247	319	218	244
8	2,360	1,410	2,950	2,980	1,840	251	1,240	231	231	249	211	236
9	395	1,370	e2,090	2,970	2,750	241	702	274	223	277	206	230
10	410	1,350	e1,870	2,860	2,130	381	508	239	519	241	204	225
11	3,720	1,660	e1,690	2,730	2,010	346	417	229	328	222	207	220
12	2,160	e2,660	e1,630	2,900	1,810	206	573	217	334	227	218	220
13	953	1,400	e1,540	3,230	2,190	170	420	227	2,440	235	216	219
14	446	1,260	e1,510	2,780	2,160	151	464	536	3,400	220	816	484
15	267	1,110	e1,390	1,630	1,830	139	442	281	906	212	1,560	1,780
16	203	1,040	514	1,350	1,650	141	407	225	1,040	265	604	588
17	202	1,010	e371	1,280	1,510	127	297	206	3,520	252	332	357
18	185	1,070	254	1,240	864	118	257	201	1,110	215	277	294
19	166	999	e207	1,220	479	110	249	615	572	207	252	277
20	158	999	204	1,220	322	123	241	571	404	204	378	265
21	148	1,110	e175	1,170	345	276	234	574	359	198	450	252
22	153	1,240	e150	1,010	302	260	223	366	330	207	387	241
23	284	1,270	e140	973	593	1,240	211	342	334	212	1,020	233
24	341	e1,960	e130	955	1,800	1,070	207	283	320	290	809	225
25	329	e2,300	e135	916	1,630	857	206	250	299	229	390	216
26	638	1,420	e140	359	1,570	553	306	227	287	217	314	213
27	2,210	1,110	132	245	1,450	421	219	211	275	218	696	214
28	1,170	e1,010	138	273	1,390	346	216	221	258	222	328	211
29	687	e1,180	145	402	---	302	227	235	249	216	283	206
30	790	e953	196	367	---	269	218	230	244	216	255	217
31	522	---	197	423	---	242	---	230	---	203	242	---
TOTAL	20,700	47,301	26,043	65,014	36,702	11,196	15,248	8,589	19,548	9,040	12,184	9,497
MEAN	668	1,577	840	2,097	1,311	361	508	277	652	292	393	317
MAX	3,720	3,660	4,790	12,700	2,750	1,240	2,980	615	3,520	1,140	1,560	1,780
MIN	148	953	130	191	302	110	206	184	197	198	201	206
AC-FT	41,060	93,820	51,660	129,000	72,800	22,210	30,240	17,040	38,770	17,930	24,170	18,840

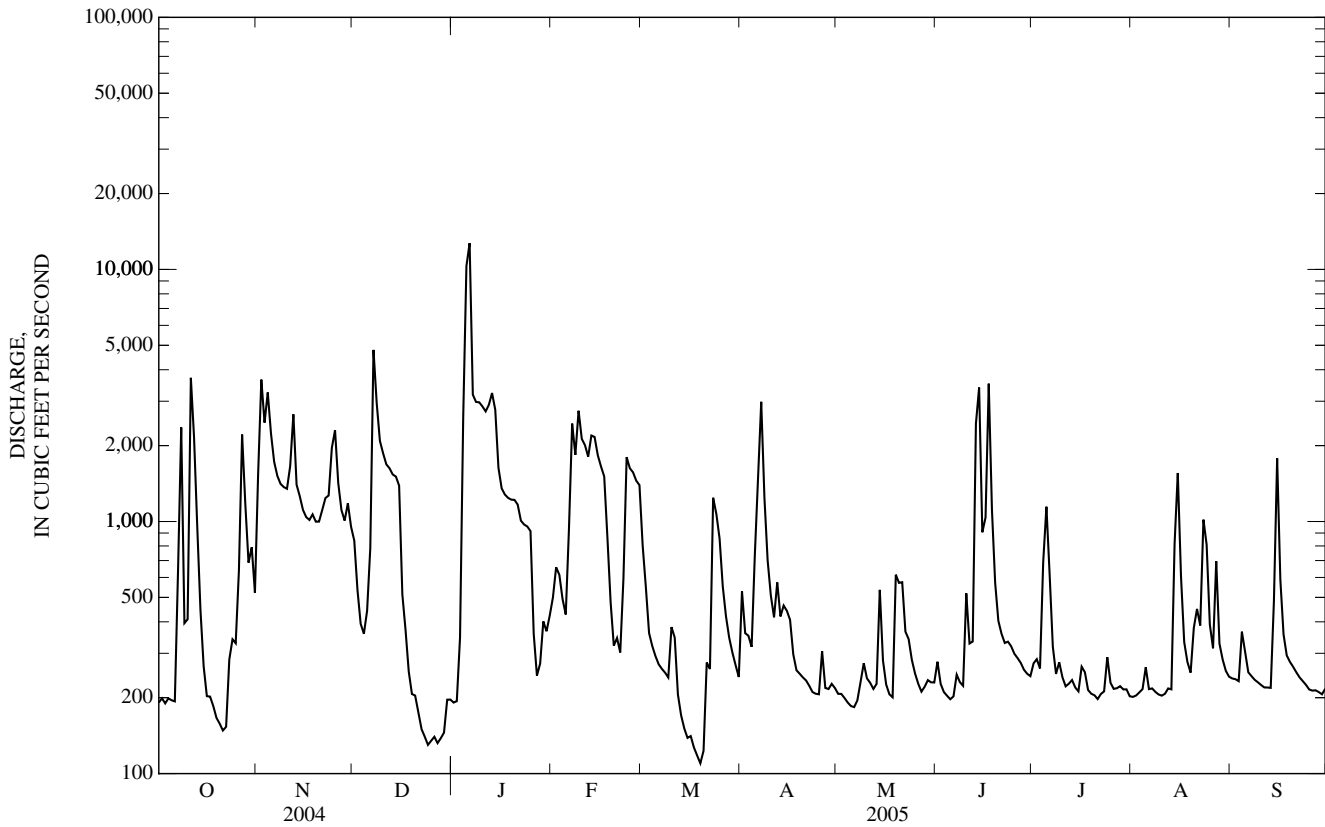
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2005, BY WATER YEAR (WY)

MEAN	485	723	644	770	840	1,714	1,544	2,033	1,647	862	504	515
MAX	2,329	2,603	1,854	2,881	2,213	6,393	3,646	5,724	5,658	3,195	1,735	1,758
(WY)	(1999)	(1995)	(1993)	(1998)	(1999)	(1990)	(1994)	(1995)	(1995)	(1995)	(1989)	(1989)
MIN	168	109	152	131	109	149	288	228	298	212	208	216
(WY)	(1993)	(1996)	(1990)	(2003)	(1996)	(1996)	(1996)	(1996)	(1998)	(2001)	(1991)	(2004)

e Estimated

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1989 - 2005	
ANNUAL TOTAL	444,808		281,062		1,024	
ANNUAL MEAN	1,215		770		2,127	
HIGHEST ANNUAL MEAN					278	
LOWEST ANNUAL MEAN					25,900	
HIGHEST DAILY MEAN	17,600	Mar 6	12,700	Jan 6	62	May 11, 1993
LOWEST DAILY MEAN	130	Dec 24	110	Mar 19	73	Nov 6, 1993
ANNUAL SEVEN-DAY MINIMUM	137	Dec 23	130	Mar 14	27,400	Oct 22, 1992
MAXIMUM PEAK FLOW			14,100	Jan 6	33.22	May 11, 1993
MAXIMUM PEAK STAGE			21.33	Jan 6	62	Nov 6, 1993
INSTANTANEOUS LOW FLOW					741,700	
ANNUAL RUNOFF (AC-FT)	882,300		557,500		2,750	
10 PERCENT EXCEEDS	2,560		1,850		299	
50 PERCENT EXCEEDS	588		322		143	
90 PERCENT EXCEEDS	196		199			



07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--AUGUST 1988 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1988 to current year.

pH: August 1988 to current year.

WATER TEMPERATURE: August 1988 to current year.

DISSOLVED OXYGEN: August 1988 to current year.

INSTRUMENTATION.--Water-quality monitor since August 1988.

REMARKS.--Interruptions in record were due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,420 microsiemens, Apr. 2, 1996; minimum, 48 microsiemens, June 1, 1996.

pH: Maximum, 9.4 units, July 17, 1989; minimum, 6.0 units, May 12, 1991.

WATER TEMPERATURE: Maximum, 32.0°C, several days during summer periods; minimum, 1.5°C, Dec. 23, 1989, Jan. 20, 1993, Feb. 4, 1996.

DISSOLVED OXYGEN: Maximum, 15.2 mg/l, Jan. 10, 1999; minimum, 1.9 mg/l, July 24, 1996.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 658 microsiemens, Mar. 21; minimum, 113 microsiemens, Oct. 7, 8.

pH: Maximum, 8.6 units, Apr. 11, 12; minimum, 7.3 units, Oct. 27.

WATER TEMPERATURE: Maximum, 31.7°C, July 22, 23; minimum, 2.2°C, Jan. 8.

DISSOLVED OXYGEN: Maximum, 13.5 mg/L, Dec. 26, 27; minimum, 4.7 mg/L, Aug. 20, 21.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	374	347	365	426	313	360	381	330	369	580	556	573
2	371	355	366	398	253	294	426	378	401	625	567	595
3	378	345	366	363	277	298	454	426	440	622	543	591
4	372	348	364	290	249	270	470	446	456	543	246	416
5	369	346	362	313	195	274	551	455	480	435	177	249
6	372	350	364	320	307	313	520	331	457	210	162	180
7	374	113	356	320	308	314	363	236	292	265	200	237
8	271	113	206	314	305	310	281	235	263	286	247	271
9	356	271	320	314	306	311	304	264	287	289	284	286
10	388	351	368	329	307	313	330	304	317	288	281	285
11	409	188	263	443	262	328	330	322	326	290	281	285
12	305	224	266	357	234	287	353	327	338	387	285	299
13	319	249	300	295	252	274	353	328	340	304	287	299
14	436	319	380	334	285	307	328	306	322	308	291	297
15	424	406	416	336	324	329	328	309	319	332	308	320
16	445	422	435	331	312	323	394	328	360	330	316	323
17	443	418	434	329	318	324	414	394	404	335	318	325
18	456	421	445	374	323	340	450	414	427	335	325	331
19	466	438	458	338	327	333	464	449	458	339	327	332
20	497	452	484	331	321	326	488	462	479	337	324	331
21	494	471	487	408	314	341	505	485	495	338	322	331
22	494	466	485	353	331	342	526	495	517	340	326	333
23	499	455	480	409	350	363	---	---	---	340	323	331
24	455	424	443	382	213	335	---	---	---	338	327	333
25	424	400	410	354	211	321	---	---	---	340	330	336
26	533	307	396	360	345	350	---	---	---	428	340	378
27	352	200	263	345	334	340	---	---	---	455	426	439
28	310	227	275	352	335	342	---	---	---	499	455	474
29	323	278	295	446	315	350	---	---	---	580	499	547
30	395	314	345	373	331	356	564	528	547	573	520	535
31	446	365	386	---	---	---	556	532	549	608	557	578

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	578	560	568	381	325	353	566	406	494	499	466	486
2	569	542	561	434	381	407	555	452	492	491	463	481
3	542	521	531	466	434	445	550	482	507	489	468	482
4	530	521	526	489	465	474	551	528	543	495	471	487
5	535	530	533	509	485	493	528	266	490	495	471	488
6	583	422	510	522	499	511	447	276	369	---	---	---
7	519	376	445	532	513	525	376	307	343	---	---	---
8	425	377	401	546	523	536	374	351	357	---	---	---
9	436	324	375	562	534	546	401	369	381	---	---	---
10	324	278	297	570	556	564	437	397	415	---	---	---
11	313	294	305	569	542	558	472	437	451	---	---	---
12	317	309	313	572	561	567	472	433	452	461	432	452
13	365	315	340	593	565	581	486	450	470	454	426	445
14	323	304	311	587	568	582	483	450	464	512	302	388
15	314	296	305	614	582	603	468	450	459	416	391	407
16	316	303	310	650	610	634	458	433	443	466	414	425
17	321	309	314	649	610	635	476	455	462	481	434	460
18	378	321	344	621	607	615	489	461	477	463	433	453
19	427	378	396	630	604	619	473	445	465	447	265	370
20	465	427	442	637	617	629	486	460	473	392	306	362
21	518	465	487	658	608	629	492	468	485	476	387	431
22	509	489	502	608	530	549	496	476	489	475	438	456
23	530	427	488	627	449	532	498	483	493	449	405	427
24	476	382	417	502	443	487	505	484	496	440	408	417
25	424	325	381	534	487	512	509	473	496	457	434	449
26	327	313	318	535	516	526	534	486	501	456	432	448
27	325	310	316	536	528	533	486	448	468	456	428	444
28	328	316	321	536	513	525	484	444	465	450	427	442
29	---	---	---	523	508	517	500	469	484	445	412	430
30	---	---	---	533	516	525	491	469	482	431	400	418
31	---	---	---	537	521	532	---	---	---	420	392	410
	JUNE			JULY			AUGUST			SEPTEMBER		
1	444	398	418	402	375	393	385	364	374	409	386	399
2	444	387	408	415	382	399	395	371	380	407	381	398
3	426	398	412	405	374	392	414	392	406	407	384	398
4	428	405	420	482	241	321	418	396	407	431	358	390
5	429	405	421	335	278	306	419	401	408	417	356	372
6	426	396	413	310	276	291	417	387	405	402	367	378
7	416	386	405	374	306	339	411	381	398	406	389	399
8	410	389	403	391	369	379	392	372	380	410	392	403
9	433	406	421	373	331	349	405	385	397	409	392	403
10	433	243	356	401	335	354	404	385	397	408	385	401
11	403	309	370	414	354	380	405	384	398	408	382	399
12	407	356	393	380	364	372	405	378	395	395	365	381
13	---	---	---	392	370	380	408	378	394	400	383	394
14	---	---	---	394	375	386	398	191	304	487	253	338
15	---	---	---	398	374	388	295	165	221	350	202	252
16	---	---	---	401	384	392	345	227	312	374	249	328
17	---	---	---	404	372	387	350	322	337	387	361	372
18	---	---	---	399	363	385	367	332	348	389	362	377
19	---	---	---	384	364	374	396	367	385	397	367	386
20	---	---	---	396	379	388	398	326	390	402	384	395
21	---	---	---	396	374	388	350	237	299	408	388	401
22	---	---	---	401	373	388	373	345	356	410	387	401
23	417	389	400	390	360	380	360	248	320	409	390	402
24	390	353	377	386	365	377	328	262	310	409	388	402
25	390	359	375	399	362	376	369	322	345	411	383	400
26	387	366	378	399	359	372	367	343	358	404	382	392
27	393	366	383	386	366	376	384	227	311	408	388	402
28	392	370	383	385	362	374	373	353	364	410	388	403
29	397	373	389	386	373	380	396	369	378	410	387	402
30	402	381	394	388	360	377	401	381	394	410	378	399
31	---	---	---	386	360	375	410	385	400	---	---	---

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.7	7.6	7.6	7.7	7.7	7.7	8.1	8.0	8.0	8.1	8.1	8.1
2	7.8	7.7	7.7	7.8	7.6	7.7	8.1	8.0	8.0	8.1	8.0	8.1
3	7.8	7.6	7.7	7.8	7.6	7.7	8.1	8.0	8.0	8.1	8.0	8.0
4	7.8	7.6	7.7	7.8	7.6	7.7	8.1	8.0	8.1	8.2	8.0	8.1
5	7.8	7.6	7.8	7.8	7.7	7.7	8.2	8.1	8.1	---	---	---
6	7.8	7.6	7.6	7.8	7.7	7.8	8.1	8.0	8.0	---	---	---
7	8.2	7.6	7.6	7.8	7.8	7.8	8.0	7.7	7.8	---	---	---
8	8.2	7.4	7.5	7.8	7.8	7.8	7.9	7.8	7.8	---	---	---
9	7.5	7.4	7.4	7.8	7.8	7.8	8.0	7.8	7.9	---	---	---
10	7.6	7.5	7.5	7.9	7.8	7.8	8.0	7.9	8.0	---	---	---
11	7.7	7.5	7.6	8.0	7.8	7.9	8.0	8.0	8.0	---	---	---
12	7.5	7.4	7.4	7.9	7.7	7.8	8.0	8.0	8.0	---	---	---
13	7.7	7.5	7.6	7.9	7.8	7.8	8.1	8.0	8.0	---	---	---
14	7.9	7.7	7.7	8.0	7.9	7.9	8.1	8.0	8.0	7.9	7.9	7.9
15	7.9	7.8	7.8	8.0	8.0	8.0	8.1	8.0	8.0	7.9	7.8	7.9
16	7.8	7.7	7.8	8.0	7.9	7.9	8.0	8.0	8.0	8.1	7.8	7.9
17	7.9	7.7	7.8	8.0	7.9	7.9	8.0	8.0	8.0	---	---	---
18	7.8	7.5	7.7	8.0	7.9	7.9	8.0	8.0	8.0	---	---	---
19	7.8	7.7	7.8	7.9	7.9	7.9	8.1	8.0	8.0	---	---	---
20	7.8	7.7	7.8	7.9	7.9	7.9	8.0	7.9	8.0	---	---	---
21	7.8	7.4	7.7	8.0	7.9	7.9	8.0	8.0	8.0	---	---	---
22	7.6	7.5	7.6	8.0	7.9	8.0	8.1	8.0	8.1	---	---	---
23	7.7	7.6	7.7	8.0	8.0	8.0	8.1	8.0	8.0	---	---	---
24	7.8	7.7	7.7	8.0	7.9	8.0	8.1	8.0	8.0	---	---	---
25	7.7	7.7	7.7	8.0	7.9	8.0	---	---	---	8.2	7.9	8.0
26	7.7	7.5	7.7	8.0	8.0	8.0	---	---	---	7.9	7.8	7.8
27	7.6	7.3	7.4	8.0	8.0	8.0	---	---	---	7.8	7.6	7.7
28	7.5	7.4	7.5	8.0	8.0	8.0	---	---	---	7.7	7.6	7.6
29	7.5	7.5	7.5	8.1	8.0	8.0	---	---	---	7.8	7.6	7.6
30	7.6	7.5	7.6	8.0	7.9	8.0	8.1	7.7	8.0	7.6	7.5	7.6
31	7.7	7.6	7.6	---	---	---	8.1	8.0	8.0	7.9	7.5	7.6
FEBRUARY			MARCH			APRIL			MAY			
1	7.9	7.9	7.9	7.9	7.7	7.7	8.3	7.9	8.1	7.7	7.6	7.7
2	8.0	7.9	7.9	8.0	7.7	7.8	8.1	7.9	8.0	7.7	7.6	7.7
3	8.0	7.9	7.9	8.0	7.7	7.8	8.3	7.9	8.0	7.7	7.7	7.7
4	8.0	7.9	7.9	8.0	7.7	7.8	8.4	7.9	8.1	7.7	7.6	7.7
5	8.0	7.9	7.9	8.0	7.7	7.8	8.4	7.7	8.0	7.7	7.6	7.7
6	8.0	7.8	7.9	8.1	7.7	7.9	7.8	7.6	7.7	7.7	7.6	7.6
7	7.9	7.7	7.8	8.0	7.7	7.8	7.8	7.6	7.7	7.6	7.6	7.6
8	7.8	7.7	7.8	8.0	7.8	7.9	8.2	7.8	8.0	7.6	7.5	7.6
9	7.9	7.7	7.8	8.0	7.8	7.9	8.5	8.2	8.3	7.9	7.6	7.8
10	7.7	7.7	7.7	8.2	7.9	8.0	8.5	8.4	8.5	---	---	---
11	7.8	7.7	7.8	8.2	7.9	8.1	8.6	8.4	8.5	---	---	---
12	7.8	7.8	7.8	8.2	7.9	8.0	8.6	8.5	8.5	7.8	7.7	7.7
13	7.8	7.7	7.8	8.1	7.9	8.0	8.5	7.9	7.9	7.7	7.7	7.7
14	7.8	7.7	7.8	8.1	7.9	8.0	7.9	7.7	7.8	7.7	7.5	7.7
15	7.8	7.8	7.8	8.0	7.8	7.9	8.0	7.5	7.7	7.7	7.6	7.6
16	7.8	7.7	7.8	7.9	7.8	7.8	7.9	7.6	7.7	7.8	7.7	7.7
17	7.8	7.7	7.7	7.9	7.9	7.9	7.9	7.5	7.6	7.8	7.8	7.8
18	7.7	7.7	7.7	7.9	7.8	7.9	7.8	7.5	7.6	7.8	7.8	7.8
19	7.7	7.7	7.7	8.0	7.8	8.0	7.7	7.5	7.5	7.8	7.6	7.7
20	7.8	7.6	7.7	8.0	7.9	7.9	7.6	7.5	7.6	7.7	7.5	7.6
21	7.9	7.6	7.7	8.0	7.8	7.9	7.7	7.5	7.6	7.8	7.7	7.7
22	7.9	7.7	7.7	7.9	7.7	7.8	7.7	7.6	7.6	7.8	7.7	7.7
23	7.8	7.6	7.7	8.1	7.8	7.9	7.8	7.7	7.7	7.8	7.7	7.7
24	7.8	7.7	7.7	8.3	7.9	8.0	7.9	7.8	7.8	7.7	7.6	7.6
25	7.8	7.7	7.7	8.3	8.3	8.3	7.8	7.7	7.7	7.7	7.6	7.6
26	7.7	7.7	7.7	8.3	8.2	8.3	7.7	7.6	7.7	7.7	7.6	7.7
27	7.7	7.7	7.7	8.3	8.2	8.2	7.7	7.6	7.6	7.7	7.6	7.7
28	7.8	7.7	7.7	8.2	8.1	8.2	7.6	7.5	7.6	7.7	7.7	7.7
29	---	---	---	8.2	8.1	8.1	7.7	7.6	7.6	7.7	7.7	7.7
30	---	---	---	8.2	8.1	8.1	7.7	7.6	7.6	7.8	7.7	7.7
31	---	---	---	8.3	8.1	8.1	---	---	---	7.7	7.7	7.7

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.7	7.6	7.7	7.7	7.6	7.7	7.9	7.7	7.8	7.6	7.6	7.6
2	7.7	7.6	7.7	7.7	7.6	7.7	7.8	7.7	7.8	7.6	7.6	7.6
3	7.7	7.6	7.7	7.7	7.7	7.7	7.8	7.7	7.8	7.6	7.6	7.6
4	7.8	7.7	7.7	7.8	7.5	7.7	7.7	7.6	7.7	7.6	7.5	7.5
5	7.8	7.7	7.7	7.7	7.5	7.6	7.8	7.6	7.7	7.6	7.5	7.5
6	7.8	7.7	7.7	7.6	7.5	7.6	7.9	7.7	7.8	7.6	7.5	7.5
7	7.8	7.7	7.8	7.6	7.5	7.6	7.8	7.7	7.8	7.6	7.5	7.6
8	7.9	7.6	7.8	7.6	7.6	7.6	7.8	7.7	7.8	7.7	7.6	7.6
9	7.9	7.7	7.8	7.6	7.5	7.6	7.8	7.7	7.7	7.7	7.6	7.6
10	7.9	7.6	7.8	7.6	7.5	7.6	7.8	7.7	7.7	7.7	7.6	7.6
11	7.7	7.7	7.7	7.6	7.6	7.6	7.8	7.7	7.7	7.7	7.6	7.6
12	7.8	7.7	7.7	7.6	7.6	7.6	7.8	7.7	7.8	7.6	7.5	7.6
13	---	---	---	7.6	7.6	7.6	7.8	7.6	7.7	7.8	7.6	7.6
14	---	---	---	7.7	7.6	7.7	7.9	7.6	7.7	7.8	7.5	7.6
15	---	---	---	7.8	7.7	7.7	7.9	7.5	7.7	7.9	7.5	7.7
16	---	---	---	7.9	7.6	7.8	7.6	7.5	7.6	7.5	7.5	7.5
17	---	---	---	7.8	7.7	7.8	7.5	7.4	7.5	7.5	7.4	7.4
18	---	---	---	7.8	7.7	7.7	7.5	7.4	7.5	7.5	7.4	7.4
19	---	---	---	7.8	7.6	7.7	7.6	7.5	7.5	7.5	7.4	7.5
20	---	---	---	7.8	7.7	7.7	7.6	7.5	7.6	7.5	7.5	7.5
21	---	---	---	7.8	7.7	7.7	7.6	7.4	7.5	7.6	7.5	7.5
22	---	---	---	7.8	7.6	7.7	7.5	7.5	7.5	7.5	7.5	7.5
23	7.7	7.6	7.6	7.8	7.6	7.7	7.6	7.5	7.5	7.5	7.4	7.5
24	7.7	7.6	7.6	7.8	7.6	7.7	7.5	7.4	7.4	7.5	7.5	7.5
25	7.7	7.6	7.6	7.7	7.6	7.7	7.4	7.3	7.4	7.5	7.5	7.5
26	7.7	7.6	7.6	7.7	7.6	7.7	7.5	7.4	7.4	7.5	7.4	7.5
27	7.7	7.6	7.6	7.8	7.7	7.7	7.6	7.4	7.5	7.6	7.5	7.5
28	7.7	7.6	7.6	7.9	7.7	7.8	7.5	7.4	7.5	7.5	7.4	7.5
29	7.7	7.6	7.6	7.8	7.7	7.8	7.6	7.5	7.5	7.8	7.5	7.5
30	7.7	7.6	7.7	7.9	7.7	7.8	7.6	7.5	7.6	7.8	7.8	7.8
31	---	---	---	7.9	7.7	7.8	7.6	7.6	7.6	---	---	---

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	22.8	22.4	22.7	18.8	17.9	18.3	9.7	8.8	9.2	11.1	9.6	10.7
2	22.4	20.3	21.4	17.9	15.5	16.2	9.5	8.7	9.1	11.9	10.9	11.6
3	20.4	19.9	20.3	15.5	13.1	14.3	9.3	8.3	8.7	12.1	11.3	11.8
4	21.0	20.4	20.8	13.4	12.6	13.1	8.5	7.3	7.8	11.3	7.2	9.2
5	20.8	20.1	20.4	14.6	12.9	13.8	8.6	7.7	8.1	8.1	5.0	6.2
6	20.3	19.8	20.0	15.4	14.3	14.8	10.9	8.6	9.0	5.0	2.8	3.7
7	21.5	20.0	20.6	16.0	15.1	15.4	10.9	8.8	9.5	2.8	2.4	2.6
8	21.8	19.9	20.9	15.9	15.2	15.5	9.1	8.5	8.8	5.4	2.2	4.2
9	21.8	21.2	21.4	15.8	15.3	15.5	10.2	8.4	9.3	6.6	5.3	5.9
10	21.6	20.8	21.1	15.7	15.2	15.4	10.1	9.7	9.9	7.3	6.5	6.9
11	20.8	17.2	18.4	15.4	13.1	14.3	9.8	9.3	9.5	7.3	6.9	7.1
12	17.4	16.2	16.8	13.1	11.6	12.2	10.0	9.3	9.6	9.1	6.8	7.3
13	17.7	16.3	17.0	11.6	11.1	11.4	9.6	8.8	9.3	9.0	6.8	7.5
14	17.4	16.6	16.8	12.4	11.5	12.2	8.8	7.9	8.4	6.8	6.1	6.4
15	16.7	15.8	16.3	13.3	12.4	12.8	8.0	7.4	7.7	6.1	4.8	5.4
16	17.2	16.6	16.9	14.3	13.3	13.8	8.5	7.5	7.9	4.9	4.2	4.5
17	16.9	16.5	16.7	15.2	14.2	14.7	8.4	6.9	7.4	4.5	3.9	4.1
18	18.3	16.7	17.8	15.6	14.9	15.2	7.3	6.5	6.8	4.8	3.9	4.3
19	18.5	17.5	18.2	15.4	15.1	15.3	7.4	5.8	6.7	5.7	4.5	5.0
20	18.3	17.5	17.8	15.1	14.4	14.7	6.6	6.0	6.2	6.5	5.4	5.8
21	19.0	17.7	18.3	14.4	13.1	13.8	7.3	6.5	7.0	7.1	6.0	6.4
22	20.1	18.6	19.5	13.1	13.0	13.1	7.0	4.7	6.1	6.9	5.9	6.5
23	20.1	19.6	19.8	13.4	12.9	13.1	4.7	3.4	4.2	5.9	4.8	5.2
24	19.6	18.4	18.9	13.3	11.2	12.5	3.8	3.0	3.6	6.1	4.5	5.2
25	19.6	18.9	19.2	11.2	10.4	10.7	4.2	3.0	3.7	7.2	5.5	6.3
26	19.9	19.4	19.7	11.3	10.3	10.7	4.5	3.2	4.0	8.0	6.7	7.1
27	19.8	19.2	19.4	12.1	11.3	11.7	5.2	3.8	4.7	8.0	7.3	7.6
28	20.9	19.7	20.4	11.5	10.9	11.1	6.1	4.4	5.4	7.8	6.9	7.5
29	21.3	20.5	20.8	10.9	9.8	10.4	7.2	5.5	6.5	6.9	5.7	6.0
30	21.3	19.8	20.3	10.0	9.4	9.8	8.7	6.8	8.1	6.3	5.6	5.9
31	20.0	18.7	19.2	---	---	---	9.8	8.7	9.5	6.2	5.7	6.0
FEBRUARY			MARCH			APRIL			MAY			
1	6.0	5.5	5.8	9.3	7.7	8.4	15.5	14.3	15.0	17.8	16.6	17.1
2	5.9	5.4	5.7	10.3	8.2	9.0	15.9	14.1	14.9	16.8	16.2	16.6
3	6.5	4.9	5.6	11.2	9.3	10.0	17.3	15.0	15.9	16.7	15.8	16.3
4	6.9	5.4	6.1	12.7	10.3	11.3	18.3	16.0	17.0	17.1	16.4	16.8
5	7.9	6.3	6.9	12.9	11.6	12.2	18.5	15.4	17.7	17.5	17.1	17.3
6	8.4	7.4	7.9	13.5	12.2	12.7	17.1	15.8	16.4	---	---	---
7	8.3	7.6	7.9	13.8	13.1	13.5	16.1	15.4	15.8	---	---	---
8	7.6	6.8	7.2	13.2	12.3	12.7	17.2	15.6	16.3	---	---	---
9	6.9	5.4	5.9	13.3	12.1	12.8	18.5	16.2	17.1	---	---	---
10	6.0	4.7	5.4	13.0	11.4	12.1	18.3	17.4	17.7	---	---	---
11	6.5	5.6	6.1	12.9	11.4	12.2	18.9	17.4	18.0	---	---	---
12	7.2	6.4	6.8	13.7	12.4	13.0	18.8	17.0	18.0	24.0	23.2	23.6
13	9.1	7.2	8.3	14.0	12.2	13.5	18.4	16.8	17.3	23.8	23.3	23.6
14	9.5	8.7	9.1	12.9	12.1	12.4	18.3	16.3	17.3	23.7	21.8	22.9
15	9.9	9.1	9.4	13.2	12.1	12.8	19.0	16.5	17.7	23.6	21.7	22.3
16	9.4	8.1	8.8	12.7	11.8	12.2	19.6	17.5	18.5	22.2	21.1	21.7
17	8.4	7.5	8.0	13.0	11.7	12.2	20.1	18.5	19.2	22.7	21.9	22.3
18	9.2	7.5	8.3	13.9	12.1	13.0	20.2	19.3	19.7	23.0	22.3	22.6
19	9.4	8.8	9.0	14.6	13.1	13.7	19.9	19.4	19.6	23.9	22.8	23.3
20	12.4	9.4	10.7	14.7	13.3	13.9	20.6	19.7	20.1	26.1	23.4	24.5
21	12.6	11.4	12.0	14.4	13.5	14.1	21.2	20.3	20.7	27.8	24.7	26.1
22	12.6	11.8	12.1	13.8	13.2	13.6	21.2	19.9	20.5	27.8	25.6	26.7
23	12.2	10.3	11.3	13.2	11.3	12.3	19.9	18.8	19.2	27.8	26.2	27.1
24	10.3	9.2	9.8	12.1	11.1	11.5	19.0	18.2	18.6	27.4	25.7	26.3
25	9.9	8.7	9.1	12.1	11.2	11.7	18.9	17.9	18.4	26.0	24.8	25.4
26	9.5	8.7	9.1	11.8	11.1	11.4	17.9	16.8	17.5	25.9	23.9	25.0
27	9.5	9.2	9.3	11.6	10.6	11.0	18.3	17.3	17.8	23.9	22.7	23.4
28	9.2	8.3	8.9	13.3	10.5	11.6	18.9	18.0	18.5	23.7	22.5	23.0
29	---	---	---	14.6	12.4	13.2	19.1	16.8	18.0	24.1	22.9	23.6
30	---	---	---	15.6	14.2	14.9	17.6	16.0	16.8	24.3	23.6	24.0
31	---	---	---	15.7	14.9	15.3	---	---	---	24.5	24.1	24.3

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.5	24.0	24.3	30.4	28.9	29.5	28.9	28.1	28.6	28.6	27.9	28.3
2	25.1	23.7	24.3	29.5	28.3	29.0	29.3	28.7	29.0	28.6	28.0	28.4
3	25.4	24.9	25.2	29.6	28.7	29.2	29.5	28.9	29.3	28.8	28.1	28.5
4	26.0	24.8	25.3	29.5	25.0	27.5	29.5	28.9	29.2	28.8	26.1	27.4
5	26.0	25.6	25.9	29.0	26.9	27.8	29.4	28.3	29.0	27.3	25.9	26.5
6	26.9	25.6	26.1	28.3	26.7	27.5	29.3	28.7	29.1	27.3	26.4	26.9
7	27.0	26.3	26.6	28.6	26.5	27.6	29.4	28.8	29.2	27.2	26.6	26.9
8	27.8	26.5	27.1	28.8	27.6	28.2	29.6	29.1	29.4	27.3	26.7	27.1
9	27.9	26.2	27.1	29.2	27.9	28.6	29.8	29.3	29.6	27.5	27.0	27.3
10	26.3	24.3	25.6	29.4	28.3	29.0	30.0	29.2	29.6	27.6	27.0	27.3
11	27.0	25.6	26.4	29.4	28.9	29.2	29.9	29.4	29.7	27.4	26.4	26.8
12	27.1	26.4	26.9	29.4	28.8	29.1	30.1	29.3	29.8	27.0	26.1	26.5
13	---	---	---	29.6	28.3	29.0	29.9	29.1	29.5	27.3	26.6	27.0
14	---	---	---	29.6	28.9	29.4	29.1	25.4	27.1	27.5	24.9	26.2
15	---	---	---	29.6	28.8	29.3	26.7	25.3	25.9	26.5	23.5	24.3
16	---	---	---	30.1	28.7	29.4	27.0	25.7	26.5	24.8	23.6	24.1
17	---	---	---	30.1	29.4	29.8	27.8	26.2	26.8	24.6	23.0	23.8
18	---	---	---	29.9	29.3	29.7	28.8	27.0	27.8	25.3	23.8	24.4
19	---	---	---	30.6	29.4	30.0	29.7	28.5	29.0	26.5	25.1	25.6
20	---	---	---	30.8	29.9	30.4	29.9	28.2	29.5	27.4	26.2	26.7
21	---	---	---	31.2	30.3	30.8	28.9	27.8	28.3	27.8	27.1	27.4
22	---	---	---	31.7	30.5	31.1	28.9	27.6	28.2	27.9	27.3	27.6
23	29.2	27.6	28.5	31.7	31.1	31.5	27.7	25.5	26.9	27.9	27.3	27.6
24	29.3	27.9	28.7	31.5	30.0	30.9	28.0	26.0	27.1	27.7	27.0	27.3
25	29.5	28.2	28.9	31.4	30.6	31.1	29.0	26.7	27.7	27.2	26.5	27.0
26	29.4	28.5	29.1	30.8	29.9	30.3	30.0	28.0	28.9	27.4	26.6	27.1
27	29.7	28.7	29.2	29.9	28.2	29.0	30.0	25.9	28.0	26.6	25.8	26.2
28	29.9	29.0	29.5	28.3	27.1	27.9	29.2	28.1	28.7	26.3	25.3	26.0
29	30.2	29.4	29.8	28.3	27.4	28.0	29.2	28.3	28.9	25.3	23.1	24.0
30	30.6	29.5	30.1	28.4	27.6	28.0	29.1	28.1	28.6	23.1	22.6	22.9
31	---	---	---	28.6	27.8	28.2	28.7	27.9	28.4	---	---	---

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.0	7.6	7.8	8.1	7.7	7.8	11.2	10.8	11.0	11.2	10.4	10.7
2	8.4	7.6	8.0	8.6	8.1	8.3	11.3	11.0	11.2	10.7	9.8	10.2
3	8.5	8.1	8.3	9.5	8.4	9.0	11.5	11.0	11.2	10.0	9.0	9.5
4	8.7	8.2	8.4	9.4	9.2	9.3	11.6	11.4	11.5	10.2	9.2	9.7
5	8.8	8.3	8.6	9.5	9.1	9.3	11.6	11.2	11.4	11.0	10.0	10.7
6	9.0	8.4	8.7	9.3	9.2	9.3	11.2	10.1	10.9	11.9	10.7	11.4
7	8.9	6.6	8.5	9.2	9.1	9.2	10.9	10.1	10.5	12.7	11.9	12.3
8	8.3	6.4	7.0	9.3	9.2	9.3	11.2	10.7	11.0	12.8	12.2	12.4
9	7.5	6.5	6.9	9.4	9.2	9.3	11.3	10.9	11.1	12.2	12.0	12.1
10	8.2	7.2	7.6	9.4	9.2	9.3	11.2	10.9	11.1	12.1	11.9	12.0
11	9.1	7.8	8.6	9.7	9.0	9.2	11.4	11.2	11.3	12.0	11.8	11.9
12	9.1	7.9	8.7	10.0	9.3	9.7	11.4	11.3	11.3	12.1	11.0	11.9
13	9.2	8.3	8.6	10.3	10.0	10.1	11.7	11.4	11.5	11.7	11.2	11.5
14	8.4	8.2	8.3	10.2	10.1	10.2	12.0	11.7	11.8	12.0	11.7	11.8
15	8.4	8.1	8.2	10.2	10.1	10.1	12.1	12.0	12.0	12.4	12.0	12.1
16	8.2	8.0	8.1	10.1	9.8	9.9	12.0	11.8	12.0	12.6	12.3	12.4
17	8.2	7.9	8.1	9.8	9.6	9.7	12.4	11.9	12.1	12.7	12.5	12.6
18	8.2	7.7	8.0	9.6	9.3	9.5	12.4	12.2	12.3	12.7	12.6	12.6
19	7.9	7.7	7.8	9.4	9.2	9.3	12.4	12.0	12.2	12.6	12.3	12.4
20	8.3	7.8	8.1	9.6	9.4	9.5	12.4	12.2	12.3	12.3	12.0	12.1
21	8.3	7.9	8.2	9.7	9.5	9.6	12.2	11.8	12.0	12.1	11.9	12.0
22	8.0	7.4	7.8	9.9	9.7	9.8	12.5	12.0	12.2	12.1	11.8	11.9
23	8.2	7.4	7.6	9.9	9.6	9.8	13.1	12.5	12.7	12.5	12.1	12.3
24	8.2	7.6	7.9	10.2	9.6	9.8	13.3	12.9	13.1	12.5	12.3	12.4
25	8.2	7.6	7.8	10.6	10.2	10.4	13.4	13.1	13.2	12.3	12.0	12.1
26	7.9	6.9	7.4	10.6	10.4	10.5	13.5	13.1	13.3	12.0	11.7	11.9
27	7.4	6.4	6.9	10.4	10.2	10.3	13.5	13.1	13.2	12.0	11.6	11.8
28	7.3	7.0	7.2	10.5	10.3	10.4	13.4	12.8	13.0	12.0	11.5	11.7
29	7.3	7.2	7.2	10.6	10.4	10.5	13.0	12.3	12.6	12.1	11.8	11.9
30	7.5	6.9	7.2	10.8	10.5	10.7	12.6	11.4	11.9	12.1	11.7	11.9
31	7.8	7.4	7.5	---	---	---	11.5	10.9	11.1	12.1	11.6	11.8
FEBRUARY			MARCH			APRIL			MAY			
1	12.3	11.5	11.9	12.5	11.9	12.1	10.4	8.5	9.6	8.9	8.2	8.5
2	12.2	11.8	12.0	12.1	11.0	11.6	10.3	8.9	9.4	8.9	8.3	8.7
3	12.5	11.6	12.0	11.7	10.4	10.8	11.0	8.7	9.6	9.3	8.8	9.0
4	12.6	11.7	12.1	11.7	10.1	10.8	11.0	8.9	9.9	9.4	9.0	9.2
5	12.6	11.6	12.1	11.5	9.9	10.7	10.9	7.9	9.3	9.2	8.5	8.8
6	12.5	11.0	11.5	11.5	9.9	10.6	9.3	7.3	8.1	8.7	8.5	8.6
7	11.2	10.8	11.0	11.0	9.4	10.0	9.3	8.5	9.0	8.6	8.0	8.2
8	11.9	11.2	11.6	10.7	9.5	10.1	9.2	8.8	9.0	8.3	7.0	7.7
9	12.5	11.9	12.2	10.8	9.7	10.1	10.3	8.8	9.0	---	---	---
10	12.8	12.5	12.7	11.3	9.7	10.5	8.8	8.5	8.7	---	---	---
11	12.7	12.6	12.7	11.3	9.6	10.5	9.3	8.5	8.7	---	---	---
12	12.7	12.3	12.5	11.1	9.6	10.3	9.9	8.7	9.3	7.9	7.2	7.6
13	12.3	11.7	11.9	10.8	9.5	10.2	10.8	9.0	9.6	7.7	7.1	7.4
14	11.8	11.6	11.7	11.0	10.1	10.6	11.0	9.4	10.1	7.6	5.1	6.8
15	11.6	11.4	11.5	11.2	9.5	10.2	10.9	9.7	10.2	7.9	7.0	7.2
16	11.8	11.4	11.5	10.7	9.7	10.1	10.3	8.3	9.1	8.4	7.6	7.9
17	12.4	11.8	12.2	11.1	10.5	10.8	10.3	8.6	9.4	8.7	7.9	8.3
18	12.3	11.9	12.2	11.1	10.2	10.8	10.3	8.6	9.4	8.7	8.0	8.3
19	11.9	11.6	11.7	11.2	10.1	10.7	9.8	7.9	8.7	8.4	6.0	7.4
20	11.7	11.1	11.2	11.1	10.2	10.7	9.1	7.7	8.3	7.4	5.7	6.7
21	11.5	10.5	10.9	10.7	8.4	9.7	8.6	7.3	7.9	7.6	6.9	7.2
22	11.4	10.3	10.8	8.7	8.1	8.4	8.5	7.4	7.9	7.6	6.6	7.1
23	11.3	10.0	10.6	9.9	8.7	9.3	8.9	7.9	8.4	7.6	6.6	7.0
24	12.6	10.6	12.1	10.4	9.8	10	9.2	8.4	8.8	6.9	6.1	6.4
25	12.7	12.3	12.5	10.1	9.6	9.8	9.4	8.1	8.6	7.3	6.5	6.8
26	12.3	11.8	12.0	10.0	9.7	9.8	8.8	7.7	8.2	7.4	6.7	7.1
27	11.8	11.6	11.7	10.6	9.8	10.1	8.6	7.9	8.2	7.7	7.0	7.5
28	12.0	11.6	11.7	10.7	10.0	10.4	8.4	7.3	7.8	8.1	7.7	7.8
29	---	---	---	10.7	9.9	10.2	8.7	7.6	8.1	8.2	7.5	7.9
30	---	---	---	10.4	9.4	9.8	8.7	8.0	8.4	8.3	7.6	8.0
31	---	---	---	10.3	9.2	9.6	---	---	---	8.3	7.6	7.9

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OK—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.0	7.2	7.6	7.2	6.3	6.8	7.5	6.6	7.1	6.9	6.3	6.6
2	7.8	6.8	7.3	7.2	6.4	6.8	7.3	6.4	6.9	7.0	6.4	6.7
3	7.9	7.3	7.6	7.2	6.4	6.9	7.1	6.3	6.8	7.0	6.5	6.7
4	7.8	7.1	7.5	7.1	5.3	6.5	6.9	6.1	6.5	7.0	6.3	6.5
5	8.0	7.2	7.6	6.8	5.6	6.4	6.8	5.7	6.3	6.9	6.0	6.3
6	7.9	7.1	7.6	6.6	6.4	6.5	6.8	6.0	6.4	6.9	6.5	6.7
7	8.2	6.7	7.5	6.8	6.1	6.4	6.7	5.9	6.3	7.1	6.5	6.8
8	8.2	6.9	7.5	6.8	6.3	6.5	---	---	---	7.2	6.7	7.0
9	7.7	6.5	7.0	6.6	6.1	6.3	---	---	---	7.2	6.6	6.9
10	7.1	4.8	6.3	6.6	6.1	6.3	---	---	---	7.2	6.6	6.9
11	7.1	6.0	6.4	6.6	6.1	6.4	---	---	---	7.2	6.5	6.8
12	7.3	6.3	6.6	6.6	6.3	6.4	---	---	---	6.9	6.4	6.7
13	---	---	---	7.0	6.2	6.5	---	---	---	6.9	6.5	6.7
14	---	---	---	7.2	6.5	6.9	---	---	---	7.0	4.9	5.9
15	---	---	---	7.5	6.7	7.1	---	---	---	6.9	5.9	6.6
16	---	---	---	7.8	6.6	7.2	6.4	6.2	6.3	7.7	6.9	7.3
17	---	---	---	7.8	6.5	7.1	6.3	5.8	5.9	7.7	7.4	7.5
18	---	---	---	7.5	6.6	6.9	6.2	5.8	5.9	7.7	7.2	7.4
19	---	---	---	7.5	6.6	7.0	6.6	6.0	6.3	7.6	7.1	7.3
20	---	---	---	7.4	6.3	6.9	6.6	4.7	6.2	7.6	7.1	7.3
21	---	---	---	7.5	6.5	7.1	6.1	4.7	5.5	7.4	6.9	7.1
22	---	---	---	7.5	6.4	7.1	6.2	5.6	6.0	7.4	6.9	7.2
23	6.7	6.1	6.3	7.3	6.3	6.9	6.3	5.9	6.2	7.6	7.1	7.3
24	6.9	6.3	6.5	7.2	6.0	6.6	6.4	5.8	6.1	7.7	7.1	7.4
25	7.0	6.4	6.6	7.1	6.1	6.6	5.9	5.6	5.7	7.6	7.2	7.4
26	7.1	6.4	6.7	7.1	6.3	6.7	6.0	5.6	5.8	7.6	6.9	7.2
27	7.1	6.4	6.7	7.6	6.6	7.1	6.1	5.4	5.7	7.2	6.9	7.0
28	7.2	6.5	6.8	7.8	6.9	7.4	6.0	5.7	5.8	7.3	6.8	7.0
29	7.2	6.4	6.8	7.7	6.7	7.3	6.3	5.7	6.0	7.6	7.1	7.3
30	7.2	6.5	6.9	7.6	6.6	7.2	6.7	5.9	6.2	7.9	7.5	7.7
31	---	---	---	7.6	6.6	7.2	6.8	6.2	6.5	---	---	---

07185000 NEOSHO RIVER NEAR COMMERCE, OK

LOCATION.--Lat 36°55'43", long 94°57'26", in SW 1/4 SE 1/4 sec.5, T.28 N., R.22 E., Ottawa County, Hydrologic Unit 11070206, on downstream side of right pier of county road bridge, 1.3 mi upstream from Mud Creek, 2.2 mi downstream from Four Mile Creek, 4.5 mi west of Commerce, and at mile 153.4.

DRAINAGE AREA.--5,876 mi².

PERIOD OF RECORD.--June 1939 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 748.97 ft above NGVD of 1929 (U.S. Army Corps of Engineers' datum). Since February 1989, supplementary water-stage recorder 1000 ft to the left at same datum used when flow exceeds 21 ft GH.

REMARKS.--Records good except for estimated periods which are poor. Flow regulated to some extent since 1963 by John Redmond Reservoir in Kansas, 190 mi upstream. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	903	4,060	673	1,740	2,310	4,190	1,300	4,670	13,600	1,480	12,400
2	66	695	3,430	688	1,800	2,120	3,920	944	4,490	20,900	890	13,000
3	62	1,130	2,370	722	1,850	1,990	2,960	706	3,880	21,000	736	12,800
4	60	3,390	1,710	2,420	1,870	1,880	2,520	580	5,720	17,500	684	12,500
5	57	5,350	1,340	23,500	1,750	1,810	2,430	536	11,000	16,400	649	12,000
6	55	4,190	2,370	33,700	1,730	1,870	2,470	512	18,700	18,000	611	11,500
7	58	2,190	14,500	35,800	3,070	1,910	4,950	495	22,300	15,500	528	11,000
8	72	1,170	14,100	32,400	4,440	1,860	4,420	487	14,800	10,700	527	10,700
9	85	705	6,380	12,400	6,120	1,810	2,850	489	12,900	9,930	457	10,700
10	112	487	3,490	6,320	5,030	1,780	4,050	512	17,000	9,510	424	10,100
11	155	5,960	2,320	9,310	4,980	1,760	4,550	545	14,600	9,170	393	8,240
12	187	18,600	1,700	10,900	4,660	1,730	4,510	524	24,400	8,880	349	5,260
13	175	13,400	1,320	20,800	6,290	1,700	3,910	507	32,000	8,490	292	4,510
14	161	4,510	1,070	21,600	9,780	1,650	2,490	2,090	34,800	7,970	272	4,200
15	163	2,270	870	12,800	11,000	1,610	1,640	13,700	35,000	8,750	569	3,760
16	176	1,420	739	6,460	8,230	1,590	1,230	10,200	34,100	8,590	1,740	2,940
17	143	1,010	692	7,250	7,850	1,560	1,340	9,770	33,100	8,240	1,750	1,740
18	115	813	1,500	7,090	8,210	1,550	1,360	11,900	31,000	7,860	1,070	1,040
19	99	1,080	1,690	5,130	7,610	1,520	1,040	12,800	22,300	7,480	976	791
20	82	1,280	1,340	4,220	6,260	1,270	940	14,600	16,100	8,920	1,140	712
21	71	1,090	925	3,420	5,990	960	923	18,800	15,000	9,210	1,180	691
22	68	1,020	781	3,010	5,790	1,320	962	19,300	14,600	6,990	1,330	673
23	72	967	729	2,900	5,750	4,800	1,400	12,600	14,400	5,020	1,090	648
24	68	6,080	715	2,770	7,240	3,540	1,590	12,700	13,600	4,150	702	632
25	71	18,700	732	2,620	7,260	3,290	1,580	19,200	13,000	3,830	529	627
26	89	18,600	701	2,590	4,230	2,770	1,600	13,200	12,800	3,690	11,300	598
27	115	7,810	612	3,140	3,090	1,940	1,580	5,350	12,800	3,560	21,900	488
28	619	4,090	614	3,740	2,570	2,760	1,580	5,400	12,700	3,460	24,800	386
29	672	4,980	615	3,760	---	3,060	1,560	5,390	12,400	3,250	26,800	342
30	1,470	3,650	632	3,410	---	3,260	1,550	5,110	12,200	2,600	19,400	324
31	1,500	---	664	2,190	---	4,130	---	4,840	---	2,260	11,000	---
TOTAL	6,970	137,540	74,711	287,733	146,190	67,110	72,095	205,087	526,360	285,410	135,568	155,302
MEAN	225	4,585	2,410	9,282	5,221	2,165	2,403	6,616	17,550	9,207	4,373	5,177
MAX	1,500	18,700	14,500	35,800	11,000	4,800	4,950	19,300	35,000	21,000	26,800	13,000
MIN	55	487	612	673	1,730	960	923	487	3,880	2,260	272	324
AC-FT	13,820	272,800	148,200	570,700	290,000	133,100	143,000	406,800	1,044,000	566,100	268,900	308,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

MEAN	3,145	3,245	2,211	2,003	2,587	4,484	5,480	6,118	6,832	4,936	1,712	2,672
MAX	33,400	22,280	17,280	10,090	13,980	21,630	23,270	29,560	27,950	53,350	11,680	16,930
(WY)	(1987)	(1999)	(1993)	(1973)	(1985)	(1973)	(1945)	(1961)	(1995)	(1951)	(1993)	(1951)
MIN	0.00	1.60	6.33	8.60	24.9	11.9	62.6	395	290	21.1	0.00	1.52
(WY)	(1957)	(1940)	(1940)	(1957)	(1954)	(1956)	(1981)	(1956)	(1980)	(1954)	(1954)	(1953)

e Estimated

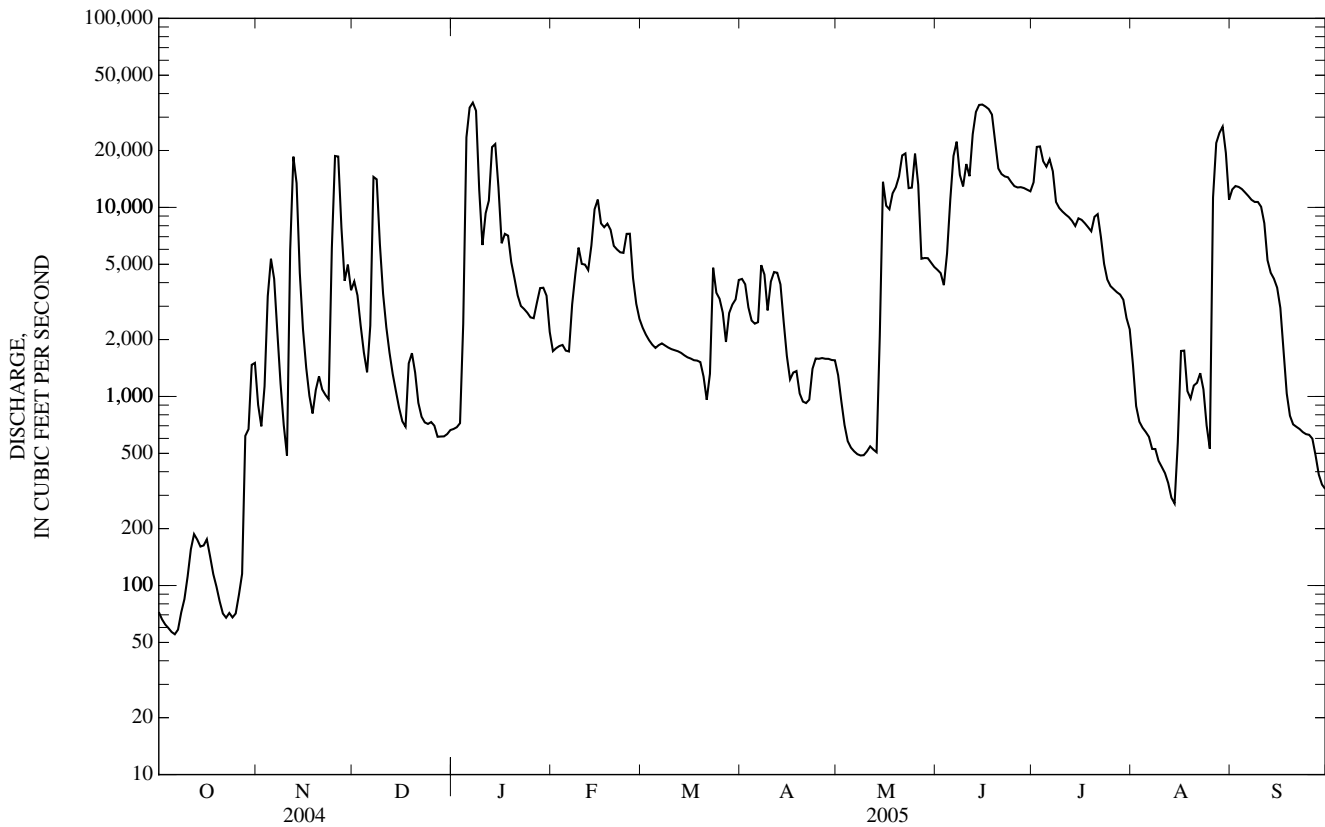
07185000 NEOSHO RIVER NEAR COMMERCE, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	1,695,181		2,100,076		3,786	
ANNUAL MEAN	4,632		5,754		11,140	
HIGHEST ANNUAL MEAN					246	
LOWEST ANNUAL MEAN					251,000	
HIGHEST DAILY MEAN	37,000	Mar 7	35,800	Jan 7	251,000	Jul 15, 1951
LOWEST DAILY MEAN	55	Oct 6	55	Oct 6	a0.00	Aug 21, 1953
ANNUAL SEVEN-DAY MINIMUM	61	Oct 1	61	Oct 1	0.00	Sep 27, 1953
MAXIMUM PEAK FLOW			36,600	Jan 7	b267,000	Jul 15, 1951
MAXIMUM PEAK STAGE			19.55	Jan 7	c34.03	Jul 16, 1951
ANNUAL RUNOFF (AC-FT)	3,362,000		4,166,000		2,743,000	
10 PERCENT EXCEEDS	13,100		14,700		11,300	
50 PERCENT EXCEEDS	1,760		2,600		942	
90 PERCENT EXCEEDS	177		475		60	

a In 1953-54 and 1956.

b Computed by flood-routing method from hydrograph defined at Miami, mile 144.2, by several discharge measurements, gage height record, and by comparison with computed inflow into Lake O' the Cherokees.

c From floodmark.



07185000 NEOSHO RIVER NEAR COMMERCE, OK.--Continued.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to 1954, 1960 to 1973; June 1988 to June 1989; February 2004 to current year.

REMARKS.--Event samples were collected by the U.S. Geological Survey. Water samples were analyzed by the Oklahoma Department of Environmental Quality. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Sampling beginning in 2004 is in cooperation with the Oklahoma Department of Environmental Quality.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Turbid- ity, wat unfl- lab, Hach 2100AN NTU (99872)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfl- uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
JAN 07...	1220	1028	84017	35,700	140	742	12.8	7.5	170	.0	.6	76	19.0
APR 14...	1245	1028	84017	2,390	68	747	9.5	8.2	528	20.0	16.4	260	72.0
MAY 16...	1550	1028	84017	9,170	260	743	7.3	7.5	344	22.0	20.2	140	40.0
25...	1150	1028	84017	19,900	270	740	6.5	7.2	222	25.2	20.9	110	29.0
JUN 14...	1430	1028	84017	34,700	210	740	5.5	7.2	163	26.3	23.3	85	21.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Calcium water unfltrd recover- able, mg/L (00918)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, unfltrd recover- able, mg/L (00927)	Potas- sium, water, fltrd, mg/L (00935)	Potas- sium, water, unfltrd recover- able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover- able, mg/L (00929)	ANC, wat unfl- methyl orange end pt, mg/L as CaCO3 (00411)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, unfltrd mg/L (99220)	Sulfate water unfltrd mg/L (00946)
JAN 07...	20	4.00	5.0	4.00	6.0	5.00	5.0	39	50	61	.0	<10	61.8
APR 14...	75	16.0	17.0	4.00	5.0	13.0	14.0	180	198	E234	E3	10	80.0
MAY 16...	46	8.00	11.0	4.00	6.0	11.0	11.0	58	--	--	--	13	102
25...	31	6.00	8.0	5.00	7.0	5.00	6.0	72	--	--	--	<10	46.3
JUN 14...	23	3.00	5.0	4.00	6.0	4.00	4.0	60	--	--	--	<10	68.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Nitrate water, fltrd, mg/L as N (00618)	COD, high level, water, unfltrd mg/L (00340)	Alum- inum, water, fltrd, ug/L (01106)	Alum- inum, water, unfltrd recover- able, ug/L (01105)	Anti- mony, water, fltrd, ug/L (01095)	Anti- mony, water, unfltrd ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover- able, ug/L (01007)	Beryll- ium, water, fltrd, ug/L (01010)
JAN 07...	140	212	.47	29	<300	11,900	<10	<10	<10.0	<10	37.0	100	<5
APR 14...	331	109	.68	24	<300	5,200	<10	<10	<10	14	95.0	134	<5
MAY 16...	227	376	2.94	22	<300	15,700	<10	<10	<10.0	<10	74.0	200	<5
25...	146	352	1.17	39	<300	16,400	<10	<10	<10.0	<10	55.0	200	<5
JUN 14...	136	200	.44	36	<300	11,000	<10	<10	<10.0	<10	46.0	100	<5

07185000 NEOSHO RIVER NEAR COMMERCE, OK.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Beryllium, water, unfltrd recover-able, ug/L (01012)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, fltrd, ug/L (01030)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)
JAN 07...	<5	<5	<5	<5	12	<5	<5	<5	M	40	9,030	<10	<10
APR 14...	<5	<5	<5	<5	<5	<5	<5	<5	<5	<20	3,970	<10	<10
MAY 16...	<5	<5	<5	<5	16	<5	<5	<5	10	<20	13,100	<10	<10
MAY 25...	<5	<5	<5	<5	17	<5	<5	7	10	20	12,800	<10	<10
JUN 14...	<5	<5	<5	<5	11	<5	<5	8	M	40	8,720	<10	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recover-able, ug/L (01055)	Molybdenum, water, fltrd, ug/L (01060)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, fltrd, ug/L (01145)	Selenium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover-able, ug/L (01092)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)
JAN 07...	30	200	<5	<5	<10	10	<10	<10	<5	<5.00	<5	30	96
APR 14...	<5	250	<5	<5	<10	<10	11	<10	<5	<5.00	20	20	97
MAY 16...	<5	440	<5	<5	<10	20	<10	<10	<5	<5.00	<5	50	94
MAY 25...	<5	380	<5	<5	<10	20	<10	<10	<5	<5.00	6	50	96
JUN 14...	<5	220	<5	<5	<10	10	<10	<10	<5	<5.00	10	30	92

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Suspended sedi-ment concentration mg/L (80154)	Suspended sedi-ment discharge, tons/d (80155)
JAN 07...	275	26,500
APR 14...	118	761
MAY 16...	530	13,100
MAY 25...	469	25,200
JUN 14...	301	28,200

07185080 NEOSHO RIVER AT MIAMI, OK

LOCATION.--Lat 36°51'53", long 94°52'43", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.31, T.28 N., R.23 E., Ottawa County, Hydrologic Unit 11070206, near left downstream wingwall of State Highway 125 bridge, on southwest side of Miami, 1.5 mi upstream from Tar Creek, 2.8 mi downstream from Coal Creek and at mile 143.7.

DRAINAGE AREA.--6,001 mi².

PERIOD OF RECORD.--October 1994 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 1.10 ft above NGVD of 1929 (U.S. Army Corps of Engineers' datum).

REMARKS.--Records fair. At high flow, drawdown on stage may be as great as .20 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 766.33 ft, June 12, 1995; minimum gage height, 740.44 ft, Oct. 7, 2000.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 16, 1951, reached a stage of 778.53 ft at site on old U.S. Highway 66 at Miami bridge currently Highway 169, .5 mi upstream from present site, and at same datum.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 758.47 ft, Jan. 8; minimum gage height, 740.89 ft, Sept. 28.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

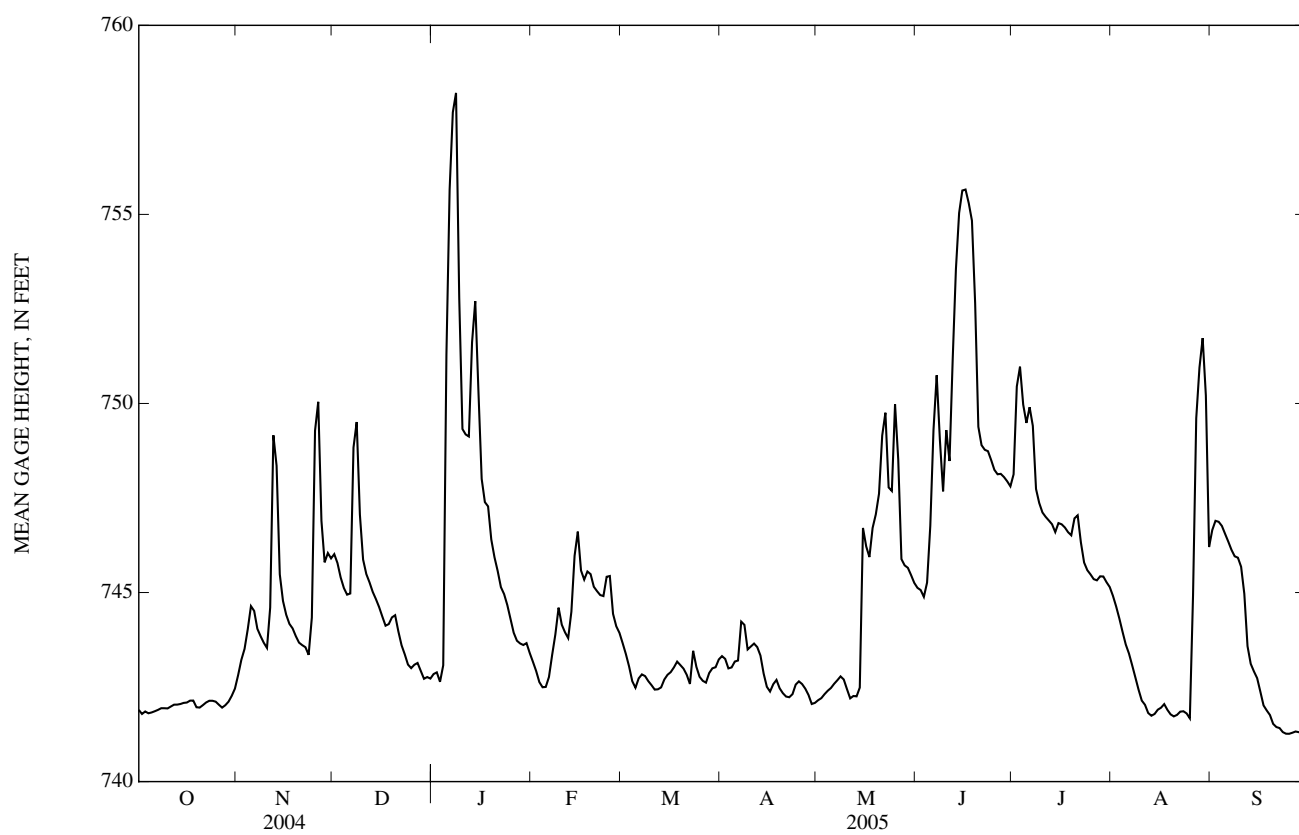
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	742.07	741.65	741.90	742.97	742.57	742.82	746.07	745.97	746.02	742.94	742.76	742.84
2	741.94	741.52	741.79	743.39	742.90	743.22	745.98	745.58	745.78	742.96	742.77	742.89
3	741.96	741.76	741.86	743.72	743.35	743.51	745.58	745.25	745.40	742.84	742.45	742.64
4	742.09	741.55	741.81	744.31	743.72	744.03	745.25	744.98	745.12	745.35	742.34	743.08
5	741.99	741.64	741.83	744.83	744.31	744.64	745.06	744.84	744.94	754.27	745.35	751.29
6	741.98	741.75	741.86	744.77	744.22	744.51	745.83	744.80	744.97	756.86	754.27	755.65
7	742.02	741.75	741.90	744.22	743.86	744.04	750.32	745.83	748.83	758.32	756.86	757.70
8	742.03	741.84	741.94	743.95	743.72	743.85	750.32	748.09	749.51	758.47	757.17	758.21
9	742.02	741.88	741.94	743.79	743.51	743.67	748.09	746.36	747.06	757.17	749.61	752.80
10	742.01	741.88	741.94	743.67	743.36	743.53	746.36	745.56	745.87	749.61	749.09	749.32
11	742.07	741.92	741.99	747.59	743.19	744.60	745.60	745.41	745.49	749.28	749.06	749.18
12	742.11	741.91	742.03	749.94	747.59	749.16	745.41	745.12	745.27	749.57	748.94	749.13
13	742.10	741.93	742.04	749.84	746.34	748.35	745.17	744.90	745.02	752.77	749.57	751.61
14	742.22	741.82	742.05	746.34	745.01	745.48	744.93	744.73	744.83	752.95	751.94	752.71
15	742.42	741.79	742.08	745.01	744.57	744.78	744.74	744.45	744.61	751.94	748.87	750.31
16	742.37	741.94	742.09	744.57	744.25	744.41	744.47	744.23	744.36	748.87	747.51	748.01
17	742.24	742.06	742.14	744.30	744.03	744.17	744.23	744.00	744.12	747.53	747.26	747.39
18	742.28	741.89	742.14	744.22	743.91	744.05	744.29	744.02	744.16	747.43	746.91	747.28
19	742.10	741.86	741.97	743.97	743.71	743.85	744.47	744.22	744.34	746.91	746.08	746.40
20	742.01	741.90	741.96	743.79	743.49	743.68	744.54	744.11	744.40	746.08	745.75	745.93
21	742.11	741.91	742.02	743.69	743.53	743.61	744.18	743.72	743.97	745.75	745.36	745.57
22	742.44	741.97	742.09	743.66	743.41	743.55	743.77	743.46	743.60	745.36	744.93	745.14
23	742.44	742.04	742.14	743.52	743.24	743.35	743.57	743.17	743.36	745.06	744.82	744.96
24	742.25	742.03	742.14	747.20	742.96	744.34	743.22	742.98	743.10	744.82	744.48	744.67
25	742.18	742.05	742.11	750.39	747.20	749.28	743.12	742.90	743.00	744.48	744.13	744.30
26	742.15	741.89	742.03	750.46	748.77	750.04	743.18	743.02	743.09	744.13	743.78	743.94
27	742.02	741.87	741.96	748.77	745.92	746.90	743.26	742.98	743.14	743.79	743.68	743.73
28	742.10	741.87	742.02	745.93	745.72	745.80	743.11	742.67	742.93	743.75	743.55	743.65
29	742.23	742.03	742.11	746.16	745.89	746.04	742.83	742.59	742.72	743.66	743.52	743.61
30	742.42	741.97	742.27	745.99	745.84	745.90	742.96	742.62	742.76	743.74	743.52	743.66
31	742.59	742.40	742.46	---	---	---	742.81	742.64	742.72	743.55	743.21	743.40
MONTH	742.59	741.52	742.02	750.46	742.57	744.97	750.32	742.59	744.66	758.47	742.34	747.45

07185080 NEOSHO RIVER AT MIAMI, OK—Continued

GAGE HEIGHT, FEET—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	743.25	743.04	743.17	743.81	743.51	743.66	743.41	743.27	743.32	742.27	742.08	742.15
2	743.04	742.77	742.93	743.51	743.21	743.37	743.33	743.07	743.24	742.32	742.14	742.21
3	742.77	742.48	742.63	743.27	742.83	743.05	743.07	742.88	742.99	742.38	742.27	742.31
4	742.57	742.42	742.49	742.87	742.44	742.66	743.13	742.88	743.02	742.51	742.33	742.40
5	742.63	742.41	742.50	742.58	742.39	742.48	743.46	743.03	743.17	742.54	742.40	742.48
6	742.99	742.59	742.77	742.90	742.58	742.73	743.49	742.97	743.20	742.68	742.46	742.59
7	743.72	742.99	743.35	743.04	742.69	742.84	744.51	743.49	744.23	742.77	742.54	742.68
8	744.04	743.72	743.89	742.98	742.71	742.79	744.48	743.73	744.14	742.94	742.68	742.78
9	744.80	744.04	744.60	742.75	742.57	742.66	743.73	743.31	743.49	743.09	742.47	742.70
10	744.56	743.97	744.15	742.67	742.39	742.55	743.72	743.36	743.57	742.62	742.12	742.45
11	744.01	743.83	743.95	742.60	742.30	742.43	743.73	743.53	743.65	742.33	742.05	742.20
12	743.83	743.76	743.79	742.58	742.14	742.44	743.69	743.43	743.56	742.39	742.14	742.26
13	745.35	743.83	744.49	742.67	742.16	742.49	743.45	743.10	743.33	742.41	742.11	742.25
14	746.54	745.35	745.97	742.78	742.61	742.70	743.10	742.58	742.86	743.95	742.11	742.49
15	746.77	746.15	746.61	742.94	742.78	742.82	742.63	742.33	742.51	747.57	743.95	746.71
16	746.15	745.29	745.58	742.96	742.83	742.90	742.48	742.27	742.38	747.32	745.65	746.22
17	745.50	745.26	745.34	743.14	742.90	743.02	742.70	742.41	742.58	746.34	745.66	745.94
18	745.59	745.50	745.56	743.29	743.07	743.17	742.78	742.47	742.69	746.93	746.34	746.71
19	745.55	745.30	745.49	743.17	742.97	743.08	742.60	742.27	742.47	747.15	746.93	747.07
20	745.30	745.01	745.15	743.07	742.84	742.99	742.54	742.15	742.34	748.39	747.15	747.61
21	745.10	744.99	745.04	742.99	742.59	742.82	742.49	742.03	742.25	749.73	748.39	749.15
22	745.03	744.82	744.93	742.80	742.42	742.58	742.38	742.07	742.23	749.99	749.05	749.76
23	745.06	744.80	744.91	743.80	742.58	743.46	742.55	742.00	742.31	749.05	747.17	747.78
24	745.71	745.06	745.42	743.51	742.69	743.04	742.67	742.46	742.57	749.05	747.18	747.69
25	745.73	744.83	745.44	742.82	742.71	742.77	742.72	742.57	742.65	750.20	749.05	749.98
26	744.83	744.17	744.44	742.74	742.59	742.67	742.67	742.46	742.58	750.01	746.60	748.52
27	744.17	744.00	744.11	742.71	742.54	742.62	742.63	742.32	742.46	746.60	745.61	745.88
28	744.09	743.79	743.93	742.94	742.69	742.87	742.50	742.05	742.29	745.79	745.63	745.72
29	---	---	---	743.12	742.91	743.00	742.17	741.91	742.05	745.75	745.53	745.65
30	---	---	---	743.14	742.92	743.02	742.19	741.93	742.08	745.57	745.31	745.46
31	---	---	---	743.30	743.10	743.23	---	---	---	745.34	745.14	745.26
MONTH	746.77	742.41	744.38	743.81	742.14	742.87	744.51	741.91	742.87	750.20	742.05	745.00
JUNE			JULY			AUGUST			SEPTEMBER			
1	745.25	745.05	745.12	749.23	747.71	748.13	745.06	744.68	744.91	746.85	746.36	746.65
2	745.17	744.91	745.07	751.10	749.23	750.45	744.78	744.41	744.63	746.93	746.84	746.90
3	744.98	744.70	744.88	751.16	750.53	750.97	744.50	744.07	744.31	746.93	746.80	746.87
4	746.16	744.83	745.26	750.54	749.51	749.97	744.15	743.74	743.96	746.90	746.64	746.76
5	748.06	746.15	746.77	749.61	749.44	749.49	743.80	743.35	743.63	746.68	746.42	746.55
6	750.20	748.06	749.30	750.12	749.61	749.90	743.57	743.22	743.39	746.46	746.24	746.35
7	751.08	750.20	750.75	750.13	748.28	749.41	743.24	742.87	743.08	746.25	746.00	746.13
8	751.06	747.07	749.03	748.28	747.48	747.74	743.03	742.48	742.76	746.01	745.93	745.96
9	749.11	746.99	747.68	747.49	747.23	747.37	742.60	742.18	742.43	745.98	745.82	745.92
10	749.50	748.82	749.30	747.23	747.01	747.12	742.23	742.03	742.14	745.82	745.49	745.68
11	749.40	748.14	748.48	747.07	746.91	747.00	742.19	741.77	742.03	745.49	744.14	744.96
12	752.39	749.40	751.18	746.97	746.84	746.90	742.03	741.55	741.81	744.14	743.22	743.58
13	754.52	752.39	753.55	746.90	746.65	746.81	742.18	741.55	741.74	743.22	743.00	743.12
14	755.47	754.50	755.04	746.72	746.54	746.60	742.07	741.39	741.79	743.03	742.67	742.91
15	755.76	755.43	755.63	746.92	746.72	746.84	742.15	741.74	741.90	742.85	742.58	742.74
16	755.80	755.42	755.66	746.87	746.73	746.80	742.10	741.75	741.95	742.58	742.17	742.38
17	755.51	755.04	755.30	746.78	746.63	746.72	742.14	741.91	742.05	742.20	741.89	742.01
18	755.14	754.40	754.83	746.68	746.45	746.60	741.95	741.70	741.90	742.00	741.77	741.88
19	754.41	750.38	752.65	746.59	746.45	746.51	741.87	741.65	741.78	741.89	741.51	741.76
20	750.38	748.97	749.38	747.25	746.53	746.96	741.90	741.62	741.72	741.65	741.39	741.53
21	748.98	748.81	748.90	747.24	746.66	747.04	741.83	741.66	741.76	741.50	741.36	741.44
22	748.83	748.73	748.77	746.66	745.98	746.33	741.93	741.78	741.85	741.48	741.31	741.42
23	748.77	748.65	748.74	745.98	745.59	745.79	741.95	741.73	741.86	741.39	741.22	741.31
24	748.67	748.33	748.50	745.68	745.47	745.59	741.88	741.71	741.80	741.29	741.22	741.27
25	748.34	748.15	748.25	745.59	745.34	745.48	741.88	741.43	741.67	741.36	741.18	741.26
26	748.17	748.10	748.13	745.45	745.10	745.35	748.42	741.33	744.93	741.37	741.19	741.29
27	748.16	748.10	748.14	745.43	745.24	745.32	750.44	748.42	749.61	741.37	741.28	741.32
28	748.12	747.99	748.05	745.46	745.39	745.43	751.39	750.42	750.95	741.43	740.89	741.31
29	748.00	747.86	747.94	745.50	745.29	745.42	752.07	751.36	751.73	741.44	741.09	741.30
30	747.87	747.73	747.81	745.35	745.12	745.27	752.11	746.63	750.21	741.43	741.31	741.35
31	---	---	---	745.24	744.97	745.15	746.63	746.07	746.20	---	---	---
MONTH	755.80	744.70	749.60	751.16	744.97	747.11	752.11	741.33	743.76	746.93	740.89	743.46

07185080 NEOSHO RIVER AT MIAMI, OK—Continued



THIS PAGE IS INTENTIONALLY BLANK

07185090 TAR CREEK NEAR COMMERCE, OK

LOCATION.--Lat 36°56'37", long 94°51'11", in NE 1/4 NW 1/4 sec.5, T.28 N., R.23 E., Ottawa County, Hydrologic Unit 11070206, at Highway 69 bridge, 1.0 mi east of Commerce, Ok, 2.0 mile upstream of Garrett Creek and at mile 7.5.

DRAINAGE AREA.--35.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1999-2000, 2002-2004, July 2004 to current year.

GAGE.--Water-stage recorder. Datum of gage is 775.16 ft NAVD of 1988.

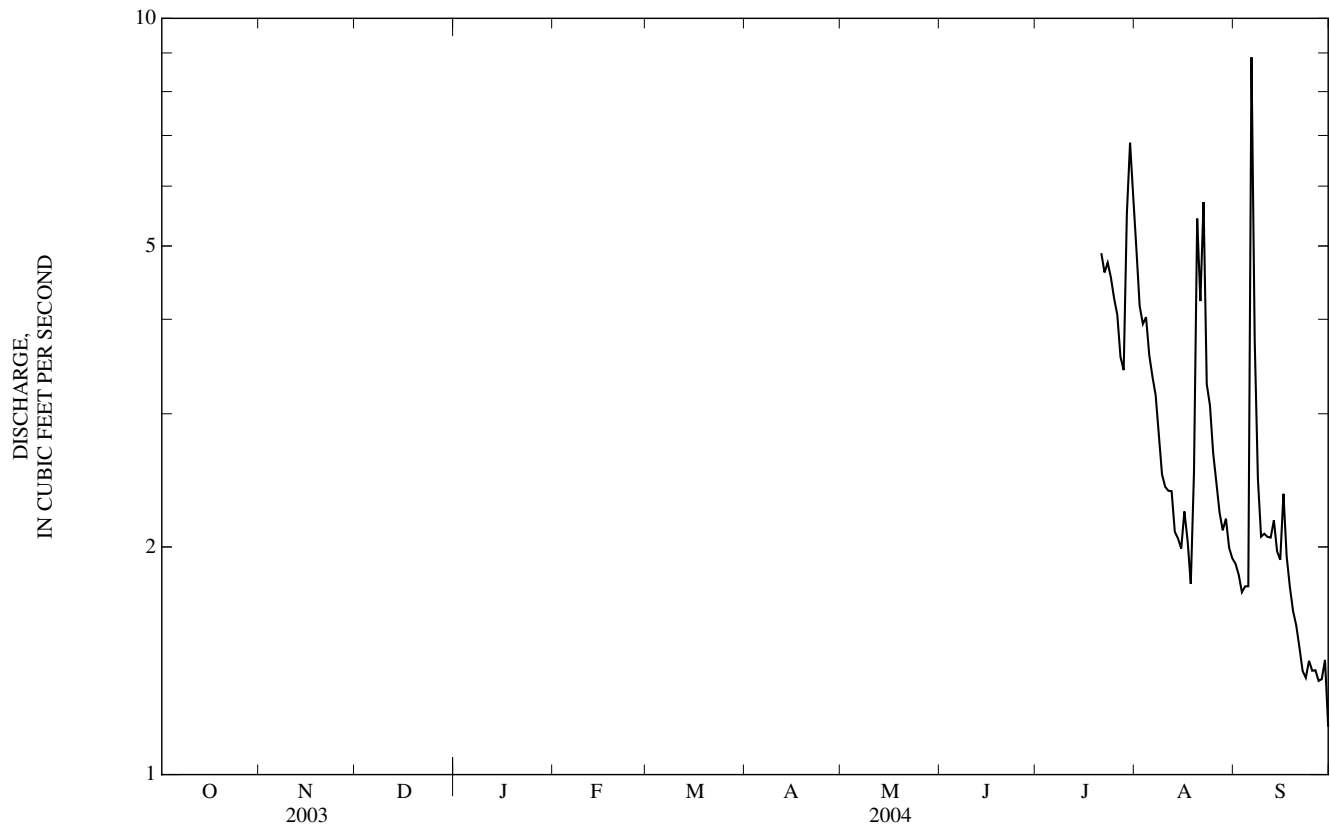
REMARKS.--Records fair except for estimated periods which are poor. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	4.9	e1.9
2	---	---	---	---	---	---	---	---	---	---	4.2	e1.8
3	---	---	---	---	---	---	---	---	---	---	3.9	e1.7
4	---	---	---	---	---	---	---	---	---	---	4.0	e1.8
5	---	---	---	---	---	---	---	---	---	---	3.6	e1.8
6	---	---	---	---	---	---	---	---	---	---	3.4	8.9
7	---	---	---	---	---	---	---	---	---	---	3.2	3.8
8	---	---	---	---	---	---	---	---	---	---	2.8	2.5
9	---	---	---	---	---	---	---	---	---	---	2.5	2.1
10	---	---	---	---	---	---	---	---	---	---	2.4	2.1
11	---	---	---	---	---	---	---	---	---	---	2.4	2.1
12	---	---	---	---	---	---	---	---	---	---	2.4	e2.1
13	---	---	---	---	---	---	---	---	---	---	2.1	2.2
14	---	---	---	---	---	---	---	---	---	---	2.1	e2.0
15	---	---	---	---	---	---	---	---	---	---	2.0	e1.9
16	---	---	---	---	---	---	---	---	---	---	2.2	2.4
17	---	---	---	---	---	---	---	---	---	---	2.0	1.9
18	---	---	---	---	---	---	---	---	---	---	1.8	1.8
19	---	---	---	---	---	---	---	---	---	---	2.5	1.6
20	---	---	---	---	---	---	---	---	---	---	5.4	1.6
21	---	---	---	---	---	---	---	---	---	e4.9	4.2	1.5
22	---	---	---	---	---	---	---	---	---	e4.6	5.7	1.4
23	---	---	---	---	---	---	---	---	---	e4.8	3.3	1.3
24	---	---	---	---	---	---	---	---	---	e4.5	3.1	1.4
25	---	---	---	---	---	---	---	---	---	e4.3	2.7	1.4
26	---	---	---	---	---	---	---	---	---	e4.1	2.4	1.4
27	---	---	---	---	---	---	---	---	---	e3.6	e2.2	1.3
28	---	---	---	---	---	---	---	---	---	e3.4	e2.1	1.3
29	---	---	---	---	---	---	---	---	---	e5.5	e2.2	1.4
30	---	---	---	---	---	---	---	---	---	e6.8	e2.0	1.2
31	---	---	---	---	---	---	---	---	---	e5.8	e1.9	---
TOTAL	---	---	---	---	---	---	---	---	---	---	91.6	61.6
MEAN	---	---	---	---	---	---	---	---	---	---	2.95	2.05
MAX	---	---	---	---	---	---	---	---	---	---	5.7	8.9
MIN	---	---	---	---	---	---	---	---	---	---	1.8	1.2
AC-FT	---	---	---	---	---	---	---	---	---	---	182	122

e Estimated

07185090 TAR CREEK NEAR COMMERCE, OK—Continued



07185090 TAR CREEK NEAR COMMERCE, OK—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	91	32	7.2	16	16	12	3.6	e9.1	23	e1.3	1.6
2	1.4	44	28	7.8	17	14	19	3.0	e7.4	11	e1.3	1.5
3	e1.3	62	24	20	18	12	17	2.7	e5.9	4.9	e1.3	e1.4
4	e1.2	69	22	196	17	11	12	2.7	e6.5	7.0	e1.3	e1.7
5	e1.2	36	25	1,190	17	9.8	9.8	2.7	e6.1	12	e1.2	e1.5
6	e1.2	23	76	501	35	10	22	2.6	e4.7	8.6	e1.2	e1.4
7	e1.9	17	409	96	146	10	102	2.0	e4.2	5.3	e1.2	e1.5
8	2.8	15	105	56	89	9.5	41	2.0	e3.7	3.7	e1.2	e1.3
9	2.2	11	49	45	158	e8.4	26	2.0	e3.1	3.0	e1.2	e1.4
10	3.1	12	35	41	70	e8.6	19	2.0	e2.6	2.6	e1.3	e1.5
11	4.5	82	28	36	40	e7.7	26	1.7	e4.0	2.4	e1.3	e1.2
12	e4.1	68	24	63	34	e8.0	28	1.4	e8.2	2.3	e1.2	e1.0
13	e3.7	36	20	e391	99	e6.3	19	1.9	652	2.3	e1.5	e1.1
14	e3.3	24	18	96	76	e5.2	14	14	134	2.1	4.5	e2.2
15	e3.3	20	17	45	41	4.6	12	12	39	2.1	7.9	12
16	e2.4	17	16	33	30	4.4	10	9.1	30	2.1	4.6	7.5
17	e2.3	15	15	27	25	4.4	9.0	5.8	25	2.1	2.5	3.6
18	e1.8	23	13	e22	e20	4.9	7.4	3.7	e17	2.0	1.7	1.9
19	e1.8	21	12	e20	e17	4.1	6.4	3.0	e12	2.2	1.5	1.5
20	e2.0	19	12	e19	e16	3.5	5.6	2.5	e8.4	1.9	1.5	1.1
21	3.1	21	11	e18	e19	3.7	8.3	1.8	e6.2	1.7	1.6	1.00
22	6.7	28	9.0	e14	e29	7.8	7.4	1.7	e5.7	1.7	1.5	0.88
23	7.9	32	7.4	e12	41	18	7.6	66	5.0	1.9	2.0	0.91
24	3.7	81	6.6	e12	80	18	5.7	514	4.1	1.8	2.0	0.97
25	6.7	87	6.7	e14	41	15	5.5	494	3.4	1.5	1.8	1.0
26	31	41	6.3	e12	28	13	5.7	62	3.0	1.4	1.7	0.92
27	26	29	6.3	e9.6	22	11	5.1	34	2.6	1.6	1.8	0.89
28	15	22	6.9	e9.6	19	7.9	5.2	24	2.0	1.6	1.7	e1.0
29	14	29	6.9	15	---	6.7	4.7	18	2.7	1.3	1.6	e1.1
30	13	36	8.0	16	---	6.4	4.3	12	1.7	1.4	1.7	e0.97
31	11	---	8.2	16	---	4.8	---	e8.4	---	e1.3	1.6	---
TOTAL	185.0	1,111	1,063.3	3,060.2	1,260	274.7	476.7	1,316.3	1,019.3	119.8	59.7	57.54
MEAN	5.97	37.0	34.3	98.7	45.0	8.86	15.9	42.5	34.0	3.86	1.93	1.92
MAX	31	91	409	1,190	158	18	102	514	652	23	7.9	12
MIN	1.2	11	6.3	7.2	16	3.5	4.3	1.4	1.7	1.3	1.2	0.88
AC-FT	367	2,200	2,110	6,070	2,500	545	946	2,610	2,020	238	118	114

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	5.97	37.0	34.3	98.7	45.0	8.86	15.9	42.5	34.0	3.86	2.44	1.99
MAX	5.97	37.0	34.3	98.7	45.0	8.86	15.9	42.5	34.0	3.86	2.95	2.05
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)
MIN	5.97	37.0	34.3	98.7	45.0	8.86	15.9	42.5	34.0	3.86	1.93	1.92
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)

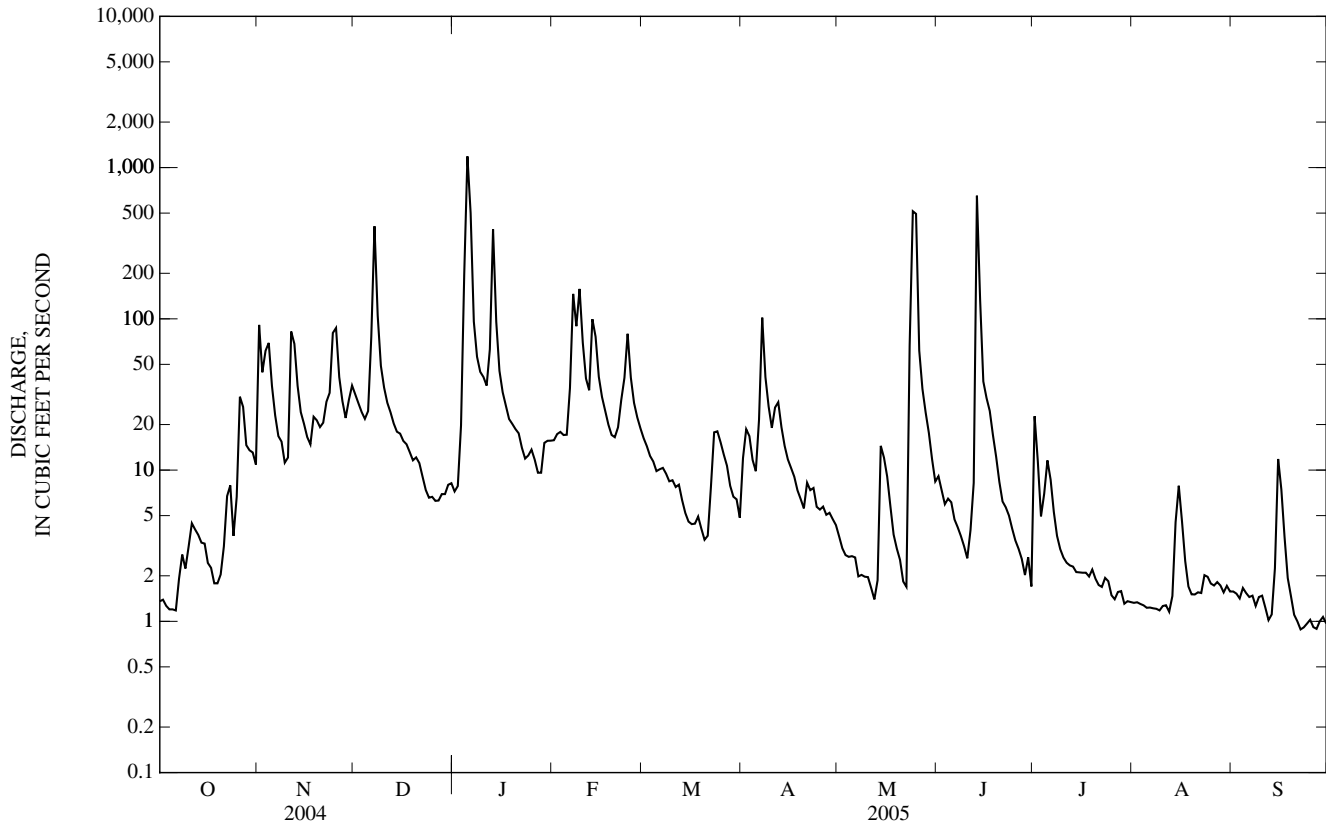
e Estimated

07185090 TAR CREEK NEAR COMMERCE, OK—Continued

SUMMARY STATISTICS

FOR 2005 WATER YEAR

ANNUAL TOTAL	10,003.54	
ANNUAL MEAN	27.4	
HIGHEST DAILY MEAN	1,190	Jan 5
LOWEST DAILY MEAN	0.88	Sep 22
ANNUAL SEVEN-DAY MINIMUM	0.94	Sep 21
MAXIMUM PEAK FLOW	1,350	Jan 5
MAXIMUM PEAK STAGE	15.34	Jan 5
ANNUAL RUNOFF (AC-FT)	19,840	
10 PERCENT EXCEEDS	42	
50 PERCENT EXCEEDS	7.8	
90 PERCENT EXCEEDS	1.4	



07185090 TAR CREEK NEAR COMMERCE, OK--Continued.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 2000 to September 2000, July 2004 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 2004 to current year.

pH: July 2004 to current year.

WATER TEMPERATURE: July 2004 to current year.

DISSOLVED OXYGEN: July 2004 to current year.

TURBIDITY: October 2004 to current year.

INSTRUMENTATION.--Water-quality monitor since July 2004.

REMARKS.--Interruptions in record were due to malfunction of the recording instrument. Event samples were collected by the U.S. Geological Survey. Water and bed sediment samples were analyzed by the Oklahoma Department of Environmental Quality. Sample collected July 15 was analyzed by the U.S. Geological Survey. Specific conductance, pH, water temperature, dissolved oxygen, and turbidity were determined in the field.

COOPERATION.--Sampling beginning in 2004 is in cooperation with the Oklahoma Department of Environmental Quality.

EXTREMES FOR CURRENT PERIOD.--

July to September 2004

SPECIFIC CONDUCTANCE: Maximum, 2,300 microsiemens, Sept. 29, 30; minimum, 1,660 microsiemens, Aug. 22.

pH: Maximum, 7.0 units, several days; minimum, 6.6 units, Aug. 20, 21, Sept. 6, 28.

WATER TEMPERATURE: Maximum, 26.8°C, Aug. 27; minimum, 15.6°C Sept. 30.

DISSOLVED OXYGEN: Maximum, 8.6 mg/L, Sept. 3; minimum, 5.4 mg/L, Sept. 6.

Water Year 2005

SPECIFIC CONDUCTANCE: Maximum, 2,440 microsiemens, Aug. 11-13; minimum, 450 microsiemens, June 13.

pH: Maximum, 7.2 units, several days; minimum, 6.5 units, Jan. 5, 6, 12, June 13.

WATER TEMPERATURE: Maximum, 28.6°C, Aug. 19; minimum, 0.3°C Dec. 24.

DISSOLVED OXYGEN: Maximum, 13.0 mg/L, Dec. 22, 23; minimum, 4.0 mg/L, June 13, 14.

TURBIDITY: Maximum, >1000 FNU, Apr. 7, May 23, June 12, 13; minimum, 1.0 FNU, Sept. 5, 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Turbid- ity, wat unf lab, Hach 2100AN NTU (99872)	Turb- idity, IR LED light, det ang 90 deg, FNU (63680)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)
JAN 05...	1215	1028	84017	1,330	76	47	736	9.6	5.9	672	-1.6	6.1	320
MAY 23...	1318	1028	84017	122	54	87	738	5.9	7.0	565	25.5	23.1	250
24...	1520	1028	84017	765	140	94	736	5.8	6.5	634	18.7	19.7	320
JUN 13...	1130	1028	84017	889	78	75	740	4.9	6.4	706	--	21.7	310
JUL 15...	1030	1028	80020	2.1	--	--	--	7.7	6.8	2,200	29.5	23.9	1,500
SEP 15...	1100	1028	84017	7.1	19	--	740	7.1	6.0	1,270	27.0	21.2	700

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover- able, mg/L (00918)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, unfltrd recover- able, mg/L (00927)	Potas- sium, water, fltrd, mg/L (00935)	Potas- sium, water, unfltrd recover- able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover- able, mg/L (00929)	Calcium bed sedimnt recover- able, mg/kg (00917)	Magnes- ium, bed sedimnt recover- able, mg/kg (00924)	Sodium, bed sedimnt recover- able, mg/kg (00934)	ANC, wat unf methyl orange end pt, mg/L as CaCO3 (00411)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)
JAN 05...	102	97	13.0	13.0	5.00	5.0	8.00	8.0	--	--	--	32	46
MAY 23...	80.0	86	9.00	9.0	7.00	7.0	9.00	9.0	<1,000	<1,000	<1,000	56	--
24...	98.0	100	12.0	12.0	4.00	4.0	8.00	8.0	1,500	<1,000	<1,000	23	--
JUN 13...	99.0	96	12.0	12.0	4.00	5.0	9.00	9.0	1,400	<1,000	<1,000	54	--
JUL 15...	515	--	41.8	--	2.16	--	21.4	--	--	--	--	--	89
SEP 15...	203	200	21.0	21.0	3.00	3.0	8.00	8.0	1,200	<1,000	<1,000	56	--

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Chlor- ide, water, unfltrd mg/L (99220)	Sulfate water, fltrd, mg/L (00945)	Sulfate water unfltrd mg/L (00946)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Nitrate water, fltrd, mg/L as N (00618)	COD, high level, water, unfltrd mg/L (00340)
JAN 05...	55	.0	--	<10	--	285	--	--	--	494	47	.29	24
MAY 23...	--	--	--	10	--	200	--	--	--	407	76	.93	37
24...	--	--	--	<10	--	266	--	--	--	458	112	.62	31
JUN 13...	--	--	--	<10	--	249	--	--	--	330	70	.08	32
JUL 15...	109	.0	10.1	--	1,320	--	1,970	2.68	11.1	--	--	--	--
SEP 15...	--	--	--	<10	--	558	--	--	--	979	13	.14	11

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Alum- inum, water, fltrd, ug/L (01106)	Alum- inum, water, unfltrd recover- able, ug/L (01105)	Anti- mony, water, fltrd, ug/L (01095)	Anti- mony, water, unfltrd ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover- able, ug/L (01007)	Beryll- ium, water, fltrd, ug/L (01010)	Beryll- ium, water, unfltrd recover- able, ug/L (01012)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, fltrd, ug/L (01030)
JAN 05...	<300	2,100	<10	<10	<10.0	<10	20.0	27	<5	<5	<5	5.0	<5
MAY 23...	<300	1,700	<10	<10	<10.0	<10	37.0	49	<5	<5	<5	6.0	<5
24...	<300	3,900	<10	<10	<10.0	<10	29.0	44	<5	<5	<5	8.0	<5
JUN 13...	<300	2,500	<10	<10	<10.0	<10	31.0	41	<5	<5	<5	6.0	<5
JUL 15...	--	--	--	--	--	--	--	--	--	--	7.24	7.49	--
SEP 15...	<300	<300	<10	<10	<10.0	<10	24.0	24	<5	<5	10	10	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover- able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Molyb- denum, water, fltrd, ug/L (01060)	Molyb- denum, water, unfltrd recover- able, ug/L (01062)
JAN 05...	<5	6	7	<5	M	6,430	11,300	<10	39.0	300	380	<5	<5
MAY 23...	<5	<5	<5	<5	M	80	9,240	<10	79.0	300	420	<5	<5
24...	<5	<5	6	<5	M	3,410	12,600	<10	77.0	380	480	<5	<5
JUN 13...	<5	5	5	<5	M	2,780	8,970	<10	48.0	360	390	<5	<5
JUL 15...	--	--	--	--	--	108	1,740	<.24	.26	--	--	--	--
SEP 15...	<5	<5	<5	<5	<5	60	1,810	<10	17.0	420	420	<5	<5

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)	Alum- inum, bed sedimnt recover- able, ug/g (01108)	Arsenic bed sedimnt total, ug/g (01003)	Barium, bed sedimnt recover- able, ug/g (01008)	Cadmium bed sedimnt recover- able, ug/g (01028)	Chrom- ium, bed sedimnt recover- able, ug/g (01029)
JAN 05...	46.0	50	<10	<10	<5	<5.00	2,040	2,450	--	--	--	--	--
MAY 23...	12.0	20	<10	<10	<5	<5.00	510	1,670	600	<10	<40	6.0	3.0
24...	35.0	40	<10	<10	<5	<5.00	1,430	2,590	500	10	<40	9.0	3.0
JUN 13...	38.0	40	<10	<10	<5	<5.00	1,480	2,080	150	<10	<40	1.0	<2.0
JUL 15...	--	--	--	--	--	--	5,170	4,270	--	--	--	--	--
SEP 15...	31.0	30	<10	<10	<5	<5.00	2,950	3,020	560	10	<40	8.0	<2.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Copper, bed sedimnt recover- able, ug/g (01043)	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	Nickel, bed sedimnt recover- able, ug/g (01068)	Zinc, bed sedimnt recover- able, ug/g (01093)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
JAN 05...	--	--	--	--	--	--	81	143	514
MAY 23...	<5	13,000	86	33	<8.0	1,700	92	149	49
24...	7	22,000	170	74	10	2,400	91	214	442
JUN 13...	<5	11,000	66	9	<8.0	570	93	146	350
JUL 15...	--	--	--	--	--	--	95	5	.03
SEP 15...	<5	27,000	32	340	11	3,100	84	10	.19

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	2,000	1,940	1,980	2,230	2,210	2,220
2	---	---	---	---	---	---	2,050	1,980	2,030	2,260	2,220	2,240
3	---	---	---	---	---	---	2,090	2,050	2,070	2,280	2,250	2,260
4	---	---	---	---	---	---	2,110	2,080	2,100	2,280	2,260	2,270
5	---	---	---	---	---	---	2,120	2,110	2,110	2,280	2,250	2,270
6	---	---	---	---	---	---	2,130	2,120	2,130	2,270	1,760	1,910
7	---	---	---	---	---	---	2,140	2,120	2,140	1,900	1,790	1,830
8	---	---	---	---	---	---	2,160	2,140	2,150	2,010	1,890	1,970
9	---	---	---	---	---	---	2,190	2,160	2,180	2,080	2,010	2,060
10	---	---	---	---	---	---	2,200	2,180	2,190	2,130	2,080	2,110
11	---	---	---	---	---	---	2,200	2,190	2,190	2,160	2,120	2,140
12	---	---	---	---	---	---	2,220	2,200	2,210	2,180	2,160	2,170
13	---	---	---	---	---	---	2,220	2,200	2,210	2,200	2,180	2,190
14	---	---	---	---	---	---	2,230	2,210	2,220	2,220	2,200	2,210
15	---	---	---	---	---	---	2,240	2,220	2,230	2,230	2,200	2,220
16	---	---	---	---	---	---	2,240	2,220	2,230	2,220	2,180	2,210
17	---	---	---	---	---	---	2,240	2,220	2,230	2,240	2,220	2,230
18	---	---	---	---	---	---	2,240	2,230	2,240	2,240	2,230	2,240
19	---	---	---	---	---	---	2,240	2,030	2,220	2,240	2,230	2,240
20	---	---	---	---	---	---	2,130	2,040	2,090	2,260	2,240	2,250
21	---	---	---	---	---	---	2,120	1,770	2,080	2,270	2,250	2,260
22	---	---	---	2,090	2,070	2,080	1,780	1,660	1,740	2,260	2,250	2,260
23	---	---	---	2,070	1,900	1,940	1,980	1,780	1,860	2,260	2,250	2,260
24	---	---	---	1,940	1,920	1,930	1,980	1,940	1,960	2,270	2,260	2,260
25	---	---	---	1,940	1,920	1,930	2,050	1,980	2,010	2,280	2,270	2,270
26	---	---	---	---	---	---	2,110	2,050	2,080	2,280	2,270	2,280
27	---	---	---	---	---	---	2,150	2,110	2,140	2,290	2,280	2,280
28	---	---	---	---	---	---	2,170	2,140	2,160	2,290	2,280	2,290
29	---	---	---	2,080	1,970	2,030	2,190	2,170	2,180	2,300	2,290	2,290
30	---	---	---	1,990	1,940	1,970	2,210	2,190	2,200	2,300	2,290	2,300
31	---	---	---	1,960	1,940	1,940	2,220	2,200	2,210	---	---	---

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	2,300	2,300	2,300	1,620	719	1,010	1,250	1,090	1,170	1,700	1,620	1,670
2	2,320	2,300	2,310	1,140	1,040	1,080	1,330	1,240	1,290	1,710	1,630	1,660
3	2,320	2,310	2,310	1,230	879	1,100	1,440	1,330	1,390	1,700	1,240	1,440
4	2,320	2,300	2,310	1,040	886	1,010	1,480	1,420	1,460	1,310	742	1,060
5	2,320	2,310	2,320	1,180	1,010	1,080	1,550	1,470	1,500	781	617	699
6	2,320	2,320	2,320	1,300	1,180	1,240	1,550	938	1,300	920	781	849
7	2,320	2,130	2,260	1,340	1,270	1,320	938	767	820	1,010	885	958
8	2,240	2,190	2,210	1,400	1,230	1,330	901	772	833	1,130	999	1,070
9	2,280	2,240	2,260	1,590	1,330	1,490	1,070	901	1,000	1,150	1,100	1,130
10	2,280	2,200	2,260	1,630	1,410	1,580	1,130	1,060	1,100	1,150	1,100	1,130
11	2,240	2,170	2,210	1,490	1,030	1,140	1,310	1,130	1,220	1,180	1,110	1,140
12	2,210	1,930	2,080	1,100	1,060	1,080	1,370	1,270	1,330	1,400	1,060	1,210
13	1,930	1,860	1,880	1,200	1,070	1,130	1,340	1,220	1,290	1,060	658	736
14	1,990	1,870	1,940	1,290	1,190	1,240	1,450	1,290	1,370	925	730	831
15	2,010	1,950	1,970	1,350	1,260	1,310	1,550	1,430	1,490	1,090	925	1,010
16	2,060	2,000	2,040	1,480	1,330	1,420	1,560	1,520	1,540	1,210	1,090	1,150
17	2,090	2,040	2,070	1,580	1,470	1,520	1,640	1,520	1,590	1,270	1,210	1,240
18	2,100	2,050	2,080	1,520	1,420	1,460	1,650	1,590	1,640	1,420	1,270	1,340
19	2,130	2,080	2,110	1,480	1,420	1,450	1,640	1,580	1,600	1,420	1,380	1,400
20	2,140	2,110	2,120	1,460	1,420	1,440	1,820	1,600	1,730	1,450	1,390	1,440
21	2,130	2,100	2,120	1,480	1,400	1,440	1,760	1,580	1,660	1,510	1,420	1,450
22	2,150	1,380	1,990	1,510	1,220	1,430	1,700	1,590	1,630	1,500	1,360	1,420
23	1,770	1,420	1,530	1,440	1,200	1,290	1,760	1,700	1,730	1,560	1,370	1,460
24	1,740	1,540	1,660	1,560	959	1,290	1,810	1,710	1,780	1,580	1,530	1,560
25	1,900	1,270	1,670	959	860	896	1,820	1,790	1,800	1,600	1,500	1,560
26	1,650	822	1,200	1,130	917	1,040	1,810	1,770	1,790	1,580	1,460	1,510
27	1,250	874	1,070	1,190	1,120	1,150	1,770	1,710	1,750	1,590	1,510	1,550
28	1,400	1,240	1,330	1,340	1,170	1,250	1,740	1,700	1,710	1,640	1,560	1,600
29	1,500	1,350	1,440	1,410	1,050	1,300	1,720	1,670	1,690	1,630	1,510	1,560
30	1,580	1,340	1,480	1,200	1,040	1,150	1,730	1,480	1,670	1,520	1,440	1,480
31	1,770	1,560	1,650	---	---	---	1,650	1,480	1,580	1,490	1,410	1,460
FEBRUARY			MARCH			APRIL			MAY			
1	1,460	1,400	1,440	1,400	1,330	1,360	1,560	1,220	1,410	1,860	1,820	1,840
2	1,470	1,410	1,450	1,460	1,370	1,420	1,240	1,110	1,170	1,930	1,820	1,900
3	1,430	1,380	1,400	1,490	1,440	1,460	1,300	1,160	1,210	2,000	1,910	1,970
4	1,420	1,390	1,410	1,530	1,440	1,500	1,440	1,290	1,370	2,040	1,990	2,020
5	1,460	1,310	1,420	1,540	1,480	1,510	1,530	1,430	1,480	2,060	1,980	2,050
6	1,500	1,080	1,350	1,670	1,520	1,590	1,520	1,190	1,360	2,100	2,050	2,080
7	1,080	670	859	1,700	1,630	1,670	1,190	629	737	2,120	2,040	2,100
8	971	675	768	1,640	1,530	1,590	935	676	794	2,130	2,060	2,110
9	980	680	752	1,660	1,500	1,620	1,100	932	1,010	2,150	2,070	2,130
10	911	705	797	1,660	1,470	1,590	1,220	1,100	1,150	2,160	2,140	2,150
11	1,100	911	999	1,660	1,600	1,640	1,350	1,010	1,210	2,190	2,100	2,180
12	1,240	1,100	1,170	1,720	1,600	1,670	1,110	988	1,030	2,210	2,180	2,200
13	1,390	705	983	1,710	1,680	1,690	1,230	1,110	1,170	2,230	2,020	2,200
14	902	705	782	1,720	1,690	1,710	1,350	1,230	1,280	2,110	1,280	1,540
15	1,050	902	1,000	1,770	1,700	1,740	1,420	1,340	1,390	1,380	1,280	1,340
16	1,200	1,010	1,110	1,760	1,710	1,750	1,510	1,420	1,470	1,480	1,320	1,400
17	1,360	1,200	1,270	1,820	1,740	1,780	1,630	1,500	1,570	1,670	1,340	1,540
18	1,440	1,320	1,350	1,830	1,680	1,790	1,760	1,630	1,690	1,810	1,580	1,700
19	1,530	1,420	1,480	1,840	1,690	1,780	1,860	1,740	1,810	1,900	1,760	1,810
20	1,550	1,500	1,520	1,860	1,830	1,860	1,870	1,790	1,850	1,940	1,850	1,910
21	---	---	---	1,990	1,840	1,920	1,860	1,570	1,790	2,090	1,940	2,020
22	---	---	---	1,960	1,610	1,780	1,770	1,570	1,710	2,160	2,090	2,130
23	1,330	948	1,170	1,610	1,130	1,310	1,700	1,570	1,640	2,160	479	1,000
24	948	763	810	1,230	1,120	1,170	1,810	1,670	1,760	941	633	787
25	1,040	829	938	1,280	1,170	1,220	1,930	1,810	1,870	916	725	792
26	1,220	1,040	1,120	1,210	1,130	1,160	1,910	1,830	1,870	1,050	793	921
27	1,330	1,210	1,270	1,250	1,150	1,200	1,840	1,750	1,810	1,220	1,030	1,130
28	1,360	1,320	1,340	1,340	1,240	1,290	1,840	1,780	1,820	1,360	1,220	1,290
29	---	---	---	1,440	1,320	1,390	1,830	1,770	1,820	1,490	1,360	1,430
30	---	---	---	1,500	1,440	1,480	1,850	1,760	1,830	1,700	1,480	1,590
31	---	---	---	1,540	1,480	1,510	---	---	---	1,870	1,680	1,760

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1,700	1,550	1,610	2,210	808	1,310	2,420	2,400	2,410	2,380	2,380	2,380
2	1,780	1,640	1,730	1,440	913	1,180	2,420	2,400	2,410	2,380	2,380	2,380
3	1,870	1,750	1,830	1,730	1,440	1,590	2,420	2,410	2,420	2,390	2,320	2,370
4	1,870	1,730	1,810	1,810	1,630	1,740	2,430	2,410	2,420	2,370	2,320	2,350
5	1,800	1,720	1,790	1,630	1,330	1,430	2,430	2,420	2,430	2,370	2,360	2,360
6	1,870	1,760	1,820	1,540	1,340	1,440	2,430	2,420	2,430	2,380	2,370	2,370
7	1,970	1,850	1,920	1,700	1,540	1,630	2,430	2,420	2,430	2,380	2,370	2,380
8	2,050	1,920	1,990	1,880	1,700	1,800	2,430	2,420	2,430	2,390	2,380	2,380
9	2,060	1,990	2,050	1,960	1,850	1,910	2,430	2,420	2,430	2,390	2,380	2,390
10	2,100	2,040	2,070	2,040	1,950	2,000	2,430	2,420	2,430	2,400	2,390	2,390
11	2,110	1,900	2,050	2,120	2,040	2,080	2,440	2,430	2,430	2,400	2,390	2,390
12	2,030	1,100	1,870	2,140	2,120	2,130	2,440	2,430	2,430	2,400	2,390	2,390
13	1,130	450	732	2,160	2,100	2,150	2,440	2,430	2,430	2,400	2,160	2,390
14	890	650	737	2,190	2,150	2,170	2,430	2,060	2,280	2,310	2,120	2,240
15	1,210	890	1,050	2,220	2,180	2,200	2,100	1,670	1,930	2,200	1,310	1,670
16	1,310	1,210	1,250	2,230	2,200	2,220	2,140	2,030	2,100	1,520	1,440	1,460
17	1,360	1,230	1,300	2,220	2,200	2,210	2,190	2,140	2,180	1,680	1,510	1,600
18	1,490	1,330	1,420	2,240	2,180	2,230	2,260	2,190	2,230	1,880	1,680	1,780
19	1,620	1,460	1,540	2,240	2,210	2,230	2,300	2,260	2,280	2,000	1,880	1,960
20	1,810	1,620	1,700	2,260	2,240	2,250	2,320	2,290	2,310	2,050	2,000	2,030
21	1,840	1,760	1,800	2,270	2,250	2,260	2,340	2,320	2,330	2,140	2,050	2,100
22	1,930	1,820	1,880	2,290	2,260	2,270	2,340	2,310	2,330	2,180	2,130	2,150
23	2,030	1,930	1,990	2,300	2,170	2,260	2,340	2,320	2,330	2,220	2,160	2,190
24	2,080	2,010	2,050	2,270	2,220	2,260	2,340	2,330	2,340	2,240	2,210	2,220
25	2,140	2,080	2,120	2,300	2,260	2,280	2,350	2,340	2,340	2,260	2,230	2,240
26	2,170	2,130	2,160	2,310	2,290	2,300	2,360	2,350	2,360	2,270	2,250	2,260
27	2,210	2,160	2,190	2,330	2,300	2,320	2,370	2,360	2,360	2,280	2,260	2,270
28	2,240	2,200	2,220	2,340	2,320	2,330	2,370	2,360	2,370	2,280	2,240	2,270
29	2,290	2,140	2,230	2,400	2,330	2,370	2,380	2,370	2,370	2,260	2,240	2,250
30	2,210	2,140	2,190	2,410	2,390	2,400	2,380	2,370	2,380	2,240	2,220	2,230
31	---	---	---	2,410	2,390	2,400	2,380	2,370	2,380	---	---	---

ARKANSAS RIVER BASIN

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	6.8	6.7	6.8	6.9	6.8	6.8
2	---	---	---	---	---	---	6.8	6.7	6.8	6.9	6.8	6.8
3	---	---	---	---	---	---	6.8	6.7	6.7	6.9	6.8	6.9
4	---	---	---	---	---	---	6.8	6.7	6.7	6.9	6.8	6.8
5	---	---	---	---	---	---	6.8	6.7	6.8	6.8	6.7	6.8
6	---	---	---	---	---	---	6.8	6.7	6.7	7.0	6.6	6.9
7	---	---	---	---	---	---	6.8	6.7	6.7	7.0	6.9	7.0
8	---	---	---	---	---	---	6.8	6.7	6.7	6.9	6.8	6.8
9	---	---	---	---	---	---	6.7	6.7	6.7	6.8	6.8	6.8
10	---	---	---	---	---	---	6.8	6.7	6.7	6.8	6.8	6.8
11	---	---	---	---	---	---	6.8	6.7	6.7	6.9	6.8	6.8
12	---	---	---	---	---	---	6.8	6.7	6.8	6.9	6.8	6.8
13	---	---	---	---	---	---	6.8	6.8	6.8	6.8	6.7	6.7
14	---	---	---	---	---	---	6.8	6.7	6.8	6.8	6.7	6.7
15	---	---	---	---	---	---	6.8	6.7	6.8	6.7	6.7	6.7
16	---	---	---	---	---	---	6.8	6.7	6.8	6.8	6.7	6.7
17	---	---	---	---	---	---	6.8	6.7	6.8	6.8	6.7	6.8
18	---	---	---	---	---	---	6.8	6.7	6.8	6.8	6.7	6.8
19	---	---	---	---	---	---	6.8	6.7	6.8	7.0	6.8	6.8
20	---	---	---	---	---	---	6.9	6.6	6.8	7.0	6.7	6.8
21	---	---	---	---	---	---	6.8	6.6	6.7	6.9	6.7	6.8
22	---	---	---	6.7	6.7	6.7	7.0	6.8	6.9	7.0	6.8	6.9
23	---	---	---	6.9	6.7	6.8	6.9	6.8	6.8	7.0	6.9	7.0
24	---	---	---	6.9	6.8	6.8	6.8	6.8	6.8	6.9	6.9	6.9
25	---	---	---	6.9	6.8	6.9	6.8	6.8	6.8	7.0	6.9	6.9
26	---	---	---	---	---	---	6.8	6.7	6.8	6.9	6.8	6.9
27	---	---	---	---	---	---	6.8	6.7	6.8	6.8	6.7	6.7
28	---	---	---	---	---	---	6.8	6.7	6.8	6.9	6.6	6.8
29	---	---	---	6.8	6.7	6.7	6.8	6.8	6.8	6.9	6.7	6.8
30	---	---	---	6.8	6.7	6.7	6.9	6.8	6.8	7.0	6.9	6.9
31	---	---	---	6.8	6.8	6.8	6.8	6.8	6.8	---	---	---

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.0	6.9	6.9	7.1	6.8	7.0	7.0	7.0	7.0	6.9	6.9	6.9
2	7.0	6.9	7.0	7.2	7.0	7.1	7.1	6.9	7.0	6.9	6.9	6.9
3	7.0	6.9	7.0	7.2	6.8	7.1	7.1	7.0	7.0	7.1	6.9	7.0
4	7.1	7.0	7.0	7.0	6.9	6.9	7.0	7.0	7.0	7.1	6.7	7.0
5	7.1	7.0	7.0	7.0	7.0	7.0	7.0	6.9	7.0	6.7	6.5	6.6
6	7.1	7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.9	6.7	6.5	6.6
7	7.0	6.8	7.0	7.1	7.0	7.0	6.8	6.7	6.8	6.7	6.7	6.7
8	6.9	6.8	6.9	7.1	6.9	7.1	6.9	6.8	6.8	6.7	6.7	6.7
9	6.9	6.8	6.9	7.0	6.9	6.9	6.9	6.9	6.9	6.7	6.7	6.7
10	6.9	6.8	6.9	6.9	6.8	6.8	7.0	6.9	6.9	6.8	6.7	6.7
11	6.9	6.8	6.8	6.9	6.6	6.7	7.0	6.9	7.0	6.8	6.7	6.8
12	7.0	6.8	6.8	6.8	6.7	6.8	7.0	6.9	6.9	6.8	6.5	6.8
13	7.0	7.0	7.0	6.8	6.8	6.8	7.0	7.0	7.0	6.7	6.6	6.6
14	7.0	7.0	7.0	6.8	6.8	6.8	7.1	7.0	7.0	6.8	6.7	6.7
15	7.0	7.0	7.0	6.8	6.8	6.8	7.0	7.0	7.0	6.8	6.8	6.8
16	7.0	6.9	6.9	6.9	6.8	6.8	7.0	6.9	7.0	6.8	6.8	6.8
17	7.0	6.9	6.9	6.9	6.9	6.9	7.0	6.9	6.9	6.8	6.8	6.8
18	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.8	6.8	6.8
19	6.9	6.9	6.9	6.9	6.9	6.9	7.0	6.9	7.0	6.8	6.8	6.8
20	6.9	6.9	6.9	7.0	6.9	6.9	7.0	6.9	6.9	6.8	6.8	6.8
21	6.9	6.9	6.9	7.0	6.9	7.0	7.0	6.9	7.0	6.8	6.8	6.8
22	7.0	6.8	6.9	6.9	6.9	6.9	7.1	7.0	7.1	7.0	6.8	6.9
23	7.1	6.9	7.0	6.9	6.8	6.9	7.1	7.0	7.0	7.0	6.9	6.9
24	7.1	7.0	7.1	6.9	6.7	6.8	7.0	7.0	7.0	6.9	6.8	6.9
25	7.2	6.7	7.0	6.9	6.9	6.9	7.0	7.0	7.0	6.9	6.8	6.8
26	7.2	6.8	7.1	6.9	6.9	6.9	7.0	7.0	7.0	6.9	6.8	6.9
27	7.2	7.1	7.1	7.0	6.8	6.9	7.0	6.9	7.0	6.9	6.9	6.9
28	7.1	7.1	7.1	7.0	6.9	7.0	7.0	7.0	7.0	6.9	6.9	6.9
29	7.2	7.0	7.1	6.9	6.9	6.9	7.0	6.9	7.0	6.9	6.9	6.9
30	7.2	7.1	7.1	7.0	6.9	6.9	7.0	6.8	6.9	6.9	6.9	6.9
31	7.1	6.9	7.0	---	---	---	7.0	6.9	7.0	7.0	6.9	6.9
FEBRUARY			MARCH			APRIL			MAY			
1	7.0	6.9	7.0	6.9	6.9	6.9	7.2	7.0	7.1	7.0	7.0	7.0
2	7.0	7.0	7.0	6.9	6.9	6.9	7.2	7.1	7.1	7.0	6.9	7.0
3	7.0	7.0	7.0	6.9	6.9	6.9	7.1	7.0	7.1	7.0	6.9	6.9
4	7.0	7.0	7.0	6.9	6.9	6.9	7.1	7.0	7.0	6.9	6.9	6.9
5	7.0	6.9	7.0	6.9	6.9	6.9	7.0	7.0	7.0	6.9	6.9	6.9
6	7.0	6.8	7.0	6.9	6.8	6.9	7.1	6.9	7.0	6.9	6.9	6.9
7	7.0	6.9	6.9	6.9	6.8	6.8	7.1	6.9	7.1	6.9	6.9	6.9
8	7.0	6.9	6.9	6.9	6.9	6.9	7.0	6.9	7.0	6.9	6.9	6.9
9	6.9	6.8	6.9	7.0	6.9	6.9	7.0	6.9	7.0	6.9	6.9	6.9
10	6.9	6.9	6.9	7.0	6.9	7.0	7.0	6.9	7.0	6.9	6.9	6.9
11	6.9	6.8	6.9	7.0	6.9	6.9	7.0	6.9	7.0	6.9	6.9	6.9
12	6.8	6.8	6.8	6.9	6.9	6.9	7.1	7.0	7.0	6.9	6.9	6.9
13	6.9	6.7	6.8	7.0	6.9	7.0	7.0	7.0	7.0	6.9	6.7	6.8
14	6.9	6.8	6.9	7.0	6.9	7.0	7.0	7.0	7.0	7.2	6.8	7.1
15	6.9	6.8	6.8	7.0	6.9	6.9	7.0	7.0	7.0	7.2	7.1	7.2
16	6.9	6.9	6.9	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.1	7.1
17	6.9	6.9	6.9	7.0	6.9	7.0	7.0	7.0	7.0	7.1	7.0	7.1
18	6.9	6.9	6.9	7.0	6.9	7.0	7.0	6.9	7.0	7.1	7.0	7.0
19	6.9	6.8	6.9	7.0	7.0	7.0	6.9	6.9	6.9	7.0	6.9	7.0
20	6.9	6.8	6.8	7.0	6.9	6.9	6.9	6.8	6.9	7.0	6.9	7.0
21	---	---	---	7.0	6.9	6.9	7.0	6.9	6.9	7.0	6.9	6.9
22	---	---	---	7.0	6.9	7.0	7.0	7.0	7.0	6.9	6.9	6.9
23	7.0	6.8	7.0	7.2	7.0	7.2	7.0	7.0	7.0	7.2	6.7	7.1
24	7.0	7.0	7.0	7.2	7.1	7.2	7.0	7.0	7.0	7.2	6.6	6.8
25	7.0	6.8	6.9	7.2	7.1	7.1	7.0	6.9	6.9	6.8	6.6	6.7
26	6.9	6.8	6.8	7.2	7.1	7.1	7.0	6.9	7.0	6.9	6.8	6.8
27	6.9	6.8	6.8	7.1	7.1	7.1	7.0	7.0	7.0	6.9	6.9	6.9
28	6.9	6.8	6.9	7.1	7.0	7.1	7.0	6.9	7.0	6.9	6.9	6.9
29	---	---	---	7.0	7.0	7.0	7.0	7.0	7.0	6.9	6.9	6.9
30	---	---	---	7.1	7.0	7.0	7.0	7.0	7.0	6.9	6.9	6.9
31	---	---	---	7.0	7.0	7.0	---	---	---	6.9	6.8	6.9

ARKANSAS RIVER BASIN

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.0	6.9	6.9	7.0	6.6	6.9	6.8	6.8	6.8	7.0	7.0	7.0
2	6.9	6.9	6.9	7.0	6.9	7.0	6.9	6.8	6.8	7.0	7.0	7.0
3	6.9	6.8	6.9	7.0	6.9	6.9	6.9	6.8	6.8	7.1	7.0	7.0
4	6.9	6.8	6.8	7.0	6.8	6.9	6.9	6.8	6.9	7.0	7.0	7.0
5	6.9	6.8	6.9	7.1	7.0	7.0	6.9	6.9	6.9	7.1	7.0	7.0
6	6.9	6.8	6.8	7.1	7.0	7.0	6.9	6.9	6.9	7.1	7.0	7.1
7	6.9	6.8	6.8	7.0	6.9	6.9	6.9	6.9	6.9	7.1	7.0	7.0
8	6.8	6.8	6.8	6.9	6.8	6.9	6.9	6.9	6.9	7.1	7.0	7.0
9	6.8	6.8	6.8	6.9	6.8	6.8	6.9	6.9	6.9	7.1	7.0	7.0
10	6.8	6.8	6.8	6.9	6.8	6.8	6.9	6.9	6.9	7.1	7.0	7.0
11	6.8	6.6	6.8	6.8	6.8	6.8	7.0	6.9	6.9	7.1	7.0	7.1
12	7.0	6.8	6.8	6.8	6.7	6.8	7.0	6.9	6.9	7.1	7.0	7.1
13	7.0	6.5	6.5	6.8	6.7	6.7	7.0	6.9	7.0	7.2	7.0	7.1
14	6.8	6.6	6.7	6.8	6.7	6.8	7.0	6.6	6.9	7.2	6.9	7.0
15	6.7	6.7	6.7	6.8	6.7	6.8	7.1	6.7	6.9	7.2	6.8	7.0
16	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.8	6.9	7.0	7.0	7.0
17	6.8	6.7	6.8	6.8	6.8	6.8	6.9	6.9	6.9	7.0	6.9	7.0
18	6.8	6.8	6.8	6.8	6.8	6.8	6.9	6.9	6.9	7.0	6.9	7.0
19	6.8	6.8	6.8	6.8	6.8	6.8	7.0	6.9	6.9	7.0	6.9	7.0
20	6.8	6.8	6.8	6.8	6.8	6.8	7.0	6.9	7.0	7.0	6.9	7.0
21	6.8	6.8	6.8	6.8	6.8	6.8	7.0	6.9	6.9	7.0	6.9	7.0
22	6.8	6.8	6.8	6.8	6.8	6.8	7.0	6.9	7.0	7.0	6.9	7.0
23	6.8	6.7	6.8	6.9	6.7	6.8	7.0	6.9	7.0	7.0	6.9	7.0
24	6.8	6.7	6.8	6.8	6.7	6.8	7.0	6.9	6.9	7.0	7.0	7.0
25	6.8	6.7	6.7	6.9	6.8	6.9	7.0	6.9	7.0	7.0	6.9	7.0
26	6.8	6.7	6.7	6.9	6.8	6.9	7.0	7.0	7.0	7.0	7.0	7.0
27	6.8	6.7	6.7	6.9	6.9	6.9	7.0	7.0	7.0	7.0	7.0	7.0
28	6.8	6.7	6.7	6.9	6.8	6.9	7.0	7.0	7.0	7.0	7.0	7.0
29	6.8	6.6	6.8	6.8	6.8	6.8	7.0	7.0	7.0	7.0	7.0	7.0
30	6.8	6.8	6.8	6.9	6.8	6.8	7.0	7.0	7.0	7.0	7.0	7.0
31	---	---	---	6.9	6.8	6.9	7.0	6.9	7.0	---	---	---

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

 TEMPERATURE, WATER, DEGREES CELSIUS
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	25.5	20.4	23.0	23.1	19.7	21.5
2	---	---	---	---	---	---	26.1	21.6	24.0	23.0	19.4	21.3
3	---	---	---	---	---	---	26.4	22.0	24.4	23.1	19.3	21.3
4	---	---	---	---	---	---	26.1	22.8	24.5	24.0	20.4	22.2
5	---	---	---	---	---	---	24.9	22.2	23.6	24.2	21.0	22.6
6	---	---	---	---	---	---	22.8	19.7	21.5	23.2	20.6	22.0
7	---	---	---	---	---	---	23.1	18.9	21.1	21.7	19.0	20.6
8	---	---	---	---	---	---	21.9	19.4	20.8	21.0	17.5	19.4
9	---	---	---	---	---	---	23.5	18.9	21.3	21.4	17.2	19.4
10	---	---	---	---	---	---	23.4	20.4	21.9	21.9	17.6	19.8
11	---	---	---	---	---	---	22.3	19.5	20.5	21.9	17.9	20.1
12	---	---	---	---	---	---	20.1	17.1	18.8	22.6	18.4	20.6
13	---	---	---	---	---	---	19.9	16.6	18.4	23.0	18.8	21.0
14	---	---	---	---	---	---	21.0	17.4	19.2	23.8	20.2	22.0
15	---	---	---	---	---	---	20.9	17.4	19.3	23.3	21.4	22.3
16	---	---	---	---	---	---	20.6	17.4	19.1	23.9	21.0	22.3
17	---	---	---	---	---	---	23.5	19.2	21.2	23.5	19.3	21.4
18	---	---	---	---	---	---	24.1	20.1	22.2	23.7	20.1	22.0
19	---	---	---	---	---	---	22.6	20.6	21.4	23.4	19.4	21.5
20	---	---	---	---	---	---	20.9	20.0	20.4	22.4	18.1	20.3
21	---	---	---	---	---	---	21.9	19.4	20.5	22.6	18.3	20.4
22	---	---	---	26.0	22.0	23.9	24.7	20.0	22.3	21.7	17.9	19.9
23	---	---	---	25.6	22.6	24.0	24.9	21.9	23.4	21.1	18.9	20.1
24	---	---	---	23.8	21.8	22.7	25.8	22.1	24.0	22.2	19.4	20.5
25	---	---	---	21.8	19.7	20.4	25.0	22.9	24.1	21.7	17.1	19.4
26	---	---	---	---	---	---	26.7	22.6	24.6	21.8	17.3	19.5
27	---	---	---	---	---	---	26.8	23.4	25.1	21.2	17.0	19.1
28	---	---	---	---	---	---	25.3	21.9	23.2	20.9	16.4	18.6
29	---	---	---	20.1	19.1	19.6	23.2	19.7	21.5	20.1	16.2	18.1
30	---	---	---	21.7	19.3	20.3	22.8	18.8	21.0	20.2	15.6	17.9
31	---	---	---	24.7	18.9	21.6	23.5	19.4	21.5	---	---	---

ARKANSAS RIVER BASIN

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.6	18.1	18.9	16.9	16.0	16.4	7.9	4.5	6.0	13.9	11.3	12.5
2	18.1	14.4	16.2	16.5	13.2	14.7	8.4	5.3	6.7	14.3	12.7	13.5
3	18.2	12.7	15.4	13.2	11.3	12.1	8.2	4.8	6.4	13.3	10.0	11.6
4	18.3	14.8	16.4	13.9	11.0	12.2	8.8	5.0	6.7	10.0	7.6	8.5
5	18.5	14.2	16.2	13.9	10.2	12.0	9.5	6.0	7.4	7.6	4.8	6.2
6	18.5	13.8	16.2	15.5	10.8	13.0	10.9	9.1	9.9	4.8	2.7	3.5
7	18.6	17.0	17.9	15.6	11.6	13.6	11.1	9.7	10.3	3.7	2.5	3.1
8	21.9	18.1	19.6	14.7	11.6	13.1	10.2	8.5	9.3	5.9	3.2	4.4
9	20.9	18.6	19.5	14.1	11.0	12.6	11.0	8.6	9.6	8.7	4.5	6.4
10	18.9	18.1	18.4	14.4	10.8	12.7	9.4	7.5	8.3	9.8	6.4	8.0
11	18.1	16.0	16.8	13.8	11.2	12.8	8.6	6.4	7.5	9.2	7.7	8.2
12	16.0	14.3	15.3	12.2	9.9	10.9	9.8	6.8	8.0	11.6	7.7	9.6
13	17.0	13.8	15.3	11.0	8.4	9.7	7.8	5.3	6.6	9.9	6.6	8.4
14	15.7	12.9	14.3	10.8	9.2	10	5.7	3.1	4.4	6.6	4.0	5.1
15	15.2	11.6	13.3	13.2	10.4	11.8	5.8	2.7	4.1	4.6	2.8	3.6
16	14.7	11.5	13.1	14.9	12.8	13.8	7.3	4.3	5.5	4.1	2.0	2.9
17	16.3	11.2	13.8	16.3	13.2	14.7	7.8	4.2	5.9	5.0	2.4	3.5
18	19.8	16.2	17.7	15.6	14.4	14.9	8.4	5.5	6.9	6.0	3.1	4.4
19	17.2	16.2	16.6	15.4	14.1	14.7	6.8	3.6	4.9	7.8	4.1	5.7
20	17.2	15.6	16.2	15.2	12.9	14.0	7.5	3.1	5.1	9.7	5.4	7.3
21	18.7	15.6	17.0	12.9	11.4	11.9	6.6	4.6	5.6	9.9	6.4	8.1
22	19.7	18.1	18.6	12.7	11.3	12.0	5.0	1.1	2.9	8.6	3.0	5.9
23	19.6	17.5	18.5	13.3	12.5	12.9	2.8	0.4	1.4	5.1	1.7	3.3
24	18.0	14.3	16.4	13.0	8.6	10.6	2.8	0.3	1.4	7.4	3.1	5.0
25	18.8	16.4	17.4	9.4	7.1	8.3	4.0	1.1	2.4	9.6	4.8	7.0
26	19.5	17.9	18.7	10.8	7.9	9.2	5.5	1.8	3.6	9.5	6.4	7.8
27	21.4	18.7	19.8	11.5	8.9	10.6	6.2	2.9	4.5	7.5	5.9	6.8
28	21.2	19.6	20.4	9.3	7.6	8.6	8.2	4.0	6.1	6.7	5.0	5.9
29	21.2	19.9	20.4	8.9	8.0	8.7	9.4	6.0	7.8	6.2	4.6	5.4
30	20.0	16.2	17.6	8.0	5.7	7.3	13.0	9.4	11.3	6.9	5.4	6.1
31	16.8	14.9	15.8	---	---	---	13.4	11.2	12.2	7.9	6.1	6.8
FEBRUARY			MARCH			APRIL			MAY			
1	8.5	5.9	7.0	10.5	5.1	7.5	16.9	10.7	13.3	16.8	12.5	14.7
2	6.9	5.3	6.1	11.8	5.8	8.6	18.5	9.7	13.7	16.3	12.0	14.2
3	7.1	4.2	5.5	12.6	7.2	9.7	19.8	11.8	15.3	17.1	10.9	14.2
4	9.2	4.1	6.4	15.3	8.8	11.6	21.6	13.7	17.1	18.5	12.1	15.4
5	9.8	5.7	7.6	15.3	9.2	11.9	19.4	15.8	17.2	17.9	14.2	16.1
6	9.6	8.0	8.6	15.6	9.1	12.1	16.3	14.7	15.5	20.5	14.8	17.6
7	9.1	6.9	8.4	13.6	10.1	12.4	15.7	14.8	15.2	19.9	16.0	18.1
8	6.9	6.0	6.4	12.8	7.6	10.2	20.3	13.9	16.7	18.8	17.2	17.8
9	6.6	4.3	5.4	11.3	8.6	10.1	21.3	15.2	18.1	21.9	16.0	18.8
10	8.1	3.6	5.7	13.4	7.4	10.1	20.6	16.6	18.4	23.2	17.5	20.3
11	10.2	4.9	7.3	14.0	7.7	10.7	21.6	16.5	18.2	24.1	19.7	21.7
12	8.9	7.1	8.0	17.2	8.9	12.6	18.1	15.1	16.5	23.6	19.2	21.4
13	11.6	8.9	10.3	12.3	8.2	10.2	16.1	13.8	14.8	21.9	19.1	20.5
14	12.9	8.5	10.6	12.9	6.6	9.8	20.6	11.9	15.7	24.7	17.9	20.7
15	14.8	10.2	12.1	11.0	9.0	10	20.9	13.6	17.0	22.4	17.1	19.6
16	11.3	8.4	9.6	12.5	7.5	9.8	22.3	14.5	18.1	23.2	15.7	19.2
17	12.2	7.8	9.7	13.8	6.5	10.1	22.1	15.6	18.7	23.2	17.0	20.0
18	11.7	7.2	9.4	15.3	8.7	11.9	20.2	16.3	18.4	23.0	18.1	20.6
19	10.3	9.5	9.9	14.3	8.4	11.4	19.6	16.4	18.1	25.2	20.1	22.6
20	16.4	10.0	13.0	16.2	8.8	12.3	20.8	17.3	18.9	25.5	20.8	23.2
21	---	---	---	13.5	11.2	12.0	21.4	17.4	19.4	24.7	19.7	22.5
22	---	---	---	11.2	9.3	10.8	19.8	15.5	17.0	24.7	20.9	22.9
23	9.8	7.5	8.7	10.2	7.9	9.0	18.1	12.6	15.2	26.4	20.7	23.4
24	9.9	6.4	7.8	11.9	7.2	9.4	17.9	11.7	14.8	25.5	19.4	21.6
25	12.0	6.8	9.1	11.3	9.9	10.5	15.8	13.8	14.3	23.9	18.4	20.7
26	12.7	7.9	10.2	10.0	8.2	9.1	15.8	11.8	13.8	22.9	19.4	21.2
27	11.5	10.1	10.8	9.7	7.7	8.4	18.1	10.9	14.4	22.1	18.7	20.5
28	10.5	7.0	8.7	16.0	6.2	10.7	19.4	14.0	16.5	24.5	17.8	20.9
29	---	---	---	17.2	11.1	13.9	16.8	12.3	14.1	25.2	19.1	21.9
30	---	---	---	17.8	12.6	15.0	17.5	10.9	13.9	25.1	19.3	22.0
31	---	---	---	15.3	10.1	12.7	---	---	---	23.9	19.7	21.8

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22.5	20.8	21.5	25.6	21.1	23.2	26.6	21.6	24.0	25.8	21.1	23.4
2	24.7	18.9	21.6	27.0	22.6	24.6	26.8	22.5	24.6	26.0	22.0	23.9
3	23.9	20.4	22.3	27.0	22.5	24.8	27.3	22.9	25.0	26.5	22.5	24.0
4	25.3	21.1	23.0	26.1	21.7	24.0	27.3	23.1	25.2	25.5	21.7	23.4
5	24.9	21.0	23.0	26.6	22.8	24.6	26.4	23.5	24.8	25.2	21.0	22.9
6	25.8	21.8	23.6	26.8	22.4	24.5	26.3	22.8	24.4	24.9	20.3	22.5
7	24.6	21.4	23.2	26.5	22.3	24.4	26.8	22.4	24.5	25.1	21.1	23.1
8	26.0	22.0	24.1	25.8	22.1	24.2	27.0	23.1	25.0	25.2	21.2	23.1
9	25.9	21.5	23.8	26.0	22.1	24.2	27.3	23.2	25.2	25.3	21.1	23.1
10	24.2	22.3	23.2	25.9	22.3	24.2	27.6	23.4	25.4	25.3	21.3	23.2
11	24.8	20.9	22.7	25.4	22.4	23.9	27.2	23.6	25.3	25.1	21.1	23.1
12	26.4	22.0	23.8	24.9	22.1	23.4	27.4	24.0	25.5	25.3	21.9	23.5
13	24.0	20.7	22.2	25.8	22.1	23.9	25.6	23.4	24.6	26.5	22.1	24.0
14	26.6	22.0	24.1	26.0	22.3	24.2	24.2	22.2	22.9	24.2	21.6	22.8
15	27.2	21.7	24.3	---	---	---	24.5	21.5	23.2	22.8	20.4	21.7
16	26.6	22.3	24.3	26.6	22.8	24.8	25.2	22.6	24.0	22.0	19.7	20.9
17	27.0	22.9	24.7	26.3	23.1	24.8	26.4	23.5	24.8	21.8	18.0	20.2
18	27.4	22.5	24.6	26.6	23.4	24.8	28.1	24.1	25.9	24.6	20.6	22.5
19	26.8	21.5	24.0	26.0	22.8	24.5	28.6	24.6	26.4	25.9	22.2	23.9
20	26.0	21.2	23.6	27.3	23.3	25.3	27.2	24.3	25.5	26.2	22.6	24.3
21	25.3	21.5	23.4	27.7	23.7	25.6	26.5	23.5	24.9	26.2	22.0	24.0
22	25.7	21.8	23.9	28.0	23.6	25.8	25.2	23.7	24.3	25.9	22.1	23.9
23	25.5	21.9	23.9	28.3	24.3	25.9	24.9	22.6	23.6	25.6	21.9	23.6
24	25.8	22.0	24.0	27.6	22.9	25.2	26.9	22.5	24.6	24.4	22.2	23.4
25	25.8	22.2	24.1	27.5	24.1	25.8	27.3	23.9	25.6	25.3	22.5	23.6
26	25.6	22.4	24.1	27.3	24.1	25.5	28.0	24.2	25.9	24.4	21.6	22.8
27	26.1	22.4	24.3	24.6	21.8	23.0	27.5	23.8	25.6	23.2	19.4	21.2
28	26.4	22.5	24.5	24.5	19.8	22.2	27.1	23.3	25.1	22.6	18.9	20.7
29	26.7	22.1	24.7	25.1	19.9	22.5	26.6	22.5	24.3	19.0	15.9	17.5
30	27.0	23.4	25.2	25.8	20.8	23.3	25.1	22.5	23.7	19.5	14.9	17.1
31	---	---	---	25.9	21.0	23.5	25.5	20.7	23.0	---	---	---

ARKANSAS RIVER BASIN

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	7.0	6.4	6.7	8.3	6.5	7.2
2	---	---	---	---	---	---	6.8	6.2	6.5	8.5	6.5	7.3
3	---	---	---	---	---	---	6.8	6.2	6.4	8.6	6.6	7.4
4	---	---	---	---	---	---	6.8	6.2	6.4	8.5	6.6	7.2
5	---	---	---	---	---	---	7.4	6.0	6.4	8.1	6.3	7.1
6	---	---	---	---	---	---	6.8	6.1	6.4	7.4	5.4	6.8
7	---	---	---	---	---	---	6.8	6.2	6.4	7.8	7.0	7.3
8	---	---	---	---	---	---	6.8	6.2	6.4	8.0	6.9	7.4
9	---	---	---	---	---	---	6.8	5.9	6.3	7.8	6.4	7.2
10	---	---	---	---	---	---	6.8	5.9	6.2	7.7	6.3	6.9
11	---	---	---	---	---	---	6.8	5.9	6.2	7.8	6.3	6.9
12	---	---	---	---	---	---	7.0	6.1	6.4	7.8	6.2	6.8
13	---	---	---	---	---	---	---	---	---	7.7	6.2	6.8
14	---	---	---	---	---	---	---	---	---	7.5	6.0	6.6
15	---	---	---	---	---	---	---	---	---	7.3	6.0	6.4
16	---	---	---	---	---	---	---	---	---	7.4	6.0	6.5
17	---	---	---	---	---	---	---	---	---	7.8	6.3	6.9
18	---	---	---	---	---	---	---	---	---	7.8	6.3	6.9
19	---	---	---	---	---	---	---	---	---	7.8	6.4	6.9
20	---	---	---	---	---	---	---	---	---	8.0	6.7	7.2
21	---	---	---	---	---	---	7.6	6.3	6.8	8.1	6.9	7.4
22	---	---	---	---	---	---	7.2	6.3	6.8	7.9	6.8	7.2
23	---	---	---	---	---	---	7.3	6.1	6.5	7.6	6.6	7.0
24	---	---	---	---	---	---	7.2	6.0	6.4	7.7	6.5	7.0
25	---	---	---	---	---	---	7.2	6.0	6.4	7.6	6.7	7.1
26	---	---	---	---	---	---	7.4	5.9	6.4	7.7	6.7	7.1
27	---	---	---	---	---	---	7.5	5.9	6.4	7.8	6.8	7.2
28	---	---	---	---	---	---	7.5	5.9	6.5	7.8	6.9	7.3
29	---	---	---	7.1	6.7	6.9	8.3	6.4	7.1	8.0	6.9	7.3
30	---	---	---	7.2	6.9	7.0	8.5	6.6	7.3	7.6	6.9	7.1
31	---	---	---	7.1	6.6	6.9	8.3	6.5	7.2	---	---	---

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.6	6.7	7.0	8.1	6.5	7.2	12.1	11.5	11.8	9.2	8.9	9.1
2	8.3	6.8	7.5	9.1	7.1	8.2	11.7	11.6	11.7	8.9	8.6	8.8
3	8.4	7.2	7.7	9.7	8.7	9.0	11.8	11.3	11.6	9.7	8.6	9.2
4	8.4	7.1	7.6	9.5	8.4	8.9	11.4	10.7	11.1	10.5	9.6	9.8
5	8.2	7.1	7.5	9.6	9.0	9.3	---	---	---	10.5	9.7	10.2
6	8.3	6.9	7.5	9.2	8.8	9.1	---	---	---	11.7	10.4	11.1
7	7.7	6.5	7.0	9.0	8.8	8.9	---	---	---	11.7	11.5	11.6
8	7.7	6.4	6.8	9.3	9.0	9.1	---	---	---	11.6	11.1	11.4
9	8.0	6.4	7.0	9.2	9.0	9.1	---	---	---	11.1	10.6	10.8
10	7.7	6.7	7.1	9.3	8.7	9.1	---	---	---	10.6	9.8	10.2
11	7.9	6.7	7.4	9.1	7.6	8.5	10.1	9.9	10	10.2	9.8	10.0
12	8.2	7.5	7.8	10.2	8.6	9.5	10.2	9.8	9.9	10.0	8.1	9.4
13	8.4	7.7	8.0	10.6	9.8	10.2	11.2	10.2	10.7	10.0	8.8	9.4
14	8.5	7.7	8.1	10.4	10.1	10.2	11.8	11.2	11.6	11.5	10.0	11.0
15	8.8	8.0	8.4	10.1	9.4	9.9	11.8	11.3	11.5	12.0	11.5	11.8
16	8.7	8.0	8.3	9.4	8.9	9.2	11.3	10.9	11.1	12.2	11.9	12.1
17	8.7	7.4	8.2	9.1	8.7	8.9	11.3	10.5	11.0	12.1	11.5	11.8
18	7.8	6.7	7.2	9.2	8.7	8.8	10.7	10.4	10.6	11.6	10.4	11.1
19	8.1	6.7	7.3	9.3	8.6	8.8	11.8	10.6	11.4	10.4	9.8	10.1
20	8.3	7.1	7.5	9.7	8.7	9.2	11.8	10.5	11.2	9.9	9.2	9.5
21	8.0	6.8	7.4	9.9	9.3	9.6	11.5	10.7	11.1	9.5	9.0	9.3
22	7.8	5.9	6.7	9.9	9.1	9.5	12.9	11.5	12.3	11.2	9.1	10.1
23	7.4	6.4	6.8	9.5	8.6	9.1	13.0	12.3	12.7	11.5	10.3	11.0
24	8.3	7.4	7.8	10.3	8.4	9.4	13.0	12.2	12.7	10.9	9.8	10.5
25	8.0	5.5	7.5	11.3	10.0	10.7	12.7	11.9	12.3	10.3	9.2	9.8
26	8.0	5.9	7.0	10.7	9.7	10.4	12.4	11.5	12.0	10.1	9.5	9.8
27	7.4	6.5	6.8	10.6	9.4	10.1	12.3	10.8	11.6	10.4	9.8	10.3
28	7.2	6.8	7.1	11.0	10.5	10.7	11.1	10.2	10.7	10.9	10.1	10.5
29	7.2	6.9	7.1	10.8	10.4	10.6	10.5	9.7	10.2	11.1	10.3	10.9
30	8.1	7.0	7.7	11.5	10.6	11.0	9.7	8.8	9.3	11.1	10.5	10.9
31	8.2	7.8	8.0	---	---	---	9.3	9.0	9.2	11.0	10.2	10.8
FEBRUARY			MARCH			APRIL			MAY			
1	11.0	10.5	10.8	10.7	10.1	10.3	9.9	8.5	9.2	8.9	8.0	8.4
2	11.0	10.5	10.7	10.4	9.8	10.1	10.5	8.6	9.4	8.9	8.0	8.4
3	11.2	11.0	11.1	10.1	9.4	9.8	10.0	8.1	9.0	8.8	7.9	8.4
4	11.2	10.6	10.9	9.9	9.1	9.5	9.6	7.6	8.5	8.7	7.7	8.2
5	10.7	10.2	10.6	9.8	9.1	9.4	9.2	7.5	8.1	8.5	7.6	8.0
6	10.5	9.3	10	9.7	8.6	9.3	8.9	7.1	8.0	8.4	7.2	7.8
7	10.1	9.2	9.6	9.4	8.5	8.9	8.3	7.0	7.6	8.3	7.1	7.6
8	10.7	10.1	10.4	10.1	9.1	9.6	8.3	7.4	7.8	8.0	7.0	7.4
9	11.4	10.2	11.0	10.0	9.1	9.6	8.1	7.3	7.6	8.2	6.8	7.5
10	11.5	10.8	11.2	10.1	9.2	9.8	8.0	7.2	7.5	8.0	6.6	7.1
11	10.8	10.1	10.6	10.1	9.0	9.6	8.1	7.3	7.7	7.8	6.5	6.9
12	10.2	9.6	10.0	9.6	8.4	9.1	8.8	7.4	8.0	8.2	6.5	7.0
13	10.0	8.7	9.4	10.3	8.5	9.6	8.9	8.0	8.4	7.8	6.5	7.0
14	10.1	9.0	9.5	10.3	9.1	9.8	8.9	8.1	8.5	7.8	6.8	7.4
15	9.4	8.8	9.1	10.0	9.0	9.5	8.6	7.8	8.2	8.3	7.3	7.8
16	10.4	9.2	9.8	10.3	9.3	9.8	8.3	7.6	8.0	8.3	7.4	7.9
17	10.2	9.7	9.9	10.2	9.0	9.6	8.2	7.4	7.8	8.0	7.1	7.6
18	10.3	9.8	10.1	9.8	8.6	9.3	8.1	7.4	7.7	7.9	6.9	7.4
19	10.0	9.5	9.7	10.0	8.6	9.3	7.9	7.4	7.6	7.4	6.5	7.0
20	9.5	8.8	9.2	9.8	8.2	9.1	7.8	7.0	7.3	7.3	6.5	6.8
21	---	---	---	9.0	8.2	8.6	7.5	6.7	7.0	7.4	6.4	6.8
22	---	---	---	9.4	8.5	8.9	7.9	6.8	7.4	7.2	6.3	6.7
23	11.0	10.4	10.7	10.6	9.2	9.9	8.5	7.7	8.1	7.3	4.9	6.1
24	12.1	10.1	11.1	10.5	9.3	10	8.5	7.7	8.1	6.9	4.6	5.6
25	10.6	9.7	10.1	10.3	9.2	9.7	8.2	7.7	7.9	6.6	4.3	5.4
26	10.3	9.3	9.8	10.5	9.5	9.9	8.6	7.8	8.2	7.4	5.4	6.4
27	9.9	9.0	9.4	10.8	9.7	10.2	8.7	7.8	8.3	7.7	6.6	7.1
28	10.4	9.2	9.8	10.6	8.8	9.9	8.3	7.6	7.9	7.4	7.1	7.3
29	---	---	---	10.0	8.2	9.1	8.5	7.6	8.1	7.2	7.0	7.1
30	---	---	---	9.6	8.1	8.7	8.9	8.0	8.5	7.2	6.8	7.0
31	---	---	---	10.1	8.4	9.1	---	---	---	7.1	6.8	7.0

ARKANSAS RIVER BASIN

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.5	6.9	7.2	7.8	5.6	6.5	8.6	6.9	7.5	8.3	6.3	7.0
2	7.4	6.9	7.2	7.0	6.1	6.6	8.6	6.8	7.5	8.1	6.2	6.9
3	7.4	6.5	6.8	6.9	6.5	6.7	8.6	7.0	7.6	8.0	6.1	6.8
4	6.8	6.5	6.7	7.1	6.6	6.9	8.8	6.9	7.6	8.1	6.0	6.7
5	6.9	6.5	6.7	7.4	7.0	7.2	8.8	6.9	7.6	7.9	6.3	6.9
6	6.8	6.4	6.7	8.9	6.6	7.5	8.8	7.1	7.8	8.2	6.4	7.1
7	6.7	6.4	6.6	7.9	7.1	7.6	9.1	7.1	7.8	8.2	6.3	7.0
8	6.6	6.2	6.4	8.4	7.6	7.9	9.0	7.0	7.7	8.0	6.1	6.9
9	6.7	6.2	6.4	8.5	7.8	8.0	9.3	7.0	7.8	8.0	6.2	6.9
10	6.8	6.2	6.5	8.6	7.8	8.1	9.3	6.9	7.8	8.0	6.2	6.8
11	7.0	6.4	6.6	8.9	7.6	8.0	9.3	6.7	7.6	7.8	6.0	6.7
12	7.2	6.4	6.7	9.1	7.6	8.1	9.0	6.5	7.5	7.6	5.8	6.4
13	6.8	4.0	4.8	9.2	7.4	8.1	8.9	6.6	7.5	7.4	5.8	6.3
14	6.6	4.0	5.4	9.3	7.3	8.1	8.0	6.6	7.0	7.2	5.7	6.3
15	6.7	5.7	6.3	9.3	7.2	7.9	7.9	7.1	7.4	7.1	5.8	6.7
16	6.8	6.2	6.5	9.7	7.2	8.1	8.2	7.2	7.6	7.5	6.7	7.1
17	6.8	6.3	6.5	9.3	7.2	8.0	8.0	6.9	7.5	7.7	7.0	7.4
18	6.8	6.5	6.6	9.5	7.1	8.1	8.3	6.9	7.5	7.5	6.6	7.1
19	6.9	6.6	6.7	10.0	7.5	8.4	8.2	6.8	7.3	7.1	6.2	6.7
20	6.9	6.5	6.7	10.1	7.5	8.5	8.4	6.6	7.3	7.1	6.1	6.5
21	6.9	6.6	6.7	10.2	7.5	8.4	8.6	6.9	7.6	7.2	6.0	6.5
22	6.8	6.4	6.6	10.1	7.3	8.3	8.6	6.6	7.3	7.3	6.0	6.5
23	6.6	6.3	6.5	9.9	7.3	8.1	8.3	6.8	7.3	7.4	6.0	6.6
24	6.6	6.2	6.4	9.7	7.2	8.2	8.4	6.5	7.3	7.4	6.1	6.6
25	6.5	6.2	6.4	9.6	7.1	8.1	8.3	6.4	7.0	7.2	6.1	6.5
26	6.5	6.2	6.3	9.5	7.0	8.0	8.2	6.3	7.0	7.6	6.1	6.6
27	6.6	6.1	6.3	9.7	7.3	8.2	8.3	6.2	7.0	7.9	6.5	7.0
28	6.6	6.0	6.3	9.2	7.5	8.1	8.1	6.3	7.0	7.5	6.6	7.0
29	6.8	6.1	6.4	9.4	6.7	7.9	8.1	6.3	7.0	8.4	6.9	7.6
30	6.8	6.0	6.4	8.5	6.6	7.3	8.5	6.3	7.1	8.7	7.5	8.0
31	---	---	---	8.7	6.8	7.6	8.1	6.4	7.1	---	---	---

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	19	8.8	11	27	9.0	14
2	---	---	---	---	---	---	16	8.0	9.9	47	10	16
3	---	---	---	---	---	---	12	7.3	9.1	860	22	82
4	---	---	---	---	---	---	16	7.2	9.5	610	25	120
5	---	---	---	---	---	---	76	7.2	18	84	35	49
6	---	---	---	---	---	---	480	18	85	76	30	39
7	---	---	---	---	---	---	130	46	83	31	20	25
8	---	---	---	---	---	---	47	28	35	22	17	19
9	---	---	---	18	9.0	12	34	16	22	20	15	17
10	---	---	---	570	7.3	34	44	14	18	21	15	16
11	---	---	---	430	30	69	25	15	17	20	14	16
12	---	---	---	54	15	26	22	14	16	270	15	58
13	33	20	23	46	11	15	37	12	17	86	61	76
14	41	20	25	20	8.6	12	48	11	15	95	34	49
15	28	21	23	78	9.4	13	36	12	15	35	24	28
16	39	20	24	44	9.3	12	21	11	14	27	21	23
17	26	19	22	36	10	15	17	11	14	25	19	21
18	42	19	22	68	14	25	21	11	14	25	17	20
19	34	18	21	29	9.8	14	18	10	13	28	16	21
20	24	19	21	23	9.7	14	95	12	20	31	15	23
21	27	19	22	75	11	23	45	10	15	36	19	26
22	---	---	---	100	16	41	19	9.0	12	---	---	---
23	---	---	---	57	13	24	25	9.0	13	---	---	---
24	---	---	---	120	28	79	16	9.0	11	---	---	---
25	---	---	---	52	16	25	26	8.0	11	---	---	---
26	---	---	---	38	12	16	72	9.0	14	---	---	---
27	---	---	---	35	9.9	12	43	8.0	12	---	---	---
28	---	---	---	24	9.0	11	33	8.0	14	---	---	---
29	---	---	---	45	8.3	19	26	8.0	13	---	---	---
30	---	---	---	22	12	15	160	10	26	---	---	---
31	---	---	---	---	---	---	77	9.0	16	---	---	---
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	26	15	19	88	15	36	26	5.8	11
2	51	9.0	15	25	14	18	50	23	37	33	4.9	9.7
3	30	7.0	12	40	14	18	36	17	25	15	4.0	9.1
4	50	8.0	12	32	14	20	32	14	20	16	4.1	9.3
5	34	7.0	13	32	15	21	78	13	25	23	5.2	9.1
6	160	13	58	40	15	21	890	22	93	16	5.2	9.6
7	87	27	45	51	17	21	>1,000	43	150	15	6.3	9.1
8	34	26	30	29	13	18	63	33	40	13	6.3	8.8
9	47	31	38	32	13	19	38	25	30	15	5.5	9.8
10	36	24	30	32	14	21	53	20	25	14	5.5	8.5
11	25	17	20	28	14	20	77	26	43	31	5.6	8.9
12	19	15	16	37	18	24	55	22	30	11	5.0	7.7
13	42	19	35	26	12	18	26	16	21	73	4.0	13
14	29	22	26	24	12	17	72	15	23	480	12	86
15	23	18	20	27	11	15	60	16	23	46	12	24
16	19	14	16	23	12	16	37	14	23	35	8.9	18
17	18	10	13	26	12	17	70	12	23	22	6.9	14
18	15	9.0	10	35	13	20	32	11	19	30	5.9	11
19	15	7.0	9.9	24	12	17	48	12	18	17	5.9	10
20	35	10	15	27	12	17	34	12	17	16	4.8	9.6
21	---	---	---	34	11	18	430	7.1	38	21	4.8	8.6
22	---	---	---	78	17	35	38	7.1	14	20	5.8	8.6
23	---	---	---	820	30	110	24	8.2	14	>1,000	5.8	230
24	---	---	---	49	20	28	33	6.3	12	340	63	190
25	42	24	30	38	15	22	21	4.4	10	63	26	41
26	27	21	23	39	18	21	25	5.4	12	190	21	32
27	24	18	20	53	15	19	36	5.5	12	460	11	45
28	35	17	19	30	14	20	21	7.6	14	40	20	29
29	---	---	---	31	13	20	14	4.7	8.2	50	22	32
30	---	---	---	29	16	20	56	6.7	12	49	21	29
31	---	---	---	24	11	15	---	---	---	60	17	29

07185090 TAR CREEK NEAR COMMERCE, OK.—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	70	18	29	>1,000	12	120	9.0	4.0	6.1	12	2.0	2.8
2	57	17	24	49	26	33	6.0	5.0	5.4	4.0	2.0	2.7
3	77	15	26	31	12	19	7.0	4.0	5.2	6.0	2.0	3.1
4	59	15	24	77	12	26	6.0	4.0	4.5	23	2.0	3.4
5	27	11	18	120	22	36	7.0	4.0	4.7	4.0	1.0	2.3
6	27	12	16	33	18	26	9.0	4.0	4.4	11	2.0	2.7
7	19	9.7	14	30	15	22	6.0	4.0	4.3	3.0	2.0	2.6
8	21	11	14	42	15	21	6.0	3.0	4.0	5.0	2.0	2.8
9	32	9.7	15	30	15	21	6.0	3.0	3.6	5.0	2.0	2.7
10	21	9.6	13	27	16	21	5.0	3.0	3.6	6.0	2.0	2.6
11	89	11	23	29	17	21	12	3.0	3.6	4.0	2.0	2.6
12	>1,000	11	85	26	17	21	25	3.0	3.6	4.0	2.0	2.5
13	>1,000	58	130	29	16	20	5.0	3.0	3.3	14	2.0	3.0
14	170	31	45	34	15	19	26	2.0	6.3	15	1.0	3.6
15	78	25	33	32	12	17	54	3.0	15	290	3.0	34
16	64	30	41	25	10	16	23	6.0	9.0	38	11	18
17	62	32	39	21	10	13	10	3.0	5.2	14	8.0	11
18	68	26	39	20	8.1	13	14	3.0	4.0	63	5.0	9.2
19	46	25	34	29	8.1	11	25	3.0	4.0	10	3.0	5.0
20	82	21	30	15	8.0	11	6.0	2.0	3.2	5.0	3.0	3.6
21	89	22	28	22	6.9	9.4	12	3.0	3.6	9.0	3.0	3.8
22	83	19	24	16	6.9	8.6	25	2.0	4.5	18	3.0	3.8
23	33	16	21	22	5.8	8.4	10	3.0	4.1	17	2.0	3.3
24	36	16	21	12	5.8	8.7	17	3.0	4.3	6.0	2.0	3.3
25	32	17	22	14	5.8	7.4	22	3.0	3.7	4.0	2.0	3.1
26	55	18	23	20	5.7	7.2	6.0	2.0	3.0	4.0	2.0	2.8
27	36	18	23	14	5.7	7.6	5.0	2.0	2.8	6.0	2.0	3.3
28	38	16	21	15	6.8	9.3	6.0	2.0	2.7	8.0	2.0	3.8
29	89	12	22	12	4.0	7.7	6.0	2.0	2.9	10	3.0	6.0
30	30	12	17	10	5.0	7.1	12	2.0	3.5	10	4.0	6.9
31	---	---	---	8.0	5.0	6.2	16	2.0	3.6	---	---	---

> Actual value is known to be greater than the value shown

THIS PAGE IS INTENTIONALLY BLANK

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK

LOCATION.--Lat 36°54'00", long 94°52'05", in NW ¼ NE ¼ sec.19, T.28 N., R.23 E., Ottawa County, Hydrologic Unit 11070206, near downstream left abutment of 22nd Street bridge in Miami, 0.5 mi east of intersection of Main and 22nd Street, 0.8 mi upstream from unnamed tributary, 1.7 mi downstream of Garrett Creek and at mile 3.8.

DRAINAGE AREA.--44.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1984 to September 1993, May 2004 to current year.

REVISED RECORDS.--WDR OK-89-1: 1985 (M).

GAGE.--Water-stage recorder. Datum of gage is 762.23 ft above NGVD of 1929.

REMARKS.--Records fair except for estimated periods which are poor. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

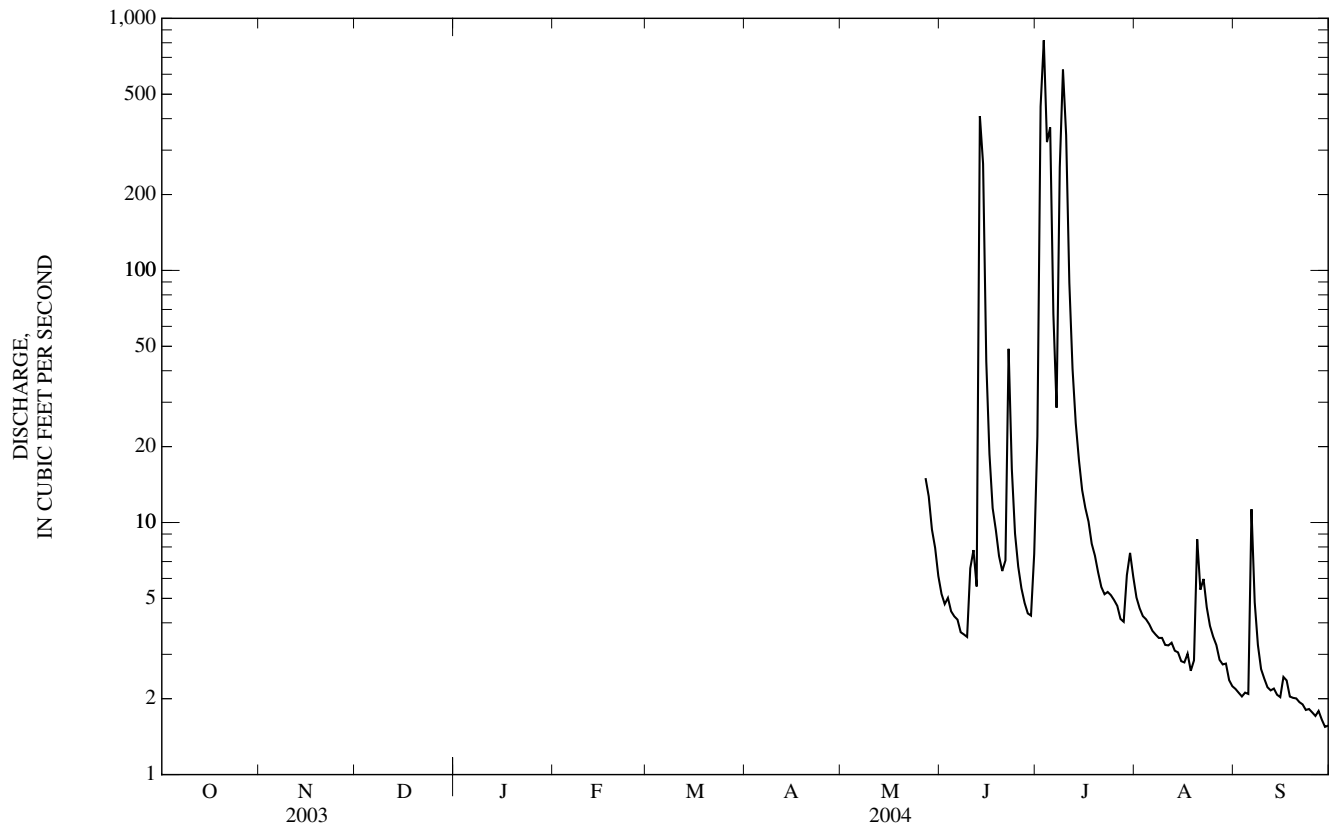
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	5.2	e22	5.0	2.2
2	---	---	---	---	---	---	---	---	4.7	e447	4.6	2.1
3	---	---	---	---	---	---	---	---	5.0	818	4.3	2.0
4	---	---	---	---	---	---	---	---	4.4	323	4.1	2.1
5	---	---	---	---	---	---	---	---	4.2	369	3.9	2.1
6	---	---	---	---	---	---	---	---	4.1	67	3.7	11
7	---	---	---	---	---	---	---	---	3.7	29	3.6	4.8
8	---	---	---	---	---	---	---	---	3.6	256	3.5	3.3
9	---	---	---	---	---	---	---	---	3.5	626	3.5	2.6
10	---	---	---	---	---	---	---	---	6.6	344	3.3	2.4
11	---	---	---	---	---	---	---	---	7.8	89	3.3	2.2
12	---	---	---	---	---	---	---	---	5.6	41	3.3	2.2
13	---	---	---	---	---	---	---	---	410	25	3.1	2.2
14	---	---	---	---	---	---	---	---	265	18	3.1	2.1
15	---	---	---	---	---	---	---	---	44	13	2.8	2.0
16	---	---	---	---	---	---	---	---	19	11	2.8	2.4
17	---	---	---	---	---	---	---	---	11	10	3.0	2.4
18	---	---	---	---	---	---	---	---	9.3	8.2	2.6	2.0
19	---	---	---	---	---	---	---	---	7.4	7.4	2.8	2.0
20	---	---	---	---	---	---	---	---	6.4	6.3	8.6	2.0
21	---	---	---	---	---	---	---	---	7.1	5.5	5.4	1.9
22	---	---	---	---	---	---	---	---	49	5.2	6.0	1.9
23	---	---	---	---	---	---	---	---	16	5.3	4.6	1.8
24	---	---	---	---	---	---	---	---	9.0	5.1	3.9	1.8
25	---	---	---	---	---	---	---	---	6.7	4.9	3.5	1.8
26	---	---	---	---	---	---	---	---	5.5	4.7	3.3	1.7
27	---	---	---	---	---	---	---	---	4.8	4.1	2.9	1.8
28	---	---	---	---	---	---	---	e15	4.4	4.0	2.7	1.7
29	---	---	---	---	---	---	---	13	4.3	6.2	2.8	1.5
30	---	---	---	---	---	---	---	9.4	7.9	7.6	2.4	1.6
31	---	---	---	---	---	---	---	7.9	e7.5	6.1	2.2	---
TOTAL	---	---	---	---	---	---	---	---	944.8	3,588.6	114.6	73.6
MEAN	---	---	---	---	---	---	---	---	31.5	116	3.70	2.45
MAX	---	---	---	---	---	---	---	---	410	818	8.6	11
MIN	---	---	---	---	---	---	---	---	3.5	4.0	2.2	1.5
AC-FT	---	---	---	---	---	---	---	---	1,870	7,120	227	146

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2004, BY WATER YEAR (WY)

MEAN	43.9	120	88.4	50.7	80.5	104	71.3	87.0	48.6	40.6	16.0	83.3
MAX	241	373	299	103	239	284	128	292	152	123	59.8	509
(WY)	(1987)	(1986)	(1993)	(1993)	(1985)	(1990)	(1990)	(1993)	(1990)	(1993)	(1985)	(1993)
MIN	3.65	3.63	2.68	8.32	16.0	10.8	16.1	4.13	3.24	2.37	1.47	2.45
(WY)	(1990)	(1990)	(1990)	(1986)	(1991)	(1992)	(1989)	(1988)	(1988)	(1986)	(1988)	(1991)

e Estimated

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK—Continued



07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	189	44	11	18	21	25	5.5	10	62	2.3	1.7
2	1.7	70	34	12	18	19	25	5.0	8.6	23	2.4	1.7
3	1.5	111	28	38	22	17	21	4.6	7.0	10	2.3	1.8
4	1.4	116	24	345	20	15	16	4.3	7.6	11	2.3	2.0
5	1.4	54	25	1,430	19	13	13	4.3	7.2	12	2.2	1.9
6	1.5	32	126	558	66	12	29	4.2	6.5	11	2.2	1.7
7	2.2	22	541	103	186	12	122	4.1	5.7	7.6	2.1	1.7
8	5.0	17	164	62	125	10	56	3.9	5.2	5.9	2.0	1.7
9	3.1	14	72	53	223	9.7	31	4.1	5.0	4.9	1.9	1.8
10	2.9	13	46	46	97	9.7	23	4.0	4.9	4.3	1.9	1.8
11	5.9	155	34	40	51	8.5	31	3.7	5.4	4.3	2.0	1.7
12	5.6	107	28	76	39	9.0	33	3.6	10	3.9	1.8	1.6
13	5.1	54	24	453	146	7.6	22	3.4	707	3.9	1.7	1.5
14	4.3	33	21	119	105	6.6	17	18	180	3.6	4.8	2.3
15	4.1	24	19	53	50	6.5	14	15	46	3.7	26	23
16	3.0	20	18	35	33	7.3	11	11	32	3.4	9.6	9.5
17	2.8	17	16	27	26	6.5	9.5	9.1	26	3.2	4.5	4.1
18	2.5	27	16	24	21	6.2	8.2	6.5	18	3.0	3.1	2.5
19	2.5	30	14	22	19	6.3	7.5	5.4	14	3.3	2.5	1.8
20	2.9	24	14	21	18	5.4	7.1	4.9	9.7	3.3	2.0	1.6
21	2.8	25	14	20	22	5.3	27	4.5	7.4	2.9	2.0	1.4
22	8.8	41	13	17	33	9.5	22	3.8	6.6	2.7	2.0	1.3
23	18	46	11	14	77	18	11	76	5.6	2.8	2.1	1.4
24	6.3	116	10	15	117	20	7.8	497	5.5	4.4	2.2	1.4
25	4.7	131	10	16	58	19	6.8	563	4.6	3.3	2.1	1.3
26	78	61	11	14	36	18	8.3	82	4.3	2.8	1.9	1.3
27	42	39	11	11	28	17	7.3	40	4.2	2.6	1.8	1.2
28	18	29	11	11	24	14	7.6	26	3.9	2.5	e1.8	1.3
29	13	48	11	15	---	12	6.9	18	4.2	2.5	1.7	1.4
30	14	57	11	18	---	10	6.2	13	4.1	2.5	e1.8	1.2
31	11	---	13	18	---	8.7	---	9.1	---	2.4	1.7	---
TOTAL	277.5	1,722	1,434	3,697	1,697	359.8	632.2	1,457.0	1,166.2	218.7	100.7	80.6
MEAN	8.95	57.4	46.3	119	60.6	11.6	21.1	47.0	38.9	7.05	3.25	2.69
MAX	78	189	541	1,430	223	21	122	563	707	62	26	23
MIN	1.4	13	10	11	18	5.3	6.2	3.4	3.9	2.4	1.7	1.2
AC-FT	550	3,420	2,840	7,330	3,370	714	1,250	2,890	2,310	434	200	160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2005, BY WATER YEAR (WY)

MEAN	40.4	114	84.1	57.6	78.5	94.5	66.3	83.0	47.7	37.5	14.8	76.0
MAX	241	373	299	119	239	284	128	292	152	123	59.8	509
(WY)	(1987)	(1986)	(1993)	(2005)	(1985)	(1990)	(1990)	(1993)	(1990)	(1993)	(1985)	(1993)
MIN	3.65	3.63	2.68	8.32	16.0	10.8	16.1	4.13	3.24	2.37	1.47	2.45
(WY)	(1990)	(1990)	(1990)	(1986)	(1991)	(1992)	(1989)	(1988)	(1988)	(1986)	(1988)	(1991)

e Estimated

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK—Continued

SUMMARY STATISTICS

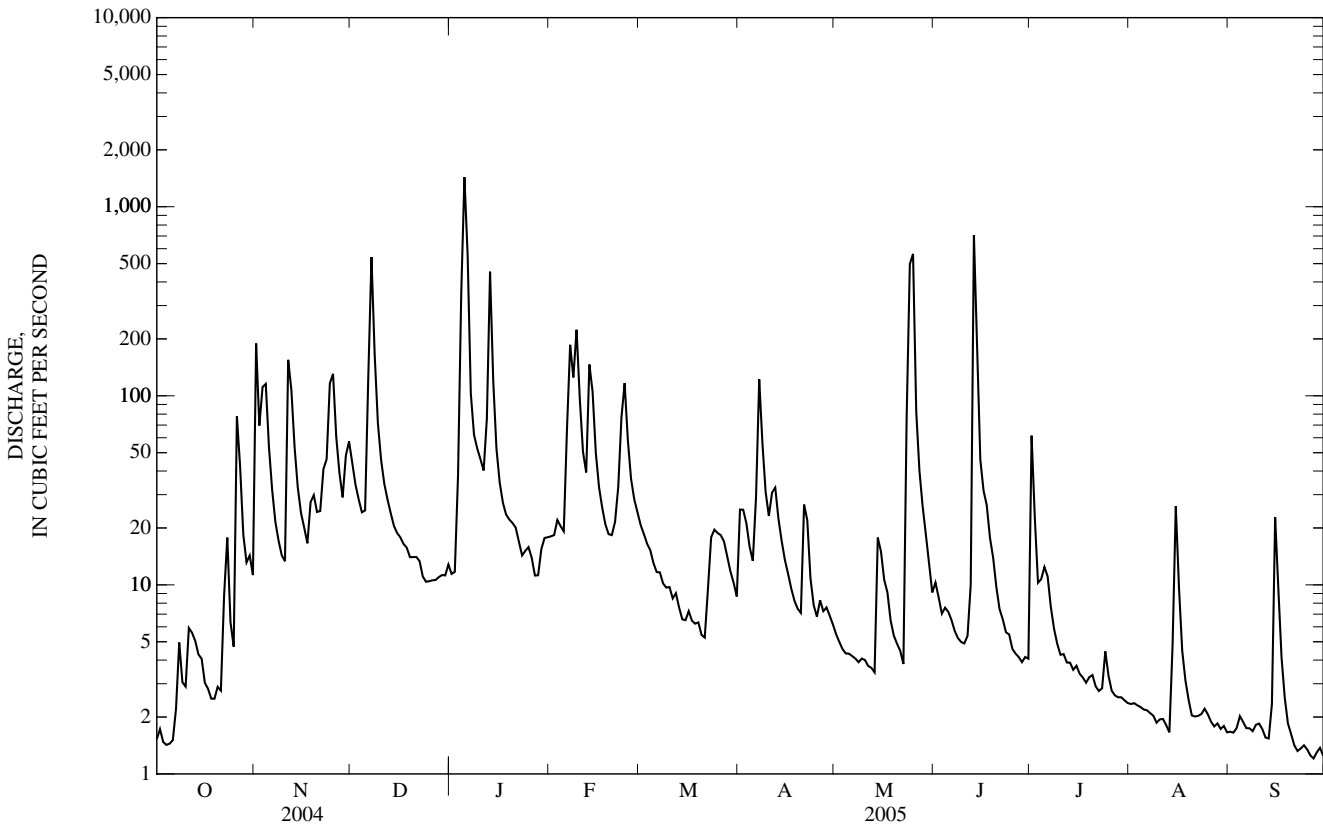
FOR 2005 WATER YEAR

WATER YEARS 1985 - 2005

ANNUAL TOTAL	12,842.7		66.2	
ANNUAL MEAN	35.2		167	1993
HIGHEST ANNUAL MEAN			22.9	1991
LOWEST ANNUAL MEAN			8,200	Sep 25, 1993
HIGHEST DAILY MEAN	1,430	Jan 5	a0.37	Oct 1, 1984
LOWEST DAILY MEAN	1.2	Sep 27,30	0.57	Jul 20, 1986
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 24	12,400	Sep 25, 1993
MAXIMUM PEAK FLOW	1,830	Jan 5	b14.70	Sep 25, 1993
MAXIMUM PEAK STAGE	11.07	Jan 5		
ANNUAL RUNOFF (AC-FT)	25,470		47,940	
10 PERCENT EXCEEDS	64		125	
50 PERCENT EXCEEDS	11		12	
90 PERCENT EXCEEDS	1.9		2.5	

a Minimum daily for period of record, 0.07 ft³/s Aug. 15, 1984.

b From floodmark.



07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK--Continued.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1988 to May 1989, September 1989 to December 1992, March 2000 to September 2000, July 2004 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 2004 to current year.

pH: July 2004 to current year.

WATER TEMPERATURE: July 2004 to current year.

DISSOLVED OXYGEN: July 2004 to current year.

TURBIDITY: October 2004 to current year.

INSTRUMENTATION.--Water-quality monitor since July 2004.

REMARKS.--Interruptions in record were due to malfunction of the recording instrument. Event samples were collected by the U.S. Geological Survey. Water and bed sediment samples were analyzed by the Oklahoma Department of Environmental Quality. Specific conductance, pH, water temperature, dissolved oxygen, and turbidity were determined in the field.

COOPERATION.--Sampling beginning in 2004 is in cooperation with the Oklahoma Department of Environmental Quality.

EXTREMES FOR CURRENT PERIOD.--

July to September 2004

SPECIFIC CONDUCTANCE: Maximum, 2,410 microsiemens, Sept. 30; minimum, 1,170 microsiemens, Sept. 6.

pH: Maximum, 7.3 units, Sept. 9, 10; minimum, 6.5 units, Sept. 6.

WATER TEMPERATURE: Maximum, 27.7°C, Aug. 4; minimum, 18.1°C Sept. 30.

DISSOLVED OXYGEN: Maximum, 8.2 mg/L, Sept. 10; minimum, 1.1 mg/L, Sept. 30.

Water Year 2005

SPECIFIC CONDUCTANCE: Maximum, 2,490 microsiemens, Aug. 9, 10; minimum, 345 microsiemens, June 13.

pH: Maximum, 7.6 units, Apr. 4; minimum, 6.5 units, June 13, 14.

WATER TEMPERATURE: Maximum, 29.6°C, July 23; minimum, 0.4°C Dec. 24, 25.

DISSOLVED OXYGEN: Maximum, 12.9 mg/L, Dec. 24, Jan. 24, Apr. 4; minimum, 1.2 mg/L, Oct. 1.

TURBIDITY: Maximum, >1,000 FNU, Dec. 6, May 24; minimum, 2.0 FNU, Aug. 1-4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Turbid- ity, wat unf lab, Hach 2100AN NTU (99872)	Turb- idity, IR LED light, det ang 90 deg, FNU (63680)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)
JAN 05...	1340	1028	84017	1,790	68	69	736	10.2	6.8	523	-1.6	5.5	230
MAY 23...	1530	1028	84017	153	57	73	738	6.5	7.1	535	26.0	22.2	240
24...	1815	1028	84017	952	170	150	736	5.7	6.6	470	--	19.6	240
JUN 13...	1430	1028	84017	838	78	88	739	5.3	6.6	663	32.0	22.1	310
SEP 15...	1300	1028	84017	50	16	16	741	6.3	6.6	1,760	24.0	22.1	880

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover- able, mg/L (00918)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, unfltrd recover- able, mg/L (00927)	Potas- sium, water, fltrd, mg/L (00935)	Potas- sium, water, unfltrd recover- able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover- able, mg/L (00929)	Calcium bed sedimnt recover- able, mg/kg (00917)	Magnes- ium, bed sedimnt recover- able, mg/kg (00924)	Sodium, bed sedimnt recover- able, mg/kg (00934)	ANC, wat unf methyl orange end pt, mg/L as CaCO3 (00411)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)
JAN 05...	72.0	71	9.00	10.0	5.00	5.0	6.00	6.0	--	--	--	31	38
MAY 23...	76.0	80	9.00	9.0	6.00	7.0	9.00	9.0	2,100	<1,000	<1,000	55	--
24...	72.0	74	9.00	9.0	4.00	5.0	7.00	7.0	<1,000	<1,000	<1,000	21	--
JUN 13...	98.0	97	12.0	12.0	4.00	5.0	9.00	9.0	--	--	--	55	--
SEP 15...	240	250	52.0	51.0	8.00	8.0	40.0	40.0	3,900	<1,000	<1,000	81	--

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, unfltrd mg/L (99220)	Sulfate water unfltrd mg/L (00946)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Nitrate water, fltrd, mg/L as N (00618)	COD, high level, water, unfltrd mg/L (00340)	Alum- inum, water, fltrd, ug/L (01106)	Alum- inum, water, unfltrd recover- able, ug/L (01105)	Anti- mony, water, fltrd, ug/L (01095)	Anti- mony, water, unfltrd ug/L (01097)	Arsenic water, fltrd, ug/L (01000)
JAN 05...	47	.0	<10	209	381	61	.35	27	<300	2,900	<10	<10	<10.0
MAY 23...	--	--	<10	189	373	70	.79	32	<300	2,400	<10	<10	<10.0
24...	--	--	<10	195	350	48	.58	40	<300	5,100	<10	<10	<10.0
JUN 13...	--	--	<10	247	390	78	.15	24	<300	2,600	<10	<10	<10.0
SEP 15...	--	--	21	756	1,390	12	.22	18	<300	<300	<10	<10	<10.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover- able, ug/L (01007)	Beryll- ium, water, fltrd, ug/L (01010)	Beryll- ium, water, unfltrd recover- able, ug/L (01012)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, fltrd, ug/L (01030)	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover- able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)
JAN 05...	<10	21.0	33	<5	<5	<5	5.0	<5	<5	<5	5	<5	M
MAY 23...	<10	28.0	39	<5	<5	<5	<5	<5	<5	<5	<5	<5	M
24...	<10	33.0	56	<5	<5	<5	9.0	<5	5	<5	5	9	M
JUN 13...	<10	31.0	42	<5	<5	<5	6.0	<5	<5	<5	5	<5	M
SEP 15...	<10	20.0	20	<5	<5	<5	<5	<5	<5	10	9	<5	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Molyb- denum, water, fltrd, ug/L (01060)	Molyb- denum, water, unfltrd recover- able, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)
JAN 05...	2,980	9,130	<10	40.0	240	290	<5	<5	31.0	40	<10	10	<5
MAY 23...	50	6,960	<10	33.0	330	400	<5	<5	15.0	20	<10	<10	<5
24...	600	14,300	<10	76.0	360	460	<5	<5	25.0	40	<10	<10	<5
JUN 13...	980	9,010	<10	49.0	380	410	<5	<5	35.0	40	<10	<10	<5
SEP 15...	80	1,740	<10	<10	630	610	<5	<5	100	100	<10	<10	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)	Alum- inum, bed sedimnt recover- able, ug/g (01108)	Arsenic bed sedimnt total, ug/g (01003)	Barium, bed sedimnt recover- able, ug/g (01008)	Cadmium bed sedimnt recover- able, ug/g (01028)	Chrom- ium, bed sedimnt recover- able, ug/g (01029)	Copper, bed sedimnt recover- able, ug/g (01043)	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	Nickel, bed sedimnt recover- able, ug/g (01068)
JAN 05...	<5.00	1,480	2,030	--	--	--	--	--	--	--	--	--	--
MAY 23...	<5.00	430	1,150	5,200	26	<40	7.0	71	14	100,000	99	460	62
24...	<5.00	1,020	2,390	7,500	35	70	3.0	140	25	160,000	84	800	88
JUN 13...	<5.00	1,440	2,180	--	--	--	--	--	--	--	--	--	--
SEP 15...	<5.00	1,240	1,340	7,700	46	810	4.0	64	18	120,000	100	8,900	100

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Zinc, bed sediment recover- able, ug/g (01093)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
JAN 05...	--	92	145	702
MAY 23...	2,700	96	122	50
24...	2,300	84	249	640
JUN 13...	--	93	148	335
SEP 15...	2,100	94	12	1.6

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	1,940	1,890	1,910	2,240	2,210	2,220
2	---	---	---	---	---	---	1,940	1,880	1,920	2,250	2,230	2,240
3	---	---	---	---	---	---	1,960	1,940	1,940	2,270	2,250	2,260
4	---	---	---	---	---	---	1,990	1,960	1,980	2,290	2,270	2,280
5	---	---	---	---	---	---	2,010	1,990	2,000	2,290	2,280	2,280
6	---	---	---	---	---	---	2,020	2,000	2,010	2,340	1,170	2,050
7	---	---	---	---	---	---	2,070	2,010	2,050	1,840	1,630	1,700
8	---	---	---	---	---	---	2,090	2,060	2,080	1,650	1,630	1,640
9	---	---	---	---	---	---	2,100	2,080	2,090	---	---	---
10	---	---	---	---	---	---	2,110	2,100	2,100	1,880	1,770	1,820
11	---	---	---	---	---	---	2,120	2,110	2,110	1,910	1,860	1,880
12	---	---	---	---	---	---	2,140	2,110	2,120	1,980	1,900	1,930
13	---	---	---	---	---	---	2,150	2,140	2,140	2,060	1,980	2,010
14	---	---	---	---	---	---	2,160	2,140	2,150	2,110	2,050	2,080
15	---	---	---	---	---	---	2,170	2,150	2,160	2,180	2,110	2,140
16	---	---	---	---	---	---	2,180	2,160	2,170	2,220	2,170	2,190
17	---	---	---	1,660	1,590	1,630	2,190	2,170	2,180	2,240	2,210	2,230
18	---	---	---	1,700	1,660	1,690	2,190	2,180	2,180	2,280	2,240	2,250
19	---	---	---	1,770	1,700	1,750	2,190	1,210	2,130	2,300	2,270	2,280
20	---	---	---	1,830	1,770	1,800	2,120	1,760	2,040	2,310	2,290	2,300
21	---	---	---	1,890	1,810	1,850	2,040	1,460	1,690	2,360	2,300	2,330
22	---	---	---	1,930	1,890	1,910	1,710	1,460	1,570	2,370	2,350	2,360
23	---	---	---	2,000	1,930	1,960	1,960	1,710	1,850	2,380	2,370	2,370
24	---	---	---	2,040	1,990	2,010	1,950	1,890	1,910	2,380	2,370	2,380
25	---	---	---	2,030	1,920	1,980	1,920	1,890	1,910	2,380	2,370	2,380
26	---	---	---	1,950	1,920	1,940	1,970	1,920	1,940	2,380	2,370	2,370
27	---	---	---	1,960	1,940	1,950	2,010	1,970	1,990	2,380	2,370	2,370
28	---	---	---	1,970	1,940	1,960	2,030	2,000	2,010	2,390	2,360	2,370
29	---	---	---	1,990	1,850	1,950	2,060	2,030	2,040	2,400	2,360	2,380
30	---	---	---	2,060	1,970	2,020	2,120	2,060	2,080	2,410	2,400	2,400
31	---	---	---	1,990	1,890	1,910	2,220	2,110	2,160	---	---	---

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	2,400	2,390	2,400	1,510	446	733	1,070	1,040	1,050	1,700	1,590	1,640
2	2,400	2,390	2,400	1,030	766	949	1,200	1,060	1,130	1,650	1,190	1,610
3	2,410	2,390	2,400	1,080	652	910	1,290	1,190	1,240	1,600	927	1,370
4	2,390	2,350	2,380	996	766	889	1,380	1,290	1,340	960	398	684
5	2,360	2,340	2,350	1,050	938	1,000	1,410	1,310	1,380	683	446	548
6	2,360	2,340	2,350	1,220	1,040	1,140	1,450	441	1,170	856	683	781
7	2,400	1,960	2,320	1,320	1,210	1,280	779	461	696	937	798	868
8	2,410	2,190	2,350	1,420	1,310	1,360	833	709	765	1,000	937	964
9	2,410	2,270	2,370	1,410	1,360	1,390	975	831	904	1,060	1,000	1,040
10	2,350	1,940	2,200	1,440	909	1,340	1,080	975	1,030	1,070	1,030	1,050
11	2,160	1,970	2,110	1,600	650	907	1,160	1,080	1,110	1,090	1,060	1,070
12	2,130	2,000	2,100	1,020	872	988	1,290	1,160	1,240	1,150	663	1,050
13	2,100	1,900	2,010	1,080	1,000	1,030	1,340	1,280	1,310	752	615	686
14	1,960	1,880	1,930	1,180	1,080	1,130	1,370	1,260	1,310	839	695	758
15	2,000	1,900	1,940	1,260	1,180	1,220	1,470	1,370	1,390	993	839	917
16	2,070	1,990	2,030	1,320	1,260	1,280	1,560	1,460	1,490	1,140	993	1,070
17	2,080	2,020	2,050	1,430	1,320	1,380	1,570	1,550	1,560	1,230	1,120	1,170
18	2,040	1,970	2,010	1,470	1,350	1,420	1,610	1,550	1,580	1,320	1,230	1,270
19	2,040	1,980	2,020	1,390	1,220	1,280	1,650	1,610	1,640	1,390	1,320	1,360
20	2,100	2,010	2,060	1,360	1,260	1,340	1,680	1,610	1,660	1,390	1,360	1,370
21	2,100	2,040	2,080	1,370	1,230	1,330	1,750	1,590	1,650	1,400	1,380	1,390
22	2,140	706	1,930	1,360	1,090	1,230	1,790	1,670	1,730	1,480	1,380	1,420
23	2,060	843	1,320	1,290	1,120	1,210	1,730	1,670	1,690	1,460	1,400	1,430
24	1,190	856	1,040	1,250	961	1,120	1,810	1,720	1,760	1,540	1,400	1,460
25	1,330	1,170	1,240	964	836	873	1,830	1,810	1,820	1,560	1,530	1,550
26	1,610	466	963	993	851	912	1,820	1,810	1,820	1,560	1,520	1,540
27	919	526	743	1,130	990	1,070	1,820	1,780	1,810	1,560	1,480	1,540
28	1,200	919	1,090	1,160	1,100	1,130	1,780	1,720	1,760	1,570	1,500	1,540
29	1,370	1,190	1,290	1,290	849	1,110	1,770	1,700	1,730	1,610	1,550	1,580
30	1,490	1,360	1,430	1,040	845	928	1,740	1,700	1,730	1,610	1,470	1,560
31	1,510	1,040	1,410	---	---	---	1,730	1,650	1,690	1,470	1,410	1,430
FEBRUARY			MARCH			APRIL			MAY			
1	1,440	1,380	1,420	1,320	1,280	1,300	1,570	815	1,290	1,850	1,780	1,810
2	1,410	1,360	1,380	1,370	1,320	1,340	1,120	939	1,020	1,860	1,810	1,830
3	1,440	1,320	1,390	1,440	1,370	1,400	1,150	1,100	1,120	1,880	1,850	1,860
4	1,340	1,300	1,310	1,480	1,430	1,440	1,260	1,140	1,200	1,920	1,880	1,900
5	1,380	1,330	1,350	1,480	1,460	1,480	1,340	1,050	1,280	1,980	1,920	1,950
6	1,380	653	1,140	1,530	1,480	1,510	1,520	1,130	1,320	2,010	1,980	1,990
7	844	653	767	1,570	1,500	1,540	1,160	641	809	2,070	2,010	2,050
8	733	542	661	1,680	1,570	1,640	791	653	714	2,130	2,070	2,100
9	699	530	627	1,640	1,560	1,600	951	791	887	2,180	2,080	2,130
10	788	655	712	1,650	1,560	1,610	1,100	949	1,040	2,170	2,130	2,150
11	963	788	884	1,640	1,520	1,580	1,160	861	1,080	2,210	2,170	2,190
12	1,060	963	1,030	1,680	1,600	1,640	1,110	975	1,050	2,220	2,190	2,210
13	1,060	686	819	1,640	1,610	1,620	1,100	981	1,040	2,260	2,200	2,230
14	770	675	704	1,750	1,630	1,700	1,210	1,090	1,180	2,240	1,480	1,990
15	974	770	878	1,730	1,690	1,710	1,300	1,200	1,270	1,480	1,370	1,450
16	1,040	967	995	1,920	1,700	1,790	1,400	1,290	1,360	1,410	1,350	1,390
17	1,210	1,040	1,120	1,870	1,770	1,800	1,470	1,380	1,430	1,470	1,380	1,420
18	1,320	1,190	1,260	1,800	1,730	1,760	1,560	1,380	1,500	1,570	1,470	1,510
19	1,400	1,260	1,330	1,790	1,740	1,760	1,720	1,550	1,640	1,700	1,560	1,630
20	1,470	1,360	1,430	1,800	1,740	1,780	1,810	1,720	1,760	1,820	1,700	1,740
21	1,460	1,390	1,440	1,800	1,750	1,770	1,850	732	1,600	1,900	1,820	1,850
22	1,440	1,070	1,250	1,880	1,760	1,810	963	646	767	1,970	1,900	1,940
23	1,080	726	905	1,960	1,520	1,740	1,360	963	1,170	2,000	543	1,230
24	818	725	763	1,520	1,180	1,330	1,530	1,360	1,450	867	402	662
25	910	752	830	1,290	1,180	1,230	1,630	1,530	1,560	899	666	780
26	1,060	910	992	1,290	1,190	1,240	1,790	1,570	1,690	992	756	858
27	1,190	1,060	1,130	1,210	1,170	1,190	1,850	1,790	1,820	1,120	992	1,060
28	1,290	1,190	1,250	1,270	1,190	1,240	1,820	1,740	1,780	1,270	1,120	1,190
29	---	---	---	1,360	1,260	1,300	1,830	1,750	1,780	1,350	1,270	1,320
30	---	---	---	1,460	1,360	1,380	1,830	1,780	1,800	1,450	1,350	1,420
31	---	---	---	1,480	1,440	1,460	---	---	---	1,580	1,450	1,510

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1,710	1,570	1,650	2,200	505	1,030	2,320	2,280	2,290	2,320	2,300	2,310
2	1,740	1,640	1,700	941	563	822	2,340	2,300	2,320	2,340	2,310	2,320
3	1,730	1,620	1,670	1,190	892	1,040	2,360	2,330	2,340	2,360	1,980	2,290
4	1,790	1,720	1,750	1,560	903	1,270	2,380	2,310	2,350	2,340	2,070	2,290
5	1,860	1,790	1,820	1,600	1,470	1,530	2,390	2,360	2,380	2,350	2,330	2,340
6	1,850	1,780	1,820	1,540	1,420	1,490	2,420	2,360	2,390	2,380	2,340	2,360
7	1,860	1,790	1,820	1,480	1,390	1,430	2,450	2,360	2,410	2,410	2,360	2,390
8	1,880	1,830	1,860	1,610	1,460	1,520	2,480	2,440	2,460	2,410	2,400	2,400
9	1,930	1,880	1,900	1,740	1,610	1,670	2,490	2,430	2,470	2,410	2,370	2,400
10	1,990	1,920	1,970	1,820	1,730	1,780	2,490	2,420	2,470	2,400	2,380	2,390
11	2,030	1,930	2,010	1,880	1,180	1,790	2,480	2,420	2,470	2,380	2,350	2,370
12	2,080	960	1,920	1,980	1,880	1,930	2,480	2,470	2,480	2,350	2,320	2,350
13	1,440	345	646	2,030	1,970	2,000	2,480	2,460	2,470	2,340	2,320	2,340
14	776	652	698	2,060	2,000	2,040	2,460	1,800	2,310	2,330	2,310	2,320
15	1,040	776	918	2,100	2,010	2,070	2,340	1,080	1,600	2,330	734	1,420
16	1,270	1,000	1,140	2,150	2,090	2,120	1,080	882	960	1,040	821	862
17	1,240	1,180	1,210	2,160	2,130	2,150	1,110	882	976	1,430	1,040	1,350
18	1,330	1,240	1,290	2,150	2,120	2,130	1,520	1,110	1,300	1,480	1,420	1,440
19	1,450	1,330	1,400	2,160	2,130	2,150	1,740	1,510	1,620	1,540	1,480	1,510
20	1,550	1,440	1,510	2,180	2,150	2,160	1,810	1,740	1,760	1,630	1,540	1,570
21	1,660	1,530	1,590	2,200	2,110	2,180	1,920	1,810	1,860	1,710	1,610	1,650
22	1,790	1,640	1,700	2,190	2,160	2,180	1,960	1,920	1,940	1,760	1,680	1,710
23	1,840	1,750	1,790	2,180	2,110	2,160	2,020	1,960	1,990	1,830	1,740	1,760
24	1,850	1,690	1,790	2,240	2,120	2,170	2,130	2,020	2,060	1,900	1,830	1,850
25	1,950	1,800	1,880	2,340	2,240	2,300	2,180	2,120	2,140	1,980	1,900	1,930
26	2,010	1,950	1,980	2,300	2,240	2,270	2,200	2,170	2,180	2,030	1,980	1,990
27	2,070	2,010	2,050	2,240	2,150	2,210	2,220	2,140	2,200	2,100	2,030	2,060
28	2,140	2,070	2,110	2,160	2,120	2,140	2,250	2,210	2,220	2,130	2,090	2,110
29	2,200	2,120	2,170	2,250	2,120	2,170	2,270	2,240	2,250	2,190	2,130	2,150
30	2,220	2,180	2,210	2,270	2,240	2,250	2,280	2,240	2,270	2,230	2,190	2,210
31	---	---	---	2,290	2,260	2,270	2,300	2,280	2,290	---	---	---

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	7.2	7.1	7.2	7.1	7.1	7.1
2	---	---	---	---	---	---	7.2	7.0	7.1	7.1	7.1	7.1
3	---	---	---	---	---	---	7.2	7.1	7.1	7.1	7.1	7.1
4	---	---	---	---	---	---	7.2	7.0	7.1	7.1	7.0	7.0
5	---	---	---	---	---	---	7.1	7.0	7.1	7.1	7.0	7.0
6	---	---	---	---	---	---	7.2	7.0	7.1	7.1	6.5	6.9
7	---	---	---	---	---	---	7.2	7.1	7.1	7.2	7.0	7.1
8	---	---	---	---	---	---	7.1	7.0	7.0	7.2	7.1	7.1
9	---	---	---	---	---	---	7.0	7.0	7.0	7.3	7.1	7.3
10	---	---	---	---	---	---	7.0	7.0	7.0	7.3	7.2	7.2
11	---	---	---	---	---	---	7.0	6.8	6.9	7.2	7.2	7.2
12	---	---	---	---	---	---	7.0	6.8	7.0	7.2	7.1	7.1
13	---	---	---	---	---	---	7.0	6.8	6.9	7.1	7.1	7.1
14	---	---	---	---	---	---	7.0	6.8	6.9	7.1	7.1	7.1
15	---	---	---	---	---	---	6.9	6.9	6.9	7.1	7.0	7.1
16	---	---	---	7.1	7.0	7.1	6.9	6.9	6.9	7.0	7.0	7.0
17	---	---	---	7.0	7.0	7.0	6.9	6.9	6.9	7.0	7.0	7.0
18	---	---	---	7.1	7.0	7.0	6.9	6.9	6.9	7.0	7.0	7.0
19	---	---	---	7.1	7.0	7.0	7.0	6.9	6.9	7.0	7.0	7.0
20	---	---	---	7.1	7.0	7.0	6.9	6.7	6.8	7.1	7.0	7.0
21	---	---	---	7.1	7.0	7.0	7.0	6.8	7.0	7.1	7.0	7.0
22	---	---	---	7.1	7.0	7.1	7.0	6.8	6.9	7.1	7.0	7.0
23	---	---	---	7.1	7.0	7.1	7.0	6.9	7.0	7.1	7.0	7.0
24	---	---	---	7.1	7.0	7.1	7.1	7.0	7.0	7.0	6.9	7.0
25	---	---	---	7.1	7.0	7.1	7.0	7.0	7.0	7.0	6.9	7.0
26	---	---	---	7.1	6.8	7.1	7.1	7.0	7.0	7.0	7.0	7.0
27	---	---	---	7.2	6.8	7.1	7.1	7.0	7.1	7.1	7.0	7.0
28	---	---	---	7.2	7.1	7.1	7.1	7.0	7.0	7.0	7.0	7.0
29	---	---	---	7.1	7.0	7.1	7.0	6.9	7.0	7.1	7.0	7.0
30	---	---	---	7.0	6.8	6.9	7.0	7.0	7.0	7.1	7.0	7.1
31	---	---	---	7.1	7.0	7.1	7.1	7.0	7.0	---	---	---

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.1	7.0	7.0	7.2	7.0	7.1	7.0	6.9	6.9	7.1	7.1	7.1
2	7.1	7.0	7.0	7.3	7.1	7.2	6.9	6.9	6.9	7.2	7.0	7.0
3	7.1	7.0	7.0	7.4	7.0	7.3	6.9	6.9	6.9	7.4	6.9	7.1
4	7.1	7.0	7.1	7.1	7.0	7.0	6.9	6.9	6.9	7.4	6.9	7.3
5	7.2	7.1	7.1	7.2	7.1	7.2	6.9	6.8	6.9	6.9	6.7	6.8
6	7.1	7.0	7.1	7.2	7.2	7.2	7.0	6.7	6.9	6.9	6.7	6.7
7	7.0	6.9	7.0	7.2	7.2	7.2	6.9	6.6	6.6	7.0	6.9	6.9
8	7.0	6.8	6.9	7.2	7.2	7.2	6.8	6.6	6.7	7.0	6.9	7.0
9	6.8	6.7	6.7	7.2	7.2	7.2	6.8	6.8	6.8	7.0	6.9	7.0
10	7.0	6.8	6.9	7.2	7.2	7.2	7.0	6.8	6.8	7.0	6.9	6.9
11	7.0	7.0	7.0	7.3	6.9	7.0	7.0	7.0	7.0	7.0	6.9	6.9
12	7.0	6.8	6.9	7.1	6.9	7.0	7.0	7.0	7.0	7.1	6.9	6.9
13	7.1	6.9	7.1	7.1	7.1	7.1	7.0	7.0	7.0	7.0	6.7	6.8
14	7.1	7.1	7.1	7.1	7.0	7.1	7.1	7.0	7.0	6.9	6.8	6.9
15	7.2	7.1	7.1	7.1	7.0	7.1	7.1	7.0	7.0	7.0	6.9	7.0
16	7.1	7.0	7.1	7.1	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
17	7.1	7.0	7.1	7.1	6.9	7.0	7.0	6.9	7.0	7.0	7.0	7.0
18	7.1	7.0	7.0	7.0	6.8	7.0	7.0	6.9	7.0	7.0	6.9	6.9
19	7.0	7.0	7.0	7.1	6.9	7.1	7.0	6.9	6.9	6.9	6.9	6.9
20	7.0	7.0	7.0	7.1	7.0	7.0	7.0	7.0	7.0	6.9	6.9	6.9
21	7.0	6.9	7.0	7.1	7.0	7.0	7.0	6.9	7.0	6.9	6.9	6.9
22	7.1	6.8	6.9	7.2	6.9	7.1	7.0	6.9	7.0	7.0	6.9	7.0
23	7.0	6.7	7.0	7.1	7.0	7.1	7.1	7.0	7.0	7.0	7.0	7.0
24	7.2	7.0	7.1	7.0	6.9	6.9	7.0	7.0	7.0	7.0	6.9	7.0
25	7.1	7.1	7.1	7.0	6.9	7.0	7.0	7.0	7.0	7.0	6.9	6.9
26	7.2	6.8	7.1	7.0	6.9	7.0	7.0	7.0	7.0	6.9	6.9	6.9
27	7.2	7.1	7.2	7.0	6.9	6.9	7.0	7.0	7.0	6.9	6.9	6.9
28	7.3	7.2	7.2	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.9	6.9
29	7.2	7.2	7.2	7.1	6.8	7.0	7.0	7.0	7.0	7.0	6.9	7.0
30	7.2	7.2	7.2	7.1	6.9	7.0	7.0	7.0	7.0	7.0	6.9	6.9
31	7.2	7.2	7.2	---	---	---	7.2	7.0	7.1	7.0	7.0	7.0
FEBRUARY			MARCH			APRIL			MAY			
1	7.1	7.0	7.0	7.1	7.1	7.1	7.4	7.0	7.3	7.2	7.1	7.1
2	7.2	7.1	7.1	7.1	7.1	7.1	7.4	7.3	7.3	7.2	7.1	7.1
3	7.2	7.1	7.1	7.1	7.0	7.1	7.5	7.3	7.3	7.2	7.1	7.1
4	7.2	7.1	7.2	7.1	7.0	7.0	7.6	7.3	7.4	7.1	7.1	7.1
5	7.1	7.1	7.1	7.1	7.0	7.1	7.5	7.3	7.3	7.1	7.0	7.1
6	7.3	6.9	7.1	7.1	7.0	7.1	7.4	7.1	7.2	7.1	7.0	7.0
7	7.2	7.0	7.0	7.2	7.1	7.1	7.3	7.2	7.2	7.1	7.0	7.0
8	7.2	7.0	7.0	7.2	7.1	7.1	7.2	7.2	7.2	7.0	7.0	7.0
9	7.1	7.0	7.0	7.2	7.1	7.1	7.3	7.2	7.2	7.1	7.0	7.0
10	7.0	7.0	7.0	7.2	7.1	7.1	7.3	7.2	7.2	7.0	7.0	7.0
11	7.0	7.0	7.0	7.2	7.1	7.2	7.3	7.1	7.2	7.1	7.0	7.0
12	7.0	7.0	7.0	7.2	7.1	7.2	7.4	7.2	7.3	7.1	7.0	7.0
13	7.1	6.9	7.0	7.2	7.2	7.2	7.3	7.2	7.3	7.1	7.0	7.1
14	7.0	7.0	7.0	7.2	7.1	7.2	7.3	7.2	7.2	7.2	6.9	7.1
15	7.0	7.0	7.0	7.1	7.1	7.1	7.2	7.1	7.2	7.5	7.2	7.3
16	7.0	7.0	7.0	7.1	6.9	7.0	7.2	7.1	7.2	7.5	7.4	7.4
17	7.0	7.0	7.0	7.2	7.0	7.1	7.2	7.1	7.2	7.4	7.3	7.4
18	7.0	7.0	7.0	7.2	7.1	7.2	7.2	7.1	7.2	7.3	7.3	7.3
19	7.0	7.0	7.0	7.2	7.1	7.2	7.1	7.0	7.1	7.3	7.2	7.3
20	7.0	7.0	7.0	7.2	7.1	7.2	7.1	7.0	7.1	7.2	7.2	7.2
21	7.1	7.0	7.0	7.2	7.1	7.2	7.2	6.9	7.0	7.2	7.0	7.1
22	7.2	7.0	7.1	7.2	7.0	7.1	7.2	7.0	7.1	7.1	7.0	7.1
23	7.3	7.0	7.2	7.3	7.0	7.2	7.2	7.1	7.2	7.2	6.8	7.1
24	7.2	7.0	7.2	7.4	7.2	7.3	7.2	7.2	7.2	7.3	6.6	7.2
25	7.2	7.1	7.2	7.3	7.2	7.2	7.2	7.1	7.2	6.9	6.6	6.6
26	7.1	7.1	7.1	7.3	7.2	7.2	7.1	7.1	7.1	7.0	6.9	6.9
27	7.1	7.0	7.1	7.3	7.2	7.2	7.1	7.0	7.1	7.0	6.9	7.0
28	7.1	7.0	7.1	7.2	7.2	7.2	7.2	7.1	7.1	7.0	7.0	7.0
29	---	---	---	7.2	7.1	7.2	7.2	7.1	7.1	7.0	7.0	7.0
30	---	---	---	7.3	7.2	7.2	7.2	7.1	7.1	7.0	7.0	7.0
31	---	---	---	7.3	7.2	7.3	---	---	---	7.0	6.9	7.0

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6.9	6.8	6.9	7.1	6.8	6.9	7.2	7.0	7.1	7.2	7.1	7.1
2	7.0	6.9	6.9	7.1	6.9	7.1	7.1	7.0	7.1	7.2	7.1	7.2
3	7.0	6.9	7.0	7.1	7.0	7.0	7.2	7.0	7.0	7.2	7.1	7.1
4	7.0	6.9	6.9	7.1	7.0	7.0	7.3	7.0	7.1	7.2	7.1	7.1
5	7.0	6.9	7.0	7.1	7.0	7.1	7.3	7.1	7.1	7.2	7.1	7.1
6	7.0	7.0	7.0	7.2	7.1	7.1	7.3	7.0	7.1	7.2	7.1	7.1
7	7.0	6.9	7.0	7.2	7.1	7.2	7.2	7.0	7.1	7.2	7.1	7.1
8	7.0	6.9	6.9	7.1	7.0	7.1	7.2	7.1	7.1	7.2	7.1	7.1
9	7.0	6.9	7.0	7.1	7.0	7.0	7.2	7.0	7.1	7.2	7.1	7.2
10	7.0	6.9	7.0	7.1	7.0	7.0	7.4	7.1	7.2	7.3	7.2	7.2
11	7.0	6.9	6.9	7.1	7.0	7.0	7.3	7.1	7.2	7.3	7.2	7.2
12	7.0	6.9	6.9	7.1	7.0	7.0	7.2	7.1	7.2	7.3	7.2	7.2
13	7.0	6.5	6.6	7.1	7.0	7.0	7.2	7.1	7.2	7.3	7.1	7.2
14	6.9	6.5	6.8	7.1	7.0	7.0	7.2	7.1	7.1	7.3	7.2	7.2
15	7.0	6.9	7.0	7.0	7.0	7.0	7.1	6.6	6.9	7.2	6.7	7.1
16	7.0	6.9	7.0	7.0	6.9	7.0	7.1	7.0	7.0	7.1	7.0	7.0
17	7.1	7.0	7.1	7.1	7.0	7.0	7.0	7.0	7.0	7.2	7.1	7.2
18	7.1	7.0	7.1	7.1	7.0	7.0	7.1	7.0	7.0	7.2	7.1	7.1
19	7.1	7.0	7.0	7.1	7.0	7.0	7.1	7.0	7.0	7.1	7.0	7.1
20	7.1	7.0	7.0	7.1	7.0	7.0	7.1	7.0	7.0	7.1	7.0	7.0
21	7.1	7.0	7.0	7.0	7.0	7.0	7.1	7.0	7.0	7.1	7.0	7.0
22	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.0	7.0
23	7.0	7.0	7.0	7.1	6.9	7.0	7.1	7.0	7.0	7.1	7.0	7.0
24	7.1	7.0	7.0	7.0	6.9	7.0	7.1	7.0	7.0	7.1	7.0	7.0
25	7.0	7.0	7.0	6.9	6.8	6.8	7.1	7.0	7.0	7.1	7.0	7.0
26	7.1	7.0	7.0	7.1	6.9	6.9	7.1	7.0	7.0	7.0	7.0	7.0
27	7.1	7.0	7.0	7.0	6.9	7.0	7.2	7.0	7.1	7.0	7.0	7.0
28	7.1	7.0	7.0	7.2	7.0	7.1	7.2	7.0	7.1	7.1	7.0	7.0
29	7.1	7.0	7.0	7.2	7.0	7.1	7.2	7.0	7.1	7.0	7.0	7.0
30	7.1	7.0	7.0	7.2	7.0	7.1	7.2	7.1	7.1	7.1	7.0	7.0
31	---	---	---	7.2	7.0	7.1	7.2	7.1	7.1	---	---	---

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

 TEMPERATURE, WATER, DEGREES CELSIUS
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	24.5	22.4	23.3	24.3	22.6	23.3
2	---	---	---	---	---	---	26.3	24.0	25.0	23.8	22.4	23.1
3	---	---	---	---	---	---	27.4	25.4	26.3	24.0	22.3	23.0
4	---	---	---	---	---	---	27.7	26.3	27.0	24.6	22.8	23.5
5	---	---	---	---	---	---	27.0	25.8	26.3	24.8	23.4	24.1
6	---	---	---	---	---	---	25.8	24.0	24.6	24.6	22.9	23.4
7	---	---	---	---	---	---	24.0	23.0	23.5	23.1	21.8	22.3
8	---	---	---	---	---	---	23.3	22.6	22.9	21.8	20.7	21.2
9	---	---	---	---	---	---	24.1	22.2	23.0	---	---	---
10	---	---	---	---	---	---	24.1	22.8	23.4	21.9	19.9	20.6
11	---	---	---	---	---	---	23.7	22.1	22.9	22.2	20.0	20.9
12	---	---	---	---	---	---	22.1	20.8	21.4	22.4	20.4	21.2
13	---	---	---	---	---	---	20.8	19.9	20.3	22.9	20.9	21.7
14	---	---	---	---	---	---	21.1	19.6	20.2	23.8	21.9	22.6
15	---	---	---	---	---	---	21.2	19.6	20.3	24.3	22.9	23.5
16	---	---	---	---	---	---	21.1	19.7	20.2	24.7	23.4	23.9
17	---	---	---	25.7	23.9	24.7	22.9	20.5	21.5	24.4	22.6	23.4
18	---	---	---	24.9	23.2	24.0	24.2	21.9	22.9	24.4	22.8	23.5
19	---	---	---	24.6	23.1	23.9	23.7	22.9	23.3	23.9	22.6	23.3
20	---	---	---	25.7	24.3	24.8	23.1	21.8	22.3	23.2	22.1	22.6
21	---	---	---	26.7	25.6	26.1	22.0	21.4	21.7	22.9	21.7	22.2
22	---	---	---	27.0	26.3	26.7	22.9	21.5	22.1	22.3	21.2	21.8
23	---	---	---	26.8	26.1	26.4	24.6	22.7	23.4	22.0	21.2	21.6
24	---	---	---	26.1	24.5	25.3	26.0	24.0	24.8	22.4	21.2	21.7
25	---	---	---	24.5	22.2	23.2	26.1	25.2	25.7	22.2	20.5	21.3
26	---	---	---	22.2	21.3	21.8	27.2	25.4	26.1	21.9	20.1	20.9
27	---	---	---	22.3	20.9	21.6	27.6	26.1	26.8	21.3	19.7	20.4
28	---	---	---	21.8	21.2	21.4	27.2	25.2	26.2	21.2	19.2	19.9
29	---	---	---	21.4	20.8	21.0	25.2	23.8	24.5	20.7	18.6	19.3
30	---	---	---	21.0	20.5	20.7	24.2	22.9	23.5	19.6	18.1	18.8
31	---	---	---	22.6	20.8	21.6	24.5	22.5	23.3	---	---	---

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.5	18.7	19.0	16.7	16.0	16.3	6.5	5.2	5.7	12.8	11.9	12.3
2	18.8	17.2	18.0	16.6	14.1	15.5	6.8	5.3	6.1	13.5	12.8	13.0
3	17.8	16.2	17.0	14.1	11.2	12.5	6.6	5.4	5.9	13.2	10.6	12.2
4	18.1	16.3	16.9	12.8	11.1	11.7	6.9	5.1	5.9	10.6	6.8	8.3
5	17.2	15.9	16.5	12.8	11.1	11.6	7.4	5.6	6.5	6.9	4.5	5.6
6	17.4	15.8	16.4	13.0	11.7	12.4	10.9	7.4	9.2	4.5	2.6	3.3
7	18.1	16.9	17.3	14.2	12.5	13.3	10.9	9.7	10.3	3.3	2.1	2.6
8	19.2	17.7	18.3	13.7	12.3	13.0	10.0	8.7	9.2	4.7	2.9	3.5
9	19.3	18.4	18.8	13.1	11.8	12.5	9.8	8.7	9.2	7.0	4.4	5.3
10	18.8	18.1	18.4	13.9	11.9	12.5	9.9	7.7	8.8	8.4	6.8	7.3
11	18.1	16.6	17.3	13.9	11.6	13.0	7.7	6.6	7.2	9.0	7.4	8.3
12	16.6	15.1	15.8	11.6	10.4	10.8	8.0	6.6	7.2	10.8	7.4	8.5
13	15.5	14.6	15.1	11.1	9.2	9.8	7.4	5.8	6.9	10.4	7.1	8.3
14	15.3	14.0	14.7	9.8	9.3	9.7	5.8	3.7	4.7	7.1	4.5	5.1
15	14.1	13.3	13.7	11.6	9.8	10.7	3.7	2.4	3.1	4.8	2.9	3.3
16	13.7	12.8	13.2	13.8	11.6	12.9	4.9	2.8	3.8	3.2	1.7	2.4
17	14.0	12.4	13.0	15.1	13.5	14.2	5.6	3.9	4.7	2.6	1.9	2.2
18	16.8	13.8	15.4	15.4	14.5	14.9	6.3	4.6	5.4	4.0	2.6	3.4
19	16.2	15.7	15.9	15.0	14.5	14.8	6.1	4.2	5.0	5.4	3.5	4.5
20	16.2	15.6	15.9	14.5	13.5	14.2	4.4	3.2	3.8	7.1	4.9	6.1
21	16.9	15.8	16.1	13.5	11.8	12.6	4.8	3.5	4.1	8.2	6.5	7.3
22	19.0	16.8	17.5	11.8	11.2	11.5	4.8	2.1	3.5	7.5	4.9	6.7
23	19.0	18.2	18.6	12.9	11.8	12.6	2.1	0.8	1.2	4.9	2.7	3.4
24	18.5	17.0	17.5	12.9	9.3	11.1	0.9	0.4	0.7	4.4	1.8	3.0
25	17.7	17.0	17.3	9.3	7.4	8.1	0.9	0.4	0.7	6.8	3.9	5.2
26	19.4	17.6	18.5	9.6	8.2	8.7	1.3	0.6	0.9	8.1	6.0	6.9
27	19.9	19.2	19.6	11.0	9.6	10.4	2.1	1.2	1.5	7.5	6.4	6.8
28	21.0	19.9	20.4	9.9	8.2	9.0	4.6	2.1	3.0	6.8	5.2	5.9
29	21.1	20.5	20.8	8.7	8.1	8.3	7.0	4.6	5.6	5.2	4.5	4.8
30	20.9	18.4	19.3	8.1	6.5	7.4	10.6	7.0	9.0	5.7	4.7	5.2
31	18.4	16.3	17.1	---	---	---	12.1	10.6	11.3	6.7	5.5	6.0
FEBRUARY			MARCH			APRIL			MAY			
1	7.3	6.1	6.6	8.0	6.3	7.1	14.1	10.8	12.9	14.5	13.6	14.1
2	6.6	5.6	6.1	8.9	6.0	7.3	14.4	12.2	13.0	14.3	13.4	13.8
3	5.7	4.6	5.1	10.5	7.3	8.7	16.7	12.3	14.5	14.7	12.9	13.7
4	6.5	4.2	5.2	12.5	8.7	10.4	18.8	14.5	16.4	15.6	13.6	14.6
5	8.0	5.2	6.5	13.1	10.1	11.6	18.7	16.7	17.5	16.2	15.0	15.5
6	8.5	7.2	7.9	13.2	10.2	11.7	17.8	15.0	16.4	18.1	15.7	16.7
7	8.9	7.4	8.5	12.9	11.9	12.4	15.4	14.8	15.0	19.0	17.4	18.1
8	7.4	5.5	6.3	12.1	9.9	10.9	17.0	14.4	15.5	18.9	18.3	18.6
9	6.0	4.0	4.9	11.1	9.4	10.0	19.0	17.0	18.0	20.2	18.0	18.9
10	6.7	4.0	5.0	10.6	8.5	9.5	19.6	17.6	18.7	22.0	19.5	20.4
11	7.5	5.3	6.3	10.8	8.5	9.7	18.9	17.5	18.0	23.4	21.2	22.2
12	8.5	7.5	7.9	12.9	10.0	11.3	18.1	15.6	17.0	23.6	21.9	22.7
13	11.6	8.0	9.7	12.6	10.7	11.2	15.6	14.4	15.4	23.2	22.1	22.7
14	12.0	9.2	10.3	10.8	9.4	10.2	16.8	13.2	14.8	22.1	20.2	21.0
15	12.2	10.7	11.6	10.4	9.2	9.8	18.1	14.3	16.0	20.6	18.4	19.5
16	12.3	8.9	10.7	9.9	8.6	9.3	19.2	15.8	17.5	20.0	17.4	18.5
17	10.0	8.6	9.1	10.1	8.3	9.3	19.9	17.5	18.7	20.0	18.2	19.0
18	9.8	8.5	9.0	11.6	9.4	10.5	19.8	18.7	19.2	21.3	19.5	20.3
19	9.9	8.6	9.4	11.8	10.2	11.1	19.3	18.7	19.0	23.4	21.1	22.1
20	12.8	9.6	11.1	13.0	10.4	11.6	19.9	18.9	19.3	24.8	22.8	23.7
21	13.4	11.4	12.5	12.7	11.8	12.2	20.5	19.4	19.8	24.6	22.8	23.8
22	11.4	9.4	10.4	11.8	10.7	11.3	19.9	17.9	18.9	25.5	23.5	24.3
23	9.5	7.3	8.5	10.7	8.6	9.5	17.9	15.1	15.9	24.8	21.5	23.3
24	8.8	6.5	7.4	9.7	8.1	8.9	15.8	13.7	14.7	24.9	19.4	22.1
25	9.7	6.8	8.1	10.8	9.1	10	15.1	13.9	14.6	23.1	18.4	20.1
26	10.2	9.2	9.6	10.3	9.0	9.7	14.0	13.2	13.7	23.1	20.4	21.1
27	10.9	9.6	10.6	9.0	8.1	8.5	14.7	12.6	13.6	21.2	19.7	20.5
28	10.2	7.6	9.2	11.3	7.1	9.0	16.0	14.2	15.1	21.2	19.7	20.3
29	---	---	---	14.5	10.0	12.0	16.0	13.9	15.1	23.0	19.9	21.3
30	---	---	---	15.6	13.8	14.8	14.5	12.9	13.8	23.4	20.5	21.8
31	---	---	---	15.0	13.0	13.8	---	---	---	23.1	21.5	22.2

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22.6	21.8	22.1	27.5	21.4	23.4	26.2	24.1	25.0	25.8	23.8	24.8
2	22.8	21.1	21.9	25.3	22.8	24.0	26.6	24.8	25.5	26.1	23.9	24.8
3	23.2	22.0	22.6	26.2	23.8	24.8	27.0	25.4	26.1	26.0	24.1	24.7
4	24.3	22.7	23.3	26.1	24.1	25.1	26.7	25.7	26.2	25.3	24.0	24.5
5	24.4	23.2	23.8	25.4	24.1	24.8	27.0	25.9	26.4	25.0	23.6	24.2
6	25.0	23.9	24.4	25.6	23.7	24.6	26.4	25.4	25.9	24.9	23.1	23.9
7	25.0	24.1	24.6	25.5	24.2	24.9	26.6	25.2	25.8	25.1	23.2	23.9
8	25.9	24.4	25.1	25.9	24.7	25.3	26.8	25.4	26.1	24.9	23.2	24.0
9	26.0	24.8	25.4	26.3	24.8	25.5	27.1	25.6	26.2	25.1	23.3	24.0
10	25.8	25.0	25.3	26.6	25.1	25.8	27.0	25.8	26.4	24.8	23.5	24.1
11	25.2	24.1	24.7	26.3	24.7	25.7	27.3	26.0	26.6	25.1	23.6	24.2
12	25.8	22.6	24.7	26.2	25.2	25.6	27.6	26.2	26.8	24.7	23.7	24.2
13	23.8	20.7	22.1	26.6	25.2	25.8	26.8	25.9	26.3	25.4	23.8	24.5
14	25.2	22.4	23.5	27.0	25.4	26.1	26.0	24.8	25.3	25.0	23.9	24.4
15	25.3	23.5	24.2	27.3	25.9	26.5	24.8	23.7	24.2	24.1	21.6	22.4
16	24.9	23.8	24.5	28.2	26.2	27.0	25.2	23.9	24.4	21.6	20.6	21.1
17	25.6	24.0	24.8	27.7	26.6	27.1	26.1	24.9	25.3	21.5	20.1	20.7
18	26.2	24.0	24.9	27.8	26.6	27.0	27.6	25.6	26.4	23.1	20.9	21.7
19	25.8	23.4	24.6	27.3	26.1	26.6	28.2	26.5	27.3	24.8	22.6	23.5
20	25.5	23.6	24.5	28.0	26.4	27.1	28.1	26.8	27.3	25.7	23.8	24.7
21	25.1	24.1	24.6	28.7	26.8	27.6	27.8	26.3	26.8	26.0	23.8	24.8
22	25.4	24.2	24.8	29.2	27.1	28.1	26.6	25.8	26.3	25.8	24.1	24.9
23	26.0	24.7	25.3	29.6	27.8	28.4	25.9	25.4	25.6	25.5	24.0	24.7
24	26.4	25.1	25.7	28.3	27.1	27.7	27.2	25.0	25.8	24.9	24.1	24.5
25	26.8	25.4	26.0	28.4	27.2	27.7	27.5	25.9	26.7	25.5	24.1	24.6
26	26.8	25.6	26.2	28.6	27.3	27.8	28.2	26.3	27.1	24.6	23.6	24.1
27	27.2	25.8	26.4	27.5	25.3	26.4	28.4	26.3	27.2	23.7	22.7	23.1
28	27.4	26.0	26.7	25.4	24.1	24.7	27.5	26.0	26.7	23.3	21.5	22.4
29	27.8	26.3	26.9	25.0	23.3	24.1	27.3	25.5	26.2	21.5	19.3	20.5
30	28.2	26.7	27.4	25.7	23.4	24.3	26.5	25.0	25.5	19.4	18.4	18.7
31	---	---	---	25.7	23.7	24.6	26.1	24.1	25.0	---	---	---

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	7.7	7.2	7.5	7.1	6.1	6.5
2	---	---	---	---	---	---	7.8	7.0	7.4	7.1	6.1	6.6
3	---	---	---	---	---	---	7.5	6.8	7.0	7.3	6.3	6.8
4	---	---	---	---	---	---	7.3	6.4	6.7	7.3	6.4	6.9
5	---	---	---	---	---	---	6.6	6.0	6.3	7.0	6.4	6.7
6	---	---	---	---	---	---	7.2	5.5	6.1	7.3	5.5	6.5
7	---	---	---	---	---	---	7.5	5.9	6.5	---	---	---
8	---	---	---	---	---	---	7.3	6.2	6.7	---	---	---
9	---	---	---	---	---	---	7.1	6.0	6.6	---	---	---
10	---	---	---	---	---	---	7.1	6.4	6.7	8.2	6.6	7.3
11	---	---	---	---	---	---	6.7	5.8	6.2	7.4	6.5	7.0
12	---	---	---	---	---	---	---	---	---	7.2	6.3	6.7
13	---	---	---	---	---	---	7.1	6.0	6.5	6.8	6.1	6.4
14	---	---	---	---	---	---	7.1	6.3	6.7	---	---	---
15	---	---	---	---	---	---	7.2	6.2	6.6	---	---	---
16	---	---	---	---	---	---	7.2	6.3	6.8	---	---	---
17	---	---	---	7.1	6.5	6.7	7.3	6.7	7.0	---	---	---
18	---	---	---	7.3	6.8	7.1	7.1	6.6	6.8	---	---	---
19	---	---	---	7.4	7.0	7.2	7.1	6.2	6.5	---	---	---
20	---	---	---	7.3	7.0	7.2	6.6	5.8	6.1	---	---	---
21	---	---	---	7.1	6.8	6.9	6.2	5.6	5.9	---	---	---
22	---	---	---	6.8	6.3	6.6	6.0	5.5	5.8	6.2	4.2	5.1
23	---	---	---	---	---	---	6.3	5.7	6.0	5.9	3.2	4.4
24	---	---	---	---	---	---	6.4	5.6	6.0	5.0	2.6	3.6
25	---	---	---	---	---	---	6.1	5.5	5.8	4.3	2.0	3.3
26	---	---	---	---	---	---	6.6	5.2	5.9	4.2	2.6	3.4
27	---	---	---	---	---	---	7.0	5.8	6.4	3.8	2.2	3.2
28	---	---	---	7.8	7.2	7.5	6.5	5.3	5.8	3.6	2.1	2.9
29	---	---	---	7.5	7.0	7.2	6.3	4.9	5.6	2.7	1.5	2.1
30	---	---	---	7.4	6.5	6.9	7.2	5.4	6.2	2.2	1.1	1.5
31	---	---	---	7.7	7.4	7.6	6.9	6.2	6.6	---	---	---

ARKANSAS RIVER BASIN

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	4.0	1.2	2.1	7.9	6.7	7.6	11.8	11.0	11.5	9.4	8.8	9.1
2	3.3	1.8	2.4	8.6	7.7	8.1	11.7	11.2	11.4	9.2	8.5	8.8
3	5.1	1.4	3.6	10.0	8.5	9.2	11.5	11.1	11.3	9.6	8.5	8.9
4	3.9	1.8	2.8	9.6	9.3	9.5	11.5	10.8	11.2	11.0	9.6	10.2
5	3.3	1.7	2.5	9.9	9.3	9.7	11.2	10.5	10.8	10.6	9.8	10.4
6	5.5	2.2	3.7	9.6	9.0	9.3	10.7	8.7	10.0	12.2	10.3	11.3
7	5.9	2.6	4.3	9.0	8.4	8.7	9.2	8.5	8.7	12.4	12.0	12.3
8	5.0	4.2	4.8	8.7	8.4	8.6	10.1	9.2	9.9	12.2	11.7	12.1
9	4.6	2.4	3.7	9.1	8.6	8.9	10.2	9.8	10.0	11.7	10.9	11.5
10	5.2	2.0	4.0	8.9	8.5	8.7	10.3	9.5	10.0	11.0	10.4	10.8
11	5.0	4.1	4.6	9.3	8.4	8.9	10.8	10.2	10.6	10.5	10.0	10.3
12	5.6	4.6	5.1	10.1	9.3	9.8	10.7	10.3	10.5	10.5	9.4	10.2
13	6.9	5.6	6.3	10.6	10.0	10.3	11.0	10.3	10.6	10.4	9.2	9.6
14	6.5	5.9	6.2	10.5	10.1	10.3	11.6	11.0	11.3	11.8	10.4	11.4
15	6.7	6.2	6.4	10.3	9.7	10.0	12.0	11.6	11.9	12.5	11.8	12.2
16	6.6	6.0	6.3	9.7	8.7	9.2	12.0	11.2	11.7	12.8	12.2	12.5
17	6.5	5.7	6.2	9.4	8.3	8.7	11.3	10.9	11.2	12.8	12.5	12.6
18	6.3	5.5	6.0	8.8	8.0	8.2	11.0	10.5	10.9	12.5	11.7	12.2
19	6.1	4.4	5.2	8.5	7.7	8.2	11.0	10.4	10.7	12.1	11.5	11.7
20	5.3	4.1	4.7	8.8	8.0	8.4	11.5	10.9	11.2	11.5	11.0	11.1
21	4.8	3.0	4.0	9.0	8.4	8.6	11.1	10.3	10.9	11.0	10.3	10.5
22	6.8	2.8	4.2	9.3	8.8	9.1	11.6	10.3	10.9	11.3	10.4	10.7
23	6.1	4.9	5.5	9.2	8.8	9.0	12.4	11.6	12.0	12.5	11.3	12.0
24	5.6	4.5	5.0	10.2	8.6	9.3	12.9	12.4	12.7	12.9	11.9	12.5
25	5.7	4.8	5.1	11.0	10.2	10.7	12.6	12.4	12.5	12.0	10.9	11.5
26	7.2	4.7	6.1	10.7	10.1	10.5	12.4	12.1	12.2	11.0	10.4	10.7
27	6.6	5.6	6.2	10.1	9.7	9.8	12.1	11.1	11.8	10.9	10.4	10.7
28	5.9	5.0	5.4	10.4	9.7	10.1	11.8	11.4	11.6	11.3	10.8	11.0
29	5.5	4.6	5.1	10.7	10.3	10.4	11.5	10.9	11.1	11.7	11.1	11.4
30	6.1	4.7	5.6	11.0	10.7	10.8	10.9	9.7	10.1	11.6	11.4	11.5
31	7.2	5.2	6.0	---	---	---	9.8	9.3	9.5	11.5	11.2	11.4
FEBRUARY			MARCH			APRIL			MAY			
1	11.3	10.9	11.2	10.2	9.5	9.8	11.2	9.7	10.3	8.6	7.8	8.2
2	11.2	11.1	11.1	10.2	9.8	10	11.4	9.2	10.3	8.6	8.0	8.3
3	11.8	11.2	11.5	9.9	9.4	9.7	12.6	9.8	11.1	8.7	7.7	8.2
4	11.9	11.6	11.7	9.7	9.1	9.4	12.9	10.1	11.2	8.6	7.4	8.1
5	11.7	10.9	11.3	9.4	9.0	9.1	11.5	9.1	10.2	8.2	7.5	7.9
6	11.1	10.2	10.7	9.6	8.7	9.1	9.8	8.6	9.0	8.2	7.1	7.6
7	10.7	10.0	10.2	9.2	8.7	8.9	9.7	8.8	9.2	7.7	6.8	7.2
8	11.6	10.7	11.1	9.2	8.5	8.8	10.2	9.1	9.6	7.1	6.1	6.5
9	11.9	11.4	11.8	9.6	8.8	9.2	10.3	8.3	9.2	7.2	5.7	6.4
10	12.0	11.3	11.8	9.7	9.0	9.3	10.2	8.1	9.1	6.9	6.1	6.5
11	11.6	10.9	11.4	10.0	9.2	9.6	9.2	7.8	8.5	7.0	5.8	6.3
12	10.9	10.4	10.6	10.1	8.8	9.4	10.8	8.0	9.3	7.5	5.9	6.5
13	10.4	9.8	10.0	9.8	8.7	9.3	10.1	8.8	9.5	7.8	6.1	6.7
14	10.2	9.7	10	9.9	8.9	9.4	10.8	9.3	9.9	6.8	5.6	6.4
15	9.8	9.2	9.6	9.9	9.3	9.6	10.8	9.1	9.8	7.6	6.5	7.0
16	10.3	9.3	9.8	9.9	9.3	9.5	10.9	8.5	9.6	7.8	6.2	7.1
17	10.4	10.0	10.3	10.5	9.6	10.1	10.4	8.0	9.3	7.2	5.8	6.5
18	10.4	9.8	10.2	10.5	9.7	10.1	10.0	8.0	9.1	8.6	5.6	6.8
19	10.4	9.6	10.0	10.3	9.4	9.9	9.1	7.2	7.9	8.1	6.9	7.5
20	9.8	9.2	9.6	10.2	9.6	10	7.7	6.6	7.1	7.2	6.1	6.6
21	9.5	8.8	9.1	10.1	9.2	9.6	7.2	6.2	6.6	6.8	5.5	6.1
22	10.6	9.4	10.1	9.3	9.0	9.2	6.4	4.7	5.2	7.0	5.5	6.2
23	11.1	10.3	10.7	10.5	8.7	9.6	7.6	5.1	6.4	7.3	5.4	6.4
24	11.3	10.6	11.0	12.2	10.2	11.1	8.3	6.9	7.6	6.7	5.2	6.1
25	10.6	9.9	10.4	11.0	10.3	10.6	8.1	7.0	7.3	7.6	5.2	6.3
26	10.0	9.6	9.8	10.7	10.1	10.4	8.0	6.9	7.4	8.2	7.6	7.8
27	9.6	9.0	9.3	11.7	10.5	11.0	8.5	7.3	8.0	8.2	7.8	8.0
28	9.5	9.0	9.2	12.1	11.0	11.4	8.5	7.7	8.1	8.2	7.6	7.8
29	---	---	---	11.6	10.0	10.9	8.4	7.1	7.5	7.7	7.1	7.3
30	---	---	---	11.3	9.2	10.2	8.6	7.4	7.9	7.1	6.5	6.8
31	---	---	---	11.3	9.0	10.2	---	---	---	6.5	6.0	6.3

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6.3	5.6	6.0	7.0	5.2	6.1	---	---	---	6.6	4.8	5.7
2	6.7	5.8	6.2	5.8	5.4	5.6	---	---	---	6.7	5.2	6.0
3	6.1	5.3	5.7	5.5	4.8	5.0	---	---	---	6.6	5.1	5.8
4	5.8	4.9	5.3	5.4	4.2	4.7	---	---	---	6.2	4.4	5.4
5	5.8	4.8	5.3	5.3	4.5	4.9	---	---	---	5.9	4.6	5.2
6	5.8	4.9	5.3	5.7	5.1	5.4	---	---	---	6.5	4.4	5.3
7	5.6	4.8	5.2	5.4	4.6	5.0	---	---	---	7.4	5.0	5.9
8	5.5	4.7	5.1	5.0	4.2	4.6	---	---	---	7.5	5.3	6.2
9	5.7	4.8	5.3	5.0	4.3	4.6	---	---	---	7.5	5.4	6.3
10	5.6	4.8	5.2	5.6	4.3	4.8	---	---	---	7.1	4.9	6.2
11	5.5	4.7	5.0	6.1	4.4	5.1	---	---	---	8.4	5.5	6.7
12	6.6	4.9	5.4	6.0	4.4	5.1	6.7	5.2	6.0	7.5	5.0	6.5
13	6.4	4.8	5.3	6.2	4.6	5.3	6.3	5.0	5.5	7.0	4.0	5.7
14	7.0	5.0	6.3	6.2	4.8	5.4	5.7	4.3	4.9	7.3	5.0	5.9
15	7.1	6.7	6.8	5.5	4.8	5.2	6.2	4.9	5.6	7.2	4.9	6.0
16	6.9	6.3	6.6	5.7	4.5	5.1	5.4	4.1	4.5	6.0	5.1	5.4
17	6.6	6.2	6.4	5.4	4.4	4.9	4.5	3.3	3.9	5.8	5.1	5.4
18	6.2	5.9	6.0	5.7	4.2	4.7	5.4	3.5	4.4	5.6	4.9	5.2
19	5.9	5.6	5.8	5.6	4.0	4.6	5.5	3.8	4.6	5.0	4.3	4.6
20	5.8	5.3	5.6	5.8	4.4	5.0	5.1	3.7	4.3	5.0	4.0	4.4
21	5.7	5.0	5.4	5.7	4.4	4.9	5.5	3.3	4.1	5.1	3.7	4.3
22	5.7	5.1	5.4	5.2	4.0	4.6	4.2	3.3	3.7	5.4	3.8	4.5
23	5.7	5.2	5.4	5.2	2.2	4.1	5.1	3.4	4.1	5.8	3.9	4.7
24	6.0	5.1	5.5	4.5	3.2	4.0	5.9	3.5	4.6	5.0	4.0	4.6
25	5.9	5.0	5.5	4.2	2.0	3.1	6.4	4.5	5.3	5.9	3.9	4.7
26	6.0	4.9	5.4	5.2	2.5	3.8	6.6	4.5	5.5	5.1	3.8	4.3
27	6.1	4.8	5.4	4.6	2.9	4.0	8.1	4.7	5.9	4.7	3.4	3.9
28	6.1	4.9	5.5	5.8	3.4	4.5	8.3	4.5	6.0	5.0	3.5	4.2
29	6.3	4.8	5.5	6.0	3.1	5.0	6.9	4.8	5.9	5.0	3.9	4.5
30	6.3	5.1	5.6	6.5	3.4	5.1	7.1	5.0	6.0	5.5	4.4	4.9
31	---	---	---	---	---	---	6.6	5.0	5.7	---	---	---

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	28	23	24	19	14	16
2	---	---	---	---	---	---	25	21	23	47	13	17
3	---	---	---	---	---	---	39	21	24	33	15	25
4	---	---	---	---	---	---	78	22	34	340	30	110
5	---	---	---	---	---	---	56	24	32	280	45	83
6	---	---	---	---	---	---	>1,000	26	150	50	37	44
7	---	---	---	---	---	---	390	70	140	42	26	31
8	---	---	---	---	---	---	70	44	54	26	21	23
9	---	---	---	20	14	16	44	35	39	22	20	21
10	---	---	---	53	14	18	37	23	31	24	21	22
11	---	---	---	120	22	70	24	18	21	23	19	21
12	34	29	31	58	30	40	23	18	19	190	18	42
13	30	21	24	30	19	23	23	18	20	180	76	100
14	39	21	23	22	18	20	43	17	18	76	45	58
15	41	24	26	24	18	20	22	17	18	45	33	39
16	33	25	26	33	19	22	25	18	20	33	26	30
17	32	24	27	64	20	29	26	21	23	26	20	24
18	29	23	25	---	---	---	35	22	24	22	15	19
19	40	20	23	---	---	---	31	22	25	19	15	17
20	26	21	23	---	---	---	27	21	22	20	17	19
21	24	17	21	---	---	---	28	20	22	25	19	23
22	60	17	26	---	---	---	30	22	25	24	21	23
23	80	41	55	28	24	26	30	22	24	23	19	21
24	62	35	44	81	25	45	45	22	25	24	17	20
25	60	31	39	76	31	43	25	22	23	27	21	24
26	---	---	---	32	28	30	28	23	24	31	24	27
27	---	---	---	33	27	29	28	24	25	31	26	28
28	---	---	---	32	21	25	32	23	25	30	25	26
29	---	---	---	36	20	25	30	25	26	27	25	26
30	---	---	---	38	28	33	27	24	26	26	23	24
31	---	---	---	---	---	---	26	14	19	31	23	25
FEBRUARY			MARCH			APRIL			MAY			
1	35	25	27	25	20	22	48	20	31	130	23	71
2	32	25	26	25	20	22	35	24	30	87	13	26
3	28	19	24	29	22	26	30	23	26	25	9.0	13
4	26	19	23	33	26	29	41	22	26	16	9.0	11
5	32	22	26	35	24	28	33	21	25	26	9.0	12
6	110	26	52	30	22	26	44	24	30	29	8.0	11
7	130	59	92	26	22	24	75	37	52	31	8.0	12
8	63	44	51	24	20	22	53	36	43	---	---	---
9	100	53	71	30	21	25	41	26	33	---	---	---
10	53	44	48	37	23	28	34	23	27	---	---	---
11	45	35	38	35	27	30	77	24	37	---	---	---
12	36	26	31	41	26	29	84	25	34	---	---	---
13	73	31	62	29	23	26	47	22	26	---	---	---
14	62	46	50	35	23	27	36	22	25	---	---	---
15	47	38	42	53	28	31	---	---	---	---	---	---
16	39	25	33	45	31	37	---	---	---	---	---	---
17	---	---	---	55	25	30	---	---	---	---	---	---
18	---	---	---	58	27	32	---	---	---	---	---	---
19	---	---	---	44	25	30	---	---	---	---	---	---
20	---	---	---	44	26	29	29	8.0	10	---	---	---
21	---	---	---	85	27	30	250	10	55	---	---	---
22	---	---	---	84	27	33	120	60	94	---	---	---
23	---	---	---	42	22	30	60	38	46	71	46	55
24	---	---	---	25	19	22	69	42	54	>1,000	26	160
25	44	36	38	42	19	25	160	69	87	100	40	55
26	37	29	33	29	20	24	120	43	70	40	23	29
27	29	23	27	23	18	21	99	71	86	26	19	22
28	27	21	24	30	21	24	180	78	130	24	18	21
29	---	---	---	35	27	30	220	110	140	22	17	19
30	---	---	---	44	25	29	200	110	130	19	15	17
31	---	---	---	34	21	26	---	---	---	19	12	15

07185095 TAR CREEK AT 22ND STREET BRIDGE AT MIAMI, OK.—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24	12	14	130	7.2	56	8.0	2.0	4.5	56	8.0	13
2	17	10	12	82	25	33	31	2.0	3.8	31	9.0	12
3	29	10	13	26	13	21	7.0	2.0	3.1	18	10	12
4	18	6.9	10	19	11	13	22	2.0	9.8	17	10	12
5	14	6.8	8.6	14	11	13	51	4.0	12	18	10	13
6	14	6.8	8.9	24	10	13	13	3.0	5.7	17	9.0	13
7	24	6.8	9.9	100	10	14	55	4.0	16	20	10	13
8	18	6.7	8.4	19	6.8	8.9	---	---	---	---	---	---
9	22	6.7	8.7	21	5.8	7.6	---	---	---	---	---	---
10	12	6.6	7.9	35	5.8	7.6	---	---	---	---	---	---
11	22	6.6	10	19	6.9	8.2	---	---	---	---	---	---
12	87	7.4	13	12	7.0	8.3	12	5.0	5.9	---	---	---
13	930	34	140	14	7.1	8.3	21	5.0	6.2	---	---	---
14	66	30	45	27	7.2	9.0	35	5.0	14	---	---	---
15	30	17	23	17	8.3	9.2	49	17	20	120	9.0	25
16	21	16	19	12	6.3	8.6	20	13	17	21	13	16
17	20	14	16	9.5	7.4	8.4	14	11	12	14	9.0	11
18	26	14	17	17	7.5	9.2	15	9.0	11	18	7.0	8.8
19	36	12	16	17	7.6	10	17	9.0	11	10	6.0	7.6
20	22	11	13	44	7.6	9.9	16	9.0	11	13	7.0	7.2
21	17	8.7	10	51	6.7	9.5	17	9.0	11	15	7.0	7.9
22	18	6.8	9.4	12	6.8	8.4	27	10	12	12	7.0	8.0
23	17	6.8	8.7	23	4.7	7.7	49	10	13	14	7.0	8.4
24	27	7.6	9.6	26	6.9	8.3	49	9.0	12	13	7.0	8.6
25	28	7.6	12	21	3.8	7.0	53	8.0	11	17	6.0	8.0
26	28	8.4	13	12	3.9	5.9	30	8.0	9.8	13	6.0	7.9
27	64	9.2	20	42	6.0	9.6	15	8.0	9.4	20	6.0	8.3
28	54	12	19	22	6.1	10	14	8.0	9.8	18	5.0	7.6
29	14	9.0	11	18	5.0	8.8	27	8.0	11	11	7.0	8.7
30	14	6.4	8.9	17	4.0	7.3	17	9.0	11	15	5.0	8.0
31	---	---	---	21	3.0	6.0	26	10	12	---	---	---

> Actual value is known to be greater than the value shown

07185190 NEOSHO RIVER NEAR WYANDOTTE, OK.

LOCATION.--Lat 36°47'52", long 94°45'15", in SW ¼, SW ¼, sec 20, T.27 N., R.24 E., Ottawa County, Hydrologic Unit 11070207.

PERIOD OF RECORD.--August to September 1982, January 2004 to current year. Prior to January 2004, this site was named Neosho River below Spring near Twin Bridges (site number 364752094451501).

REMARKS.--Event samples were collected by the U.S. Geological Survey. Water and bed sediment samples were analyzed by the Oklahoma Department of Environmental Quality. Specific conductance, pH, water temperature, dissolved oxygen, and turbidity were determined in the field.

COOPERATION.--Sampling beginning in 2004 is in cooperation with the Seneca-Cayuga Tribe of Oklahoma and the Oklahoma Department of Environmental Quality.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Turbidity, wat unflab, Hach 2100AN NTU (99872)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfl uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
JAN 07...	1500	1028	84017	37,700	160	--	736	12.2	7.5	170	-1.2	.9	79
MAY 16...	1500	1028	84017	9,410	160	--	745	6.8	7.4	358	24.5	20.2	150
25...	1700	1028	84017	18,100	450	210	740	5.8	7.2	246	27.6	21.4	120
JUN 22...	1345	1028	84017	13,600	120	110	747	7.3	7.6	227	--	25.1	110
AUG 17...	1400	1028	84017	1,600	36	18	741	7.1	8.2	417	--	30.1	180

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Calcium water, ftrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00918)	Magnesium, water, ftrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, ftrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, ftrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)	Calcium bed sediment recoverable, mg/kg (00917)	Magnesium, bed sediment recoverable, mg/kg (00924)	Sodium, bed sediment recoverable, mg/kg (00934)	ANC, wat unfl methyl orange end pt, mg/L as CaCO3 (00411)	Alkalinity, wat ftr inc tit field, mg/L as CaCO3 (39086)
JAN 07...	19.0	21	4.00	6.0	4.00	6.0	5.00	5.0	--	--	--	38	50
MAY 16...	43.0	48	9.00	11.0	4.00	5.0	11.0	11.0	2,800	1,600	<1,000	69	--
25...	31.0	34	5.00	8.0	5.00	8.0	5.00	6.0	3,200	2,600	<1,000	67	--
JUN 22...	30.0	33	5.00	7.0	5.00	6.0	5.00	5.0	--	--	--	55	--
AUG 17...	59.0	59	11.0	12.0	5.00	5.0	10.0	10.0	3,400	3,400	<1,000	150	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Bicarbonate, wat ftr incrm. titr., field, mg/L (00453)	Carbonate, wat ftr incrm. titr., field, mg/L (00452)	Chloride, water, unfltrd mg/L (99220)	Sulfate, water, unfltrd mg/L (00946)	Residue on evap. at 180degC wat ftr mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Nitrate, water, ftrd, mg/L as N (00618)	COD, high level, water, unfltrd mg/L (00340)	Aluminum, water, ftrd, ug/L (01106)	Aluminum, water, unfltrd recoverable, ug/L (01105)	Antimony, water, ftrd, ug/L (01095)	Antimony, water, unfltrd ug/L (01097)	Arsenic, water, ftrd, ug/L (01000)
JAN 07...	60	.0	<10	67.8	146	276	.45	30	<300	13,100	<10	<10	<10.0
MAY 16...	--	--	12	90.0	232	216	2.41	29	<300	9,900	<10	<10	<10.0
25...	--	--	<10	52.7	156	468	1.31	42	<300	20,100	<10	<10	<10.0
JUN 22...	--	--	<10	63.9	172	92	.39	26	<300	9,300	<10	<10	<10.0
AUG 17...	--	--	<10	47.4	246	39	<.05	17	<300	1,800	<10	<10	11.0

07185190 NEOSHO RIVER NEAR WYANDOTTE, OK.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover- able, ug/L (01007)	Beryll- ium, water, fltrd, ug/L (01010)	Beryll- ium, water, unfltrd recover- able, ug/L (01012)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, fltrd, ug/L (01030)	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover- able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)
JAN 07...	<10	37.0	100	<5	<5	<5	<5	<5	13	<5	<5	<5	M
MAY 16...	<10	75.0	100	<5	<5	<5	<5	<5	10	<5	<5	<5	M
25...	<10	56.0	200	<5	<5	<5	<5	<5	20	<5	<5	<5	10
JUN 22...	<10	62.0	100	<5	<5	<5	<5	<5	9	<5	<5	<5	M
AUG 17...	<10	103	100	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Molyb- denum, water, fltrd, ug/L (01060)	Molyb- denum, water, unfltrd recover- able, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)
JAN 07...	40	10,300	<10	<10	80	260	<5	<5	<10	10	<10	<10	<5
MAY 16...	<20	8,030	<10	<10	<5	240	<5	<5	<10	10	<10	<10	<5
25...	20	15,300	<10	11.0	10	520	<5	<5	<10	20	<10	<10	<5
JUN 22...	<20	6,950	<10	<10	<5	220	<5	<5	<10	<10	<10	<10	<5
AUG 17...	<20	1,480	<10	<10	120	250	<5	<5	<10	<10	<10	<10	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)	Alum- inum, bed sedimnt recover- able, ug/g (01108)	Arsenic bed sedimnt total, ug/g (01003)	Barium, bed sedimnt recover- able, ug/g (01008)	Cadmium bed sedimnt recover- able, ug/g (01028)	Chrom- ium, bed sedimnt recover- able, ug/g (01029)	Copper, bed sedimnt recover- able, ug/g (01043)	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	Nickel, bed sedimnt recover- able, ug/g (01068)
JAN 07...	<5.00	<5	70	--	--	--	--	--	--	--	--	--	--
MAY 16...	<5.00	<5	30	9,100	<10	70	<1.0	10	5	9,200	<10	270	9.0
25...	<5.00	10	140	22,000	13	130	<1.0	23	10	14,000	15	320	15
JUN 22...	<5.00	20	20	--	--	--	--	--	--	--	--	--	--
AUG 17...	<5.00	<5	9	28,000	<10	160	<1.0	29	9	14,000	<10	180	17

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Zinc, bed sedimnt recover- able, ug/g (01093)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
JAN 07...	--	94	369	37,600
MAY 16...	130	98	262	6,660
25...	160	96	650	31,800
JUN 22...	--	99	325	11,900
AUG 17...	110	96	40	173

07188000 SPRING RIVER NEAR QUAPAW, OK

LOCATION.--Lat 36°56'04", long 94°44'46", in NE 1/4 SW 1/4 sec.5, T.28 N., R.24 E., Ottawa County, Hydrologic Unit 11070207, near downstream right abutment of county road bridge, 0.1 mi upstream from Rock Creek, 3.0 mi southeast of Quapaw, and at mile 13.9. Records include flow of Rock Creek.

DRAINAGE AREA.--2,510 mi², includes that of Rock Creek.

PERIOD OF RECORD.--July 1939 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 746.25 ft above NGVD of 1929. Nonrecording gage on right bank at same datum used May 20 to Nov. 16, 1943.

REMARKS.--Records good. Occasional releases from floodgates at old Riverton Hydroelectric plant, 15 mi upstream. U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 7	2100	19,200	15.91	Jan 14	0630	22,100	16.90
Jan 7	0230	*49,500	*24.58				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	4,230	7,110	1,310	2,270	2,190	1,210	1,140	660	1,180	254	212
2	308	10,700	4,900	1,280	2,200	2,060	1,270	1,100	631	1,320	244	205
3	302	6,930	3,780	1,550	2,190	1,960	1,210	1,020	601	623	234	193
4	303	5,780	3,250	3,310	2,150	1,890	1,170	959	586	581	226	250
5	299	4,070	2,990	29,600	2,080	1,820	1,130	904	562	998	218	228
6	299	3,000	5,030	44,300	2,180	1,750	1,850	863	536	602	222	251
7	304	2,330	16,200	43,400	3,990	1,670	6,990	830	542	481	223	218
8	392	1,980	15,600	22,100	4,940	1,600	4,350	811	577	423	252	209
9	410	1,740	9,290	8,660	5,630	1,530	2,930	795	536	390	244	191
10	366	1,590	5,990	6,520	5,100	1,470	2,150	763	631	363	234	177
11	391	3,320	4,180	5,940	3,910	1,420	1,970	736	735	346	217	163
12	414	9,470	3,580	5,460	3,230	1,380	2,090	700	668	329	208	157
13	435	6,610	3,190	15,000	4,900	1,320	2,690	685	6,740	323	205	150
14	413	4,180	2,880	19,600	7,730	1,280	2,160	2,200	5,870	321	264	182
15	404	2,650	2,650	11,600	5,400	1,240	1,750	5,920	3,070	326	633	431
16	394	2,210	2,480	6,360	3,620	1,220	1,590	2,940	1,820	308	798	643
17	378	2,000	2,340	4,950	2,970	1,180	1,450	1,440	1,300	293	519	641
18	356	1,930	2,220	4,340	2,670	1,150	1,370	1,020	1,040	285	385	599
19	344	1,910	2,110	4,000	2,510	1,120	1,300	863	869	3,620	334	463
20	329	1,870	1,990	3,770	2,400	1,090	1,240	770	755	2,550	297	368
21	326	1,800	1,910	3,580	2,360	1,080	1,220	700	671	766	274	310
22	341	1,880	1,810	3,350	2,250	1,160	1,800	651	621	518	258	279
23	437	2,020	1,720	3,110	2,300	1,820	2,350	e1,440	577	429	252	258
24	389	6,110	1,620	2,880	3,000	1,520	1,520	2,460	534	374	247	240
25	358	13,000	1,550	2,790	3,140	1,470	1,320	1,880	502	336	240	225
26	468	8,280	1,490	2,680	2,720	1,500	1,280	1,320	471	316	234	214
27	761	6,730	1,440	2,560	2,450	1,470	1,350	1,070	444	360	230	203
28	808	6,860	1,400	2,430	2,310	1,390	1,310	918	424	332	227	200
29	1,140	5,430	1,380	2,390	---	1,310	1,200	826	417	310	214	209
30	787	7,720	1,360	2,370	---	1,240	1,150	754	409	288	205	205
31	668	---	1,340	2,340	---	1,180	---	700	---	269	213	---
TOTAL	13,634	138,330	118,780	273,530	92,600	45,480	56,370	39,178	33,799	19,960	8,805	8,274
MEAN	440	4,611	3,832	8,824	3,307	1,467	1,879	1,264	1,127	644	284	276
MAX	1,140	13,000	16,200	44,300	7,730	2,190	6,990	5,920	6,740	3,620	798	643
MIN	299	1,590	1,340	1,280	2,080	1,080	1,130	651	409	269	205	150
AC-FT	27,040	274,400	235,600	542,500	183,700	90,210	111,800	77,710	67,040	39,590	17,460	16,410
CFSM	0.18	1.84	1.53	3.52	1.32	0.58	0.75	0.50	0.45	0.26	0.11	0.11
IN.	0.20	2.05	1.76	4.05	1.37	0.67	0.84	0.58	0.50	0.30	0.13	0.12

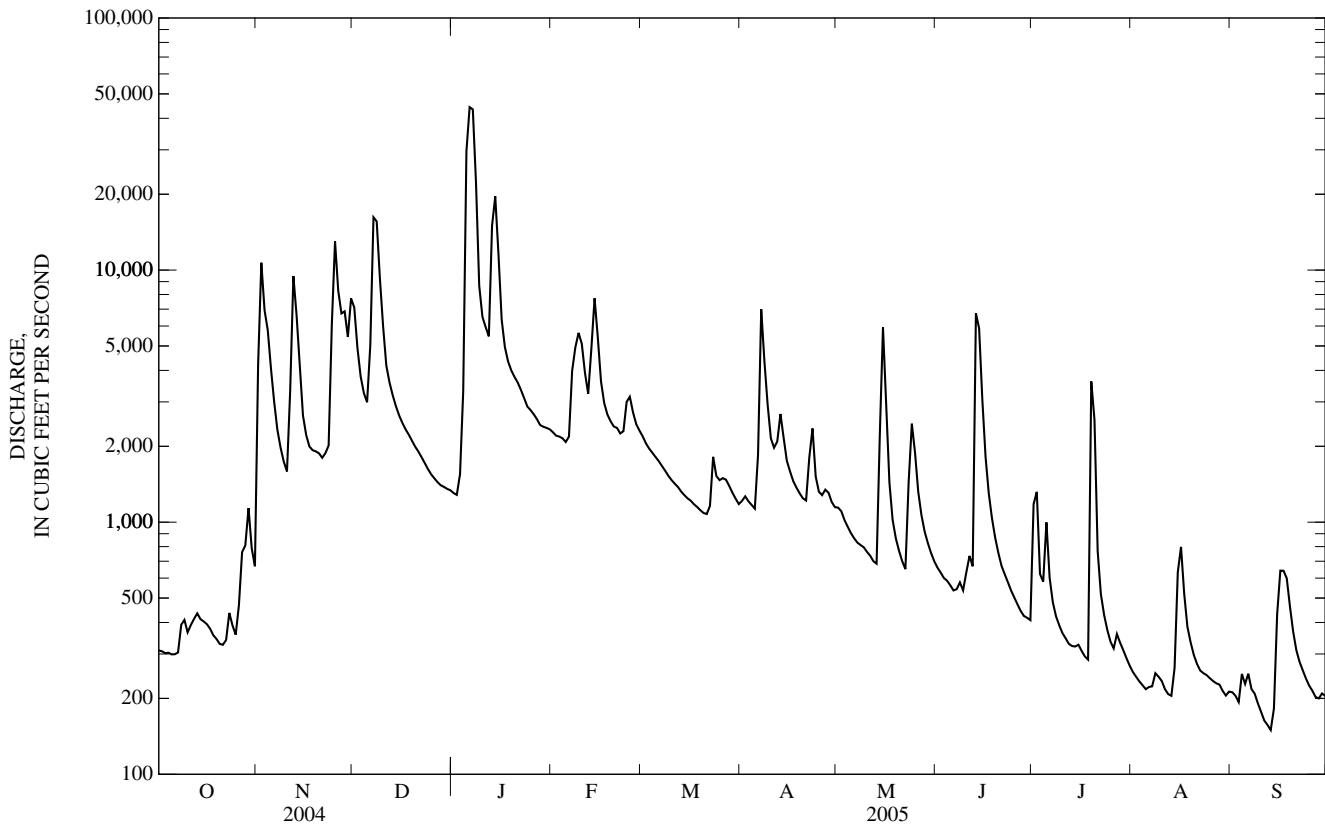
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

	MEAN	1,602	2,255	1,740	1,669	2,140	2,933	3,338	3,681	2,942	1,756	760	1,343
MAX	14,880	14,880	14,810	10,720	8,824	13,300	12,050	15,100	26,940	12,780	10,140	8,622	18,390
(WY)	(1987)	(1986)	(1986)	(1993)	(2005)	(1985)	(1973)	(1945)	(1943)	(1995)	(1976)	(1950)	(1993)
MIN	75.8	111	116	116	129	123	169	481	233	34.3	29.3	76.0	
(WY)	(1957)	(1954)	(1954)	(1964)	(1964)	(1954)	(1954)	(1954)	(1964)	(1954)	(1954)	(1954)	(1953)

07188000 SPRING RIVER NEAR QUAPAW, OK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	1,082,923		848,740		2,177	
ANNUAL MEAN	2,959		2,325		6,623	
HIGHEST ANNUAL MEAN					191	
LOWEST ANNUAL MEAN					210,000	
HIGHEST DAILY MEAN	36,100	Mar 5	44,300	Jan 6	5.8	Sep 26, 1993
LOWEST DAILY MEAN	299	Oct 5	150	Sep 13	7.3	Jul 8, 1954
ANNUAL SEVEN-DAY MINIMUM	304	Oct 1	176	Sep 8	230,000	Sep 12, 1954
MAXIMUM PEAK FLOW			49,500	Jan 7	a46.60	Sep 26, 1993
MAXIMUM PEAK STAGE			24.58	Jan 7	1,577,000	Sep 26, 1993
ANNUAL RUNOFF (AC-FT)	2,148,000		1,683,000		0.867	
ANNUAL RUNOFF (CFSM)	1.18		0.926		11.78	
ANNUAL RUNOFF (INCHES)	16.05		12.58		4,320	
10 PERCENT EXCEEDS	6,700		5,220		849	
50 PERCENT EXCEEDS	1,670		1,220		216	
90 PERCENT EXCEEDS	413		244			

a From floodmark.



07188000 SPRING RIVER NEAR QUAPAW, OK.—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-58, 1960-63, 1976-80, 1986, June 1988 to May 1989, March 2000 to September 2000, February 2004 to current year.

REMARKS.-Event samples were collected by the U.S. Geological Survey. Water and bed sediment samples were analyzed by the Oklahoma Department of Environmental Quality. Specific conductance, pH, water temperature, dissolved oxygen, and turbidity were determined in the field.

COOPERATION.--Sampling beginning in 2004 is in cooperation with the Oklahoma Department of Environmental Quality.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltd, Hach 2100AN NTU (99872)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltd field, std units (00400)	Specific conductance, wat unfltd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)
NOV 02...	1615	1028	84017	11,500	90	--	740	9.9	7.6	197	11.2	15.9	77
JAN 07...	1445	1028	84017	39,600	61	--	742	13.0	7.3	142	.0	2.6	58
MAY 16...	1145	1028	84017	2,960	35	--	743	8.5	7.3	265	21.0	18.8	100
JUN 14...	1200	1028	84017	5,790	72	--	740	7.2	7.2	259	27.3	23.4	110
SEP 27...	1145	1028	84017	204	6.7	13	743	7.3	8.0	398	26.3	25.0	150

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Calcium water unfltd recoverable, mg/L (00918)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltd recoverable, mg/L (00929)	Calcium bed sediment recoverable, mg/kg (00917)	Magnesium, bed sediment recoverable, mg/kg (00924)	Sodium, bed sediment recoverable, mg/kg (00934)	ANC, wat unfltd methyl orange end pt, mg/L as CaCO ₃ (00411)	Alkalinity, wat flt inc tit field, mg/L as CaCO ₃ (39086)
NOV 02...	26.0	27	2.00	3.0	6.00	7.0	4.00	5.0	--	--	--	53	--
JAN 07...	18.0	18	3.00	3.0	5.00	6.0	3.00	3.0	--	--	--	35	54
MAY 16...	32.0	34	5.00	5.0	5.00	5.0	7.00	7.0	<1,000	<1,000	<1,000	54	--
JUN 14...	30.0	32	5.00	5.0	5.00	6.0	8.00	8.0	--	--	--	63	--
SEP 27...	50.0	48	5.00	5.0	5.00	5.0	16.0	16.0	<1,000	<1,000	<1,000	130	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, unfltd mg/L (99220)	Sulfate water unfltd mg/L (00946)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Nitrate water, fltrd, mg/L as N (00618)	COD, high level, water, unfltd mg/L (00340)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, water, unfltd recoverable, ug/L (01105)	Antimony, water, fltrd, ug/L (01095)	Antimony, water, unfltd ug/L (01097)	Arsenic water, fltrd, ug/L (01000)
NOV 02...	--	--	<10	58.1	136	188	.97	31	<300	7,000	<10	<10	<10.0
JAN 07...	66	.0	<10	35.1	93	68	.89	30	<300	4,600	<10	<10	<10.0
MAY 16...	--	--	<10	54.5	187	44	2.21	40	<300	2,500	<10	<10	<10.0
JUN 14...	--	--	<10	56.8	156	96	.97	32	<300	4,200	<10	<10	<10.0
SEP 27...	--	--	18	32.1	224	5	.69	16	<300	<300	<10	<10	<10.0

07188000 SPRING RIVER NEAR QUAPAW, OK.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover- able, ug/L (01007)	Beryll- ium, water, fltrd, ug/L (01010)	Beryll- ium, water, unfltrd recover- able, ug/L (01012)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, fltrd, ug/L (01030)	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover- able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)
NOV 02...	<10	41.0	98	<5	<5	<5	<5	<5	6	<5	<5	<5	M
JAN 07...	<10	34.0	66	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MAY 16...	<10	47.0	64	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
JUN 14...	<10	42.0	70	<5	<5	<5	<5	<5	<5	<5	<5	7	<5
SEP 27...	<10	61.0	64	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Molyb- denum, water, fltrd, ug/L (01060)	Molyb- denum, water, unfltrd recover- able, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)
NOV 02...	40	5,280	<10	35.0	10	310	<5	<5	<10	<10	<10	<10	<5
JAN 07...	40	3,270	<10	<10	40	130	<5	<5	<10	<10	<10	<10	<5
MAY 16...	40	1,960	<10	<10	8.0	100	<5	<5	<10	<10	<10	<10	<5
JUN 14...	50	3,260	<10	11.0	30	200	<5	<5	<10	<10	<10	<10	<5
SEP 27...	<20	180	<10	<10	20	110	<5	<5	<10	<10	<10	<10	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)	Alum- inum, bed sedimnt recover- able, ug/g (01108)	Arsenic bed sedimnt total, ug/g (01003)	Barium, bed sedimnt recover- able, ug/g (01008)	Cadmium bed sedimnt recover- able, ug/g (01028)	Chrom- ium, bed sedimnt recover- able, ug/g (01029)	Copper, bed sedimnt recover- able, ug/g (01043)	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	Nickel, bed sedimnt recover- able, ug/g (01068)
NOV 02...	<5.00	40	460	--	--	--	--	--	--	--	--	--	--
JAN 07...	<5.00	40	150	--	--	--	--	--	--	--	--	--	--
MAY 16...	<5.00	20	90	1,000	<10	<40	1.0	11	<5	12,000	14	470	33
JUN 14...	<5.00	40	190	--	--	--	--	--	--	--	--	--	--
SEP 27...	<5.00	8	70	3,900	<10	<40	1.0	42	<5	31,000	32	470	18

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Zinc, bed sedimnt recover- able, ug/g (01093)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
NOV 02...	--	79	308	9,560
JAN 07...	--	93	118	12,600
MAY 16...	480	--	--	--
JUN 14...	--	95	131	2,050
SEP 27...	590	78	21	12

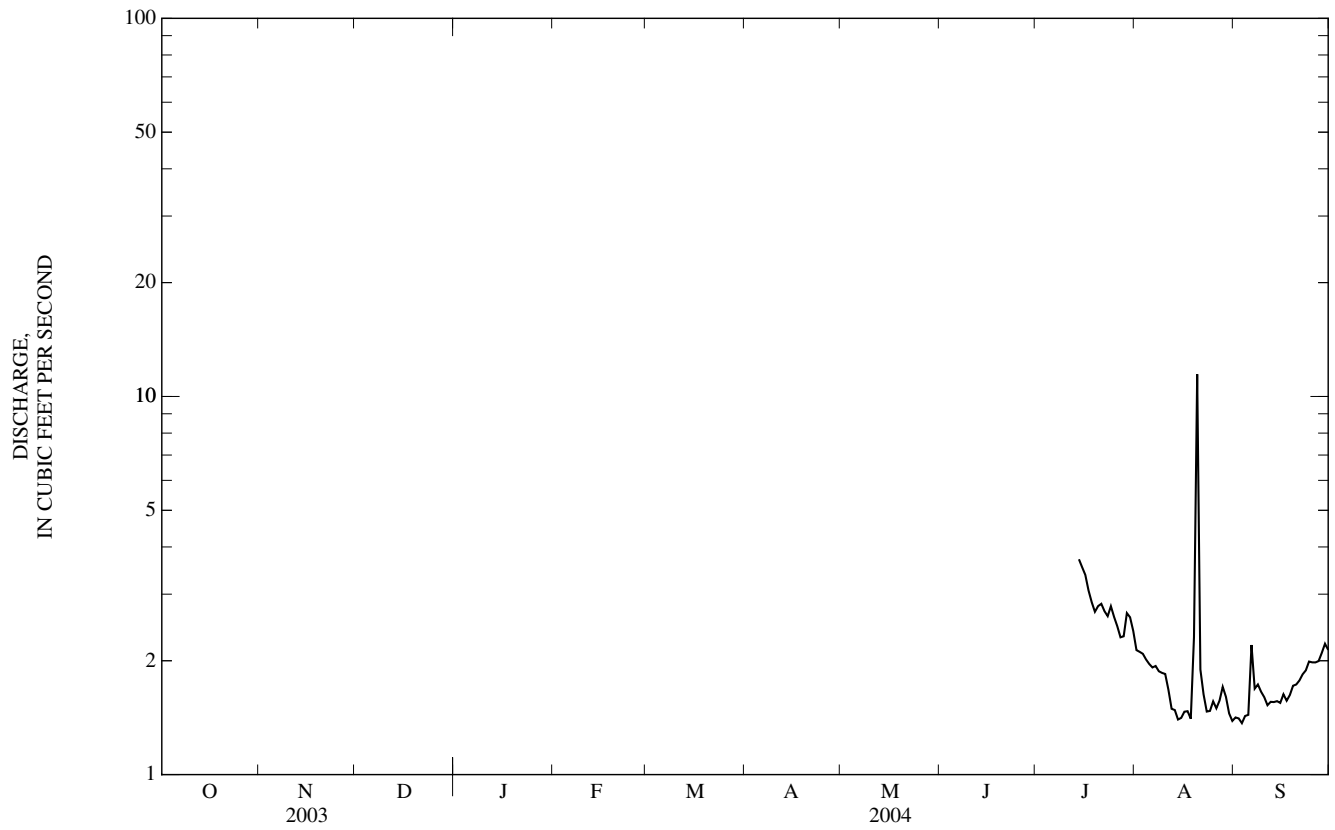
LOCATION.--Lat 36°55'57", long 94°45'02", in SW ¼ SW ¼ sec.5, T.28 N., R.24 E., Ottawa County, Hydrologic Unit 11070206, near left abutment of county road bridge, 0.3 mi upstream from Spring River, 2.6 mi southeast of Quapaw, Ok.

WATER-DISCHARGE RECORDS

REMARKS.--Records fair except for estimated periods which are poor. U.S. Geological Survey satellite telemeter at station.

[illegible]

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued



07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	52	e12	1.7	4.4	4.7	6.2	2.1	3.4	7.4	0.56	0.47
2	2.3	e114	4.1	1.9	4.4	4.5	4.3	2.1	3.2	2.6	0.55	0.46
3	2.3	43	3.6	6.3	4.8	4.1	3.5	2.2	2.9	2.1	0.56	0.48
4	2.3	9.1	3.4	73	4.4	3.9	3.0	2.1	2.8	2.1	0.53	0.54
5	2.3	3.6	3.5	e115	4.2	3.8	3.2	2.1	2.7	2.0	0.57	0.49
6	2.3	2.7	25	e70	9.9	3.6	11	2.0	2.4	1.9	0.60	0.48
7	2.6	2.1	e88	e32	13	3.6	46	2.0	2.3	1.6	0.60	0.48
8	2.8	1.9	e23	e24	11	3.4	5.9	2.1	2.1	1.4	0.58	0.45
9	2.8	1.8	e20	e18	22	3.3	5.1	2.0	2.0	1.2	0.58	0.48
10	3.1	2.3	17	15	8.7	3.1	4.5	2.0	1.9	1.1	0.55	0.43
11	3.5	13	4.7	7.2	7.1	3.1	4.4	1.8	2.1	1.1	0.52	0.47
12	3.6	e74	4.3	12	6.7	3.0	4.2	1.8	7.0	0.96	0.54	0.48
13	3.5	27	3.7	e56	28	3.0	3.9	1.8	e145	0.91	0.61	0.63
14	3.5	2.7	3.4	e10	68	2.9	3.7	6.5	20	0.94	0.94	1.3
15	3.4	2.5	3.4	e8.0	8.3	2.8	3.5	22	5.1	1.0	4.8	3.2
16	3.4	2.3	3.1	e7.0	5.6	2.7	3.2	1.9	4.8	1.2	1.8	1.3
17	3.4	2.4	2.9	5.5	5.2	2.7	3.1	1.7	4.3	1.2	1.00	0.85
18	3.6	3.0	2.8	5.9	4.9	2.5	3.1	1.6	4.0	1.1	0.87	0.72
19	3.9	3.0	2.5	6.2	4.9	2.3	3.0	1.6	3.5	6.6	0.73	0.66
20	3.9	2.8	2.5	6.1	4.9	2.3	2.0	1.5	3.1	0.82	0.68	0.64
21	3.9	3.5	2.4	5.8	4.8	2.4	4.5	1.5	2.8	0.73	0.66	0.54
22	4.9	5.3	2.2	5.4	4.6	3.5	3.9	1.5	2.6	0.69	0.66	0.52
23	4.1	4.5	2.0	5.0	11	4.4	2.3	19	2.5	0.67	0.67	0.49
24	3.5	e21	1.9	5.1	9.1	3.1	2.2	228	2.4	0.72	0.67	0.47
25	3.2	e57	1.9	5.0	6.4	5.3	2.3	16	2.2	0.64	0.64	0.50
26	7.1	e32	1.7	4.7	5.6	3.7	2.4	7.7	2.2	0.69	0.64	0.43
27	5.9	23	1.8	4.4	5.4	3.3	2.3	6.1	2.1	0.68	0.57	0.40
28	4.7	29	1.9	4.5	5.1	3.0	2.3	5.1	2.1	0.66	0.52	0.40
29	4.2	7.8	1.9	4.8	---	2.7	2.3	4.5	2.2	0.61	0.52	0.43
30	3.8	e54	1.8	4.9	---	2.5	2.3	4.1	2.1	0.59	0.53	0.39
31	4.4	---	1.8	4.7	---	2.5	---	3.7	---	0.58	0.51	---
TOTAL	110.4	602.3	254.2	535.1	282.4	101.7	153.6	360.1	247.8	46.49	24.76	19.58
MEAN	3.56	20.1	8.20	17.3	10.1	3.28	5.12	11.6	8.26	1.50	0.80	0.65
MAX	7.1	114	88	115	68	5.3	46	228	145	7.4	4.8	3.2
MIN	2.2	1.8	1.7	1.7	4.2	2.3	2.0	1.5	1.9	0.58	0.51	0.39
AC-FT	219	1,190	504	1,060	560	202	305	714	492	92	49	39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	3.56	20.1	8.20	17.3	10.1	3.28	5.12	11.6	8.26	1.50	1.40	1.19
MAX	3.56	20.1	8.20	17.3	10.1	3.28	5.12	11.6	8.26	1.50	2.01	1.73
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)
MIN	3.56	20.1	8.20	17.3	10.1	3.28	5.12	11.6	8.26	1.50	0.80	0.65
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)

e Estimated

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

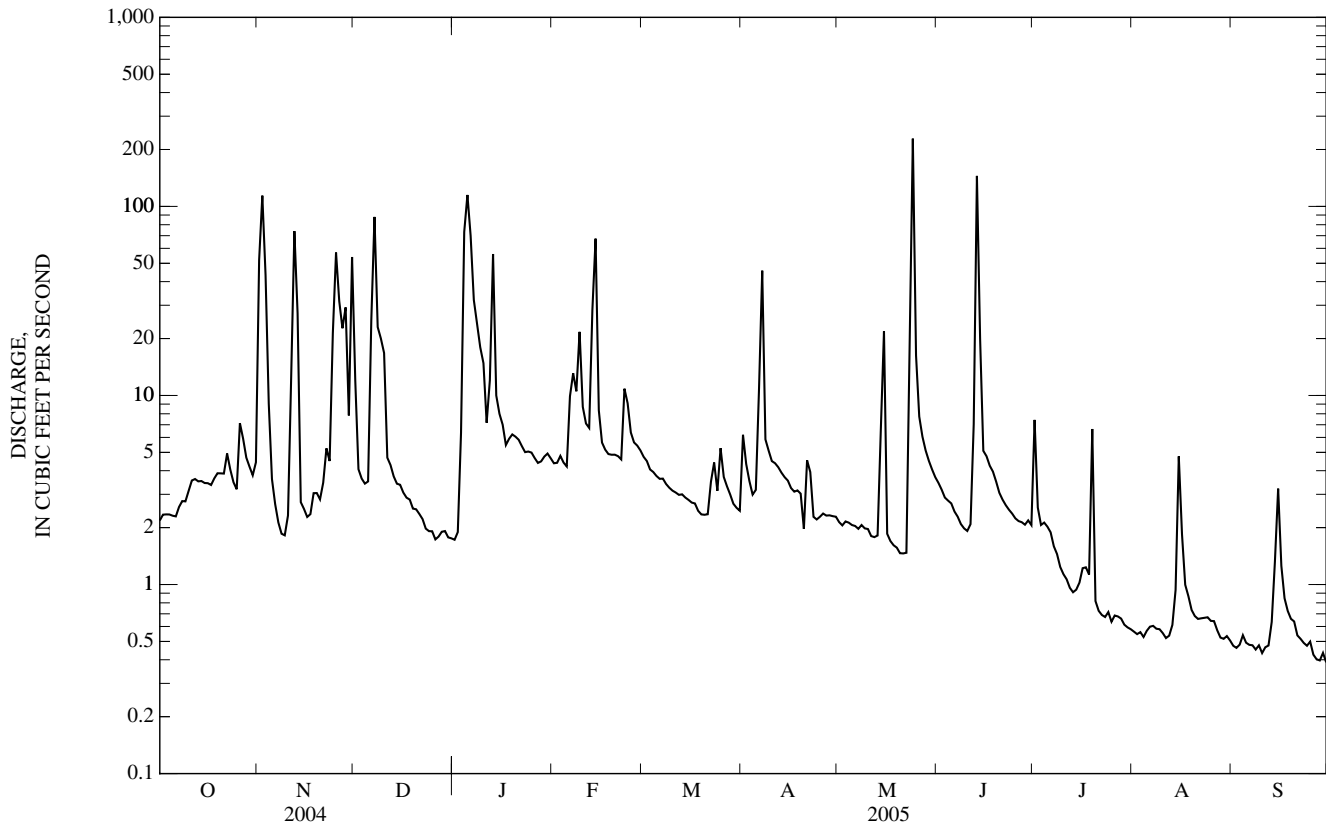
SUMMARY STATISTICS

FOR 2005 WATER YEAR

WATER YEARS JULY 2004 - 2005

ANNUAL TOTAL	2,738.43			
ANNUAL MEAN	7.50		7.50	
HIGHEST ANNUAL MEAN			7.50	2005
LOWEST ANNUAL MEAN			7.50	2005
HIGHEST DAILY MEAN	228	May 24	228	May 24, 2005
LOWEST DAILY MEAN	0.39	Sep 30	0.39	Sep 30, 2005
ANNUAL SEVEN-DAY MINIMUM	0.43	Sep 24	0.43	Sep 24, 2005
MAXIMUM PEAK FLOW	1,570	May 24	1,570	May 24, 2005
MAXIMUM PEAK STAGE	a19.90	Jan 7	a19.90	Jan 7, 2005
ANNUAL RUNOFF (AC-FT)	5,430		5,440	
10 PERCENT EXCEEDS	12		12	
50 PERCENT EXCEEDS	2.9		2.9	
90 PERCENT EXCEEDS	0.58		0.58	

a Occurred during backwater from Spring River.



07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 2000 to September 2000, July 2004 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 2004 to current year.

pH: July 2004 to current year.

WATER TEMPERATURE: July 2004 to current year.

DISSOLVED OXYGEN: July 2004 to current year.

TURBIDITY: October 2004 to current year.

INSTRUMENTATION.--Water-quality monitor since July 2004.

REMARKS.--Interruptions in record were due to malfunction of the recording instrument. Backwater can occur during high flow at Spring River, 0.4 mi downstream.

EXTREMES FOR CURRENT PERIOD.-- July to September 2004

SPECIFIC CONDUCTANCE: Maximum, 654 microsiemens, Aug. 7; minimum, 125 microsiemens, Aug. 20.

pH: Maximum, 8.0 units, several days; minimum, 7.3 units, Aug. 20.

WATER TEMPERATURE: Maximum, 25.9°C, Aug. 27; minimum, 15.5°C Sept. 29, 30.

DISSOLVED OXYGEN: Maximum, 10.6 mg/L, July 27, 28; minimum, 6.6 mg/L, Aug. 26, 27. Water Year 2005

SPECIFIC CONDUCTANCE: Maximum, 678 microsiemens, May 14; minimum, 53 microsiemens, June 13.

pH: Maximum, 8.3 units, several days; minimum, 6.9 units, June 13.

WATER TEMPERATURE: Maximum, 27.5°C, July 23; minimum, 2.3°C Dec. 24.

DISSOLVED OXYGEN: Maximum, 14.5 mg/L, Jan. 14; minimum, 6.5 mg/L, Aug. 18-20, Sept. 14.

TURBIDITY: Maximum, >1,000 FNU, May 24; minimum, 0.0 FNU, several days.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	642	629	635	622	615	618
2	---	---	---	---	---	---	645	636	640	621	607	614
3	---	---	---	---	---	---	648	642	644	611	600	605
4	---	---	---	---	---	---	648	640	644	611	602	606
5	---	---	---	---	---	---	647	636	643	608	597	604
6	---	---	---	---	---	---	643	636	638	615	533	590
7	---	---	---	---	---	---	654	639	643	603	590	595
8	---	---	---	---	---	---	646	637	642	603	595	599
9	---	---	---	---	---	---	648	640	644	603	599	602
10	---	---	---	---	---	---	647	635	641	603	598	601
11	---	---	---	---	---	---	645	635	640	602	594	599
12	---	---	---	---	---	---	644	637	640	606	599	602
13	---	---	---	---	---	---	643	636	639	606	600	603
14	---	---	---	---	---	---	643	633	637	607	600	604
15	---	---	---	---	---	---	640	634	637	609	600	603
16	---	---	---	590	584	586	639	608	629	608	603	606
17	---	---	---	592	588	590	635	627	630	612	605	608
18	---	---	---	599	592	595	635	628	632	616	610	613
19	---	---	---	---	---	---	636	339	610	617	609	613
20	---	---	---	---	---	---	457	125	295	614	607	610
21	---	---	---	628	621	624	568	447	513	614	607	611
22	---	---	---	633	626	629	594	568	582	616	611	614
23	---	---	---	635	630	633	606	594	598	618	609	615
24	---	---	---	643	634	639	617	606	610	620	611	616
25	---	---	---	637	631	634	625	617	620	614	607	610
26	---	---	---	639	634	636	627	619	623	610	602	606
27	---	---	---	643	637	639	632	625	628	606	599	602
28	---	---	---	646	639	643	632	611	623	607	596	601
29	---	---	---	645	630	637	628	620	624	605	596	601
30	---	---	---	640	634	636	624	616	620	602	593	598
31	---	---	---	642	637	640	624	614	619	---	---	---

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	598	589	594	535	142	242	496	431	467	623	600	616
2	599	589	594	449	313	386	533	495	516	624	582	613
3	590	584	587	482	231	385	556	533	544	620	374	490
4	585	576	582	399	239	327	569	555	562	411	122	272
5	592	584	588	483	399	448	575	557	567	166	104	123
6	594	582	587	526	483	505	567	130	482	317	166	253
7	589	567	583	547	526	534	298	135	205	427	310	380
8	597	583	593	567	538	551	452	298	383	466	427	451
9	599	591	596	583	548	566	497	452	475	479	460	468
10	601	576	595	584	516	564	532	497	514	501	479	491
11	604	595	601	580	265	382	549	531	540	517	501	509
12	604	598	601	420	294	363	560	548	554	522	255	498
13	606	597	602	494	420	463	573	560	565	343	202	260
14	600	579	587	532	494	514	584	572	578	480	343	419
15	590	577	584	558	520	541	591	581	586	522	480	503
16	587	581	584	573	537	554	596	584	591	543	522	532
17	587	582	585	581	548	565	600	589	595	554	543	548
18	595	586	593	584	555	570	604	590	598	562	550	555
19	600	593	597	573	548	564	609	596	603	562	553	558
20	601	595	598	569	538	559	613	599	607	561	550	557
21	603	598	600	576	538	559	616	600	610	570	557	563
22	613	489	588	541	468	500	624	612	617	580	565	571
23	641	613	634	504	464	484	628	617	624	588	577	582
24	629	599	611	511	294	368	634	621	628	590	579	586
25	599	587	593	429	315	372	634	620	629	591	579	587
26	618	437	566	496	429	467	635	620	629	595	582	589
27	534	521	526	522	494	513	633	610	624	601	586	594
28	537	515	522	535	522	528	626	608	619	602	590	597
29	555	536	547	574	295	461	624	604	618	596	572	580
30	563	548	558	431	303	370	624	603	617	576	563	571
31	571	529	558	---	---	---	624	602	616	579	561	572
FEBRUARY			MARCH			APRIL			MAY			
1	589	564	579	574	557	566	593	374	507	609	595	601
2	591	572	581	581	562	574	496	374	436	613	600	607
3	581	562	572	584	569	579	541	496	515	617	605	611
4	584	569	579	588	565	579	566	535	546	631	612	620
5	591	569	581	592	572	584	571	507	557	634	621	628
6	592	326	525	598	574	588	547	301	373	635	624	630
7	360	326	340	602	583	595	432	362	397	640	623	630
8	447	355	410	607	579	594	490	429	462	643	630	637
9	370	220	286	605	584	598	523	487	504	643	626	634
10	478	370	433	606	583	598	542	516	531	642	627	633
11	516	478	497	610	588	602	548	521	541	641	629	634
12	528	509	522	612	589	604	557	539	549	638	625	634
13	509	298	361	617	594	610	566	547	558	641	621	634
14	484	368	435	620	595	612	572	558	565	678	416	556
15	527	475	505	621	607	616	579	563	571	542	437	494
16	553	527	539	621	593	613	584	571	578	591	542	562
17	565	550	556	621	601	614	590	576	583	615	591	603
18	572	558	566	621	595	614	609	581	589	625	612	617
19	578	566	572	625	603	617	615	579	596	632	624	628
20	579	555	570	626	604	619	600	577	585	635	624	630
21	576	554	566	626	602	619	602	404	552	638	627	633
22	576	562	571	626	594	609	491	429	455	643	633	639
23	579	320	472	602	442	493	566	491	531	643	127	286
24	441	324	384	550	493	527	592	565	578	368	54	204
25	512	441	480	540	476	505	599	587	594	407	205	324
26	543	512	526	540	477	511	605	589	596	491	407	457
27	555	542	548	562	540	551	598	589	593	530	490	512
28	564	545	552	572	561	565	598	589	595	553	530	542
29	---	---	---	584	566	574	609	596	605	570	553	560
30	---	---	---	589	569	581	609	596	602	581	565	572
31	---	---	---	596	582	589	---	---	---	589	577	581

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	598	586	591	643	259	383	611	596	605	590	578	585
2	606	594	598	567	375	473	609	588	600	587	576	581
3	610	601	605	608	567	587	607	592	599	586	563	578
4	618	609	614	612	581	601	603	581	592	585	574	580
5	624	611	616	628	611	617	601	586	593	586	574	579
6	629	616	622	632	607	626	604	591	598	583	568	574
7	634	620	626	636	619	629	608	594	601	579	567	573
8	639	627	632	638	620	630	605	592	598	579	564	572
9	639	626	632	636	622	630	603	588	596	578	566	573
10	642	628	635	636	623	630	601	582	590	575	561	568
11	642	609	630	635	621	629	595	577	586	575	556	565
12	636	121	594	636	618	630	595	578	586	571	552	562
13	304	53	168	634	621	628	596	551	580	572	498	565
14	477	304	405	633	577	619	592	538	572	606	498	578
15	548	477	516	624	605	618	617	319	465	645	414	582
16	566	533	553	629	615	623	557	418	515	555	528	537
17	585	564	573	630	615	623	559	541	549	557	549	554
18	595	581	587	628	601	617	583	556	573	569	555	563
19	604	593	597	632	595	619	589	579	584	573	568	571
20	615	603	607	632	612	621	594	581	587	577	571	574
21	621	607	615	617	601	611	597	585	591	580	574	577
22	627	618	621	617	602	611	603	592	597	582	577	580
23	632	622	627	616	575	604	605	585	596	585	579	582
24	635	627	630	610	598	606	604	595	600	589	583	585
25	639	628	633	611	598	604	604	594	599	593	586	589
26	642	631	636	611	545	594	604	592	598	593	583	589
27	643	632	639	612	590	605	601	589	594	589	581	585
28	645	634	640	618	607	613	597	584	591	590	563	581
29	651	635	643	616	604	611	595	585	590	585	570	577
30	647	635	641	616	602	610	592	583	588	588	580	584
31	---	---	---	613	599	607	593	585	589	---	---	---

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8
2	---	---	---	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8
3	---	---	---	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8
4	---	---	---	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8
5	---	---	---	---	---	---	8.0	7.8	7.9	7.9	7.8	7.8
6	---	---	---	---	---	---	8.0	7.9	7.9	7.9	7.7	7.8
7	---	---	---	---	---	---	8.0	7.9	7.9	7.9	7.8	7.8
8	---	---	---	---	---	---	8.0	7.9	7.9	7.9	7.8	7.8
9	---	---	---	---	---	---	8.0	7.8	7.9	7.9	7.8	7.8
10	---	---	---	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8
11	---	---	---	---	---	---	7.9	7.8	7.8	7.9	7.8	7.8
12	---	---	---	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8
13	---	---	---	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8
14	---	---	---	---	---	---	7.9	7.8	7.8	7.9	7.8	7.8
15	---	---	---	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8
16	---	---	---	7.9	7.8	7.8	7.9	7.8	7.8	7.9	7.7	7.8
17	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8	7.9	7.8	7.8
18	---	---	---	8.0	7.8	7.9	7.9	7.8	7.8	7.9	7.8	7.8
19	---	---	---	---	---	---	7.9	7.7	7.8	7.9	7.8	7.8
20	---	---	---	---	---	---	7.7	7.3	7.5	8.0	7.8	7.8
21	---	---	---	8.0	7.8	7.8	7.8	7.6	7.8	8.0	7.8	7.8
22	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8	8.0	7.8	7.8
23	---	---	---	8.0	7.8	7.9	7.9	7.8	7.8	8.0	7.8	7.8
24	---	---	---	8.0	7.8	7.9	7.9	7.8	7.8	8.0	7.8	7.8
25	---	---	---	8.0	7.8	7.9	7.9	7.8	7.8	8.0	7.8	7.8
26	---	---	---	8.0	7.8	7.9	7.9	7.8	7.8	8.0	7.8	7.9
27	---	---	---	8.0	7.8	7.9	7.9	7.8	7.8	8.0	7.8	7.9
28	---	---	---	8.0	7.8	7.9	7.9	7.7	7.8	8.0	7.8	7.9
29	---	---	---	7.9	7.8	7.8	7.9	7.8	7.8	8.0	7.8	7.9
30	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8	8.0	7.9	7.9
31	---	---	---	8.0	7.8	7.8	7.9	7.8	7.8	---	---	---

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.0	7.8	7.9	7.8	7.5	7.5	7.8	7.6	7.7	8.2	7.8	7.9
2	8.0	7.8	7.9	7.7	7.6	7.6	7.9	7.7	7.8	8.1	7.8	7.8
3	8.0	7.9	7.9	7.8	7.6	7.7	7.9	7.8	7.8	7.8	7.6	7.8
4	8.0	7.8	7.9	7.7	7.6	7.7	8.0	7.8	7.8	7.7	7.3	7.6
5	8.0	7.9	7.9	7.9	7.7	7.8	7.9	7.8	7.8	7.3	7.3	7.3
6	8.0	7.9	7.9	7.9	7.8	7.8	8.0	7.4	7.8	7.4	7.3	7.3
7	8.0	7.8	7.8	8.0	7.8	7.9	7.4	7.4	7.4	7.4	7.3	7.4
8	8.0	7.8	7.8	8.0	7.8	7.9	7.6	7.4	7.5	7.5	7.4	7.5
9	8.0	7.8	7.9	8.0	7.8	7.8	7.8	7.6	7.7	7.7	7.5	7.6
10	7.9	7.8	7.9	8.0	7.8	7.8	8.0	7.7	7.8	7.7	7.6	7.7
11	8.0	7.9	7.9	7.8	7.5	7.6	8.0	7.9	7.9	7.8	7.7	7.7
12	8.0	7.9	7.9	7.7	7.5	7.6	8.0	7.9	7.9	7.8	7.6	7.7
13	8.0	7.9	8.0	7.9	7.6	7.7	8.0	7.8	7.9	7.6	7.4	7.5
14	8.0	7.9	8.0	7.9	7.7	7.8	8.0	7.8	7.9	7.6	7.5	7.5
15	8.0	7.9	8.0	8.0	7.7	7.8	8.0	7.8	7.9	7.7	7.6	7.7
16	8.0	7.9	8.0	8.0	7.7	7.8	8.0	7.8	7.9	7.9	7.7	7.8
17	8.0	7.9	8.0	8.0	7.8	7.8	8.0	7.8	7.9	7.9	7.8	7.8
18	8.0	7.9	7.9	8.0	7.8	7.8	8.0	7.8	7.9	7.9	7.7	7.8
19	8.0	7.9	7.9	8.0	7.8	7.8	8.0	7.8	7.9	7.8	7.7	7.8
20	8.0	7.9	7.9	8.0	7.8	7.8	8.0	7.8	7.8	7.9	7.7	7.7
21	8.0	7.9	7.9	7.9	7.8	7.8	8.0	7.8	7.9	7.9	7.7	7.7
22	7.9	7.8	7.9	7.8	7.7	7.8	8.0	7.8	7.9	7.9	7.7	7.8
23	7.9	7.8	7.9	7.8	7.7	7.7	8.1	7.9	7.9	7.9	7.8	7.8
24	8.0	7.9	7.9	7.7	7.5	7.6	8.0	7.9	7.9	7.9	7.8	7.8
25	7.9	7.8	7.8	7.6	7.5	7.6	8.0	7.8	7.8	7.9	7.7	7.8
26	7.9	7.7	7.8	7.8	7.6	7.7	8.0	7.8	7.8	8.0	7.7	7.8
27	7.9	7.7	7.7	7.9	7.7	7.8	8.1	7.8	7.9	8.0	7.8	7.8
28	7.8	7.7	7.8	7.9	7.7	7.8	8.1	7.9	7.9	7.9	7.8	7.8
29	7.9	7.7	7.8	7.8	7.6	7.8	8.2	7.9	7.9	8.0	7.7	7.8
30	7.9	7.8	7.8	7.6	7.6	7.6	8.2	7.8	7.9	8.0	7.7	7.8
31	7.9	7.8	7.8	---	---	---	8.2	7.8	7.9	8.0	7.7	7.8
1	8.2	7.7	7.9	---	---	---	8.2	7.7	7.9	8.2	8.0	8.0
2	8.2	7.9	8.0	---	---	---	8.1	7.7	7.8	8.2	8.0	8.1
3	8.2	7.9	8.0	---	---	---	8.2	7.8	8.0	8.2	8.0	8.1
4	8.2	7.9	8.0	---	---	---	8.2	7.8	7.9	8.2	7.9	8.0
5	8.3	7.9	8.0	8.3	7.8	7.9	8.2	7.8	7.9	8.1	7.9	7.9
6	8.1	7.7	7.9	8.3	7.9	8.0	7.9	7.7	7.7	8.1	7.9	7.9
7	7.8	7.7	7.7	8.3	7.8	7.9	7.9	7.6	7.7	8.1	7.8	7.9
8	7.9	7.7	7.8	8.3	7.9	8.0	8.1	7.7	7.8	8.1	7.9	7.9
9	7.8	7.6	7.7	8.3	7.9	7.9	8.2	7.8	7.8	8.1	7.9	7.9
10	8.0	7.7	7.8	8.3	7.9	7.9	8.2	7.8	7.9	8.1	7.8	7.9
11	8.0	7.8	7.9	8.3	7.9	8.0	8.2	7.8	7.9	8.1	7.8	7.9
12	8.0	7.8	7.9	8.3	7.9	7.9	8.2	7.8	7.9	8.0	7.9	7.9
13	7.9	7.7	7.8	8.3	7.9	8.0	8.1	7.9	8.0	8.1	7.8	7.9
14	8.0	7.7	7.8	8.3	7.9	8.0	8.2	7.9	7.9	8.2	7.7	7.9
15	8.1	7.8	7.9	8.3	7.9	8.0	8.2	7.9	7.9	7.9	7.7	7.8
16	8.2	7.9	7.9	8.3	7.9	8.0	8.2	7.9	7.9	8.0	7.8	7.9
17	8.1	7.9	7.9	8.3	7.9	8.0	8.2	7.8	8.0	8.1	7.9	7.9
18	8.2	7.9	8.0	8.3	7.9	8.0	8.2	7.9	7.9	8.1	7.8	7.9
19	8.1	7.9	7.9	8.3	7.9	8.0	8.2	7.9	7.9	8.0	7.8	7.9
20	8.2	7.9	8.0	8.3	7.9	8.0	8.1	7.8	7.9	8.0	7.8	7.8
21	8.2	7.9	8.0	8.2	7.9	8.0	8.1	7.7	7.9	8.0	7.8	7.9
22	8.2	7.9	8.0	8.1	7.9	8.0	7.9	7.7	7.8	8.0	7.8	7.9
23	8.0	7.7	7.9	8.0	7.8	7.9	8.1	7.8	7.9	7.9	7.3	7.4
24	---	---	---	8.1	7.8	7.9	8.1	7.9	8.0	7.6	7.0	7.3
25	---	---	---	8.0	7.8	7.9	8.1	7.9	7.9	7.6	7.3	7.6
26	---	---	---	8.0	7.8	7.9	8.2	7.9	8.0	7.7	7.6	7.7
27	---	---	---	8.1	7.9	7.9	8.2	7.9	8.0	7.8	7.7	7.8
28	---	---	---	8.2	7.9	8.0	8.2	7.9	8.0	7.8	7.8	7.8
29	---	---	---	8.2	7.9	8.0	8.1	7.9	8.0	7.9	7.8	7.8
30	---	---	---	8.2	7.9	8.0	8.2	7.9	8.0	7.9	7.8	7.8
31	---	---	---	8.2	7.9	8.0	---	---	---	7.9	7.8	7.8

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.0	7.8	7.9	8.0	7.6	7.7	8.1	8.0	8.0	8.1	8.0	8.0
2	8.0	7.8	7.9	7.9	7.6	7.8	8.1	8.0	8.0	8.1	8.0	8.0
3	8.0	7.9	7.9	8.0	7.8	7.9	8.2	8.0	8.0	8.1	8.0	8.0
4	8.0	7.9	7.9	8.0	7.8	7.9	8.1	8.0	8.0	8.1	8.0	8.0
5	8.0	7.9	7.9	8.0	7.8	7.9	8.2	8.0	8.0	8.1	8.0	8.0
6	8.0	7.9	7.9	8.0	7.9	7.9	8.2	8.0	8.0	8.2	8.0	8.0
7	8.0	7.9	7.9	8.1	7.9	7.9	8.2	8.0	8.0	8.2	8.0	8.0
8	8.0	7.9	7.9	8.1	7.9	7.9	8.2	8.0	8.0	8.1	8.0	8.0
9	8.1	7.9	7.9	8.1	7.9	8.0	8.2	8.0	8.0	8.1	8.0	8.0
10	8.0	7.9	7.9	8.1	7.9	8.0	8.2	8.0	8.0	8.1	8.0	8.0
11	8.0	7.9	7.9	8.1	7.9	8.0	8.1	8.0	8.0	8.1	8.0	8.0
12	8.0	7.4	7.9	8.1	7.9	8.0	8.2	8.0	8.0	8.1	8.0	8.0
13	7.5	6.9	7.3	8.1	7.9	8.0	8.2	8.0	8.0	8.1	7.9	8.0
14	7.8	7.5	7.7	8.1	7.9	8.0	8.1	8.0	8.0	8.1	7.9	8.0
15	7.9	7.7	7.8	8.1	7.9	7.9	8.1	7.7	8.0	8.1	7.9	8.0
16	7.9	7.8	7.8	8.1	7.9	8.0	8.0	7.8	7.9	8.1	7.9	8.0
17	8.0	7.8	7.8	8.1	7.9	8.0	8.0	7.8	7.9	8.1	8.0	8.0
18	8.0	7.8	7.9	8.1	7.9	8.0	8.1	7.9	7.9	8.1	7.9	8.0
19	8.0	7.8	7.9	8.0	7.9	7.9	8.1	7.9	8.0	8.0	7.9	7.9
20	8.0	7.9	7.9	8.1	7.9	7.9	8.1	7.9	8.0	8.0	7.9	8.0
21	8.0	7.9	7.9	8.1	7.9	7.9	8.1	8.0	8.0	8.0	7.9	8.0
22	8.0	7.9	7.9	8.1	7.9	7.9	8.1	8.0	8.0	8.1	8.0	8.0
23	8.0	7.9	7.9	8.0	7.9	7.9	8.1	8.0	8.0	8.1	8.0	8.0
24	8.1	7.9	7.9	8.1	7.9	7.9	8.1	7.9	8.0	8.1	8.0	8.0
25	8.1	7.9	7.9	8.1	7.9	7.9	8.1	8.0	8.0	8.1	8.0	8.0
26	8.1	7.9	7.9	8.1	7.9	7.9	8.1	8.0	8.0	8.1	8.0	8.0
27	8.1	7.9	7.9	8.1	7.9	8.0	8.1	8.0	8.0	8.1	8.0	8.0
28	8.1	7.9	7.9	8.1	8.0	8.0	8.1	8.0	8.0	8.1	8.0	8.0
29	8.1	7.9	7.9	8.1	8.0	8.0	8.1	8.0	8.0	8.2	8.0	8.1
30	8.1	7.9	7.9	8.1	8.0	8.0	8.1	8.0	8.1	8.2	8.1	8.1
31	---	---	---	8.1	8.0	8.0	8.1	8.0	8.0	---	---	---

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	23.9	19.9	21.9	22.5	19.3	21.0
2	---	---	---	---	---	---	25.1	21.1	23.1	22.4	19.0	20.8
3	---	---	---	---	---	---	25.6	21.8	23.7	22.8	19.3	21.0
4	---	---	---	---	---	---	25.2	22.6	23.7	23.4	20.4	21.9
5	---	---	---	---	---	---	23.7	21.3	22.7	23.7	21.0	22.3
6	---	---	---	---	---	---	22.1	19.1	20.7	22.6	20.2	21.6
7	---	---	---	---	---	---	22.5	18.5	20.5	20.5	18.1	19.5
8	---	---	---	---	---	---	21.7	19.3	20.5	19.9	16.6	18.4
9	---	---	---	---	---	---	22.9	18.6	20.8	20.4	16.3	18.5
10	---	---	---	---	---	---	22.6	20.0	21.3	21.0	17.1	19.1
11	---	---	---	---	---	---	21.4	18.8	20.0	21.2	17.4	19.5
12	---	---	---	---	---	---	19.6	16.7	18.3	21.7	18.1	20.0
13	---	---	---	---	---	---	19.2	16.1	17.9	22.0	18.8	20.5
14	---	---	---	---	---	---	20.3	17.0	18.6	23.0	19.9	21.5
15	---	---	---	---	---	---	20.4	16.8	18.8	22.8	21.1	22.0
16	---	---	---	23.1	20.4	21.3	20.3	17.2	18.8	22.7	20.6	21.8
17	---	---	---	22.5	19.2	20.9	22.7	19.0	20.7	22.2	18.7	20.6
18	---	---	---	21.9	18.9	20.5	23.3	19.8	21.6	22.5	20.0	21.3
19	---	---	---	---	---	---	21.9	20.4	21.3	22.0	19.4	20.9
20	---	---	---	---	---	---	21.6	19.9	20.6	20.9	18.0	19.7
21	---	---	---	24.5	21.3	22.9	21.2	19.3	20.2	21.3	18.3	19.8
22	---	---	---	24.1	21.4	22.8	22.9	19.4	21.1	21.1	18.0	19.6
23	---	---	---	23.6	21.1	22.2	23.8	21.1	22.3	21.0	18.9	20.0
24	---	---	---	21.8	19.9	20.9	25.0	21.5	23.2	21.0	18.9	20.1
25	---	---	---	19.9	18.4	18.9	24.6	22.6	23.6	20.2	16.6	18.6
26	---	---	---	20.7	17.4	19.0	25.8	22.4	24.1	19.9	16.6	18.5
27	---	---	---	21.4	17.2	19.4	25.9	23.1	24.5	19.6	16.2	18.1
28	---	---	---	19.7	18.3	19.1	24.2	21.3	22.8	19.1	15.8	17.7
29	---	---	---	19.0	18.3	18.6	22.6	19.6	21.0	18.3	15.5	17.1
30	---	---	---	19.8	18.2	18.9	22.3	18.4	20.5	18.9	15.5	17.3
31	---	---	---	22.5	17.7	20.1	22.8	19.2	21.1	---	---	---

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19.1	17.6	18.4	16.9	15.9	16.4	9.7	7.0	8.3	15.1	12.7	13.8
2	17.6	14.1	15.5	16.3	13.6	14.9	10.3	7.9	9.0	15.0	13.7	14.3
3	17.0	12.6	14.9	13.6	12.1	12.6	10.1	7.1	8.6	13.8	10.5	12.2
4	17.2	14.7	16.1	14.0	11.6	12.8	10.6	7.5	9.0	10.5	6.2	8.4
5	17.1	14.1	15.8	14.0	10.7	12.5	11.6	8.4	9.9	6.2	4.0	4.9
6	17.7	14.2	16.1	15.5	11.4	13.5	12.8	10.6	11.7	5.0	3.8	4.2
7	18.3	16.8	17.7	15.6	11.9	13.7	10.9	9.3	10.2	6.9	4.8	5.6
8	20.0	17.8	18.7	14.9	11.4	13.1	11.5	9.2	10.3	9.2	6.9	7.9
9	19.1	17.4	18.2	14.6	11.5	12.9	12.4	10.1	11.3	11.3	8.1	9.5
10	17.6	17.0	17.2	15.0	11.5	13.4	11.0	9.7	10.2	12.2	9.2	10.7
11	17.0	14.8	15.6	14.6	11.4	13.1	10.5	8.6	9.7	11.8	10.0	10.6
12	14.8	14.4	14.6	12.7	10.6	11.5	11.4	9.0	10.1	12.9	9.7	11.5
13	16.3	13.9	15.1	12.2	9.7	11.1	9.7	7.6	8.8	9.7	6.6	7.7
14	15.4	12.3	13.7	12.5	10.8	11.7	7.9	6.0	6.9	7.9	5.9	6.9
15	14.5	11.1	12.9	14.8	12.0	13.5	8.0	5.4	6.8	7.7	6.0	6.9
16	13.8	11.4	12.7	16.0	14.3	15.0	9.7	7.3	8.4	6.9	5.3	6.2
17	16.1	11.5	13.6	16.6	13.9	15.2	9.8	6.9	8.4	8.1	5.7	6.9
18	18.4	16.1	17.2	15.9	14.8	15.3	10.2	7.8	9.0	8.8	6.5	7.8
19	16.7	15.9	16.2	15.8	14.3	14.9	8.8	5.9	7.0	10.4	7.4	8.9
20	16.7	15.4	15.9	15.2	12.9	14.1	9.0	5.8	7.4	11.5	8.2	9.9
21	18.2	15.7	16.9	12.9	12.3	12.5	9.2	7.0	8.0	11.6	8.5	10.2
22	19.5	17.9	18.5	13.5	12.2	12.9	7.3	3.6	5.5	10.7	5.7	8.0
23	18.8	16.2	18.0	14.2	13.5	13.9	4.5	2.6	3.6	7.4	4.4	6.0
24	17.1	13.4	15.5	14.1	8.8	10.8	4.6	2.3	3.5	9.7	6.4	8.0
25	18.1	15.7	16.9	10.9	8.0	9.3	6.4	3.8	5.0	11.4	7.8	9.6
26	18.8	17.7	18.2	12.8	10.2	11.4	8.1	4.7	6.3	10.9	8.6	9.7
27	20.6	17.8	19.1	13.0	10.2	12.1	9.2	6.4	7.6	9.7	8.2	8.9
28	20.6	18.8	19.6	11.0	9.1	10.2	10.6	7.4	9.1	8.8	7.2	8.2
29	20.7	19.0	19.8	11.0	9.1	10.4	12.0	8.9	10.7	8.8	6.8	8.0
30	19.0	15.2	16.7	9.1	7.8	8.8	14.4	11.7	13.1	9.6	8.2	8.8
31	16.1	14.2	15.3	---	---	---	14.6	12.1	13.2	10.6	8.8	9.5
1	10.4	8.6	9.4	11.0	6.5	8.7	15.1	11.6	13.1	16.6	12.2	14.3
2	9.4	7.7	8.5	12.2	7.0	9.7	16.7	9.6	13.1	15.8	11.8	13.9
3	9.2	7.1	8.0	12.9	8.6	10.7	18.6	11.2	14.6	17.2	10.8	14.1
4	10.7	6.4	8.5	15.0	9.8	12.2	20.3	13.4	16.4	18.0	11.9	15.1
5	11.4	7.8	9.6	14.6	9.6	12.0	18.1	14.8	16.4	18.1	13.9	15.9
6	10.6	9.4	10.2	15.2	9.5	12.4	14.9	13.4	14.2	20.0	14.8	17.3
7	9.8	7.8	9.1	13.4	10.3	12.5	15.0	13.7	14.2	19.8	16.2	18.0
8	8.4	6.4	7.8	12.8	8.0	10.6	18.9	13.0	15.7	18.2	17.0	17.8
9	7.0	4.0	5.5	12.3	9.2	10.8	20.0	13.9	16.7	21.3	16.0	18.5
10	9.6	5.3	7.4	13.8	8.4	10.9	20.1	15.1	17.1	22.6	17.4	19.8
11	11.2	6.8	9.0	14.2	9.1	11.5	19.6	15.3	16.8	23.5	19.5	21.4
12	10.5	9.0	9.8	16.9	10.1	13.2	16.1	13.5	14.9	23.2	19.2	21.2
13	12.4	9.6	10.9	12.7	9.0	10.8	14.9	12.8	13.7	21.6	19.4	20.6
14	13.5	9.2	11.4	13.5	7.6	10.5	18.8	11.0	14.6	21.9	18.2	19.8
15	14.7	11.0	12.6	11.7	9.9	10.9	19.2	12.5	15.8	19.3	15.5	17.6
16	11.6	9.3	10.4	13.4	8.8	10.7	20.5	13.3	16.7	19.7	14.2	17.2
17	12.3	8.8	10.5	14.4	7.6	10.8	20.8	14.5	17.4	21.1	16.0	18.5
18	12.0	8.0	10.3	15.9	10.0	12.6	19.8	15.5	17.5	21.7	17.7	19.7
19	11.3	10.5	11.0	15.1	9.6	12.1	19.2	15.9	17.5	23.9	19.4	21.6
20	15.9	11.2	13.4	16.3	9.3	12.5	20.3	16.8	18.3	24.0	20.1	22.1
21	13.5	11.0	12.4	13.3	11.7	12.6	19.8	16.9	18.4	23.9	19.2	21.7
22	11.5	9.7	10.6	12.0	10.2	11.4	18.4	14.5	16.2	24.3	20.7	22.5
23	10.8	7.6	9.2	10.7	8.9	9.7	17.1	12.3	14.6	23.6	19.9	21.9
24	10.9	7.2	8.8	12.6	8.4	10.4	17.2	11.3	14.3	22.3	18.3	19.8
25	12.4	7.4	10	11.8	10.6	11.1	14.6	13.4	13.9	20.8	17.0	18.8
26	12.9	8.8	11.0	10.7	9.6	10.2	15.6	11.6	13.6	19.1	16.6	18.0
27	12.0	10.8	11.4	10.9	8.8	9.8	17.4	10.8	14.2	18.8	16.0	17.5
28	11.1	8.1	9.5	16.1	7.8	11.8	18.9	14.0	16.3	20.7	15.6	18.3
29	---	---	---	17.4	12.2	14.5	16.1	12.3	14.0	21.0	16.6	19.1
30	---	---	---	18.1	12.6	15.3	16.7	10.8	13.8	21.3	17.1	19.5
31	---	---	---	15.2	10.6	12.8	---	---	---	21.0	17.8	19.6

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.0	18.7	19.1	23.6	20.2	21.9	24.9	20.7	22.8	23.4	19.8	21.7
2	21.7	17.0	19.5	23.8	19.9	22.0	25.2	21.4	23.3	23.6	20.4	22.1
3	22.4	19.0	20.6	24.6	20.8	22.8	25.6	21.8	23.7	24.0	20.9	22.2
4	22.6	20.0	21.3	23.6	21.2	22.5	25.9	21.9	23.9	23.0	20.1	21.5
5	22.8	19.7	21.3	23.5	20.6	22.2	24.4	22.0	23.2	22.6	19.3	20.9
6	23.5	20.3	21.9	23.8	19.9	22.0	24.4	21.4	22.9	22.7	19.0	20.9
7	23.8	20.4	22.1	24.2	20.5	22.4	24.6	21.1	23.0	22.9	19.8	21.3
8	24.7	21.0	22.9	24.4	20.7	22.7	25.4	21.6	23.4	22.8	19.6	21.3
9	24.5	20.9	22.7	24.7	20.9	22.9	25.3	21.8	23.6	22.9	19.6	21.3
10	23.2	21.7	22.3	24.9	21.3	23.1	25.4	22.0	23.7	22.8	19.8	21.3
11	22.7	20.4	21.5	24.0	21.5	22.7	25.2	22.0	23.6	23.0	19.9	21.4
12	24.4	20.7	22.3	23.6	21.1	22.4	25.4	22.4	23.7	22.8	20.3	21.5
13	22.7	20.1	21.2	24.4	21.0	22.8	24.8	21.8	23.1	23.9	20.4	22.1
14	22.9	19.0	21.0	24.9	21.4	23.1	22.8	21.7	22.2	22.8	20.8	21.7
15	23.1	18.4	20.8	---	---	---	23.6	21.7	22.6	22.3	20.7	21.6
16	22.0	19.3	20.8	25.7	22.3	24.1	23.6	21.6	22.6	20.7	18.7	19.7
17	22.8	19.6	21.3	25.5	22.4	24.1	24.6	22.0	23.2	20.4	16.8	18.8
18	23.1	19.6	21.5	25.3	22.6	23.9	25.9	22.7	24.3	22.7	19.4	20.9
19	23.0	19.0	21.2	24.7	22.0	23.4	26.2	23.2	24.7	23.9	20.9	22.4
20	23.1	19.1	21.3	26.2	22.6	24.5	25.3	22.9	24.0	23.9	21.3	22.6
21	22.7	19.5	21.3	26.3	23.0	24.7	25.1	22.4	23.7	23.8	20.6	22.3
22	23.7	19.8	21.8	26.9	22.9	25.0	23.8	22.5	23.1	23.7	20.9	22.3
23	23.9	20.4	22.2	27.5	23.6	25.1	23.6	21.7	22.5	23.4	20.7	22.1
24	24.4	20.9	22.7	26.3	22.4	24.4	24.8	21.6	23.3	23.1	20.8	22.0
25	24.7	21.2	23.0	26.7	23.1	24.9	25.1	22.7	24.0	23.2	21.4	22.2
26	24.8	21.4	23.2	26.2	23.1	24.4	25.6	22.8	24.2	22.2	20.0	21.3
27	25.0	21.8	23.4	23.2	20.7	21.9	25.2	22.4	23.9	20.7	17.8	19.4
28	25.3	21.8	23.6	22.9	18.8	21.0	24.8	21.9	23.4	21.4	17.9	19.7
29	25.6	22.1	23.9	23.5	19.1	21.4	24.1	20.9	22.4	17.9	15.1	16.3
30	25.8	22.4	24.2	24.1	19.9	22.1	23.0	20.6	21.8	17.8	14.4	16.1
31	---	---	---	24.2	20.1	22.3	23.1	19.3	21.3	---	---	---

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	---	---	---	9.5	7.2	8.0
2	---	---	---	---	---	---	---	---	---	9.9	7.3	8.2
3	---	---	---	---	---	---	---	---	---	9.8	7.4	8.3
4	---	---	---	---	---	---	---	---	---	9.6	7.1	8.0
5	---	---	---	---	---	---	---	---	---	9.4	7.0	7.8
6	---	---	---	---	---	---	---	---	---	9.2	7.0	7.8
7	---	---	---	---	---	---	---	---	---	9.5	7.5	8.2
8	---	---	---	---	---	---	---	---	---	9.8	7.8	8.5
9	---	---	---	---	---	---	---	---	---	9.8	7.7	8.5
10	---	---	---	---	---	---	9.9	7.6	8.3	9.7	7.6	8.4
11	---	---	---	---	---	---	9.6	7.6	8.4	9.8	7.5	8.4
12	---	---	---	---	---	---	10.2	8.2	8.9	9.7	7.4	8.2
13	---	---	---	---	---	---	10.5	8.4	9.1	9.6	7.3	8.1
14	---	---	---	---	---	---	10.2	8.2	8.9	9.3	7.0	7.9
15	---	---	---	---	---	---	10.3	8.1	9.0	9.3	7.0	7.7
16	---	---	---	9.4	7.7	8.5	9.9	8.0	8.8	9.2	7.0	7.7
17	---	---	---	9.8	8.2	8.9	9.8	7.4	8.4	9.6	7.2	8.1
18	---	---	---	10.1	8.3	9.0	9.7	7.6	8.3	9.6	7.1	7.9
19	---	---	---	---	---	---	9.6	7.6	8.4	9.4	7.1	7.9
20	---	---	---	---	---	---	---	---	---	9.6	7.3	8.2
21	---	---	---	9.8	7.5	8.4	---	---	---	9.7	7.2	8.1
22	---	---	---	10.0	7.6	8.5	---	---	---	9.4	7.2	8.0
23	---	---	---	10.2	7.7	8.6	---	---	---	9.7	7.2	8.0
24	---	---	---	9.7	7.9	8.6	8.8	6.8	7.6	9.5	7.2	8.0
25	---	---	---	10.4	8.4	9.2	8.6	6.9	7.4	9.6	7.4	8.2
26	---	---	---	10.5	8.5	9.4	8.5	6.6	7.3	9.6	7.5	8.2
27	---	---	---	10.6	8.3	9.2	8.5	6.6	7.2	9.7	7.5	8.3
28	---	---	---	10.6	8.4	9.2	8.2	6.7	7.3	9.9	7.6	8.5
29	---	---	---	9.8	8.7	9.1	8.9	7.3	7.9	9.9	7.7	8.5
30	---	---	---	10.2	8.6	9.3	9.3	7.3	8.1	10.0	7.6	8.6
31	---	---	---	---	---	---	9.3	7.2	8.0	---	---	---

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9.5	7.4	8.0	9.2	8.5	9.0	12.4	10.8	11.4	13.4	9.4	10.5
2	10.1	7.6	8.8	9.7	8.7	9.2	12.3	10.7	11.3	12.7	9.4	10.1
3	10.3	8.1	9.0	10.5	9.3	10.0	12.5	10.7	11.4	11.2	9.6	10.5
4	10.2	8.0	8.9	10.7	9.8	10.2	12.5	10.4	11.2	12.8	10.8	11.8
5	10.0	8.1	8.8	11.1	9.8	10.3	11.4	9.9	10.6	13.6	12.8	13.4
6	10.2	7.7	8.8	11.0	9.3	10.1	11.7	9.3	10.4	13.6	13.0	13.3
7	9.4	7.3	8.0	11.1	9.5	10.1	10.9	10.0	10.5	13.0	11.8	12.3
8	9.2	7.2	7.9	11.5	9.8	10.4	10.8	9.8	10.3	12.6	11.4	11.9
9	9.4	7.3	8.1	12.1	9.9	10.7	11.0	9.7	10.1	12.9	11.7	12.2
10	8.4	7.6	7.9	12.2	9.5	10.6	11.2	10.0	10.5	12.6	11.3	11.9
11	9.1	7.7	8.4	10.5	9.5	10.1	11.7	10.3	10.8	12.7	11.4	12.0
12	9.3	8.3	8.7	11.6	10.1	10.7	11.4	10.3	10.7	12.7	11.3	11.9
13	9.8	8.2	8.9	12.3	10.3	11.0	12.1	10.5	11.2	14.1	12.7	13.5
14	10.4	8.3	9.1	12.2	10.2	10.8	12.8	11.3	11.9	14.5	13.0	13.5
15	10.5	8.8	9.5	12.0	9.5	10.5	12.8	11.3	12.0	---	---	---
16	10.8	8.9	9.6	11.5	9.2	10	12.6	11.0	11.5	---	---	---
17	10.6	8.1	9.4	11.9	8.9	9.9	12.7	10.9	11.6	---	---	---
18	8.9	7.5	8.1	11.5	9.0	9.7	12.7	10.8	11.4	---	---	---
19	9.8	7.6	8.5	11.8	9.0	9.8	13.4	11.0	12.1	11.8	10.2	10.9
20	9.8	8.1	8.6	12.2	9.1	10.1	---	---	---	11.6	9.9	10.6
21	9.2	7.5	8.3	10.9	9.6	10.1	---	---	---	11.8	9.7	10.6
22	8.8	7.4	7.8	11.2	9.3	10.1	---	---	---	12.4	9.9	11.2
23	8.9	7.6	8.0	10.4	9.1	9.5	---	---	---	13.0	11.1	11.9
24	9.8	7.9	8.6	11.2	9.1	10.4	---	---	---	12.4	10.4	11.3
25	9.5	7.4	8.2	11.6	10.1	10.8	---	---	---	12.3	9.8	10.8
26	8.7	7.3	8.0	11.3	9.5	10.3	---	---	---	12.3	10.0	10.9
27	8.9	7.0	7.9	11.3	9.4	10.2	---	---	---	13.0	10.4	11.3
28	8.3	6.9	7.4	12.2	10.2	10.9	13.2	10.1	11.4	12.3	10.6	11.2
29	8.5	6.7	7.3	10.9	10.1	10.6	13.6	9.8	11.1	13.1	10.6	11.5
30	9.6	6.8	8.2	11.5	10.8	11.0	13.0	9.4	10.5	12.9	10.4	11.3
31	9.3	7.8	8.4	---	---	---	13.4	9.4	10.7	13.2	10.3	11.2
FEBRUARY			MARCH			APRIL			MAY			
1	13.3	9.9	11.2	13.6	10.3	11.6	11.7	9.2	10.1	---	---	---
2	13.0	9.9	10.9	13.6	9.8	11.4	12.0	8.9	10.3	---	---	---
3	13.2	10.3	11.2	13.7	9.4	11.0	11.9	8.5	10.1	---	---	---
4	13.0	9.9	11.1	13.4	8.9	10.7	11.6	8.3	9.6	---	---	---
5	13.2	9.5	11.0	13.2	9.1	10.6	11.3	8.3	9.4	10.9	8.3	9.3
6	11.4	9.4	10.2	13.4	8.6	10.6	10.2	8.7	9.3	10.8	7.8	9.1
7	10.5	9.9	10.2	13.1	8.6	10.2	10.8	9.0	9.5	---	---	---
8	11.6	10.4	10.8	13.6	9.2	11.1	11.5	8.4	9.8	---	---	---
9	12.2	10.9	11.6	13.9	9.2	10.8	11.4	8.2	9.5	---	---	---
10	12.2	10.2	11.1	13.9	9.2	11.1	11.6	8.2	9.4	9.6	7.0	8.0
11	12.1	9.7	10.8	13.4	9.1	10.8	11.5	8.2	9.4	---	---	---
12	11.4	9.7	10.2	13.1	8.4	10.2	11.8	8.5	9.8	---	---	---
13	10.4	9.3	9.8	13.8	8.8	10.9	11.8	9.2	10.2	---	---	---
14	11.4	9.1	10.0	13.9	9.3	11.3	12.1	8.7	10.3	---	---	---
15	11.3	8.9	9.8	13.1	9.3	10.7	12.2	8.5	10.1	---	---	---
16	12.4	9.3	10.6	13.9	9.6	11.2	11.7	8.3	9.8	---	---	---
17	12.2	9.6	10.5	13.5	9.3	11.0	11.6	8.1	9.6	---	---	---
18	12.6	9.5	10.7	13.1	8.8	10.5	11.3	8.2	9.4	---	---	---
19	11.9	9.5	10.2	13.3	9.0	10.8	10.7	7.8	9.1	9.0	6.8	7.6
20	12.0	8.6	9.9	13.0	8.7	10.6	10.7	7.7	8.8	9.0	6.8	7.5
21	12.4	8.8	10.2	12.1	8.8	9.8	10.5	7.7	8.5	9.0	6.8	7.6
22	12.9	9.5	10.7	11.2	9.3	10	9.4	7.7	8.4	8.9	6.7	7.5
23	11.2	9.6	10.4	12.2	9.7	10.8	11.2	8.5	9.6	7.8	6.6	7.3
24	12.5	10.2	11.1	12.0	9.2	10.6	11.4	8.6	9.8	8.3	6.7	7.7
25	12.9	9.7	11.0	11.2	9.2	10.1	10.6	8.7	9.5	8.8	8.0	8.4
26	13.2	9.5	10.9	11.3	9.6	10.3	11.4	9.1	9.9	9.2	8.2	8.6
27	12.7	9.5	10.5	12.3	10.0	10.8	11.5	8.5	10	9.4	8.4	8.8
28	13.6	9.6	11.2	12.2	8.9	10.5	11.0	8.2	9.4	9.5	7.9	8.7
29	---	---	---	11.8	8.5	9.9	10.3	8.3	9.3	9.4	7.8	8.5
30	---	---	---	11.4	8.4	9.6	---	---	---	9.4	7.7	8.4
31	---	---	---	12.2	9.1	10.3	---	---	---	9.6	7.8	8.5

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.5	7.8	8.5	8.7	7.0	7.9	9.7	7.3	8.2	9.3	7.4	8.1
2	9.8	7.8	8.7	9.3	7.2	8.0	9.8	7.2	8.1	9.5	7.4	8.1
3	9.7	7.7	8.4	9.4	7.1	8.0	9.9	7.2	8.1	9.4	7.1	8.0
4	9.4	7.6	8.3	9.3	7.3	7.9	9.8	7.2	8.1	9.4	7.2	8.0
5	9.6	7.6	8.3	9.5	7.4	8.2	9.8	7.2	8.1	9.4	7.6	8.2
6	9.5	7.5	8.2	9.4	7.3	8.2	10.1	7.4	8.2	9.8	7.5	8.4
7	9.3	7.5	8.2	9.2	7.2	7.9	10.1	7.2	8.2	10.0	7.4	8.3
8	9.2	7.3	8.0	9.3	7.1	7.9	9.9	7.2	8.1	9.8	7.4	8.3
9	9.5	7.3	8.1	9.2	7.2	7.9	9.9	7.1	8.0	9.8	7.5	8.3
10	8.9	7.4	8.0	9.2	7.2	7.9	10.0	7.1	8.0	9.8	7.5	8.2
11	9.2	7.6	8.2	9.0	7.2	7.9	---	---	---	9.9	7.3	8.2
12	9.4	7.6	8.2	9.4	7.3	8.1	---	---	---	9.6	7.3	8.1
13	8.5	7.7	8.1	9.5	7.3	8.1	---	---	---	9.2	7.1	7.9
14	9.0	7.9	8.3	9.6	6.9	8.0	---	---	---	9.0	6.5	7.6
15	9.4	7.8	8.5	9.4	6.9	7.8	---	---	---	8.6	7.3	8.0
16	9.6	8.0	8.5	9.3	6.9	7.8	---	---	---	9.4	7.5	8.2
17	9.6	7.8	8.5	9.2	7.0	7.7	---	---	---	9.7	7.6	8.4
18	9.6	7.8	8.4	9.1	7.0	7.7	8.4	6.5	7.1	9.4	7.1	8.0
19	9.7	7.8	8.5	8.9	7.2	7.8	8.3	6.5	7.0	8.9	6.9	7.6
20	9.8	7.8	8.6	9.1	7.0	7.7	8.5	6.5	7.2	8.9	6.9	7.5
21	9.9	7.9	8.6	9.2	7.0	7.7	8.7	6.8	7.4	9.0	7.0	7.6
22	9.8	7.7	8.5	9.0	6.9	7.6	8.7	6.8	7.5	9.0	7.0	7.7
23	9.8	7.7	8.5	9.0	6.7	7.5	8.9	7.1	7.7	9.2	7.0	7.8
24	9.8	7.6	8.4	9.3	7.0	7.8	9.2	6.8	7.6	9.3	7.0	7.9
25	9.8	7.5	8.4	9.2	7.0	7.7	9.0	6.9	7.5	8.9	7.2	7.7
26	10.0	7.5	8.4	9.4	6.7	7.6	8.8	6.8	7.4	9.3	7.2	8.0
27	9.8	7.4	8.3	9.7	7.0	8.2	8.3	6.8	7.3	9.6	7.8	8.4
28	9.8	7.4	8.3	9.7	7.7	8.4	8.7	6.9	7.5	9.2	7.9	8.3
29	9.7	7.3	8.2	9.7	7.6	8.3	8.7	7.2	7.7	10.3	8.0	9.1
30	9.7	7.3	8.1	9.7	7.4	8.2	9.0	7.2	7.9	10.5	8.5	9.4
31	---	---	---	9.7	7.5	8.2	9.1	7.4	8.0	---	---	---

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	220	3.3	52	22	9.0	14	9.0	1.0	2.1
2	---	---	---	36	10	16	10	3.0	5.7	3.0	1.0	2.0
3	---	---	---	63	7.8	22	4.0	1.0	2.3	25	3.0	14
4	---	---	---	41	13	21	3.0	1.0	1.5	120	17	50
5	---	---	---	13	5.6	9.5	4.0	1.0	1.5	70	28	42
6	---	---	---	5.6	2.2	3.5	320	1.0	34	29	13	19
7	---	---	---	8.9	1.1	1.7	130	32	58	14	8.0	10
8	---	---	---	1.1	0.0	0.6	34	11	21	32	6.0	8.8
9	---	---	---	1.0	0.0	0.0	46	6.0	10	75	4.0	9.1
10	---	---	---	5.0	0.0	0.5	7.0	3.0	4.7	13	3.0	4.1
11	---	---	---	81	2.0	34	5.0	3.0	3.2	17	3.0	3.2
12	0.0	0.0	0.0	35	13	21	3.0	2.0	2.6	100	2.0	11
13	2.2	0.0	0.1	13	5.0	8.5	3.0	2.0	2.5	100	22	46
14	1.1	0.0	0.0	5.0	1.0	2.9	3.0	2.0	2.6	23	9.0	14
15	1.1	0.0	0.0	2.0	0.0	1.0	3.0	2.0	2.6	9.0	4.0	5.9
16	0.0	0.0	0.0	2.0	0.0	0.3	3.0	2.0	2.4	7.0	3.0	3.2
17	1.1	0.0	0.0	1.0	0.0	0.0	3.0	2.0	2.5	3.0	2.0	2.3
18	0.0	0.0	0.0	1.0	0.0	0.1	3.0	2.0	2.4	3.0	2.0	2.4
19	0.0	0.0	0.0	1.0	0.0	0.9	3.0	2.0	2.5	3.0	2.0	2.5
20	3.3	0.0	0.1	2.0	0.0	0.8	3.0	2.0	2.5	3.0	2.0	2.7
21	1.1	0.0	0.0	3.0	1.0	1.2	4.0	2.0	2.4	3.0	2.0	2.5
22	13	0.0	1.8	13	2.0	7.4	3.0	2.0	2.6	3.0	2.0	2.4
23	2.2	0.0	0.3	12	5.0	7.7	3.0	2.0	2.6	3.0	2.0	2.6
24	0.0	0.0	0.0	86	5.0	35	3.0	3.0	3.0	3.0	2.0	2.3
25	0.0	0.0	0.0	43	17	27	3.0	3.0	3.0	3.0	2.0	2.1
26	17	0.0	4.4	18	7.0	11	3.0	2.0	3.0	3.0	2.0	2.0
27	17	4.4	11	11	3.0	4.9	3.0	2.0	2.5	3.0	2.0	2.0
28	4.4	1.1	2.6	6.0	3.0	3.3	2.0	2.0	2.0	3.0	2.0	2.0
29	2.2	1.1	1.1	43	2.0	16	3.0	1.0	1.7	3.0	2.0	2.1
30	1.1	1.1	1.1	35	20	28	6.0	1.0	2.0	3.0	2.0	2.1
31	3.3	1.1	1.3	---	---	---	16	1.0	2.3	3.0	2.0	2.4
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	2.0	2.2	5.0	2.0	2.1	23	2.0	11	20	1.0	2.3
2	3.0	2.0	2.7	3.0	2.0	2.0	22	9.0	15	2.0	1.0	1.6
3	3.0	2.0	2.9	3.0	1.0	1.9	9.0	4.0	6.3	7.0	1.0	1.7
4	3.0	2.0	3.0	4.0	1.0	2.2	4.0	2.0	2.7	2.0	1.0	1.1
5	3.0	2.0	2.4	4.0	2.0	2.3	12	2.0	3.3	4.0	1.0	1.1
6	59	2.0	16	3.0	2.0	2.3	45	5.0	35	2.0	1.0	1.0
7	53	34	43	3.0	2.0	2.3	29	15	21	2.0	1.0	1.0
8	76	20	27	3.0	2.0	2.6	17	6.0	9.9	9.0	1.0	1.2
9	110	26	58	5.0	2.0	2.5	6.0	3.0	4.2	3.0	1.0	1.2
10	27	12	17	5.0	2.0	2.6	7.0	2.0	3.0	15	1.0	1.6
11	12	6.0	8.3	7.0	2.0	2.8	17	2.0	3.0	12	1.0	1.1
12	6.0	4.0	4.8	7.0	2.0	2.9	13	2.0	2.8	1.0	1.0	1.0
13	51	6.0	37	3.0	2.0	2.4	14	1.0	3.4	7.0	1.0	1.4
14	33	14	21	4.0	2.0	2.4	13	1.0	1.9	36	2.0	15
15	16	6.0	9.0	26	2.0	6.6	2.0	1.0	1.5	29	5.0	12
16	6.0	3.0	3.9	14	2.0	4.1	3.0	1.0	1.6	10	2.0	4.2
17	3.0	2.0	2.7	10	2.0	2.9	3.0	1.0	1.5	4.0	1.0	1.5
18	3.0	2.0	2.5	6.0	2.0	2.8	2.0	1.0	1.5	2.0	0.0	0.6
19	3.0	2.0	2.4	30	2.0	4.2	3.0	1.6	2.4	0.0	0.0	0.0
20	3.0	2.0	2.3	8.0	2.0	3.0	3.0	2.0	2.3	0.0	0.0	0.0
21	3.0	2.0	2.5	20	2.0	4.5	42	1.0	11	0.0	0.0	0.0
22	4.0	2.0	2.7	19	2.0	7.9	53	12	26	0.0	0.0	0.0
23	43	3.0	19	62	7.0	28	16	3.0	6.7	54	0.0	12
24	42	20	31	54	9.0	21	3.0	1.0	2.3	>1,000	22	120
25	20	8.0	12	20	8.0	14	2.0	1.0	1.9	28	11	16
26	8.0	3.0	5.2	15	7.0	11	3.0	1.0	1.9	11	5.0	7.5
27	4.0	2.0	2.9	7.0	3.0	4.8	3.0	1.0	2.0	6.0	5.0	5.4
28	4.0	2.0	2.4	4.0	2.0	2.8	3.0	2.0	2.1	6.0	5.0	5.1
29	---	---	---	9.0	2.0	2.7	2.0	2.0	2.0	6.0	4.0	4.9
30	---	---	---	7.0	2.0	2.4	33	2.0	2.4	5.0	4.0	4.5
31	---	---	---	9.0	2.0	2.5	---	---	---	5.0	3.0	3.7

07188007 BEAVER CREEK ABOVE SPRING RIVER NEAR QUAPAW, OK—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	4.0	2.0	3.1	190	1.0	71	1.0	0.0	0.0	1.0	0.0	0.0
2	4.0	2.0	2.5	31	3.0	11	1.0	0.0	0.0	3.0	0.0	0.1
3	3.0	2.0	2.2	3.0	2.0	2.3	1.0	0.0	0.0	1.0	0.0	0.1
4	3.0	1.0	2.0	10	1.0	2.8	1.0	0.0	0.0	1.0	0.0	0.0
5	3.0	1.0	1.7	2.0	1.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0
6	2.0	1.0	1.5	3.0	2.0	2.1	1.0	0.0	0.0	0.0	0.0	0.0
7	2.0	1.0	1.1	3.0	1.0	2.0	1.0	0.0	0.0	1.0	0.0	0.0
8	2.0	1.0	1.1	4.0	1.0	1.8	0.0	0.0	0.0	1.0	0.0	0.0
9	2.0	1.0	1.2	3.0	1.0	1.1	1.0	0.0	0.0	0.0	0.0	0.0
10	2.0	1.0	1.0	4.0	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
11	5.0	1.0	1.4	2.0	1.0	1.1	1.0	0.0	0.4	1.0	0.0	0.0
12	530	1.0	26	2.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0
13	860	18	100	1.0	1.0	1.0	4.0	1.0	1.1	6.0	0.0	0.2
14	18	7.0	11	13	1.0	2.1	10	1.0	1.6	7.0	0.0	0.7
15	7.0	3.0	4.7	1.0	1.0	1.0	52	1.0	24	40	0.0	7.5
16	5.0	3.0	4.0	1.0	1.0	1.0	26	4.0	8.5	9.0	2.0	4.7
17	4.0	3.0	3.6	1.0	1.0	1.0	4.0	0.0	2.3	2.0	1.0	1.5
18	4.0	2.0	3.3	2.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0
19	3.0	2.0	2.7	11	1.0	1.7	1.0	0.0	1.0	1.0	0.0	0.8
20	3.0	2.0	2.3	1.0	1.0	1.0	1.0	0.0	0.6	1.0	0.0	0.1
21	3.0	2.0	2.0	1.0	1.0	1.0	1.0	0.0	0.1	1.0	0.0	0.1
22	2.0	1.0	2.0	2.0	1.0	1.0	1.0	0.0	0.1	1.0	0.0	0.0
23	2.0	1.0	1.6	3.0	0.0	1.0	1.0	0.0	0.1	1.0	0.0	0.0
24	2.0	1.0	1.4	1.0	0.0	0.7	1.0	0.0	0.0	0.0	0.0	0.0
25	2.0	1.0	1.2	2.0	0.0	0.3	1.0	0.0	0.1	0.0	0.0	0.0
26	8.0	1.0	1.1	14	0.0	1.5	1.0	0.0	0.0	2.0	0.0	0.0
27	2.0	1.0	1.0	1.0	0.0	0.4	2.0	0.0	0.6	4.0	0.0	0.1
28	2.0	1.0	1.0	1.0	0.0	0.2	10	0.0	0.9	1.2	0.0	0.1
29	1.0	1.0	1.0	1.0	0.0	0.2	1.0	0.0	0.4	2.0	0.0	0.1
30	1.0	1.0	1.0	1.0	0.0	0.1	1.0	0.0	0.1	1.0	0.0	0.1
31	---	---	---	4.0	0.0	0.1	2.0	0.0	0.1	---	---	---

> Actual value is known to be greater than the value shown

07188180 SPRING RIVER NEAR WYANDOTTE, OK

LOCATION.--Lat 36°47'59", long 94°45'09", in SW ¼, SW ¼, sec 20, T.27 N., R.24 E., Ottawa County, Hydrologic Unit 11070207, at U.S. Highway 60 eastern bridge at Twin Bridges State Park, 1.4 mi northwest of Wyandotte, Ok.

PERIOD OF RECORD.--August to September 1982, January 2004 to current year. Prior to January 2004, this site was named Spring River near Twin Bridges (site number 364803094454001).

REMARKS.--Event samples were collected by the U.S. Geological Survey. Water samples were analyzed by the Oklahoma Department of Environmental Quality and bed sediment samples were analyzed by the U.S. Geological Survey. Specific conductance, pH, water temperature, dissolved oxygen, and turbidity were determined in the field.

COOPERATION.--Sampling beginning in 2004 is in cooperation with the Seneca-Cayuga Tribe of Oklahoma and the Oklahoma Department of Environmental Quality.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltrd, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)
JAN 18...	1240	1028	84017	20,200	--	743	10.9	93	7.4	251	--	7.4	91
MAR 05...	1330	1028	84017	40,400	--	739	9.7	91	6.7	165	9.0	11.2	60
MAR 30...	1045	1028	84017	11,500	.2	746	9.3	92	7.4	225	--	14.0	90
JUN 15...	1020	1028	84017	4,610	55	760	6.7	80	7.5	269	27.5	24.0	100
AUG 31...	1355	1028	84017	1,290	37	764	6.9	86	8.2	388	28.5	26.4	160

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Noncarb hardness, wat flt field, mg/L as CaCO ₃ (00904)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00918)	Magnesium water, fltrd, mg/L (00925)	Magnesium water, unfltrd recoverable, mg/L (00927)	Potassium water, fltrd, mg/L (00935)	Potassium water, unfltrd recoverable, mg/L (00937)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Sodium, water, unfltrd recoverable, mg/L (00929)	ANC, wat unfltrd methyl orange end pt, mg/L as CaCO ₃ (00411)	Alkalinity, wat flt inc tit field, mg/L as CaCO ₃ (39086)
JAN 18...	41	31.0	--	4.00	--	6.00	--	.4	8.00	15	--	--	53
MAR 05...	13	19.0	24	3.00	4.0	5.00	7.0	.2	4.00	12	5.0	--	47
MAR 30...	--	29.0	28	3.00	4.0	4.00	5.0	.3	6.00	13	6.0	66	--
JUN 15...	--	35.0	36	5.00	5.0	5.00	5.0	.3	7.00	12	7.0	70	--
AUG 31...	--	62.0	62	4.00	4.0	3.00	3.0	.3	10.0	11	10.0	140	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, unfltrd mg/L (99220)	Sulfate water, fltrd, mg/L (00945)	Sulfate water unfltrd mg/L (00946)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Nitrate water, fltrd, mg/L as N (00618)	COD, high level, water, unfltrd mg/L (00340)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, water, unfltrd recoverable, ug/L (01105)	Antimony, water, fltrd, ug/L (01095)	Antimony, water, unfltrd ug/L (01097)
JAN 18...	E64	E.0	<10	38.7	--	157	<5	1.25	48	<300	--	<10	--
MAR 05...	E57	E.0	--	--	--	--	--	--	--	<300	12,800	<10	<10
MAR 30...	--	--	<10	--	28.5	148	<5	1.29	15	<300	<300	<10	<10
JUN 15...	--	--	<10	--	45.4	170	73	1.40	20	<300	2,500	<10	<10
AUG 31...	--	--	10	--	31.6	209	63	1.27	<5	<300	300	<10	<10

07188180 SPRING RIVER NEAR WYANDOTTE, OK—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryll- ium, water, fltrd, ug/L (01010)	Beryll- ium, water, unfltrd recover -able, ug/L (01012)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, fltrd, ug/L (01030)	Chrom- ium, water, unfltrd recover -able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover -able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)
JAN 18...	<10.0	--	46.0	--	<5	--	<5	--	<5	--	<5	--	<5
MAR 05...	<10.0	<10	39.0	200	<5	<5	<5	6.0	<5	12	<5	5	<5
30...	<10.0	<10	46.0	47	<5	<5	<5	<5	<5	<5	<5	<5	<5
JUN 15...	<10.0	<10	52.0	67	<5	<5	<5	<5	20	<5	<5	<5	<5
AUG 31...	<10.0	<10	65.0	77	<5	<5	<5	<5	<5	<5	<5	<5	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Copper, water, unfltrd recover -able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Molyb- denum, water, fltrd, ug/L (01060)	Molyb- denum, water, unfltrd recover -able, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)
JAN 18...	--	80	--	<10	--	270	--	<5	--	<10	--	<10	--
MAR 05...	10	70	11,000	<10	67.0	150	580	<5	<5	<10	10	<10	<10
30...	<5	50	60	<10	<10	20	20	<5	<5	<10	<10	<10	<10
JUN 15...	<5	90	2,030	<10	<10	30	100	<5	<5	13.0	<10	<10	<10
AUG 31...	<5	<20	670	<10	<10	70	200	<5	<5	<10	<10	<10	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)	Alum- inum, bed sedimnt recover -able, ug/g (01108)	Arsenic bed sedimnt total, ug/g (01003)	Barium, bed sedimnt recover -able, ug/g (01008)	Beryll- ium, bed sedimnt recover -able, ug/g (01013)	Cadmium bed sedimnt recover -able, ug/g (01028)	Chrom- ium, bed sedimnt recover -able, ug/g (01029)	Cobalt bed sedimnt recover -able, ug/g (01038)	Copper, bed sedimnt recover -able, ug/g (01043)	Iron, bed sedimnt total, ug/g (01170)
JAN 18...	<5	--	40	--	--	--	--	--	--	--	--	--	--
MAR 05...	<5	<5.00	30	860	12,000	<10	80	<1	6.0	13	<10	10	11,000
30...	<5	<5.00	40	40	19,000	<12	110	<2	6.0	21	<100	10	11,000
JUN 15...	<5	<5.00	20	140	--	--	--	--	--	--	--	--	--
AUG 31...	<5	<5.00	<5	140	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Lead, bed sedimnt recover -able, ug/g (01052)	Mangan- ese, bed sedimnt recover -able, ug/g (01053)	Molyb- denum, bed sedimnt recover -able, ug/g (01063)	Nickel, bed sedimnt recover -able, ug/g (01068)	Selen- ium, bed sedimnt total, ug/g (01148)	Silver, bed sedimnt recover -able, ug/g (01078)	Zinc, bed sedimnt recover -able, ug/g (01093)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
JAN 18...	--	--	--	--	--	--	--	--	--	--
MAR 05...	55	550	<10	11	<12	<8	860	89	552	60,200
30...	49	430	<100	12	<14	<2	830	92	97	3,010
JUN 15...	--	--	--	--	--	--	--	91	99	1,230
AUG 31...	--	--	--	--	--	--	--	98	92	320

07188180 SPRING RIVER NEAR WYANDOTTE, OK—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
NOV 02...	1415	1028	84017	10,100	78	--	741	9.2	96	7.5	211	11.5	16.0
JAN 07...	1300	1028	84017	41,200	76	--	736	12.1	93	7.4	145	-1.2	2.8
MAY 16...	1310	1028	84017	2,870	27	--	743	7.0	80	7.5	306	24.0	20.6
25...	1410	1028	84017	1,690	210	32	741	5.7	69	7.5	301	27.6	23.6
AUG 17...	1615	1028	84017	402	41	19	741	8.5	117	8.1	396	--	30.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Hardness, water, mg/L as CaCO3 (00900)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover-able, mg/L (00918)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover-able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover-able, mg/L (00937)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Sodium, water, unfltrd recover-able, mg/L (00929)	Calcium bed sediment recover-able, mg/kg (00917)
NOV 02...	87	--	31.0	31	2.00	3.0	6.00	7.0	.2	5.00	10	6.0	--
JAN 07...	54	14	17.0	18	3.00	3.0	5.00	6.0	.2	3.00	10	3.0	--
MAY 16...	120	--	36.0	38	6.00	6.0	4.00	5.0	.4	9.00	14	10.0	2,500
25...	110	--	33.0	36	3.00	4.0	4.00	5.0	.3	6.00	12	6.0	2,700
AUG 17...	160	--	57.0	56	6.00	6.0	4.00	5.0	.4	12.0	13	12.0	3,700

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Magnesium, bed sediment recover-able, mg/kg (00924)	Sodium, bed sediment recover-able, mg/kg (00934)	ANC, wat unf methyl orange end pt, mg/L as CaCO3 (00411)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, unfltrd mg/L (99220)	Sulfate water unfltrd mg/L (00946)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Nitrate water, fltrd, mg/L as N (00618)	COD, high level, water, unfltrd mg/L (00340)	Aluminum, water, fltrd, ug/L (01106)
NOV 02...	--	--	58	--	--	--	<10	53.0	163	184	.83	26	<300
JAN 07...	--	--	35	41	50	.0	<10	35.6	102	116	.94	29	<300
MAY 16...	<1,000	<1,000	64	--	--	--	<10	67.2	207	30	1.53	21	<300
25...	1,000	<1,000	52	--	--	--	<10	29.6	145	208	.97	36	<300
AUG 17...	1,700	1,000	140	--	--	--	12	36.7	227	42	.15	14	<300

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Aluminum, water, unfltrd recover-able, ug/L (01105)	Antimony, water, fltrd, ug/L (01095)	Antimony, water, unfltrd ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover-able, ug/L (01007)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, fltrd, ug/L (01030)	Chromium, water, unfltrd recover-able, ug/L (01034)
NOV 02...	6,300	<10	<10	<10.0	<10	43.0	93	<5	<5	<5	<5	<5	6
JAN 07...	5,500	<10	<10	<10.0	<10	32.0	75	<5	<5	<5	<5	<5	6
MAY 16...	1,700	<10	<10	<10.0	<10	52.0	63	<5	<5	<5	<5	<5	<5
25...	9,600	<10	<10	<10.0	<10	48.0	100	<5	<5	<5	<5	<5	9
AUG 17...	1,400	<10	<10	<10.0	<10	64.0	100	<5	<5	<5	<5	<5	<5

07188180 SPRING RIVER NEAR WYANDOTTE, OK—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Cobalt water, ftrd, ug/L (01035)	Cobalt water, unfltrd recover- able, ug/L (01037)	Copper, water, ftrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)	Iron, water, ftrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, ftrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)	Mangan- ese, water, ftrd, ug/L (01056)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Molyb- denum, water, ftrd, ug/L (01060)	Molyb- denum, water, unfltrd recover- able, ug/L (01062)	Nickel, water, ftrd, ug/L (01065)
NOV 02...	<5	<5	<5	M	30	4,780	<10	26.0	30	290	<5	<5	<10
JAN 07...	<5	<5	<5	M	60	4,220	<10	17.0	60	190	<5	<5	<10
MAY 16...	<5	<5	<5	<5	<20	1,430	<10	<10	10	80	<5	<5	<10
25...	<5	<5	<5	M	<20	7,120	<10	22.0	100	380	<5	<5	<10
AUG 17...	<5	<5	<5	<5	<20	1,340	<10	<10	270	430	<5	<5	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, ftrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, ftrd, ug/L (01075)	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, ftrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)	Alum- inum, bed sedimnt recover- able, ug/g (01108)	Arsenic bed sedimnt total, ug/g (01003)	Barium, bed sedimnt recover- able, ug/g (01008)	Cadmium bed sedimnt recover- able, ug/g (01028)	Chrom- ium, bed sedimnt recover- able, ug/g (01029)	Copper, bed sedimnt recover- able, ug/g (01043)
NOV 02...	<10	<10	<10	<5	<5.00	20	410	--	--	--	--	--	--
JAN 07...	<10	<10	<10	<5	<5.00	40	250	--	--	--	--	--	--
MAY 16...	<10	<10	<10	<5	<5.00	20	80	9,900	<10	60	4.0	11	6
25...	<10	<10	<10	<5	<5.00	6	340	9,600	<10	60	4.0	10	7
AUG 17...	<10	<10	<10	<5	<5.00	<5	80	18,000	<10	100	4.0	20	8

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	Nickel, bed sedimnt recover- able, ug/g (01068)	Zinc, bed sedimnt recover- able, ug/g (01093)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
NOV 02...	--	--	--	--	--	94	196	5,340
JAN 07...	--	--	--	--	--	96	179	19,900
MAY 16...	7,300	31	270	<8.0	640	94	70	542
25...	8,200	31	330	<8.0	580	98	287	1,310
AUG 17...	11,000	36	410	12	620	97	42	46

07189000 ELK RIVER NEAR TIFF CITY, MO

LOCATION.--Lat 36°37'53", long 94°35'12", in NE ¼ NE ¼ sec.22, T.22 N., R.34 W., McDonald County, Hydrologic Unit 11070208, near right abutment of bridge on State Highway 43, 0.8 mi downstream from Blackfoot Branch, 2.8 mi upstream from Buffalo Creek, 3.0 mi southeast of Tiff City, and at mile 15.8.

DRAINAGE AREA.--872 mi².

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 927: 1940. WSP 1117: Drainage area.

GAGE.--Water stage recorder. Datum of gage is 750.61 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Sept. 6, 1960 to Aug. 25, 1961, at site 100 ft downstream.

REMARKS.--No estimated daily discharge. Records good. U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 1	2200	9,790	11.93	Jan 6	1200	17,900	15.96
Jan 5	1030	*32,300	*20.44	Jan 13	1815	20,100	16.99

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

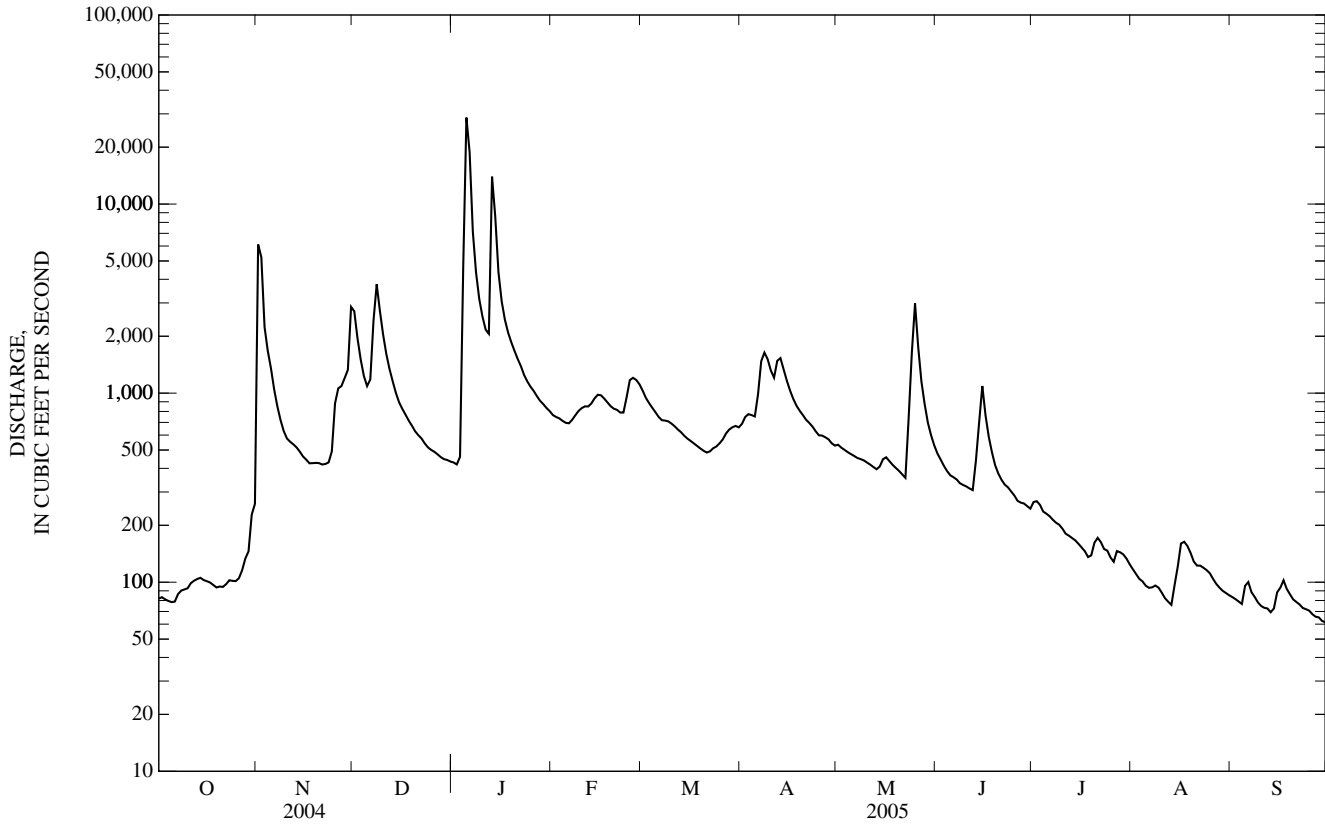
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	6,110	2,710	430	765	1,030	688	533	479	266	117	83
2	83	5,240	1,960	419	748	944	748	515	445	268	110	81
3	81	2,240	1,510	460	735	886	774	501	413	256	104	79
4	80	1,670	1,230	4,650	713	837	766	487	387	236	101	77
5	78	1,350	1,090	28,700	697	792	753	476	368	230	96	96
6	79	1,050	1,180	18,800	693	748	986	465	359	223	93	100
7	86	851	2,410	7,160	723	719	1,480	454	349	214	94	89
8	90	720	3,760	4,350	764	716	1,640	448	334	206	96	84
9	92	629	2,720	3,160	805	709	1,510	441	327	201	94	78
10	93	575	2,040	2,540	833	690	1,320	430	321	192	88	75
11	99	553	1,610	2,170	851	668	1,210	419	313	181	82	73
12	102	536	1,340	2,060	850	642	1,480	407	307	176	79	73
13	104	516	1,150	14,000	882	621	1,530	396	440	171	76	69
14	105	491	1,000	8,580	939	595	1,330	410	699	166	97	73
15	103	463	893	4,370	980	574	1,160	447	1,090	160	121	88
16	101	445	825	3,060	974	558	1,030	458	761	153	160	94
17	100	426	769	2,450	936	542	932	437	588	146	164	102
18	97	426	716	2,090	894	526	859	418	486	136	155	92
19	94	428	672	1,860	853	510	807	402	416	139	143	86
20	95	426	628	1,670	828	496	765	388	375	162	129	81
21	94	419	599	1,520	816	485	723	372	348	172	122	79
22	98	422	575	1,390	790	492	696	356	328	163	122	76
23	102	430	542	1,250	789	511	665	735	317	150	119	73
24	102	492	517	1,150	952	522	628	1,640	302	147	116	72
25	101	883	501	1,080	1,170	543	598	2,980	287	135	111	71
26	105	1,060	490	1,030	1,200	569	596	1,740	269	128	104	68
27	116	1,090	474	963	1,170	611	584	1,150	264	146	98	66
28	133	1,200	459	910	1,110	641	570	876	261	144	94	65
29	146	1,330	448	874	---	660	543	698	252	140	90	62
30	228	2,860	443	834	---	671	528	599	245	133	88	61
31	260	---	435	803	---	659	---	529	---	124	85	---
TOTAL	3,329	35,331	35,696	124,783	24,460	20,167	27,899	20,607	12,130	5,464	3,348	2,366
MEAN	107	1,178	1,151	4,025	874	651	930	665	404	176	108	78.9
MAX	260	6,110	3,760	28,700	1,200	1,030	1,640	2,980	1,090	268	164	102
MIN	78	419	435	419	693	485	528	356	245	124	76	61
AC-FT	6,600	70,080	70,800	247,500	48,520	40,000	55,340	40,870	24,060	10,840	6,640	4,690
CFSM	0.12	1.35	1.32	4.62	1.00	0.75	1.07	0.76	0.46	0.20	0.12	0.09
IN.	0.14	1.51	1.52	5.32	1.04	0.86	1.19	0.88	0.52	0.23	0.14	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

	MEAN	403	712	763	730	881	1,326	1,574	1,503	959	486	256	283
MAX	2,938	4,094	3,651	4,025	2,971	5,020	6,119	8,964	4,245	2,565	2,418	2,164	
(WY)	(1942)	(1975)	(1993)	(2005)	(1951)	(1945)	(1945)	(1943)	(1995)	(1976)	(1950)	(1993)	
MIN	25.7	49.8	58.5	55.9	70.7	75.7	145	227	78.6	14.3	12.0	30.9	
(WY)	(1957)	(1964)	(1964)	(1964)	(1954)	(1956)	(1956)	(1964)	(1954)	(1954)	(1954)	(1953)	

07189000 ELK RIVER NEAR TIFF CITY, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	331,276		315,580		822	
ANNUAL MEAN	905		865		1,881	
HIGHEST ANNUAL MEAN					135	
LOWEST ANNUAL MEAN					68,600	
HIGHEST DAILY MEAN	18,900	Apr 24	28,700	Jan 5	137,000	Apr 19, 1941
LOWEST DAILY MEAN	78	Oct 5	61	Sep 30	5.1	Sep 5, 1954
ANNUAL SEVEN-DAY MINIMUM	81	Sep 30	66	Sep 24	5.6	Sep 2, 1954
MAXIMUM PEAK FLOW			32,300	Jan 5	28.40	Apr 19, 1941
MAXIMUM PEAK STAGE			20.44	Jan 5	595,400	
ANNUAL RUNOFF (AC-FT)	657,100		626,000		0.943	
ANNUAL RUNOFF (CFSM)	1.04		0.992		12.81	
ANNUAL RUNOFF (INCHES)	14.13		13.46		1,720	
10 PERCENT EXCEEDS	1,950		1,510		344	
50 PERCENT EXCEEDS	480		479		88	
90 PERCENT EXCEEDS	102		88			



07189540 CAVE SPRINGS BRANCH NEAR SOUTHWEST CITY, MO

LOCATION.--Lat 36°32'52", long 94°37'04", in SE ¼ NE ¼ sec.22, T.24 N., R.25 E., Delaware County, Hydrologic Unit 11070206, on right bank of downstream side of bridge on Stateline Highway 5, 2.5 mi northwest of Southwest City, Mo, 4.7 mi upstream from Honey Springs, and at mile 4.7.

DRAINAGE AREA.--7.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water stage recorder. Datum of gage is 922.86 ft above NGVD of 1929.

REMARKS.--No estimated daily discharge. Records good. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

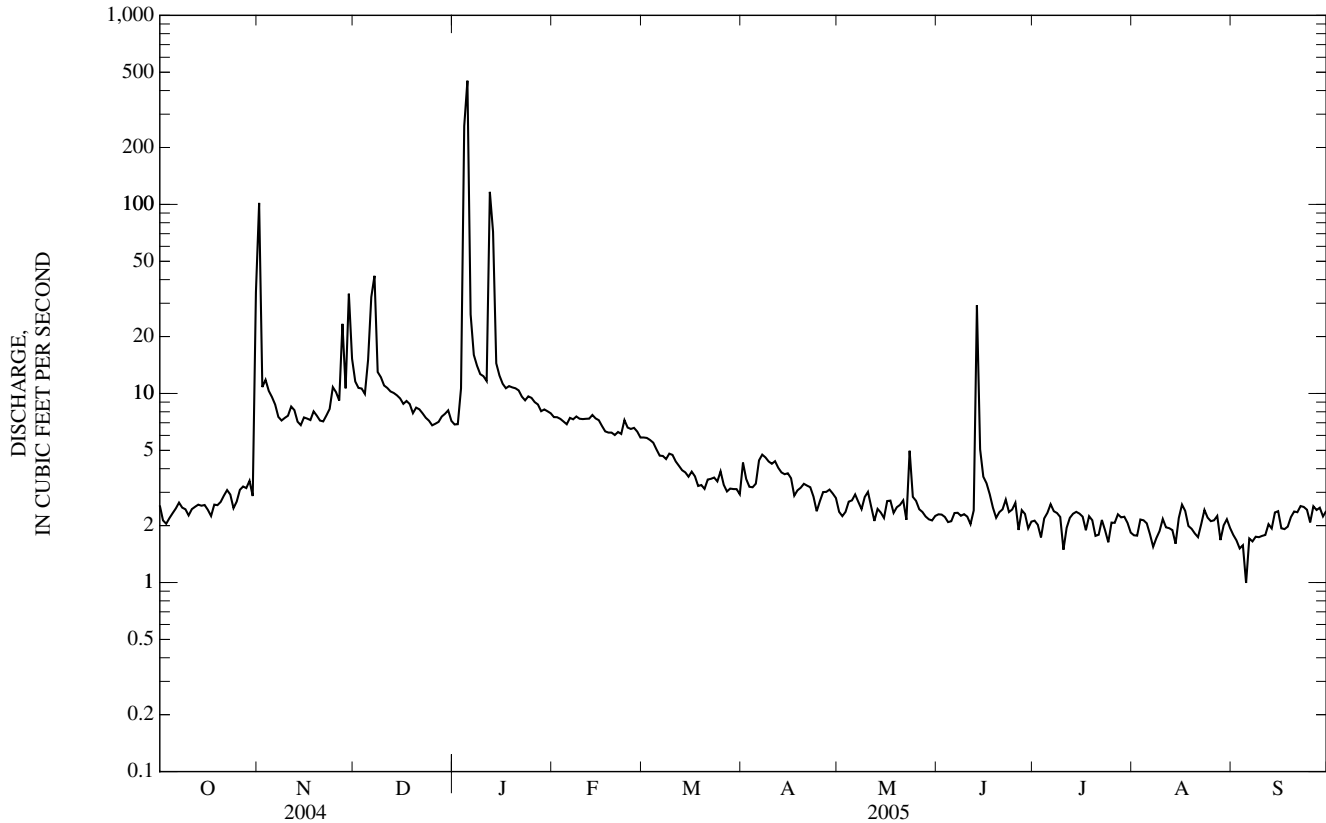
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	102	12	6.9	7.5	5.9	4.3	2.4	2.3	2.1	1.8	1.8
2	2.1	11	11	6.9	7.5	5.8	3.5	2.2	2.3	2.0	1.8	1.7
3	2.0	12	11	11	7.3	5.7	3.2	2.4	2.2	1.7	2.2	1.5
4	2.2	10	9.9	260	7.1	5.5	3.2	2.7	2.1	2.2	2.1	1.6
5	2.3	9.6	15	451	6.9	5.1	3.3	2.7	2.1	2.3	2.1	0.99
6	2.5	8.7	32	26	7.4	4.7	4.4	2.9	2.3	2.6	1.8	1.7
7	2.6	7.5	42	16	7.3	4.7	4.7	2.7	2.3	2.4	1.5	1.7
8	2.5	7.2	13	14	7.6	4.5	4.6	2.4	2.3	2.3	1.7	1.7
9	2.4	7.4	12	13	7.4	4.8	4.4	2.8	2.3	2.2	1.9	1.7
10	2.3	7.6	11	12	7.3	4.7	4.2	3.0	2.2	1.5	2.2	1.8
11	2.4	8.5	11	12	7.3	4.4	4.4	2.5	2.0	1.9	2.0	1.8
12	2.5	8.2	10	116	7.4	4.1	4.0	2.1	2.4	2.2	1.9	2.0
13	2.6	7.1	10	72	7.7	3.9	3.8	2.5	29	2.3	1.9	1.9
14	2.5	6.8	9.8	14	7.4	3.8	3.7	2.3	5.1	2.4	1.6	2.3
15	2.6	7.5	9.4	12	7.2	3.6	3.8	2.2	3.6	2.3	2.2	2.4
16	2.4	7.4	8.8	11	6.7	3.9	3.6	2.7	3.3	2.2	2.6	1.9
17	2.2	7.2	9.1	11	6.3	3.6	2.9	2.7	2.9	1.9	2.4	1.9
18	2.6	8.0	8.8	11	6.2	3.2	3.1	2.3	2.5	2.2	2.0	2.0
19	2.6	7.6	7.9	11	6.2	3.3	3.2	2.5	2.2	2.1	1.9	2.2
20	2.7	7.2	8.4	11	6.0	3.1	3.3	2.6	2.4	1.8	1.8	2.4
21	2.9	7.1	8.2	10	6.3	3.5	3.3	2.7	2.4	1.8	1.7	2.4
22	3.1	7.7	7.9	9.6	6.1	3.5	3.2	2.1	2.7	2.1	2.0	2.5
23	2.9	8.3	7.4	9.2	7.2	3.6	2.8	5.0	2.4	1.9	2.4	2.5
24	2.5	11	7.2	9.7	6.6	3.4	2.4	2.8	2.4	1.6	2.2	2.4
25	2.7	10	6.8	9.5	6.5	3.9	2.7	2.7	2.6	2.1	2.1	2.1
26	3.1	9.2	6.9	9.0	6.6	3.3	3.0	2.4	1.9	2.1	2.1	2.5
27	3.2	23	7.1	8.7	6.3	3.0	3.0	2.4	2.4	2.3	2.3	2.4
28	3.2	11	7.5	8.1	5.8	3.1	3.1	2.2	2.3	2.2	1.7	2.5
29	3.5	34	7.8	8.2	---	3.1	3.0	2.2	1.9	2.2	2.0	2.2
30	2.9	15	8.1	8.0	---	3.1	2.8	2.1	2.1	2.1	2.2	2.4
31	34	---	7.2	7.9	---	2.9	---	2.3	---	1.8	1.9	---
TOTAL	112.6	394.8	344.2	1,195.7	193.1	124.7	104.9	79.5	100.9	64.8	62.0	60.89
MEAN	3.63	13.2	11.1	38.6	6.90	4.02	3.50	2.56	3.36	2.09	2.00	2.03
MAX	34	102	42	451	7.7	5.9	4.7	5.0	29	2.6	2.6	2.5
MIN	2.0	6.8	6.8	6.9	5.8	2.9	2.4	2.1	1.9	1.5	1.5	0.99
AC-FT	223	783	683	2,370	383	247	208	158	200	129	123	121

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

	4.79	4.38	4.68	10.1	6.85	7.66	5.17	8.54	6.67	5.88	2.44	2.67
MEAN	4.79	4.38	4.68	10.1	6.85	7.66	5.17	8.54	6.67	5.88	2.44	2.67
MAX	16.6	13.2	11.1	38.6	19.6	14.5	11.2	16.3	21.7	11.3	3.56	5.36
(WY)	(1999)	(2005)	(2005)	(2005)	(2001)	(1999)	(1999)	(2002)	(1999)	(2000)	(2000)	(2001)
MIN	2.03	1.91	2.59	2.35	3.29	4.02	2.46	2.20	1.93	1.54	1.67	2.03
(WY)	(2000)	(2000)	(2003)	(2000)	(2000)	(2005)	(2001)	(2001)	(1998)	(1998)	(1998)	(2005)

07189540 CAVE SPRINGS BRANCH NEAR SOUTHWEST CITY, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	2,622.6		2,838.09		5.82	
ANNUAL MEAN	7.17		7.78		4.13	
HIGHEST ANNUAL MEAN					9.25	
LOWEST ANNUAL MEAN					4.13	
HIGHEST DAILY MEAN	119	Mar 4	451	Jan 5	451	Jan 5, 2005
LOWEST DAILY MEAN	2.0	Oct 3	0.99	Sep 5	0.79	Aug 29, 1999
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 29	1.6	Sep 2	1.5	Jan 28, 2000
MAXIMUM PEAK FLOW			1,110	Jan 5	1,360	Oct 5, 1998
MAXIMUM PEAK STAGE			10.83	Jan 5	12.08	Oct 5, 1998
ANNUAL RUNOFF (AC-FT)	5,200		5,630		4,220	
10 PERCENT EXCEEDS	10		11		7.4	
50 PERCENT EXCEEDS	4.2		3.0		3.3	
90 PERCENT EXCEEDS	2.6		1.9		1.9	



07189540 CAVE SPRINGS BRANCH NEAR SOUTH WEST CITY, MO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1997 to current year.

REMARKS.--Samples were collected monthly. Specific conductance, pH, water temperature, dissolved oxygen, and alkalinity were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfl- uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)
OCT 21...	1140	1028	80020	2.8	736	7.2	82	7.7	2,100	--	20.1	143	174
NOV 30...	1215	1028	1028	15	743	9.5	89	6.9	629	--	11.2	--	--
DEC 21...	1145	1028	80020	8.2	736	14.4	138	7.1	1,100	10.3	11.9	92	113
JAN 19...	1050	1028	80020	11	745	10.3	96	--	719	9.8	11.0	85	104
FEB 28...	1230	1028	80020	5.8	734	14.3	141	7.5	977	4.7	12.8	107	129
MAR 28...	1030	1028	80020	3.2	732	13.1	132	7.4	1,440	16.4	13.8	115	139
APR 27...	1100	1028	80020	3.2	739	11.8	126	7.7	1,720	19.3	16.6	162	196
MAY 31...	1200	1028	80020	2.2	737	11.3	136	7.6	1,760	28.4	22.5	97	116
JUN 27...	1025	1028	80020	2.6	740	9.6	120	7.4	1,740	29.5	25.0	128	156
JUL 19...	1130	1028	80020	1.8	740	10.0	131	7.8	2,080	30.0	27.3	167	202
AUG 30...	1115	1028	80020	2.3	733	9.0	118	7.8	2,190	30.2	27.2	88	107
SEP 28...	1110	1028	80020	2.4	736	--	--	7.7	2,160	30.0	25.0	139	167

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L (00613)	Organic nitro- gen, water, unfltrd mg/L (00605)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, fltrd, mg/L (00660)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)
OCT 21...	.0	2.8	.47	.363	7.82	1.77	1.85	.283	.086	2.5	4.7	.254	.083
NOV 30...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 21...	.0	1.7	1.15	.895	35.4	7.99	8.06	.243	.074	.83	9.8	.043	.014
JAN 19...	.0	1.4	1.02	.791	21.7	4.91	4.92	.056	.017	.64	6.4	.132	.043
FEB 28...	.0	.91	.07	.055	21.8	4.93	4.94	.056	.017	.85	5.9	.052	.017
MAR 28...	.0	1.0	.08	.061	24.0	5.42	5.44	.059	.018	.96	6.5	.028	.009
APR 27...	.0	1.2	.05	.042	21.3	4.81	4.82	.043	.013	1.1	6.0	.043	.014
MAY 31...	.0	1.1	.05	.037	39.9	9.02	9.03	.049	.015	1.1	10	.098	.032
JUN 27...	.0	1.3	.07	.053	17.6	3.97	3.99	.076	.023	1.2	5.3	.077	.025
JUL 19...	.0	1.6	.09	.073	7.40	1.67	1.70	.092	.028	1.6	3.3	.126	.041
AUG 30...	.0	1.7	.24	.187	22.6	5.10	5.21	.352	.107	1.5	6.9	.095	.031
SEP 28...	.0	2.0	.16	.128	6.08	1.37	1.42	.138	.042	1.9	3.4	.071	.023

07189540 CAVE SPRINGS BRANCH NEAR SOUTH WEST CITY, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, modif. m-TEC, water, col/ 100 mL (90902)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Fecal strep- tococci KF MF, col/ 100 mL (31673)
OCT 21...	.122	.197	--	350	<2	287
NOV 30...	--	--	--	--	--	--
DEC 21...	.032	.028	--	E7	E11	63
JAN 19...	.053	.082	--	96	E35	66
FEB 28...	.027	.063	--	E20	E21	76
MAR 28...	.027	.052	--	230	91	75
APR 27...	.033	.057	--	E33	68	E41
MAY 31...	.048	.064	--	E67	E670	E162
JUN 27...	.049	.064	--	180	160	300
JUL 19...	.075	.097	190	--	290	316
AUG 30...	.062	.102	670	--	E750	570
SEP 28...	.066	.090	580	--	1,100	520

07189542 HONEY CREEK NEAR SOUTHWEST CITY, MO

LOCATION.--Lat 36°32'56", long 94°41'01", in SE ¼ NE ¼ sec.24, T.24 N., R.24 E., Delaware County, Hydrologic Unit 11070206, on downstream abutment of county road bridge, 0.4 mi downstream from Cave Springs Creek, 2.3 mi southeast of Dodge, Ok, and 5.1 mi above Grand Lake and at mile 5.1.

DRAINAGE AREA.--48.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water stage recorder. Datum of gage is 789 ft above NGVD of 1929 from topographic map.

REMARKS.--Records good except for estimated periods which are poor. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	499	99	40	41	36	28	19	16	15	9.6	8.1
2	9.8	158	92	41	40	34	31	19	16	13	9.0	7.9
3	10	123	82	53	38	34	32	18	15	12	9.5	7.3
4	10	104	73	715	36	33	31	19	15	14	9.3	7.3
5	10	86	73	1,350	35	31	31	19	15	13	9.1	7.7
6	10	74	87	360	38	29	38	19	15	13	9.5	7.6
7	12	62	155	215	39	29	53	19	15	13	8.8	7.7
8	12	52	132	167	39	28	62	20	15	12	8.8	7.4
9	10	46	117	136	40	28	61	19	14	12	8.7	7.1
10	e9.8	44	101	116	41	27	56	19	14	12	9.2	6.9
11	e10	51	89	103	41	26	52	19	14	11	8.7	6.6
12	e12	50	79	154	42	25	45	17	15	12	8.6	6.6
13	12	45	69	378	44	25	41	18	97	12	8.9	6.6
14	12	42	62	192	42	24	37	20	51	12	13	9.1
15	12	40	56	155	40	23	34	17	37	11	18	12
16	11	38	53	130	38	23	32	17	32	11	17	9.5
17	11	37	49	113	36	23	30	18	26	11	16	8.8
18	12	40	48	103	35	22	29	17	22	11	13	8.3
19	12	38	44	96	34	22	28	17	19	12	12	8.0
20	12	38	43	88	34	21	28	16	18	11	11	7.9
21	13	38	42	81	34	22	27	16	17	9.9	11	7.9
22	15	39	41	72	32	23	26	16	17	9.9	11	7.9
23	15	42	39	65	35	23	24	33	16	10	12	7.6
24	13	50	38	61	38	22	22	27	15	10	11	7.9
25	13	58	38	57	39	24	22	24	15	9.5	10	7.6
26	16	61	37	53	40	23	23	22	14	9.5	9.5	7.3
27	17	82	38	48	40	22	22	20	13	14	9.7	7.6
28	18	70	38	46	38	22	22	19	13	12	9.1	7.6
29	21	95	39	45	---	21	21	17	12	11	8.3	7.2
30	24	106	41	44	---	21	20	17	12	11	8.6	7.1
31	66	---	40	43	---	21	---	16	---	10	8.5	---
TOTAL	450.6	2,308	2,034	5,320	1,069	787	1,008	593	625	359.8	326.4	234.1
MEAN	14.5	76.9	65.6	172	38.2	25.4	33.6	19.1	20.8	11.6	10.5	7.80
MAX	66	499	155	1,350	44	36	62	33	97	15	18	12
MIN	9.8	37	37	40	32	21	20	16	12	9.5	8.3	6.6
AC-FT	894	4,580	4,030	10,550	2,120	1,560	2,000	1,180	1,240	714	647	464

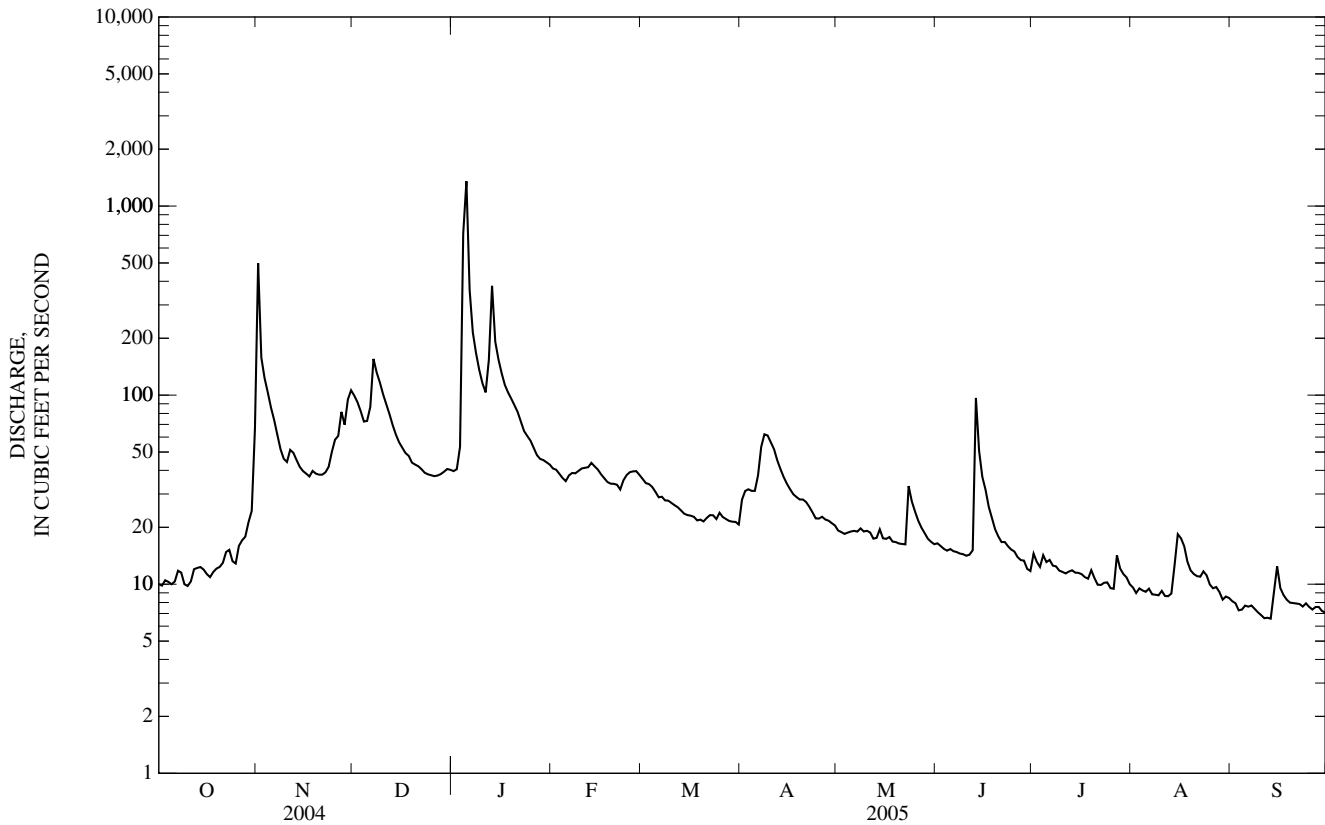
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

	MEAN	21.0	24.2	30.1	55.9	45.5	55.8	41.0	52.9	37.4	34.5	11.8	11.1
	MAX	75.9	76.9	65.6	172	139	105	78.4	98.1	124	111	17.7	18.5
	(WY)	(1999)	(2005)	(2005)	(2005)	(2001)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)	(2001)
	MIN	8.56	11.1	13.5	12.0	18.2	25.4	17.4	17.0	12.6	9.76	7.91	7.49
	(WY)	(2003)	(2003)	(2003)	(2000)	(2000)	(2005)	(2000)	(2001)	(1998)	(1998)	(2001)	(2002)

e Estimated

07189542 HONEY CREEK NEAR SOUTHWEST CITY, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	17,120.9		15,114.9		35.1	
ANNUAL MEAN	46.8		41.4		21.2	
HIGHEST ANNUAL MEAN					64.1	
LOWEST ANNUAL MEAN					21.2	
HIGHEST DAILY MEAN	499	Nov 1	1,350	Jan 5	1,460	Feb 24, 2001
LOWEST DAILY MEAN	8.4	Sep 26	6.6	Sep 11,12,13	3.6	Sep 5, 1998
ANNUAL SEVEN-DAY MINIMUM	8.9	Sep 21	7.0	Sep 7	3.7	Sep 4, 1998
MAXIMUM PEAK FLOW			2,580	Jan 4	6,140	Jun 30, 1999
MAXIMUM PEAK STAGE			10.86	Jan 4	12.98	Jun 30, 1999
ANNUAL RUNOFF (AC-FT)	33,960		29,980		25,420	
10 PERCENT EXCEEDS	98		80		65	
50 PERCENT EXCEEDS	29		22		20	
90 PERCENT EXCEEDS	12		9.0		8.7	



07189542 HONEY CREEK NEAR SOUTHWEST CITY, MO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1997 to current year.

REMARKS.--Samples were collected monthly and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)
OCT 21...	1250	1028	80020	13	736	8.0	87	7.6	677	--	17.6	126	153
NOV 30...	1440	1028	80020	105	743	10.2	96	7.6	335	1.4	11.6	103	124
DEC 21...	1330	1028	80020	43	736	14.6	132	7.9	417	12.0	9.4	113	136
JAN 19...	1230	1028	80020	97	745	11.1	100	7.6	288	13.8	10.0	83	101
FEB 28...	1400	1028	80020	37	734	14.6	135	8.6	370	6.2	10.2	84	100
MAR 28...	1140	1028	80020	22	732	11.8	111	7.9	443	19.2	10.9	119	143
APR 27...	1240	1028	80020	22	739	11.7	117	7.9	458	16.2	14.0	131	158
MAY 31...	1305	1028	80020	17	737	10.0	114	7.8	492	28.8	19.9	128	154
JUN 27...	1145	1028	80020	14	740	8.4	103	7.6	526	29.8	23.6	132	161
JUL 19...	1300	1028	80020	12	740	7.8	96	7.7	678	28.9	24.6	133	161
AUG 30...	1245	1028	80020	8.8	737	8.3	102	7.9	708	29.6	24.1	128	154
SEP 28...	1225	1028	80020	7.7	736	--	--	7.6	732	29.6	22.4	138	167

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L (00613)	Organic nitro- gen, water, unfltrd mg/L (00605)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, fltrd, mg/L (00660)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)
OCT 21...	.0	.26	--	E.008	13.1	2.95	2.95	.007	.002	--	3.2	.172	.056
NOV 30...	.0	.30	--	E.005	15.7	3.55	3.55	.010	.003	--	3.9	.297	.097
DEC 21...	.0	.22	--	<.010	18.9	4.28	4.28	.007	.002	--	4.5	.107	.035
JAN 19...	.0	.19	.02	.018	18.1	4.09	4.10	.010	.003	.17	4.3	.172	.056
FEB 28...	.0	.19	--	E.005	13.2	2.97	2.98	.010	.003	--	3.2	.074	.024
MAR 28...	.0	.14	--	E.009	15.3	3.46	3.46	.010	.003	--	3.6	.107	.035
APR 27...	.0	.18	--	<.010	12.4	2.80	2.80	.007	.002	--	3.0	.104	.034
MAY 31...	.0	.16	--	E.009	10.8	2.43	2.44	.007	.002	--	2.6	.156	.051
JUN 27...	.0	.20	--	E.008	--	--	1.79	--	E.001	--	2.0	.178	.058
JUL 19...	.0	.26	.02	.015	10.6	2.39	2.40	.010	.003	.24	2.6	.190	.062
AUG 30...	.0	.22	.02	.014	11.3	2.54	2.55	.010	.003	.20	2.8	.147	.048
SEP 28...	.0	.26	--	E.008	7.90	1.78	1.79	.007	.002	--	2.0	.172	.056

07189542 HONEY CREEK NEAR SOUTHWEST CITY, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, modif. m-TEC, water, col/ 100 mL (90902)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Fecal strep- tococci KF MF, col/ 100 mL (31673)
OCT 21...	.064	.064	--	E1,800	E28	E797
NOV 30...	.110	.114	--	390	220	453
DEC 21...	.045	.043	--	E14	E17	E13
JAN 19...	.061	.062	--	72	E40	50
FEB 28...	.029	.035	--	E11	E13	E8
MAR 28...	.048	.052	--	E15	E10	E9
APR 27...	.044	.048	--	69	84	E8
MAY 31...	.068	.069	--	E62	E130	E55
JUN 27...	.080	.084	--	160	130	82
JUL 19...	.080	.084	140	--	130	170
AUG 30...	.077	.080	120	--	140	120
SEP 28...	.079	.083	320	--	300	104