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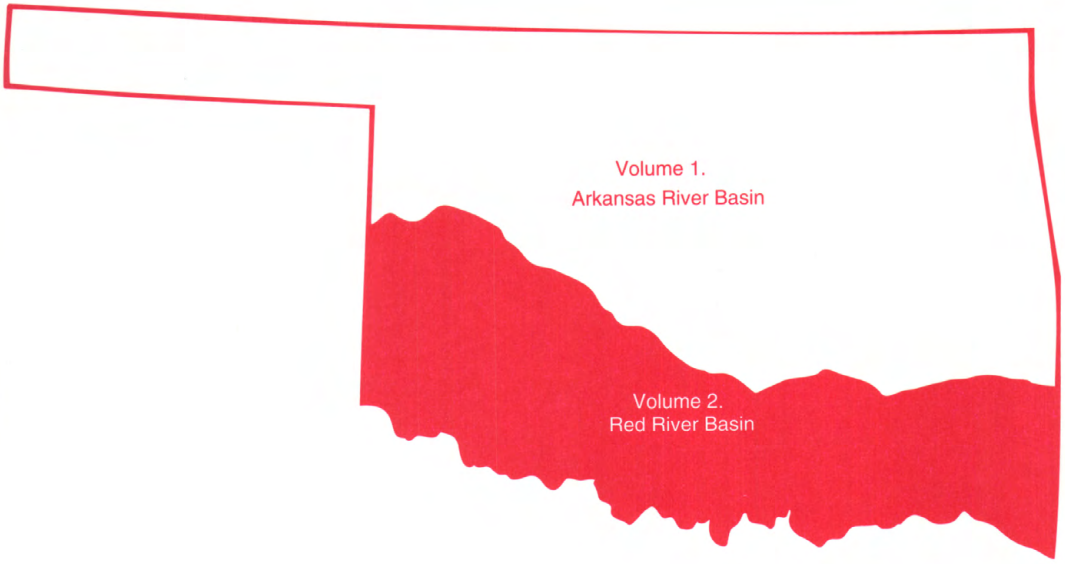
Volume 2. Red River Basin and Ground-Water Wells

Water-Data Report OK-02-2



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

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

CALENDAR FOR WATER YEAR 2002

2001

OCTOBER

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2002

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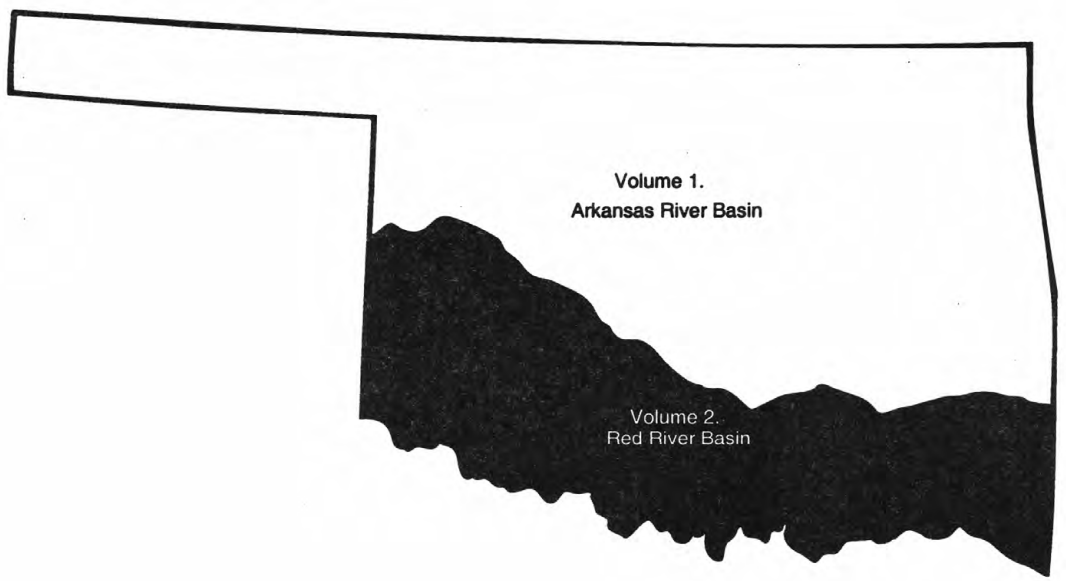
U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data Oklahoma Water Year 2002

Volume 2. Red River Basin and Ground-Water Wells

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

Water-Data Report OK-02-2



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

U.S. DEPARTMENT OF THE INTERIOR

GALE A. NORTON, ***Secretary***

U.S. GEOLOGICAL SURVEY

Charles G. Groat, Director

For information on the water program in Oklahoma write to
District Chief, Water Resources Division
U.S. Geological Survey
202 N.W. 66 St., Building 7
Oklahoma City, Oklahoma 73116

2003

PREFACE

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

L.A. Alf typed 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

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13. ABSTRACT *(Maximum 200 words)*

Volumes 1 and 2 of the water resources data for the 2002 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 138 gaging stations; stage and contents for 19 lakes or reservoirs and 2 gage height stations; water quality for 48 gaging stations; 33partial-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

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UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UL

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ILLUSTRATIONS

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]

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]

GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

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.

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Sandy Creek near Eldorado, OK	07299710	280	1960-63
Turkey Creek at Olustee, OK	07301100	317	1960-63
North Fork Red River near Sayre, OK	07301481	2,159	1978-87
North Fork Red River near Granite, OK	07302000	2,494	1904-08, 1938-44
Elm Fork of North Fork Red River near Reed, OK	07303420	579	1965-67
Elk Creek near Hobart, OK	07304500	549	1904-08, 1950-93
Elm Fork of North Fork Red River near Mangum, OK	07303500	838	1905-08, 1930-31, 1938-47, 1965-67, 1968-76
Otter Creek at Mountain Park, OK	07306500	164	1946-51
East Cache Creek near Elgin, OK	07309000	248	1956-58
Little Medicine Bluff Creek near Lawton, OK	07310000	7.00	1913-19
Medicine Bluff Creek near Lawton, OK	07310500	101	1913-19
Little Beaver Creek near Duncan, OK	07313000	158	1949-64
Beaver Creek near Waurika, OK	07313500	563	1953-93
Cow Creek at Waurika, OK	07313600	193	1966-70
Walnut Bayou near Burneyville, OK	07315900	314	1961-63, 1969-71
Sandstone Creek near Berlin, OK	07319500	44.9	1953-72
Sandstone Creek subwater shed 10A near Elk City, OK	07320000	2.87	1952-70
Sandstone Creek subwater shed 6 near Elk City, OK	07320500	6.46	1953-70
Sandstone Creek subwater shed 5 near Elk City, OK	07321000	3.89	1953-70
Sandstone Creek subwater shed 9 near Elk City, OK	07322000	3.50	1952-70
East Branch Sandstone Creek near Elk City, OK	07322500	23.0	1951-72

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Sandstone Creek near Cheyenne, OK	07323000	87.1	1952-74
Barnitz Creek near Arapaho, OK	07324500	243	1946-63
Lake Creek near Eakly, OK	07325850	52.0	1970-78
Willow Creek near Albert, OK	07325860	28.0	1971-78
Sugar Creek near Gracemont, OK	07327000	208	1956-74
Spring Creek near Gracemont	07327050	34.4	1991-94
Chetonia Creek Tributary below Cyril, OK	07327445	3.35	1990-91
Little Washita River near Ninnekah, OK	07327490	208	1964-85
Little Washita River at Ninnekah, OK	07327500	227	1952-63
Washita River near Tabler, OK	07328000	4,706	1940-52
Winter Creek near Alex, OK	07328070	33.0	1965-87
Washington Creek near Pauls Valley	07328550	7.56	1991-94
Rush Creek at Purdy	07329000	145	1940-54 1982-94
Rush Creek near Maysville, OK	07329500	206	1955-76
Antelope Spring at Sulphur, OK	07329849	0	1986-89
Outflow from Vendome Well at Sulphur, OK	07329851	0	1986-89
Rock Creek at Dougherty, OK	07329900	138	1957-67
Caddo Creek near Ardmore	07330500	298	1936-50 1996-97
Caddo Creek Site 7CMP near Gene Autry	07330700	326	1996-98
Washita River near Berwyn, OK	07330000	6,815	1924-26
Mill Creek near Ravia, OK	07331250	89.2	1969-71
Red River at Denison Dam near Denison, TX	07331600	39,720	1959-89
Red River near Colbert, OK	07332000	39,777	1924-59
Blue River near Connerville, OK	07332390	162	1977-79
Blue River at Milburn, OK	07332400	203	1966-87
Coal Creek near Lehigh, OK	07332900	8.10	1978-81
Muddy Boggy Creek at Atoka, OK	07332950	445	1979-81
North Boggy Creek near Stringtown, OK	07333000	136	1956-59
Chickasaw Creek near Stringtown, OK	07333500	32.7	1956-68
McGee Creek near Stringtown, OK	07333800	86.6	1956-68
McGee Creek near Farris, OK	07333910	176	1978-82

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Clear Boggy Creek near Wapanucka, OK	07334500	516	1940-43
Clear Boggy Creek near Caney, OK	07335000	720	1943-89
Tenmile Creek near Miller, OK	07336000	68	1956-70
Kiamichi River near Belzoni, OK	07336500	1,423	1926-72
Red River near DeKalb, TX	07336820	47,348	1967-98
Little River near Wright City, OK	07337500	645	1930-31, 1945-89
Little River near Idabel, OK	07338000	1,173	1930-46

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.

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Prairie Dog Town Fork Red River near Lakeview, TX	07299495	6,794	1987-88
Prairie Dog Town Fork Red River at Estelline, TX	07299505	7,293	1987-88
Jonah Creek near Newlin, TX	07299510	46.3	1987-88
Jonah Creek near Estelline, TX	07299512	57.1	1987-88
Prairie Dog Town Fork Red River near Childress, TX	07299540	7,725	1987-88
Salt Creek near Childress, TX	07299542	113	1987-88
Buck Creek at Loco, TX	07299545	175	1987-88
Buck Creek near Loco, TX	07299548	205	1987-88
Buck Creek near Childress, TX	07299550	222	1987-88
Red River near Hollis, OK	07299565	8,154	1986-88
Red River near Quanah, TX	07299570	8,321	1986-88
Groesbeck Creek near Quanah, TX	07299580	322	1986-88
Bitter Creek near Hollis, OK	07299705	10.4	1986-88
Sandy Creek near Gould, OK	07299707	169	1987-88
Sandy Creek near Louis, OK	072997087	224	1987-88
Tributary to Sandy Creek near Lincoln, OK	07299709	6.32	1987-88
Sandy Creek at Lincoln, OK	072997092		1986-88
Sandy Creek near Lincoln, OK	072997095	255	1987-88
Sandy Creek near Eldorado, OK	07299710	280	1986-88
Sandy Creek at Eldorado, OK	07299712	297	1987-88
Sandy Creek South of Eldorado, OK, formerly published as Sandy Creek in Eldorado Township, OK	07299714	312	1987-88
Sandy Creek Southeast of Eldorado, OK, formerly published as Sandy Creek near OKlahoma-Texas State-line	07299716	320	1986-88
Wanderers Creek near Odell, TX	07299732	156	1986, 1988
Gypsum Creek North of Eldorado, OK, formerly published as Tributary to Gypsum Creek near Jackson Co Line, OK	07299760	2.12	1986-88
Gypsum Creek near Duke, OK	07299764	14	1986-88
Tributary to Gypsum Creek near Eldorado, OK	07299766	4.53	1986-88
Gypsum Creek near Prairie Hill, OK	07299768	28.1	1987-88
Gypsum Creek at Creta, OK	07299770	34.6	1987-88
Gypsum Creek near Creta, OK	07299775	56.1	1987-88

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Gypsum Creek near Olustee, OK	07299780	99.2	1986-88
Salt Fork Red River near Wellington, TX	07300000	1,222	1987-88
Panther Creek near Wellington, TX	07300005	4.61	1987-88
Salt Fork Red River near Dodson, TX	07300120	1,297	1987-88
Tributary to Salt Fork Red River near Madge, OK	07300140	4.79	1986-88
Salt Fork Red River near Madge, OK	07300145	1,388	1986-88
Bear Creek near Vinson, OK	07300150	7.24	1987-88
Salt Fork Red River near Vinson, OK	07300400	14.21	1959-63, 1976-78, 1987-88
Cave Creek near Reed, OK	07300470	46.7	1986-88
Mulberry Creek near Mangum, OK	07300485	9.3	1986-88
Fish Creek near Mangum, OK	07300495	5.3	1987-88
Salt Fork Red River at Mangum, OK	07300500	1,566	1938-51, 1953-56, 1959-70, 1972, 1974-79, 1986-89
Bitter Creek near Altus, OK	07300600		1986-88
Turkey Creek near McQueen, OK	07300960	51.5	1987-88
Turkey Creek Near Gould, OK, formerly published as Turkey Creek at Jackson-Harmon County-line, OK	07300965	76.9	1987-88
Turkey Creek near Duke, OK	07300970	84.8	1986-88
Tributary to Turkey Creek near Duke, OK	07300975	56.5	1987-88
Turkey Creek at U.S. Highway 62 near Duke, OK	07300980	148	1986-88
Cottonwood Creek near Duke, OK	07300985	54.5	1986-88
Spring Branch at Duke, OK	07300990	14	1986-88
Turkey Creek near Prairie Hill, OK	07300995	238	1987-88
Tributary to Turkey Creek near Prairie Hill, OK	07300997	13.7	1987-88
Horse Branch near Victory, OK	07301020	25.3	1986-88
Tributary to Horse Branch Northwest of Victory, OK, (formerly published as Trib to Horse Branch in Duke Twnp near Victory, OK)	07301030	8.39	1986-88
Tributary to Horse Branch at Victory, OK	07301040	0.23	1986, 1988
Turkey Creek near Altus, OK	07301050	309	1986-88
Turkey Creek at Olustee, OK	07301100	317	1986-88
Tributary to Salt Fork Red River near Elmer, OK	07301105		1986-88
Salt Fork Red River near Elmer,OK	07301110	1,878	1979-94
Red River near Elmer, OK	07301150	16,459	1986-88

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
North Fork Red River near Texola, OK	07301315	1,284	1976-77
Sweetwater Creek near Sweetwater, OK	07301420	424	1986-90
North Fork Red River near Erick, OK	07301450		1960-63
North Fork Red River near Sayre, OK	07301481	2,159	1987-90
North Fork Red River near Carter, OK	07301500	2,337	1948-53, 1959-63, 1968-80, 1985-90 2000-01
North Fork Red River near Granite, OK	07302000	2,494	1938-44
Altus Canal Blw Lake Altus near Lugert, OK	07302510		1949-50
North Fork Red River Blw Altus Dam near Lugert, OK	07303000	2,515	1962-63, 1975-80, 1987-88
Elm Fork North Fork Red R at Salton Crossing, OK	07303395		1959-61, 1973-79
Elm Fork of the North Fork Red River near Carl, OK	07303400	416	1960-63 1968-82 1994-97
Fish Creek near Vinson, OK	07303402	31.5	1978-79
Salt Creek near Vinson, OK	07303404	5.64	1978-79
Elm Fork N Fork Red Rvr near Vinson, OK	07303406	428	1978-81
Elm Fork of North Fork Red River near Reed, OK	07303420	579	1978, 1981-82
Elm Fork of North Fork Red River near Mangum, OK	07303500	838	1938-47, 1951, 1960-65, 1968-80
Elk Creek near Hobart, OK	07304500	549	1949-51, 1955, 1958-63, 1969-90
North Ford Red River near Headrick, OK	07305000	4,244	1951-57, 1958-63, 1968-93
West Otter Creek at Snyder Lk near Mt. Park, OK	07305500	132	1947, 1960, 1988
Otter Creek near Snyder, OK	07307010	217	1959-63, 1987-89
North Fork Red River near Tipton, OK	07307028	4,691	1960, 1985-89
East Cache Creek near Elgin, OK	07309000	248	1975-80

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
East Cache Creek near Walters, OK	07311000	675	1947, 48, 1951-55, 1958-63, 1970-93
Blue Beaver Creek near Cache, OK	07311200	24.6	1964-96
Deep Red Run near Randlett, OK	07311500	617	1987-90
Beaver Creek near Lawton, OK	07312900		1947-48, 1961
Little Beaver Creek near Duncan, OK	07313000	158	1947-51, 1955, 1960, 1962-63
Beaver Creek near Waurika, OK	07313500	563	1986-90
Mud Creek near Courtney, OK	07315700	572	1985-90
Washita River near Reydon, OK	07316350	498	1949, 1977
Washita River near Cheyenne, OK	07316500	794	1938-40, 1942-47, 1950, 1960-61, 1969-73, 1985-90
Sandstone Creek SWS 17 near Cheyenne, OK	07319000	10.1	1968-70
Sandstone Creek SWS 10a near Elk City, OK	07320000	2.87	1975, 1979
Sandstone Creek SWS 1 near Cheyenne, OK	07324000	5.33	1968-70, 1979
Washita River near Moorewood, OK	07324150		1969-71
Quartermaster Creek near Hammon, OK	07324190		1969-71
Washita River near Hammon, OK	07324200	1,387	1969-87, 1989-90
Washita River near Foss, OK	07324400	1,551	1928, 1946-48, 1950-51, 1956-57, 1969-87, 1989-90
Barnitz Creek near Arapaho, OK	07324500	243	1947-49, 1951-52, 1955
Washita River near Clinton, OK	07325000	1,977	1938-45, 1947-50, 1959-63, 1975, 1987-90

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
	RED RIVER BASIN		
Washita River at Carnegie, OK	07325500	3,129	1942-51, 1955-90
Spring Creek near Eakly, OK	07325753		1960-61
Cobb Creek near Eakly, OK	07325800	132	1987-90
Cobb Creek near Fort Cobb, OK	07326000	313	1943-48, 1950-51, 1959-60, 1962-63, 1986-90
Washita River at Anadarko, OK	07326500	3,656	1954, 1962-80, 1987-90
Tonkawa Creek near Anadarko, OK	07326720	26	1967-71
Sugar Creek near Gracemont, OK	07327000	208	1949-50, 1960, 1962-74
Delaware Creek near Anadarko, OK No. 131	07327040	40.1	1962-77
Salt Creek near Chickasha, OK	07327150	23.8	1967-77
Washita River near Chickasha, OK	07327300		1959-61
West Salt Creek near Chickasha, OK	07327320	22	1967-71
West Bitter Creek near Tabler, OK	07327420	59.4	1960-61, 1964-71
Spring Creek near Blanchard, OK	07327432	1	1968-71
Spring Creek near Tabler, OK	07327435	2	1967-71
Spring Creek Trib near Middleberg, OK	07327437		1968-71
East Bitter Creek near Tabler, OK	07327440	35.2	1960-61, 1964-77
Little Washita River near Ninnekah, OK	07327490	208	1948-52, 1954-55, 1963-78
Little Washita River at Ninnekah, OK	07327500	227	1960-63
Washita River near Tabler, OK	07328000	4,706	1942-53
Winter Creek near Alex, OK	07328070	33	1985-87
Washita River at Alex, OK	07328100	4,787	1962-80, 1986, 1989-90
Finn Creek near Payne, OK	07328250		1960-61
Washington Creek near Pauls Valley	07328550	7.56	1991-94
Rush Creek at Purdy, OK	07329000	145	1938-53, 1985-90

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Rush Creek near Maysville, OK	07329500	206	1938-39, 1944, 1953-75, 1977
Wildhorse Creek near Hennepin, OK	07329660		1949-50
Wildhorse Creek near Hoover, OK	07329700	604	1954-55, 1962-63, 1969-71, 1985-90
Honey Creek near Turner Falls, OK	07329790		1949, 1951
Honey Creek near Davis, OK	07329810	18.7	1953, 1955-56
Rock Creek N of Sulphur, OK	07329843		1958-60
Outflow from Vendome Well at Sulphur, OK	07329851		1985-90
Rock Creek at Sulphur, OK	07329852	44.1	1990-95
Rock Creek S of Platt Natl Pk near Sulphur, OK	07329853		1959-60
Rock Creek at Dougherty, OK	07329900	138	1951-57, 1960-63
Caddo Creek near Ardmore, OK	07330500	298	1996-98
Caddo Creek Site 6PT near Ardmore, OK	07330610		1996-97
Sand Creek Site 1WW near Ardmore, OK	07330615		1997
Sand Creek Site 2WW near Ardmore, OK	07330618		1997
Sand Creek Site 3CMP near Ardmore, OK	07330625		1996-97
Sand Creek Site 3A near Ardmore, OK	07330630		1996-97
Sand Creek Site 3B near Ardmore, OK	07330635		1996-97
Sand Creek Site 4CMP near Ardmore, OK	07330665		1996-97
Sand Creek Site 5CMP near Ardmore, OK	07330680		1996-97
Caddo Creek Site 7CMP neqr Gene Autry, OK	07330700	326	1996-98
Caddo Creek Site 8CMP near Gene Autry, OK	07330720		1996-97
Caddo Creek Site 9A nesr Gene Autry, OK	07330790		1996-97
Caddo Creek Site 9CMP near Gene Autry, OK	07330800		1997
Washita River near Dickson, OK	07331000	7,202	1944-95
Mill Creek near Ravia, OK	07331250	89.2	1968-69
Washita River near Tishomingo, OK	07331290		1953-55
Pennington Creek near Reagan, OK	07331300	65.7	1951-55, 1957-59
Butcher Pen Creek near Tishomingo, OK	07331450		1960-61

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Red River at Denison Dam near Denison, TX	07331600	39,720	1942-43, 1945-49, 1959-85
Red River near Colbert, OK	07332000	39,777	1930-31, 1936-62
Blue River at Connerville, OK	07332350		1951-56, 1961-62, 1977-79
Blue River near Connerville, OK	07332390	162	1977-79
Blue River at Armstrong, OK	07332450	224	1976-77
Blue River near Blue, OK	07332500	476	1936, 1938-42, 1944-50, 1953-80
Muddy Boggy Creek near Coalgate, OK	07332850		1961-62
Coal Creek near Lehigh, OK	07332900	8.1	1905, 1977-81
Muddy Boggy Creek at Atoka, OK	07332950	445	1978-81
Chickasaw Creek near Stringtown, OK	07333500	32.7	1955-58, 1960
Mcgee Creek near Farris, OK	07333910	176	1908, 1976-82
Muddy Boggy Creek near Farris, OK	07334000	1,087	1938-81
Byrds Mill Spring near Fittstown, OK	07334200		1953, 1955, 56, 1990-93
Clear Boggy Creek near Tupelo, OK	07334400	248	1957-58, 1960-62, 1983
Leader Creek at Tupelo, OK	07334420	64.3	1958, 1960
Clear Boggy Creek near Wapanucka, OK	07334500	516	1940-42
Clear Boggy Creek Abv Caney Creek near Caney, OK	07334800		1976-77
Clear Boggy Creek near Caney, OK	07335000	720	1943-80
Muddy Boggy Creek near Unger, OK	07335300	2273	1961-62, 1985-90
Red River at Arthur City, TX	07335500	44,531	1938-80, 1982
Kiamichi River near Big Cedar, OK	07335700	40.1	1966-96

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Kiamichi River near Clayton, OK	07335790	708	1976-77
Kiamichi River near Antlers, OK	07336200	1,138	1962, 1972-81
Kiamichi River near Belzoni, OK	07336500	1,423	1938-40, 1943-72
Kiamichi River near Sawyer, OK	07336700		1961-62, 1975, 1977-80
Red River near Valliant, OK	07336730		1921, 1923, 1970-76
Red River near Millerton, OK	07336760		1970-76
Red River near DeKalb, TX	07336820	47,348	1968-98
Little River near Cloudy, OK	07337100	324	1976-80
Little River near Ringold, OK	07337200		1961-62
Little River near Wright City, OK	07337500	645	1945-47, 1949, 1961-73, 1975-77
Glover River near Glover, OK	07337900	315	1961-80
Little River Blw Lukfata Creek, near Idabel, OK	07338500	1,226	1930-31, 1938-40, 1944-54, 1960-80
Mountain Fork near Smithville, OK	07338840		1976-80
Mountain Fork near Eagletown, OK	07339000	787	1938-40, 1944-45, 1947-48, 1960-70, 1973, 1975-80
Mountain Fork Blw Eagletown, OK	07339010		1960-63
Little River near Cerrogordo, Ar	07339100		1976, 1978
Blue R at Pexton Ranch near Milburn, OK	341835096342901		1976, 1978
Coal Ck Trib near Lehigh	342652096152202		1977-81
Coal Ck Tributary	342743096154701		1977-81
Little Blue Creek at Pontotoc, OK	342914096370701	11.6	1977-78
Blue River at Ford, OK	343554096250801		1976-77

07335500 Red River near Arthur City, Tx May 1990

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 33 partial-record or miscellaneous streamflow stations, (2) stage and content records for 19 lakes , reservoirs and gage height records for 2 stations; (3) water-quality records for 48 streamflow-gaging stations; (4) water-level records for 3 observation well.

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-02-2" 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; Oklahoma Gas and Electric Company; the cities of Ada, Henryetta, and Lawton.**

Organizations that supplied data are acknowledged in the station descriptions.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream-Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a network of stations for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in about two-thirds of the study units and ultimately will be conducted in 60 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 will be 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 decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Radiochemical Programs is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

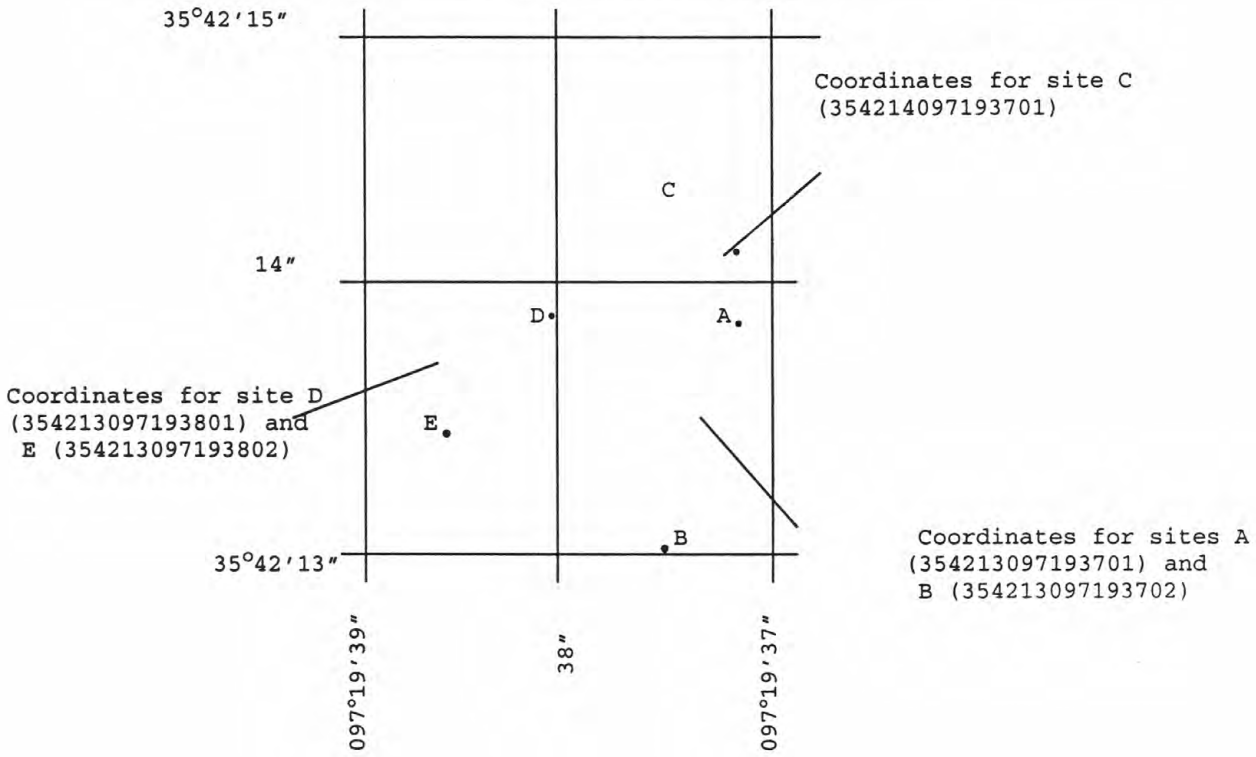
The surface-water and ground-water records published in this report are for the 2002 water year that began Oct. 1, 2001 and ended Sept. 30, 2002. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, 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 1-3. 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.

Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water wells sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Oklahoma, for surface-water stations where only miscellaneous measurements are made.

Downstream Order System

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



System for numbering miscellaneous and ground-water sites (latitude and longitude)

of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, 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 made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete number for each station, such as 07152500, which appears just to the left of the station name, includes the two-digit Part number "07" plus the up to 13-digit downstream-order number "152500." The Part number designates the major river basin; for example, part "07" is the Lower Mississippi River basin.

Latitude-Longitude System

The identification numbers for wells and springs are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the sites within a l-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In instances where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure above.)

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 1.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals or with electronic data loggers. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter 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).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. It is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This 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 set at some distance from the base gage. 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.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information.

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data

reports prior to the 1992 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a program to reformat the annual water-data report to most current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of five parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; 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 a hydrograph

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 to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage 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 most 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 indicates the period for which there are published records 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 records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to sea level (see glossary), 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 will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "Identifying Estimated Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph also is used to present information 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, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning 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 U.S. Geological Survey.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published 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 District Office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because 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 skeleton stage-capacity

table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the PEAK DISCHARGES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

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 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 also is usually 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"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion 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 contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed MAX), and minimum (line headed "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 figures. 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. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be 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 the station record within the specified water years, inclusive, including complete months of record for partial water year, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be 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 this occurs, 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 there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to 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. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnote.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

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 analysis 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.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, 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 equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

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

10 PERCENT EXCEEDS.--The discharge is exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge is exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge is exceeded 90 percent of the time for the designated period.

Hydrograph

A hydrograph for the current year follows the table for most stations. Streamflow hydrographs are semi-log plot of mean daily values with no flow days showing as blanks. Lake hydrographs are rectangular plot of 2400-hour readings.

Data collected at partial-record stations follow the information for continuous-record sites. 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 generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called miscellaneous sites.

Identifying Estimated Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated."

Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

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, figures 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 Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites as well as an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Oklahoma District office. Also, most of the daily mean discharges are in computer-readable form.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may 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 continuing-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 continuing or partial-record station where random 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 "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. 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 2.

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.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to 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 on-site measurements and for collecting, treating, and shipping samples are detailed in TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. Additional guidance is provided in technical memoranda. These methods are consistent with ASTM standards and generally follow ISO standards.

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 through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

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, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey District Office whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at 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.

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 sections.

Suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3. These methods are consistent with ASTM standards and generally follow ISO standards.

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 (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. Sediment samples are analyzed in Missouri District Sediment Laboratory. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colo. Methods used to analyze sediment samples and to compute sediment records are described in the TWRI, Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetic method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values for those years have not been corrected for this bias.

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, and dissolved oxygen then follow in sequence.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. 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 recorder, 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 Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

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.

Remarks Codes

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

PRINTED OUTPUT	REMARK
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 (nonideal colony count).
L	Biological organism count less than 0.5 percent (organisms 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.
&	Biological organism estimated as dominant.

Water Quality-Control Data

Data generated from the 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 district 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.

Blank Samples--Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by 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. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this disctrict 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 (similiar 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 soltion 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 whose 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 properies 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. There are many types of replicate samples 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:

Sequential samples - a type of replicate samples 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 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.

Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's and 100's of nanograms per liter (ng/L). Data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at all stations in the water year 1994.

Nutrient Calculations

The values for many nitrogen parameters are calculated from other parameters. In some of these calculations, dissolved values are considered equivalent to total values.

Records of Ground-Water Levels

These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Oklahoma are shown in figure 3.

Although, in this report, records of water levels are presented for fewer than 10 wells, records are obtained through cooperative efforts of many Federal, State, and local agencies for several hundred observation wells throughout Oklahoma and are placed in computer storage. Information about the availability of the data in the water-level file may be obtained from the District chief, Oklahoma District. (See address on back of front page.)

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability. Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape or punched tape of the water-stage recorder. The 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 is given in each well description.

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 to water of several hundred feet, the error of 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 to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of mean daily water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; the distance and direction from a geographic point of reference.

AQUIFER.--This entry designates by name the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of

casing, plug in pump base and so on), 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 (or below) sea level; it is reported with a precision depending on the method determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It is used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

An abbreviated table of mean daily water levels follows the station description for each well equipped with a digital recorder. For wells with no recorder, actual measurements are listed. Water levels are reported in feet below land-surface datum. A rectangular hydrograph of mean daily water levels for the last three years follows the table for recorder wells. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by blanks in place of the water level.

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 at

http://www.water.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices. (See address on the back of the title page.)

DEFINITIONS OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

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

Algae are mostly aquatic single-cell, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Aroclor is the registered trade mark for a group of polychlorinated biphenyls which were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific four-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 weight percent of the hydrogen substituted chlorine.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while 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.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often 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 ± 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.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 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.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary 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 the mass per unit area of volume of habitat.

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

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which 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, usually milliliters (mL) or liters (L).

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 natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Code Numbers have been assigned for agencies collecting and analtysing samples, and are listed in water-quality tables of this report as follows:

1028 Oklahoma District, Water Resources Division (WRD), U.S. Geological Survey

80020 National Water Quality Laboratory, WRD, U.S. Geological Survey

Contents are 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.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, 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.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] or CFSM is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water 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 of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface

water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO3).

HWM is a high-water mark or flood mark.

Hydrologic Benchmark Network is a network of sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part of all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

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

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

Micrograms per gram (µg/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 liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (m^2), 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.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey's data system, National Water Information System (NWIS), to uniquely identify a specific constituent. The codes used in NWIS are the same as those used in the U.S. Environmental Protection Agency's data system, STORET.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) 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 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.....	.004 -	.062	Sedimentation
Sand.....	.062 -	2.0	Sedimentation or sieve
Gravel....	2.0 -	64.0	Sieve

The particle-site distribution given in this report are not necessarily representative of all particles in transport in the stream. 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.

Percent composition 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, mass, or volume.

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

Pesticides are chemical compounds used to control

undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth (10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 x 10^{10} radioactive disintegrations per second. A picocurie yields 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.

Phytoplankton is the plant part of the plankton. They are usually 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 are commonly know as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often 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.

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 release (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/m3.time)] for periphyton and macrophytes and [mg C/(m3.time)] for phytoplankton are units for expressing primary productivity. They define 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 in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O/(m3.time)] for periphyton and macrophytes and [mg O/m3.time)] for phytoplankton are the units for expressing primary productivity. They define 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.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sea level is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "National Geodetic Vertical Datum of 1929 (NGVD of 1929)," "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf or Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it 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 influenced by environmental factors. Some major factors are degree of slope, length of slope, soil

characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

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 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

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. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 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.

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

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.

Natural substrate refers to any naturally occurring or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely 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 taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplet samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton.

Surface area of a lake is that area outlined on the latest U.S. Geological Survey topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

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

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the 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 µm membrane filter 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 the 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 sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. 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 determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial 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	Hexagenia
Species	hexagenia limbata

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 that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 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) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment 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 determines all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment 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, equivalent digestion procedures are required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, Oct. 1 through Sept. 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 Sept. 30, 1995, is called the "1995 water year."

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.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey 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. Geological Survey, Branch of 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 sent by 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 "U.S. Geological Survey Techniques of Water-Resources Investigations."

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, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

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, Chapter D1. 1974. 116 pages.

2-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

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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, Chapter F1. 1989. 97 pages.

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3. Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurement at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

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, Chapter A9. 1989. 27 pages.

3-Al0. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by the moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

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

3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

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3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

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

3-A17. *Acoustic velocity meter systems,* by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

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, Chapter A18. 1989. 52 pages.

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3-A20. *Simulation of soluable waste transport and buildup in surface waters using tracers*, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

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

3-B4. *Regression modeling of ground-water flow,* by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.

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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, Chapter B5. 1987. 15 pages.

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, Chapter B6. 1987. 28 pages.

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, Chapter B7. 1992. 190 pages.

3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

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5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

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, Chapter A3. 1987. 80 pages.

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, Chapter A4. 1989. 363 pages.

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, Chapter A5. 1977. 95 pages.

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, Chapter A6. 1982. 181 pages.

5-C1. *Laboratory theory and methods for sediment analysis,* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

6-A1. *A modular three-dimensional finite-difference ground-water flow model,* by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

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, Chapter A2. 1991. 68 pages.

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, Chapter A3. 1993. 136 pages

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, Chapter A4. 1992. 108 pages.

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, Chapter A5, 1993. 243 pages.

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, Chapter C1. 1976. 116 pages.

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, Chapter C2. 1978. 90 pages.

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, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-A2. *Installation and service manual for U.S. Geological Survey manometers,* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

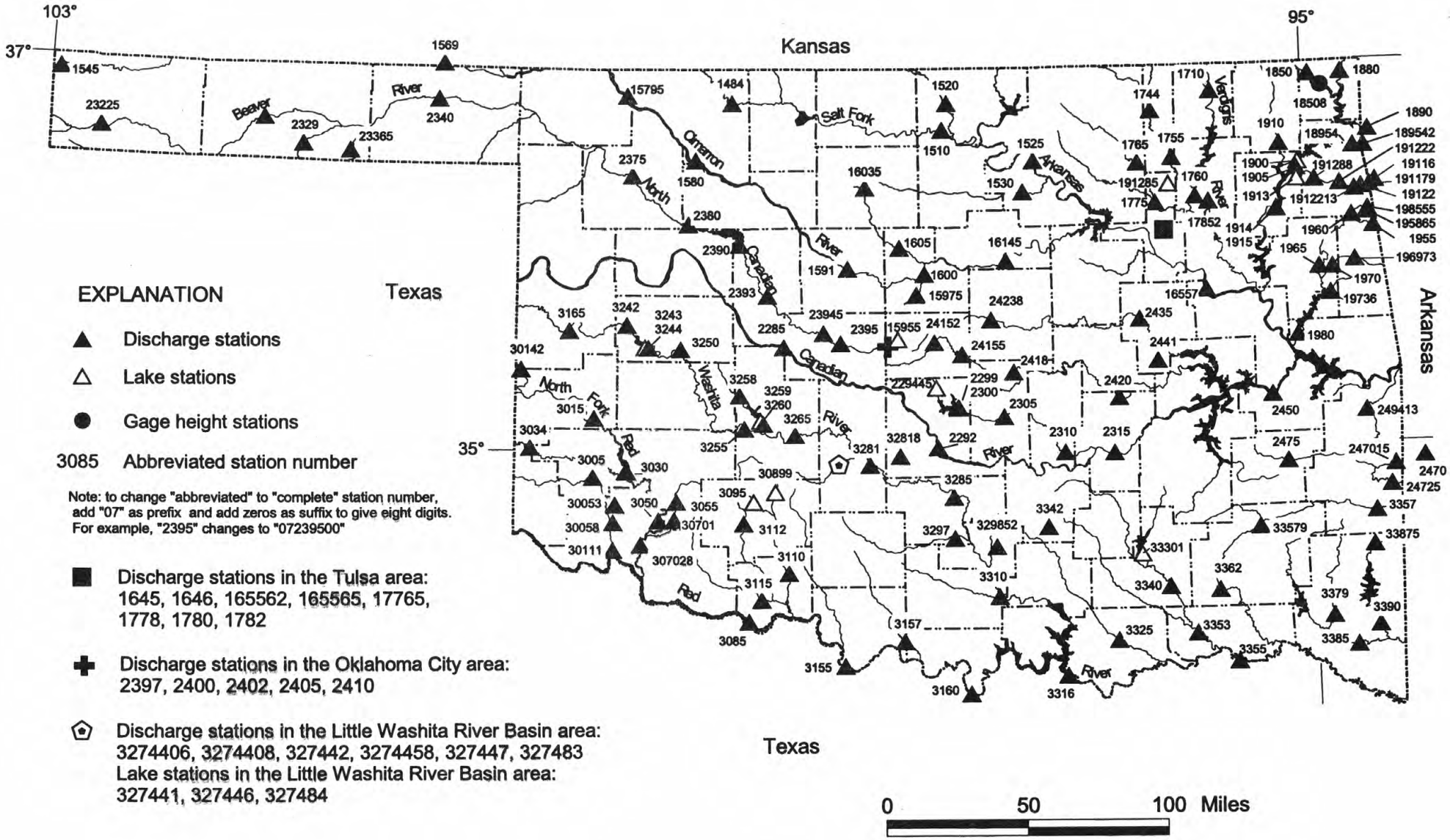


Figure 1.--Locations of continuous surface-water stations for water-year 2002.

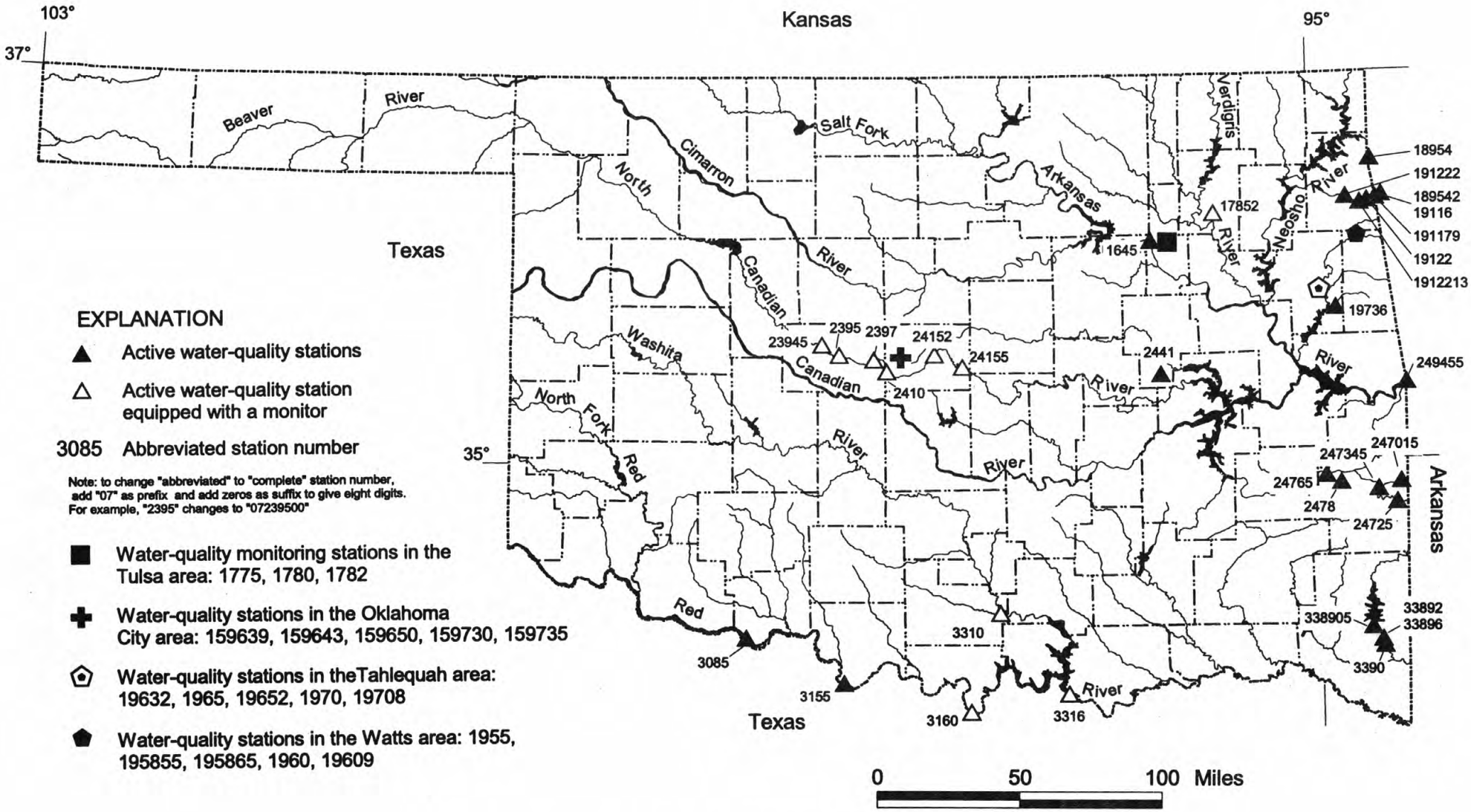


Figure 2.--Locations of water-quality stations for water-year 2002.

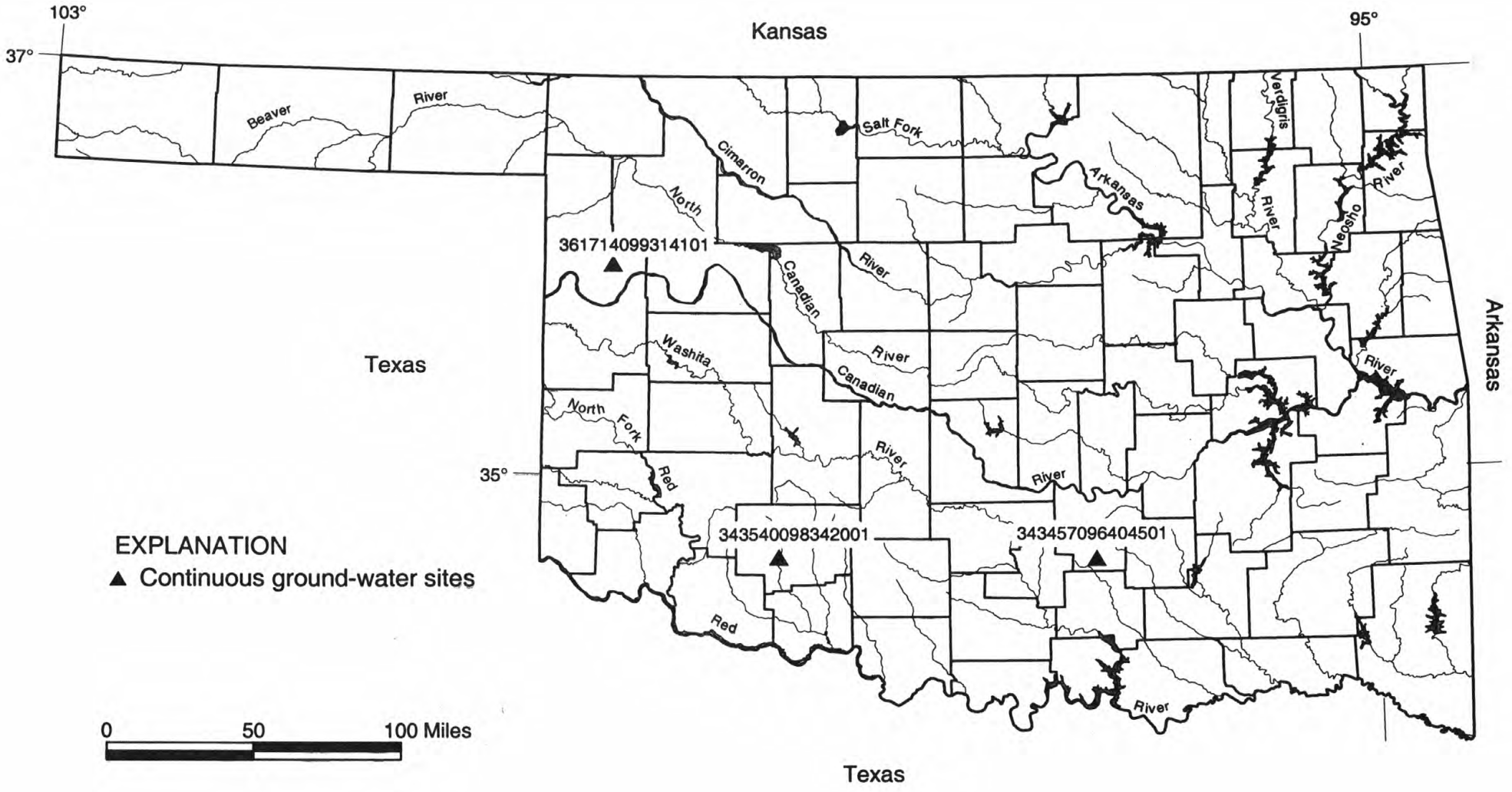


Figure 3.--Locations of ground-water wells for water-year 2002.

07300500 SALT FORK RED RIVER AT MANGUM, OK

LOCATION.--Lat 34°51'30", long 99°30'30", in SW $^1/_4$ SE $^1/_4$ sec.34. T.5 N, R.22 W., Greer County, Hydrologic Unit 11120202, near left bank on downstream side of pier of bridge on State Highway 34, 0.5 mi south of Mangum, 13.0 mi downstream from Fish Creek, and at mile 35.5.

DRAINAGE AREA.--1,566 mi^2, of which 209 mi^2 is probably noncontributing.

PERIOD OF RECORD.--April 1905 to June 1906, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1241: 1938.

GAGE.--Water-stage recorder. Datum of gage is 1,490.87 ft above sea level (levels by U.S. Bureau of Reclamation). Apr. 11, 1905 to June 30, 1906, nonrecording gage at site 0.2 mi upstream at different datum. Oct. 1, 1937 to Nov. 8, 1938, nonrecording gage at present site and datum.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	25	e17	76	e24	29	18	9.7	2.4	0.63	0.00
2	0.00	0.00	21	e16	73	e22	25	13	8.6	1.8	0.37	0.00
3	0.00	0.00	23	e16	54	e22	22	11	7.3	1.9	0.24	0.00
4	0.00	0.00	22	e22	44	e23	22	9.4	6.2	19	0.17	0.00
5	0.00	0.00	21	29	49	e25	22	6.6	53	94	0.10	0.00
6	0.00	0.00	18	28	60	29	22	10	22	321	0.04	0.00
7	0.00	0.00	17	27	77	29	28	19	21	346	0.00	0.00
8	0.00	0.00	17	28	86	30	35	17	18	166	0.00	0.00
9	0.00	0.00	16	30	70	27	37	8.4	10	315	0.00	0.00
10	0.00	0.00	16	27	56	27	43	5.9	6.2	138	0.00	0.00
11	0.00	0.00	15	26	48	25	39	6.5	4.3	76	0.00	0.00
12	0.00	0.00	16	26	41	24	36	5.2	3.1	136	0.00	82
13	0.00	0.00	17	25	37	24	724	5.0	5.0	41	0.00	61
14	0.00	0.00	19	24	36	24	174	4.9	19	40	0.00	49
15	0.00	22	20	24	34	23	148	4.4	20	25	0.00	36
16	0.00	46	21	24	33	23	90	4.1	38	15	0.00	16
17	0.00	66	22	23	33	24	55	3.7	45	7.8	0.00	14
18	0.00	141	22	24	33	26	41	3.3	35	4.2	0.00	6.9
19	0.00	147	20	24	32	34	31	2.9	22	2.0	0.00	5.7
20	0.00	84	20	24	31	38	23	2.7	14	0.83	0.00	2.1
21	0.00	55	20	24	32	38	19	2.2	9.6	0.43	0.00	0.57
22	0.00	40	19	24	30	36	16	2.0	6.8	0.26	0.00	0.10
23	0.00	34	18	24	30	35	15	1.9	5.0	0.18	0.00	0.00
24	0.00	28	17	24	29	34	13	3.2	3.3	0.13	0.00	0.00
25	0.00	25	17	24	27	30	11	56	2.7	0.08	0.00	0.00
26	0.00	22	17	25	e22	30	10	15	1.7	0.03	0.00	0.00
27	0.00	17	19	25	e20	30	14	10	1.3	0.00	0.00	0.00
28	0.00	16	19	24	25	29	16	9.5	0.79	0.00	0.00	0.00
29	0.00	20	18	24	---	27	16	9.9	0.63	100	0.00	0.00
30	0.00	26	20	38	---	27	23	9.8	2.1	29	0.00	0.00
31	0.00	---	e19	48	---	30	---	10	---	1.1	0.00	---
TOTAL	0.00	789.00	591	788	1218	869	1799	290.5	401.32	1884.14	1.55	273.37
MEAN	0.000	26.30	19.06	25.42	43.50	28.03	59.97	9.371	13.38	60.78	0.050	9.112
MAX	0.00	147	25	48	86	38	724	56	53	346	0.63	82
MIN	0.00	0.00	15	16	20	22	10	1.9	0.63	0.00	0.00	0.00
AC-FT	0.00	1560	1170	1560	2420	1720	3570	576	796	3740	3.1	542

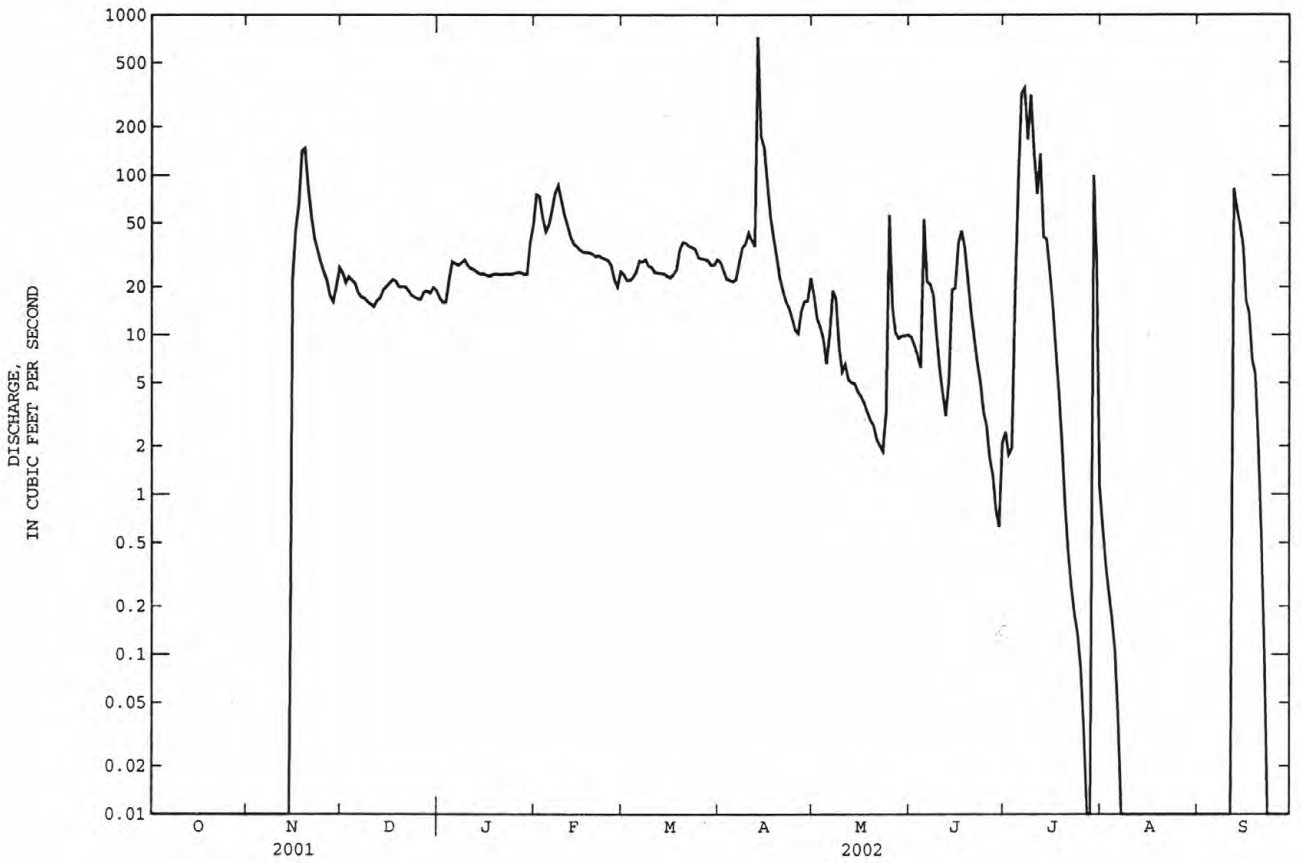
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2002, BY WATER YEAR (WY)

MEAN	75.55	31.95	38.15	47.30	57.19	56.04	104.1	256.5	232.7	64.14	38.97	49.48
MAX	919	196	148	199	263	344	1292	1389	1602	575	539	424
(WY)	1961	1987	1992	1960	1998	1998	1997	1957	1941	1953	1995	1995
MIN	0.000	0.000	0.000	0.000	0.000	0.12	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1941	1940	1940	1940	1953	1971	1955	1953	1952	1963	1943	1939

e Estimated

07300500 SALT FORK RED RIVER AT MANGUM, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1938 - 2002	
ANNUAL TOTAL	18021.58		8904.88			
ANNUAL MEAN	49.37		24.40		87.72	
HIGHEST ANNUAL MEAN					277	1941
LOWEST ANNUAL MEAN					12.3	1940
HIGHEST DAILY MEAN	1320	May 5	724	Apr 13	22600	May 28 1978
LOWEST DAILY MEAN	0.00	at times	0.00	at times	0.00	most years
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 1	0.00	Oct 1	0.00	Aug 14 1938
MAXIMUM PEAK FLOW			2760	Apr 13	72000	May 16 1957
MAXIMUM PEAK STAGE			8.31	Apr 13	14.70	Jun 16 1938
ANNUAL RUNOFF (AC-FT)	35750		17660		63550	
10 PERCENT EXCEEDS	113		45		128	
50 PERCENT EXCEEDS	20		17		19	
90 PERCENT EXCEEDS	0.00		0.00		0.00	



07300530 BITTER CREEK NEAR MARTHA, OK

LOCATION.--Lat 34°43'00", long 99°22'09", in SW $^1/_4$ sec.23. T.3 N, R.21 W., Jackson County, Hydrologic Unit 11120202, on left bank of creek on county road, 1.0 mi east and 0.5 mi south of Martha, and at mile 17.4.

DRAINAGE AREA.--42.7 mi^2.

PERIOD OF RECORD.--May 1998 to current year.

REVISED RECORDS.--WDR OK-00-2: 1999 (M)

GAGE.--Water-stage recorder. Datum of gage is 1,347.52 ft above sea level.

REMARKS.--Records fair. Flow affected by irrigation from Lake Altus.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.7	3.7	3.3	20	e5.4	4.4	7.2	3.5	2.8	6.0	16
2	e2.8	2.6	3.5	3.3	9.6	e5.0	4.0	6.7	3.4	2.8	5.4	13
3	e2.8	3.1	3.4	3.2	7.2	e5.0	3.6	6.4	3.2	2.8	9.1	19
4	e2.7	3.6	3.3	3.3	6.1	5.4	3.7	6.4	3.2	3.7	6.7	14
5	e2.6	3.5	3.3	3.4	7.2	5.7	3.8	6.3	3.9	26	8.8	9.9
6	e2.7	4.1	3.2	3.4	13	5.6	4.1	6.2	3.5	6.9	9.7	13
7	e2.8	4.1	3.2	3.2	12	5.5	9.6	6.1	3.4	4.5	9.5	8.3
8	e2.8	4.2	3.1	3.2	8.5	5.4	9.2	5.8	3.1	3.6	7.0	6.9
9	e2.9	4.0	3.1	3.2	6.9	5.2	5.2	4.9	3.1	3.3	6.5	7.0
10	3.0	4.6	3.3	3.2	6.0	5.6	3.8	4.5	3.1	2.4	4.4	6.4
11	2.6	4.4	3.6	2.8	5.8	5.8	3.5	5.4	2.8	0.98	4.5	6.1
12	2.5	4.4	3.7	3.0	5.7	6.0	3.4	5.2	2.6	1.2	7.8	6.0
13	2.4	4.4	3.5	3.1	5.8	6.1	774	4.6	59	2.3	7.5	5.8
14	2.3	4.8	3.3	3.1	6.4	5.7	352	4.4	39	2.3	11	6.2
15	2.2	6.2	3.3	3.1	5.9	4.9	32	4.3	7.6	2.2	8.7	6.4
16	2.1	5.9	3.4	3.2	5.3	4.9	21	4.4	31	2.2	12	5.9
17	3.5	18	3.2	3.1	5.5	5.2	17	4.2	5.8	1.8	14	6.0
18	2.4	11	3.1	3.1	5.6	6.1	14	3.8	3.4	2.0	14	8.1
19	2.1	4.4	3.1	3.3	6.0	12	13	3.7	3.0	2.1	10	24
20	3.1	2.7	3.1	3.1	5.4	9.0	12	3.6	2.8	6.7	14	12
21	2.3	3.2	3.2	3.3	5.3	5.6	11	3.6	2.7	7.9	22	7.5
22	2.3	3.5	3.1	3.3	5.0	4.6	9.7	3.4	2.6	5.7	18	6.0
23	2.3	3.6	3.1	3.4	5.1	5.2	9.2	3.8	2.4	3.7	13	5.6
24	2.0	3.5	3.1	3.3	5.3	5.3	8.8	57	2.2	4.8	7.8	5.4
25	2.2	2.8	3.2	3.2	5.0	4.6	8.0	124	2.1	9.1	7.9	6.0
26	2.1	3.2	3.2	3.3	4.7	4.4	8.9	19	2.1	6.9	10	5.4
27	2.4	3.1	3.4	3.4	5.0	4.9	14	36	2.0	3.5	13	4.9
28	2.5	3.4	3.5	3.4	5.5	4.9	11	10	1.4	2.6	13	4.7
29	2.5	3.5	3.3	3.5	---	5.5	7.9	5.6	1.1	11	14	4.4
30	2.6	3.7	3.2	54	---	5.5	7.6	4.2	1.5	15	15	4.2
31	2.6	---	3.3	159	---	4.5	---	3.7	---	6.3	16	---
TOTAL	79.0	136.2	102.0	306.7	194.8	174.5	1389.4	374.4	210.5	159.08	326.3	254.1
MEAN	2.548	4.540	3.290	9.894	6.957	5.629	46.31	12.08	7.017	5.132	10.53	8.470
MAX	3.5	18	3.7	159	20	12	774	124	59	26	22	24
MIN	2.0	2.6	3.1	2.8	4.7	4.4	3.4	3.4	1.1	0.98	4.4	4.2
AC-FT	157	270	202	608	386	346	2760	743	418	316	647	504

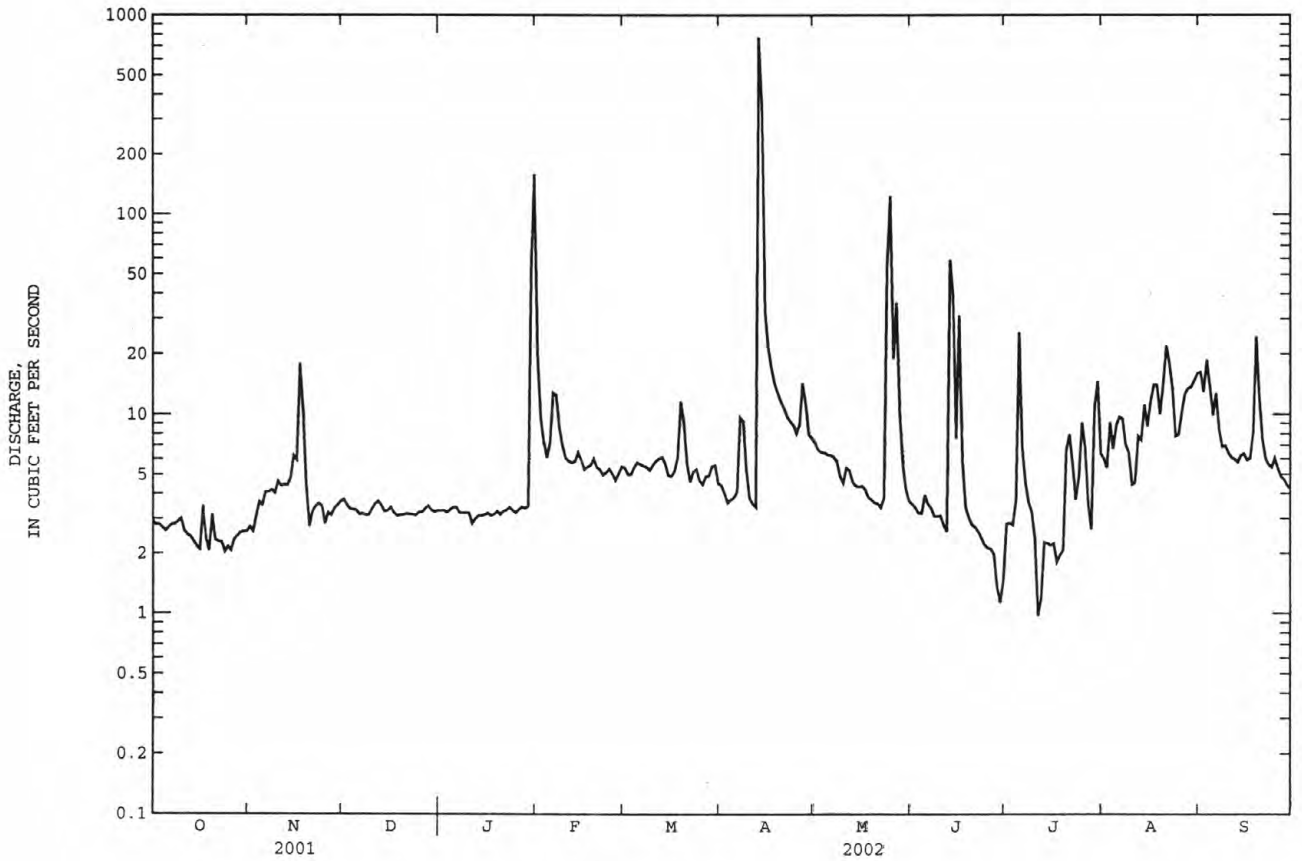
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	4.619	5.813	4.663	5.702	10.32	18.93	22.76	43.56	27.17	18.37	21.20	9.975
MAX	6.47	10.6	7.46	9.89	23.4	55.5	46.3	78.2	82.6	22.8	27.5	12.2
(WY)	2001	1999	2000	2002	2001	2000	2002	2001	1999	2001	2000	2001
MIN	2.55	2.52	3.29	2.92	4.74	5.06	4.30	12.1	7.02	5.13	10.5	8.02
(WY)	2002	2000	2002	2000	1999	1999	2001	2002	2002	2002	2002	1998

e Estimated

07300530 BITTER CREEK NEAR MARTHA, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	6137.4		3706.98			
ANNUAL MEAN	16.81		10.16		16.27	
HIGHEST ANNUAL MEAN					19.8	1999
LOWEST ANNUAL MEAN					10.2	2002
HIGHEST DAILY MEAN	634	May 20	774	Apr 13	1440	Jun 23 1999
LOWEST DAILY MEAN	2.0	Oct 24	0.98	Jul 11	0.98	Jul 11 2002
ANNUAL SEVEN-DAY MINIMUM	2.2	Oct 21	1.8	Jun 24	1.8	Jun 24 2002
MAXIMUM PEAK FLOW			1840	Apr 13	4250	Jun 23 1999
MAXIMUM PEAK STAGE			12.14	Apr 13	13.04	Jun 23 1999
ANNUAL RUNOFF (AC-FT)	12170		7350		11790	
10 PERCENT EXCEEDS	24		13		26	
50 PERCENT EXCEEDS	6.5		4.4		5.3	
90 PERCENT EXCEEDS	2.8		2.6		2.6	



07300580 BITTER CREEK WEST OF ALTUS, OK

LOCATION.--Lat 34°37'24", long 99°22'56", in SW $^{1}/_{4}$ sec.23. T.2 N, R.21 W., Jackson County, Hydrologic Unit 11120202, on left bank of creek on county road, 2.8 mi west and 1.0 mi south of Altus, and at mile 7.5.

DRAINAGE AREA.--68.1 mi^2.

PERIOD OF RECORD.--April 1998 to current year.

REVISED RECORDS.--WDR OK-01-1: 1999 (M)

GAGE.--Water-stage recorder. Datum of gage is 1,331.91 ft above sea level.

REMARKS.--Records fair. Flow affected at times by irrigation from Lake Altus.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	4.5	6.9	5.9	47	9.3	8.3	6.4	5.3	4.5	7.8	18
2	6.0	4.3	6.7	5.9	15	9.2	8.5	5.9	5.0	4.4	7.3	14
3	5.6	4.2	6.6	5.8	12	8.8	7.9	5.7	4.8	4.3	6.9	15
4	5.6	4.5	6.4	5.3	11	8.9	7.9	5.7	4.8	31	9.2	15
5	5.3	4.7	6.4	5.7	11	8.9	7.9	5.8	5.4	43	7.5	13
6	5.2	4.6	6.2	5.8	16	9.0	8.1	6.0	6.0	14	8.6	14
7	5.3	4.4	6.2	6.2	18	9.0	8.5	5.9	5.9	11	11	13
8	5.1	4.2	6.0	6.0	14	8.9	13	5.6	5.4	70	8.5	10
9	5.1	4.0	5.9	5.6	12	8.9	10	5.2	5.5	9.2	e6.0	10
10	5.0	4.0	5.9	5.6	11	8.7	8.9	4.9	5.5	7.9	e5.2	10
11	4.9	4.2	6.1	5.4	10	8.7	8.6	5.1	5.3	8.3	e4.0	12
12	4.7	4.4	6.2	e5.5	10	9.0	8.3	5.3	5.1	7.2	e5.0	9.5
13	4.5	4.8	6.1	e5.6	10	9.1	242	5.1	31	6.6	e5.0	9.4
14	4.5	4.8	5.7	5.6	10	9.1	1470	4.9	116	7.0	6.1	15
15	4.3	6.0	6.3	5.6	10	8.8	82	4.4	12	7.0	12	e12
16	4.0	5.9	6.2	5.6	9.9	8.7	26	5.0	76	6.8	12	11
17	4.1	40	6.1	5.6	9.8	8.8	17	4.8	15	6.4	15	8.7
18	5.1	28	6.0	5.6	9.9	9.2	13	4.8	8.1	7.2	13	11
19	3.8	9.2	5.9	5.6	10	12	12	4.5	7.0	6.1	9.7	20
20	5.2	6.9	5.8	5.7	9.8	14	10	4.5	6.6	5.2	9.2	18
21	4.9	6.5	5.9	5.5	9.2	10	9.7	4.4	6.4	6.7	12	11
22	4.5	6.6	5.9	5.6	10	9.2	8.9	4.4	6.2	7.3	11	8.9
23	4.3	6.5	5.9	5.2	9.7	9.1	8.4	4.4	6.2	6.2	10	8.3
24	4.1	6.4	5.8	5.9	9.7	9.2	7.9	14	6.0	6.2	11	8.1
25	3.9	6.1	5.8	5.5	9.6	9.0	7.3	254	6.1	8.1	10	7.9
26	4.2	6.0	5.8	5.5	9.3	8.6	7.6	44	6.1	6.8	10	8.6
27	4.1	6.0	5.9	5.6	9.2	8.6	8.1	31	5.8	6.6	12	7.8
28	4.3	6.2	5.9	5.7	9.2	8.8	11	17	5.8	5.9	13	7.5
29	4.4	6.5	5.8	5.8	---	8.7	7.6	7.6	4.9	13	9.3	7.3
30	4.4	6.6	5.8	47	---	9.1	6.6	6.2	4.5	20	9.1	7.1
31	4.4	---	5.8	224	---	9.0	---	5.6	---	9.7	12	---
TOTAL	147.1	221.0	187.9	434.9	342.3	286.3	2061.0	498.1	393.7	363.6	288.4	341.1
MEAN	4.745	7.367	6.061	14.03	12.22	9.235	68.70	16.07	13.12	11.73	9.303	11.37
MAX	6.3	40	6.9	224	47	14	1470	254	116	70	15	20
MIN	3.8	4.0	5.7	5.2	9.2	8.6	6.6	4.4	4.5	4.3	4.0	7.1
AC-FT	292	438	373	863	679	568	4090	988	781	721	572	677

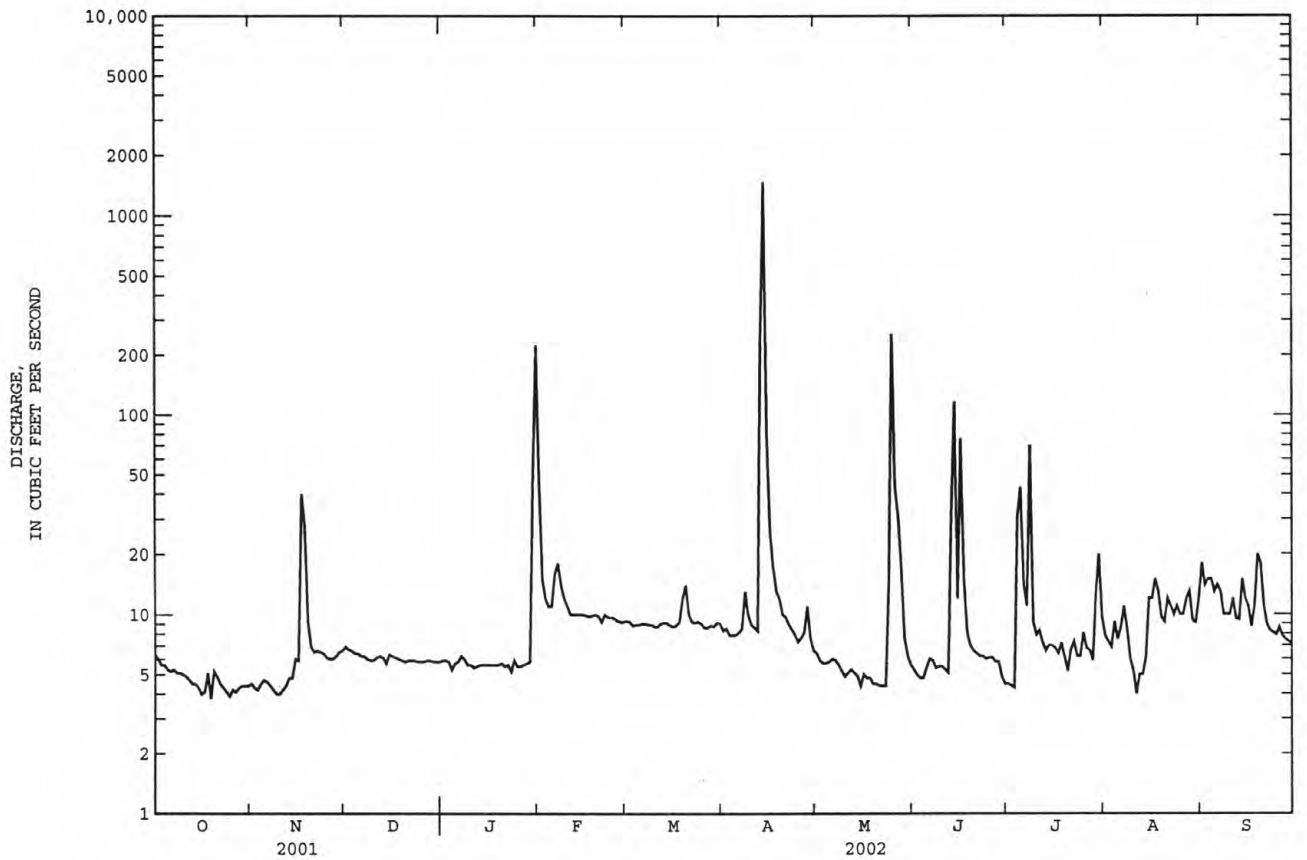
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	8.741	9.920	8.879	10.61	17.04	34.83	31.16	75.51	42.89	23.84	27.90	14.40
MAX	17.8	16.1	12.1	14.0	40.6	106	68.7	148	132	31.4	40.4	20.5
(WY)	2001	1999	2000	2002	2001	2000	2002	1999	1999	2001	1999	1999
MIN	4.75	4.14	6.06	3.59	7.25	7.52	7.51	16.1	13.1	11.7	9.30	10.1
(WY)	2002	2000	2002	2000	1999	1999	2001	2002	2002	2002	2002	1998

e Estimated

07300580 BITTER CREEK WEST OF ALTUS, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	9837.3		5565.4			
ANNUAL MEAN	26.95		15.25		26.97	
HIGHEST ANNUAL MEAN					36.2	1999
LOWEST ANNUAL MEAN					15.2	2002
HIGHEST DAILY MEAN	2100	May 20	1470	Apr 14	2100	May 20 2001
LOWEST DAILY MEAN	3.8	Oct 19	3.8	Oct 19	2.5	Feb 20 2000
ANNUAL SEVEN-DAY MINIMUM	4.2	Oct 23	4.2	Oct 23	2.7	Oct 22 1999
MAXIMUM PEAK FLOW			2190	Apr 14	2760	May 20 2001
MAXIMUM PEAK STAGE			14.23	Apr 14	14.82	May 20 2001
ANNUAL RUNOFF (AC-FT)	19510		11040		19540	
10 PERCENT EXCEEDS	35		14		34	
50 PERCENT EXCEEDS	12		6.7		10	
90 PERCENT EXCEEDS	4.8		4.5		4.4	



07301110 SALT FORK RED RIVER NEAR ELMER, OK

LOCATION.--Lat 34°28'44", long 99°22'55", in NW $^1/_4$ NE $^1/_4$ sec.15, T.1 S., R.21 W., Jackson County, Hydrologic Unit 11120202, on right bank at bridge on paved county road, formerly State Highway 5, 1.7 mi west of Elmer, and at mile 3.5.

DRAINAGE AREA.--1,878 mi^2, of which 209 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,258.55 ft above sea level.

REMARKS.--Records poor. Low flows sustained at times by irrigation returns from Lake Altus.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
No peak greater than base discharge.							

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e14	e9.5	36	36	484	49	49	70	35	e5.7	37	30
2	e13	e10	37	36	136	49	48	64	30	e5.3	13	26
3	e13	e9.5	37	e32	107	45	46	58	25	e5.0	15	26
4	e12	e9.0	35	e34	81	47	44	55	24	20	16	20
5	12	e9.6	37	38	77	48	43	52	33	104	21	32
6	12	e10	36	38	87	47	45	50	31	106	18	29
7	12	e10	35	38	100	49	51	50	47	215	10	39
8	9.6	e10	34	40	103	51	57	50	33	342	9.1	28
9	9.3	e9.5	33	41	107	49	66	56	30	182	11	25
10	8.8	e9.1	33	41	91	48	58	49	26	198	10	30
11	7.9	e9.0	33	41	81	47	57	47	21	154	12	21
12	8.1	e10	34	40	78	46	59	44	18	112	10	20
13	7.4	11	34	39	72	45	393	42	26	124	13	19
14	7.4	15	34	38	68	45	2160	39	122	81	17	20
15	7.5	50	34	38	66	43	1160	38	70	55	11	23
16	7.1	192	36	38	63	42	407	37	170	54	9.4	29
17	7.3	332	38	37	62	42	254	36	84	53	10	27
18	7.6	243	37	37	62	46	164	34	48	54	17	26
19	11	184	37	38	62	62	141	32	42	43	18	43
20	8.9	114	36	37	61	72	98	30	32	38	17	56
21	7.6	75	36	37	59	63	81	29	26	27	13	55
22	7.2	57	35	37	56	59	75	26	18	21	15	36
23	7.0	48	35	37	56	57	71	26	13	21	14	38
24	e7.0	44	34	37	55	56	67	28	11	15	11	27
25	e7.4	42	34	37	54	54	65	171	10	26	12	35
26	e7.5	37	34	37	51	53	71	237	8.6	32	20	27
27	e7.5	34	34	38	48	50	68	88	6.6	27	18	21
28	e7.6	38	34	38	49	49	71	80	e6.4	11	15	19
29	e7.9	32	34	39	---	49	77	53	e6.2	30	20	18
30	e8.5	33	35	60	---	50	65	43	e6.0	118	15	17
31	e9.0	---	35	688	---	52	---	39	---	120	18	---
TOTAL	280.1	1696.2	1086	1842	2476	1564	6111	1753	1058.8	2399.0	465.5	862
MEAN	9.035	56.54	35.03	59.42	88.43	50.45	203.7	56.55	35.29	77.39	15.02	28.73
MAX	14	332	38	688	484	72	2160	237	170	342	37	56
MIN	7.0	9.0	33	32	48	42	43	26	6.0	5.0	9.1	17
AC-FT	556	3360	2150	3650	4910	3100	12120	3480	2100	4760	923	1710

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

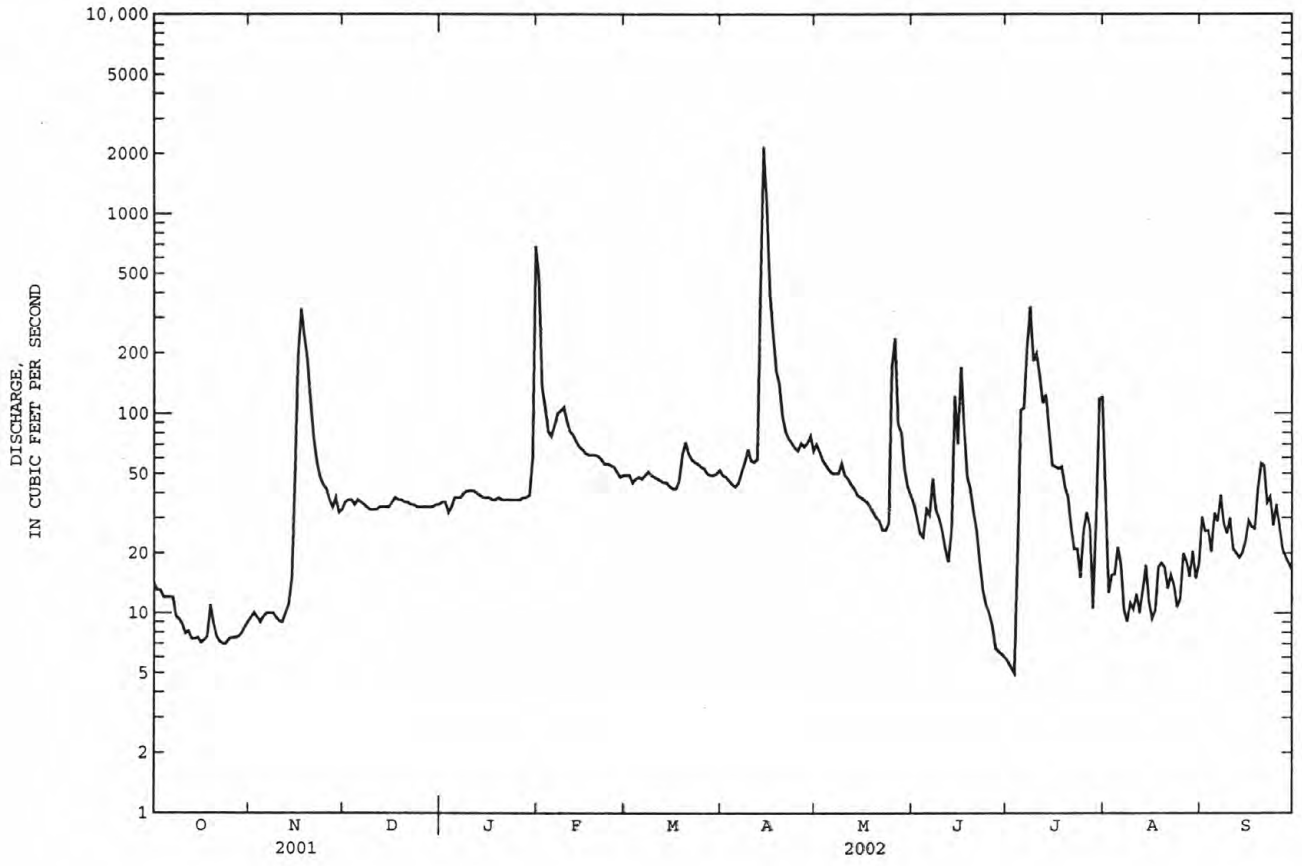
MEAN	231.0	125.7	127.1	121.5	167.8	203.7	268.8	535.6	617.9	179.9	262.8	189.1
MAX	1828	680	701	362	697	1100	2108	2566	2836	641	1681	950
(WY)	1987	1987	1992	1993	1997	1998	1997	1980	1995	1993	1995	1986
MIN	3.79	4.72	16.5	13.3	13.7	21.1	13.9	7.51	35.3	9.25	4.19	7.90
(WY)	1985	1985	1983	1981	1981	1982	1982	1984	2002	1981	1981	1981

e Estimated

07301110 SALT FORK RED RIVER NEAR ELMER, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002	
ANNUAL TOTAL	45355.3		21593.6			
ANNUAL MEAN	124.3		59.16		252.7	
HIGHEST ANNUAL MEAN					594	1997
LOWEST ANNUAL MEAN					59.2	2002
HIGHEST DAILY MEAN	1490	May 20	2160	Apr 14	28200	Aug 3 1995
LOWEST DAILY MEAN	7.0	Oct 23	[a]5.0	Jul 3	0.08	Sep 4 1981
ANNUAL SEVEN-DAY MINIMUM	7.3	Oct 21	5.9	Jun 27	0.12	Aug 30 1981
MAXIMUM PEAK FLOW			2300	Apr 14	44900	Oct 20 1983
MAXIMUM PEAK STAGE			5.22	Apr 14	[b]16.06	May 29 1987
ANNUAL RUNOFF (AC-FT)	89960		42830		183100	
10 PERCENT EXCEEDS	211		89		438	
50 PERCENT EXCEEDS	82		37		81	
90 PERCENT EXCEEDS	11		9.5		15	

[a]Estimated
[b]From high-water mark.



07301420 SWEETWATER CREEK NEAR SWEETWATER, OK

LOCATION.--Lat 35°25'20", long 99°58'08", in NW $^1/_4$ NE $^1/_4$ sec.20, T.11 N, R.26 W., Roger Mills-Beckham County line, Hydrologic Unit 11120302, on right bank downstream bridge piling of State Highway 152, 0.4 mi downstream from Freezeout Creek, 3.3 mi west of Sweetwater, and at mile 16.0.

DRAINAGE AREA.--424 mi^2, of which 20 mi^2 is probably noncontributing.

PERIOD OF RECORD.--April 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,087.76 ft above sea level.

REMARKS.--Records good. U.S. Bureau of Reclamations' satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	8.6	19	e19	e22	e22	23	23	14	3.7	3.2	0.46
2	3.2	8.9	18	e18	e24	e19	21	22	13	4.4	2.6	0.45
3	3.2	9.7	17	e19	33	e20	19	20	11	4.8	2.1	0.45
4	3.1	11	17	e18	30	e23	19	19	9.9	8.5	1.8	0.45
5	2.9	11	17	e22	30	25	20	19	12	18	1.6	0.62
6	3.2	11	18	23	36	23	20	18	15	e28	1.5	4.8
7	3.4	11	18	23	37	23	22	19	14	23	1.3	1.1
8	3.6	11	18	22	34	23	27	17	12	21	1.2	0.85
9	3.7	11	17	22	31	22	27	14	11	18	1.0	1.2
10	3.9	10	18	23	27	21	26	14	11	15	1.0	1.3
11	3.9	10	18	22	26	21	24	15	9.0	13	1.1	3.0
12	4.4	10	18	21	26	21	24	15	8.2	12	1.0	2.4
13	4.8	12	19	21	26	22	29	14	12	11	1.1	2.2
14	5.3	13	20	21	27	21	34	14	17	8.7	1.0	2.9
15	5.2	20	19	21	26	20	32	13	25	6.8	1.0	4.1
16	5.0	22	19	21	26	21	29	12	25	5.9	1.1	3.2
17	4.6	27	19	21	25	21	26	26	22	5.2	1.0	2.8
18	4.8	34	19	21	26	21	26	28	17	4.8	0.75	2.8
19	5.1	23	19	22	26	22	25	22	14	4.4	0.66	3.4
20	5.4	19	19	22	25	23	23	18	11	3.4	0.73	4.1
21	5.7	18	19	22	24	22	23	16	9.8	3.0	0.84	4.2
22	6.0	18	20	22	22	22	22	13	8.5	3.7	0.81	3.4
23	6.2	18	19	22	22	22	22	12	7.5	4.2	0.94	3.1
24	6.2	17	19	22	22	23	20	11	6.5	12	0.80	3.1
25	6.4	17	e19	22	22	22	18	11	5.8	11	e0.84	3.0
26	6.4	17	e19	22	e20	22	19	11	5.2	7.0	e0.70	2.8
27	7.0	e15	22	22	e20	23	24	12	5.3	4.9	e0.60	2.8
28	8.4	e14	22	22	e21	23	27	17	5.0	3.3	0.55	2.7
29	8.2	e15	21	22	---	23	25	28	4.5	2.9	0.50	2.5
30	8.5	19	e20	e21	---	21	24	22	3.9	3.5	0.51	2.4
31	8.6	---	e19	e22	---	22	---	18	---	3.4	0.47	---
TOTAL	159.4	461.2	585	663	736	679	720	533	345.1	278.5	34.30	72.58
MEAN	5.142	15.37	18.87	21.39	26.29	21.90	24.00	17.19	11.50	8.984	1.106	2.419
MAX	8.6	34	22	23	37	25	34	28	25	28	3.2	4.8
MIN	2.9	8.6	17	18	20	19	18	11	3.9	2.9	0.47	0.45
AC-FT	316	915	1160	1320	1460	1350	1430	1060	685	552	68	144

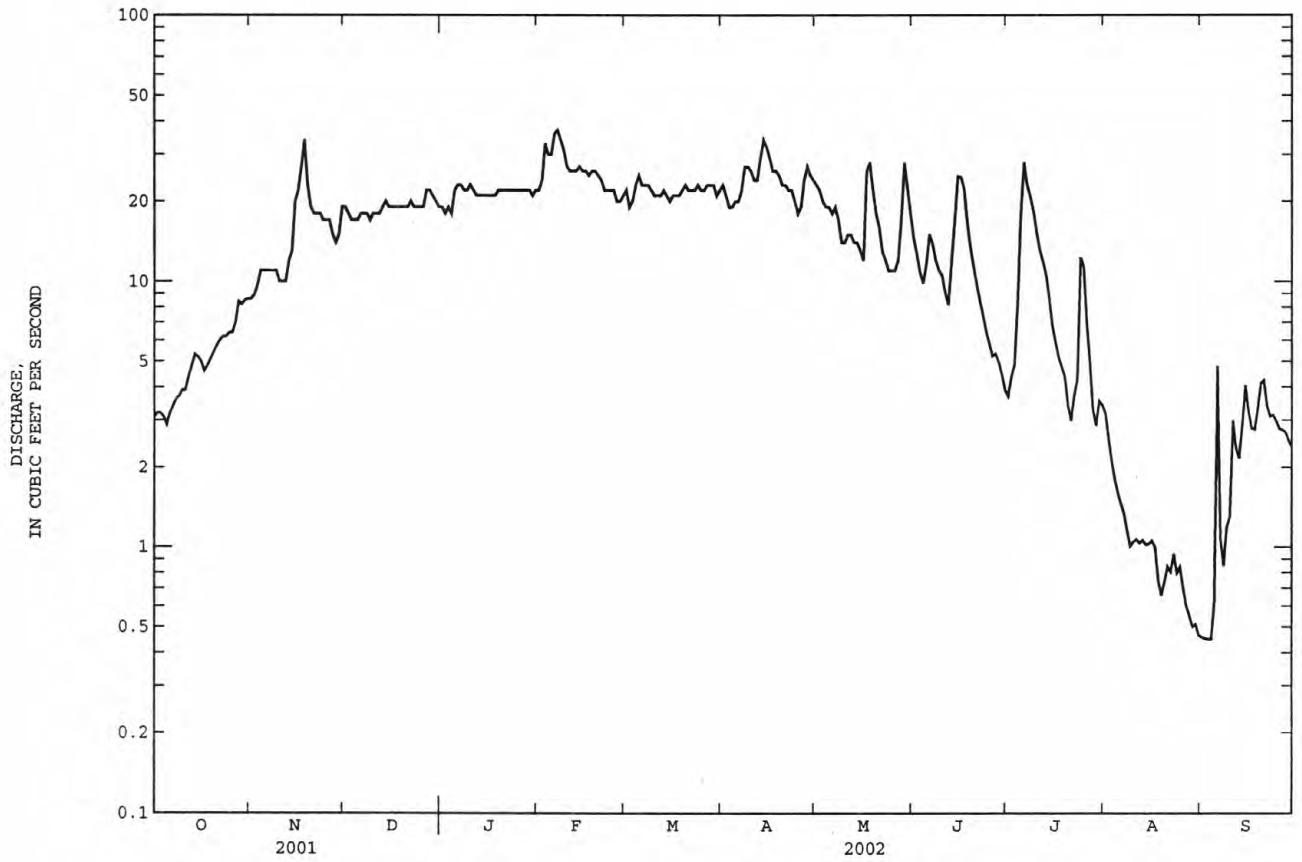
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2002, BY WATER YEAR (WY)

MEAN	17.10	21.89	24.97	28.76	31.31	38.97	38.40	43.42	38.62	12.60	6.954	10.70
MAX	72.2	61.1	51.5	53.7	53.6	85.6	126	150	115	31.6	38.7	51.6
(WY)	1987	1987	1998	1998	2001	1998	1997	1997	1995	1997	1995	1988
MIN	0.20	5.23	6.73	11.2	15.2	17.9	16.2	17.2	7.08	0.97	0.080	0.084
(WY)	1995	1995	1995	1995	1995	1991	1991	2002	1994	1994	1994	1994

e Estimated

07301420 SWEETWATER CREEK NEAR SWEETWATER, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1986 - 2002	
ANNUAL TOTAL	11656.90		5267.08			
ANNUAL MEAN	31.94		14.43		26.31	
HIGHEST ANNUAL MEAN					53.0	1997
LOWEST ANNUAL MEAN					10.9	1994
HIGHEST DAILY MEAN	427	May 20	37	Feb 7	755	May 25 1997
LOWEST DAILY MEAN	0.88	Aug 9	0.45	Sep 2,3,4	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.98	Aug 4	0.47	Aug 29	0.00	Sep 28 1994
MAXIMUM PEAK FLOW			38	Nov 18	1940	Jun 3 1995
MAXIMUM PEAK STAGE			7.86	Nov 18	15.89	Jun 3 1995
INSTANTANEOUS LOW FLOW					0.00	Aug 27 1994
ANNUAL RUNOFF (AC-FT)	23120		10450		19060	
10 PERCENT EXCEEDS	65		25		49	
50 PERCENT EXCEEDS	19		17		20	
90 PERCENT EXCEEDS	2.2		1.7		2.2	



07301500 NORTH FORK RED RIVER NEAR CARTER, OK

LOCATION.--Lat 35°10'05", long 99°30'25", in NW $^1/_4$ SE $^1/_4$ sec.15, T.8 N., R.22 W., Beckham County, Hydrologic Unit 11120302, on left bank on downstream side of roadway on State Highway 34, 3.0 mi south of Carter, 10.8 mi downstream from Timber Creek, and at mile 110.5.

DRAINAGE AREA.--2,337 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1944 to September 1962. Annual maximum and occasional low-flow measurements, water years 1963-64. August 1964 to current year.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,673.71 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
No peak greater than base discharge.							

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	7.2	42	e51	109	e70	67	96	50	5.7	4.1	0.00
2	0.0	8.2	42	e54	117	e68	66	85	40	5.6	3.1	0.00
3	0.0	8.9	44	55	114	e67	62	77	31	5.7	2.7	0.00
4	0.0	11	45	59	115	e67	61	70	30	15	2.0	0.00
5	0.0	12	47	58	118	75	60	67	37	104	1.4	0.00
6	0.0	13	46	57	122	76	61	64	53	412	0.89	0.00
7	0.0	13	46	63	129	89	70	63	37	203	0.69	0.00
8	0.0	14	46	60	130	89	76	59	30	155	0.39	0.00
9	0.0	13	47	59	129	86	85	53	27	127	0.14	0.00
10	0.0	14	48	58	112	81	100	49	23	107	0.0	0.00
11	0.0	16	48	55	97	80	100	48	20	83	0.0	0.00
12	0.0	17	50	54	91	76	98	48	17	67	0.0	0.00
13	1.4	20	51	53	84	76	117	45	22	52	0.0	0.00
14	1.7	23	52	52	81	76	215	43	77	42	0.0	0.00
15	1.8	28	53	54	82	75	187	41	61	34	0.0	0.00
16	1.8	34	55	58	81	73	161	39	70	28	0.0	0.00
17	1.9	43	54	60	81	71	133	63	80	22	0.0	0.00
18	2.0	47	54	60	81	78	129	160	56	18	0.0	0.00
19	2.3	94	53	62	84	84	123	114	45	13	0.0	0.00
20	2.8	95	51	64	84	85	110	83	34	8.8	0.0	0.00
21	3.3	81	50	65	83	83	105	67	27	6.3	0.0	0.00
22	3.7	67	50	67	81	79	95	57	21	5.3	0.0	0.00
23	4.2	58	49	71	81	78	92	53	16	5.0	0.0	0.00
24	4.5	57	50	72	80	78	87	55	12	23	0.0	0.00
25	4.4	55	50	71	79	75	80	54	9.5	17	0.0	0.00
26	4.7	49	50	71	75	74	78	48	8.6	15	0.0	0.00
27	5.0	47	48	73	71	74	88	47	7.8	7.0	0.00	0.00
28	5.3	e45	49	73	72	73	116	46	7.5	5.1	0.00	0.00
29	5.5	e43	51	72	---	70	122	51	6.0	7.9	0.00	0.00
30	6.0	44	e50	79	---	69	108	55	5.6	12	0.00	0.00
31	6.2	---	e49	88	---	68	---	53	---	6.6	0.00	---
TOTAL	68.5	1077.3	1520	1948	2663	2363	3052	1953	961.0	1618.0	15.41	0.00
MEAN	2.210	35.91	49.03	62.84	95.11	76.23	101.7	63.00	32.03	52.19	0.497	0.000
MAX	6.2	95	55	88	130	89	215	160	80	412	4.1	0.00
MIN	0.00	7.2	42	51	71	67	60	39	5.6	5.0	0.00	0.00
AC-FT	136	2140	3010	3860	5280	4690	6050	3870	1910	3210	31	0.00

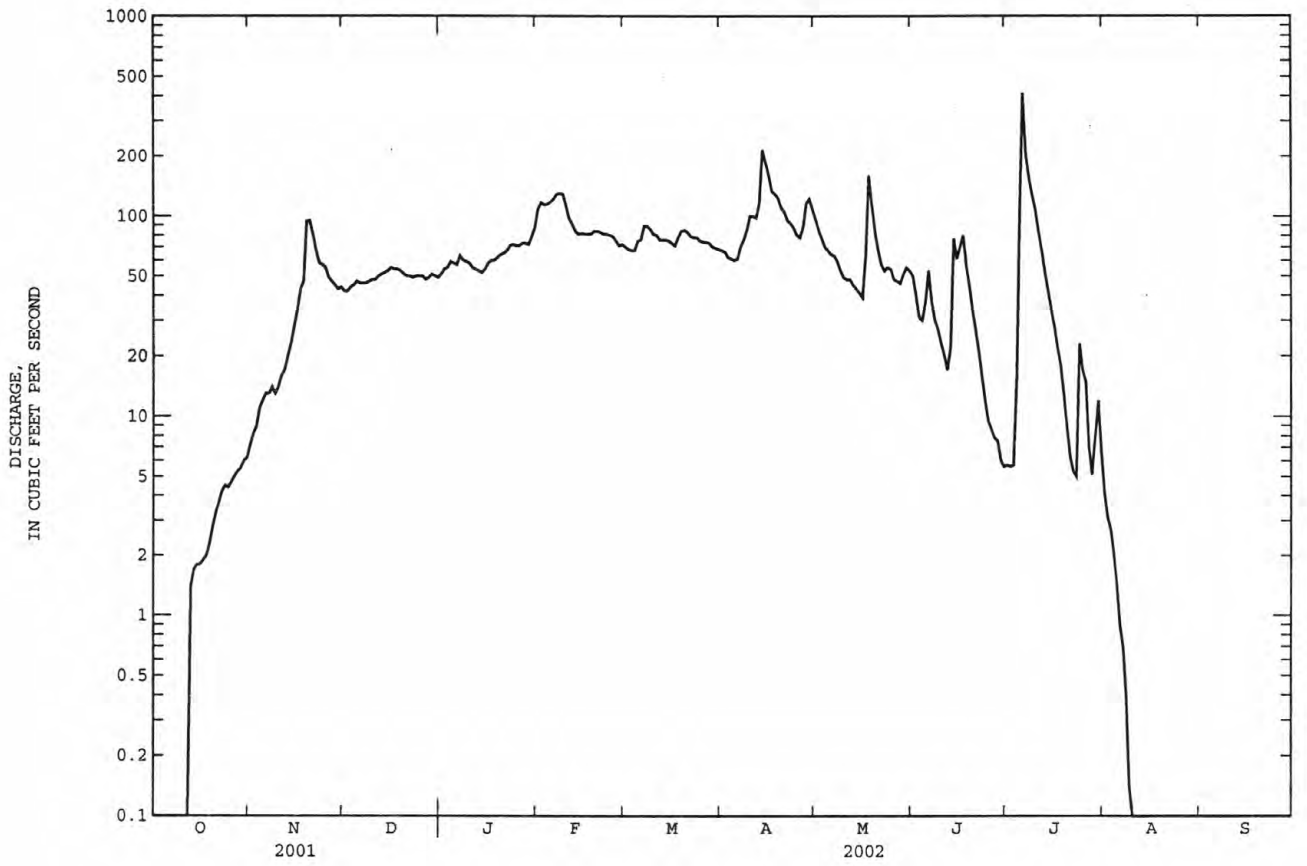
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2002, BY WATER YEAR (WY)

MEAN	90.86	60.32	67.48	80.62	104.7	116.0	151.4	407.7	283.9	73.59	46.61	54.11
MAX	1195	360	333	362	365	466	1253	2713	1560	828	560	432
(WY)	1987	1987	1998	1998	1960	1998	1997	1977	1995	1950	1995	1996
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.079	0.000	0.60	0.000	0.000	0.000
(WY)	1946	1946	1953	1953	1953	1955	1971	1971	1966	1954	1952	1945

e Estimated

07301500 NORTH FORK RED RIVER NEAR CARTER, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1945 - 2002	
ANNUAL TOTAL	63127.90		17239.21			
ANNUAL MEAN	173.0		47.23		128.3	
HIGHEST ANNUAL MEAN					356	1987
LOWEST ANNUAL MEAN					12.9	1981
HIGHEST DAILY MEAN	5380	May 20	412	Jul 6	20700	May 26 1959
LOWEST DAILY MEAN	0.00	at times	0.00	at times	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 26	0.00	Oct 1	0.00	May 24 1945
MAXIMUM PEAK FLOW			513	Jul 6	53400	May 26 1959
MAXIMUM PEAK STAGE			4.05	Jul 6	15.08	Jun 4 1995
ANNUAL RUNOFF (AC-FT)	125200		34190		92970	
10 PERCENT EXCEEDS	294		95		229	
50 PERCENT EXCEEDS	67		49		39	
90 PERCENT EXCEEDS	1.2		0.00		0.00	



07302500 LAKE ALTUS AT LUGERT, OK

LOCATION.--Lat 34°53'08", long 99°17'43", in SW $^1/_4$ SE $^1/_4$ sec.22, T.5 N., R.20 W., Kiowa County, Hydrologic Unit 11120302, on upstream face of Altus Dam on North Fork Red River, 1.0 mi west of Lugert, 2.6 mi upstream from Elm Fork of North Fork, and at mile 73.5.

DRAINAGE AREA.--2,515 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--December 1943 to September 1950 (monthly records only), October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation). Prior to Nov. 19, 1948, nonrecording or float gage at same site and datum.

REMARKS.--Reservoir is formed by concrete and coursed masonry dam. Storage began in December 1943. Capacity, 134,500 acre- ft at elevation 1,559.0 ft, crest of uncontrolled spillway, and 72,400 acre-ft at elevation 1,547.0 ft, crest of controlled spillway. Dead storage, 1,660 acre-ft below elevation 1,517.5 ft, sill of headgate at irrigation canal. Figures given herein represent total contents. Reservoir is used for flood control, municipal water supply for city of Altus, and irrigation of about 48,000 acres. Revised capacity table used since Jan. 1, 1969. From 1927 to 1943, a dam to form reservoir for municipal water supply was at same site. Elevation of crest was 1,514.31 ft. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 170,600 acre-ft, May 19, 1951, elevation 1,562.10 ft; minimum after initial storage, 4,690 acre-ft, Aug. 25, 1944, elevation, 1,520.2 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 75,600 acre-ft, July 13, elevation 1,547.77 ft; minimum, 14,460 acre-ft, Sept, 30, elevation, 1,527.13 ft.

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

1520	3,844	1540	46,780
1525	10,710	1548	76,580
1529	18,130	1559	134,500
1534	29,620	1563	161,000

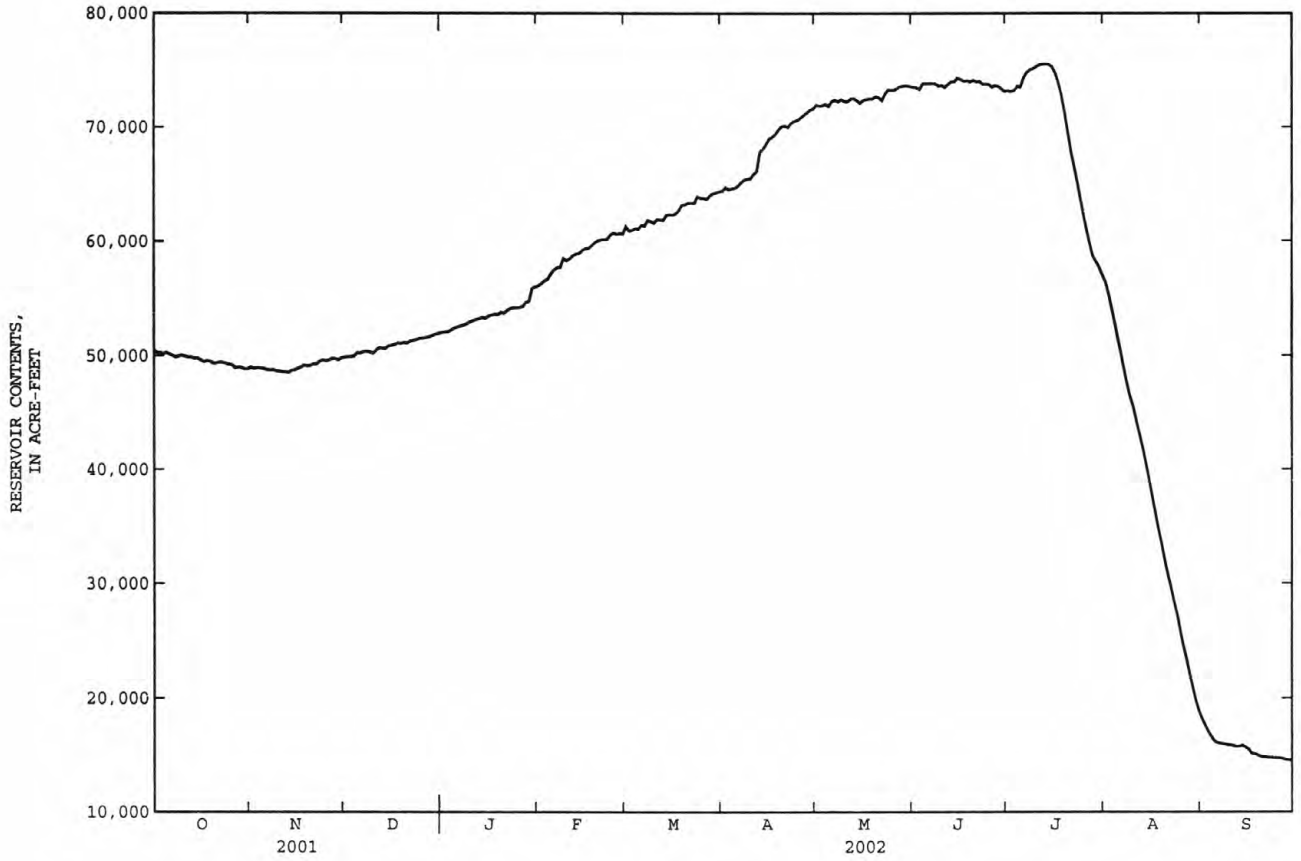
RESERVOIR STORAGE VIA SATELLITE, in (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50500	49000	49830	52020	56090	61260	64380	71940	73480	73190	56410	18190
2	50260	48870	49890	52050	56270	60880	64690	71860	73480	73110	55420	17600
3	50290	48930	49890	52050	56520	60920	64500	71900	73310	73190	54120	17050
4	50160	48900	49960	52220	56660	61070	64580	72020	73820	73570	52880	16630
5	50260	48900	50230	52400	57120	61030	64620	71820	73820	73480	51440	16220
6	50130	48770	50190	52500	57450	61370	64810	72270	73820	74320	50160	16060
7	50030	48730	50360	52570	57670	61290	65120	72390	73820	74780	48770	16020
8	49860	48770	50360	52670	57700	61820	65350	72230	73820	75040	47460	15980
9	49990	48670	50330	52770	58460	61700	65430	72440	73610	75130	46330	15920
10	50060	48640	50160	52940	58280	61560	65470	72270	73650	75300	45470	15890
11	49960	48570	50430	53050	58420	61890	65850	72230	73480	75470	44180	15830
12	49860	48570	50670	53150	58710	61850	66080	72480	73770	75510	43040	15730
13	49890	48500	50670	53220	58860	61820	67810	72520	73980	75510	41880	15750
14	49760	48700	50600	53320	58900	62260	68050	72350	73980	75510	40550	15850
15	49790	48730	50830	53250	59150	62300	68490	72110	74320	75300	39080	15690
16	49630	48870	50900	53460	59340	62260	68970	72350	74190	74780	37610	15520
17	49460	48970	50940	53530	59340	62380	69130	72440	74030	73940	36170	15110
18	49560	49170	51100	53600	59560	62640	69370	72480	74070	72810	34730	15110
19	49500	49100	51040	53560	59850	63130	69780	72480	73980	71370	33460	14960
20	49330	49130	51140	53770	60000	63170	70060	72690	74110	69660	32010	14850
21	49360	49260	51070	53700	60110	63320	70100	72600	73980	67930	30740	14830
22	49430	49260	51270	53950	60140	63320	69980	72350	74030	66590	29650	14790
23	49400	49500	51310	54120	60140	63280	70340	72940	73770	65230	28370	14790
24	49330	49600	51410	54160	60510	63890	70510	73270	73770	63700	27290	14760
25	49230	49530	51510	54160	60700	63740	70590	73230	73770	62260	25890	14740
26	49200	49600	51510	54190	60590	63740	70790	73230	73480	60960	24520	14720
27	48930	49760	51580	54300	60660	63630	71040	73440	73650	59740	23410	14700
28	49000	49730	51640	54650	60590	63970	71240	73570	73570	58640	22160	14590
29	48970	49630	51740	54720	---	64160	71490	73610	73360	58170	20940	14590
30	48830	49830	51850	55880	---	64230	71610	73610	73110	57700	19790	14510
31	48830	---	51920	55990	---	64310	---	73570	---	57020	18880	---
MAX	50500	49830	51920	55990	60700	64310	71610	73610	74320	75510	56410	18190
MIN	48830	48500	49830	52020	56090	60880	64380	71820	73110	57020	18880	14510
(‡)	1540.63	1540.93	1541.55	1542.72	1543.99	1544.98	1546.82	1547.29	1547.18	1543.01	1529.36	1527.16
(‡‡)	-1730	+1000	+2090	+4070	+4600	+3720	+7300	+1960	-460	-16090	-38140	-4370

CAL YR 2001 MAX 151700 MIN 48500 (‡‡) -6500
WTR YR 2002 MAX 75510 MIN 14510 (‡‡) -36050

(‡) ELEVATION, IN FEET, AT END OF MONTH
(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET

07302500 LAKE ALTUS AT LUGERT, OK--Continued



07303000 NORTH FORK RED RIVER BELOW ALTUS DAM, NEAR LUGERT, OK

LOCATION.--Lat 34°53'26", long 99°18'22", in SW $^1/_4$ sec.22, T.5 N., R.20 W., Greer County, Hydrologic Unit 11120303, on right bank at State Highway 44A bridge, 3,500 ft downstream from Altus Dam, 1.9 mi upstream from Elm Fork of North Fork, 2.0 mi west of Lugert, and at mile 72.8.

DRAINAGE AREA.--2,515 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--March 1930 to December 1932 (published as "at Lugert Dam"), December 1943 to September 1950 (published as spill from Lake Altus), October 1950 to September 1962, August 1964 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,471.81 ft above sea level. Mar. 19, 1930 to Dec. 21, 1932, nonrecording gage at former Lugert Dam, 0.7 mi upstream at datum 1,504.31 ft National Geodetic Vertical Datum of 1929, unadjusted.

REMARKS.--No estimated daily discharge. Records poor. Some regulation at low flow by Lugert Lake prior to December 1943, capacity 13,500 acre-ft and completely regulated thereafter by Lake Altus (station 07302500). Diversions at Lake Altus bypass most of streamflow. Seepage from Altus Dam not included for period February 1953 to September 1977. Period of statistical summary includes seepage. U.S. Geological Survey satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft^3/s, May 18, 1951, gage height, 12.70 ft, maximum gage height, 16.37 ft, May 21, 1977, (backwater from Elm Fork of the North Fork Red River); no flow at times in several years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 16, 1928, reached a stage of 14.5 ft, site and datum in use 1930-32, discharge, 14,300 ft^3/s.

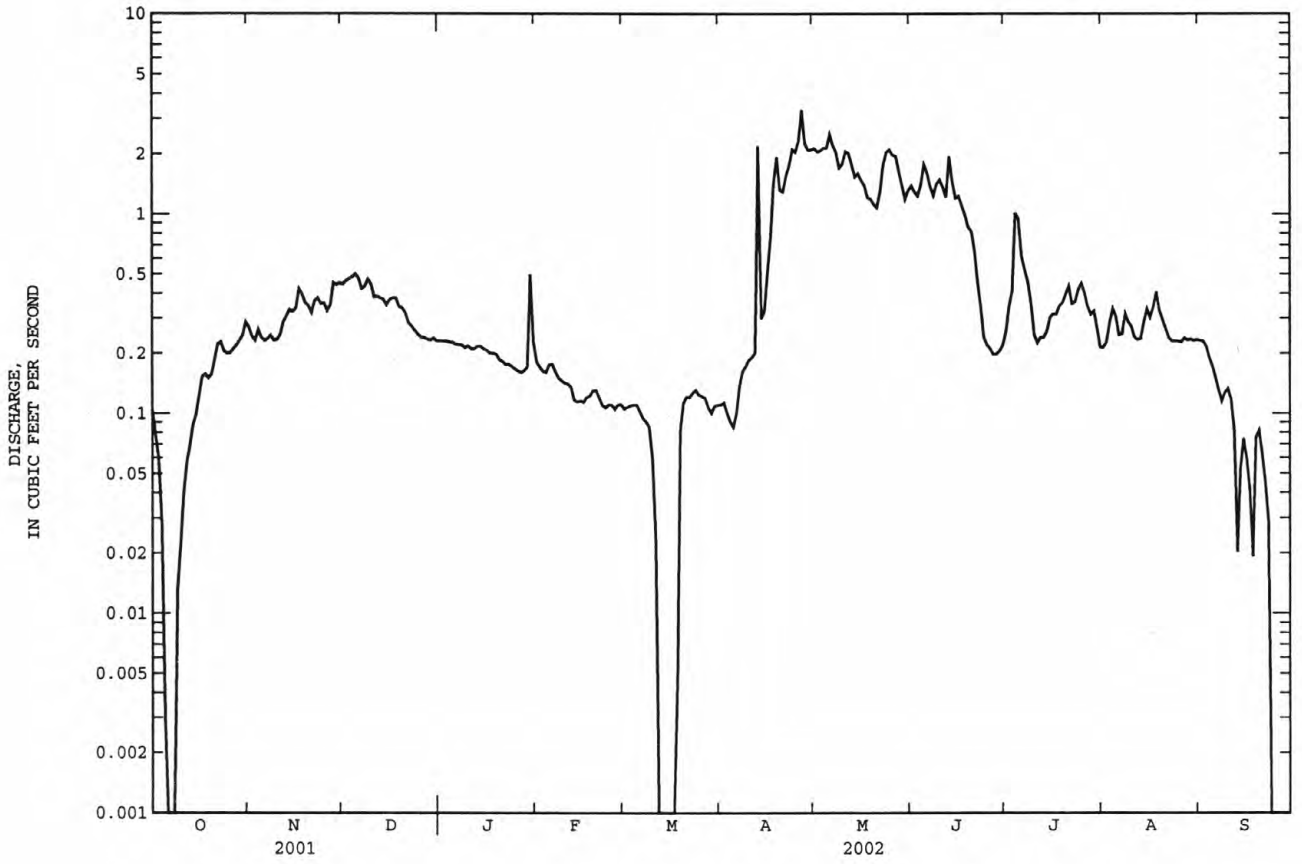
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft^3/s, Apr. 13, gage height 5.77 ft; minimum daily discharge, no flow at times during year.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.10	0.27	0.44	0.23	0.18	0.10	0.11	2.1	1.4	0.26	0.21	0.23
2	0.08	0.24	0.46	0.23	0.17	0.11	0.11	2.0	1.3	0.34	0.23	0.23
3	0.06	0.23	0.47	0.23	0.16	0.11	0.10	2.1	1.2	0.41	0.28	0.22
4	0.03	0.26	0.48	0.23	0.16	0.11	0.09	2.1	1.4	1.0	0.33	0.19
5	0.00	0.24	0.50	0.23	0.17	0.11	0.09	2.1	1.8	0.94	0.31	0.17
6	0.00	0.23	0.48	0.22	0.18	0.10	0.10	2.5	1.6	0.61	0.25	0.15
7	0.00	0.24	0.42	0.22	0.16	0.09	0.14	2.2	1.4	0.52	0.25	0.13
8	0.00	0.25	0.43	0.22	0.15	0.09	0.16	2.0	1.2	0.46	0.32	0.12
9	0.01	0.23	0.47	0.21	0.15	0.09	0.17	1.7	1.4	0.35	0.29	0.13
10	0.02	0.23	0.44	0.22	0.14	0.06	0.18	1.8	1.5	0.25	0.27	0.13
11	0.04	0.25	0.38	0.21	0.14	0.02	0.19	2.0	1.4	0.23	0.24	0.12
12	0.06	0.29	0.39	0.21	0.13	0.00	0.20	2.0	1.2	0.24	0.23	0.08
13	0.07	0.31	0.38	0.22	0.12	0.00	2.2	1.8	1.9	0.24	0.24	0.02
14	0.09	0.33	0.37	0.22	0.11	0.00	0.30	1.5	1.4	0.26	0.29	0.05
15	0.10	0.32	0.35	0.21	0.12	0.00	0.32	1.6	1.2	0.30	0.33	0.07
16	0.12	0.34	0.37	0.21	0.11	0.00	0.51	1.5	1.2	0.31	0.30	0.06
17	0.15	0.42	0.38	0.20	0.12	0.00	0.76	1.4	1.1	0.31	0.34	0.04
18	0.16	0.40	0.38	0.20	0.12	0.00	1.4	1.2	0.99	0.35	0.41	0.02
19	0.15	0.36	0.34	0.20	0.13	0.08	1.9	1.2	0.86	0.36	0.33	0.08
20	0.16	0.35	0.34	0.19	0.13	0.11	1.3	1.1	0.82	0.40	0.29	0.08
21	0.19	0.32	0.32	0.18	0.12	0.12	1.3	1.1	0.66	0.43	0.27	0.06
22	0.22	0.37	0.28	0.18	0.11	0.12	1.6	1.3	0.46	0.35	0.24	0.04
23	0.23	0.38	0.27	0.18	0.11	0.13	1.8	1.7	0.34	0.36	0.23	0.03
24	0.20	0.35	0.26	0.17	0.11	0.13	2.1	2.0	0.24	0.42	0.23	0.00
25	0.20	0.36	0.25	0.17	0.11	0.12	2.0	2.1	0.22	0.45	0.23	0.00
26	0.20	0.33	0.24	0.16	0.10	0.12	2.3	2.0	0.21	0.40	0.23	0.00
27	0.21	0.35	0.24	0.16	0.11	0.12	3.3	1.9	0.20	0.34	0.24	0.00
28	0.22	0.45	0.23	0.16	0.11	0.11	2.2	1.6	0.20	0.31	0.23	0.00
29	0.23	0.44	0.23	0.17	---	0.10	2.1	1.4	0.20	0.33	0.23	0.00
30	0.24	0.45	0.24	0.50	---	0.11	2.1	1.2	0.22	0.27	0.23	0.00
31	0.29	---	0.23	0.23	---	0.11	---	1.3	---	0.21	0.23	---
TOTAL	3.83	9.59	11.06	6.57	3.73	2.47	31.13	53.5	29.22	12.01	8.33	2.45
MEAN	0.124	0.320	0.357	0.212	0.133	0.080	1.038	1.726	0.974	0.387	0.269	0.082
MAX	0.29	0.45	0.50	0.50	0.18	0.13	3.3	2.5	1.9	1.0	0.41	0.23
MIN	0.00	0.23	0.23	0.16	0.10	0.00	0.09	1.1	0.20	0.21	0.21	0.00
AC-FT	7.6	19	22	13	7.4	4.9	62	106	58	24	17	4.9

CAL YR 2001 TOTAL 28198.36 MEAN 77.26 MAX 3870 MIN 0.00 AC-FT 55930
WTR YR 2002 TOTAL 173.89 MEAN 0.476 MAX 3.3 MIN 0.00 AC-FT 345

07303000 NORTH FORK RED RIVER BELOW ALTUS DAM, NEAR LUGERT, OK--Continued



07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK

LOCATION.--Lat 35°00'42", long 99°54'12", in SW $^1/_4$ NW $^1/_4$ sec.12, T.6 N., R.26 W., Harmon County, Hydrologic Unit 11120304, near left bank on downstream side of pier of bridge on State Highway 30, 4.0 mi northeast of Carl, and at mile 54.0.

DRAINAGE AREA.--416 mi^2.

PERIOD OF RECORD.--October 1959 to September 1979, October 1994 to current year.

REVISED RECORDS.--WSP 1731: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,714.95 ft above sea level, Oklahoma State Highway Department datum.

REMARKS.--Records fair. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	10	21	e16	27	17	17	22	18	17	e8.5	2.2
2	9.9	10	21	e15	23	e16	17	21	17	16	e7.0	2.2
3	9.5	13	21	e14	22	e15	17	21	16	16	e5.5	2.2
4	9.3	15	20	e15	21	e16	15	21	16	19	e4.0	2.2
5	8.4	21	17	17	24	19	14	20	20	31	e3.0	2.1
6	8.3	18	19	17	26	19	15	21	20	35	2.7	2.1
7	8.8	15	19	16	26	18	18	20	19	35	2.7	2.1
8	9.3	13	18	15	23	17	20	19	19	32	2.6	2.1
9	9.5	12	18	16	23	17	21	18	18	30	2.6	2.4
10	10	11	17	15	21	16	17	17	17	28	2.6	2.9
11	12	14	18	14	20	18	16	18	16	26	2.5	6.4
12	12	16	18	14	21	19	17	17	15	25	2.4	4.0
13	10	15	19	14	20	18	96	16	15	e22	2.4	3.2
14	8.6	23	19	14	20	16	74	16	15	e20	2.4	5.3
15	9.2	36	19	14	19	16	43	15	14	e19	2.4	4.7
16	8.8	43	20	14	18	15	30	15	20	e18	2.3	4.3
17	9.2	39	18	13	17	15	27	14	32	e17	2.3	4.3
18	10	34	18	14	17	17	26	14	28	e17	2.2	4.3
19	10	29	17	15	17	21	25	14	25	e16	2.1	4.3
20	11	26	17	15	16	18	25	13	23	e15	2.6	4.3
21	11	24	17	15	17	18	25	13	21	e14	2.7	4.3
22	12	23	16	15	15	17	24	12	20	e13	2.9	4.5
23	12	23	16	15	14	18	24	12	20	e12	3.0	4.8
24	11	22	16	15	16	18	23	14	19	e11	2.7	4.8
25	11	21	16	14	16	18	21	21	18	e10	2.4	4.7
26	10	20	16	14	e13	18	21	19	17	e9.0	2.3	4.7
27	11	20	17	15	e14	17	23	18	18	e8.0	2.3	4.6
28	12	21	17	15	16	17	25	19	18	e7.0	2.2	4.5
29	13	21	17	15	---	17	25	19	18	10	2.4	4.4
30	12	21	18	23	---	17	24	19	17	14	2.3	4.2
31	11	---	e17	26	---	17	---	18	---	e11	2.2	---
TOTAL	319.1	629	557	479	542	535	785	536	569	573.0	92.2	113.1
MEAN	10.29	20.97	17.97	15.45	19.36	17.26	26.17	17.29	18.97	18.48	2.974	3.770
MAX	13	43	21	26	27	21	96	22	32	35	8.5	6.4
MIN	8.3	10	16	13	13	15	14	12	14	7.0	2.1	2.1
AC-FT	633	1250	1100	950	1080	1060	1560	1060	1130	1140	183	224

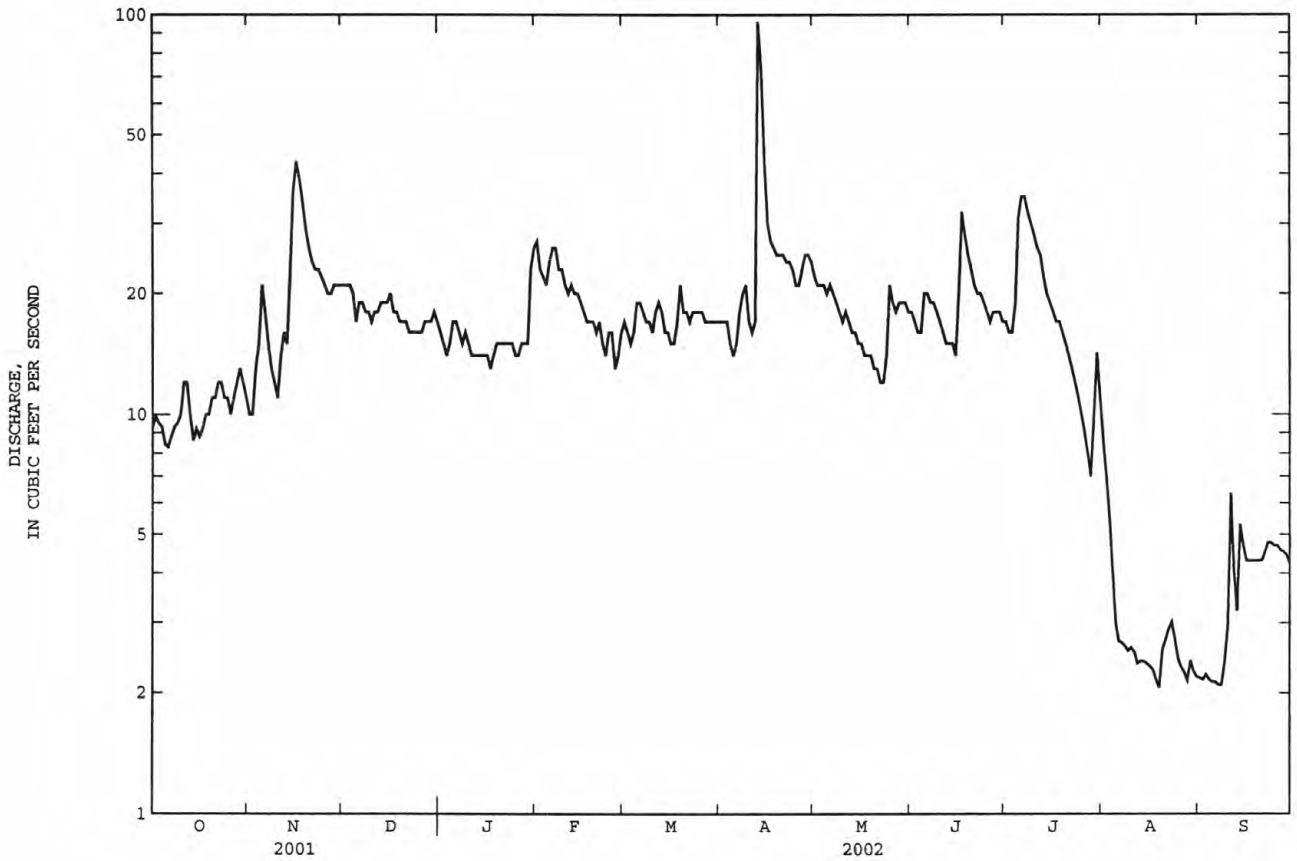
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

MEAN	37.54	29.55	23.09	22.28	25.89	34.95	62.22	97.58	105.4	28.25	35.86	45.58
MAX	208	91.0	54.9	61.4	64.7	127	351	662	844	133	171	125
(WY)	1961	1975	1960	1998	1998	1998	1997	1977	1995	1968	1995	1962
MIN	2.61	5.97	7.95	10.0	8.97	7.29	5.77	7.39	4.11	0.30	0.48	0.98
(WY)	1971	1971	1971	1971	1972	1972	1971	1965	1970	1970	1976	1970

e Estimated

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1960 - 2002	
ANNUAL TOTAL	17293.7		5729.4			
ANNUAL MEAN	47.38		15.70		45.67	
HIGHEST ANNUAL MEAN					107	1995
LOWEST ANNUAL MEAN					10.6	1970
HIGHEST DAILY MEAN	1610	May 4	96	Apr 13	17100	Jun 3 1995
LOWEST DAILY MEAN	5.8	Aug 7-9	2.1	Aug 19, Sep 5-8	0.02	Jul 17 1971
ANNUAL SEVEN-DAY MINIMUM	6.0	Aug 4	2.1	Sep 2	0.02	Jul 16 1971
MAXIMUM PEAK FLOW			180	Apr 13	62300	Jun 3 1995
MAXIMUM PEAK STAGE			1.85	Apr 13	18.80	Jun 3 1995
ANNUAL RUNOFF (AC-FT)	34300		11360		33080	
10 PERCENT EXCEEDS	95		24		63	
50 PERCENT EXCEEDS	22		16		18	
90 PERCENT EXCEEDS	9.2		3.0		5.8	



07305000 NORTH FORK RED RIVER NEAR HEADRICK, OK

LOCATION.--Lat 34°38'17", long 99°06'12", in NW $^1/_4$ NW $^1/_4$ sec.21, T.2 N., R.18 W., Tillman County, Hydrologic Unit 11120303, on downstream side of bridge on U.S. Highway 62, 2.2 mi east of Headrick, 13.3 mi upstream from Otter Creek, and at mile 33.4.

DRAINAGE AREA.--4,244 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--April 1905 to March 1908, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to July 1905, published as near Snyder.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1241: 1905-07.

GAGE.--Water-stage recorder. Datum of gage is 1,294.83 ft above sea level. Prior to July 18, 1905, nonrecording gage at site 0.6 mi downstream at different datum. July 18, 1905, to Mar. 30, 1908, nonrecording gage at Navajo damsite 10.0 mi upstream at different datum. Oct. 1, 1937, to Jan. 29, 1969, water-stage recorder at site .4 mi downstream at datum 5.0 ft higher. Jan. 30, 1969 to Mar. 28, 2002, water-stage recorder at site .4 mi downstream at same datum.

REMARKS.--Records fair. Flow regulated since December 1943 by storage and diversion at Lake Altus, 39.5 mi upstream from station (station 07302500). Diversions for irrigation of about 48,000 acres upstream from station; some return flow may re-enter at Stinking Creek, 16 mi downstream from station. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 21.1 ft, present datum, occurred sometime prior to 1927, from information provided by Oklahoma State Highway Department.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	27	57	e42	727	e40	49	56	44	26	176	14
2	34	28	55	e41	232	e39	51	54	40	25	106	13
3	33	28	55	e40	146	e38	50	50	37	28	71	12
4	32	31	56	e49	113	e40	52	45	35	33	51	11
5	27	34	55	53	100	46	49	44	38	40	41	12
6	27	33	50	49	95	44	48	44	42	51	35	12
7	28	32	50	47	98	48	61	43	38	182	32	12
8	30	31	48	49	105	49	69	57	36	190	29	11
9	30	33	47	49	90	40	78	47	36	97	26	13
10	28	37	48	44	78	44	64	44	213	82	22	13
11	29	38	48	45	71	43	58	40	104	65	19	13
12	29	37	50	45	63	42	60	42	89	54	17	12
13	27	38	49	44	60	43	437	43	76	41	18	12
14	27	38	49	44	58	41	4550	42	68	37	19	16
15	25	38	51	45	55	37	1370	38	61	36	18	16
16	27	45	53	43	53	40	424	38	76	31	17	16
17	28	79	51	43	53	43	205	39	83	29	15	14
18	26	104	50	43	53	50	132	39	75	28	14	15
19	25	110	48	44	54	69	107	37	65	27	13	32
20	26	133	49	44	52	72	85	35	55	26	15	27
21	28	99	51	44	50	70	71	33	47	25	13	23
22	27	82	49	44	49	60	61	35	39	22	11	21
23	27	69	46	43	48	61	53	39	34	22	11	23
24	25	61	44	42	46	56	49	40	32	22	10	22
25	25	57	45	42	42	48	48	46	31	23	10	19
26	26	51	45	44	e40	50	53	43	29	25	11	17
27	27	48	45	43	e39	53	50	112	28	32	25	17
28	27	e43	46	44	e41	51	58	117	25	30	20	16
29	27	e50	45	44	---	51	61	75	21	31	17	15
30	27	e55	45	63	---	51	59	60	19	28	16	14
31	28	---	e44	476	---	53	---	50	---	389	14	---
TOTAL	868	1589	1524	1832	2711	1512	8562	1527	1616	1777	912	483
MEAN	28.00	52.97	49.16	59.10	96.82	48.77	285.4	49.26	53.87	57.32	29.42	16.10
MAX	36	133	57	476	727	72	4550	117	213	389	176	32
MIN	25	27	44	40	39	37	48	33	19	22	10	11
AC-FT	1720	3150	3020	3630	5380	3000	16980	3030	3210	3520	1810	958

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2002, BY WATER YEAR (WY)

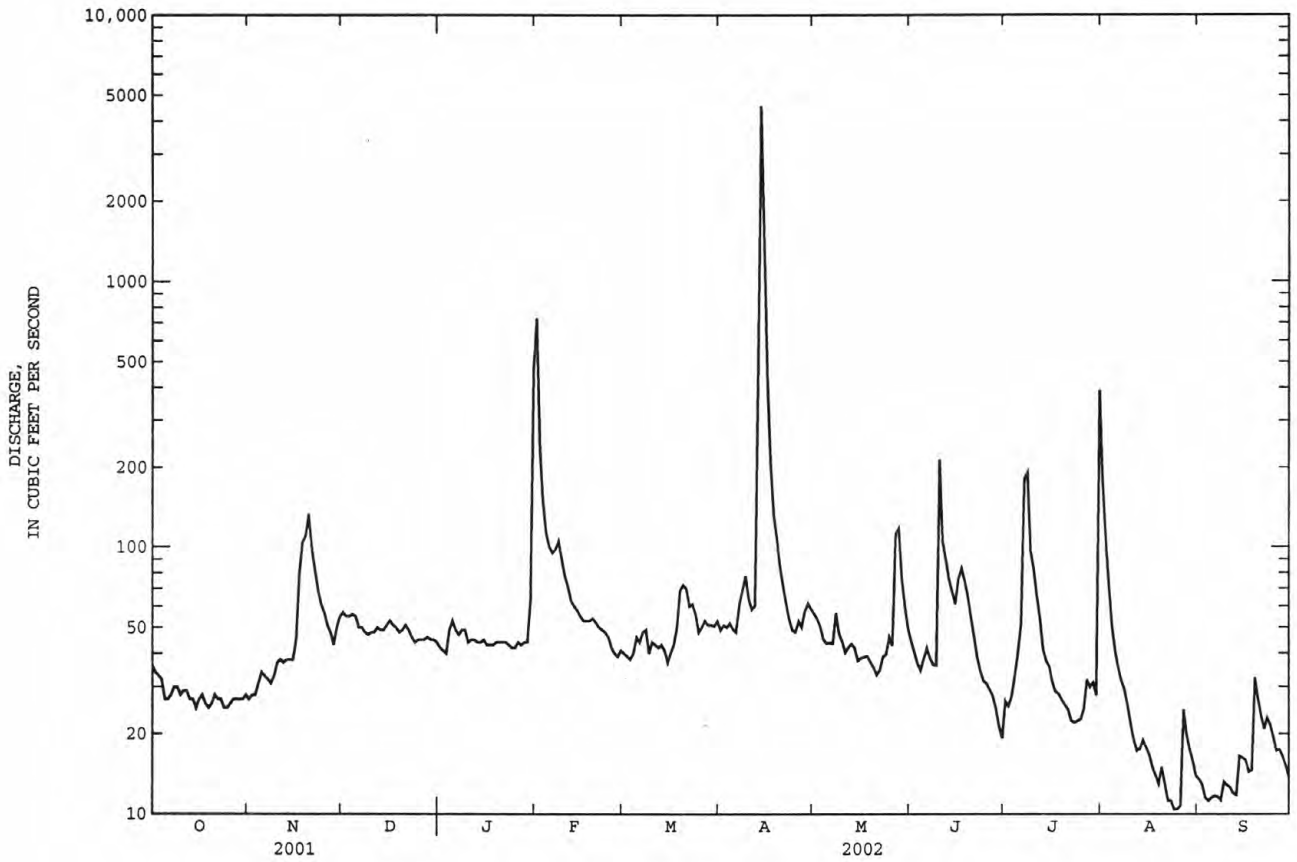
MEAN	352.0	156.5	137.2	117.4	175.5	246.4	341.2	1003	796.7	238.3	174.5	264.0
MAX	5608	1743	984	793	1375	2785	5366	6104	4659	2016	2522	1675
(WY)	1987	1987	1998	1998	1997	1998	1997	1977	1995	1950	1995	1965
MIN	0.000	0.000	0.20	0.84	4.06	4.27	0.64	0.31	10.3	0.25	0.000	0.000
(WY)	1953	1953	1955	1953	1953	1955	1971	1953	1966	1970	1952	1952

e Estimated

07305000 NORTH FORK RED RIVER NEAR HEADRICK, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1945 - 2002	
ANNUAL TOTAL	119469		24913			
ANNUAL MEAN	327.3		68.25		[a]334.2	
HIGHEST ANNUAL MEAN					1562	1987
LOWEST ANNUAL MEAN					50.0	1970
HIGHEST DAILY MEAN	10300	May 20	4550	Apr 14	41600	May 10 1993
LOWEST DAILY MEAN	25	Oct 15,19,24,25	10	Aug 24	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	26	Oct 19	12	Aug 20	0.00	Aug 2 1946
MAXIMUM PEAK FLOW			5740	Apr 14	59000	Oct 4 1986
MAXIMUM PEAK STAGE			13.65	Apr 14	19.07	Oct 4 1986
ANNUAL RUNOFF (AC-FT)	237000		49410		242100	
10 PERCENT EXCEEDS	537		80		592	
50 PERCENT EXCEEDS	80		43		64	
90 PERCENT EXCEEDS	32		17		7.0	

[a]Prior to regulation water years 1906-07, 1938-43 455 ft^3/s.



07305500 WEST OTTER CREEK AT SNYDER LAKE, NEAR MOUNTAIN PARK, OK

LOCATION.--Lat 34°44'02", long 98°59'10", in SE $^1/_4$ sec.16, T.3 N., R.17 W., Kiowa County, Hydrologic Unit 11120303, near east end of Snyder Dam, 0.8 mi upstream from small tributary, 3 mi northwest of Mountain Park, and at mile 26.0.

DRAINAGE AREA.--132 mi^2.

PERIOD OF RECORD.--April 1903 to March 1908, October 1951 to September 1971, July 1972 to current year. Published as Otter Creek near Mountain Park 1903-8 and as Otter Creek at Snyder Lake, near Mountain Park 1951-60. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1731: 1960 (M). WSP 1920: 1959-60. WDR OK-78-2: 1977.

GAGE.--Water-stage recorder and broad-crested masonry spillway. Datum of gage is 1,361.06 ft above sea level. April 1903 to March 1908, nonrecording gage at site 1.8 mi downstream at different datum. October 1951 to September 1971 at intake tower at same site and datum. July 1972 to August 1976, 700 ft downstream at datum 1,344.00 ft.

REMARKS.--No estimated daily discharge. Records good. The city of Snyder diverted about 130 acre-ft annually prior to October 1958 and none thereafter. Flow completely regulated since June 1975 by Tom Steed Reservoir.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

MEAN	8.060	13.27	9.084	2.737	9.191	12.16	4.596	33.90	39.54	4.284	4.789	3.938
MAX	105	252	143	61.9	180	165	39.6	384	421	71.6	123	65.6
(WY)	1987	1987	1993	1993	1987	1988	1998	1987	1987	1982	1995	1995
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1976	1976	1976	1976	1977	1977	1977	1979	1988	1976	1976	1976

07305500 WEST OTTER CREEK AT SNYDER LAKE, NEAR MOUNTAIN PARK, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1976 - 2002	
ANNUAL TOTAL	382.21		0.00			
ANNUAL MEAN	1.047		0.000		[a]12.12	
HIGHEST ANNUAL MEAN					125	1987
LOWEST ANNUAL MEAN					0.000	1994
HIGHEST DAILY MEAN	104	Jun 2	0.00	Oct 1	3480	May 28 1987
LOWEST DAILY MEAN	0.00	at times	0.00	all year	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 8	0.00	Oct 1	0.00	Oct 1 1975
MAXIMUM PEAK FLOW					[b]4300	May 29 1987
MAXIMUM PEAK STAGE					[c]15.44	May 29 1987
ANNUAL RUNOFF (AC-FT)	758		0.00		8780	
10 PERCENT EXCEEDS	0.25		0.00		1.7	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

[a]Prior to regulation water years 1904-07, 1951-71, 1973-74, 23.0 ft^3/s.
[b]Maximum discharge for period of record, 14,200 ft^3/s, June 6, 1953, from rating curve extended above 1,600 ft^3/s on basis of contracted opening and flow over dam measurments of peak flow.
[c]Maximum gage height for period of record, 19.50 ft, from flood marks, June 6, 1953.

07307010 OTTER CREEK NEAR SNYDER, OK

LOCATION.--Lat 34°38'16", long 98°59'54", in NW $^1/_4$ sec.21. T.2 N, R.17 W., Kiowa County, Hydrologic Unit 11120303, on downstream right abutment of bridge on State Highway 62, 1.5 miles downstream from confluence of West and East Otter Creeks, 3.5 miles southwest of Snyder and at mile 18.0.

DRAINAGE AREA.--217 mi^2.

PERIOD OF RECORD.--July 2000 to current year. September 1984 to June 2000 operated as high flow site, records available in district office.

GAGE.--Water-stage recorder. Datum of gage is 1,310.00 ft above sea level.

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

EXTREMEMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 5, 1996 reached a stage of 15.22 ft.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	8.7	8.7	3.5	1.4	e3.7	13	3.6	3.3	8.6	1.9	0.00
2	5.0	7.3	8.7	3.4	1.4	e3.9	13	3.7	3.4	7.7	1.1	0.00
3	5.4	5.1	8.3	e3.3	1.2	e4.0	15	4.5	1.1	7.9	0.59	0.00
4	3.6	5.0	8.3	e3.4	1.2	e4.2	11	5.4	1.4	6.2	1.6	0.00
5	4.9	6.8	7.7	3.7	1.5	4.4	8.7	6.0	5.2	0.79	1.0	0.00
6	4.1	7.5	6.9	3.4	1.5	4.8	8.8	7.0	6.2	0.38	0.48	0.00
7	3.9	7.6	7.2	3.3	1.5	5.9	15	6.1	6.0	0.34	0.08	0.00
8	4.9	7.8	6.9	3.1	1.4	6.4	5.4	4.3	4.2	1.2	0.00	0.00
9	5.9	12	7.1	3.2	1.3	6.1	3.0	1.8	4.7	1.7	0.00	0.00
10	6.5	9.9	7.0	3.0	0.82	5.6	3.1	4.7	5.7	0.98	0.00	0.00
11	6.6	10	7.3	3.0	0.82	5.9	4.4	5.8	1.9	1.4	0.00	0.00
12	5.8	11	5.4	2.8	0.89	6.2	4.8	5.8	0.74	7.7	1.8	0.00
13	5.9	11	5.5	2.6	0.95	6.8	91	7.4	1.1	7.6	5.6	0.00
14	6.3	11	4.9	2.4	1.0	6.5	152	5.9	2.9	6.5	6.8	0.00
15	4.9	11	4.8	2.3	0.89	8.4	30	5.9	3.3	4.6	5.8	0.00
16	7.1	10	4.7	2.2	0.93	6.6	11	7.5	3.5	4.1	0.96	0.00
17	9.0	11	4.6	2.1	0.63	6.3	7.0	7.8	6.0	1.3	0.27	0.00
18	9.1	9.2	4.4	2.0	1.1	7.1	6.4	6.4	3.6	0.04	0.00	0.00
19	4.9	7.6	4.3	1.9	2.4	8.5	5.0	8.1	2.2	0.00	0.00	0.00
20	8.1	8.2	4.2	1.8	3.0	9.5	5.0	5.8	1.9	0.00	0.00	0.00
21	5.2	8.3	4.1	1.7	2.7	8.7	5.3	2.6	1.4	0.00	0.00	0.00
22	7.0	8.3	4.0	1.6	2.3	8.8	5.0	7.9	0.69	0.00	0.00	0.00
23	7.7	8.4	3.8	1.5	2.7	7.8	3.7	7.0	0.80	0.00	0.00	0.00
24	10	8.8	3.7	1.4	2.4	7.7	3.1	2.5	0.77	0.00	0.00	0.00
25	10	9.0	3.6	1.6	3.1	9.6	2.0	0.59	0.30	0.00	0.00	0.00
26	9.7	8.9	3.6	1.7	e3.0	7.9	4.9	3.1	0.16	0.00	0.00	0.00
27	7.6	9.5	3.5	1.6	e3.1	7.9	4.8	4.7	0.35	0.79	3.5	0.00
28	10	9.5	3.4	1.5	e3.5	7.9	4.1	5.4	0.39	1.7	1.4	0.00
29	10	9.0	3.3	1.4	---	12	4.1	5.4	2.5	1.9	0.16	0.00
30	9.1	8.9	3.5	1.8	---	12	3.4	4.2	6.2	1.8	0.00	0.00
31	9.2	---	3.8	1.6	---	12	---	5.1	---	2.6	0.00	---
TOTAL	211.6	266.3	167.2	73.8	48.63	223.1	453.0	161.99	81.90	77.82	33.04	0.00
MEAN	6.826	8.877	5.394	2.381	1.737	7.197	15.10	5.225	2.730	2.510	1.066	0.000
MAX	10	12	8.7	3.7	3.5	12	152	8.1	6.2	8.6	6.8	0.00
MIN	3.6	5.0	3.3	1.4	0.63	3.7	2.0	0.59	0.16	0.00	0.00	0.00
AC-FT	420	528	332	146	96	443	899	321	162	154	66	0.00

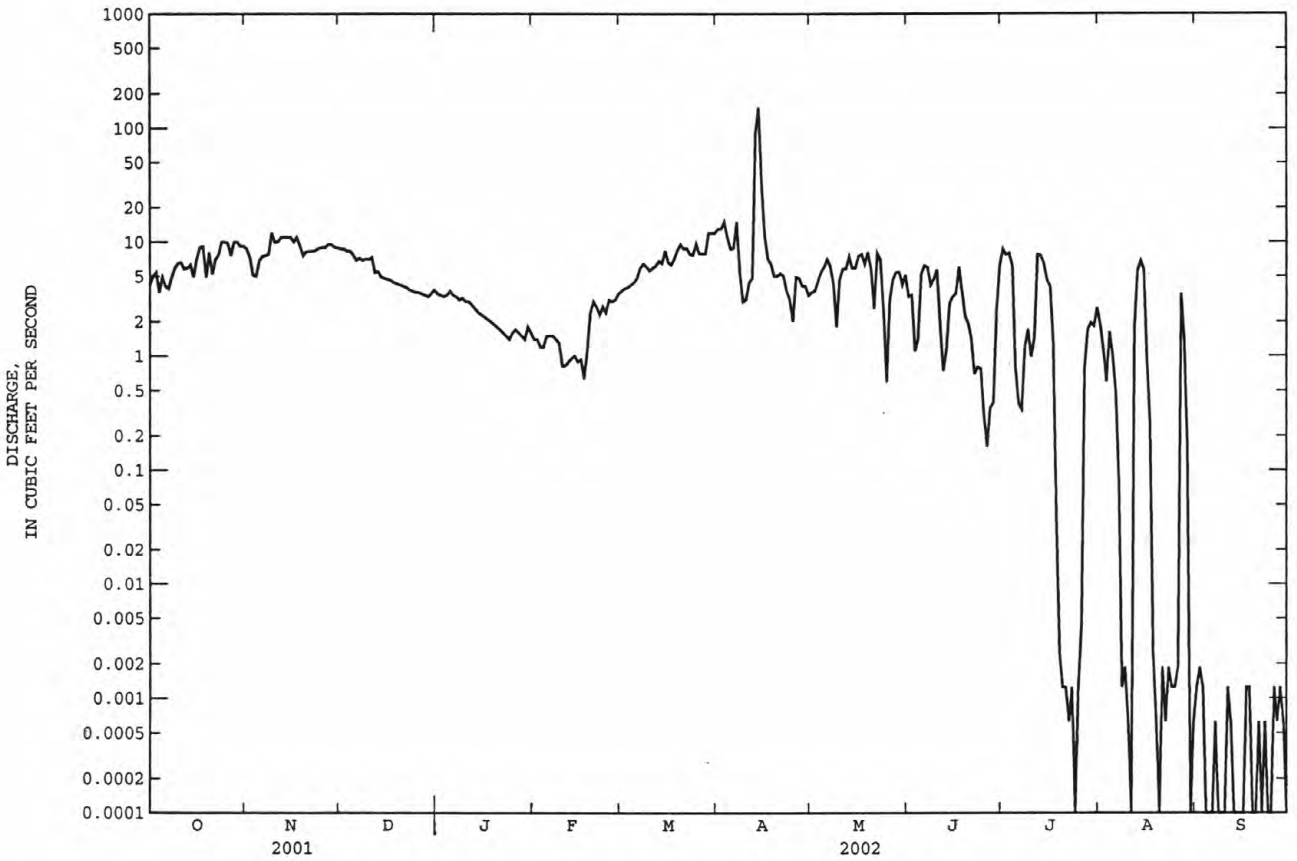
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	147.6	17.57	9.519	23.56	24.96	13.11	12.14	121.9	18.93	3.039	1.362	2.081
MAX	288	26.3	13.6	44.7	48.2	19.0	15.1	238	35.1	3.65	3.02	5.28
(WY)	2001	2001	2001	2001	2001	2001	2002	2001	2001	2001	2001	2001
MIN	6.83	8.88	5.39	2.38	1.74	7.20	9.19	5.23	2.73	2.51	0.001	0.000
(WY)	2002	2002	2002	2002	2002	2002	2001	2002	2002	2002	2000	2002

e Estimated

07307010 OTTER CREEK NEAR SNYDER, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	13058.42		1798.38			
ANNUAL MEAN	35.78		4.927		33.38	
HIGHEST ANNUAL MEAN					61.8	2001
LOWEST ANNUAL MEAN					4.93	2002
HIGHEST DAILY MEAN	2740	May 20	152	Apr 14	2740	May 20 2001
LOWEST DAILY MEAN	0.00	at times	0.00	at times	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.21	Aug 3	0.00	Jul 19	0.00	Aug 2 2000
MAXIMUM PEAK FLOW			225	Apr 14	4720	Oct 23 2000
MAXIMUM PEAK STAGE			10.09	Apr 14	14.70	Oct 23 2000
ANNUAL RUNOFF (AC-FT)	25900		3570		24180	
10 PERCENT EXCEEDS	40		9.0		29	
50 PERCENT EXCEEDS	9.0		3.7		6.4	
90 PERCENT EXCEEDS	3.6		0.00		0.39	



07307028 NORTH FORK RED RIVER NEAR TIPTON, OK

LOCATION.--Lat 34°30'25", long 99°12'28", in NW $^1/_4$ NE $^1/_4$ sec.5. T.1 S, R.19 W., Tillman County, Hydrologic Unit 11120303, near left bank on downstream side of bridge pier on State Highway 5, 3.8 mi west of intersection of State Highways 5 and 5C in Tipton, 4.8 mi downstream from Otter Creek, and at mile 15.3.

DRAINAGE AREA.--4,691 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,234.45 ft above sea level.

REMARKS.--Records fair. Flow regulated since December 1943 by storage and diversion at Lake Altus 54.2 mi upstream (station 07302500). Diversions for irrigation of about 48,000 acres upstream from station. U.S. Geological Survey satellite telemeter at station.

DISCHARGE VIA SATELLITE EAST WELL, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	35	87	63	810	47	55	107	76	40	398	42
2	51	35	78	64	378	e38	54	102	67	45	206	41
3	48	38	75	e61	215	e39	50	97	60	44	145	31
4	47	39	73	e60	162	e47	51	93	56	84	120	33
5	43	41	71	e62	141	e51	54	88	62	121	94	29
6	41	43	69	67	144	50	61	85	59	88	81	24
7	40	42	68	65	124	50	99	83	58	99	70	19
8	39	40	66	63	118	49	107	82	56	384	63	20
9	41	41	65	64	110	45	100	89	55	200	60	23
10	39	43	64	62	98	45	103	80	70	130	49	21
11	41	50	66	59	88	45	88	78	253	137	52	21
12	41	51	67	59	78	45	79	73	136	109	46	19
13	40	51	68	60	70	46	501	70	169	78	47	16
14	38	52	67	60	67	45	2860	68	180	66	50	21
15	34	53	66	60	e64	41	2340	67	107	62	50	29
16	34	60	67	61	e61	41	966	64	333	57	54	28
17	35	101	69	61	e59	44	548	63	134	49	53	22
18	34	143	68	60	e57	52	361	61	128	43	50	21
19	34	110	66	62	e57	106	273	59	113	39	45	68
20	34	122	66	62	e55	96	236	56	101	38	47	61
21	32	122	65	61	53	80	196	55	84	41	42	43
22	31	105	64	61	52	77	e175	53	73	42	36	33
23	30	93	64	61	52	69	e160	63	63	42	35	29
24	28	85	63	60	49	64	e148	65	56	47	34	30
25	28	80	62	58	45	59	e135	96	52	74	34	27
26	28	74	63	55	40	58	e128	75	49	54	35	25
27	31	73	63	54	46	58	e115	75	46	49	27	23
28	31	e70	63	54	46	56	e117	179	43	55	32	22
29	30	e65	63	54	---	54	116	149	39	80	35	20
30	32	e80	63	102	---	53	113	109	35	68	38	18
31	36	---	62	189	---	54	---	90	---	121	43	---
TOTAL	1144	2037	2081	2044	3339	1704	10389	2574	2813	2586	2171	859
MEAN	36.90	67.90	67.13	65.94	119.2	54.97	346.3	83.03	93.77	83.42	70.03	28.63
MAX	53	143	87	189	810	106	2860	179	333	384	398	68
MIN	28	35	62	54	40	38	50	53	35	38	27	16
AC-FT	2270	4040	4130	4050	6620	3380	20610	5110	5580	5130	4310	1700

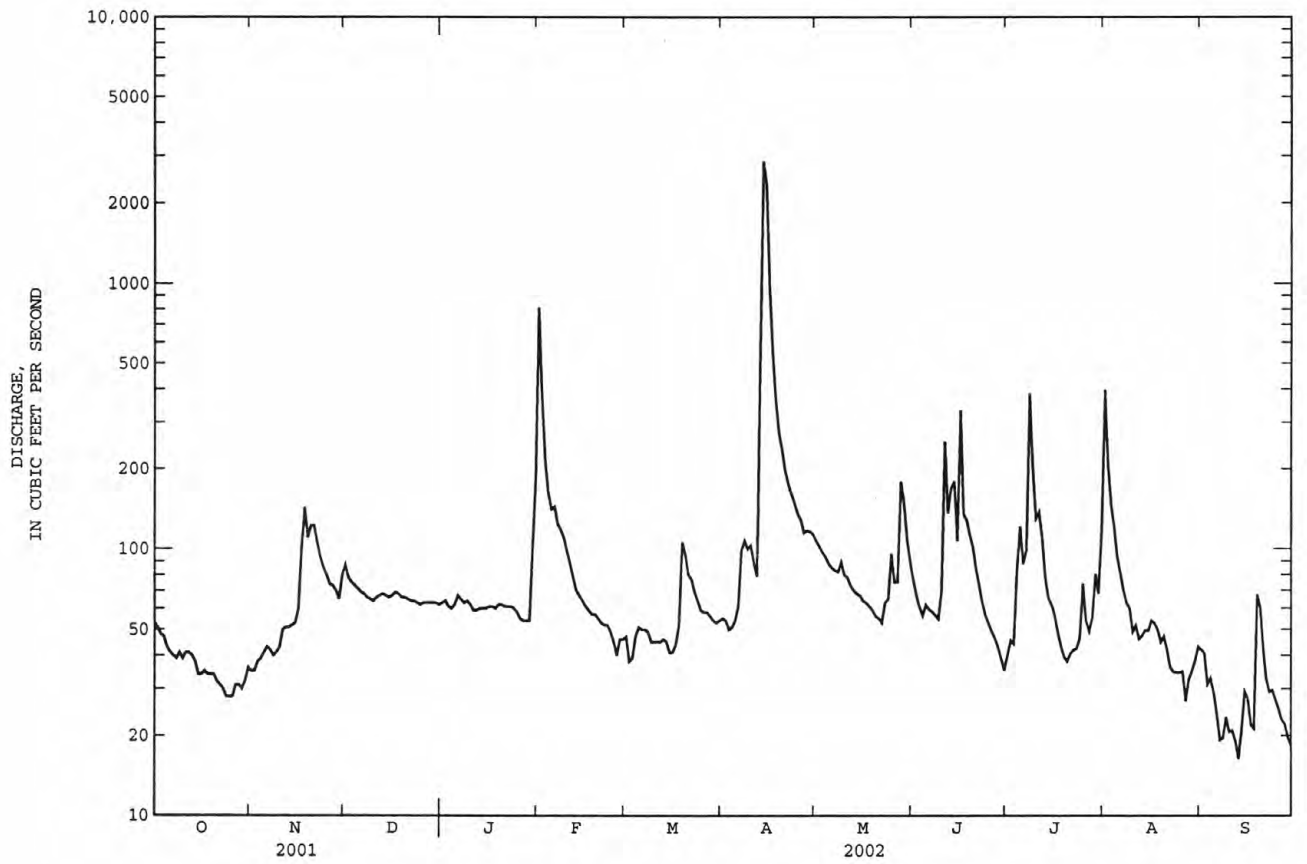
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

MEAN	688.3	392.5	376.3	286.5	411.2	671.3	665.3	1211	1395	317.0	476.3	546.1
MAX	5784	2276	1287	1126	1773	3268	5020	5347	5560	738	3932	1796
(WY)	1987	1987	1992	1998	1998	1998	1997	1993	1995	1993	1995	1995
MIN	15.1	30.8	67.1	65.9	70.1	54.8	49.3	62.6	93.8	49.3	39.5	13.5
(WY)	1985	1985	2002	2002	1995	1986	1986	1984	2002	1984	1985	1984

e Estimated

07307028 NORTH FORK RED RIVER NEAR TIPTON, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1984 - 2002	
ANNUAL TOTAL	142548		33741			
ANNUAL MEAN	390.5		92.44		619.8	
HIGHEST ANNUAL MEAN					1987	1987
LOWEST ANNUAL MEAN					92.4	2002
HIGHEST DAILY MEAN	9740	May 21	2860	Apr 14	39100	May 30 1987
LOWEST DAILY MEAN	28	Oct 24,25,26	16	Sep 13	3.7	Sep 7 1985
ANNUAL SEVEN-DAY MINIMUM	29	Oct 23	20	Sep 7	4.7	Sep 6 1985
MAXIMUM PEAK FLOW			4290	Apr 14	57200	Oct 5 1986
MAXIMUM PEAK STAGE			12.00	Apr 14	19.18	May 10 1993
INSTANTANEOUS LOW FLOW					3.7	Sep 7 1985
ANNUAL RUNOFF (AC-FT)	282700		66930		449000	
10 PERCENT EXCEEDS	697		129		1240	
50 PERCENT EXCEEDS	135		60		170	
90 PERCENT EXCEEDS	43		33		53	



07308500 Red River near Burkburnett, TX

LOCATION.--Lat 34 06'36", long 98 31'53", Cotton County, OK, Hydrologic Unit 11130102, on downstream guardrail of downstream bridge on U.S. Highways 277 and 281, 2.5 mi northeast of Burkburnett, and at mile 933.

DRAINAGE AREA.--20,570 mi^2, of which 5,936 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1924 to Aug. 1925 (monthly discharge only), Dec. 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 952.57 ft above NGVD of 1929. July 11, 1924, to Aug. 31, 1925, nonrecording gage at site 1,000 ft downstream at same datum. Dec. 16, 1959, to Jan. 11, 1960, nonrecording gage at present site and datum. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. There are many small diversions upstream from station for irrigation, but total amounts are unknown. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 3, 1957, reached a stage of 13.54 ft, from floodmarks. According to local residents, higher stages occurred in 1891 and June 1941.

DISCHARGE FROM DCP, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	44	354	e124	260	128	421	264	295	e96	153	17
2	87	45	322	e117	1090	136	451	209	184	102	183	18
3	79	47	315	e125	1120	136	374	163	135	124	221	17
4	74	59	e304	143	765	135	372	135	97	121	202	18
5	64	63	e283	192	654	131	307	117	1210	189	163	32
6	63	63	252	217	590	126	208	106	1990	2890	128	38
7	61	60	220	214	557	131	402	97	2250	2120	106	28
8	60	55	203	199	560	139	1340	88	1060	2290	94	23
9	84	55	e181	192	627	111	1190	70	487	4390	85	26
10	104	57	e178	175	581	108	781	86	414	5330	77	26
11	128	64	172	169	488	108	724	87	303	4950	66	24
12	118	66	164	165	448	99	661	115	216	4260	51	30
13	76	73	158	158	374	99	2290	96	173	4400	49	26
14	61	70	e156	151	352	93	2080	83	230	3550	50	21
15	51	71	144	146	321	83	5390	72	254	e1890	e58	19
16	52	80	194	142	293	84	3080	63	247	e932	e81	16
17	51	313	183	137	295	89	1620	54	356	e487	68	16
18	50	1470	166	143	283	114	1180	51	1340	e302	57	18
19	53	3590	155	149	294	204	837	50	1570	e204	45	26
20	53	1570	e159	150	277	391	829	45	e1010	e150	41	58
21	53	938	154	145	264	609	742	43	e634	e118	35	63
22	54	658	136	139	223	559	579	41	e315	e101	32	42
23	52	472	128	141	176	363	487	38	e184	e92	29	59
24	47	362	130	139	159	316	361	40	e112	78	26	59
25	46	290	129	141	138	263	245	46	91	66	22	45
26	45	221	132	137	130	231	380	62	70	63	22	34
27	42	179	131	131	131	208	814	87	54	164	47	30
28	37	195	131	130	127	190	e541	546	42	116	32	25
29	35	173	128	128	---	175	e363	1080	33	273	25	23
30	36	e352	e131	144	---	233	266	951	32	232	22	21
31	41	---	e129	184	---	315	---	533	---	158	19	---
TOTAL	1954	11755	5722	4767	11577	6107	29315	5518	15388	40238	2289	898
MEAN	63.03	391.8	184.6	153.8	413.5	197.0	977.2	178.0	512.9	1298	73.84	29.93
MAX	128	3590	354	217	1120	609	5390	1080	2250	5330	221	63
MIN	35	44	128	117	127	83	208	38	32	63	19	16
AC-FT	3880	23320	11350	9460	22960	12110	58150	10940	30520	79810	4540	1780

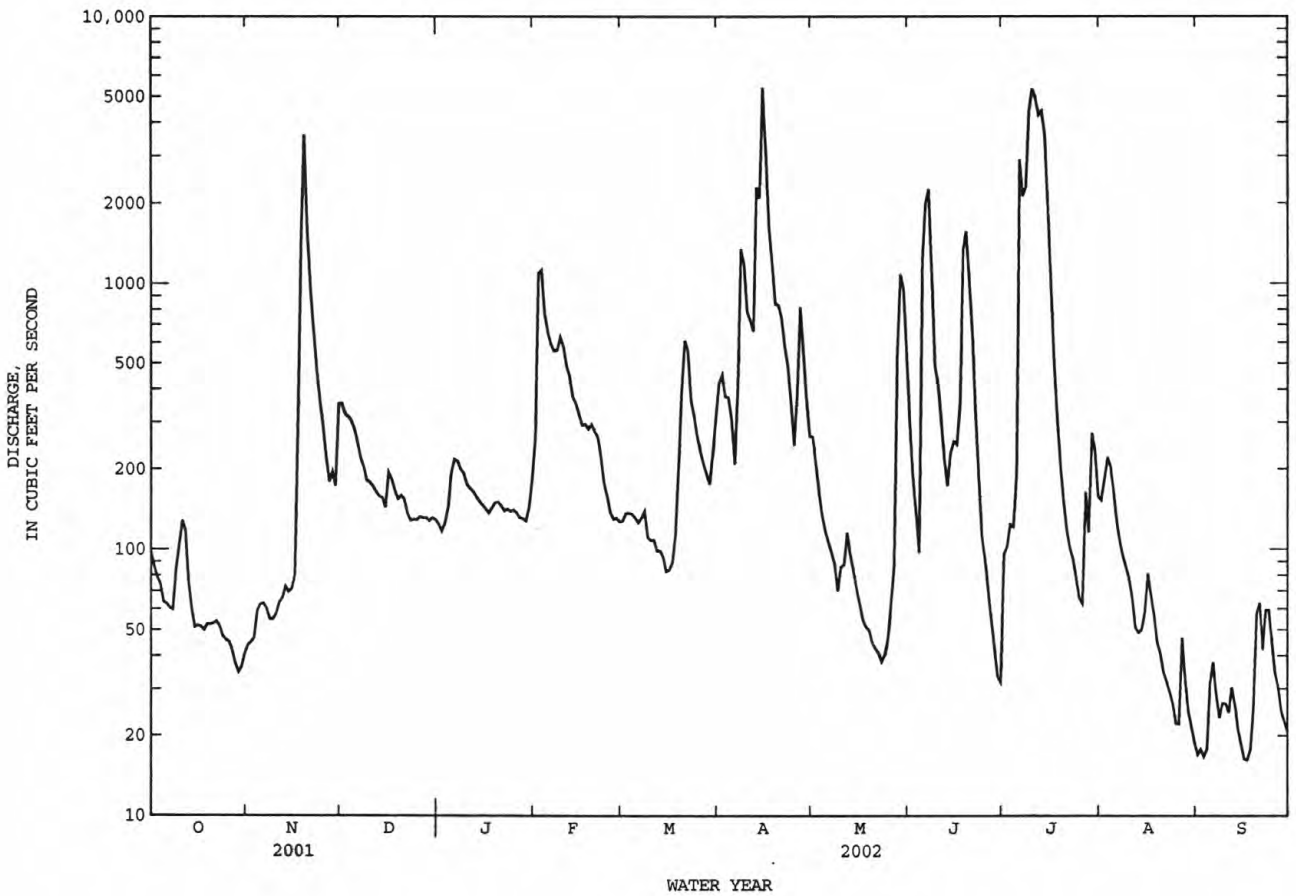
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

MEAN	1481	692.9	571.0	501.4	728.2	971.6	1112	2361	3339	882.3	852.0	1306
MAX	14900	4960	4435	2293	4986	10050	13040	12470	24780	5947	10540	6381
(WY)	1987	1987	1992	1998	1998	1998	1997	1977	1995	1975	1995	1996
MIN	21.9	0.96	2.98	5.53	8.37	7.97	0.15	11.4	148	0.058	1.29	29.9
(WY)	1971	1971	1971	1971	1971	1971	1971	1971	1970	1970	1964	2002

e Estimated

07308500 Red River near Burkburnett, TX--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1960 - 2002	
ANNUAL TOTAL	331186		135528			
ANNUAL MEAN	907.4		371.3		1237	
HIGHEST ANNUAL MEAN					4424	1987
LOWEST ANNUAL MEAN					178	1964
HIGHEST DAILY MEAN	14300	May 21	5390	Apr 15	144000	Jun 6 1995
LOWEST DAILY MEAN	35	Oct 29	16	Sep 16	0.00	Jul 19 1964
ANNUAL SEVEN-DAY MINIMUM	40	Oct 26	19	Aug 29	0.00	Jul 19 1964
MAXIMUM PEAK FLOW			10600	Apr 15	174000	Jun 6 1995
MAXIMUM PEAK STAGE			7.01	Apr 15	16.90	Oct 21 1983
ANNUAL RUNOFF (AC-FT)	656900		268800		895900	
10 PERCENT EXCEEDS	1920		820		2470	
50 PERCENT EXCEEDS	373		136		307	
90 PERCENT EXCEEDS	72		36		53	



07308500 Red River near Burkburnett, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: May 1968 to current year.
BIOCHEMICAL DATA: Oct. 1974 to Aug. 1994.
PESTICIDE DATA: Oct. 1973 to Sept. 1982, Oct. 1996 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1968 to Sept. 1981, Oct. 1994 to current year.
WATER TEMPERATURE: July 1968 to Sept. 1981, Oct. 1994 to current year.

INSTRUMENTATION.--Water-quality monitor Dec. 1968 to Sept. 1981 and Oct. 1994 to current year.

REMARKS.--Records fair. Interruptions in the record were due to malfunction of the instrument. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and a regression relation between each chemical constituent and specific conductance. The computation of the selected constituent loads might include estimated discharge or specific conductance data. New regression equations were developed based on data from water years 1992 to 2001. The standard error of estimate for dissolved solids is 3%, chloride is 7%, sulfate is 16% and for hardness is 10%. Regression equations developed for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 17,400 microsiemens/cm, July 30, 1972; minimum, 440 microsiemens/cm, Apr. 13, 2002.
WATER TEMPERATURE: Maximum, 38.0 C, July 24, 2001; minimum, 0.0 C, on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 15,200 microsiemens/cm, Aug. 29; minimum, 440 microsiemens/cm, Apr. 13.
WATER TEMPERATURE: Maximum, 36.9 C, Aug. 7; minimum, 0.0 C, Jan. 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
OCT													
24...	1050	50	8210	8.0	14.4	9.8	103	1400	1300	343	130	1360	16
NOV													
01...	1130	48	8600	8.2	19.4	9.5	111	1400	1300	354	132	1320	15
DEC													
19...	1205	190	9820	8.1	7.2	12.4	109	1600	1400	426	126	1580	17
JAN													
09...	1345	184	10100	8.3	11.3	11.7	116	1700	1500	444	135	1670	18
FEB													
22...	1305	242	10300	8.3	11.7	12.2	120	1700	1500	437	140	1680	18
MAR													
22...	1020	480	6760	8.1	5.2	12.2	101	1100	940	284	89.0	911	12
APR													
18...	1110	796	2750	8.0	22.5	7.4	90	480	390	133	35.1	368	7
MAY													
29...	1030	1090	4830	7.7	22.8	7.2	85	940	840	255	73.8	696	10
JUN													
28...	1345	31	8850	8.0	32.5	7.7	109	1400	1300	383	111	1480	17
JUL													
31...	1125	147	6100	8.2	28.1	7.8	105	1100	970	280	90.2	945	13
AUG													
29...	1025	28	15600	7.8	23.1	7.8	96	2200	2100	597	176	2680	25
SEP													
18...	1130	24	7810	7.9	24.5	8.2	102	1400	1300	349	131	1250	15

07308500 Red River near Burkburnett, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, TOTAL (MG/L AS N) (00600)
OCT 24...	10.6	82	1190	2140	.4	2.3	5230	120	--	<.008	<.05	.08	--
NOV 01...	9.28	110	1220	2190	.4	3.2	5300	38	--	<.008	<.05	.06	--
DEC 19...	8.71	154	1320	2590	.5	7.1	6150	20	.78	.014	.79	.12	1.3
JAN 09...	8.86	140	1350	2710	.5	3.9	6410	42	.66	.028	.69	.12	1.1
FEB 22...	10.7	126	1530	2910	.47	2.96	6790	34	.24	.009	.25	.10	.82
MAR 22...	7.86	134	966	1620	.4	3.3	3970	296	.34	.014	.36	E.02	1.9
APR 18...	8.04	87	403	578	.3	7.9	1590	1340	.66	.052	.71	.07	2.9
MAY 29...	8.41	104	800	1100	.4	5.8	3010	2430	.47	.048	.52	.09	4.7
JUN 28...	12.2	111	1220	2430	.5	7.1	5700	131	--	<.008	<.05	.09	--
JUL 31...	9.05	102	891	1520	.5	7.3	3810	<10	--	<.008	<.05	E.04	--
AUG 29...	18.1	86	1920	4230	.6	7.9	9670	54	--	<.008	<.05	.26	--
SEP 18...	10.0	92	1250	1980	.5	8.6	5030	68	--	<.008	<.05	<.04	--

Date	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
OCT 24...	.99	1.1	.08	<.06	<.02	--	4	2.3	102	93	E.08	<.10	<3.0
NOV 01...	.92	.99	E.05	<.06	<.02	--	4	2.3	89	83	<.14	<.10	<4.0
DEC 19...	.38	.50	.07	<.06	.02	.064	5	2.7	70	70	<.14	<.10	<1.6
JAN 09...	.32	.43	E.03	<.06	<.02	--	E2	2.3	56	54	<.18	<.20	<1.6
FEB 22...	.47	.57	E.05	<.06	<.02	--	<4	2.7	68	53	<.18	<.20	<1.6
MAR 22...	--	1.5	.33	<.06	<.02	--	5	2.6	100	66	.14	<.1	3
APR 18...	2.1	2.2	.85	E.04	.03	.092	9	2.7	323	96	.17	<.07	13.4
MAY 29...	4.1	4.2	1.43	<.06	E.01	--	15	2.2	406	85	.22	<.07	18.9
JUN 28...	.77	.85	.17	<.06	<.02	--	6	5.4	169	157	<.04	<.10	.8
JUL 31...	--	1.1	.18	<.06	<.02	--	19	4.1	182	158	<.11	<.10	1.0
AUG 29...	.93	1.2	.09	<.06	<.02	--	5	5.2	151	137	E.06n	<.30	E1.2n
SEP 18...	--	1.2	.10	<.06	<.02	--	6	5.9	102	95	<.11	<.10	.9

07308500 Red River near Burkburnett, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)
OCT 24...	<2.4	6.0	4.5	380	<50	<4	<.30	70	15.8	E.01	<.01	8	4.99
NOV 01...	<4.0	5.6	4.1	100	<50	<4	<.30	38	15.4	<.011	<.01	8	5.98
DEC 19...	<.8	6.6	7.4	50	<50	<4	E.17	21	11.2	<.01	<.01	9	9.96
JAN 09...	<1.6	5.0	4.4	<40	<100	<5	<.40	17	12.8	<.01	<.01	6	<.30
FEB 22...	2.0	6.8	5.9	E30n	<100	<5	<.40	23	8.8	<.01	<.01	10	<.30
MAR 22...	.4	8.5	3.9	970	<50	3	2.70	136	8.3	E.01n	E.01n	14	2.92
APR 18...	<.8	22.6	2.7	11400	<30	16	<.20	695	.2	.02	<.01	29	4.51
MAY 29...	<.8	23.9	3.6	15600	<30	18	<.20	1160	.4	.03	<.01	41	5.74
JUN 28...	<.8	14.0	8.0	700	<50	<1	E.16	26	7.9	<.01	<.01	3	4.08
JUL 31...	<.8	8.9	4.8	860	<30	<3	<.20	161	2.0	E.01n	<.01	12	2.00
AUG 29...	<1.6	17.1	12.9	340	<100	<3	<.60	159	60.2	<.01	<.01	26	7.74
SEP 18...	<.8	16.4	6.7	630	<50	<4	<.20	143	20.1	<.01	<.01	18	7.14

Date	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	ALDRIN, TOTAL (UG/L) (39330)	AROCLOR 1016/ 1242 PCB WATER UNFLTRD (UG/L) (81648)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)
OCT 24...	5.6	5.6	<.20	<4	13	6	--	--	--	--	--	--	--
NOV 01...	7.0	6.4	<.20	<4	8	<10	--	--	--	--	--	--	--
DEC 19...	6.7	7.3	<.20	<4	6	4	--	--	--	--	--	--	--
JAN 09...	7.2	7.6	<.25	<5	6	<5	--	--	--	--	--	--	--
FEB 22...	6.6	9.4	<.25	<5	8	<5	--	--	--	--	--	--	--
MAR 22...	4.3	6.0	<.15	<3	168	12	--	--	--	--	--	--	--
APR 18...	2.2	2.5	<.10	<2	45	<2	<.04	<.1	<1	<.1	<.1	<.1	<.1
MAY 29...	3.9	4.5	E.08n	<2	65	3	--	--	--	--	--	--	--
JUN 28...	1.4	4.1	<.05	<4	14	7	<.040	<.10	<1.0	<.1	<.1	<.1	<.1
JUL 31...	4.0	2.7	<.15	<3	14	<3	--	--	--	--	--	--	--
AUG 29...	6.3	5.3	<.15	<7	14	7	--	--	--	--	--	--	--
SEP 18...	3.9	5.3	<.15	<3	9	5	--	--	--	--	--	--	--

07308500 Red River near Burkburnett, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CHLORDANE, TECHNICAL TOTAL (UG/L) (39350)	DIELDRIN TOTAL (UG/L) (39380)	ENDOSULFAN SULFATE TOTAL (UG/L) (34351)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	ENDRIN ALDEHYDE TOTAL (UG/L) (34366)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	PCB 207 SUR SCD 1608 WATER UNFLTRD PERCENT (99781)	TOXAPHENE, TOTAL (UG/L) (39400)	ENDOSULFAN-I WATER WHOLE REC (UG/L) (34361)	ALPHA BHC TOTAL (UG/L) (39337)	ALPHA-HCH-D6 SUR SCD 1608 WATER UNFLTRD PERCENT (99778)
OCT 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 18...	<.1	<.02	<.6	<.06	<.2	<.03	<.8	<.03	18.7	<2	<.1	<.03	97.7
MAY 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 28...	<.1	<.020	<.6	<.060	<.2	<.030	<.800	<.0300	39.9	<2	<.1	<.03	59.7
JUL 31...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	ENDOSULFAN II TOTAL (UG/L) (34356)	BETA BENZENE HEXACHLORIDE TOTAL (UG/L) (39338)	CHLORDANE CIS WATER WHOLE TOTAL (UG/L) (39062)	DELTA BENZENE HEXACHLORIDE TOTAL (UG/L) (34259)	P,P' DDD, TOTAL (UG/L) (39310)	P,P' DDE, TOTAL (UG/L) (39320)	P,P' DDT, TOTAL (UG/L) (39300)	CHLORDANE TRANS WATER WHOLE TOTAL (UG/L) (39065)
OCT 24...	--	--	--	--	--	--	--	--
NOV 01...	--	--	--	--	--	--	--	--
DEC 19...	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--
FEB 22...	--	--	--	--	--	--	--	--
MAR 22...	--	--	--	--	--	--	--	--
APR 18...	<.04	<.03	<.1	<.09	<.1	<.04	<.1	<.1
MAY 29...	--	--	--	--	--	--	--	--
JUN 28...	<.04	<.03	<.1	<.09	<.1	<.04	<.1	<.1
JUL 31...	--	--	--	--	--	--	--	--
AUG 29...	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	--	--	--	--	--

Remark codes used in this report:
< -- Less than
E -- Estimated value

Value qualifier codes used in this report:
n -- Below the NDV

07308500 Red River near Burkburnett, TX--Continued

SPECIFIC CONDUCTANCE FROM DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8850	8580	8720	8680	8530	8580	---	---	e9100	10500	10400	10500
2	8700	8420	8570	8680	8450	8570	---	---	e9480	10600	10500	10500
3	8540	8180	8340	8570	8370	8490	---	---	e10100	10800	10600	10700
4	8290	8160	8240	8450	8150	8260	---	---	e10500	10900	10700	10800
5	8380	8280	8330	8280	8140	8210	12200	11000	11500	10800	10600	10700
6	8390	8240	8330	8240	8110	8190	13000	12200	12700	10900	10700	10800
7	8370	8220	8300	8260	8090	8190	---	---	e12900	11000	10700	10900
8	8330	8160	8260	8240	8140	8190	---	---	e12700	10900	10600	10800
9	8260	8120	8210	8290	8150	8210	12500	12100	12200	10800	10300	10600
10	8270	8190	8230	8350	8200	8280	12100	11800	12000	10500	10400	10400
11	8330	8170	8240	8290	8180	8240	11900	11400	11700	10600	10400	10500
12	8280	8170	8230	8260	8210	8250	11400	11300	11400	10600	10400	10500
13	8290	8160	8230	8290	8200	8250	11500	11400	11400	10600	10500	10600
14	8310	8090	8180	8300	8230	8270	11600	11400	11500	10700	10500	10600
15	8200	8060	8140	8340	8290	8320	11500	11500	11500	10700	10500	10600
16	8190	7920	8080	8720	8330	8520	11500	11200	11400	10600	10500	10600
17	8050	7940	8000	8650	4630	7320	11300	10400	10900	10700	10600	10600
18	8040	7900	7980	6390	4860	5710	10600	9530	10200	10800	10700	10800
19	8010	7860	7950	7810	5230	6380	9640	9320	9540	10800	10600	10700
20	8000	7850	7940	8760	7550	8600	9750	9600	9670	10800	10700	10800
21	7980	7840	7920	8700	8660	8680	9780	9650	9710	10800	10600	10700
22	7970	7860	7930	8670	8640	8650	9810	9690	9740	10800	10600	10700
23	8010	7900	7960	8650	8630	8640	9940	9810	9870	10700	10600	10600
24	8160	8010	8100	8650	8610	8620	10000	9920	9970	10800	10600	10700
25	8230	8130	8180	8620	8520	8550	10100	9950	10000	10800	10600	10700
26	8290	8180	8240	8590	8520	8560	10200	10000	10100	10800	10600	10700
27	8360	8250	8310	8670	8580	8620	10200	10100	10100	10800	10600	10700
28	8400	8290	8360	8700	8640	8670	10200	10100	10200	10700	10500	10600
29	8440	8320	8390	---	---	e8920	10300	10200	10300	10700	10500	10600
30	8490	8380	8450	---	---	e9100	10400	10300	10400	10800	10600	10700
31	8540	8460	8500	---	---	---	10500	10300	10400	10800	10700	10800
MONTH	8850	7840	8220	---	---	8270	---	---	10700	11000	10300	10700

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10900	10600	10700	10500	10200	10400	6410	6370	6380	7890	7120	7290
2	11400	10800	11300	10300	10100	10200	6390	6360	6380	9100	7890	8800
3	11300	11200	11300	10700	10000	10300	6380	6310	6330	9710	8890	9360
4	11200	10800	11000	10200	9980	10100	6320	6280	6300	---	---	e9740
5	10800	10700	10700	10100	9900	10000	6290	6270	6280	---	---	e9320
6	10800	10700	10700	10100	9960	10000	6280	6230	6260	---	---	e8730
7	10800	10600	10700	10000	9770	9940	6300	5810	6190	8680	8560	8620
8	10700	10600	10600	9950	9560	9790	6460	4020	4730	8720	8190	8530
9	10700	10600	10600	9890	9560	9760	4220	3960	4020	8560	8430	8510
10	10800	10700	10700	9810	9610	9720	4000	3940	3980	8450	7220	7910
11	10800	10600	10700	9810	9700	9760	3990	3920	3960	8180	7320	7690
12	10800	10600	10700	9770	9540	9650	3980	3950	3970	8240	7840	7980
13	10800	10600	10700	9570	9220	9400	4010	440	2440	11400	7800	9050
14	10800	10600	10700	9450	8690	9160	---	---	e3230	11400	8010	9980
15	10700	10500	10600	9430	9080	9330	---	---	e3430	9350	3820	7390
16	10700	10500	10600	9320	9000	9150	1300	700	900	9380	9180	9290
17	10600	10500	10600	9120	9000	9080	---	---	e1940	9360	9280	9330
18	10600	10500	10500	9080	7910	8290	3210	---	e2800	9390	9170	9300
19	10500	10400	10500	8210	6680	7410	4200	3210	3700	9350	9220	9290
20	10600	10400	10500	6840	5090	6200	7120	4200	5620	9330	9240	9290
21	10500	10400	10500	---	---	e4900	7380	6670	7110	9340	9250	9290
22	10600	10200	10400	6420	---	e5500	6670	6210	6410	9300	9210	9260
23	10400	10200	10300	6450	6280	6370	6340	6040	6180	9230	9180	9200
24	10400	10300	10300	6340	6230	6300	---	6130	e6410	9370	8930	9090
25	10600	10400	10500	6450	6340	6410	7260	---	6960	9080	8890	8980
26	10800	10600	10800	6500	6420	6450	6130	4740	5420	9090	7490	8620
27	10900	10600	10700	6460	6420	6440	5210	4720	4870	8810	7780	8270
28	10800	10500	10600	6440	6410	6430	6160	5210	5720	8200	5240	7230
29	---	---	---	6450	6410	6430	6620	5750	6200	5240	3850	4570
30	---	---	---	6440	6410	6430	7120	6420	6750	4990	3530	4080
31	---	---	---	6440	6380	6410	---	---	---	6080	4990	5420
MONTH	11400	10200	10700	---	---	8250	---	---	5030	---	---	8370

07308500 Red River near Burkburnett, TX--Continued

SPECIFIC CONDUCTANCE FROM DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6950	6080	6700	9040	6680	7620	8110	6420	6950	11000	9910	10400
2	6800	6250	6470	7420	6590	6860	8180	5930	7520	9910	9070	9500
3	---	---	e6740	7750	7200	7480	5930	2920	4310	9070	8350	8610
4	---	---	e7200	7300	5500	6090	---	---	e4580	8400	8020	8200
5	5700	939	2510	5880	5030	5630	---	---	e4800	8260	7960	8170
6	2260	1550	1960	5030	663	1480	5390	4940	5110	9690	7910	8490
7	2000	1750	1860	2890	671	1270	6050	5390	5680	12700	9690	11000
8	2370	2000	2230	4150	2080	2880	---	---	e6420	12900	11700	12400
9	2370	2310	2350	5240	2080	3420	---	---	e7020	11700	9750	10800
10	2310	2130	2200	6570	3370	5080	---	---	e7870	9750	8660	9180
11	2370	2190	2270	6610	---	e5880	---	---	e8770	8660	8140	8310
12	2560	2370	2460	---	---	e4560	---	---	e9660	8220	7610	7900
13	2820	2560	2650	---	---	e3380	---	---	e10300	7610	7080	7330
14	2910	2790	2850	---	---	e2700	---	---	e9660	7120	6790	6940
15	3090	2870	2930	---	---	e3090	---	---	e7720	7020	6780	6850
16	3270	3080	3170	---	---	e4390	---	---	e6120	7310	7020	7120
17	3450	3270	3350	---	---	e5640	---	---	e6680	7490	7250	7340
18	4560	3440	3920	---	---	e6420	---	---	e7500	8560	7490	7910
19	4780	---	e2970	6860	---	e6810	---	---	e8360	8430	7630	7820
20	---	---	e3570	6990	6630	6860	---	---	e8910	7900	7310	7610
21	---	---	e4210	6900	6420	6690	---	---	e9660	9620	7680	8270
22	---	---	e5930	6790	6500	6620	---	---	e10500	14000	9620	11500
23	---	---	e7220	6880	6770	6830	---	---	e11100	14700	12800	13800
24	8210	---	e7970	6910	6790	6850	---	---	e11700	12800	9820	11100
25	8370	8210	8280	6840	6640	6740	---	---	e12300	9820	7850	8550
26	8550	8360	8410	6750	6620	6690	---	---	e12900	7870	7550	7720
27	8860	8550	8650	6700	6570	6640	---	---	e10900	7870	7720	7800
28	9260	8860	9020	6650	6580	6620	---	---	e12700	8090	7760	7880
29	9390	9110	9220	7180	6620	6770	---	---	e14700	8330	8060	8160
30	9440	9040	9400	6690	6600	6640	14300	12500	13300	8760	8160	8420
31	---	---	---	6600	6260	6470	12500	11000	11600	---	---	---
MONTH	---	---	4960	---	---	5520	---	---	8880	14700	6780	8840

e Estimated

WATER TEMPERATURE FROM DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

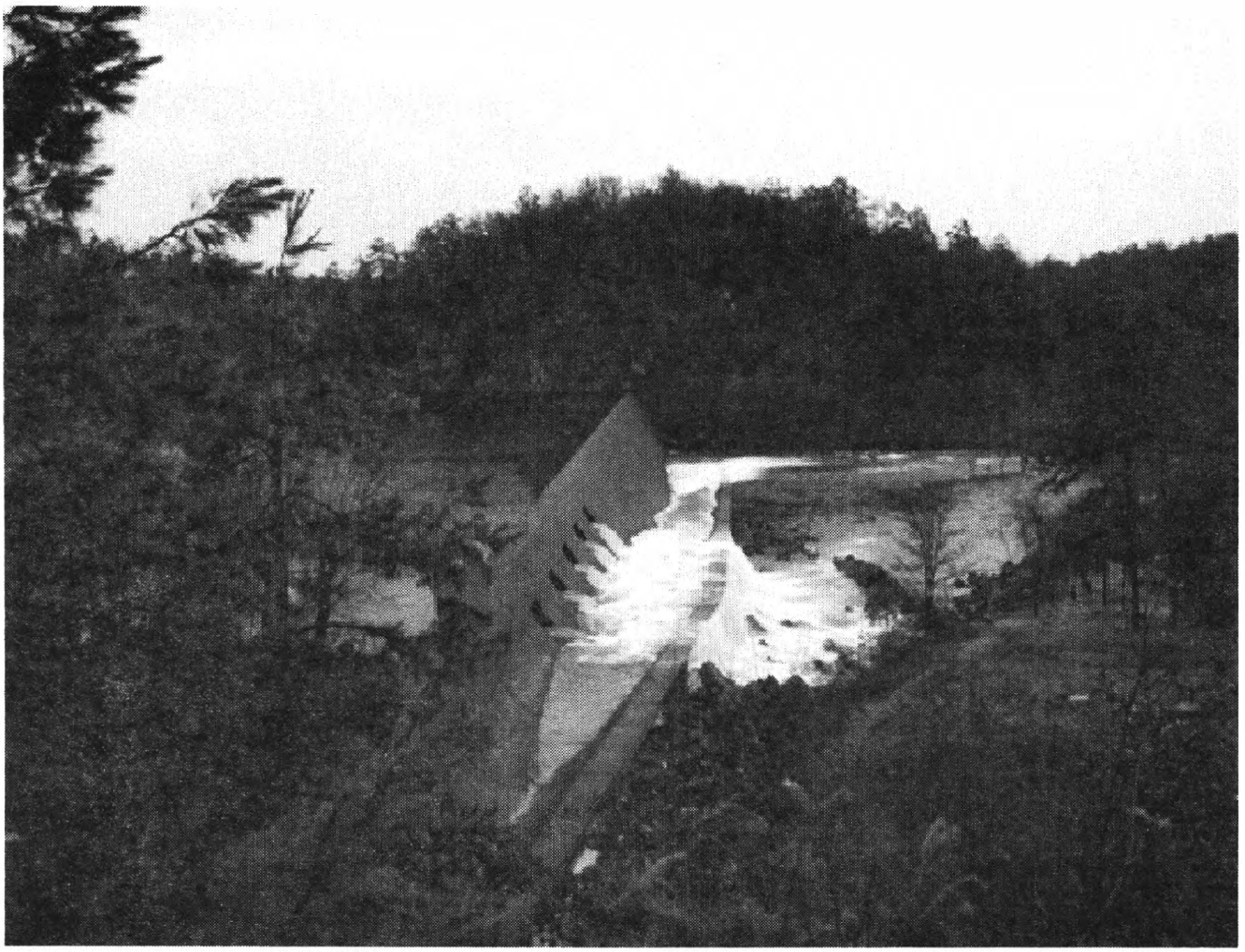
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.4	15.2	19.9	23.6	16.1	19.2	---	---	---	5.9	1.3	3.2
2	24.0	15.5	19.4	25.0	16.7	20.4	---	---	---	4.0	0.8	2.8
3	23.6	15.6	19.3	25.4	18.0	20.9	---	---	---	4.2	---	---
4	26.0	17.6	21.1	20.9	18.0	19.2	18.2	---	---	5.0	---	---
5	21.1	13.9	17.2	23.1	16.8	19.6	18.6	14.9	17.1	8.6	4.7	6.1
6	20.2	11.2	15.0	22.9	16.1	19.0	14.9	11.4	13.0	9.1	3.0	5.9
7	20.2	12.3	15.7	21.0	14.0	17.2	12.8	9.2	11.0	8.6	2.3	5.4
8	22.6	13.0	17.1	17.7	12.4	15.4	11.3	7.2	8.9	11.8	4.0	7.5
9	22.8	17.8	19.6	16.7	10.9	13.2	10.4	4.4	7.2	13.7	7.0	10.2
10	20.3	17.4	19.1	19.1	10.0	14.3	9.9	4.0	6.8	11.1	8.0	9.3
11	22.1	15.1	18.1	20.5	14.5	17.1	6.9	4.9	5.8	11.8	5.1	8.3
12	20.8	14.8	17.8	19.0	15.9	17.1	11.0	6.8	8.7	10.8	4.9	7.8
13	19.1	12.4	15.6	21.0	15.8	17.9	9.0	6.2	7.3	11.4	4.4	7.7
14	21.1	12.8	16.4	19.5	16.3	17.5	9.6	3.6	6.5	11.1	4.4	7.7
15	17.8	13.2	15.3	17.0	15.3	16.2	8.3	6.2	7.1	10.5	4.2	7.3
16	19.7	10.1	14.3	18.4	15.2	16.6	10.4	8.3	9.3	11.9	6.7	8.7
17	17.9	11.1	14.2	16.7	15.4	16.0	11.7	6.9	9.2	9.4	5.7	7.2
18	20.3	10.8	14.9	18.2	15.4	16.6	12.5	6.5	9.3	5.7	3.0	3.7
19	22.8	13.5	17.6	17.1	11.8	14.5	10.4	6.0	8.1	9.2	2.4	5.3
20	23.3	14.7	18.5	11.8	9.6	10.4	11.2	4.4	7.6	9.7	2.7	5.9
21	23.7	15.9	19.3	10.5	9.4	9.9	11.3	5.5	8.5	10.5	2.8	6.4
22	23.6	16.6	19.5	10.4	10.1	10.2	11.9	8.1	9.8	14.9	5.6	9.7
23	22.3	16.6	19.1	11.0	10.4	10.7	8.9	5.0	6.8	12.5	8.3	10.8
24	19.3	13.6	16.4	11.1	10.8	11.0	6.7	2.4	4.3	10.0	4.9	7.2
25	18.8	11.7	14.9	11.1	10.1	10.8	7.6	1.2	4.1	10.5	2.6	6.4
26	19.3	11.3	14.8	11.2	10.5	11.0	7.3	1.1	4.0	12.2	3.4	7.6
27	18.8	11.7	14.9	10.5	7.6	8.9	6.6	2.4	4.6	12.8	5.5	9.1
28	19.5	11.5	15.0	7.6	6.4	7.0	8.0	2.4	5.2	16.9	7.7	12.0
29	21.2	13.0	16.5	---	---	---	5.9	0.4	3.4	18.0	10.4	14.4
30	21.0	13.0	16.5	---	---	---	3.3	0.9	1.7	10.4	4.8	6.7
31	20.1	13.9	16.5	---	---	---	5.1	---	---	7.2	2.8	4.7
MONTH	26.0	10.1	17.1	---	---	---	---	---	---	18.0	---	---

07308500 Red River near Burkburnett, TX--Continued

WATER TEMPERATURE FROM DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	0.6	4.7	9.2	5.2	7.4	18.3	14.9	16.6	30.9	22.7	26.5
2	6.2	3.6	5.0	5.2	0.2	2.0	18.0	15.2	16.7	26.9	18.8	21.8
3	7.5	4.9	6.0	6.3	---	---	15.2	12.4	13.5	26.3	16.2	20.9
4	6.9	5.0	5.9	10.4	0.2	4.8	13.7	12.2	13.0	27.2	19.5	22.9
5	6.1	4.0	5.2	12.5	3.5	7.6	13.8	12.1	13.1	27.8	20.4	23.9
6	6.2	3.0	4.4	16.6	6.3	11.0	13.4	11.8	12.5	29.2	22.3	25.7
7	10.0	2.7	5.9	19.0	9.9	14.1	12.6	11.8	12.1	29.1	23.3	26.1
8	12.2	4.7	8.2	19.6	13.9	16.2	15.0	11.9	13.3	29.7	22.5	25.6
9	11.4	7.1	8.9	15.4	5.2	9.5	20.6	12.9	16.1	25.6	17.5	21.4
10	8.0	4.2	6.0	13.2	4.6	8.6	23.0	15.7	18.9	23.5	17.0	20.0
11	9.2	2.0	5.3	14.7	7.3	10.6	24.6	17.1	20.4	24.7	20.6	22.8
12	10.6	3.5	6.7	17.8	7.1	12.3	21.1	18.4	19.7	23.1	17.1	21.3
13	10.7	3.7	7.0	19.6	9.7	14.3	19.4	12.9	16.9	24.7	13.8	18.8
14	11.0	4.3	7.6	21.0	11.9	16.2	24.4	17.3	20.5	26.6	16.7	21.3
15	12.6	6.6	9.4	15.4	7.2	11.5	24.5	20.6	22.6	25.5	17.8	21.3
16	13.7	5.7	9.6	12.9	7.3	10.0	23.7	21.3	22.4	29.0	19.2	23.8
17	13.9	7.2	10.4	13.6	10.0	11.6	26.9	21.3	23.7	25.6	20.3	22.3
18	13.3	7.9	11.0	13.6	11.3	12.2	25.9	22.8	24.2	26.6	16.4	21.0
19	17.0	12.5	14.1	13.2	11.3	12.6	24.0	22.1	22.8	25.3	17.7	21.3
20	17.0	9.6	13.2	17.0	9.7	12.9	22.7	19.3	21.1	24.4	18.4	21.1
21	13.8	10.7	12.3	13.3	7.4	11.1	25.1	19.2	21.7	23.9	18.5	21.0
22	15.2	7.5	11.1	12.1	5.1	8.1	24.3	17.9	21.0	22.6	18.5	20.3
23	14.9	7.8	11.2	16.2	6.2	10.8	27.4	19.7	23.2	22.4	20.0	21.0
24	16.0	8.6	11.9	21.0	11.7	15.7	26.7	20.5	23.7	28.2	19.6	22.4
25	10.7	3.5	7.6	15.4	8.8	10.8	20.5	13.5	16.0	27.3	17.2	21.9
26	5.2	0.2	2.1	12.9	6.4	9.4	13.5	13.0	13.2	31.6	20.0	24.6
27	8.1	0.2	3.4	14.7	9.9	12.2	23.2	12.9	17.7	26.2	20.7	22.1
28	10.1	1.2	5.2	16.8	12.1	14.2	25.6	17.7	21.2	27.8	19.8	22.9
29	---	---	---	18.0	14.8	16.3	28.4	19.7	23.6	29.2	22.3	25.4
30	---	---	---	17.5	14.5	15.6	28.9	22.8	25.7	29.9	23.6	26.5
31	---	---	---	17.3	12.9	14.8	---	---	---	31.4	23.9	27.1
MONTH	17.0	0.2	7.8	21.0	---	---	28.9	11.8	18.9	31.6	13.8	22.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	32.0	24.5	28.0	27.2	20.9	23.3	35.0	25.8	30.0	31.6	24.0	27.7
2	31.2	23.9	27.0	28.4	23.0	25.2	35.1	27.3	30.8	33.5	23.2	27.8
3	---	22.8	---	25.1	23.3	24.1	34.7	27.0	30.7	33.8	24.0	28.1
4	30.4	---	---	27.0	22.2	24.3	34.7	27.4	30.5	33.2	23.5	27.9
5	24.2	21.1	22.4	29.8	23.1	26.3	34.7	26.2	29.7	32.5	23.9	27.9
6	28.8	21.8	24.8	27.6	25.1	26.4	33.7	25.9	29.5	31.8	23.7	27.6
7	29.5	24.3	26.7	30.6	25.6	27.8	36.9	26.0	30.9	31.9	23.6	26.9
8	30.0	25.5	27.4	32.5	27.7	29.9	35.4	27.5	30.7	27.1	23.2	24.7
9	31.1	24.9	27.6	32.6	28.8	30.6	---	26.5	---	30.3	22.8	25.6
10	30.6	24.9	27.6	32.8	29.1	30.9	---	---	---	32.9	24.1	27.7
11	32.3	24.5	28.0	33.2	29.0	30.6	---	---	---	32.3	22.2	26.8
12	32.4	25.1	28.1	---	---	---	---	---	---	30.5	22.8	26.5
13	28.7	24.0	25.7	---	---	---	---	---	---	30.1	22.8	26.0
14	31.5	22.7	26.6	---	---	---	---	---	---	32.4	22.0	26.2
15	29.2	23.1	26.5	---	---	---	---	---	---	27.0	21.4	23.8
16	28.4	20.8	24.2	---	---	---	---	---	---	30.6	19.1	24.3
17	31.0	23.1	26.7	---	---	---	---	---	---	29.1	20.8	24.7
18	29.0	23.7	26.3	---	---	---	---	---	---	29.9	21.6	25.0
19	---	23.8	---	34.2	---	---	---	---	---	26.6	19.6	23.1
20	---	---	---	33.4	26.2	29.4	---	---	---	28.8	16.8	22.1
21	---	---	---	33.3	25.1	28.8	---	---	---	29.4	18.6	23.2
22	---	---	---	34.7	25.1	29.5	---	---	---	25.1	17.0	21.1
23	---	---	---	36.2	26.2	30.7	---	---	---	27.4	16.5	21.2
24	33.0	---	---	35.9	27.3	30.5	---	---	---	26.7	16.6	21.0
25	34.1	24.2	28.6	36.2	25.4	29.8	---	---	---	28.8	16.2	21.8
26	34.7	25.0	29.4	34.1	26.3	29.7	---	---	---	29.9	18.8	24.0
27	34.2	25.1	29.1	33.1	24.8	28.4	---	---	---	30.1	19.5	24.3
28	34.8	25.1	29.3	30.0	24.7	27.2	---	---	---	29.3	19.8	24.2
29	33.9	25.0	28.7	---	---	---	29.2	---	---	29.5	19.4	23.9
30	27.2	22.2	24.6	---	---	---	32.2	22.5	26.5	27.9	19.9	23.7
31	---	---	---	34.3	---	---	33.5	22.2	27.3	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	33.8	16.2	25.0



Broken Bow Reregulation Dam near Broken Bow

07308990 LAKE ELLSWORTH NEAR ELGIN, OK

LOCATION.--Lat 34°47'10", long 98°22'07", in NW $^1/_4$ NW $^1/_4$ sec.28, T.4 N., R.11 W., Comanche County, Hydrologic Unit 11130202, near right end of dam on East Cache Creek, 4 miles west of Elgin and at mile 59.9.

DRAINAGE AREA.--249 mi^2.

PERIOD OF RECORD.--October 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.47 ft above sea level (City of Lawton benchmark).

REMARKS.--Reservoir is formed by concrete dam. Storage began in 1964. Capacity, 189,200 acre-ft, gage height 1,250.00 ft, top of dam; and 72,490 acre-ft, gage height 1,235.00 ft, top of gates; 25,730 acre-ft, gage height 1,225.00 ft, top of spillway. Reservoir is used for municipal water supply and recreation. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 88,970 acre-ft, Oct. 23, 2000, gage height 1,237.55 ft; minimum contents, 24,300 acre-ft, Sept. 30, 2002, gage height, 1,224.56 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 54,520 acre-ft, Oct. 1, gage height 1,231.55 ft; minimum, 24,300 acre-ft, Sept. 30, gage height, 1,224.56 ft.

Capacity table (gage height, in feet, and contents, in acre-feet):

1220	9,470	1240	104,800
1225	25,730	1245	143,700
1230	46,450	1250	189,200
1235	72,490	1255	242,500

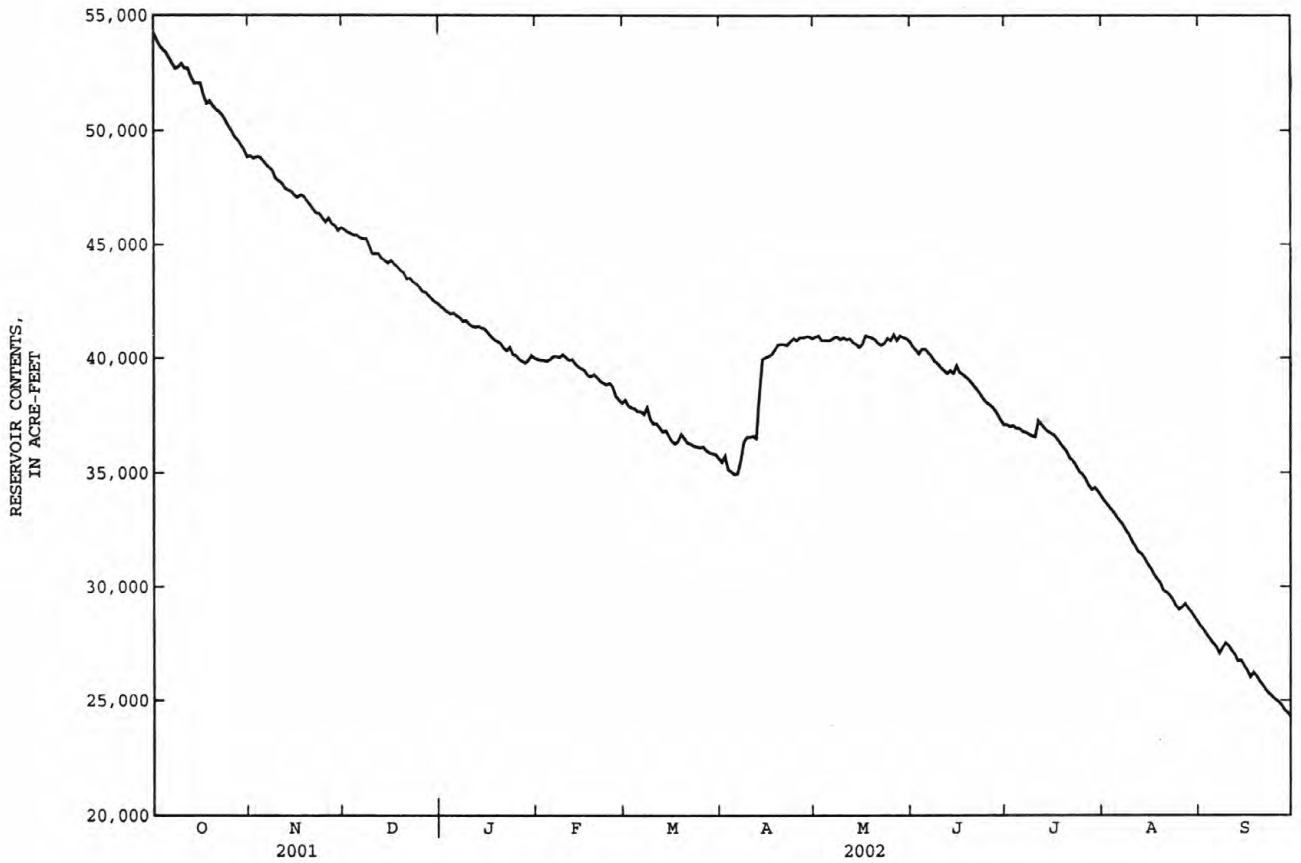
RESERVOIR STORAGE VIA SATELLITE, in (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54260	48900	45660	42260	39940	38160	35470	40940	40520	37080	33770	28260
2	53950	48790	45540	42140	39900	37910	35720	40980	40360	37000	33600	28090
3	53690	48850	45500	42020	39900	37830	35140	40770	40190	37040	33440	27880
4	53530	48850	45410	41930	39860	37790	35050	40770	40400	36920	33270	27680
5	53380	48690	45410	41970	39940	37660	34930	40770	40400	36920	33060	27510
6	53170	48530	45290	41850	40070	37660	34970	40790	40230	36790	32900	27350
7	52910	48380	45250	41770	40070	37540	35510	40900	40070	36750	32730	27060
8	52700	48270	45250	41600	40030	37830	e36340	40940	39860	36670	32480	27300
9	52750	47910	44920	41640	40150	37330	e36550	40810	39740	36590	32280	27510
10	52910	47800	44580	41480	40030	37130	e36550	40900	39570	36550	31990	27390
11	52700	47700	44580	41390	39900	37130	e36590	40810	39450	37250	31780	27180
12	52700	47490	44580	41350	39940	36960	e36500	40860	39320	37080	31530	27010
13	52340	47390	44380	41390	39740	36790	e38370	40690	39450	36920	31450	26720
14	52070	47340	44300	41310	39610	36840	e39940	40610	39320	36790	31240	26770
15	52070	47180	44170	41270	39530	36590	40030	40480	39650	36710	30990	26520
16	52070	47070	44300	41100	39450	36380	40070	40610	39360	36630	30790	26310
17	51550	47180	44130	40940	39240	36260	40160	40980	39280	36460	30540	26020
18	51190	47130	44010	40810	39200	36380	40360	40940	39160	36260	30330	26230
19	51290	46920	43840	40730	39280	36680	40590	40900	39030	36090	30160	26060
20	51090	46760	43760	40650	39160	e36500	40610	40810	38870	35920	29830	25850
21	50930	46550	43470	40440	38990	e36300	40610	40650	38700	35630	29750	25670
22	50820	46370	43510	40320	38910	e36260	40570	40570	38530	35510	29630	25470
23	50670	46370	43340	40480	38830	e36170	40730	40650	38330	35300	29420	25310
24	50460	46160	43260	40150	38910	e36130	40860	40860	38120	35050	29170	25180
25	50200	45990	43130	40110	38740	e36090	40770	40770	38000	34930	29000	25050
26	49990	46160	42930	39940	38330	36130	40900	41020	37910	34720	29090	24950
27	49730	45910	42890	39860	38160	35970	40900	40770	37750	34430	29250	24820
28	49570	45830	42760	39780	38040	35880	40940	40980	37540	34270	29040	24590
29	49370	45620	42600	39900	---	35840	40940	40900	37290	34350	28880	24460
30	49160	45740	42470	40110	---	35800	40860	40860	37080	34180	28670	24300
31	48850	---	42390	39990	---	35630	---	40730	---	33980	28460	---
MAX	54260	48900	45660	42260	40150	38160	40940	41020	40520	37250	33770	28260
MIN	48850	45620	42390	39780	38040	35630	34930	40480	37080	33980	28460	24300
(‡)	1230.52	1229.83	1229.02	1228.44	1227.97	1227.39	1228.65	1228.62	1227.74	1226.99	1225.66	1224.56
(‡‡)	-5670	-3110	-3350	-2400	-1950	-2410	+5230	-130	-3650	-3100	-5520	-4160

CAL YR 2001 MAX 71760 MIN 42390 (‡‡) -25410
WTR YR 2002 MAX 54260 MIN 24300 (‡‡) -30220

e Estimated
(‡) GAGE HEIGHT, IN FEET, AT END OF MONTH
(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET

07308990 LAKE ELLSWORTH NEAR ELGIN, OK--Continued



07309500 LAKE LAWTONKA NEAR LAWTON, OK

LOCATION.--Lat 34°44'10", long 98°30'11", in NE $^1/_4$ NW $^1/_4$ sec.18, T.3 N., R.12 W., Comanche County, Hydrologic Unit 11130202, near left end of dam on Medicine Creek, northwest of Medicine Park and at mile 12.2.

DRAINAGE AREA.--93 mi^2.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam. Storage began in 1905. Capacity, 85,660 acre-ft at elevation 1,355.55 ft, top of dam; and 59,590 acre-ft at elevation 1,345.55 ft, top of gates; 38,980 acre-ft at elevation 1,335.55 ft, top of spillway. Reservoir is used for municipal water supply and recreation. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 63,600 acre-ft, Mar. 16, 1998, elevation 1,347.27 ft; minimum, 44,740 acre-ft, Sept. 30, 2002, elevation, 1,338.62 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 51,880 acre-ft, Apr. 21, elevation 1,342.07 ft; minimum, 44,740 acre-ft, Sept. 30, elevation, 1,338.62 ft.

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

1300	1,540	1340	47,300
1310	7,190	1345	58,300
1325	22,900	1350	69,800
1335	37,950	1355	83,990

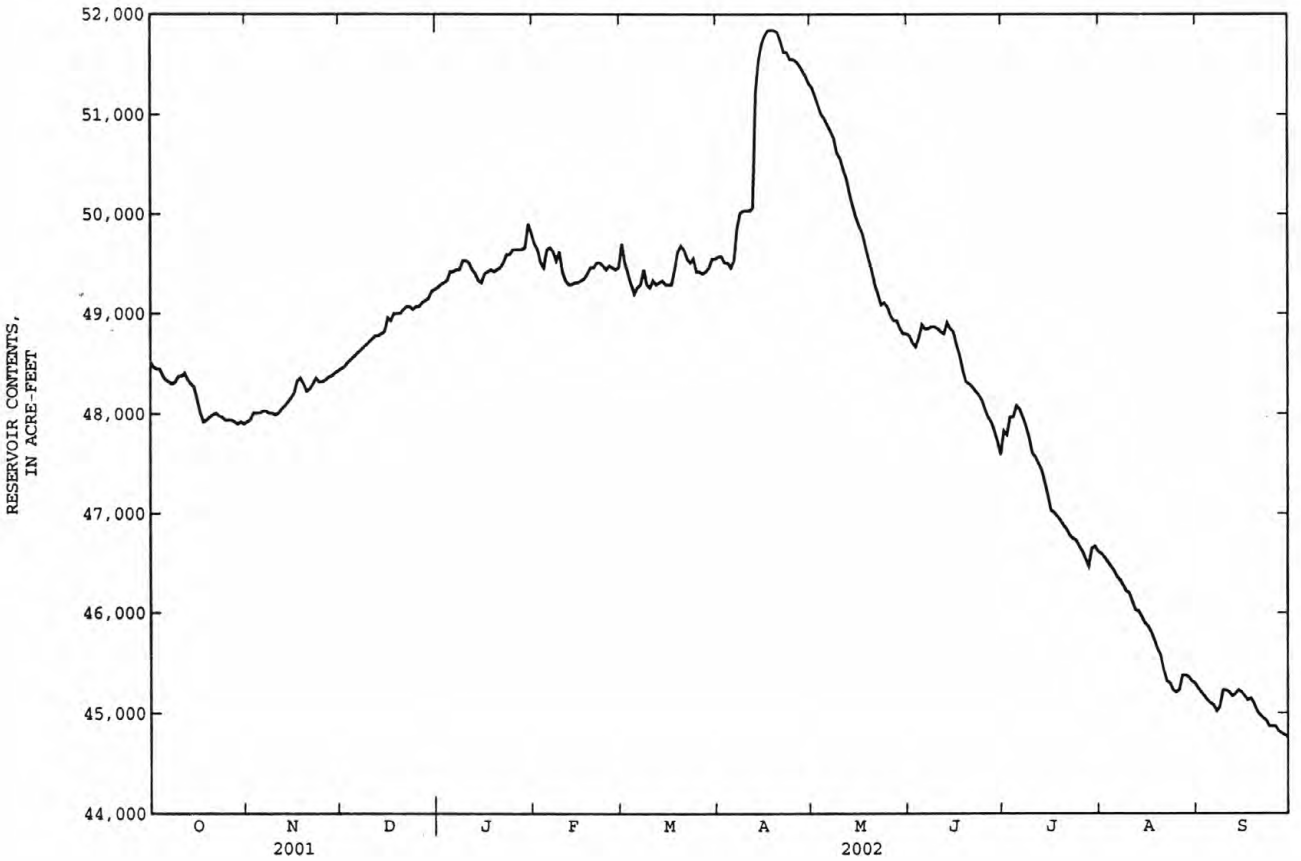
RESERVOIR STORAGE VIA SATELLITE, in (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48520	47920	48450	49260	49700	49700	49570	51270	48780	47830	46600	45250
2	48470	47940	48470	49290	49640	49510	49570	51180	48710	47790	46560	45210
3	48450	48010	48510	49310	49510	49400	49510	51090	48670	47970	46520	45170
4	48450	48010	e48540	49330	49460	49290	49510	51000	48760	47970	46470	45130
5	48380	48010	e48570	49420	49640	49200	49460	50960	48890	48080	46430	45100
6	48340	48030	e48600	49420	49660	49260	49530	50890	48850	48050	46370	45080
7	48320	48030	e48630	49440	49620	49290	49860	50830	48850	47970	46330	45020
8	48300	48010	e48660	49440	49530	49440	50010	50760	48870	47880	46280	45060
9	48320	48010	e48690	49530	49620	49290	50030	50610	48870	47770	46220	45230
10	48380	47990	e48720	49530	49420	49260	50030	50560	48850	47610	46200	45230
11	48380	48010	48750	49510	49330	49330	50030	50450	48820	47570	46110	45210
12	48410	48050	48780	49440	49290	49290	50060	50360	48800	47500	46030	45170
13	48340	48080	48780	49400	49290	49310	51220	50210	48910	47440	46020	45190
14	48300	48120	48800	49330	49310	49330	51550	50080	48850	47310	45960	45230
15	48270	48160	48820	49310	49310	49290	51710	49970	48820	47180	45900	45210
16	48140	48210	48960	49400	49330	49290	51790	49880	48690	47030	45870	45170
17	48010	48330	48930	49420	49350	49290	51840	49810	48580	47010	45810	45130
18	47920	48360	49000	49440	49400	49440	51840	49680	48430	46970	45730	45150
19	47940	48300	49000	49420	49460	49620	51840	49550	48320	46930	45640	45100
20	47970	48230	49000	49440	49460	49680	51820	49440	48300	46880	45580	45020
21	47990	48250	49040	49460	49510	49640	51730	49290	48270	46840	45430	44980
22	48010	48300	49070	49510	49510	49550	51620	49200	48230	46780	45320	44950
23	47980	48360	49070	49590	49480	49510	51620	49090	48190	46750	45300	44930
24	47970	48320	49040	49590	49440	49550	51550	49110	48140	46730	45230	44870
25	47940	48320	49070	49640	49480	49420	51550	49070	48050	46670	45210	44870
26	47940	48340	49070	49640	49460	49420	51530	48980	47970	46620	45230	44870
27	47940	48370	49110	49640	49440	49400	51490	48930	47920	46540	45380	44820
28	47920	48380	49130	49640	49460	49420	51440	48930	47830	46470	45380	44800
29	47900	48410	49150	49660	---	49460	51380	48850	47720	46650	45360	44780
30	47920	48430	49220	49900	---	49550	51310	48800	47590	46670	45320	44760
31	47900	---	49240	49810	---	49550	---	48800	---	46620	45300	---
MAX	48520	48430	49240	49900	49700	49700	51840	51270	48910	48080	46600	45250
MIN	47900	47920	48450	49260	49290	49200	49460	48800	47590	46470	45210	44760
(‡)	1340.26	1340.50	1340.87	1341.13	1340.97	1341.01	1341.81	1340.67	1340.12	1339.62	1338.92	1338.63
(‡‡)	-640	+530	+810	+570	-350	+90	+1760	-2510	-1210	-970	-1320	-540

CAL YR 2001 MAX 60050 MIN 47900 (‡‡) -9160
WTR YR 2002 MAX 51840 MIN 44760 (‡‡) -3780

e Estimated
(‡) ELEVATION, IN FEET, AT END OF MONTH
(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET

07309500 LAKE LAWTONKA NEAR LAWTON, OK--Continued



07311000 EAST CACHE CREEK NEAR WALTERS, OK

LOCATION.--Lat 34°21'44", long 98°16'56", on south line of SE $^1/_4$ SE $^1/_4$ sec.19, T.2 S., R.10 W., Cotton County, Hydrologic Unit 11130202, at right bank on downstream side of bridge on State Highway 53, 1.8 mi east of Walters, 12.2 mi upstream from West Cache Creek, and at mile 19.7.

DRAINAGE AREA.--675 mi^2.

PERIOD OF RECORD.--May 1938 to December 1963; October 1969 to current year. Prior to October 1969, published as Cache Creek near Walters.

GAGE.--Water-stage recorder. Datum of gage is 938.2 ft above sea level (Oklahoma State Highway Department). Prior to Jan. 8, 1939, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharge. Records good. Flow partly regulated by Lake Lawtonka, capacity, 42,300 acre-ft on Medicine Creek prior to late 1953, and 63,000 acre-ft thereafter by Lake Thomas, capacity 8,300 acre-ft on Little Medicine Creek; and since March 1961 by Lake Ellsworth, capacity 94,500 acre-ft on East Cache Creek. Low flow sustained by sewage effluent from cities of Lawton and Walters. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1906 reached an approximate stage of 29.7 ft, information from local residents.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	29	68	41	113	43	66	57	50	36	32	20
2	34	28	57	40	56	49	49	50	45	47	20	16
3	33	28	53	39	39	48	42	46	43	65	18	20
4	33	28	51	41	35	50	36	44	45	115	17	21
5	32	43	50	42	34	52	35	44	1660	91	21	21
6	33	42	44	60	51	50	41	52	1840	38	26	22
7	33	40	44	58	102	51	291	56	286	33	25	22
8	33	38	43	46	77	54	1410	57	124	34	25	22
9	32	35	42	44	57	54	428	55	91	36	24	120
10	66	37	41	42	47	52	151	53	77	35	26	174
11	104	36	42	42	45	49	98	55	64	34	24	64
12	69	36	44	43	45	48	77	60	46	73	24	46
13	42	37	51	42	48	51	765	56	42	83	46	34
14	42	37	50	43	50	49	1850	55	67	50	106	31
15	41	37	47	43	50	48	465	47	68	31	42	34
16	37	33	48	42	50	48	179	40	71	25	38	37
17	35	33	74	40	51	49	108	38	135	27	29	30
18	35	34	92	41	50	49	86	38	66	28	27	23
19	36	54	57	36	51	90	87	40	54	29	26	23
20	36	40	47	32	52	309	93	38	51	26	26	140
21	39	36	45	32	53	140	87	37	48	25	26	39
22	34	34	45	31	52	79	75	36	46	23	25	24
23	30	32	43	31	45	62	74	35	44	24	21	20
24	28	32	42	33	38	58	65	40	43	27	16	23
25	27	34	43	57	37	53	64	45	42	27	13	26
26	29	41	43	45	36	51	110	80	42	30	15	26
27	35	39	41	42	36	49	201	88	41	26	17	25
28	34	41	41	43	36	48	108	92	40	18	65	25
29	34	43	41	42	---	54	82	78	36	31	50	20
30	35	45	40	42	---	57	71	79	31	86	32	15
31	33	---	41	51	---	62	---	54	---	50	28	---
TOTAL	1198	1102	1510	1306	1436	2006	7294	1645	5338	1303	930	1163
MEAN	38.65	36.73	48.71	42.13	51.29	64.71	243.1	53.06	177.9	42.03	30.00	38.77
MAX	104	54	92	60	113	309	1850	92	1840	115	106	174
MIN	27	28	40	31	34	43	35	35	31	18	13	15
AC-FT	2380	2190	3000	2590	2850	3980	14470	3260	10590	2580	1840	2310

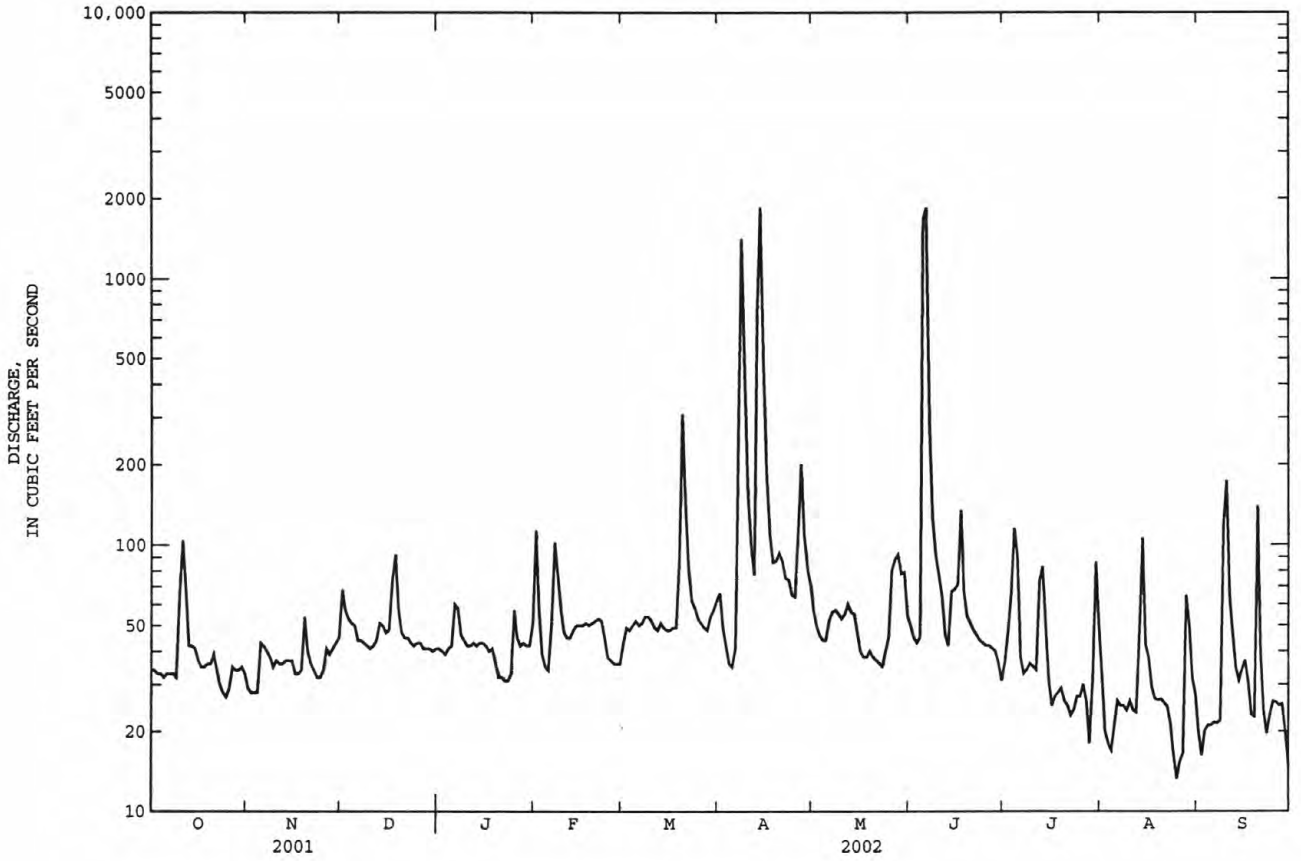
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2002, BY WATER YEAR (WY)

MEAN	253.0	118.0	132.7	111.6	164.9	272.0	248.4	580.6	449.5	99.85	60.54	147.4
MAX	2738	1167	1796	916	1356	2120	1243	2654	2619	483	285	1637
(WY)	1984	2001	1992	1998	1987	1998	1990	1987	1962	1975	1971	1986
MIN	0.000	0.15	0.15	0.63	2.20	2.09	7.81	5.13	12.6	9.25	3.75	0.000
(WY)	1940	1940	1940	1940	1940	1940	1939	1939	1939	1954	1954	1939

07311000 EAST CACHE CREEK NEAR WALTERS, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1938 - 2002	
ANNUAL TOTAL	101971		26231			
ANNUAL MEAN	279.4		71.87		221.2	
HIGHEST ANNUAL MEAN					911	1987
LOWEST ANNUAL MEAN					12.6	1939
HIGHEST DAILY MEAN	6400	May 21	1850	Apr 14	34600	Oct 21 1983
LOWEST DAILY MEAN	11	Jul 30	13	Aug 25	[a]0.00	Jul 24 1939
ANNUAL SEVEN-DAY MINIMUM	12	Aug 8	19	Aug 21	0.00	Aug 1 1939
MAXIMUM PEAK FLOW			2900	Jun 6	50900	Oct 21 1983
MAXIMUM PEAK STAGE			21.90	Jun 6	30.66	Oct 21 1983
ANNUAL RUNOFF (AC-FT)	202300		52030		160300	
10 PERCENT EXCEEDS	542		87		430	
50 PERCENT EXCEEDS	58		42		37	
90 PERCENT EXCEEDS	17		25		11	

[a]No flow at times in 1939-40.



07311200 BLUE BEAVER CREEK NEAR CACHE, OK
(Hydrologic benchmark station)

LOCATION.--Lat 34°37'24", long 98°33'48", in NE $^1/_4$ NE $^1/_4$ sec.28, T.2 N., R.13 W., Comanche County, Hydrologic Unit 11130203, on downstream side of right bank pier on old U.S. Highway 62, 3,000 ft upstream from St. Louis-San Francisco Railway Co. bridge, 4.0 mi east of Cache, and at mile 12.0.

DRAINAGE AREA.--24.6 mi^2.

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,215.26 ft above sea level.

REMARKS.--No estimated daily discharge. Records good. Minor regulation by Lake Rush, Lake Jed Johnson, and Lake Ketch, combined surface-area 132 acres.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since about 1907, that of Aug. 28, 1977, according to local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 13	1230	978	10.82	No other peak greater than base discharge.			

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	0.0	0.01	0.10	0.11	0.14	0.22	3.9	0.70	1.1	0.17	0.00
2	0.0	0.0	0.01	0.10	0.11	0.15	0.22	3.0	0.63	0.72	0.14	0.00
3	0.0	0.0	0.01	0.09	0.11	0.15	0.19	2.7	0.59	1.4	0.12	0.00
4	0.0	0.0	0.0	0.10	0.11	0.14	0.22	2.6	2.0	1.8	0.09	0.00
5	0.0	0.0	0.0	0.12	0.13	0.14	0.22	2.5	1.9	9.8	0.05	0.00
6	0.0	0.0	0.0	0.10	0.13	0.14	0.23	2.2	0.90	14	0.01	0.00
7	0.0	0.0	0.0	0.09	0.13	0.14	0.63	2.0	0.71	9.3	0.0	0.00
8	0.0	0.0	0.0	0.09	0.13	0.14	5.3	1.8	0.58	6.0	0.0	0.01
9	0.0	0.0	0.0	0.10	0.12	0.13	5.9	1.4	0.55	3.7	0.0	0.21
10	0.0	0.0	0.01	0.09	0.12	0.14	3.7	1.4	0.53	2.4	0.0	0.04
11	0.0	0.0	0.02	0.09	0.12	0.14	2.7	1.5	0.50	1.7	0.0	0.00
12	0.0	0.0	0.04	0.09	0.12	0.14	8.1	1.4	0.47	1.7	0.00	0.00
13	0.0	0.0	0.02	0.10	0.12	0.15	241	1.3	0.66	1.2	0.00	0.00
14	0.0	0.0	0.02	0.10	0.12	0.15	55	1.3	0.68	0.95	0.00	0.00
15	0.0	0.0	0.02	0.10	0.12	0.15	26	1.2	0.62	0.82	0.00	0.00
16	0.0	0.0	0.06	0.10	0.12	0.16	18	1.1	0.84	0.72	0.00	0.00
17	0.0	0.0	0.06	0.09	0.12	0.18	14	1.1	0.64	0.68	0.00	0.00
18	0.0	0.0	0.05	0.10	0.12	0.22	11	0.96	0.55	0.62	0.00	0.00
19	0.0	0.0	0.04	0.11	0.13	0.38	9.2	0.95	0.48	0.53	0.00	0.00
20	0.0	0.0	0.04	0.10	0.12	0.30	7.7	0.85	0.47	0.44	0.00	0.00
21	0.0	0.0	0.05	0.10	0.12	0.26	6.7	0.74	0.44	0.37	0.00	0.00
22	0.0	0.0	0.06	0.10	0.12	0.25	5.7	0.71	0.38	0.32	0.00	0.00
23	0.0	0.0	0.05	0.11	0.12	0.24	5.1	0.75	0.35	0.28	0.00	0.00
24	0.0	0.0	0.06	0.10	0.12	0.22	4.5	0.75	0.30	0.27	0.00	0.00
25	0.0	0.0	0.06	0.10	0.12	0.22	4.0	1.1	0.27	0.23	0.00	0.00
26	0.0	0.0	0.07	0.10	0.13	0.24	6.0	1.1	0.23	0.18	0.00	0.00
27	0.0	0.0	0.08	0.10	0.13	0.24	7.0	1.3	0.19	0.14	0.00	0.00
28	0.0	0.0	0.08	0.10	0.13	0.22	6.0	1.3	0.17	0.12	0.00	0.00
29	0.0	0.0	0.08	0.10	---	0.20	4.9	1.2	0.15	0.31	0.00	0.00
30	0.0	0.0	0.08	0.12	---	0.24	4.5	0.90	0.14	0.25	0.00	0.00
31	0.0	---	0.09	0.13	---	0.22	---	0.80	---	0.21	0.00	---
TOTAL	0.0	0.0	1.17	3.12	3.40	5.93	463.93	45.81	17.62	62.26	0.58	0.26
MEAN	0.000	0.000	0.038	0.101	0.121	0.191	15.46	1.478	0.587	2.008	0.019	0.009
MAX	0.00	0.00	0.09	0.13	0.13	0.38	241	3.9	2.0	14	0.17	0.21
MIN	0.00	0.00	0.00	0.09	0.11	0.13	0.19	0.71	0.14	0.12	0.00	0.00
AC-FT	0.00	0.00	2.3	6.2	6.7	12	920	91	35	123	1.2	0.5

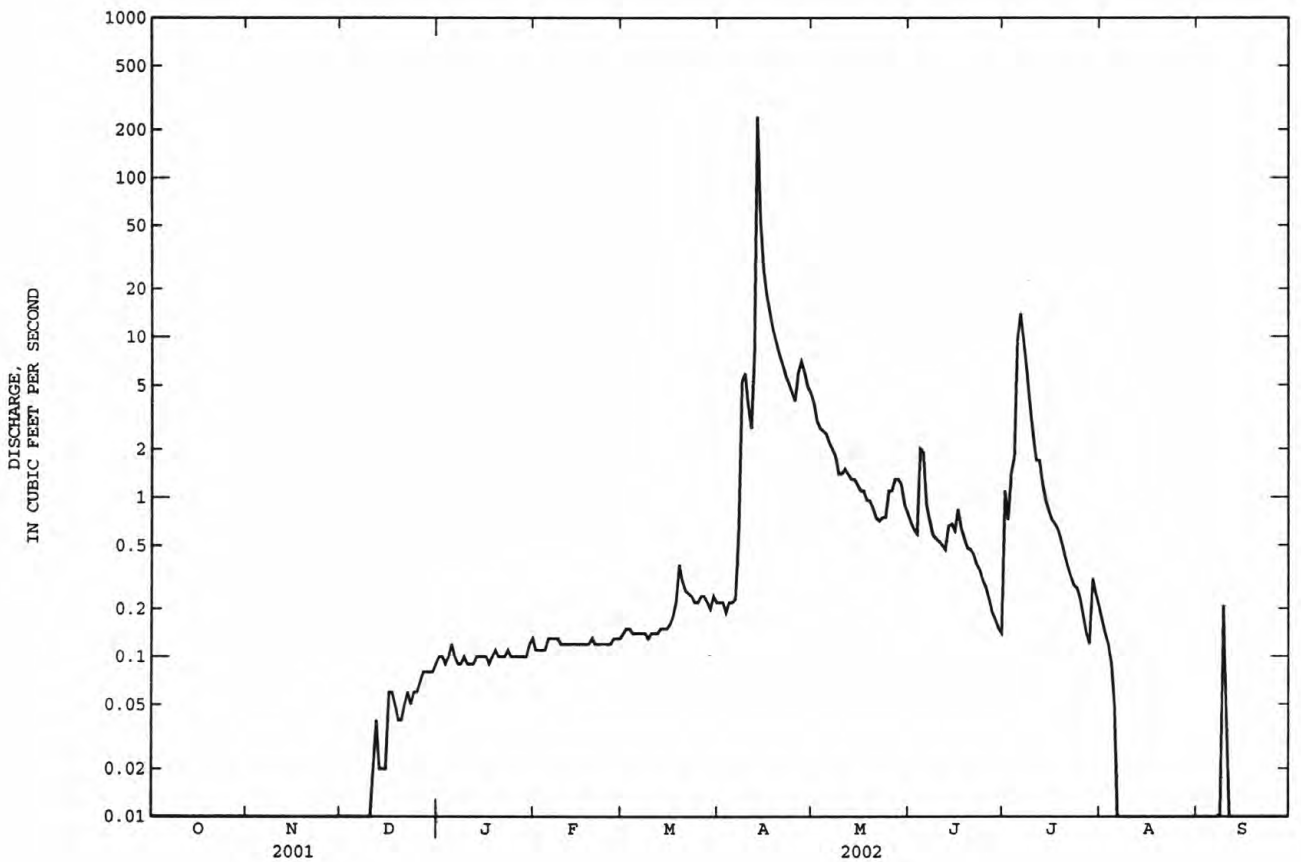
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	16.43	8.193	9.380	8.504	12.93	23.52	18.41	32.85	22.97	1.761	2.017	6.614
MAX	193	61.1	108	53.2	67.1	142	88.0	176	125	14.1	27.5	50.9
(WY)	1987	1987	1992	1973	1987	1998	1990	1982	1989	1999	1977	1991
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.026	0.012	0.000	0.000	0.000
(WY)	1965	1966	1966	1966	1966	1966	1971	1971	1971	1964	1964	1964

07311200 BLUE BEAVER CREEK NEAR CACHE, OK--Continued
(Hydrologic benchmark station)

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1964 - 2002	
ANNUAL TOTAL	3637.09		604.08			
ANNUAL MEAN	9.965		1.655		13.66	
HIGHEST ANNUAL MEAN					47.8	1987
LOWEST ANNUAL MEAN					0.48	1966
HIGHEST DAILY MEAN	320	May 20	241	Apr 13	2600	Oct 20 1983
LOWEST DAILY MEAN	0.00	Jul 21	[a]0.00	Oct 1	[a]0.00	Jul 1 1964
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 21	0.00	Oct 1	0.00	Jul 1 1964
MAXIMUM PEAK FLOW			978	Apr 13	[b]13600	Aug 28 1977
MAXIMUM PEAK STAGE			10.82	Apr 13	[c]18.02	Aug 28 1977
ANNUAL RUNOFF (AC-FT)	7210		1200		9890	
10 PERCENT EXCEEDS	24		2.0		24	
50 PERCENT EXCEEDS	1.9		0.12		1.1	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

[a]Many days.
[b]From rating curve extended above 4,000 ft^3/s on basis of contracted opening.
[c]From high-water mark.



07311500 DEEP RED CREEK NEAR RANDLETT, OK
(Formerly published as Deep Red Run near Randlett)

LOCATION.--Lat 34°13'15", long 98°27'10", in SW $^1/_4$ SW $^1/_4$ sec.10, T.4 S., R.12 W., Cotton County, Hydrologic Unit 11130203, near right bank on downstream side of pier of bridge on U.S. Highway 277, 2.8 mi north of Randlett, and at mile 4.8.

DRAINAGE AREA.--617 mi^2.

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1993, published as Deep Red Run near Randlett.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1631: 1956. WSP 1920: 1951.

GAGE.--Water-stage recorder and sharp-crested weir. Datum of gage is 924.49 ft above sea level (Oklahoma State Highway Department). Prior to Nov. 10, 1949, nonrecording gage at same site and datum.

REMARKS.--Records fair. Some regulation by numerous flood-retarding structures.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1908 reached a stage somewhat exceeding 27 ft, from information provided by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 8	1800	2,650	19.49	Jun 6	0115	2,690	19.61
Apr 14	0500	4,820	22.66				

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.0	e0.73	e0.71	0.92	1.5	1.7	230	13	5.9	18	5.9	3.2
2	e0.0	e0.74	0.83	0.98	1.6	1.8	43	11	5.9	56	5.2	2.3
3	e0.0	e0.72	0.96	0.98	1.8	1.8	8.3	9.1	5.6	96	4.7	2.4
4	e0.0	e0.73	0.98	1.0	1.7	1.7	2.6	8.5	5.8	275	4.3	2.0
5	e0.0	e0.70	1.0	1.2	1.8	1.6	2.1	8.1	1330	106	4.0	1.1
6	e0.0	e0.71	0.99	1.2	1.9	1.6	1.9	7.8	1670	229	3.8	0.46
7	e0.0	e0.73	0.98	1.2	1.9	1.6	221	7.6	118	306	3.6	0.23
8	e0.0	e0.73	0.98	1.2	1.9	1.6	2150	7.3	30	115	3.6	e0.23
9	0.0	e0.72	0.93	1.3	1.9	1.6	888	7.0	8.1	40	3.3	e0.23
10	12	e0.72	0.86	1.3	2.0	1.5	78	7.9	6.7	11	3.1	e0.23
11	413	e0.71	0.86	1.3	1.9	1.5	28	8.3	6.2	7.1	3.4	e0.22
12	103	e0.72	0.86	1.3	1.9	1.5	7.1	7.6	5.9	6.5	3.2	e0.22
13	13	e0.73	0.90	1.3	1.9	1.5	1310	7.1	5.9	222	3.4	e0.22
14	2.6	e0.71	0.86	1.3	1.9	1.5	4510	6.7	55	78	3.7	e0.22
15	1.4	e0.71	0.82	1.3	1.9	1.4	2630	6.7	32	13	4.0	e0.21
16	1.3	e0.71	1.0	1.3	1.9	1.4	173	6.4	56	6.8	4.0	e0.21
17	1.2	e0.70	1.1	1.3	1.9	1.4	60	6.3	96	6.2	4.5	e0.21
18	1.1	e0.69	1.1	1.2	1.9	1.6	29	6.0	44	5.7	4.5	e0.20
19	1.1	e0.68	1.1	1.3	2.0	3.2	17	5.9	16	5.3	4.2	e0.15
20	0.98	e0.69	1.2	1.2	1.9	44	14	5.9	7.4	5.0	4.0	e0.10
21	0.93	e0.70	1.1	1.3	1.8	105	12	5.6	6.5	4.5	3.7	e0.08
22	0.79	e0.69	1.2	1.2	1.7	22	10	5.5	6.2	4.1	3.5	e0.05
23	e0.81	e0.68	1.1	1.2	1.7	5.5	9.2	5.4	5.8	3.9	3.1	e0.02
24	e0.78	e0.69	1.1	1.2	1.7	2.5	9.0	5.3	5.3	3.7	2.1	e0.00
25	e0.77	e0.70	1.1	1.2	1.7	2.1	9.2	5.4	4.8	3.6	1.4	e0.00
26	e0.74	e0.71	1.1	1.1	1.7	1.9	261	5.2	4.2	3.6	0.78	e0.00
27	e0.74	e0.71	1.1	1.2	1.7	1.7	322	5.2	3.9	3.6	2.4	e0.00
28	e0.75	e0.71	1.1	1.2	1.7	1.6	78	5.2	3.7	3.6	3.0	e0.00
29	e0.74	e0.70	1.0	1.3	---	1.5	31	5.3	3.6	4.4	1.5	e0.00
30	e0.72	e0.70	1.0	1.4	---	1.8	16	5.5	3.6	24	2.3	e0.00
31	e0.72	---	0.98	1.5	---	47	---	5.9	---	6.8	3.6	---
TOTAL	559.17	21.27	30.90	37.88	50.8	268.1	13160.4	213.7	3558.0	1673.4	107.78	14.49
MEAN	18.04	0.709	0.997	1.222	1.814	8.648	438.7	6.894	118.6	53.98	3.477	0.483
MAX	413	0.74	1.2	1.5	2.0	105	4510	13	1670	306	5.9	3.2
MIN	0.00	0.68	0.71	0.92	1.5	1.4	1.9	5.2	3.6	3.6	0.78	0.00
AC-FT	1110	42	61	75	101	532	26100	424	7060	3320	214	29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

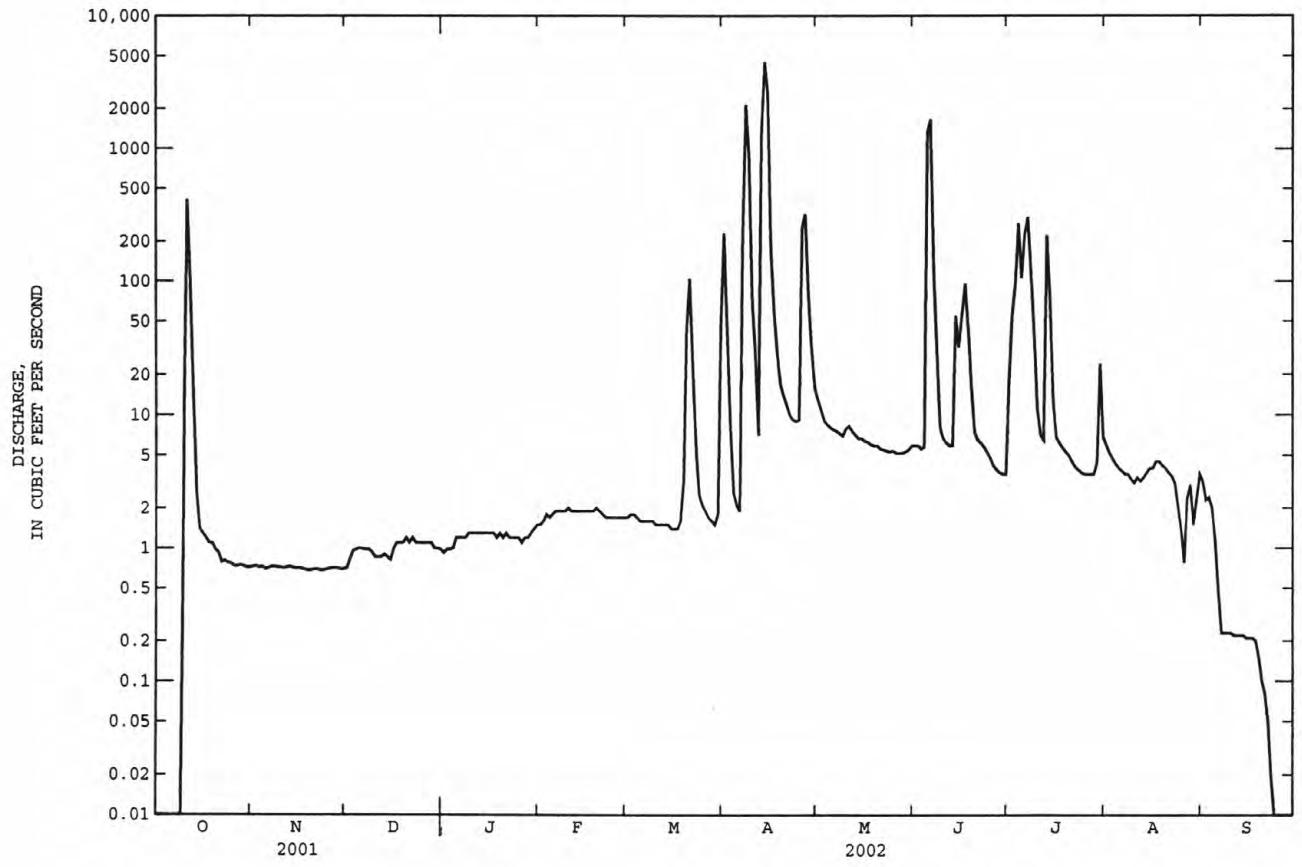
MEAN	264.6	99.37	69.49	61.95	86.48	139.7	140.9	462.4	426.5	59.00	65.51	175.6
MAX	3345	994	1493	568	1020	1540	1398	2800	4654	795	1109	1453
(WY)	1984	1987	1992	1998	1987	1998	1990	1987	1995	1991	1995	1969
MIN	0.000	0.000	0.000	0.000	0.022	0.10	0.003	0.061	0.000	0.000	0.000	0.000
(WY)	1953	1955	1955	1953	1981	1980	1955	1971	1966	1964	1952	1952

e Estimated

07311500 DEEP RED CREEK NEAR RANDLETT, OK--Continued
(Formerly published as Deep Red Run near Randlett)

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL TOTAL	36759.32		19695.89			
ANNUAL MEAN	100.7		53.96		171.2	
HIGHEST ANNUAL MEAN					904	1987
LOWEST ANNUAL MEAN					15.1	2000
HIGHEST DAILY MEAN	3010	Jan 30	4510	Apr 14	46300	Oct 20 1983
LOWEST DAILY MEAN	0.00	Sep 30	0.00	at times	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 30	0.00	Oct 1	0.00	Oct 3 1951
MAXIMUM PEAK FLOW			4820	Apr 14	72300	Oct 20 1983
MAXIMUM PEAK STAGE			22.66	Apr 14	[a]29.58	May 29 1987
ANNUAL RUNOFF (AC-FT)	72910		39070		124000	
10 PERCENT EXCEEDS	203		35		187	
50 PERCENT EXCEEDS	2.5		1.9		4.8	
90 PERCENT EXCEEDS	0.71		0.69		0.00	

[a]Due to backwater from West Cache Creek.



07315500 Red River near Terral, OK

LOCATION.--Lat 33 52'43", long 97 56'03", Jefferson County, Hydrologic Unit 11130201, on left bank at downstream side of bridge abutment on U.S. Highway 81, 0.5 mi downstream from Chicago, and Rock Island Railroad Co. bridge, 1.2 mi south of Terral, 3.6 mi downstream from Little Wichita River, and at mile 872.

DRAINAGE AREA.--28,723 mi^2 of which 5,936 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Apr. 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 770.31 ft above NGVD of 1929. Prior to Jan. 12, 1939, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in Apr. 1938, at least 10% of contributing drainage area has been regulated. There are many small diversions upstream from station for irrigation, oil field operations, and for municipal uses.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 19, 1935, reached a stage of 27.2 ft, although floods in 1891 and on May 1, 1908, are reported to have reached about the same stage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	123	408	234	273	320	667	1620	1000	278	857	108
2	195	124	462	238	306	319	913	1270	757	302	677	87
3	184	121	431	235	499	313	930	1050	573	493	522	67
4	179	124	422	244	1150	328	726	899	473	686	520	58
5	174	124	415	274	1020	340	565	788	1090	1410	457	49
6	156	123	401	283	827	340	507	712	6670	1240	488	48
7	151	116	382	300	734	330	647	e690	11900	3080	443	46
8	145	110	351	344	711	320	2900	e670	7020	3640	396	57
9	149	118	326	327	674	288	8600	645	3640	3540	350	e70
10	178	121	315	313	667	264	5910	588	2080	4770	335	e115
11	233	125	301	289	689	256	2920	583	1400	4340	325	e190
12	239	124	309	281	643	249	1620	592	1030	3850	297	314
13	532	120	302	274	587	250	2010	581	876	3620	274	302
14	450	126	304	265	544	241	13500	555	870	3600	261	296
15	369	122	297	259	505	240	13900	541	962	4230	253	294
16	256	125	374	256	471	230	13500	496	972	3360	272	291
17	214	140	436	247	444	230	5840	511	828	2120	304	288
18	186	146	506	245	425	245	2930	480	1050	1440	313	285
19	177	217	470	249	440	287	2140	445	1290	1090	288	282
20	164	2190	362	249	434	400	1710	417	1990	855	258	278
21	153	2070	340	247	423	615	1440	394	1460	690	243	275
22	148	1350	314	242	423	1000	1270	382	989	581	225	270
23	143	953	288	239	401	983	1170	370	749	502	204	262
24	130	754	267	230	379	814	1060	358	598	441	180	228
25	126	645	259	227	363	662	952	370	497	431	162	225
26	123	536	254	227	333	565	1260	395	419	408	149	224
27	113	453	248	232	320	500	2810	457	364	410	161	227
28	111	446	247	246	315	464	4270	678	320	340	144	227
29	113	437	245	247	---	437	3730	702	290	416	125	227
30	114	423	236	246	---	452	2430	846	266	552	114	229
31	121	---	235	268	---	516	---	1050	---	763	116	---
TOTAL	5939	12706	10507	8057	15000	12798	102827	20135	52423	53478	9713	5919
MEAN	191.6	423.5	338.9	259.9	535.7	412.8	3428	649.5	1747	1725	313.3	197.3
MAX	532	2190	506	344	1150	1000	13900	1620	11900	4770	857	314
MIN	111	110	235	227	273	230	507	358	266	278	114	46
AC-FT	11780	25200	20840	15980	29750	25380	204000	39940	104000	106100	19270	11740

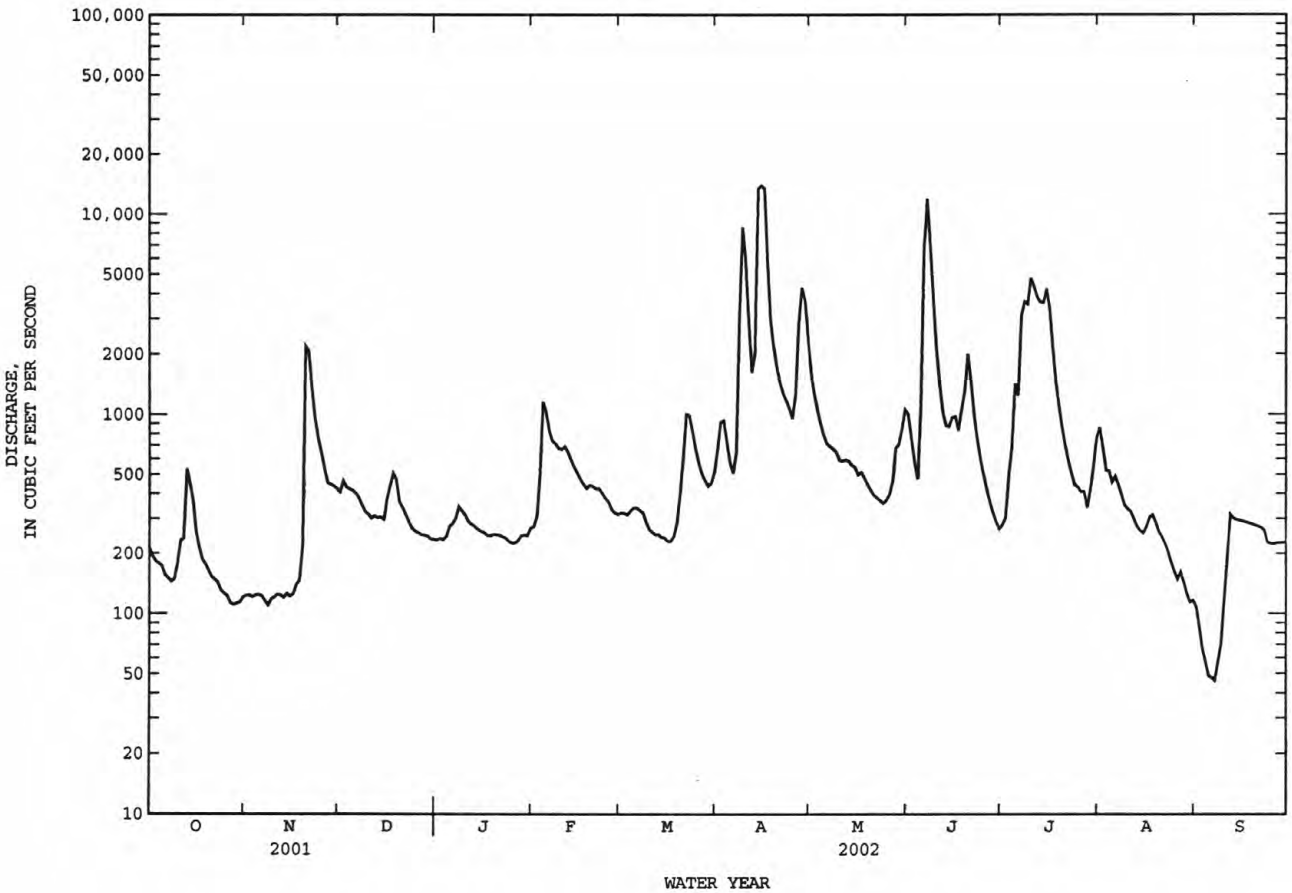
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2002, BY WATER YEAR (WY)

MEAN	2959	1540	1140	960.1	1408	2050	2619	6436	6131	1652	1305	1961
MAX	23900	9713	11810	5306	9320	14710	18080	43580	37460	8077	14730	9653
(WY)	1987	1987	1992	1992	1987	1998	1990	1957	1941	1950	1995	1986
MIN	108	102	91.2	76.5	136	66.1	142	134	517	158	155	100
(WY)	1953	1940	1939	1940	1953	1940	1971	1971	1966	1964	1970	2000

e Estimated

07315500 Red River near Terral, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1938 - 2002	
ANNUAL TOTAL	760913		309502			
ANNUAL MEAN	2085		848.0		2512	
HIGHEST ANNUAL MEAN					8925	1987
LOWEST ANNUAL MEAN					523	1953
HIGHEST DAILY MEAN	18500	May 22	13900	Apr 15	215000	Jun 7 1995
LOWEST DAILY MEAN	110	Nov 8	46	Sep 7	46	Mar 20 1940
ANNUAL SEVEN-DAY MINIMUM	117	Oct 26	56	Sep 3	47	Mar 18 1940
MAXIMUM PEAK FLOW			15800	Apr 14	236000	Jun 7 1995
MAXIMUM PEAK STAGE			13.92	Apr 14	33.60	Oct 22 1983
ANNUAL RUNOFF (AC-FT)	1509000		613900		1819000	
10 PERCENT EXCEEDS	6120		1620		5510	
50 PERCENT EXCEEDS	607		363		599	
90 PERCENT EXCEEDS	178		128		177	



07315500 Red River near Terral, OK--Continued

WATER-QUALITY RECORDS

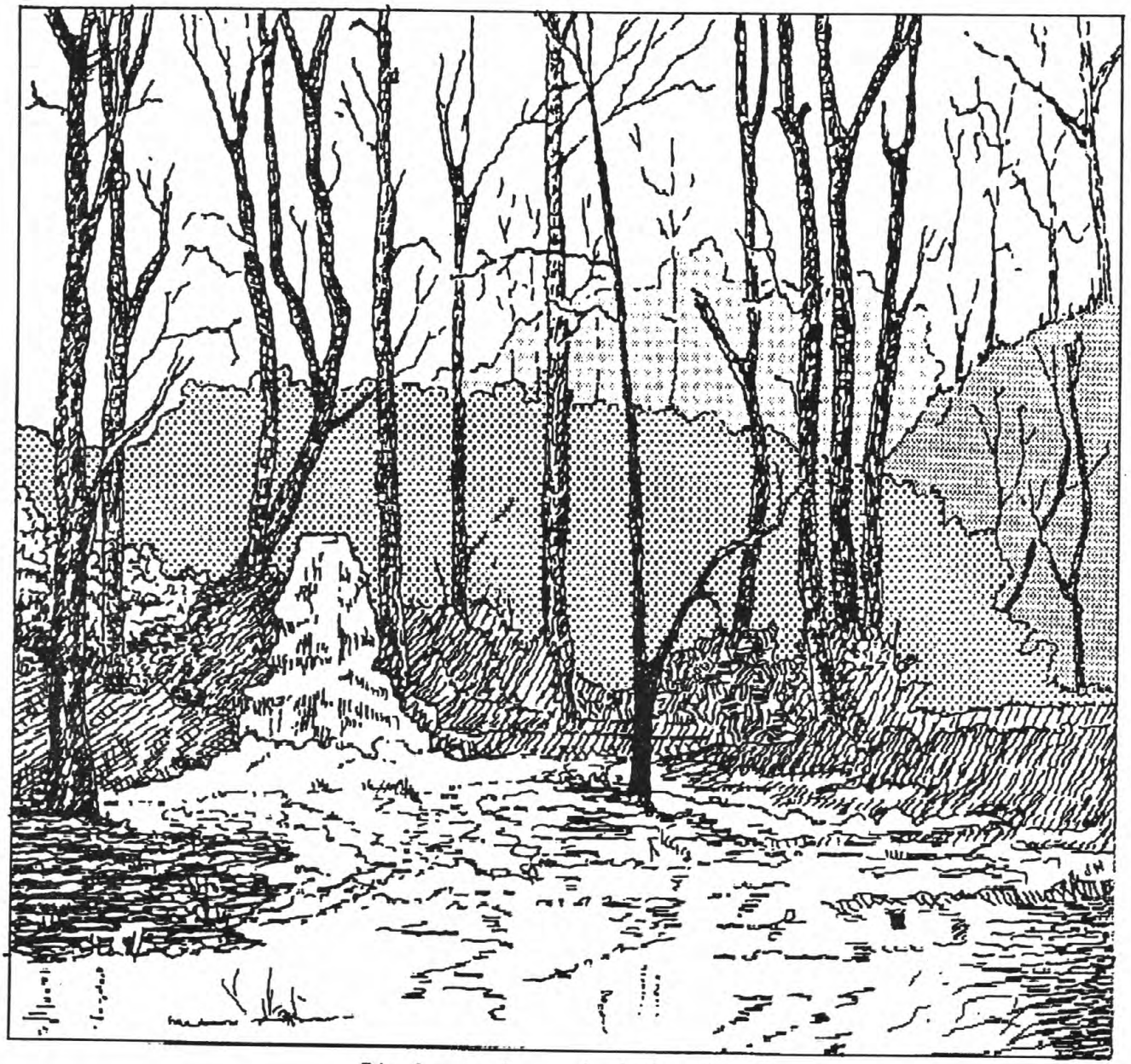
PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1967 to Sept. 1997.
BIOLOGICAL DATA: May 1997 to Sept. 1997, Oct. 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)
DEC									
27...	1430	264	7670	8.0	5.8	12.9	110	<1	1k
MAR									
28...	1155	464	7620	7.7	15.3	12.5	133	11k	100
JUN									
04...	0855	485	5600	7.8	25.0	6.9	85	33k	<3
SEP									
05...	1020	49	4790	7.2	26.4	7.6	96	100	79k

Remark codes used in this report:
< -- Less than

Value qualifier codes used in this report:
k -- Counts outside acceptable range



Discharge from airshaft site No. 4

07315700 MUD CREEK NEAR COURTNEY, OK

LOCATION.--Lat 34°00'15", long 97°34'00", in NW $^1/_4$ SE $^1/_4$ sec.25, T.6 S., R.4 W., Jefferson County, Hydrologic Unit, 11130201, on downstream side of bridge on State Highway 89, 4.0 mi downstream from North Mud Creek, 6.0 mi northwest of Courtney, and at mile 11.5.

DRAINAGE AREA.--572 mi^2.

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WDR OK-78-2: Maximum gage height.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 727.72 ft above sea level. Prior to Oct. 1, 1968, auxiliary water-stage recorder 2.0 mi downstream from base gage.

REMARKS.--Records poor. U.S. Geiological Survey satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1957, reached a stage of 30.6 ft.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 8	2145	4,640	25.15	Apr 13	2300	4,650	25.16

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.0	e0.73	e1.5	e2.3	e1.1	e5.4	180	59	26	e8.1	e18	e0.17
2	e2.5	e0.67	e0.60	e2.0	e1.0	e5.0	108	49	e21	21	e26	e0.16
3	e2.0	e0.62	e0.51	e10	e1.0	e4.5	54	41	e15	22	e22	e0.14
4	e1.5	e0.57	e0.44	e8.8	e0.98	e4.1	32	37	e14	31	e19	e0.13
5	e1.0	e0.54	e0.41	e6.7	e0.91	e3.8	21	34	431	46	e12	e0.12
6	e0.75	e0.53	e0.41	e5.7	e0.86	e3.7	14	33	626	153	e4.5	e0.11
7	e0.50	e0.50	e0.40	e4.9	12	e3.6	409	31	232	109	3.1	e0.10
8	e0.35	e0.48	e0.40	e4.6	9.2	e3.5	2670	29	79	50	e2.0	e0.05
9	0.27	e0.47	e0.39	e4.3	e8.4	e3.4	3400	27	35	31	e1.1	e0.0
10	15	e0.46	0.39	e3.7	e8.0	e3.3	2470	26	e25	e17	e0.55	e0.0
11	274	e0.45	e0.39	e3.3	e7.5	e3.2	956	25	e19	e15	e1.5	e0.0
12	111	e0.44	e0.40	e2.9	7.1	e3.1	200	25	14	e14	e0.43	e0.0
13	898	e0.44	e0.40	e2.7	6.5	e3.0	2040	28	12	e13	e0.40	e0.0
14	224	e0.43	e0.39	e2.3	6.1	e2.9	4230	29	53	30	e0.38	e0.0
15	32	e0.42	e0.39	e2.1	e5.3	e2.8	3900	27	47	e9.5	e0.35	e0.0
16	12	e0.42	19	e2.0	e4.9	e2.8	3270	25	55	e6.7	e0.30	e0.0
17	6.9	e1.5	238	e1.9	e4.3	e2.7	921	24	32	e6.0	e0.27	e0.0
18	5.7	e0.90	292	e1.8	e3.9	e2.6	182	27	20	e5.3	e0.24	e0.0
19	e4.7	e0.64	112	e1.7	e3.5	15	126	36	13	e5.1	e0.23	e0.0
20	e4.3	e0.58	44	e1.6	e3.1	376	100	29	11	e5.0	e0.22	e0.0
21	e2.9	e0.54	27	e1.5	e3.0	162	84	24	10	e4.9	e0.20	e0.0
22	e2.5	e0.52	17	e1.5	39	86	72	e22	9.3	e4.8	e0.19	e0.0
23	e2.1	e0.50	11	e1.4	24	60	62	e19	8.9	e4.8	e0.18	e0.0
24	e1.7	e0.49	e9.2	e1.4	12	36	56	e17	e8.8	e4.7	e0.17	e0.0
25	e1.4	e0.48	e8.5	e1.3	7.9	26	50	e15	e8.7	e4.7	e0.16	e0.00
26	e1.3	e0.48	e7.5	e1.3	6.9	16	194	e14	e8.5	e4.6	e0.15	e0.00
27	e1.1	e0.46	e6.4	e1.2	e6.3	11	355	35	e8.4	e4.5	e0.14	e0.00
28	e0.99	e0.44	e4.5	e1.2	e5.8	9.2	248	82	e8.3	e4.5	e1.6	e0.00
29	e0.87	e0.43	e3.2	e1.2	---	8.5	129	101	e8.3	e12	e0.30	e0.00
30	e0.80	e2.7	e2.8	e1.2	---	11	76	56	e8.2	31	e0.22	e0.00
31	e0.75	---	e2.6	e1.1	---	192	---	39	---	51	e0.19	---
TOTAL	1615.88	18.83	812.12	89.6	200.55	1072.1	26609	1065	1867.4	729.2	116.07	0.98
MEAN	52.13	0.628	26.20	2.890	7.162	34.58	887.0	34.35	62.25	23.52	3.744	0.033
MAX	898	2.7	292	10	39	376	4230	101	626	153	26	0.17
MIN	0.27	0.42	0.39	1.1	0.86	2.6	14	14	8.2	4.5	0.14	0.00
AC-FT	3210	37	1610	178	398	2130	52780	2110	3700	1450	230	1.9

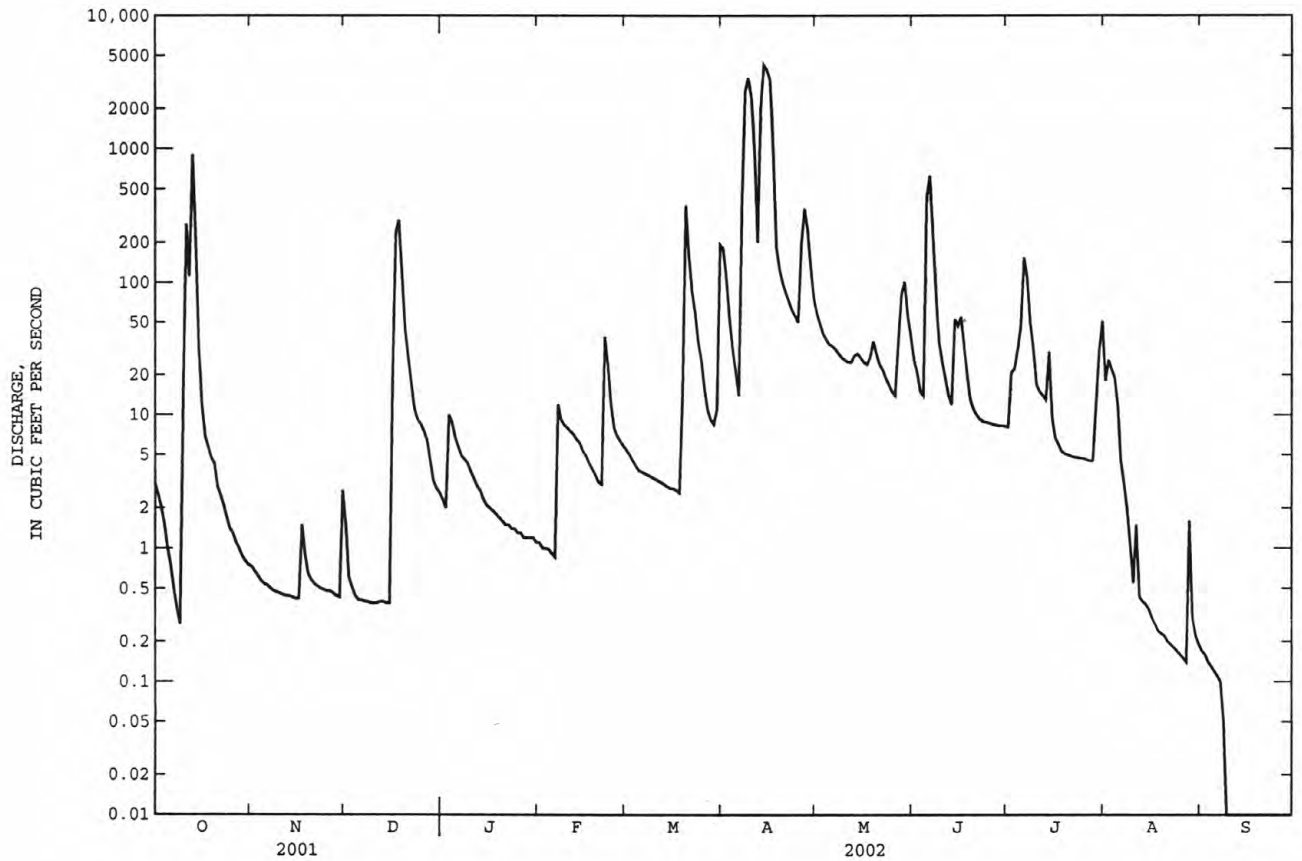
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

MEAN	107.1	125.9	154.4	102.7	184.1	286.6	300.0	502.0	348.8	39.51	22.51	107.3
MAX	1216	854	1766	898	1251	1594	3075	3670	1859	279	293	571
(WY)	1982	1974	1992	1985	1997	1998	1990	1982	1989	1975	1964	1989
MIN	0.000	0.000	0.009	0.000	0.060	0.001	0.16	0.10	0.021	0.000	0.000	0.000
(WY)	1964	1978	1979	1964	2000	1980	1980	2000	1972	1964	1980	1963

07315700 MUD CREEK NEAR COURTNEY, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1961 - 2002	
ANNUAL TOTAL	53481.13		34196.73			
ANNUAL MEAN	146.5		93.69		189.8	
HIGHEST ANNUAL MEAN					614	1990
LOWEST ANNUAL MEAN					1.68	2000
HIGHEST DAILY MEAN	8260	Feb 17	4230	Apr 14	37800	May 3 1990
LOWEST DAILY MEAN	0.00	Jul 23	0.00	at times	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 23	0.00	Sep 9	0.00	Jul 28 1961
MAXIMUM PEAK FLOW			4650	Apr 13	49600	May 3 1990
MAXIMUM PEAK STAGE			25.16	Apr 13	33.14	May 29 1987
ANNUAL RUNOFF (AC-FT)	106100		67830		137500	
10 PERCENT EXCEEDS	205		92		259	
50 PERCENT EXCEEDS	19		4.7		8.0	
90 PERCENT EXCEEDS	0.11		0.19		0.00	

e Estimated



07316000 RED RIVER NEAR GAINESVILLE, TX

LOCATION.--Lat 33°43'40", long 97°09'35", in SW $^1/_4$ sec.36, T.9 S., R.1 E., Love County, OK, Hydrologic Unit 11130201, on downstream right bank at end of bridge on Interstate 35, 0.2 mi downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 5.0 mi downstream from Fish Creek, 4.5 mi southwest of Thackerville, OK, 7.0 mi north of Gainesville, and at mile 791.5.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--30,782 mi^2 of which 5,936 mi^2 probably is noncontributing.

PERIOD OF RECORD.--May 1936 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 627.91 ft above sea level. Prior to Jan. 17, 1939, and Feb. 13, 1965 to Nov. 14, 1966, nonrecording gage at same site and datum.

REMARKS.--Records poor. Flow slightly regulated by Lake Kemp (station 07312000 in Texas), since 1943 by Lake Altus (station 07302500 in Oklahoma), since 1946 by Lake Kickapoo (station 07314000 in Texas), since 1967 by Lake Arrowhead (station 07314800 in Texas) and Moss Lake (station 07315950 in Texas). U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 24,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 15	2100	24,100	17.43	No other peak greater than base discharge.			

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369	173	636	376	357	372	1830	4420	1120	624	744	e211
2	323	180	605	363	356	372	1680	2820	1220	690	763	e201
3	292	181	570	354	353	384	1290	2050	1240	683	895	e200
4	269	184	588	350	355	367	1260	1720	1030	657	859	e205
5	255	182	597	394	450	363	1280	1520	1580	728	732	e196
6	235	183	569	437	1210	357	1110	1340	6550	984	703	e182
7	226	182	537	439	1380	354	5000	1200	7200	1430	644	e174
8	216	175	515	422	1140	367	15800	1100	13600	1620	638	174
9	208	166	495	428	990	355	15100	1010	10400	3010	622	290
10	212	164	460	460	904	337	16700	927	6070	3520	573	306
11	573	161	449	477	831	315	13600	863	3490	3380	609	272
12	2650	172	447	445	817	316	9150	825	2210	4610	490	248
13	2510	179	436	424	825	308	7830	814	1690	4420	449	211
14	4280	182	442	401	784	298	15200	835	1550	3620	484	280
15	2500	179	427	386	741	295	23500	811	1460	3330	423	308
16	1170	173	936	369	684	278	21500	751	1470	3430	373	304
17	807	175	2640	358	617	269	20300	988	1490	3800	350	244
18	634	185	2560	348	582	442	13400	1530	1430	3010	321	225
19	500	196	1540	347	735	1800	6970	1120	1230	2000	334	e213
20	408	190	1200	344	643	6050	4940	807	1260	1540	343	e197
21	345	192	1010	343	562	5300	3780	701	1380	1270	342	e178
22	305	1800	788	344	529	2970	3010	634	1850	1030	314	e169
23	278	2350	657	345	493	1630	2530	593	1580	869	282	e165
24	248	1710	575	356	508	1660	2170	557	1220	764	267	e164
25	220	1280	524	343	483	1530	1900	536	1010	706	360	e172
26	202	1030	485	320	419	1270	1940	533	870	646	e325	210
27	193	879	454	314	391	1070	3100	544	771	580	300	208
28	186	812	433	310	378	922	3520	605	701	547	e272	202
29	180	745	416	312	---	834	5310	941	630	545	e251	e192
30	170	683	396	313	---	772	5760	1370	585	811	e235	e189
31	164	---	381	327	---	1310	---	1230	---	776	e223	---
TOTAL	21128	15043	22768	11549	18517	33267	230460	35695	77887	55630	14520	6490
MEAN	681.5	501.4	734.5	372.5	661.3	1073	7682	1151	2596	1795	468.4	216.3
MAX	4280	2350	2640	477	1380	6050	23500	4420	13600	4610	895	308
MIN	164	161	381	310	353	269	1110	533	585	545	223	164
AC-FT	41910	29840	45160	22910	36730	65990	457100	70800	154500	110300	28800	12870

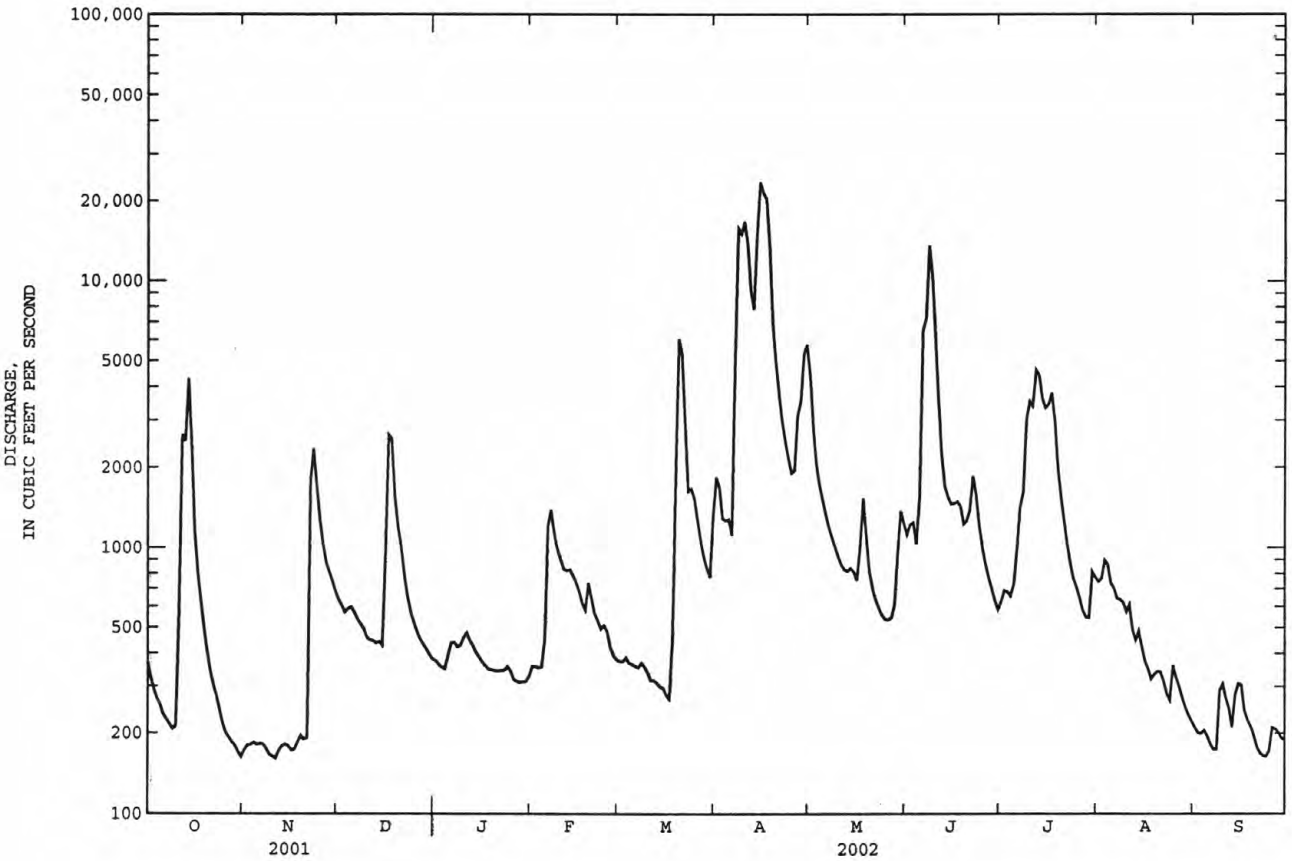
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2002, BY WATER YEAR (WY)

MEAN	3716	2047	1614	1286	1960	2916	3586	7896	8135	2155	1570	2424
MAX	31080	14020	14990	7258	10920	19590	27400	47780	43510	9857	20730	12880
(WY)	1942	1942	1992	1998	2001	1998	1990	1957	1941	1950	1995	1986
MIN	119	137	125	82.4	151	90.5	153	204	640	166	163	108
(WY)	1953	1955	1940	1940	1953	1940	1971	1971	1966	1964	1970	1956

e Estimated

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1937 - 2002	
ANNUAL TOTAL	1147201		542954			
ANNUAL MEAN	3143		1488		3277	
HIGHEST ANNUAL MEAN					11890	1987
LOWEST ANNUAL MEAN					651	1953
HIGHEST DAILY MEAN	44700	Feb 17	23500	Apr 15	232000	May 31 1987
LOWEST DAILY MEAN	161	Nov 11	161	Nov 11	48	Jan 18 1940
ANNUAL SEVEN-DAY MINIMUM	171	Nov 7	171	Nov 7	48	Jan 18 1940
MAXIMUM PEAK FLOW			24100	Apr 15	265000	May 31 1987
MAXIMUM PEAK STAGE			17.43	Apr 15	40.08	May 31 1987
ANNUAL RUNOFF (AC-FT)	2275000		1077000		2374000	
10 PERCENT EXCEEDS	8580		3190		7300	
50 PERCENT EXCEEDS	1320		575		858	
90 PERCENT EXCEEDS	226		196		216	



07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1994 to current year.

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

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 9,510 microsiemens Feb. 18, 2002; minimum, 402 microsiemens Nov. 14, 1994.
WATER TEMPERATURE: Maximum, 36.5°C July 15, 1998; minimum , -0.5°C Jan. 4, 5, 1999.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded (more than 20% missing record), 9,510 microsiemens Feb. 18; minimum, 438 microsiemens Apr. 17.
WATER TEMPERATURE: Maximum recorded (more than 20% missing record), 35.1°C Aug. 3; minimum, 0.0°C Jan. 3.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	GAGE HEIGHT (FEET) (00065)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (00009)
SEP										
16...	1546	1028	1028	8.59	750	10.7	8.4	4450	29.5	225
16...	1548	1028	1028	8.59	750	10.7	8.4	4450	28.6	200
16...	1550	1028	1028	8.59	750	10.8	8.4	4470	28.5	175
16...	1552	1028	1028	8.59	750	10.9	8.4	4470	28.4	150
16...	1554	1028	1028	8.59	750	10.9	8.4	4480	28.4	125
16...	1556	1028	1028	8.59	750	10.9	8.4	4480	28.4	100
16...	1558	1028	1028	8.59	750	10.8	8.4	4490	28.3	75.0
16...	1600	1028	1028	8.59	750	10.8	8.4	4480	28.3	50.0
16...	1602	1028	1028	8.59	750	10.5	8.4	4470	28.4	25.0

Date	Time	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	GAGE HEIGHT (FEET) (00065)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CACO3) (00900)
OCT													
10...	1540	80020	1028	8.55	212	748	--	--	8.3	5260	20.9	23.1	850
NOV													
27...	1645	80020	1028	9.56	826	751	94	10.8	8.3	6010	2.8	7.6	820
DEC													
27...	1445	80020	1028	8.97	440	747	103	12.2	8.3	4810	16.1	6.3	810
JAN													
15...	1500	80020	1028	8.85	369	751	101	11.4	8.2	5480	16.3	8.5	900
FEB													
20...	1430	80020	1028	9.12	529	749	138	13.4	8.5	7970	21.5	14.7	980
MAR													
12...	1600	80020	1028	8.57	255	737	120	11.2	8.2	5810	20.5	16.0	1100
APR													
09...	1500	80020	1028	15.16	13700	750	97	9.3	8.0	665	21.9	16.5	140
MAY													
08...	1245	80020	1028	9.88	983	736	100	8.1	8.1	3600	26.5	24.0	660
JUN													
13...	1330	80020	1028	10.48	1490	745	66	4.9	7.9	1930	35.8	29.0	370
JUL													
17...	1700	80020	1028	11.93	3760	740	51	3.8	8.1	2590	29.5	28.2	300
AUG													
15...	1730	80020	1028	8.81	398	745	140	10.1	8.5	3490	33.1	30.8	620
SEP													
16...	1515	80020	1028	8.59	290	750	143	10.8	8.4	4470	29.2	28.4	1300

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SODIUM ADSORPTION RATIO (00931)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
OCT 10...	720	218	74.0	8.52	12	802	67	129	157	0	1300	.4	7.9
NOV 27...	700	234	57.3	9.52	14	939	71	119	135	5	1540	.5	7.9
DEC 27...	630	218	63.5	13.9	10	678	64	176	212	2	1130	.4	8.6
JAN 15...	730	234	76.8	6.93	11	771	65	168	199	3	1340	.4	3.4
FEB 20...	870	260	81.3	7.62	17	1210	73	112	130	4	2170	.3	3.8
MAR 12...	920	265	94.6	7.97	12	912	65	131	155	2	1480	.4	2.2
APR 09...	58	37.1	10.5	4.57	3	72.9	53	78	95	0	114	.2	6.2
MAY 08...	510	172	56.5	7.68	9	520	63	152	182	2	855	.3	6.1
JUN 13...	270	101	27.5	8.64	6	255	60	97	118	0	412	.3	8.1
JUL 17...	200	80.7	24.4	4.52	3	132	48	104	125	0	208	.3	4.4
AUG 15...	510	158	55.0	8.59	8	483	62	108	123	4	775	.4	7.2
SEP 16...	1300	185	214	9.87	8	687	52	84	94	4	1070	.5	6.6

Date	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4) (71846)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3) (71851)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2) (71856)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4) (00660)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
OCT 10...	663	1.1	<.04	--	--	--	--	<.05	--	<.008	--	--	<.06
NOV 27...	723	1.9	.13	.64	2.6	.16	2.85	.66	.043	.013	1.8	.077	E.03
DEC 27...	563	.76	<.04	--	1.2	--	--	.45	--	E.007	--	.169	.07
JAN 15...	681	.74	E.02	.15	.90	--	.664	.17	.053	.016	--	--	E.03
FEB 20...	858	.97	E.04	--	--	--	--	<.05	--	<.008	--	--	<.06
MAR 12...	766	.84	<.04	--	.91	--	--	.06	--	<.008	--	--	<.06
APR 09...	62.9	2.8	.10	.11	2.9	.12	.500	.13	.043	.013	2.7	.071	E.05
MAY 08...	480	.80	<.04	--	--	--	--	<.05	--	<.008	--	.126	E.06
JUN 13...	240	1.9	<.04	.37	2.3	--	1.66	.38	.030	.009	--	.307	.16
JUL 17...	178	.43	.07	.22	.67	.09	.956	.24	.072	.022	.35	.138	E.05
AUG 15...	457	1.5	<.04	--	--	--	--	<.05	--	<.008	--	--	<.06
SEP 16...	599	1.7	E.03	--	--	--	--	<.05	--	<.008	--	--	<.06

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT													
10...	<.02	.14	43	4.29	1800	3150	3	E4	137	145	18	<.4	<3.2
NOV													
27...	.03	.72	254	4.88	8000	3590	3	9	113	309	<16	E.2	<.8
DEC													
27...	.06	.12	26	3.79	3310	2790	E2	3	105	107	<24	<.2	<.8
JAN													
15...	<.02	E.05	16	4.38	3210	3220	E2	3	88.6	97.9	<24	<.2	<.8
FEB													
20...	<.02	.15	32	6.35	6670	4670	E3	E2	104	94.1	<16	<.2	1.1
MAR													
12...	<.02	.08	26	4.91	2480	3610	3	3	99.4	93.5	<8	<.1	<.8
APR													
09...	.02	.68	1130	.48	13200	356	<2	5	62.3	264	<8	.3	<.8
MAY													
08...	.04	.16	78	2.98	5810	2190	3	4	204	222	<24	<.1	<.8
JUN													
13...	.10	.41	308	1.51	4470	1110	4	6	170	230	<8	.3	<.8
JUL													
17...	.04	E.05	<10	.95	7060	695	3	2	106	113	<8	<.1	<.8
AUG													
15...	<.02	.16	21	2.73	2160	2010	5	6	150	149	<24	<.1	<.8
SEP													
16...	<.02	.20	46	3.84	2210	2820	3	4	183	195	<8	.2	<.8

Date	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)
OCT													
10...	2.1	<10	<4.0	<20	530	E.13	<3	4.1	167	<.01	<.01	<60	<70
NOV													
27...	10.1	<10	14.2	<20	8130	<.20	13	<3.0	525	<.01	.02	<60	<70
DEC													
27...	<.8	<20	2.2	<30	100	E.09	M	31.6	41.2	<.01	<.01	<90	<70
JAN													
15...	<.8	<20	2.4	<30	<40	<.20	<2	30.9	38.0	<.01	<.01	<90	<200
FEB													
20...	<.8	12	3.0	<20	70	.85	<2	35.3	55.7	<.01	.02	<60	<200
MAR													
12...	E.5	E4	E.7	<10	<10	.34	<1	48.4	61.6	<.01	.02	<30	<70
APR													
09...	8.8	E4	20.6	28	10600	.24	17	5.6	763	.02	.04	<30	E40
MAY													
08...	1.2	<20	4.1	<30	980	.17	1	E3.3	200	<.01	E.01	<90	<70
JUN													
13...	4.1	11	10.4	E6	3390	1.48	5	5.9	250	<.01	.02	<30	<70
JUL													
17...	<.8	<6	1.9	E8	50	.11	<1	189	182	<.01	<.01	<30	<70
AUG													
15...	E.4	<20	2.2	<30	350	<.20	1	<5.0	204	E.01	E.01	<90	<70
SEP													
16...	E.5	<20	2.3	<10	370	E.10	M	3.5	164	<.01	E.01	<30	<70

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALDRIN, TOTAL (UG/L) (39330)	ALPHA BHC TOTAL (UG/L) (39337)	ALPHA-HCH-D6 SUR SCD 1608 WATER UNFLTRD PERCENT (99778)	AROCLOR 1016/ 1242 PCB WATER UNFLTRD (UG/L) (81648)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)
OCT													
10...	<2	<6	<.5	<.3	<48	<20	--	--	--	--	--	--	--
NOV													
27...	3	3	<.4	<.3	<48	50	--	--	--	--	--	--	--
DEC													
27...	<4	<2	<.1	<.3	<72	E10	--	--	--	--	--	--	--
JAN													
15...	3	4	<.2	<.3	<72	<80	--	--	--	--	--	--	--
FEB													
20...	E2	<4	<.2	<.5	<48	<80	--	--	--	--	--	--	--
MAR													
12...	2	3	<.1	<.3	<24	<20	<.04	<.03	83.0	<.1	<1	<.1	<.1
APR													
09...	<2	E1	E.1	<.3	<24	60	--	--	--	--	--	--	--
MAY													
08...	E1	<2	<.1	<.3	<72	E20	--	--	--	--	--	--	--
JUN													
13...	<2	<2	<.4	<.3	33	40	--	--	--	--	--	--	--
JUL													
17...	E1	<2	<.1	<.3	<24	E20	--	--	--	--	--	--	--
AUG													
15...	2	E1	<.1	<.3	<72	40	--	--	--	--	--	--	--
SEP													
16...	<2	E1	<.1	<.3	<24	E20	<.04	<.03	143	<.1	<1	<.1	<.1

Date	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	BETA BENZENE HEXA-CHLOR-IDE TOTAL (UG/L) (39338)	CHLOR-DANE CIS WATER WHOLE TOTAL (UG/L) (39062)	CHLOR-DANE, TECH-NICAL TOTAL (UG/L) (39350)	CHLOR-DANE TRANS WATER WHOLE TOTAL (UG/L) (39065)	DELTA BENZENE HEXA-CHLOR-IDE TOTAL (UG/L) (34259)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN-I WATER WHOLE REC (UG/L) (34361)	ENDO-SULFAN II TOTAL (UG/L) (34356)	ENDO-SULFAN SULFATE TOTAL (UG/L) (34351)	ENDRIN ALDE-HYDE TOTAL (UG/L) (34366)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)
OCT													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
12...	<.1	<.1	<.03	<.1	<.1	<.1	<.09	<.02	<.1	<.04	<.6	<.2	<.06
APR													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
16...	<.1	<.1	<.03	<.1	<.1	<.1	<.09	<.02	<.1	<.04	<.6	<.2	<.06

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	ISODRIN SUR SCD 1608 WTR, UNFLTRD PERCENT (90570)	LINDANE TOTAL (UG/L) (39340)	PCB 207 SUR SCD 1608 WATER UNFLTRD PERCENT (99781)	P,P' DDD, TOTAL (UG/L) (39310)	P,P' DDE, TOTAL (UG/L) (39320)	P,P' DDT, TOTAL (UG/L) (39300)	TOX-APHENE, TOTAL (UG/L) (39400)
OCT 10...	--	--	--	--	--	--	--	--	--
NOV 27...	--	--	--	--	--	--	--	--	--
DEC 27...	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--
MAR 12...	<.8	<.03	47.8	<.03	41.4	<.1	<.04	<.1	<2
APR 09...	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--	--	--	--
SEP 16...	<.8	<.03	72.0	<.03	119	<.1	<.04	<.1	<2

SPECIFIC CONDUCTANCE VIA SATELLITE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	e3800	---	---	e3760	6280	6110	6180	5910	5850	5880
2	---	---	e4000	---	---	e3840	6470	6280	6380	5940	5900	5920
3	---	---	e4250	---	---	e3930	6480	6440	6460	5930	5860	5910
4	---	---	e4500	---	---	e4020	6530	6280	6390	5900	5830	5890
5	---	---	e4750	---	---	e4150	6420	6250	6350	5830	5500	5580
6	---	---	e5000	---	---	e4240	6560	6160	6320	5500	5350	5430
7	---	---	e5250	---	---	e4360	6540	6080	6230	5350	5280	5300
8	---	---	e5500	---	---	e4380	6330	6130	6220	5350	5280	5310
9	---	---	e5750	---	---	e4410	6450	6330	6380	5470	5280	5370
10	---	---	e6000	---	---	e4430	6620	6450	6520	5580	5460	5500
11	---	---	e3510	---	---	e4360	6680	6450	6560	5700	5580	5650
12	---	---	e1920	---	---	e4370	7030	6570	6820	5800	5640	5740
13	---	---	e1130	---	---	e4380	7360	7030	7170	5640	5340	5420
14	---	---	e822	---	---	e4420	7570	7270	7420	5600	5450	5540
15	---	---	e1010	---	---	e4520	7580	7350	7500	5580	5470	5520
16	---	---	e1790	4770	4590	4660	7350	2650	6140	5590	5440	5500
17	---	---	e2100	4730	4400	4550	3180	1610	2420	5680	5580	5630
18	---	---	e2340	4400	4170	4290	2500	1870	2170	5730	5670	5710
19	---	---	e2440	4170	4100	4120	3360	2500	2860	5790	5680	5730
20	---	---	e2480	4150	4090	4120	3380	3170	3270	6000	5790	5900
21	---	---	e2530	4170	4140	4160	4400	3300	3830	6010	5920	5970
22	---	---	e2600	6890	4160	5240	4820	4400	4620	5940	5770	5870
23	---	---	e2750	6910	5840	6260	4450	4240	4320	5870	5660	5780
24	---	---	e3010	7680	5930	6780	4610	4450	4540	5720	5450	5570
25	---	---	e3100	7800	7170	7570	4900	4610	4790	5610	5500	5560
26	---	---	e3200	7170	6320	6760	4860	4760	4800	5560	5460	5510
27	---	---	e3280	6320	5800	6070	4950	4770	4830	5600	5500	5560
28	---	---	e3370	5850	5730	5780	5250	4950	5080	5640	5410	5550
29	---	---	e3460	5870	5810	5840	5440	5250	5360	5560	5450	5510
30	---	---	e3550	6110	5850	5980	5720	5440	5590	5620	5470	5580
31	---	---	e3670	---	---	---	5850	5720	5780	5640	5470	5530
MONTH	---	---	3320	7800	4090	4860	7580	1610	5460	6010	5280	5630

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

SPECIFIC CONDUCTANCE VIA SATELLITE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5640	5390	5560	6710	6550	6630	3200	2410	2770	1160	945	1040
2	5430	5340	5390	6560	6020	6200	3730	2360	3150	1360	1130	1290
3	5420	5110	5300	6100	5860	5980	3640	2720	2980	1340	811	1140
4	5140	5080	5110	5970	5670	5800	4900	3010	3950	1290	1160	1210
5	5140	4950	5030	6200	5910	6070	4920	3900	4360	2350	1280	2100
6	6430	5050	5530	6370	6190	6280	3900	3650	3810	2590	2320	2420
7	6870	5220	6270	6370	6210	6300	3650	925	2340	2710	1840	2460
8	5220	5000	5090	6380	6310	6350	968	459	664	3610	2620	3240
9	5210	4440	4900	6310	6140	6220	735	552	664	3560	3140	3370
10	4470	4260	4360	6280	5930	6070	1520	735	1150	3330	3130	3230
11	5270	4470	4880	5940	5720	5850	1020	694	843	3500	3300	3390
12	5480	5240	5340	5930	5710	5800	773	528	677	3610	3400	3470
13	6160	5480	5840	6240	5930	6100	767	548	664	3670	3060	3420
14	6700	6160	6420	6260	6120	6180	752	456	542	3410	3000	3180
15	7210	6680	6970	6310	6200	6240	1080	684	889	4140	2940	3590
16	8300	7210	7810	6320	6210	6270	792	443	586	4100	3810	3950
17	9000	8300	8750	6320	6170	6250	683	438	516	3920	2590	3440
18	9510	9000	9330	6190	3420	5430	1250	683	1130	3320	1720	2460
19	9380	7060	8020	4270	2500	3330	1550	1020	1210	2880	1750	2250
20	8310	7110	7670	2520	1100	1790	1250	784	958	3710	2880	3340
21	7850	7410	7610	1770	1090	1350	1140	529	915	4550	3630	4050
22	7420	7230	7330	2020	1380	1710	1170	865	1070	---	---	e4770
23	7240	7020	7110	1910	1310	1460	1340	1010	1090	---	---	e4580
24	7080	6990	7030	4050	1910	3170	1620	1030	1300	---	---	e4400
25	7020	6640	6740	4050	3490	3740	2060	1320	1680	---	---	e4320
26	6750	6480	6680	3490	3000	3220	2050	996	1790	---	---	e4420
27	6480	6250	6310	3130	2990	3080	2110	996	1680	---	---	e4320
28	6600	6340	6490	3580	3130	3360	1560	1130	1330	---	---	e4180
29	---	---	---	4310	3580	3960	1740	1140	1460	---	---	e3930
30	---	---	---	4580	4310	4520	1630	949	1100	---	---	e2870
31	---	---	---	4600	3150	4140	---	---	---	---	---	e2090
MONTH	9510	4260	6390	6710	1090	4800	4920	438	1580	4550	811	3160

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e2350	---	---	e4540	---	---	e4020	4390	4250	4320
2	---	---	e2980	---	---	e4190	---	---	e4450	4350	4050	4190
3	---	---	e3460	---	---	e3810	---	---	e4480	4120	3820	3950
4	---	---	e2790	---	---	e3500	---	---	e4440	3830	3590	3690
5	---	---	e2100	---	---	e3730	---	---	e3670	3920	3570	3680
6	---	---	e1190	---	---	e4110	---	---	e3530	3960	3770	3850
7	---	---	e850	---	---	e3880	---	---	e3580	3960	3600	3770
8	---	---	e1230	---	---	e2470	---	---	e4540	3620	3110	3380
9	---	---	e848	---	---	e2360	---	---	e5800	3200	1830	2860
10	---	---	e1080	---	---	e2240	---	---	e5490	---	---	e2100
11	---	---	e1300	---	---	e1680	---	---	e4780	---	---	e2940
12	---	---	e1540	---	---	e2340	---	---	e4210	---	---	e2750
13	---	---	e1900	---	---	e2530	---	---	e4170	---	---	e3420
14	2040	1950	1980	---	---	e2970	---	---	e3870	---	---	e4100
15	2100	1870	1950	---	---	e3990	---	---	e3550	---	---	e4370
16	2720	2090	2250	---	---	e3400	3510	3450	3480	---	---	e4440
17	3290	2050	2250	3620	2200	2750	3670	3500	3560	4290	3640	3870
18	3040	2190	2620	2200	1980	2040	3920	3670	3810	3640	2960	3350
19	3560	2880	3000	2030	1910	1970	4100	3890	3970	2980	2400	2650
20	3850	2900	3280	2440	1980	2180	4260	4100	4200	2790	2400	2600
21	3220	2870	3050	3130	2440	2780	4460	4260	4340	3200	2710	2960
22	3860	2640	2980	3730	3130	3490	4520	3920	4310	3510	3120	3310
23	4900	3860	4600	4450	3730	4020	3920	3640	3790	3840	3510	3700
24	---	---	e4570	4730	4450	4650	4380	3850	4100	3990	3840	3950
25	---	---	e4620	4610	4220	4360	4590	4270	4430	---	---	e4050
26	---	---	e4850	4260	4160	4190	4350	4040	4190	---	---	e4100
27	---	---	e5160	4490	4200	4330	4080	3620	3850	---	---	e4010
28	---	---	e5160	4910	4450	4670	3900	3620	3790	---	---	e3950
29	---	---	e4960	5040	4910	4980	3810	3670	3750	---	---	e3610
30	---	---	e4920	5060	2520	4470	4080	3810	3960	---	---	e3060
31	---	---	---	---	---	e3550	4390	4080	4200	---	---	---
MONTH	4900	1870	2860	5060	1910	3420	4590	3450	4140	4390	1830	3570
YEAR	9510	438	4090									

e Estimated

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER TEMPERATURE VIA SATELLITE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	5.8	3.3	4.4
2	---	---	---	---	---	---	---	---	---	4.3	1.8	3.3
3	---	---	---	---	---	---	---	---	---	3.3	0.0	1.7
4	---	---	---	---	---	---	---	---	---	3.8	0.6	2.2
5	---	---	---	---	---	---	---	---	---	5.5	3.8	4.6
6	---	---	---	---	---	---	---	---	---	7.0	3.5	5.1
7	---	---	---	---	---	---	---	---	---	7.0	3.5	5.3
8	---	---	---	---	---	---	---	---	---	8.5	4.1	6.2
9	---	---	---	---	---	---	---	---	---	11.1	6.3	8.6
10	---	---	---	---	---	---	---	---	---	10.7	9.3	10.1
11	---	---	---	---	---	---	---	---	---	10.9	7.7	9.2
12	---	---	---	---	---	---	---	---	---	9.9	6.6	8.3
13	---	---	---	---	---	---	---	---	---	10.2	6.1	8.1
14	---	---	---	---	---	---	---	---	---	10.3	7.0	8.6
15	---	---	---	---	---	---	---	---	---	8.9	5.9	7.5
16	---	---	---	---	---	---	---	---	---	11.7	6.8	8.9
17	---	---	---	---	---	---	---	---	---	9.2	6.6	7.8
18	---	---	---	---	---	---	---	---	---	6.6	5.6	5.9
19	---	---	---	---	---	---	---	---	---	8.1	4.8	6.4
20	---	---	---	---	---	---	---	---	---	8.1	4.6	6.4
21	---	---	---	---	---	---	---	---	---	9.1	4.6	6.9
22	---	---	---	---	---	---	---	---	---	11.9	6.7	9.0
23	---	---	---	---	---	---	---	---	---	14.6	11.5	12.6
24	---	---	---	---	---	---	---	---	---	12.0	8.0	9.6
25	---	---	---	---	---	---	---	---	---	10.5	5.9	8.1
26	---	---	---	---	---	---	---	---	---	10.8	6.1	8.4
27	---	---	---	---	---	---	---	---	---	11.4	7.2	9.3
28	---	---	---	---	---	---	---	---	---	14.7	9.0	11.7
29	---	---	---	---	---	---	---	---	---	17.8	13.7	15.6
30	---	---	---	---	---	---	---	---	---	16.5	10.1	13.0
31	---	---	---	---	---	---	5.2	2.3	3.7	10.1	7.2	9.0
MONTH	---	---	---	---	---	---	5.2	2.3	3.7	17.8	0.0	7.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	5.1	7.2	9.5	8.0	8.6	20.8	16.3	18.6	27.8	24.1	25.8
2	8.0	5.3	6.9	9.5	2.6	5.3	19.6	17.4	18.8	27.2	23.4	25.1
3	10.5	7.1	8.6	6.5	0.5	3.3	17.5	14.1	16.0	23.4	21.2	22.4
4	10.1	8.0	9.1	9.7	2.6	6.0	17.4	14.1	15.7	23.8	21.0	22.3
5	9.1	6.1	7.8	12.0	5.6	8.6	18.6	14.0	16.4	25.7	21.5	23.5
6	6.7	5.6	6.1	15.5	8.6	11.8	17.7	15.1	16.0	26.2	23.5	24.9
7	8.7	5.2	6.8	18.9	13.2	15.8	15.1	13.3	13.8	27.1	23.8	25.3
8	10.7	6.5	8.5	17.7	15.8	16.7	14.2	13.3	13.7	25.8	23.5	24.7
9	12.0	8.6	10.2	17.7	10.7	13.5	16.9	14.2	15.5	24.7	22.1	23.5
10	10.2	7.8	8.7	14.3	8.9	11.6	18.7	16.9	17.7	24.3	21.5	22.9
11	9.9	5.9	7.8	12.5	10.9	11.8	20.1	18.0	19.1	26.0	21.7	23.7
12	10.9	6.5	8.6	16.2	11.3	13.7	20.7	18.9	20.0	24.7	21.4	23.7
13	11.3	8.2	9.7	17.6	11.5	14.4	20.2	18.3	19.0	23.6	18.4	20.9
14	10.8	7.7	9.3	20.4	13.1	16.6	20.7	18.1	19.2	24.7	19.4	21.9
15	12.8	9.6	10.8	18.3	12.8	15.4	21.9	20.3	21.1	24.3	20.7	22.4
16	13.4	8.6	10.9	15.4	10.4	12.8	22.9	21.7	22.2	25.9	21.0	23.2
17	13.8	9.7	11.7	16.6	12.9	14.5	24.3	22.4	23.2	24.6	21.1	22.7
18	13.4	11.0	12.2	15.1	13.5	14.4	24.7	24.0	24.3	22.7	19.5	21.0
19	16.6	13.4	14.9	14.1	13.3	13.9	24.4	23.6	24.0	23.5	19.2	21.3
20	15.7	12.9	14.3	14.6	12.6	13.6	24.8	23.4	24.1	24.4	20.1	22.2
21	14.0	12.0	13.0	14.2	11.7	13.2	24.9	22.9	23.8	25.3	20.4	22.7
22	14.6	10.0	12.2	12.5	9.1	10.9	24.6	22.1	23.4	24.3	20.8	22.4
23	14.9	10.3	12.5	14.0	9.4	11.6	24.6	21.9	23.1	23.9	20.7	22.2
24	14.9	10.7	12.8	17.9	12.9	15.1	26.8	22.9	24.6	23.7	21.3	22.5
25	13.8	8.4	12.1	17.4	11.5	14.4	25.0	21.1	22.2	26.5	21.3	23.6
26	8.4	3.7	5.7	14.2	9.1	11.7	21.1	16.8	18.4	28.5	22.4	25.1
27	8.7	3.0	5.7	16.1	11.2	13.6	20.6	16.3	18.1	26.5	22.6	24.4
28	10.2	4.5	7.2	19.2	13.6	16.4	23.8	19.2	21.2	24.9	21.5	22.9
29	---	---	---	21.7	17.3	19.4	25.0	21.6	23.2	27.1	22.3	24.5
30	---	---	---	20.4	17.0	18.4	25.7	23.5	24.5	28.4	23.8	25.9
31	---	---	---	20.1	15.5	17.6	---	---	---	30.2	25.2	27.5
MONTH	16.6	3.0	9.7	21.7	0.5	13.1	26.8	13.3	20.0	30.2	18.4	23.5

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER TEMPERATURE VIA SATELLITE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	30.8	26.6	28.7	27.4	25.0	26.1	33.3	28.1	30.5	32.7	26.8	29.6
2	30.5	27.1	28.8	28.7	25.5	27.0	34.5	29.4	31.9	32.9	27.3	30.0
3	30.1	26.4	28.3	28.5	26.1	27.2	35.1	30.4	32.7	32.6	27.2	29.8
4	30.1	26.5	28.3	30.3	25.7	27.9	34.7	30.9	32.8	33.6	27.2	30.1
5	28.8	24.7	26.0	32.1	27.3	29.6	34.5	30.2	32.4	31.9	27.8	30.0
6	25.8	23.4	24.7	32.1	28.4	30.3	34.6	29.5	31.9	33.1	27.4	29.9
7	27.0	24.0	25.4	33.2	28.3	30.9	35.0	29.5	32.1	30.9	27.1	29.0
8	26.7	25.7	26.2	33.8	30.0	31.9	34.3	29.9	32.0	28.1	26.0	26.6
9	28.1	26.3	27.1	34.1	31.2	32.7	33.9	28.6	31.2	28.8	24.5	26.3
10	28.6	26.8	27.6	34.2	31.1	32.6	31.6	29.0	30.0	31.4	24.9	27.8
11	29.5	26.8	28.1	34.8	31.1	32.9	31.8	27.3	29.3	32.1	26.0	28.7
12	30.7	27.4	29.0	33.5	31.3	32.2	31.7	27.0	29.3	31.4	26.5	28.7
13	29.9	26.8	28.1	32.2	29.7	31.0	32.1	27.4	29.6	30.8	26.4	28.6
14	29.3	25.2	27.1	33.4	30.2	31.6	30.1	26.4	28.1	31.2	25.8	28.4
15	29.3	25.6	27.6	32.0	29.7	31.1	30.8	26.6	28.5	29.3	25.8	27.5
16	28.2	25.3	26.6	30.8	29.4	30.1	31.8	26.0	28.6	29.4	24.7	26.8
17	29.2	25.1	27.2	29.4	27.9	28.6	31.9	26.6	28.9	29.7	24.7	27.0
18	29.3	25.0	27.4	30.4	27.2	28.6	32.3	26.8	29.3	30.0	24.7	27.0
19	30.3	26.3	28.2	31.5	28.6	29.9	32.1	27.2	29.5	28.1	24.3	25.8
20	31.1	27.2	29.1	32.4	28.6	30.4	32.3	27.6	29.7	27.9	21.5	24.5
21	32.1	28.4	30.1	32.4	29.1	30.8	32.2	27.2	29.4	28.1	21.6	24.8
22	32.3	28.6	30.4	33.5	29.3	31.3	33.3	27.5	30.0	26.6	22.4	24.4
23	31.5	27.6	29.6	34.7	30.0	32.2	33.7	28.2	30.8	26.1	20.2	23.0
24	32.1	28.1	30.1	34.5	30.4	32.2	33.8	28.4	30.9	25.7	19.6	22.6
25	32.3	28.2	30.2	34.7	29.2	31.8	31.6	28.7	30.2	27.0	19.9	23.2
26	32.4	28.4	30.4	34.1	29.9	32.0	34.3	27.7	30.6	27.7	21.8	24.5
27	32.8	28.0	30.3	32.7	28.5	30.6	31.5	25.0	27.9	28.4	21.7	24.8
28	33.3	28.6	30.8	32.2	27.7	29.7	32.0	25.7	28.5	28.5	22.9	25.6
29	33.0	29.0	30.6	29.5	26.7	28.1	30.7	26.5	28.5	28.8	23.4	26.0
30	29.6	26.0	27.6	30.1	25.5	27.6	31.7	25.6	28.4	28.4	23.9	26.1
31	---	---	---	31.5	25.1	28.0	32.3	25.8	28.8	---	---	---
MONTH	33.3	23.4	28.3	34.8	25.0	30.2	35.1	25.0	30.1	33.6	19.6	26.9
YEAR	35.1	0.0	21.1									

07316500 WASHITA RIVER NEAR CHEYENNE, OK

LOCATION.--Lat 35°37'35", long 99°40'05", in SE $^1/_4$ sec.5, T.13 N., R.23 W., Roger Mills County, Hydrologic Unit 11130301, on left bank on downstream side of bridge on U.S. Highway 283, 0.5 mi downstream from Sergeant Major Creek, 1.0 mi north of Cheyenne, 5.2 mi upstream from Dead Indian Creek, and at mile 543.9.

DRAINAGE AREA.--794 mi^2.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,900.98 ft above sea level. May 1, 1938, to Nov. 16, 1946, and Oct. 1, 1947, to Jan. 11, 1948, nonrecording gage at site 50 ft upstream and datum 5.00 ft higher. Jan. 12, 1948 to Dec. 31, 1976, at site 50 ft upstream and datum 5.00 ft higher. Jan. 1, 1977, to Dec. 20, 1979, at site 50 ft upstream at present datum.

REMARKS.--Records good except for estimated periods, which are poor. Flow regulated since 1961 by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 3, 1934, reached a stage of 1.7 ft lower than that in 1954, at site on upstream side of highway fill (at old bridge site).

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	3.7	11	e9.0	e17	e19	15	18	17	1.8	1.4	0.00
2	1.2	3.1	12	e8.0	e22	e16	16	17	14	1.8	1.3	0.00
3	1.1	3.3	10	e9.0	26	e15	18	16	11	1.9	0.70	0.00
4	1.1	4.3	12	e14	24	e18	16	15	10	6.8	0.25	0.00
5	1.3	4.4	12	17	26	22	15	14	13	85	0.00	0.00
6	1.3	4.6	12	17	27	20	16	15	12	43	0.00	0.00
7	1.4	4.6	12	16	28	19	18	14	11	32	0.00	0.00
8	1.4	4.8	11	17	28	18	22	13	10	24	0.00	0.00
9	1.7	4.8	11	17	26	19	22	11	12	19	0.00	0.00
10	2.2	5.2	10	16	24	19	21	10	9.8	15	0.00	0.00
11	1.9	5.2	10	16	23	19	21	9.9	8.7	13	0.00	0.65
12	1.8	5.4	9.9	16	22	18	21	9.9	7.7	11	0.00	0.00
13	2.1	5.5	10	16	22	17	26	9.0	12	9.0	0.00	0.00
14	1.9	5.2	11	16	21	17	31	7.3	16	7.9	0.00	0.00
15	1.9	6.1	12	16	21	17	29	7.0	12	7.2	0.00	0.00
16	1.9	7.6	12	17	21	17	27	6.9	13	6.3	0.00	0.00
17	2.1	9.1	12	17	20	18	23	30	15	5.7	0.00	0.00
18	1.8	8.7	12	17	21	18	24	24	13	5.2	0.00	0.00
19	1.9	8.4	12	16	21	19	23	26	12	4.4	0.00	0.00
20	2.7	8.5	12	17	21	20	22	25	9.3	3.5	0.00	0.00
21	2.9	8.0	11	17	20	21	21	20	6.7	3.0	0.00	0.00
22	2.9	7.7	12	15	20	20	20	18	5.1	2.9	0.00	0.00
23	2.5	7.8	12	16	20	20	19	16	3.6	3.2	0.00	0.00
24	1.7	8.9	12	17	20	20	17	15	2.7	3.5	0.00	0.00
25	1.6	8.4	12	16	20	20	16	14	2.2	4.7	0.00	0.00
26	1.7	8.2	13	17	e17	20	18	14	1.9	3.2	0.00	0.00
27	2.0	e8.0	13	18	e17	18	23	16	2.9	2.3	0.21	0.00
28	2.7	e7.0	13	15	e18	19	22	20	2.9	1.8	0.00	0.00
29	2.7	e7.5	e12	17	---	18	21	23	2.2	2.1	0.00	0.00
30	3.2	e9.0	e11	e15	---	15	20	23	1.8	2.0	0.00	0.00
31	3.4	---	e10	e13	---	15	---	20	---	1.8	0.00	---
TOTAL	61.2	193.0	356.9	480.0	613	571	623	497.0	270.5	334.0	3.86	0.65
MEAN	1.974	6.433	11.51	15.48	21.89	18.42	20.77	16.03	9.017	10.77	0.125	0.022
MAX	3.4	9.1	13	18	28	22	31	30	17	85	1.4	0.65
MIN	1.1	3.1	9.9	8.0	17	15	15	6.9	1.8	1.8	0.00	0.00
AC-FT	121	383	708	952	1220	1130	1240	986	537	662	7.7	1.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

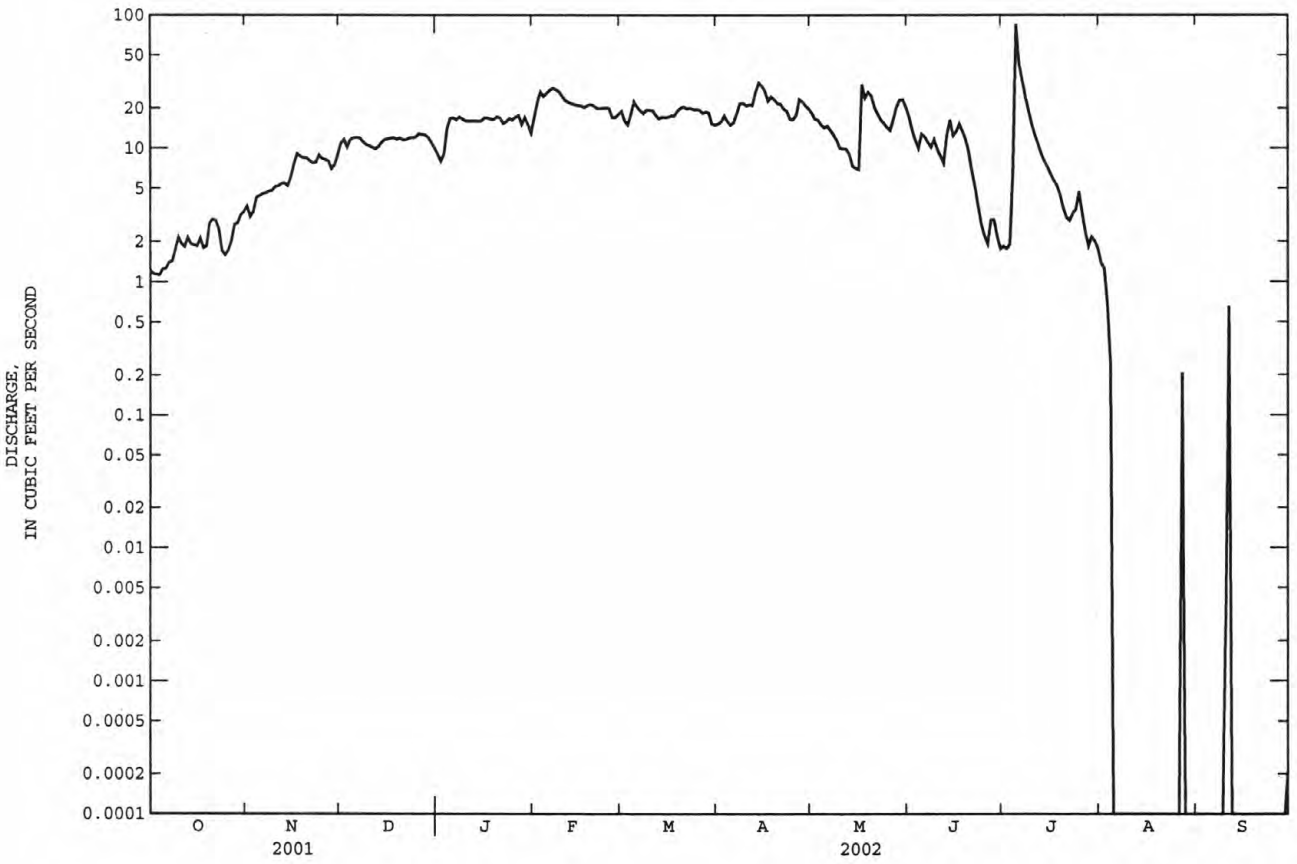
MEAN	8.752	9.945	12.10	15.67	20.26	27.49	33.33	50.34	40.59	8.715	4.491	5.553
MAX	72.9	64.3	67.7	80.7	71.0	138	146	348	203	61.7	32.8	44.7
(WY)	1987	1987	1998	1998	2001	1998	1997	1977	1982	1982	1995	1997
MIN	0.000	0.000	0.000	0.026	1.50	2.22	1.08	0.000	0.005	0.000	0.000	0.000
(WY)	1964	1964	1964	1973	1973	1967	1971	1971	1970	1964	1963	1964

e Estimated

07316500 WASHITA RIVER NEAR CHEYENNE, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	12924.39		4004.11			
ANNUAL MEAN	35.41		10.97		[a]19.74	
HIGHEST ANNUAL MEAN					64.0	1997
LOWEST ANNUAL MEAN					2.60	1972
HIGHEST DAILY MEAN	301	Jun 5	85	Jul 5	1560	Apr 23 1990
LOWEST DAILY MEAN	0.00	several days	0.00	several days	0.00	most years
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 5	0.00	Aug 5	0.00	Oct 1 1961
MAXIMUM PEAK FLOW			178	Jul 5	[b]7250	Apr 22 1990
MAXIMUM PEAK STAGE			10.04	Jul 5	[c]16.60	Apr 22 1990
ANNUAL RUNOFF (AC-FT)	25640		7940		14300	
10 PERCENT EXCEEDS	80		21		44	
50 PERCENT EXCEEDS	13		11		7.7	
90 PERCENT EXCEEDS	0.23		0.00		0.00	

[a]Prior to regulation, water years 1938-60, 41.7 ft^3/s.
[b]Maximum discharge for period of record 69,800 ft^3/s, Apr. 29, 1954, from rating curve extended above 27,000 ft^3/s on basis of contracted opening.
[c]Maximum gage-height for period of record, 20.24 ft, Apr. 29, 1954, present datum.



07324200 WASHITA RIVER NEAR HAMMON, OK

LOCATION.--Lat 35°39'23", long 99°18'21", on west line of sec.26, T.14 N., R.20 W., Custer County, Hydrologic Unit 11130301, on right bank near county road bridge, 2.2 mi downstream from Quartermaster Creek, 4.7 mi northeast of Hammon, and at mile 494.5.

DRAINAGE AREA.--1,387 mi^2.

PERIOD OF RECORD.--October 1969 to September 1987, October 1989 to current year.

REVISED RECORD.--OK-92-2: 1987.

GAGE.--Water-stage recorder. Datum of gage is 1,643.22 ft above sea level.

REMARKS.--Records fair. Flow regulated since 1961 by numerous flood-retarding structures. U.S. Geological Survey satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	14	28	e24	e39	e41	38	53	49	7.4	12	2.1
2	8.8	15	28	e22	e42	e36	37	47	43	8.5	11	2.0
3	8.5	15	28	e23	e45	e37	35	43	38	8.2	18	1.8
4	8.4	15	29	e25	49	e40	35	39	36	8.5	7.0	1.5
5	8.0	16	28	e29	52	e44	35	36	48	13	6.0	1.5
6	7.8	16	28	34	58	45	35	34	44	129	5.3	2.9
7	8.2	17	28	32	60	46	37	33	38	85	4.8	1.6
8	8.8	16	28	32	59	44	44	31	33	69	4.4	1.3
9	12	15	27	33	57	40	48	27	30	57	4.1	1.8
10	40	15	27	33	53	40	47	25	28	41	3.7	12
11	19	17	28	31	49	41	47	24	25	34	3.8	6.1
12	13	17	29	31	47	42	47	24	21	29	3.7	4.7
13	12	17	30	32	46	42	55	22	27	26	3.4	3.1
14	12	18	29	32	45	40	137	21	43	23	3.9	6.3
15	11	19	29	32	45	39	95	19	33	21	3.6	5.5
16	11	20	30	32	44	39	82	18	79	19	3.2	3.5
17	11	24	30	32	43	39	72	298	56	17	2.7	2.9
18	12	30	31	32	43	39	68	234	38	15	2.4	2.5
19	12	28	29	32	44	42	70	137	32	14	2.3	3.5
20	12	25	30	33	44	45	67	97	26	13	2.2	3.2
21	13	25	30	33	44	45	63	80	22	11	2.2	3.2
22	13	25	31	33	42	45	58	66	19	11	2.0	2.7
23	14	26	31	33	42	45	53	61	15	22	1.9	2.4
24	13	26	29	32	43	47	49	117	13	14	1.8	2.5
25	12	27	e27	31	43	45	46	132	12	12	1.9	2.3
26	12	26	e27	32	e38	44	44	88	11	9.4	2.0	2.3
27	12	25	e28	33	e38	45	76	75	11	7.8	6.9	2.0
28	13	24	e30	33	e39	45	83	74	9.1	6.9	7.2	2.2
29	13	e23	e28	33	---	43	67	81	8.3	22	4.0	2.1
30	13	e24	e25	e35	---	42	60	64	7.9	21	2.8	1.9
31	14	---	e23	e37	---	41	---	55	---	16	2.3	---
TOTAL	386.3	620	883	971	1293	1308	1730	2155	895.3	790.7	142.5	93.4
MEAN	12.46	20.67	28.48	31.32	46.18	42.19	57.67	69.52	29.84	25.51	4.597	3.113
MAX	40	30	31	37	60	47	137	298	79	129	18	12
MIN	7.8	14	23	22	38	36	35	18	7.9	6.9	1.8	1.3
AC-FT	766	1230	1750	1930	2560	2590	3430	4270	1780	1570	283	185

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

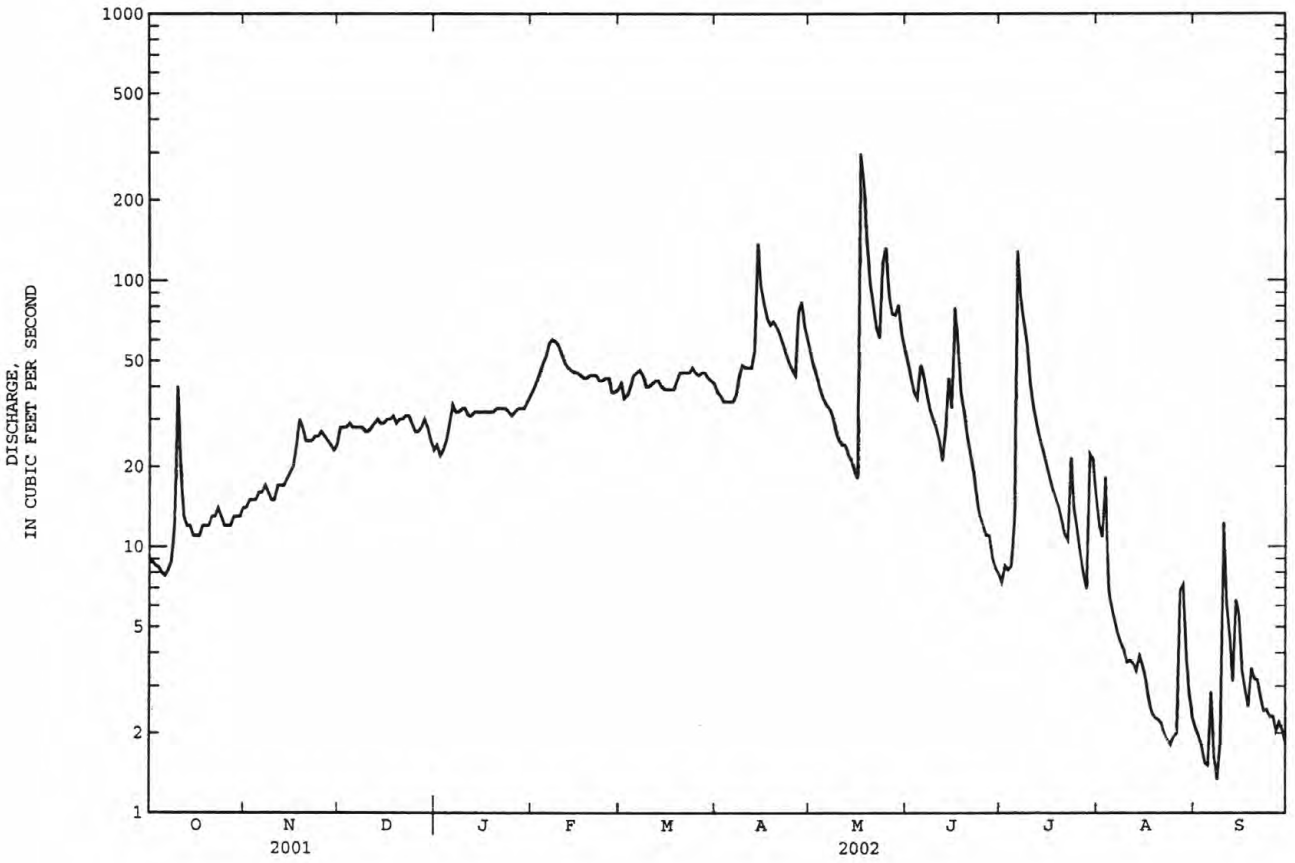
MEAN	37.22	41.60	36.11	44.43	52.89	77.51	96.40	162.9	130.5	37.29	28.40	35.06
MAX	384	253	258	342	299	548	528	755	502	158	170	450
(WY)	1987	1987	1998	1998	1998	1998	1997	1982	1997	1997	1997	1997
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.001	0.028	0.000	0.001
(WY)	1973	1972	1973	1973	1972	1972	1972	1971	1972	1970	1972	1976

e Estimated

07324200 WASHITA RIVER NEAR HAMMON, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	40920.1		11268.2			
ANNUAL MEAN	112.1		30.87		65.01	
HIGHEST ANNUAL MEAN					262	1997
LOWEST ANNUAL MEAN					0.49	1972
HIGHEST DAILY MEAN	2170	May 5	298	May 17	4340	May 17 1982
LOWEST DAILY MEAN	7.5	Sep 3	1.3	Sep 8	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	8.2	Aug 29	1.8	Sep 3	0.00	Jul 13 1970
MAXIMUM PEAK FLOW			703	May 17	[a]6000	May 17 1982
MAXIMUM PEAK STAGE			12.93	May 17	23.44	May 17 1982
ANNUAL RUNOFF (AC-FT)	81170		22350		47090	
10 PERCENT EXCEEDS	223		56		150	
50 PERCENT EXCEEDS	65		28		22	
90 PERCENT EXCEEDS	11		3.3		0.12	

[a]From rating curve extended above 2,500 ft^3/s on basis of slope-area measurement.



07324300 FOSS RESERVOIR NEAR FOSS, OK

LOCATION.--Lat 35°32'20", long 99°11'09", in S $^{1}/_{2}$ sec.2, T.12 N., R.19 W., Custer County, Hydrologic Unit 11130301, near right end of dam on Washita River, 0.5 mi upstream from Oak Creek, 3.5 mi west of Stafford, 6.0 mi north of Foss, and at mile 474.4.

DRAINAGE AREA.--1,496 mi^2.

PERIOD OF RECORD.--February 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to October, 1961, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earth dam. Outlet consists of four 6- by 7-foot, 6-inch high pressure gates and one uncontrolled spillway. Storage began Feb. 13, 1961. Capacity, 436,500 acre-ft, at elevation 1,668.6 ft, crest of drop inlet and 177,900 acre-ft, at elevation 1,642.0 ft, conservation pool. Dead storage, 12,420 acre-ft below elevation 1,597.2 ft, sill of gated outlet. Figures given herein represent total contents. Reservoir is designed for flood control, municipal water supply, and irrigation release. Revised capacity table used after Sept. 30, 1964. U.S. Army Corps of Engineers' telemeter at station.

COOPERATION.--Elevations and data on diversions provided by Foss Reservoir Master Conservancy District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 226,200 acre-ft, June 16, 1997, elevation, 1,648.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 173,000 acre-ft, June 16-18, elevation, 1,641.26 ft; minimum, 160,700 acre-ft, Dec. 2-4, elevation, 1,639.36 ft.

> MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	*Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Diversions (acre-feet)
Sept. 30	1639.95	164,400	-	-
Oct. 31	1639.47	161,400	-3,000	209
Nov. 30	1639.37	160,800	-600	230
Dec. 31	1639.39	160,900	+100	278
CAL YR 2001	-	-	-13,900	3,072
Jan. 31	1639.62	162,300	+1,400	266
Feb. 28	1639.96	164,500	+2,200	220
Mar. 31	1640.14	165,600	+1,100	203
Apr. 30	1640.62	168,800	+3,200	231
May 31	1641.18	172,400	+3,600	278
June 30	1641.05	171,600	-800	322
July 31	1640.83	170,100	-1,500	381
Aug. 31	1640.24	166,300	-3,800	375
Sept. 30	1639.93	164,300	-2,000	244
WTR YR 2002	-	-	-100	3,237

*Elevation at 0800 on the following day.

07331000 Washita River at Dickson

07324400 WASHITA RIVER NEAR FOSS, OK

LOCATION.--Lat 35°32'20", long 99°10'10", in SW $^1/_4$ SW $^1/_4$ sec.1, T.12 N., R.19 W., Custer County, Hydrologic Unit 11130302, on right bank at downstream side county road bridge, 0.4 mi downstream from Oak Creek, 0.9 mi downstream from Foss Dam, 2.5 mi west of Stafford, 6.0 mi north of Foss, and at mile 473.5.

DRAINAGE AREA.--1,551 mi^2.

PERIOD OF RECORD.--March 1956 to April 1957, February to December 1958, July 1961 to September 1987, October 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,560 ft above sea level, from topographic map.

REMARKS.--Records good. Flow completely regulated since 1961 by Foss Reservoir (station 07324300), except for 55 mi^2 intervening area. U.S. Geological Survay satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1959 reached a stage of 23.4 ft, from floodmark.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	7.6	6.8	e4.5	4.4	6.2	6.6	5.6	e5.2	4.7	5.2	5.0
2	5.0	7.2	6.8	e4.0	4.9	6.3	6.4	5.3	e5.2	4.4	5.0	5.3
3	5.0	7.7	6.7	e5.0	5.9	6.2	5.6	5.1	e5.1	4.5	5.1	4.9
4	5.0	7.7	6.6	6.3	6.2	4.4	5.3	5.3	e5.3	4.7	5.2	4.6
5	5.2	7.3	6.4	6.2	6.5	4.4	5.6	5.3	5.6	5.0	5.2	4.8
6	5.5	7.4	6.1	6.1	6.5	4.3	5.9	5.4	e5.3	4.4	5.2	4.8
7	5.6	7.2	6.1	6.1	6.2	4.4	6.0	5.3	5.1	4.5	5.2	5.1
8	5.4	7.4	6.0	6.2	6.0	4.5	6.1	5.4	5.0	4.5	5.2	5.5
9	5.6	7.8	6.0	6.2	5.9	4.4	5.8	5.3	4.9	4.5	5.2	5.1
10	5.8	7.7	6.1	6.1	5.9	4.6	6.3	5.0	4.8	4.6	5.1	26
11	5.5	7.6	6.1	5.9	6.1	6.4	5.3	5.1	4.9	4.7	5.1	7.2
12	5.5	7.5	6.2	5.7	6.3	6.3	5.4	5.1	5.1	4,6	5.3	e5.4
13	5.6	7.2	6.1	5.9	6.1	6.2	8.7	4.8	5.5	4.6	5.3	12
14	5.6	6.9	6.1	5.8	6.3	6.2	9.3	4.9	5.5	4.6	5.1	29
15	5.7	6.9	6.2	5.7	6.4	6.2	6.4	5.1	5.4	4.6	5.1	6.1
16	6.2	7.3	6.2	5.7	6.4	6.2	5.6	4.8	5.8	4.6	5.1	e5.7
17	6.5	7.7	6.0	5.8	6.5	6.1	5.2	6.9	5.5	4.6	5.1	e5.4
18	6.5	7.0	5.8	6.0	6.8	6.4	5.4	5.8	5.0	4.6	5.1	13
19	6.3	6.1	5.5	6.1	6.4	6.6	5.4	5.2	4.6	4.6	5.4	28
20	6.2	6.9	5.8	6.0	6.0	6.4	5.2	5.0	4.7	4.7	5.4	e5.4
21	6.5	7.2	6.2	6.1	6.0	6.2	5.2	5.0	4.8	4.7	5.2	e5.3
22	7.0	6.8	6.2	6.3	6.0	6.1	5.1	5.1	4.8	5.0	5.2	e5.2
23	6.5	6.7	6.1	6.1	6.1	6.5	4.9	5.4	4.7	20	5.3	e5.1
24	6.3	6.6	6.1	6.0	6.1	6.6	5.2	5.8	4.6	7.4	5.3	e5.0
25	6.4	6.7	6.4	6.3	5.9	6.5	5.6	12	4.4	8.2	5.3	e5.0
26	6.9	6.7	6.2	6.3	5.6	6.2	5.9	6.5	4.4	8.3	5.3	e4.9
27	7.1	6.7	5.9	6.3	5.7	6.2	6.7	5.6	4.5	7.8	5.5	e4.8
28	7.3	6.7	5.9	6.3	6.0	6.1	5.7	5.2	4.6	7.2	5.1	4.7
29	7.1	7.0	e5.7	6.4	---	6.1	5.6	5.1	4.5	7.8	4.9	4.7
30	7.2	7.1	e4.7	6.6	---	6.2	5.6	5.3	4.6	5.0	5.1	4.6
31	7.4	---	e4.3	5.5	---	6.6	---	5.3	---	5.1	5.0	---
TOTAL	188.8	214.3	187.3	183.5	169.1	182.0	177.0	172.0	149.4	178.5	160.8	237.6
MEAN	6.090	7.143	6.042	5.919	6.039	5.871	5.900	5.548	4.980	5.758	5.187	7.920
MAX	7.4	7.8	6.8	6.6	6.8	6.6	9.3	12	5.8	20	5.5	29
MIN	5.0	6.1	4.3	4.0	4.4	4.3	4.9	4.8	4.4	4.4	4.9	4.6
AC-FT	374	425	372	364	335	361	351	341	296	354	319	471

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

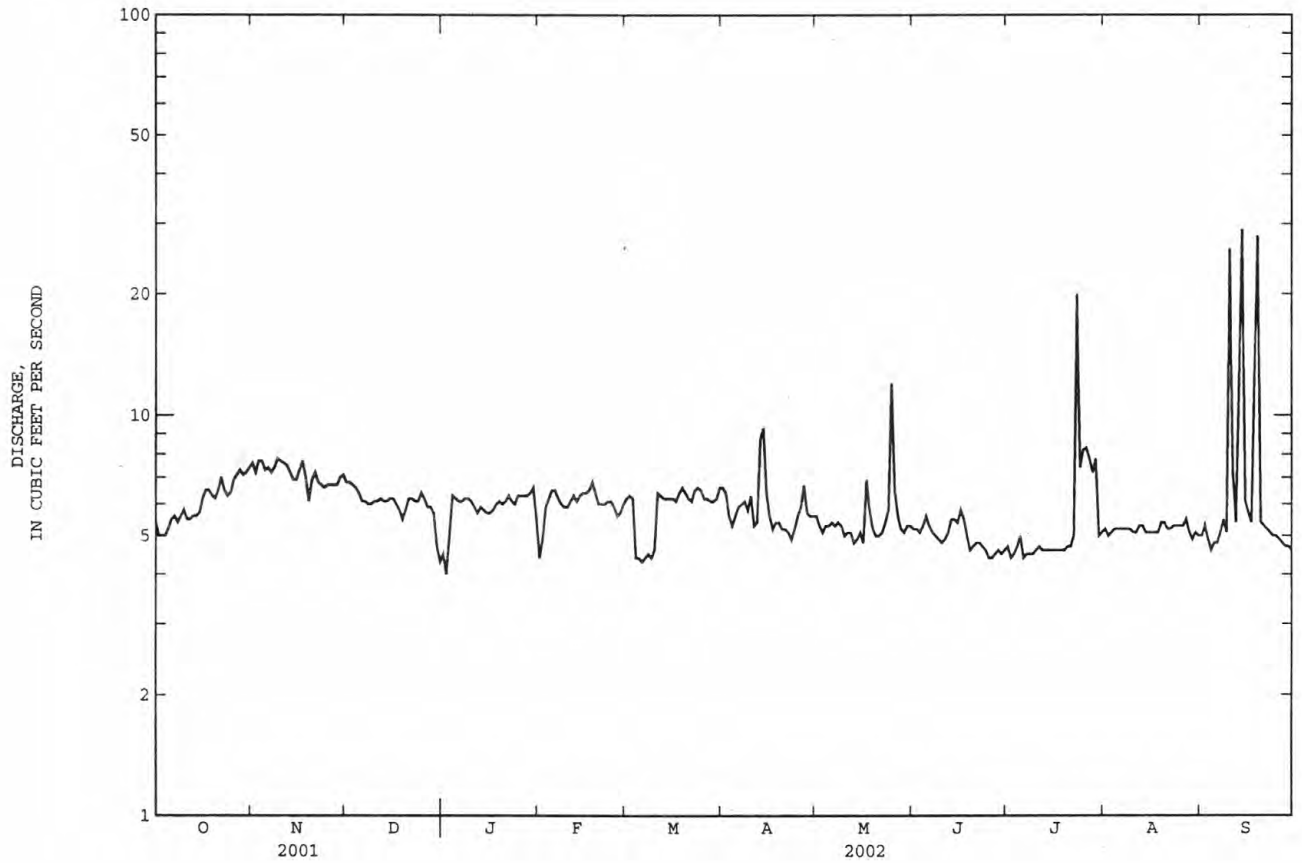
MEAN	52.26	27.26	26.84	41.41	43.96	51.66	71.94	105.2	142.2	56.13	51.73	30.70
MAX	598	278	298	633	342	297	607	622	763	385	579	444
(WY)	1998	1999	1997	1998	1998	2000	1998	1997	1982	1997	1997	1996
MIN	0.15	0.28	0.36	0.56	0.60	0.57	1.62	1.08	1.28	2.27	3.12	0.46
(WY)	1968	1968	1968	1968	1968	1968	1967	1967	1966	1967	1973	1966

e Estimated

07324400 WASHITA RIVER NEAR FOSS, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	54755.0		2200.3			
ANNUAL MEAN	150.0		6.028		58.45	
HIGHEST ANNUAL MEAN					373	1997
LOWEST ANNUAL MEAN					3.87	1963
HIGHEST DAILY MEAN	1010	Jun 6	29	Sep 14	1370	Sep 15 1996
LOWEST DAILY MEAN	4.3	Dec 31	4.0	Jan 2	[a]0.06	Oct 2 1967
ANNUAL SEVEN-DAY MINIMUM	5.2	Sep 30	4.4	Mar 4	0.08	Sep 28 1967
MAXIMUM PEAK FLOW			211	Sep 10	[b]3010	Aug 26 1969
MAXIMUM PEAK STAGE			9.96	Sep 10	21.56	Oct 3 1986
ANNUAL RUNOFF (AC-FT)	108600		4360		42340	
10 PERCENT EXCEEDS	552		7.1		196	
50 PERCENT EXCEEDS	11		5.7		7.0	
90 PERCENT EXCEEDS	5.8		4.7		2.1	

[a]Minimum daily discharge for period of record, no flow at times in 1956.
[b]Maximum discharge for period of record 14,000 ft^3/s, Apr. 19, 1957, from rating curve extended above 3,600 ft^3/s, on basis of velocity-area study.



07325000 WASHITA RIVER NEAR CLINTON, OK

LOCATION.--Lat 35°31'51", long 98°58'00", in SW $^1/_4$ NE $^1/_4$ sec.11, T.12 N., R.17 W., Custer County, Hydrologic Unit 11130302, on downstream side of pier of bridge on U.S. Highway 183, 0.5 mi north of Clinton, 0.8 mi upstream from Beaver Creek, 4.8 mi downstream from Barnitz Creek, and at mile 447.4.

DRAINAGE AREA.--1,977 mi^2.

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

REVISED RECORDS.--WSP 1221: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,467.44 ft above sea level. See WSP 1920 for history of changes prior to Mar. 19, 1941.

REMARKS.--Records fair. Flow regulated since February 1961 by Foss Reservoir (station 07324300) and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 3-4, 1934, reached a stage of 33.9 ft, from floodmarks.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	27	29	e28	41	23	24	31	35	18	40	11
2	20	28	29	e29	37	21	24	29	31	18	32	10
3	19	28	29	e30	36	18	24	27	26	18	26	9.8
4	19	29	29	e32	34	19	23	26	32	18	20	9.7
5	19	29	29	37	36	26	23	26	34	101	e15	9.3
6	18	30	28	34	40	24	23	27	32	88	12	9.2
7	19	30	28	33	42	23	26	27	31	40	12	9.1
8	20	29	28	33	40	24	32	25	28	29	12	9.0
9	20	28	28	33	37	22	33	23	118	26	12	11
10	31	28	28	33	34	22	30	22	112	23	11	15
11	38	29	29	32	31	22	27	23	69	21	11	22
12	23	30	29	32	31	21	27	23	56	21	11	31
13	20	31	30	31	30	23	42	23	60	20	20	14
14	20	32	30	31	30	22	89	22	111	20	14	62
15	19	31	30	31	29	22	64	21	100	20	13	74
16	18	31	30	31	30	22	44	21	101	19	12	38
17	19	36	30	30	29	23	37	66	91	19	11	18
18	20	38	29	30	30	23	33	243	55	18	11	21
19	20	36	29	32	e29	26	31	100	41	17	10	84
20	20	32	29	33	e30	27	31	61	33	16	9.9	64
21	20	31	29	33	e30	26	30	45	26	15	9.9	23
22	21	31	31	33	e30	25	28	40	e23	16	9.8	17
23	21	31	31	32	31	24	27	37	e21	22	9.6	16
24	21	30	31	32	31	24	25	42	e20	27	10	15
25	19	29	e29	31	28	24	24	99	19	21	10	14
26	20	28	e29	31	24	24	25	116	19	18	10	14
27	20	27	32	32	23	24	37	68	18	15	33	13
28	23	27	33	33	23	24	61	53	18	14	27	12
29	24	29	32	32	---	24	42	49	18	66	14	13
30	25	30	e29	41	---	24	34	50	17	102	12	12
31	26	---	e28	44	---	24	---	42	---	46	11	---
TOTAL	663	905	914	1009	896	720	1020	1507	1395	932	471.2	680.1
MEAN	21.39	30.17	29.48	32.55	32.00	23.23	34.00	48.61	46.50	30.06	15.20	22.67
MAX	38	38	33	44	42	27	89	243	118	102	40	84
MIN	18	27	28	28	23	18	23	21	17	14	9.6	9.0
AC-FT	1320	1800	1810	2000	1780	1430	2020	2990	2770	1850	935	1350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

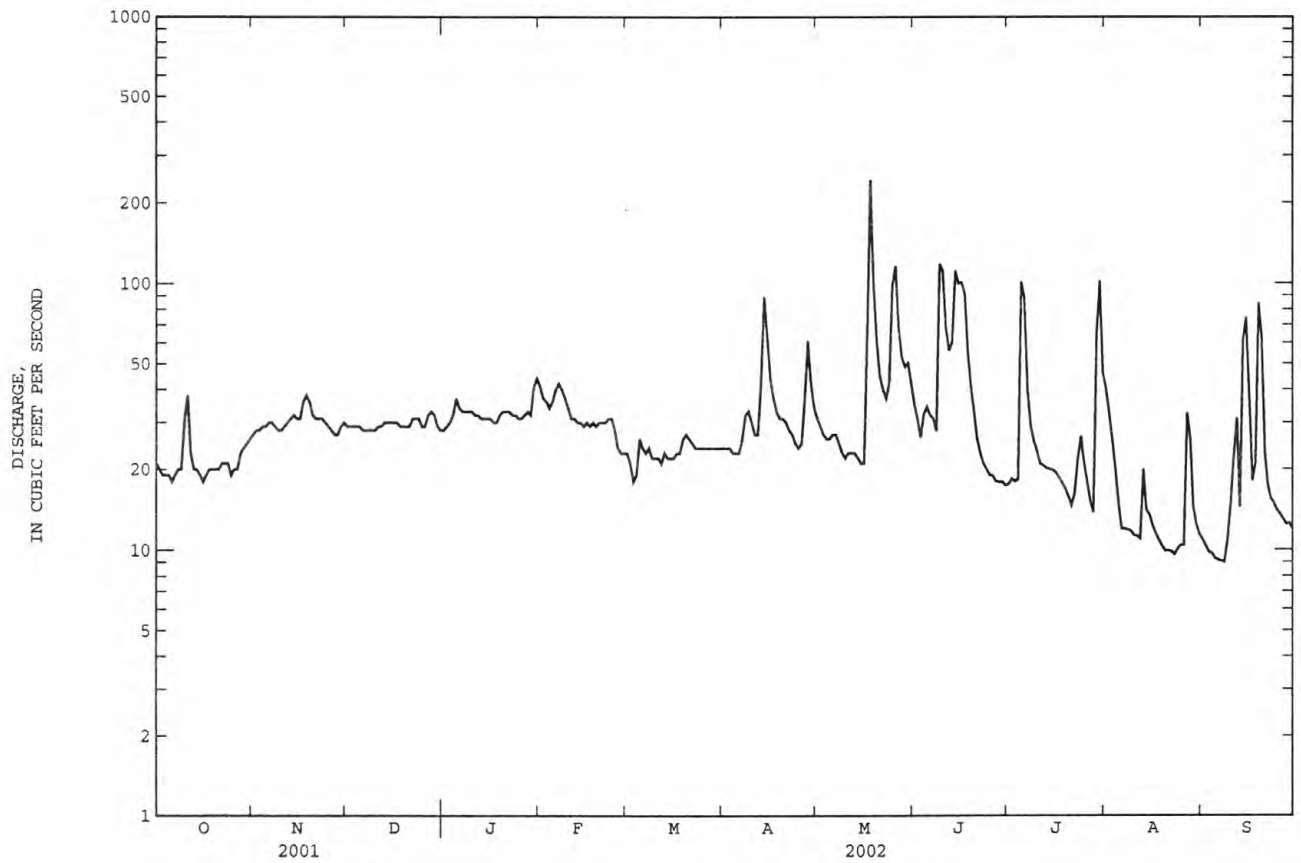
MEAN	115.1	78.81	64.93	77.07	92.58	113.9	140.6	234.6	262.0	111.6	110.2	119.7
MAX	1477	494	504	742	574	654	1112	1256	1190	705	1061	1519
(WY)	1987	1987	1997	1998	1997	1998	1997	1997	1997	1989	1995	1996
MIN	3.30	4.23	5.68	4.78	7.00	6.24	9.64	4.10	4.44	6.42	6.01	5.87
(WY)	1967	1964	1964	1971	1967	1968	1971	1967	1966	1966	1965	1964

e Estimated

07325000 WASHITA RIVER NEAR CLINTON, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	77122		11112.3			
ANNUAL MEAN	211.3		30.44		[a]126.8	
HIGHEST ANNUAL MEAN					696	1997
LOWEST ANNUAL MEAN					13.8	1967
HIGHEST DAILY MEAN	3070	May 30	243	May 18	7710	Oct 3 1986
LOWEST DAILY MEAN	16	Jan 2	9.0	Sep 8	[b]0.00	Jul 26 1964
ANNUAL SEVEN-DAY MINIMUM	19	Oct 2	9.4	Sep 2	0.04	Jul 23 1964
MAXIMUM PEAK FLOW			413	May 18	[c]10800	Sep 15 1996
MAXIMUM PEAK STAGE			9.00	May 18	[d]26.24	Sep 15 1996
ANNUAL RUNOFF (AC-FT)	153000		22040		91840	
10 PERCENT EXCEEDS	649		42		369	
50 PERCENT EXCEEDS	55		28		31	
90 PERCENT EXCEEDS	23		14		8.3	

[a]Prior to regulation, water years 1936-60, 146 ft^3/s.
[b]Also occurred at times in 1952-56, 1964, 1966.
[c]Maximum discharge for period of record, 66,800 ft^3/s, May 16, 1951, from rating curve extended above 22,800 ft^3/s, by contracted-opening measurement of peak flow.
[d]Maximum gage height for period of record, 31.09 ft, May 16, 1951.



07325500 WASHITA RIVER AT CARNEGIE, OK

LOCATION.--Lat 35°07'02", long 98°33'49", in NW $^1/_4$ NW $^1/_4$ sec.3, T.7 N., R.13 W., Caddo County, Hydrologic Unit 11130302, on downstream side of left abutment of bridge on State Highway 9, 1,300 ft upstream from Running Creek, 2.7 mi east of Carnegie, and at mile 353.9. Records include flow of Running Creek.

DRAINAGE AREA.--3,129 mi^2, includes that of Running Creek.

PERIOD OF RECORD.--October 1937 to current year.

REVISED RECORDS.--WSP 1087: 1938. WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,244.23 ft above sea level. Prior to October 1942, water-stage recorder at site 8.0 mi upstream at datum 24.57 ft higher. Prior to Aug. 7, 1985, datum 5.00 ft higher.

REMARKS.--Records poor. Some diversion for irrigation upstream from station. October 1942 to May 1949, occasional fluctuation caused by powerplant at Carnegie, 7.5 mi upstream from station. Flow regulated by Foss Reservoir since February 1961 (station 07324300), and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1903, reached a stage of about 29 ft, at former site and datum, from information provided by local resident; flood of May 18, 1949, reached a stage of 20.9 ft, from floodmark, at that site and datum.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e84	e85	e95	e94	477	e122	e114	162	e110	e66	107	61
2	e82	e86	e96	e94	359	e121	e114	136	e100	e65	90	58
3	e80	e87	e97	136	244	e120	e114	122	e93	e64	75	56
4	e78	e88	e97	e118	197	e119	e113	e120	e99	e64	67	53
5	e77	e89	e98	e116	176	e120	e113	e118	e95	e63	64	51
6	e75	e89	e99	e114	176	e119	e113	e117	e91	e62	60	50
7	e73	e88	e99	e113	175	e119	136	e115	e89	120	59	45
8	e71	e89	e98	e112	179	e118	179	e113	140	151	57	46
9	e69	e89	e97	e111	174	e118	182	e111	2410	105	56	50
10	130	e91	e97	e110	162	e117	166	e110	3580	80	56	54
11	151	e92	e97	e112	150	e116	137	e110	1010	e74	54	53
12	e100	e92	e96	e111	143	e116	131	e109	697	e73	54	53
13	e98	e93	e95	e111	e142	e115	225	e108	564	e71	53	54
14	e99	e95	94	e110	139	e119	1300	e108	559	e70	54	56
15	e100	e97	e100	e110	e137	e120	1220	e108	500	e69	54	77
16	e95	e100	e99	e109	e136	e117	610	e107	377	e68	55	86
17	e90	e110	e99	e108	e134	e118	455	e107	322	e67	55	78
18	e88	e112	e98	e109	e132	e125	339	e106	291	66	51	78
19	e87	e108	e98	e108	e130	e128	276	128	234	65	50	88
20	e87	e108	e97	e109	e128	151	232	196	167	64	49	90
21	e86	e107	e97	e110	e127	153	202	194	117	62	49	91
22	e86	e106	e94	e111	e126	140	181	143	97	60	46	94
23	e85	e97	e94	e110	e125	e128	169	e120	92	59	45	76
24	e85	e95	e93	e109	e124	e125	148	e118	78	61	46	65
25	e84	e96	e94	e108	e123	e120	128	e117	e73	65	e44	59
26	e84	e96	e93	e109	e123	e119	129	134	e70	61	48	57
27	e83	e96	e93	e110	e122	e118	130	179	e69	64	61	56
28	e83	e95	e94	e109	e121	e117	140	173	e67	62	64	54
29	e82	e95	e94	e108	---	e116	173	170	e66	62	92	53
30	e83	e94	e96	180	---	e115	174	131	e66	69	78	51
31	e84	---	e96	408	---	e114	---	e120	---	111	68	---
TOTAL	2739	2865	2984	3787	4681	3783	7843	4010	12323	2263	1861	1893
MEAN	88.35	95.50	96.26	122.2	167.2	122.0	261.4	129.4	410.8	73.00	60.03	63.10
MAX	151	112	100	408	477	153	1300	196	3580	151	107	94
MIN	69	85	93	94	121	114	113	106	66	59	44	45
AC-FT	5430	5680	5920	7510	9280	7500	15560	7950	24440	4490	3690	3750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

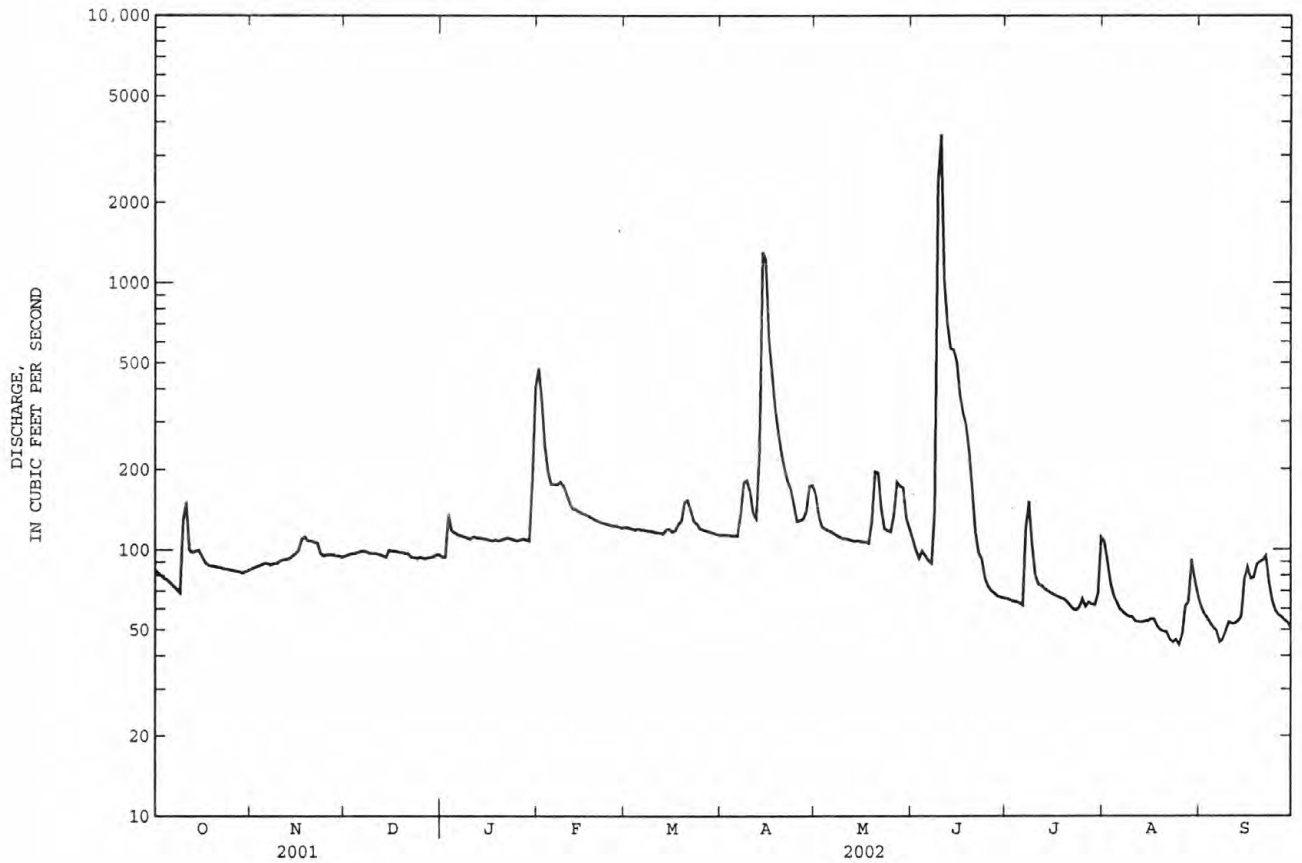
MEAN	420.1	291.4	228.4	216.4	248.3	393.2	406.6	841.3	842.1	280.1	254.0	361.7
MAX	5311	1471	1032	1100	1127	2255	2832	5356	4994	1150	1760	2468
(WY)	1987	1987	1993	1998	1997	1998	1997	1993	1995	1975	1995	1996
MIN	21.8	27.3	33.6	36.0	36.6	34.2	11.1	10.0	94.0	7.10	14.6	15.6
(WY)	1973	1971	1964	1971	1971	1971	1971	1971	1984	1964	1972	1984

e Estimated

07325500 WASHITA RIVER AT CARNEGIE, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	162857		51032			
ANNUAL MEAN	446.2		139.8		[a]398.9	
HIGHEST ANNUAL MEAN					1432	1987
LOWEST ANNUAL MEAN					72.8	1967
HIGHEST DAILY MEAN	5040	May 31	3580	Jun 10	28500	Jun 5 1995
LOWEST DAILY MEAN	69	Oct 9	44	Aug 25	[b]0.00	Jul 20 1964
ANNUAL SEVEN-DAY MINIMUM	75	Oct 3	47	Aug 20	0.00	Jul 20 1964
MAXIMUM PEAK FLOW			4530	Jun 10	[c]40600	Oct 20 1983
MAXIMUM PEAK STAGE			16.26	Jun 10	31.70	Oct 20 1983
ANNUAL RUNOFF (AC-FT)	323000		101200		289000	
10 PERCENT EXCEEDS	1060		174		889	
50 PERCENT EXCEEDS	256		99		138	
90 PERCENT EXCEEDS	88		58		38	

aPrior to regulation, water years 1938-60, 314 ft^3/s.
bAlso occurred at times 1956 and 1964.
cMaximum discharge for period of record, 50,000 ft^3/s, May 18, 1949, from rating curve extended above 35,000 ft^3/s on basis of contracted-opening measurement.



07325800 COBB CREEK NEAR EAKLY, OK

LOCATION.--Lat 35°17'26", long 98°35'38", in NW $^1/_4$ NE $^1/_4$ sec.5, T.9 N., R.13 W., Caddo County, Hydrologic Unit 11130302, near left downstream abutment of bridge, on State Highway 152, 0.5 mi downstream from Fivemile Creek, 2.4 mi southwest of Eakly, 3.0 mi upstream from Fort Cobb Reservoir, and at mile 22.9.

DRAINAGE AREA.--132 mi^2.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,369.70 ft above sea level. Oct. 29, 1980, to Aug. 11, 1982, gage at site 0.5 mi down- stream at same datum.

REMARKS.--Records fair. Flow regulated since 1957 by numerous floodwater-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	13	17	20	44	19	20	25	26	e12	e12	9.5
2	10	13	17	e19	36	e18	20	24	23	e12	e11	9.0
3	10	13	17	e18	29	e17	21	23	20	e12	e10	8.5
4	10	13	17	e19	26	e19	19	21	20	e12	e10	8.2
5	10	13	18	20	28	20	18	21	26	e12	e10	8.2
6	10	14	18	20	34	20	19	23	27	14	e9.7	8.0
7	10	14	18	20	33	20	28	23	24	e13	e9.7	7.9
8	10	13	18	19	29	21	35	23	322	e12	e9.6	7.8
9	12	14	17	20	26	21	26	21	750	e12	e9.6	8.5
10	13	14	17	20	26	21	24	21	69	e12	e9.5	8.8
11	13	14	17	20	24	19	23	21	45	e12	e9.5	8.6
12	13	14	18	19	21	20	22	21	33	e11	e9.5	8.6
13	12	15	18	19	22	20	30	22	78	e11	e9.5	8.6
14	12	15	18	19	21	20	37	20	52	e11	e8.9	36
15	11	15	18	19	21	20	32	19	36	e11	e8.5	24
16	12	15	18	19	21	20	28	19	138	e10	e8.4	14
17	12	17	19	19	21	19	25	52	41	e10	e8.5	13
18	12	18	18	19	22	21	25	41	29	e10	e8.3	12
19	12	17	19	19	23	33	24	31	24	e10	e8.2	44
20	12	16	18	20	24	33	23	27	21	e10	8.3	35
21	12	16	18	19	23	26	23	24	19	e10	8.7	22
22	12	16	18	19	22	24	21	22	17	e10	8.0	17
23	14	16	19	19	22	22	20	21	16	e10	7.5	15
24	12	16	18	19	21	22	24	22	e15	e10	7.6	13
25	12	17	18	19	21	21	22	23	e14	e10	7.7	12
26	12	16	18	19	e18	22	23	23	e14	e10	7.9	12
27	12	16	18	19	e19	20	35	23	e13	e10	21	12
28	12	17	19	20	19	20	37	37	e13	e10	14	12
29	12	17	18	21	---	20	29	73	e12	18	12	11
30	13	17	19	87	---	21	26	41	e12	32	11	11
31	13	---	19	101	---	20	---	31	---	20	9.9	---
TOTAL	361.6	454	557	749	696	659	759	838	1949	379	304.0	425.2
MEAN	11.66	15.13	17.97	24.16	24.86	21.26	25.30	27.03	64.97	12.23	9.806	14.17
MAX	14	18	19	101	44	33	37	73	750	32	21	44
MIN	9.6	13	17	18	18	17	18	19	12	10	7.5	7.8
AC-FT	717	901	1100	1490	1380	1310	1510	1660	3870	752	603	843

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

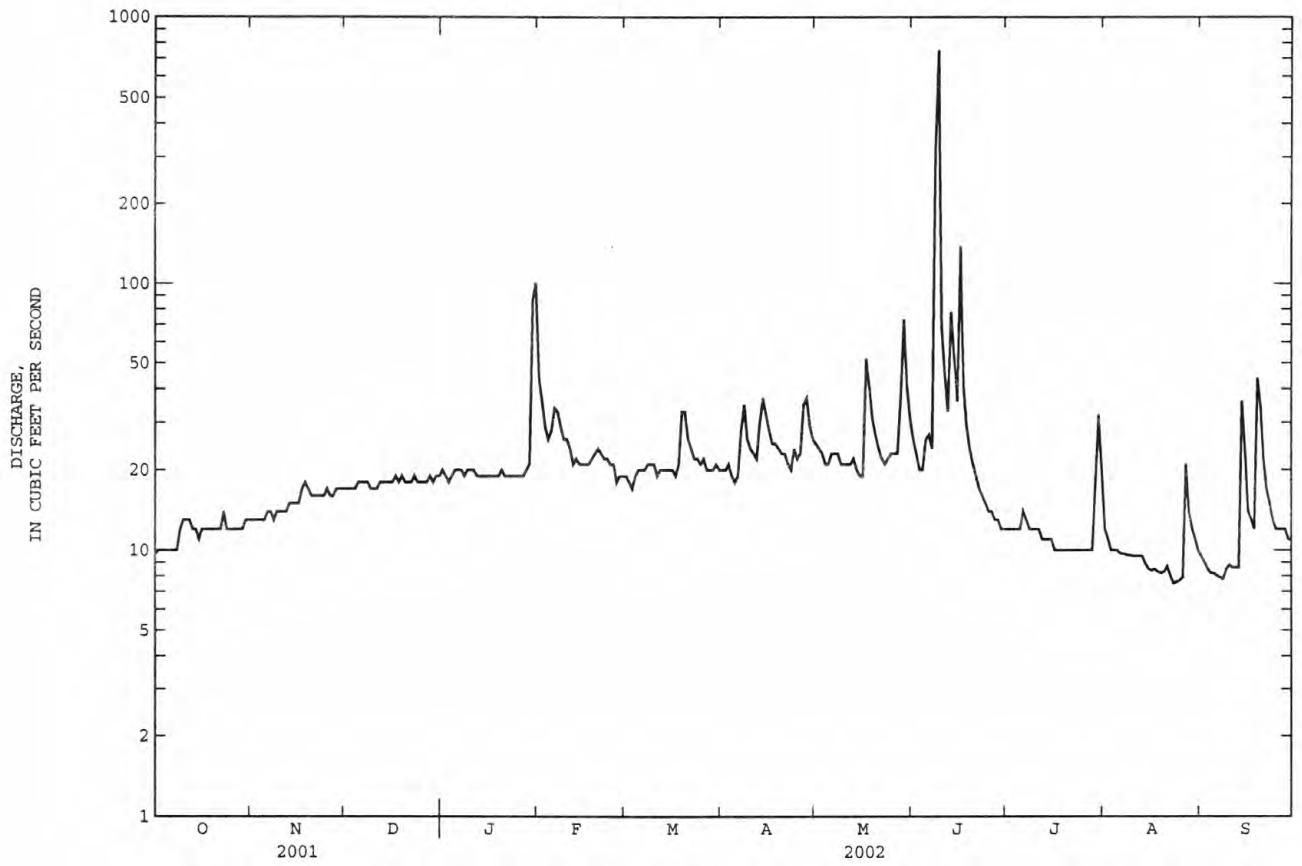
MEAN	28.96	27.23	24.96	20.83	21.70	32.52	29.30	61.68	52.41	15.83	17.78	20.62
MAX	317	104	84.9	50.2	55.1	138	140	303	291	85.1	86.0	161
(WY)	1987	1993	1993	1993	1997	1998	1997	1993	1995	1975	1974	1986
MIN	4.34	6.11	4.88	8.78	8.99	8.38	5.27	2.79	7.84	1.01	0.90	2.15
(WY)	1973	1979	1979	1981	1981	1971	1971	1971	1984	1974	1972	1972

e Estimated

07325800 COBB CREEK NEAR EAKLY, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	11233.0		8130.8			
ANNUAL MEAN	30.78		22.28		29.51	
HIGHEST ANNUAL MEAN					91.0	1987
LOWEST ANNUAL MEAN					10.1	1979
HIGHEST DAILY MEAN	1130	May 30	750	Jun 9	3750	Sep 29 1986
LOWEST DAILY MEAN	7.8	Aug 11	7.5	Aug 23	[a]0.00	Aug 18 1970
ANNUAL SEVEN-DAY MINIMUM	8.1	Aug 5	8.0	Aug 20	0.04	May 24 1971
MAXIMUM PEAK FLOW			2160	Jun 8	12000	Jun 4 1995
MAXIMUM PEAK STAGE			15.71	Jun 8	24.38	Sep 29 1986
ANNUAL RUNOFF (AC-FT)	22280		16130		21380	
10 PERCENT EXCEEDS	38		29		38	
50 PERCENT EXCEEDS	18		18		15	
90 PERCENT EXCEEDS	9.6		10		4.9	

[a]No flow Aug. 18-19, 1970, and May 26-30, 1971.



07325900 FORT COBB RESERVOIR NEAR FORT COBB, OK

LOCATION.--Lat 35°09'58", long 98°27'23", in SE $^1/_4$ NW $^1/_4$ sec.22, T.8 N., R.12 W., Caddo County, Hydrologic Unit 11130302, in control house at right center of dam on Cobb Creek, 4.0 mi northwest of Fort Cobb, and at mile 7.5.

DRAINAGE AREA.--304 mi^2.

PERIOD OF RECORD.--March 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation). Prior to October, 1961, nonrecording gage at same datum.

REMARKS.--Reservoir is formed by earth dam. Outlet consists of two sets of controlled 5- by 5-foot steel gates and an uncontrolled concrete spillway. Storage began Mar. 30, 1959. Conservation pool was first filled in June 1962. Capacity, 143,700 acre-ft at elevation 1,354.8 ft, crest of drop inlet, 80,010 acre-ft at elevation 1,342.0 ft, conservation pool, and 1,664 acre-ft at elevation 1,300.0 ft, crest of gated outlet. Figures given herein represent total contents. Reservoir is used for flood control, for municipal and industrial water supply, and for irrigation releases. Revised capacity table used since May 1993. U.S. Army Corps of Engineers' satellite telemeter at station.

COOPERATION.--Elevations and data on diversions provided by Fort Cobb Reservoir Master Conservancy District.

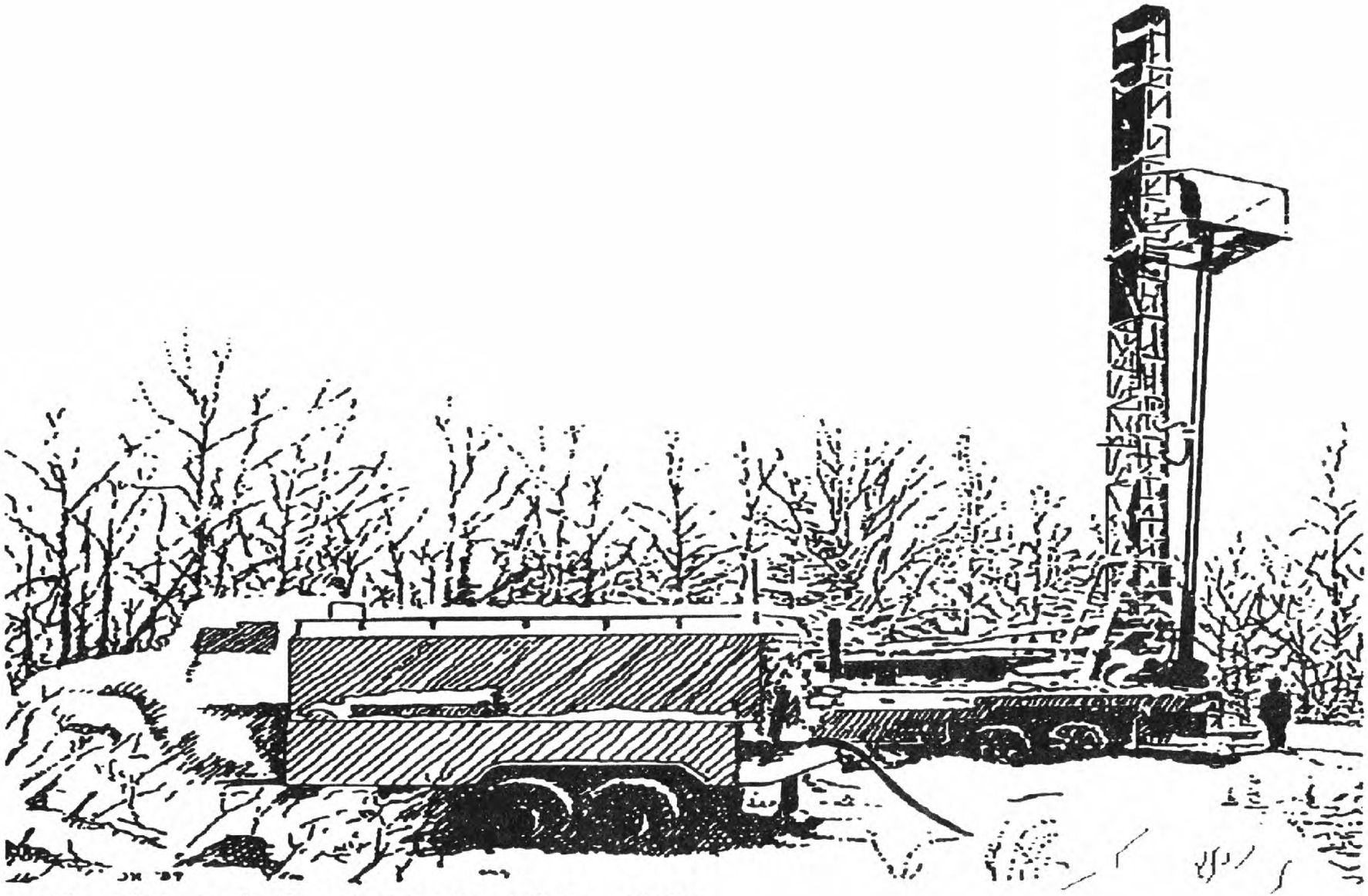
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 121,400 acre-ft, June 13, 1995, elevation, 1,352.25 ft; minimum since conservation pool was first filled, 54,650 acre-ft, Oct. 19, 1972, elevation 1,335.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 78,660 acre-ft, June 11, elevation, 1,343.23 ft; minimum, 66,957 acre-ft, Nov. 14, elevation 1,340.11 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	*Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Diversions (acre-feet)
Sept. 30	1340.61	68,730	-	-
Oct. 31	1340.18	67,200	-1,530	1,022
Nov. 30	1340.13	67,030	-170	994
Dec. 31	1340.25	67,450	+420	1,103
CAL YR 01	-	-	-8,170	12,694
Jan. 31	1340.77	69,300	+1,850	854
Feb. 28	1341.06	70,340	+1,040	880
Mar. 31	1341.35	71,420	+1,080	1,037
Apr. 30	1342.15	74,420	+3,000	836
May 31	1342.26	74,840	+420	1,163
June 30	1342.31	75,040	+200	1,201
July 31	1341.96	73,680	-1,360	1,336
Aug. 31	1341.19	70,820	-2,860	1,345
Sept. 30	1340.90	69,760	-1,060	1,003
WTR YR 02	-	-	+1,030	12,774

*Elevation at 2400



Cleaning and plugging wells, winter 1984

07326000 COBB CREEK NEAR FORT COBB, OK

LOCATION.--Lat 35°08'37", long 98°26'33", in NE $^1/_4$ NE $^1/_4$ sec.27, T.8 N., R.12 W., Caddo County, Hydrologic Unit 11130302, on left bank 10 ft upstream from county road bridge, 0.3 mi upstream from Punjo Creek, 1.2 mi downstream from Fort Cobb Dam, 3.0 mi north of Fort Cobb, and at mile 5.8.

DRAINAGE AREA.--307 mi^2. Area at site used prior to Oct. 1, 1969, 319 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1960, published as Pond Creek near Fort Cobb.

REVISED RECORDS.--WSP 1087: 1938. WDR OK-94-2: 1993 (M) drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,254.49 ft above sea level (levels by U.S. Bureau of Reclamation). Oct.1, 1939, to Aug. 29, 1940, nonrecording gage and Aug. 30, 1940, to Sept. 30, 1969, water-stage recorder at site 0.8 mi downstream at datum 1.92 ft lower. Oct. 16, 1969, to Sept. 30, 1982, gage at same site and datum 5.00 ft higher.

REMARKS.--Records fair. Flow regulated since March 1959, by Fort Cobb Reservoir (station 07325900). U.S. Geological Survey satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 15, 1937, reached a stage of 19.3 ft, site and datum used in 1939, from information by local resident.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.6	2.5	2.1	2.1	2.0	2.9	3.0	3.1	3.3	2.4	2.5
2	2.0	2.6	2.5	2.1	2.2	2.0	2.8	e2.9	3.0	3.1	2.1	2.5
3	2.1	2.7	2.6	2.1	2.2	1.9	2.7	e2.8	3.0	3.0	2.1	2.2
4	2.2	2.8	2.5	2.1	2.2	1.9	2.7	e2.7	2.9	2.8	2.1	2.1
5	2.1	2.9	2.6	2.2	2.5	1.9	2.8	e2.7	3.6	3.0	2.1	2.0
6	2.1	2.9	2.5	2.0	2.4	1.9	3.2	2.8	3.0	2.7	2.4	2.0
7	2.1	2.9	2.6	1.9	2.3	1.9	4.4	3.6	2.9	2.7	2.4	2.2
8	2.1	2.9	2.6	2.0	2.3	1.9	4.0	3.2	e3.4	2.7	2.3	2.3
9	2.2	2.9	2.6	2.1	2.3	1.9	3.4	2.8	e3.6	2.7	2.2	2.1
10	2.3	2.9	2.5	2.0	2.1	1.9	3.5	3.0	e2.9	2.7	2.2	1.8
11	2.2	2.9	2.7	2.0	2.1	2.0	3.7	3.2	140	2.8	2.2	1.8
12	2.1	2.9	2.7	2.0	2.2	2.0	e4.1	3.0	405	2.9	2.1	1.8
13	2.2	2.9	2.6	2.0	2.1	2.0	e4.4	2.9	316	2.9	2.0	2.1
14	2.2	2.9	2.6	1.9	2.2	2.0	e3.6	2.9	e279	2.9	2.1	2.4
15	2.1	2.9	2.7	1.8	2.2	2.1	3.2	2.9	263	2.8	2.2	2.3
16	2.2	3.0	2.7	1.9	2.1	2.2	2.9	2.9	255	2.8	2.1	2.2
17	2.2	3.2	2.6	1.9	2.2	2.2	2.8	3.4	248	2.8	2.1	2.2
18	2.2	3.0	2.5	1.9	2.3	2.6	2.7	3.0	243	2.9	2.4	2.4
19	2.3	2.9	2.5	1.9	2.4	3.0	2.6	3.0	193	2.8	2.1	3.0
20	2.3	2.8	2.4	1.9	2.3	2.4	2.6	3.0	5.5	2.8	2.0	2.5
21	2.2	2.7	2.4	1.9	2.1	2.4	2.5	3.0	4.3	2.7	1.9	2.4
22	2.3	2.7	2.5	1.9	2.1	2.3	2.5	3.0	3.7	2.7	2.0	2.4
23	2.4	2.6	2.4	2.0	2.2	2.5	2.6	3.2	3.4	2.7	2.1	2.5
24	2.3	2.6	2.4	2.0	2.2	2.5	2.9	3.3	3.1	2.8	2.0	2.6
25	2.4	2.6	2.3	1.9	2.2	2.5	2.9	3.4	2.9	2.8	2.2	2.6
26	2.5	2.5	2.2	2.0	2.1	2.5	3.2	3.2	2.9	2.6	2.2	2.7
27	2.5	2.5	3.0	2.0	2.0	2.6	3.4	3.3	2.9	2.6	3.1	2.7
28	2.4	2.6	2.5	2.0	2.0	2.8	2.9	3.8	2.9	2.6	2.5	2.9
29	2.4	2.5	2.2	2.0	---	2.8	3.1	3.7	2.9	2.8	2.8	3.0
30	2.4	2.5	2.2	4.2	---	3.2	3.3	3.2	2.9	2.6	2.8	2.8
31	2.5	---	2.1	2.7	---	3.0	---	3.2	---	2.7	2.7	---
TOTAL	69.6	83.3	77.7	64.4	61.6	70.8	94.3	96.0	2410.8	86.7	69.9	71.0
MEAN	2.245	2.777	2.506	2.077	2.200	2.284	3.143	3.097	80.36	2.797	2.255	2.367
MAX	2.5	3.2	3.0	4.2	2.5	3.2	4.4	3.8	405	3.3	3.1	3.0
MIN	2.0	2.5	2.1	1.8	2.0	1.9	2.5	2.7	2.9	2.6	1.9	1.8
AC-FT	138	165	154	128	122	140	187	190	4780	172	139	141

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2002, BY WATER YEAR (WY)

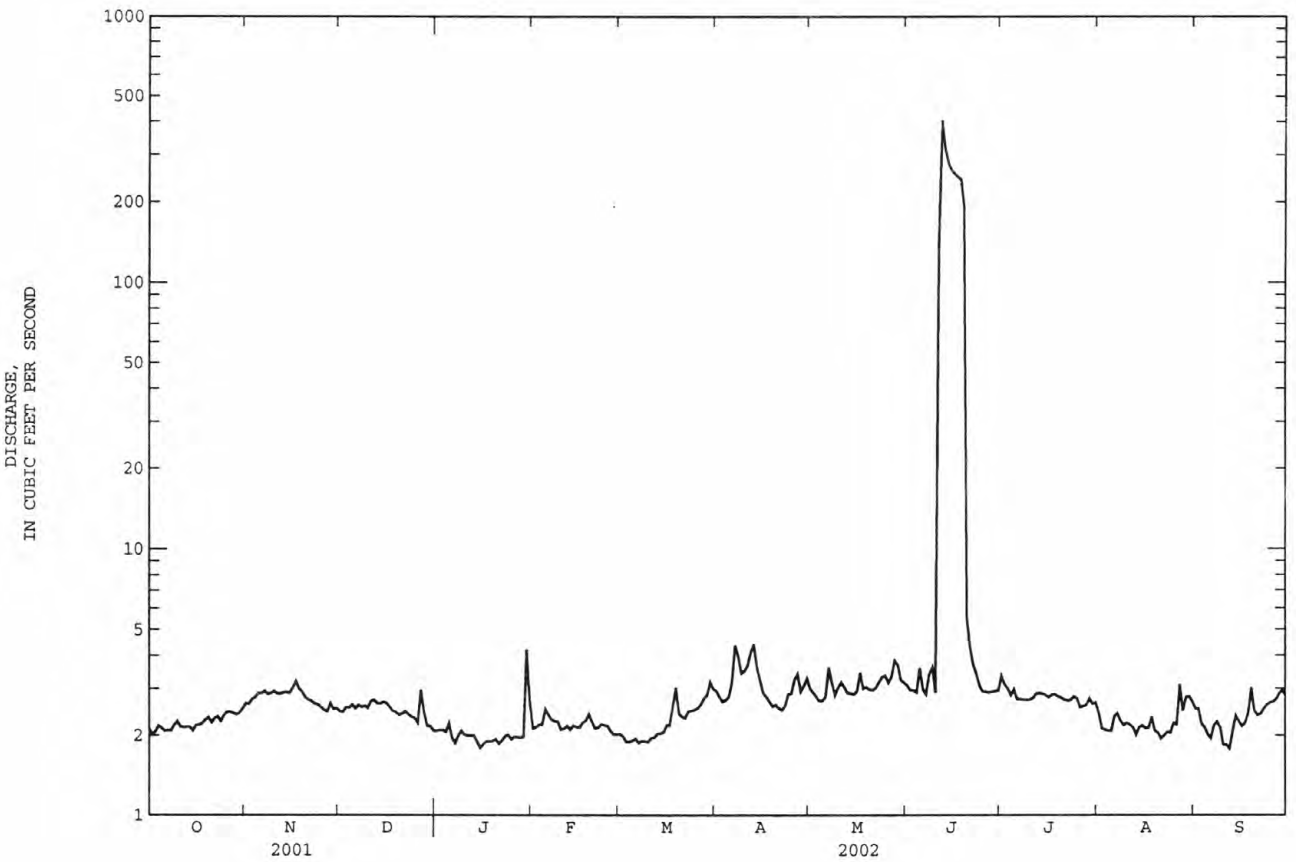
MEAN	23.36	28.77	21.80	26.07	25.54	39.42	36.86	54.17	127.0	32.73	19.12	19.66
MAX	345	538	194	139	131	312	237	429	779	262	211	157
(WY)	1987	1987	1993	1969	1975	1990	1998	1993	1987	1995	1975	1965
MIN	1.41	1.62	1.57	1.99	2.14	2.12	2.01	1.50	1.90	0.78	1.48	1.60
(WY)	1985	1973	1973	1977	1981	1977	1985	1985	1972	1985	1981	1978

e Estimated

07326000 COBB CREEK NEAR FORT COBB, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1963 - 2002	
ANNUAL TOTAL	13037.1		3256.1			
ANNUAL MEAN	35.72		8.921		[a]37.81	
HIGHEST ANNUAL MEAN					176	1987
LOWEST ANNUAL MEAN					2.34	1981
HIGHEST DAILY MEAN	456	Jun 5	405	Jun 12	1270	Jun 23 1987
LOWEST DAILY MEAN	2.0	Sep 20,24,25	1.8	Jan 15,Sep 10-12	[b]0.20	Jul 20 1981
ANNUAL SEVEN-DAY MINIMUM	2.1	Sep 19	1.9	Jan 14	0.20	Jul 20 1981
MAXIMUM PEAK FLOW			426	Jun 12	[c]1280	Jun 23 1987
MAXIMUM PEAK STAGE			9.24	Jun 12	[d]20.50	Jun 4 1995
ANNUAL RUNOFF (AC-FT)	25860		6460		27390	
10 PERCENT EXCEEDS	113		3.2		91	
50 PERCENT EXCEEDS	2.9		2.5		3.0	
90 PERCENT EXCEEDS	2.2		2.0		2.0	

[a]Prior to regulation by Fort Cobb Reservoir, water years 1940-58, 50.2 ft^3/s.
[b]Also occurred Sept. 20, 24-28, 1956, July 20-27, 1981.
[c]Maximum discharge for period of record, 35,000 ft^3/s, May 17, 1949, from rating curve extended above 4,300 ft^3/s on basis of contracted opening measurement.
[d]Occurred during backwater from Punjo Creek.



07326500 WASHITA RIVER AT ANADARKO, OK

LOCATION.--Lat 35°05'03", long 98°14'35", in NW $^1/_4$ sec.15, T.7 N., R.10 W., Caddo County, Hydrologic Unit 11130302 on right downstream bank at bridge on U.S. Highway 281 at north edge of Anadarko, 8.1 mi upstream from Sugar Creek, and at mile 305.2.

DRAINAGE AREA.--3,656 mi^2.

PERIOD OF RECORD.--October 1902 to September 1908; June 1924 to June 1925, published as "near Anadarko", October 1935 to February 1938; October 1963 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: 1903, 1907-08, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,150.00 ft above sea level. October 26, 1902, to June 30, 1908, nonrecording gage at former bridge 125 ft downstream at datum estimated to be 2.8 ft higher. May 25, 1924, to June 30, 1925, nonrecording gage at county road bridge 14 mi downstream at different datum. Jan. 10, 1936, to Mar. 7, 1938, non-recording gage on upstream side of bridge on U.S. Highway 281 at datum 1.88 ft higher. October 1963 to March 1989 gage located 100 ft upstream at same datum.

REMARKS.--Records good. Flow regulated by low-water dams upstream and since March 1959, by Fort Cobb Reservoir (station 07325900), since February 1961, by Foss Reservoir (station 07324300), and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1949, reached an elevation of 1,176.7 ft, from floodmark, at right bank on downstream side of bridge on U.S. Highway 281.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	99	126	e125	410	145	138	205	143	115	105	84
2	97	102	126	e123	537	e143	137	185	133	113	142	73
3	93	102	127	e120	445	e140	136	172	124	118	133	63
4	90	103	127	132	314	e144	134	159	119	118	95	60
5	90	103	127	145	267	145	133	153	124	121	78	55
6	92	103	127	145	246	146	141	145	118	118	69	e52
7	89	105	127	142	231	147	160	142	114	117	64	e51
8	90	106	128	141	219	148	201	147	162	144	61	56
9	90	104	127	142	210	153	252	141	475	202	59	56
10	97	105	126	139	207	152	220	134	3130	188	58	57
11	108	109	127	135	198	148	200	134	2580	145	57	56
12	146	109	128	135	186	147	192	133	1450	124	56	58
13	131	109	129	135	177	146	274	132	1360	111	55	58
14	112	111	129	133	169	144	609	128	1080	104	58	60
15	113	113	132	131	164	145	1580	124	981	99	58	62
16	114	117	138	129	159	145	1250	121	930	93	57	67
17	104	121	136	128	157	145	763	144	767	89	55	111
18	100	123	133	128	156	152	556	143	719	87	56	104
19	98	126	131	131	161	175	409	124	722	84	e53	119
20	98	133	130	130	159	189	326	122	668	80	e53	135
21	97	132	128	129	155	185	275	167	303	79	e52	126
22	97	132	128	130	155	185	243	217	231	77	e52	119
23	98	126	128	130	156	177	222	176	197	74	e51	139
24	97	124	127	131	153	162	210	160	174	72	e51	120
25	96	122	128	130	152	153	194	152	158	72	e49	94
26	96	119	129	128	149	149	187	142	145	74	e48	80
27	96	120	129	129	147	146	182	137	134	72	57	73
28	96	123	129	128	145	140	177	183	126	69	59	70
29	96	127	130	130	---	139	174	184	121	76	69	65
30	97	126	e124	156	---	139	184	189	113	74	85	63
31	97	---	e122	209	---	140	---	162	---	74	113	---
TOTAL	3113	3454	3983	4199	5984	4714	9859	4757	17601	3183	2108	2386
MEAN	100.4	115.1	128.5	135.5	213.7	152.1	328.6	153.5	586.7	102.7	68.00	79.53
MAX	146	133	138	209	537	189	1580	217	3130	202	142	139
MIN	89	99	122	120	145	139	133	121	113	69	48	51
AC-FT	6170	6850	7900	8330	11870	9350	19560	9440	34910	6310	4180	4730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

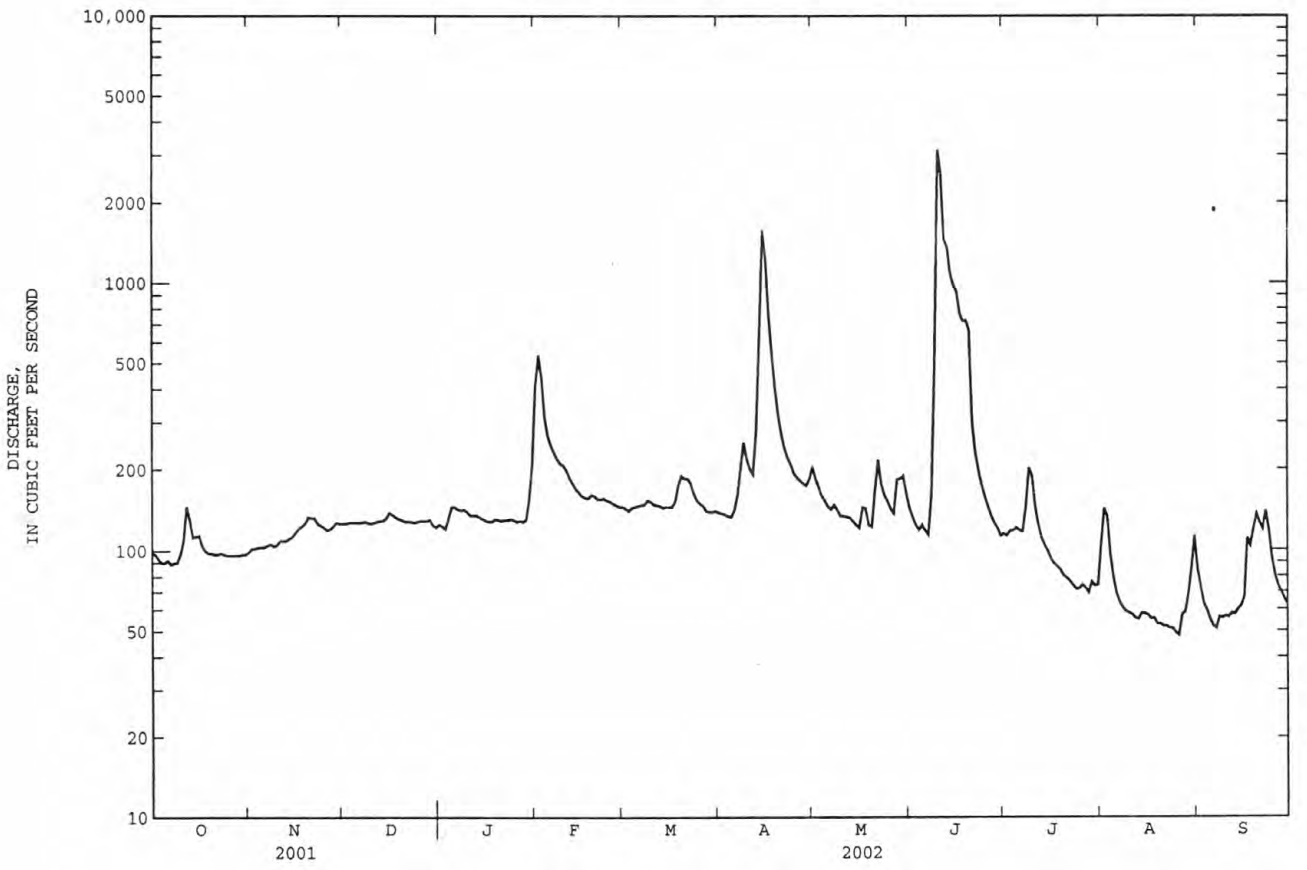
MEAN	490.5	358.2	292.9	282.5	317.6	491.6	502.5	955.6	1087	385.9	317.3	401.9
MAX	5480	2205	1352	1213	1269	2981	3003	5601	5843	1459	2223	2654
(WY)	1987	1987	1993	1998	1997	1998	1997	1993	1995	1989	1995	1996
MIN	21.2	37.0	41.6	52.0	55.4	50.6	16.7	9.57	85.7	12.6	19.7	32.2
(WY)	1973	1971	1971	1971	1971	1971	1971	1971	1967	1964	1972	1984

e Estimated

07326500 WASHITA RIVER AT ANADARKO, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1964 - 2002	
ANNUAL TOTAL	188704		65341			
ANNUAL MEAN	517.0		179.0		[a]490.5	
HIGHEST ANNUAL MEAN					1788	1987
LOWEST ANNUAL MEAN					72.7	1971
HIGHEST DAILY MEAN	4570	Jun 1	3130	Jun 10	37700	Oct 21 1983
LOWEST DAILY MEAN	89	Oct 7	48	Aug 26	0.00	Aug 1 1964
ANNUAL SEVEN-DAY MINIMUM	91	Oct 3	51	Aug 20	0.77	Jul 19 1964
MAXIMUM PEAK FLOW			3930	Jun 10	52800	Jun 6 1995
MAXIMUM PEAK STAGE			14.19	Jun 10	25.37	Jun 6 1995
ANNUAL RUNOFF (AC-FT)	374300		129600		355300	
10 PERCENT EXCEEDS	1230		213		1140	
50 PERCENT EXCEEDS	329		129		185	
90 PERCENT EXCEEDS	104		65		53	

[a]Prior to regulation, water years 1903-08, 1936-37, 595 ft^3/s.



073274406 LITTLE WASHITA RIVER ABOVE SCS POND NO. 26 NEAR CYRIL, OK

LOCATION.-- Lat 34°54'53", long 98°15'02", in SW $^1/_4$ SW $^1/_4$ sec. 10, T.5N., R.10W., Caddo County, Hydrologic Unit 11130302, on right downstream bank of county road, 3 mi west of Cyril, and at mile 29.6.

DRAINAGE AREA.--3.44 mi^2.

PERIOD OF RECORD.-- February 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,329.98 ft above sea level.

REMARKS.--No estimated daily discharge. Records poor. U.S. Geological Survey's satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

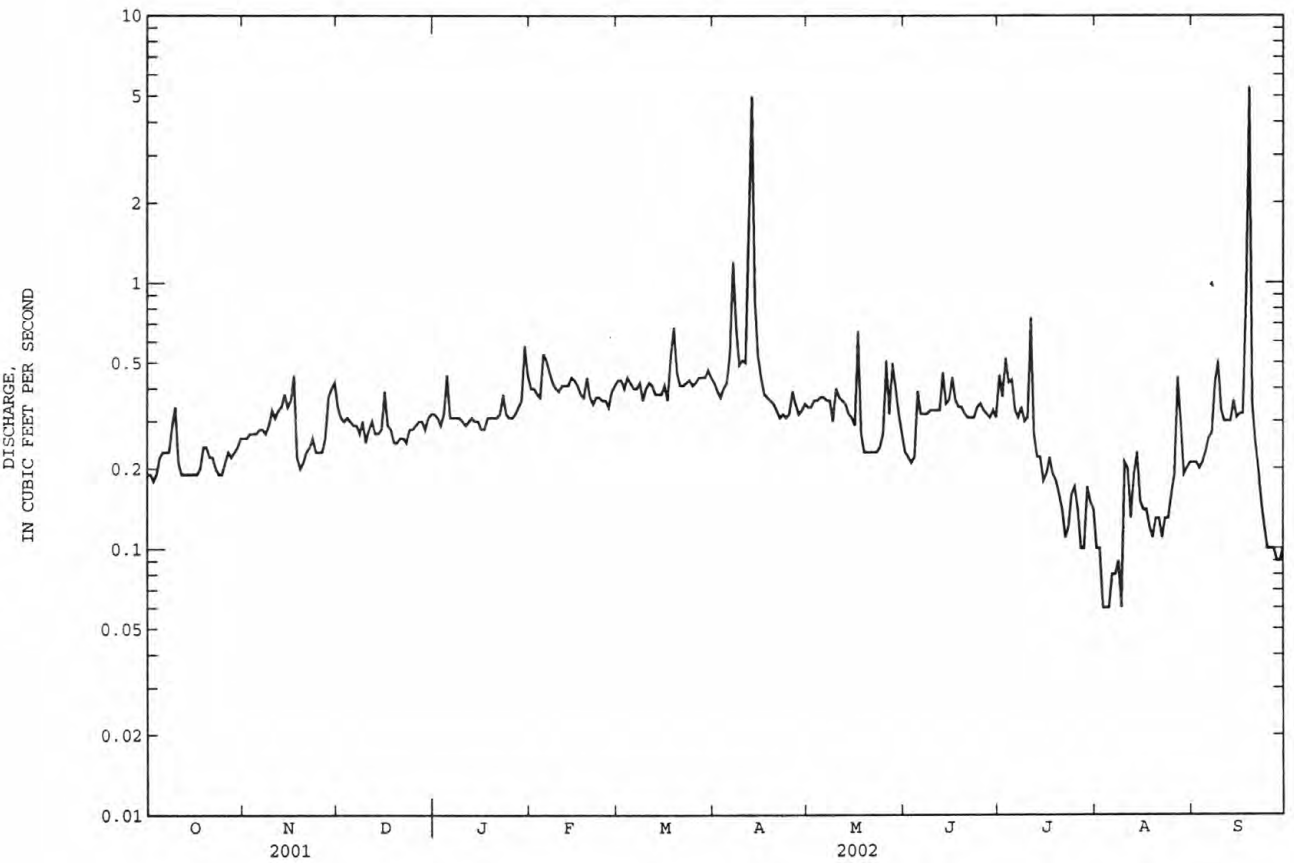
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.19	0.26	0.34	0.32	0.40	0.43	0.42	0.34	0.23	0.45	0.10	0.21
2	0.19	0.26	0.31	0.31	0.40	0.43	0.39	0.34	0.22	0.37	0.10	0.21
3	0.18	0.27	0.30	0.29	0.38	0.40	0.37	0.36	0.21	0.52	0.06	0.20
4	0.19	0.27	0.31	0.32	0.37	0.44	0.40	0.36	0.22	0.42	0.06	0.21
5	0.22	0.27	0.30	0.45	0.54	0.42	0.42	0.37	0.39	0.43	0.06	0.23
6	0.23	0.28	0.29	0.31	0.51	0.40	0.54	0.37	0.32	0.33	0.08	0.26
7	0.23	0.28	0.29	0.31	0.46	0.40	1.2	0.36	0.32	0.31	0.08	0.27
8	0.23	0.27	0.27	0.31	0.42	0.42	0.68	0.36	0.32	0.34	0.09	0.42
9	0.29	0.29	0.30	0.31	0.40	0.36	0.49	0.30	0.33	0.30	0.06	0.51
10	0.34	0.33	0.25	0.30	0.39	0.40	0.51	0.40	0.33	0.31	0.21	0.33
11	0.21	0.31	0.28	0.29	0.41	0.42	0.50	0.37	0.33	0.74	0.20	0.30
12	0.19	0.33	0.30	0.30	0.41	0.41	1.6	0.36	0.33	0.27	0.13	0.30
13	0.19	0.34	0.27	0.31	0.41	0.38	5.0	0.35	0.46	0.22	0.19	0.30
14	0.19	0.38	0.27	0.30	0.44	0.38	0.85	0.32	0.35	0.22	0.23	0.36
15	0.19	0.34	0.28	0.30	0.43	0.38	0.53	0.31	0.36	0.18	0.15	0.31
16	0.19	0.36	0.39	0.28	0.41	0.41	0.44	0.29	0.44	0.19	0.14	0.32
17	0.19	0.45	0.29	0.28	0.38	0.36	0.38	0.66	0.36	0.22	0.14	0.32
18	0.20	0.22	0.28	0.31	0.37	0.53	0.37	0.27	0.34	0.19	0.12	0.92
19	0.24	0.20	0.25	0.31	0.44	0.68	0.36	0.23	0.34	0.18	0.11	5.4
20	0.24	0.21	0.25	0.31	0.37	0.46	0.35	0.23	0.32	0.16	0.13	0.35
21	0.22	0.23	0.26	0.31	0.35	0.41	0.33	0.23	0.31	0.14	0.13	0.25
22	0.22	0.24	0.26	0.32	0.37	0.41	0.31	0.23	0.31	0.11	0.11	0.20
23	0.20	0.26	0.25	0.38	0.37	0.42	0.32	0.23	0.31	0.12	0.13	0.15
24	0.19	0.23	0.28	0.32	0.36	0.43	0.31	0.24	0.34	0.16	0.13	0.12
25	0.19	0.23	0.28	0.31	0.36	0.41	0.32	0.27	0.35	0.17	0.16	0.10
26	0.21	0.23	0.29	0.31	0.34	0.42	0.39	0.51	0.33	0.14	0.19	0.10
27	0.23	0.26	0.30	0.32	0.39	0.44	0.35	0.32	0.32	0.10	0.44	0.10
28	0.22	0.37	0.30	0.34	0.41	0.44	0.32	0.50	0.31	0.10	0.30	0.09
29	0.23	0.40	0.28	0.36	---	0.44	0.33	0.40	0.33	0.17	0.19	0.09
30	0.24	0.42	0.31	0.58	---	0.47	0.35	0.32	0.31	0.15	0.20	0.10
31	0.26	---	0.32	0.45	---	0.44	---	0.27	---	0.14	0.21	---
TOTAL	6.73	8.79	8.95	10.22	11.29	13.24	19.13	10.47	9.74	7.85	4.63	13.03
MEAN	0.217	0.293	0.289	0.330	0.403	0.427	0.638	0.338	0.325	0.253	0.149	0.434
MAX	0.34	0.45	0.39	0.58	0.54	0.68	5.0	0.66	0.46	0.74	0.44	5.4
MIN	0.18	0.20	0.25	0.28	0.34	0.36	0.31	0.23	0.21	0.10	0.06	0.09
AC-FT	13	17	18	20	22	26	38	21	19	16	9.2	26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

MEAN	4.014	1.515	1.304	1.843	2.007	3.248	2.216	2.740	3.972	1.599	1.208	0.662
MAX	19.9	3.34	2.62	7.18	4.39	11.9	3.73	10.9	21.6	4.81	3.74	1.91
(WY)	2001	1999	2001	1998	1998	1998	1995	1995	1995	1997	1995	1996
MIN	0.22	0.26	0.29	0.33	0.40	0.43	0.59	0.29	0.32	0.25	0.081	0.083
(WY)	2002	2000	2002	2002	2002	2002	1996	1996	2002	2002	2000	2000

073274406 LITTLE WASHITA RIVER ABOVE SCS POND NO. 26 NEAR CYRIL, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1995 - 2002	
ANNUAL TOTAL	464.49		124.07			
ANNUAL MEAN	1.273		0.340		1.830	
HIGHEST ANNUAL MEAN					3.39	1998
LOWEST ANNUAL MEAN					0.34	2002
HIGHEST DAILY MEAN	17	May 30	5.4	Sep 19	471	Oct 23 2000
LOWEST DAILY MEAN	0.14	Sep 23	0.06	Aug 3	0.03	Oct 3 2000
ANNUAL SEVEN-DAY MINIMUM	0.15	Sep 8	0.07	Aug 3	0.05	Oct 1 2000
MAXIMUM PEAK FLOW			31	Sep 19	2280	Oct 23 2000
MAXIMUM PEAK STAGE			5.10	Sep 19	14.26	Oct 23 2000
ANNUAL RUNOFF (AC-FT)	921		246		1330	
10 PERCENT EXCEEDS	2.3		0.44		2.5	
50 PERCENT EXCEEDS	1.1		0.31		0.93	
90 PERCENT EXCEEDS	0.18		0.16		0.23	



073274408 LITTLE WASHITA RIVER TRIBUTARY NEAR CYRIL, OK

LOCATION.-- Lat 34°55'33", long 98°14'00", in SE $^1/_4$ NE $^1/_4$ NE $^1/_4$ sec. 10, T.5N., R.10W., Caddo County, Hydrologic Unit 11130302, on right bank of county road, 1.7 mi west of Cyril, 6.8 mi east of Apache, and at mile 1.6.

DRAINAGE AREA.--1.10 mi^2.

PERIOD OF RECORD.-- February 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,372.05 ft above sea level.

REMARKS.--Records poor. U.S. Geological Survey's satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	e0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	6.9	0.0	e0.0	0.01	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	14	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.46	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.17	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.10	0.0	0.01	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.10	3.9	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	e0.0	0.0	0.0	2.2
19	0.0	0.0	0.0	0.0	0.0	0.0	0.04	0.0	0.0	0.0	0.0	4.2
20	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.07	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.16	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	---	0.0	0.0	---	0.0	---	0.0	---	0.0	0.0	---
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	23.28	4.13	0.01	3.51	0.03	6.4
MEAN	0.000	0.000	0.000	0.000	0.000	0.000	0.776	0.133	0.000	0.113	0.001	0.213
MAX	0.00	0.00	0.00	0.00	0.00	0.00	14	3.9	0.01	3.5	0.03	4.2
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
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	46	8.2	0.02	7.0	0.06	13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

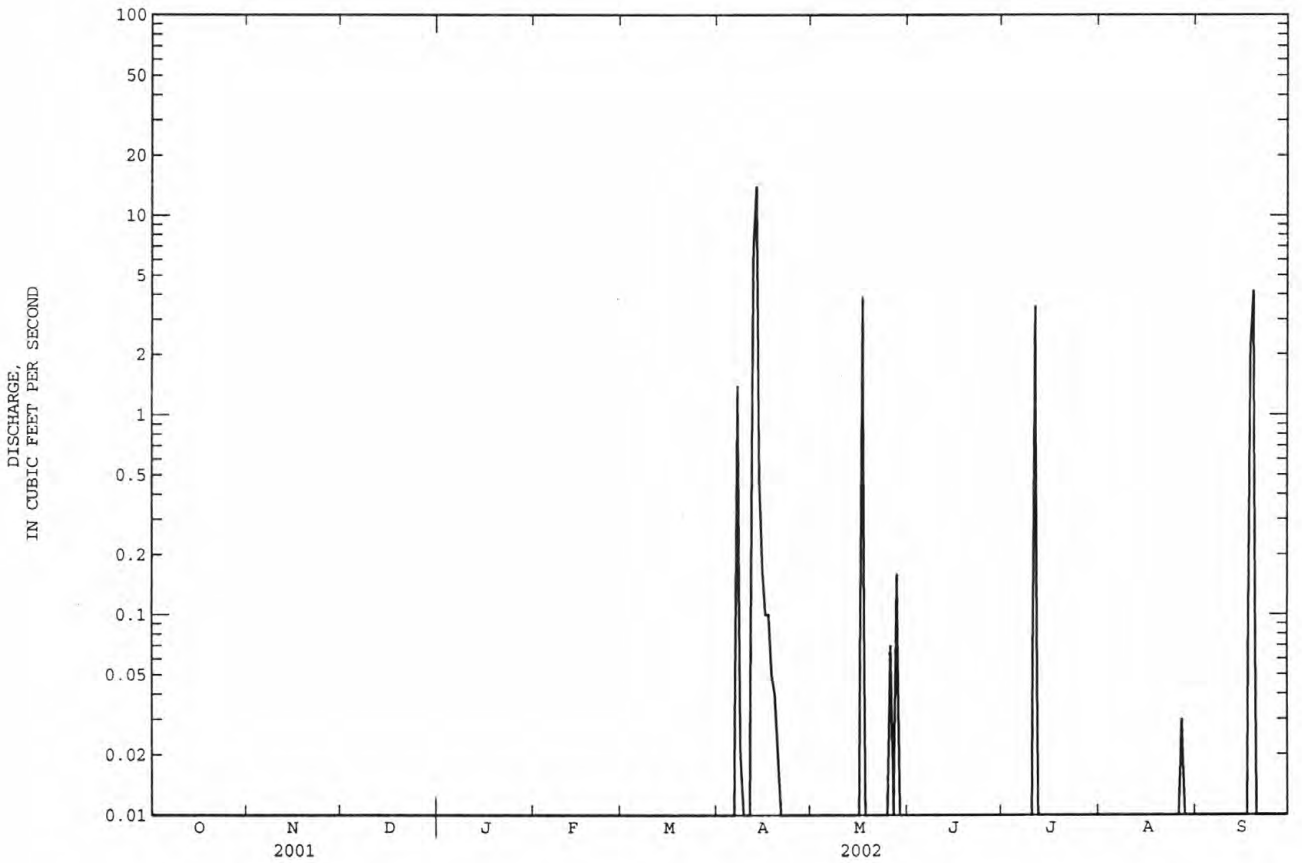
MEAN	1.378	0.336	0.308	0.373	0.374	0.682	0.608	0.362	0.478	0.297	0.112	0.115
MAX	8.23	0.74	0.72	1.54	0.96	2.84	1.04	0.71	2.59	1.47	0.42	0.27
(WY)	2001	1997	2000	1998	1998	1998	1999	2001	1995	1997	1995	1995
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.27	0.040	0.000	0.000	0.000	0.000
(WY)	2000	2000	2002	2000	2002	2002	1996	1996	2002	1998	1999	1998

e Estimated

073274408 LITTLE WASHITA RIVER TRIBUTARY NEAR CYRIL, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1995 - 2002	
ANNUAL TOTAL	79.62		37.36			
ANNUAL MEAN	0.218		0.102		0.425	
HIGHEST ANNUAL MEAN					0.99	2001
LOWEST ANNUAL MEAN					0.10	2002
HIGHEST DAILY MEAN	10	May 30	14	Apr 13	229	Oct 23 2000
LOWEST DAILY MEAN	0.00	at times	0.00	at times	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 22	0.00	Oct 1	0.00	May 19 1996
MAXIMUM PEAK FLOW			92	Apr 13	[a]1920	Oct 23 2000
MAXIMUM PEAK STAGE			7.66	Apr 13	[b]13.50	Oct 23 2000
ANNUAL RUNOFF (AC-FT)	158		74		308	
10 PERCENT EXCEEDS	0.49		0.00		0.58	
50 PERCENT EXCEEDS	0.00		0.00		0.05	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

[a]From theoretical rating.
[b]From high-water mark.



07327441 SCS POND NO. 26 NEAR CYRIL, OK

LOCATION.--Lat 34°54'09", long 98°14'22", in SW $^1/_4$ SE $^1/_4$ sec.15, T.5 N., R.10 W., Caddo County, Hydrologic Unit 11130302, on north face of dam, on Little Washita River, 2.2 mi west of Cyril, and at mile 28.4.

DRAINAGE AREA.--6.64 mi^2 (Agricultural Research Service).

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

REVISED RECORDS.--WDR OK-96-2: 1994, 1995.

GAGE.--Water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthen dam, construction completed November 1976. Emergency spillway elevation is 1,352.55 ft, contents 1,520 acre-ft; principal spillway elevation is 1,328.95 ft, contents 142 acre-ft; drain value elevation 1,295.25 ft. Figures herein represent total contents. Reservoir is used for flood control. U.S. Geological Survey satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,225 acre-ft, Oct. 23, 2000, elevation 1,348.38 ft (from HWM); minimum after initial storage, 166 acre-ft, at times, elevation 1,320.48 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 187 acre-ft, Apr. 13, elevation 1,321.92 ft (from HWM); minimum, 166 acre-ft, Aug. 27, elevation 1,320.49 ft.

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

1320	159.0	1338	582.0
1326	246.0	1344	909.0
1332	376.0	1350	1370.0

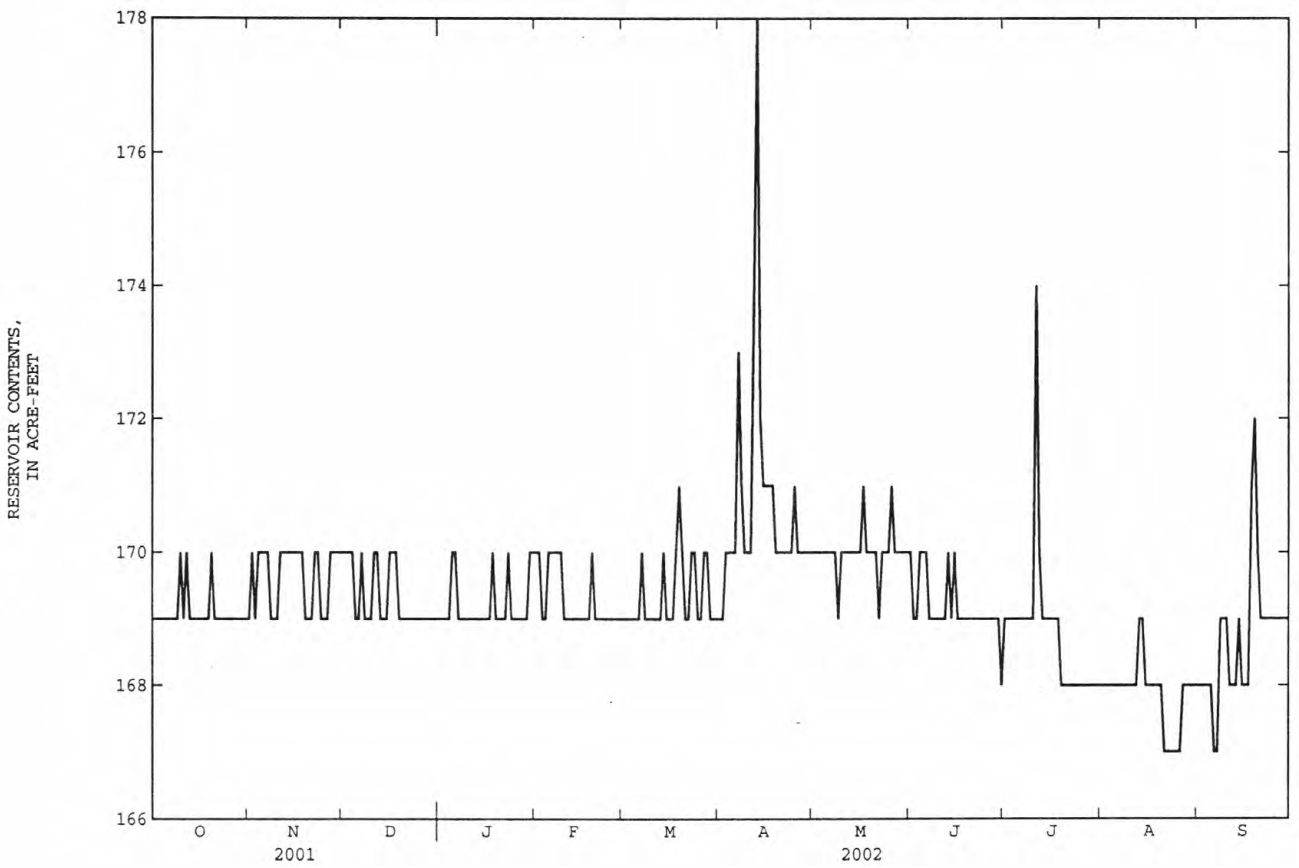
RESERVOIR STORAGE VIA SATELLITE, in (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	169	170	169	170	169	e169	170	170	169	168	168
2	169	170	170	169	170	169	e169	170	169	169	168	168
3	169	169	170	169	169	169	e170	170	169	169	168	168
4	169	170	170	169	169	169	170	170	170	169	168	168
5	169	170	169	170	170	169	170	170	170	169	168	168
6	e169	170	169	170	170	169	170	170	170	169	168	167
7	e169	170	170	169	170	170	173	170	169	169	168	167
8	e169	169	169	169	170	169	171	170	169	169	168	169
9	e169	169	169	169	170	169	170	169	169	169	168	169
10	170	169	169	169	169	169	170	170	169	169	168	169
11	169	170	170	169	169	169	170	170	169	174	168	168
12	170	170	170	169	169	169	174	170	169	170	168	168
13	169	170	169	169	169	169	178	170	170	169	169	168
14	169	170	169	169	169	170	172	170	169	169	169	169
15	169	170	169	169	169	169	171	170	170	169	168	168
16	169	170	170	169	169	169	171	170	169	169	168	168
17	169	170	170	169	169	169	171	171	169	169	168	168
18	169	170	170	170	169	170	171	170	169	169	168	171
19	169	169	169	169	170	171	170	170	169	168	168	172
20	170	169	169	169	169	170	170	170	169	168	168	170
21	169	169	169	169	169	169	170	170	169	168	167	169
22	169	170	169	169	169	169	170	169	169	168	167	169
23	169	170	169	170	169	170	170	170	169	168	167	169
24	169	169	169	169	169	170	170	170	169	168	167	169
25	169	169	169	169	169	169	171	170	169	168	167	169
26	169	169	169	169	169	169	170	171	169	168	167	169
27	169	170	169	169	169	170	170	170	169	168	168	169
28	169	170	169	169	169	170	170	170	169	168	168	169
29	169	170	169	169	---	169	170	170	169	168	168	169
30	169	170	169	170	---	169	170	170	168	168	168	169
31	169	---	169	170	---	e169	---	170	---	168	168	---
MAX	170	170	170	170	170	171	178	171	170	174	169	172
MIN	169	169	169	169	169	169	169	169	168	168	167	167
(‡)	1320.70	1320.72	1320.70	1320.73	1320.69	---	1320.75	1320.72	1320.63	1320.63	1320.60	1320.66
(‡‡)	0	+1	-1	+1	-1	0	+1	0	-2	0	0	+1

CAL YR 2001 MAX 182 MIN 169 (‡‡) -3
WTR YR 2002 MAX 178 MIN 167 (‡‡) 0

e Estimated
(‡) ELEVATION, IN FEET, AT END OF MONTH
(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET

07327441 SCS POND NO. 26 NEAR CYRIL, OK--Continued



07327442 LITTLE WASHITA RIVER NEAR CYRIL, OK

LOCATION.-- Lat 34°53'32", long 98°13'58", in SW $^1/_4$ NW $^1/_4$ sec. 23, T.5N., R.10W., Caddo County, Hydrologic Unit 11130302, on left bank 300 ft downstream from county road, 1.7 mi west of Cyril, 6.8 mi east of Apache, and at mile 28.0.

DRAINAGE AREA.--11.6 mi^2.

PERIOD OF RECORD.-- October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,259.29 ft above sea level.

REMARKS.--Records fair. Flow affected by numerous flood retention reservoirs. U.S. Geological Survey's satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.63	0.75	1.3	1.2	1.4	1.7	1.1	2.0	1.3	0.64	0.07	0.11
2	0.64	0.75	1.2	1.2	1.3	2.0	1.0	2.0	1.2	0.74	0.04	0.10
3	0.60	0.76	1.2	1.2	1.3	1.6	0.85	1.9	1.0	0.77	0.04	0.11
4	0.61	0.77	1.2	1.2	1.2	1.7	0.80	1.9	1.0	0.89	0.03	0.06
5	0.67	0.74	1.2	1.8	1.7	1.8	0.87	1.9	1.6	0.86	0.04	0.07
6	0.60	0.76	1.2	1.4	1.7	1.8	1.1	1.9	1.3	0.77	0.05	0.03
7	0.65	0.74	1.2	1.2	1.5	1.8	2.0	1.8	1.1	0.70	0.01	0.04
8	0.65	0.76	1.2	1.2	1.4	1.8	2.3	1.8	1.0	0.63	0.03	0.17
9	0.71	0.68	1.1	1.2	1.4	1.6	1.4	1.6	0.99	0.59	0.01	0.62
10	0.87	0.71	1.2	1.2	1.3	1.5	1.1	1.6	0.90	0.55	0.06	0.42
11	0.80	0.73	1.3	1.2	1.2	1.6	1.0	1.8	0.84	1.8	0.20	0.27
12	0.75	0.76	1.4	1.2	1.2	e1.7	2.7	1.8	0.80	1.7	0.13	0.20
13	0.75	0.78	1.3	1.2	1.2	1.8	7.4	1.6	1.3	0.42	0.12	0.22
14	0.67	0.85	1.2	1.2	1.2	1.8	4.8	1.5	1.2	0.29	0.34	0.37
15	0.70	0.83	1.2	1.2	1.3	1.8	3.3	1.4	1.1	0.24	0.19	0.37
16	0.61	0.81	1.5	1.2	1.2	1.7	2.8	1.4	1.3	0.21	0.10	0.30
17	0.66	1.1	1.4	1.2	1.2	1.9	2.6	4.0	1.0	0.26	0.07	0.27
18	0.68	1.2	1.3	1.2	1.2	2.3	2.6	2.1	0.91	0.25	0.04	0.25
19	0.71	1.4	1.2	1.2	1.6	2.6	2.4	1.7	0.83	0.20	0.02	3.2
20	0.72	1.2	1.2	1.2	1.5	1.6	2.3	1.5	0.77	0.15	0.02	0.95
21	0.74	1.1	1.2	1.2	1.5	1.4	2.3	1.3	0.74	0.11	0.0	0.47
22	0.76	1.1	1.2	1.2	1.4	1.2	2.2	1.2	0.68	0.09	0.0	0.36
23	0.75	1.2	1.2	1.3	1.4	1.2	2.2	1.2	0.64	0.07	0.0	0.27
24	0.72	1.2	1.2	1.3	1.4	1.3	2.2	1.2	0.59	0.08	0.0	0.24
25	0.63	1.1	1.2	1.2	1.6	1.3	2.1	1.3	0.58	0.18	0.0	0.23
26	0.64	1.1	1.2	1.2	1.5	1.2	2.5	1.9	0.60	0.14	0.01	0.23
27	0.69	1.1	1.2	1.2	1.4	1.2	2.3	1.8	0.55	0.07	0.29	0.23
28	0.68	1.4	1.2	1.2	1.6	1.2	2.1	1.6	0.53	0.08	0.15	0.22
29	0.69	1.3	1.2	1.3	---	1.3	2.1	1.6	0.49	0.21	0.14	0.22
30	0.71	1.3	1.2	1.7	---	1.2	2.1	1.3	0.44	0.16	0.11	0.20
31	0.73	---	1.2	1.7	---	1.1	---	1.2	---	0.09	0.14	---
TOTAL	21.42	28.98	38.2	39.3	38.8	49.7	66.52	52.8	27.28	13.94	2.45	10.80
MEAN	0.691	0.966	1.232	1.268	1.386	1.603	2.217	1.703	0.909	0.450	0.079	0.360
MAX	0.87	1.4	1.5	1.8	1.7	2.6	7.4	4.0	1.6	1.8	0.34	3.2
MIN	0.60	0.68	1.1	1.2	1.2	1.1	0.80	1.2	0.44	0.07	0.00	0.03
AC-FT	42	57	76	78	77	99	132	105	54	28	4.9	21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2002, BY WATER YEAR (WY)

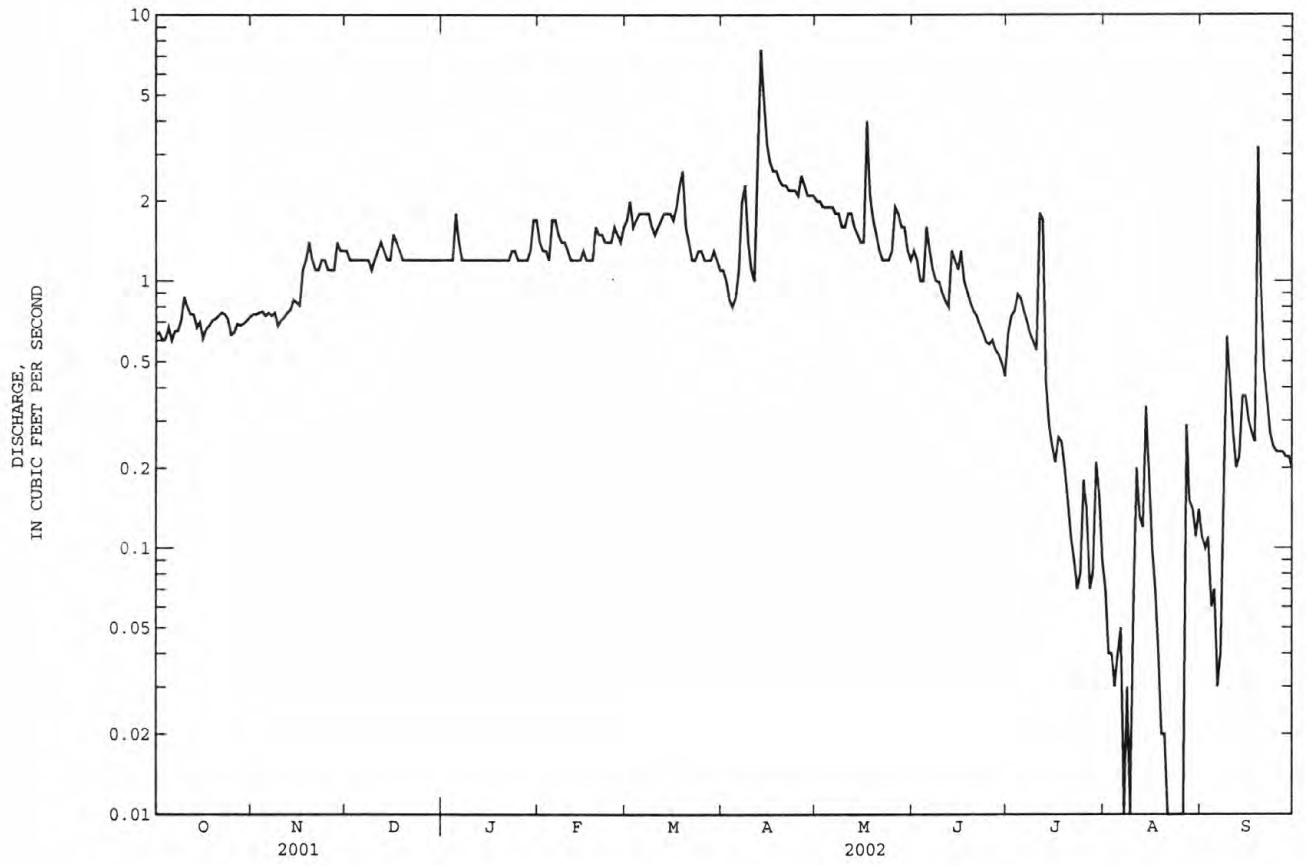
MEAN	5.679	4.729	5.689	5.770	6.377	8.114	7.724	7.698	8.400	3.625	2.355	2.089
MAX	25.7	11.6	19.5	16.7	15.4	22.8	17.3	26.2	35.8	9.55	7.34	7.13
(WY)	2001	1993	1993	1998	1993	1998	1993	1993	1995	1997	1995	1996
MIN	0.69	0.92	1.23	1.27	1.39	1.60	2.22	1.70	0.91	0.45	0.079	0.14
(WY)	2002	2000	2002	2002	2002	2002	2002	2002	2002	2002	2002	2000

e Estimated

07327442 LITTLE WASHITA RIVER NEAR CYRIL, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1993 - 2002	
ANNUAL TOTAL	1791.63		390.19			
ANNUAL MEAN	4.909		1.069		5.682	
HIGHEST ANNUAL MEAN					13.2	1993
LOWEST ANNUAL MEAN					1.07	2002
HIGHEST DAILY MEAN	51	May 30	7.4	Apr 13	416	Oct 23 2000
LOWEST DAILY MEAN	0.58	Sep 24	0.00	Aug 21	0.00	Aug 21-25 2002
ANNUAL SEVEN-DAY MINIMUM	0.60	Sep 24	0.00	Aug 20	0.00	Aug 20 2002
MAXIMUM PEAK FLOW			12	Apr 13	[a]1930	Oct 23 2000
MAXIMUM PEAK STAGE			7.69	Apr 13	18.09	Oct 23 2000
ANNUAL RUNOFF (AC-FT)	3550		774		4120	
10 PERCENT EXCEEDS	9.9		1.8		12	
50 PERCENT EXCEEDS	3.6		1.2		3.5	
90 PERCENT EXCEEDS	0.68		0.12		0.71	

[a]From theoretical rating.



073274458 LITTLE WASHITA RIVER TRIBUTARY NEAR CEMENT, OK

LOCATION.-- Lat 34°51'58", long 98°08'30", in NW $^1/_4$ NW $^1/_4$ sec. 34, T.5N., R.9W., Caddo County, Hydrologic Unit 11130302, on left bank 30 ft downstream from I-44 bridge near mile marker 64, 4 mi south of Cement, and at mile 2.1.

DRAINAGE AREA.--6.5 mi^2.

PERIOD OF RECORD.-- June 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,237.18 ft above sea level.

REMARKS.--Records poor. U.S. Geological Survey's satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.9	2.0	1.7	1.7	1.5	1.4	2.2	1.8	1.8	0.89	0.80
2	1.2	1.8	1.9	1.7	1.6	1.6	1.3	2.1	1.7	1.8	0.87	0.76
3	1.2	1.8	1.9	1.7	1.6	1.5	1.3	2.1	1.7	2.0	0.84	0.74
4	1.2	1.9	1.9	1.8	1.6	1.5	1.3	2.0	2.0	2.2	0.82	0.72
5	1.2	1.9	1.9	2.0	1.8	1.5	1.3	2.0	2.8	2.1	0.79	0.70
6	1.2	1.8	1.9	1.8	1.8	1.6	1.4	2.0	2.4	1.9	0.78	0.70
7	1.2	1.8	1.8	1.8	1.7	1.6	6.1	2.0	1.9	1.7	0.80	0.70
8	1.3	1.7	1.8	1.8	1.6	1.6	3.8	2.1	1.8	1.6	0.88	0.90
9	1.4	1.7	1.8	1.8	1.6	1.5	2.1	2.0	1.9	1.4	0.84	1.1
10	1.6	1.8	1.9	1.8	1.5	1.4	1.8	2.1	1.9	1.4	0.86	1.0
11	1.5	1.8	2.0	1.7	1.5	1.5	1.6	2.1	1.9	1.5	0.85	0.96
12	2.3	1.8	1.8	1.7	1.5	1.5	10	2.0	1.8	1.5	0.83	e0.92
13	2.2	1.8	1.7	1.7	1.5	1.6	16	2.0	2.6	1.3	0.85	e0.88
14	1.6	1.8	1.7	1.7	1.5	1.6	5.2	1.9	2.3	1.2	1.5	1.1
15	1.5	1.7	1.7	1.7	1.5	1.5	3.6	1.8	2.1	1.2	1.3	1.0
16	1.6	1.7	1.9	1.7	1.5	1.5	3.0	1.8	2.4	1.1	1.2	0.94
17	1.7	2.0	1.8	1.7	1.5	1.5	2.6	4.6	2.1	1.1	1.2	0.95
18	1.8	2.0	1.7	1.8	1.5	1.7	2.4	2.9	2.0	1.1	1.1	0.93
19	1.9	1.9	1.7	1.8	1.5	2.2	2.4	2.3	1.8	1.0	1.0	1.3
20	1.8	1.7	1.7	1.8	1.5	1.8	2.3	2.1	1.8	1.1	1.1	1.1
21	1.8	1.7	1.7	1.8	1.5	1.6	2.3	2.0	1.7	1.0	1.0	1.0
22	1.9	1.8	1.7	1.8	1.4	1.5	2.2	1.9	1.7	1.1	0.95	0.97
23	1.9	1.8	1.7	1.9	1.4	1.5	2.2	2.0	1.7	1.0	0.90	0.98
24	1.9	1.8	1.7	1.9	1.4	1.5	2.1	2.0	1.7	1.1	0.85	0.98
25	1.9	1.7	1.7	1.8	1.4	1.4	2.1	2.2	1.7	1.2	0.84	0.96
26	1.9	1.7	1.7	1.8	1.4	1.4	e2.6	2.3	1.6	1.1	0.82	0.97
27	1.9	1.7	1.7	1.8	1.4	1.4	e2.4	2.5	1.6	1.0	1.4	0.94
28	1.9	1.9	1.7	1.8	1.5	1.4	e2.3	2.3	1.6	1.0	1.1	0.93
29	1.9	1.9	1.7	1.7	---	1.4	e2.5	2.4	1.6	1.2	0.97	0.90
30	1.9	2.0	1.7	2.0	---	1.4	2.4	2.0	1.6	1.0	0.89	0.91
31	1.9	---	1.7	1.9	---	1.4	---	1.9	---	0.96	0.86	---
TOTAL	51.4	54.3	55.2	55.4	42.9	47.6	94.0	67.6	57.2	41.66	29.88	27.74
MEAN	1.658	1.810	1.781	1.787	1.532	1.535	3.133	2.181	1.907	1.344	0.964	0.925
MAX	2.3	2.0	2.0	2.0	1.8	2.2	16	4.6	2.8	2.2	1.5	1.3
MIN	1.2	1.7	1.7	1.7	1.4	1.4	1.3	1.8	1.6	0.96	0.78	0.70
AC-FT	102	108	109	110	85	94	186	134	113	83	59	55

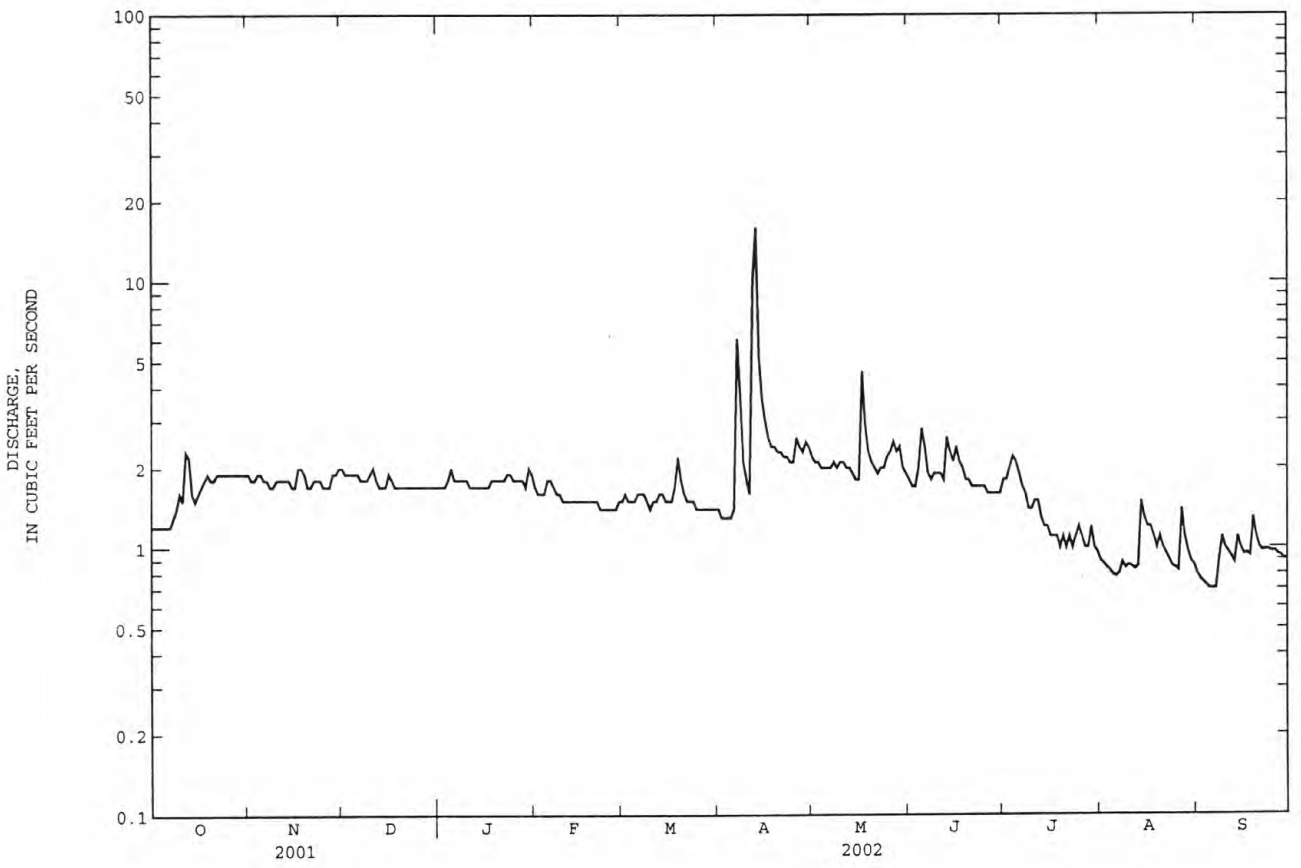
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

MEAN	3.910	2.218	2.171	2.668	2.418	2.834	3.231	2.588	2.207	1.216	1.403	1.272
MAX	15.1	4.01	2.82	7.55	3.19	6.90	5.45	4.61	3.01	1.73	2.72	1.99
(WY)	2001	1999	1999	1998	2001	1998	1999	1997	1999	1997	1995	1996
MIN	1.35	1.81	1.65	1.59	1.53	1.30	1.98	1.16	1.49	0.81	0.73	0.77
(WY)	2000	2002	2001	2000	2002	1996	1996	1996	2000	1996	2000	1998

e Estimated

073274458 LITTLE WASHITA RIVER TRIBUTARY NEAR CEMENT, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1995 - 2002	
ANNUAL TOTAL	732.63		624.88			
ANNUAL MEAN	2.007		1.712		2.323	
HIGHEST ANNUAL MEAN					3.20	1998
LOWEST ANNUAL MEAN					1.57	2000
HIGHEST DAILY MEAN	21	May 30	16	Apr 13	319	Oct 23 2000
LOWEST DAILY MEAN	0.80	Aug 6	0.70	Sep 5-7	0.55	Jul 6 1996
ANNUAL SEVEN-DAY MINIMUM	0.86	Aug 1	0.73	Sep 1	0.61	Jul 3 1996
MAXIMUM PEAK FLOW			67	Apr 13	1630	Oct 23 2000
MAXIMUM PEAK STAGE			6.90	Apr 13	12.58	Oct 23 2000
ANNUAL RUNOFF (AC-FT)	1450		1240		1680	
10 PERCENT EXCEEDS	2.6		2.2		2.9	
50 PERCENT EXCEEDS	1.8		1.7		1.7	
90 PERCENT EXCEEDS	1.2		0.95		0.92	



07327446 SCS POND NO. 31 NEAR CEMENT, OK

LOCATION.--Lat 34°51'07", long 98°08'27", in NW $^1/_4$ NW $^1/_4$ sec.3, T.4 N., R.9 W., Comanche County, Hydrologic Unit 11130302, on north edge of pond, on Little Washita River Tributary, 4.6 mi south of Cement, and at mile 2.1.

DRAINAGE AREA.--7.62 mi^2 (Agricultural Research Service).

PERIOD OF RECORD.--April 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthen dam. Emergency spillway elevation is 1,253.2 ft, contents 1,680 acre-ft; principal spillway elevation is 1,237.3 ft, contents 347 acre-ft; drain value elevation 1,220.8 ft. Figures herein represent total contents. Reservoir is used for flood control. U.S. Geological Survey satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 628 acre-ft, Oct. 23, 2000, elevation 1,242.53 ft; minimum after initial storage, 313 acre-ft, at times, elevation 1,236.46 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 386 acre-ft, Apr. 13, elevation 1,238.22 ft; minimum, 356 acre-ft, Aug. 27, elevation 1,237.53 ft.

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

1234	225.0	1240	475.0
1236	295.0	1245	792.5
1238	375.0	1250	1260.0

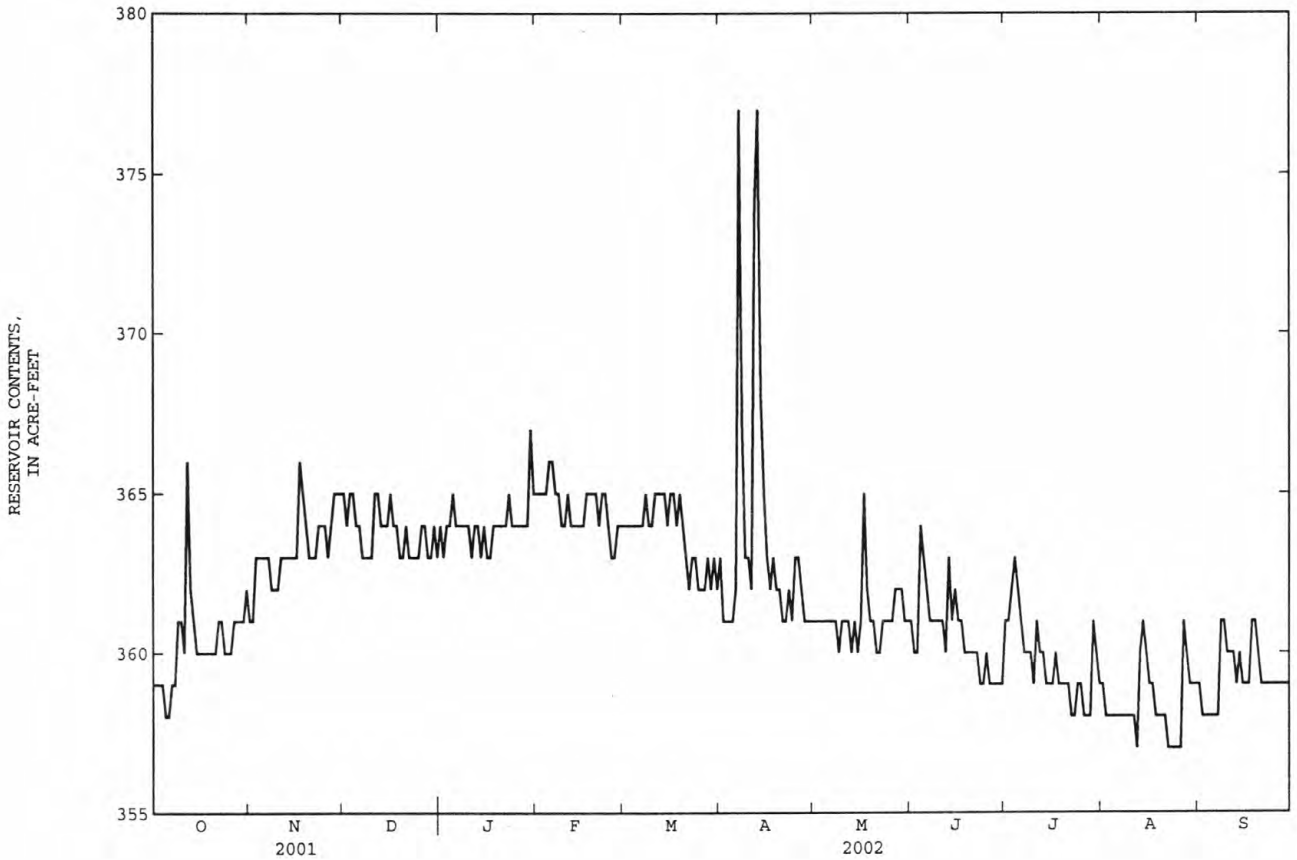
RESERVOIR STORAGE VIA SATELLITE, in (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	359	361	365	364	365	364	363	361	361	361	359	359
2	359	361	364	363	365	364	361	361	360	361	358	358
3	359	363	365	364	365	364	361	361	360	362	358	358
4	359	363	365	364	365	364	361	361	364	363	358	358
5	358	363	364	365	366	364	361	361	363	362	358	358
6	358	363	364	364	366	364	362	361	362	361	358	358
7	359	363	363	364	365	364	377	361	361	360	358	358
8	359	362	363	364	365	365	367	361	361	360	358	361
9	361	362	363	364	364	364	363	360	361	360	358	361
10	361	362	363	364	364	364	363	361	361	359	358	360
11	360	363	365	363	365	365	362	361	361	361	358	360
12	366	363	365	364	364	365	374	361	360	360	357	360
13	362	363	364	364	364	365	377	360	363	360	360	359
14	361	363	364	363	364	365	368	361	361	359	361	360
15	360	363	364	364	364	364	365	360	362	359	360	359
16	360	363	365	363	364	365	363	361	361	359	359	359
17	360	366	364	363	365	365	362	365	361	360	359	359
18	360	365	364	364	365	364	363	362	360	359	358	361
19	360	364	363	364	365	365	362	361	360	359	358	361
20	360	363	363	364	365	364	362	361	360	359	358	360
21	360	363	364	364	364	363	361	360	360	359	358	359
22	361	363	363	364	365	362	361	360	360	358	357	359
23	361	364	363	365	365	363	362	361	359	358	357	359
24	360	364	363	364	364	363	361	361	359	359	357	359
25	360	364	363	364	363	362	363	361	360	359	357	359
26	360	363	364	364	363	362	363	361	359	358	357	359
27	361	364	364	364	364	362	362	362	359	358	361	359
28	361	365	363	364	364	363	361	362	359	358	360	359
29	361	365	363	364	---	362	361	362	359	361	359	359
30	361	365	364	367	---	363	361	361	359	360	359	359
31	362	---	363	365	---	362	---	361	---	359	359	---
MAX	366	366	365	367	366	365	377	365	364	363	361	361
MIN	358	361	363	363	363	362	361	360	359	358	357	358
(‡)	1237.67	1237.74	1237.71	1237.76	1237.73	1237.68	1237.66	1237.64	1237.60	1237.61	1237.59	1237.60
(‡‡)	+3	+3	-2	+2	-1	-2	-1	0	-2	0	0	0

CAL YR 2001 MAX 378 MIN 357 (‡‡) +1
WTR YR 2002 MAX 377 MIN 357 (‡‡) 0

(‡) ELEVATION, IN FEET, AT END OF MONTH
(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET

07327446 SCS POND NO. 31 NEAR CEMENT, OK--Continued



07327447 LITTLE WASHITA RIVER NEAR CEMENT, OK

LOCATION.--Lat 34°50'16", long 98°07'27", in NW $^1/_4$ NW $^1/_4$ sec.11, T.4 N., R.9 W., Comanche County, Hydrologic Unit 11130302, on left bank near downstream side of county road bridge, 5 mi south of Cement, 7 mi east northeast of Fletcher, 8 mi northeast of Sterling, and at mile 23.7

DRAINAGE AREA.--61.9 mi^2.

PERIOD OF RECORD.--February 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,183.72 ft above sea level.

REMARKS.--Records fair. Flow affected by numerous flood retention reservoirs. U.S. Geological Survey's satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	7.6	10	9.9	13	9.5	8.6	e9.6	7.4	5.1	2.8	1.8
2	3.7	7.5	9.6	9.7	11	12	8.6	e8.0	6.5	6.5	2.4	1.6
3	3.5	7.9	9.5	e8.7	10	10	7.4	e7.5	5.6	7.2	2.2	1.4
4	3.5	8.6	10	9.9	9.6	9.7	6.1	e8.0	6.0	8.2	2.0	1.3
5	3.9	8.8	10	15	14	10	6.8	e7.7	e18	7.8	1.8	1.2
6	4.0	e8.6	9.4	13	16	10	8.8	e7.9	e15	6.5	1.7	1.3
7	3.5	e7.5	9.3	10	13	10	39	e8.0	e9.5	5.5	1.3	1.4
8	4.0	e6.8	9.3	9.7	11	11	50	8.4	e9.1	4.9	1.1	2.2
9	5.4	6.5	8.2	10	11	11	15	7.7	e8.7	4.6	1.0	8.5
10	7.7	6.0	8.6	9.8	9.7	8.7	9.0	6.9	8.3	4.3	1.0	6.9
11	5.7	6.8	10	8.9	8.5	9.2	7.3	8.9	8.0	4.2	1.2	4.1
12	5.9	7.1	13	8.8	9.0	9.3	33	9.2	8.3	17	1.1	3.3
13	13	7.8	13	9.1	8.8	9.8	124	8.5	e11	7.2	1.1	3.1
14	5.6	8.3	9.9	9.0	8.9	9.9	62	7.9	e25	4.4	4.4	4.0
15	3.7	8.8	9.7	8.8	9.4	9.3	25	e7.7	e18	3.6	3.5	4.0
16	3.2	8.7	13	8.7	8.9	8.5	18	e7.2	e20	3.0	2.5	3.6
17	3.0	12	13	8.7	9.0	9.0	15	53	e12	3.1	2.0	3.2
18	3.4	16	11	8.8	9.5	13	13	22	e7.8	3.4	1.6	3.1
19	3.6	12	9.9	9.7	11	25	12	11	5.2	3.0	1.3	13
20	3.9	8.2	9.5	9.1	11	18	11	8.9	4.8	2.6	1.1	9.7
21	4.1	7.1	9.7	8.7	9.9	11	11	7.8	4.6	2.3	1.0	4.6
22	4.5	7.1	10	9.1	9.4	8.4	9.7	6.8	4.6	2.0	0.86	3.2
23	4.9	7.6	9.6	11	9.4	7.9	9.7	6.8	4.7	1.9	0.86	2.7
24	4.9	8.2	8.9	11	9.6	9.1	9.8	7.6	4.4	2.1	0.84	2.4
25	4.8	7.0	8.9	9.2	9.0	8.7	8.6	8.7	4.0	2.4	0.81	2.4
26	4.6	6.6	9.0	9.6	8.7	7.7	18	12	4.1	2.3	0.94	2.7
27	5.1	6.5	9.2	9.2	7.8	7.7	e14	15	4.3	1.9	7.0	2.9
28	6.0	9.1	9.2	9.0	8.4	8.5	e11	15	4.1	1.7	4.8	2.9
29	6.6	10	9.3	9.3	---	8.6	e9.5	15	4.0	4.3	2.7	2.7
30	6.8	9.6	e8.7	12	---	9.0	e9.7	10	3.6	4.5	2.2	2.9
31	6.7	---	e10	19	---	8.9	---	8.4	---	3.5	1.9	---
TOTAL	152.8	250.3	308.4	312.4	284.5	318.4	590.6	337.1	256.6	141.0	61.01	108.1
MEAN	4.929	8.343	9.948	10.08	10.16	10.27	19.69	10.87	8.553	4.548	1.968	3.603
MAX	13	16	13	19	16	25	124	53	25	17	7.0	13
MIN	3.0	6.0	8.2	8.7	7.8	7.7	6.1	6.8	3.6	1.7	0.81	1.2
AC-FT	303	496	612	620	564	632	1170	669	509	280	121	214

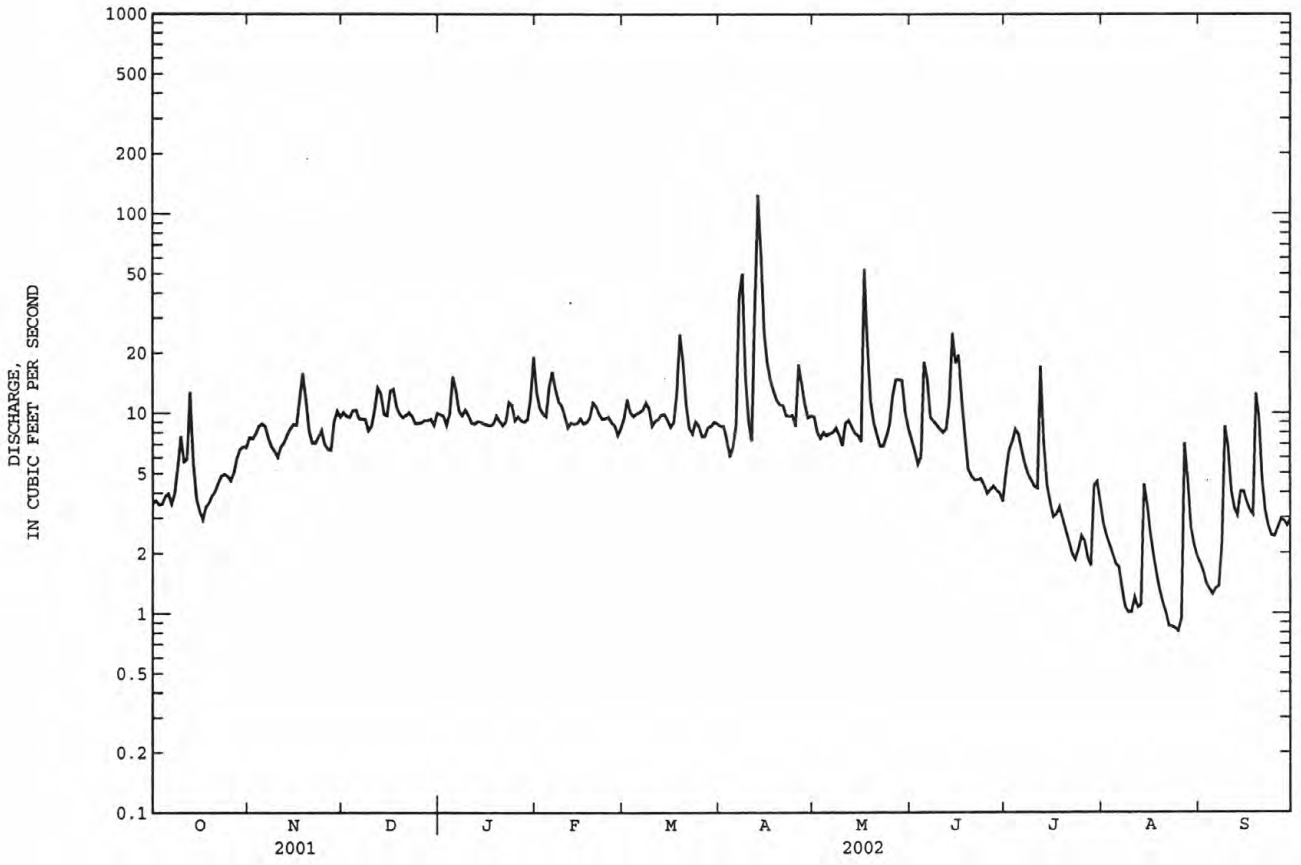
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	25.94	18.66	23.76	25.31	28.62	35.61	39.82	41.57	37.53	19.70	12.52	10.69
MAX	118	37.4	77.1	73.3	62.2	97.6	69.9	124	90.8	57.5	38.7	31.9
(WY)	2001	1993	1993	1998	1993	1998	1998	1993	1995	1992	1992	1992
MIN	4.69	8.34	9.95	10.1	10.2	10.3	13.3	8.24	8.55	4.55	1.28	1.34
(WY)	1999	2002	2002	2002	2002	2002	1996	1996	2002	2002	2000	2000

e Estimated

07327447 LITTLE WASHITA RIVER NEAR CEMENT, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	7673.2		3121.21			
ANNUAL MEAN	21.02		8.551		25.36	
HIGHEST ANNUAL MEAN					51.6	1993
LOWEST ANNUAL MEAN					8.55	2002
HIGHEST DAILY MEAN	356	May 30	124	Apr 13	1020	Oct 23 2000
LOWEST DAILY MEAN	1.6	Sep 10	0.81	Aug 25	0.67	Sep 2 2000
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 8	0.92	Aug 20	0.70	Aug 31 2000
MAXIMUM PEAK FLOW			293	Apr 13	2020	Oct 23 2000
MAXIMUM PEAK STAGE			6.34	Apr 13	17.66	Oct 23 2000
ANNUAL RUNOFF (AC-FT)	15220		6190		18370	
10 PERCENT EXCEEDS	42		13		46	
50 PERCENT EXCEEDS	11		8.4		15	
90 PERCENT EXCEEDS	3.2		2.3		4.2	



07327483 BOGGY CREEK NEAR NINNEKAH, OK

LOCATION.--Lat 34°53'03", long 97°59'43", in SE $^1/_4$ SW $^1/_4$ sec.24, T.5 N., R.8 W., Grady County, Hydrologic Unit 11130302, on the right side of culvert, 7.5 mi north and 2.6 mi west of Rush Springs, 3.3 mi south and 4.1 mi west of Ninnekah and at mile 1.2.

DRAINAGE AREA.--1.66 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 1142.36 ft above sea level.

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

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.02	e0.11	e0.25	0.18	0.28	e0.21	e0.30	e0.23	0.27	0.06	0.05	0.00
2	e0.02	e0.11	e0.22	0.17	0.27	e0.20	e0.29	e0.23	0.24	0.07	0.04	0.00
3	e0.02	e0.11	0.19	0.17	0.25	e0.20	e0.28	e0.23	0.24	0.07	0.03	0.00
4	e0.01	e0.19	0.19	0.18	0.25	e0.34	0.28	e0.23	2.4	0.07	0.03	0.00
5	e0.01	e0.18	0.19	0.20	0.35	e0.28	0.21	e0.23	e1.1	0.07	0.02	0.00
6	e0.01	e0.16	0.18	0.17	0.30	e0.23	0.21	e0.23	e0.40	0.07	0.02	0.00
7	e0.01	e0.14	0.18	0.17	0.31	e0.21	1.4	e0.22	e0.30	0.06	0.02	0.0
8	e0.01	e0.13	0.18	0.16	0.29	e0.20	0.28	0.22	e0.25	0.06	0.02	0.0
9	0.03	e0.12	0.17	0.16	e0.29	e0.20	0.26	0.20	e0.20	0.06	0.02	0.04
10	0.11	e0.11	0.17	0.16	e0.28	e0.19	0.24	0.22	e0.16	0.06	0.02	e0.03
11	0.05	e0.11	0.17	0.16	e0.27	e0.19	0.22	0.26	0.14	0.06	0.02	e0.02
12	0.43	e0.10	0.17	0.16	e0.26	e0.18	0.48	0.27	0.13	0.07	0.02	e0.03
13	0.14	e0.10	0.16	0.17	e0.26	e0.18	2.1	0.22	0.14	0.06	0.04	e0.04
14	0.05	e0.10	0.16	0.17	e0.25	e0.17	e0.90	0.22	0.13	0.06	0.14	e0.03
15	0.06	e0.09	0.16	0.17	e0.31	e0.16	e0.54	0.21	0.12	0.06	0.05	e0.02
16	0.09	e0.09	0.21	0.17	e0.29	e0.16	e0.32	0.22	0.11	0.06	0.02	e0.02
17	0.14	e0.14	0.18	0.16	e0.28	e0.15	e0.29	1.2	0.10	0.06	0.00	e0.01
18	0.13	e0.12	0.17	0.17	e0.43	e0.34	e0.27	0.30	0.09	0.06	0.00	0.01
19	0.13	e0.12	0.17	0.17	e0.39	e0.51	e0.26	0.25	0.08	0.05	0.00	0.06
20	0.14	e0.11	0.18	0.16	e0.32	e0.30	e0.25	0.24	0.07	0.04	0.00	0.04
21	0.15	e0.11	0.20	0.17	e0.29	e0.27	e0.25	0.24	0.07	0.04	0.00	0.02
22	0.16	e0.11	0.20	0.17	e0.26	e0.25	e0.25	0.24	0.07	0.04	0.00	0.0
23	0.17	e0.10	0.21	0.52	e0.25	e0.24	e0.25	0.25	0.06	0.04	0.00	0.00
24	0.16	e0.10	0.20	0.24	e0.24	e0.24	e0.25	0.27	0.06	0.03	0.00	0.00
25	0.14	e0.10	0.19	0.22	e0.23	e0.24	e0.24	0.28	0.06	0.04	0.00	0.01
26	0.12	e0.10	0.18	0.23	e0.22	e0.23	e0.24	0.28	0.05	0.03	0.00	0.02
27	e0.12	e0.09	0.18	0.23	e0.22	e0.23	e0.24	0.30	0.06	0.02	0.0	0.0
28	e0.12	e0.09	0.18	0.23	e0.21	e0.23	e0.24	0.31	0.05	0.02	0.02	0.02
29	e0.12	e0.17	0.18	0.23	---	e0.26	e0.24	0.32	0.05	0.10	0.01	0.0
30	e0.11	e0.22	0.18	0.46	---	e0.34	e0.24	0.32	0.05	0.09	0.00	0.0
31	e0.11	---	0.18	0.41	---	e0.32	---	0.29	---	0.06	0.00	---
TOTAL	3.09	3.63	5.73	6.49	7.85	7.45	11.82	8.73	7.25	1.74	0.59	0.42
MEAN	0.100	0.121	0.185	0.209	0.280	0.240	0.394	0.282	0.242	0.056	0.019	0.014
MAX	0.43	0.22	0.25	0.52	0.43	0.51	2.1	1.2	2.4	0.10	0.14	0.06
MIN	0.01	0.09	0.16	0.16	0.21	0.15	0.21	0.20	0.05	0.02	0.00	0.00
AC-FT	6.1	7.2	11	13	16	15	23	17	14	3.5	1.2	0.8

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)

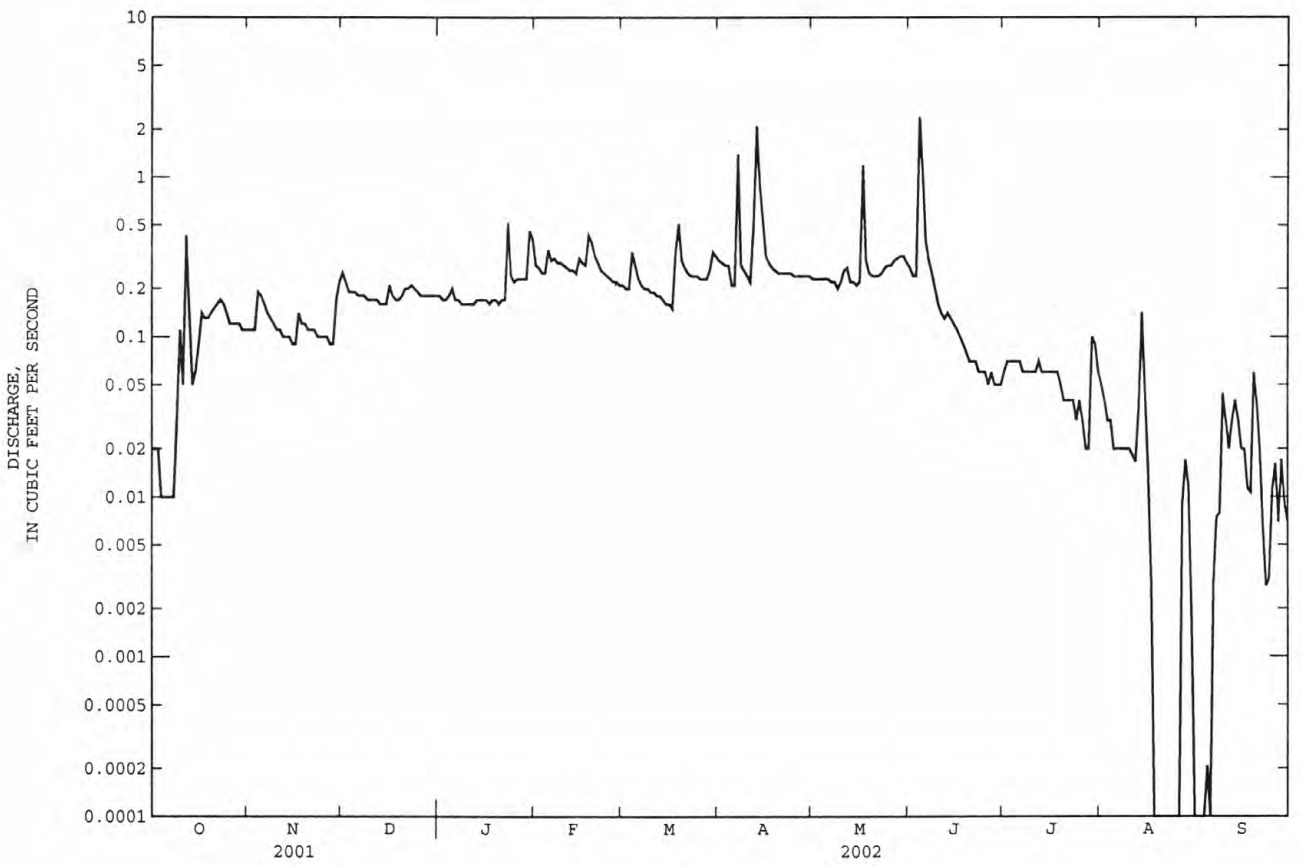
MEAN	0.353	0.424	0.585	0.682	0.695	0.760	0.738	0.513	0.451	0.174	0.138	0.196
MAX	1.06	0.95	0.99	1.44	1.28	1.42	1.56	1.79	1.54	0.76	0.63	1.01
(WY)	1997	1997	1997	1998	1997	1998	1997	1997	1997	1997	1996	1996
MIN	0.10	0.12	0.18	0.21	0.28	0.24	0.39	0.093	0.14	0.056	0.001	0.000
(WY)	2002	2002	2002	2002	2002	2002	2002	2000	2000	2002	2001	2000

e Estimated

07327483 BOGGY CREEK NEAR NINNEKAH, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1996 - 2002
ANNUAL TOTAL	104.74	64.79	
ANNUAL MEAN	0.287	0.178	0.466
HIGHEST ANNUAL MEAN			1.02 1997
LOWEST ANNUAL MEAN			0.18 2002
HIGHEST DAILY MEAN	2.0 Feb 23	2.4 Jun 4	17 May 30 1997
LOWEST DAILY MEAN	0.00 Jul 21	0.00 at times	0.00 at times
ANNUAL SEVEN-DAY MINIMUM	0.00 Jul 21	0.00 Aug 17	0.00 Aug 11 2000
MAXIMUM PEAK FLOW		26 Jun 4	[a]64 May 30 1997
MAXIMUM PEAK STAGE		10.70 Jun 4	11.94 May 30 1997
ANNUAL RUNOFF (AC-FT)	208	129	338
10 PERCENT EXCEEDS	0.69	0.29	1.0
50 PERCENT EXCEEDS	0.18	0.17	0.26
90 PERCENT EXCEEDS	0.00	0.02	0.03

[a]From rating based on step-backwater analysis.



07327484 SCS POND NO. 11 NEAR NINNEKAH, OK

LOCATION.--Lat 34°53'41", long 97°59'48", in SW $^1/_4$ NE $^1/_4$ sec.24, T.5 N., R.8 W., Grady County, Hydrologic Unit 11130302, near west end of pond, on Boggy Creek, 4.5 mi southwest of Ninnekah.

DRAINAGE AREA.--2.07 mi^2 (Agricultural Research Service).

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

GAGE.--Water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthen dam. Emergency spillway elevation is 1,163.3 ft, contents 492 acre-ft; principal spillway elevation is 1,147.6 ft, contents 80 acre-ft; drain value elevation 1,136.4 ft. Figures herein represent total contents. Reservoir is used for flood control.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 128 acre-ft, May 30, 1997, elevation 1,151.16 ft; minimum daily, 55 acre-ft, Oct. 11-21, 2000.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 104 acre-ft, June 4, elevation 1,149.52 ft; minimum daily, 65 acre-ft, Oct. 5-9.

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

1144	46.0	1150	110.0
1146	64.0	1152	141.0
1148	84.0	1154	179.0

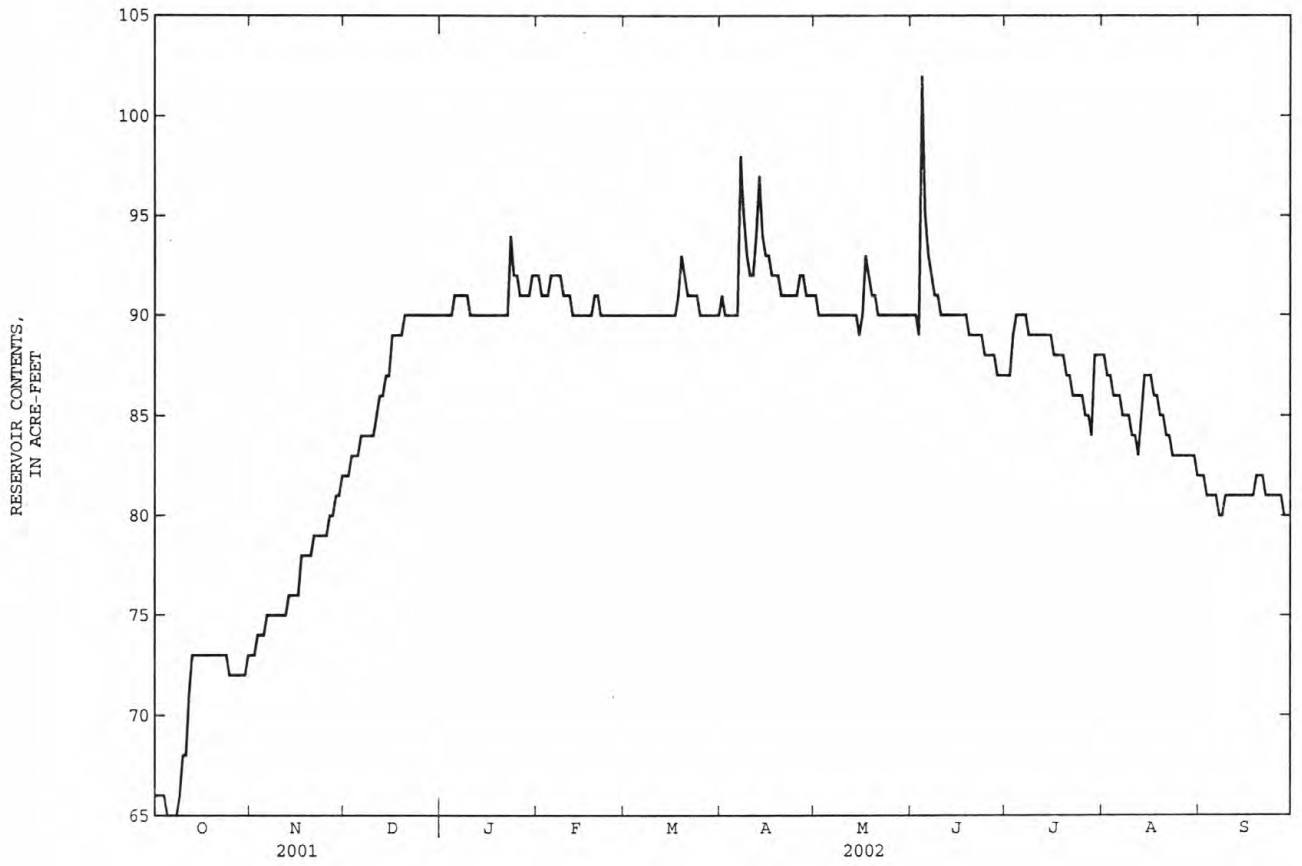
RESERVOIR STORAGE VIA SATELLITE, in (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	73	82	90	92	90	91	91	90	87	88	82
2	66	73	82	90	91	90	90	90	90	e87	87	82
3	66	74	83	90	91	90	90	90	89	89	87	81
4	66	74	83	90	91	90	90	90	102	90	86	81
5	65	74	83	91	92	90	90	90	95	90	86	81
6	65	75	84	91	92	90	90	90	93	90	86	81
7	65	75	84	91	92	90	98	90	92	90	85	80
8	65	75	84	91	92	90	95	90	91	89	85	80
9	66	75	84	91	91	90	93	90	91	89	85	81
10	68	75	84	90	91	90	92	90	90	89	84	81
11	68	75	85	90	91	90	92	90	90	89	84	81
12	71	75	86	90	90	90	94	90	90	89	83	81
13	73	76	86	90	90	90	97	90	90	89	85	81
14	73	76	87	90	90	90	94	90	90	89	87	81
15	73	76	87	90	90	90	93	89	90	89	87	81
16	73	76	89	90	90	90	93	90	90	88	87	81
17	73	78	89	90	90	90	92	93	90	88	86	81
18	73	78	89	90	90	91	92	92	90	88	86	81
19	73	78	89	90	91	93	92	91	89	88	85	82
20	73	78	90	90	91	92	91	91	89	87	85	82
21	73	79	90	90	90	91	91	90	89	87	84	82
22	73	79	90	90	90	91	91	90	89	86	84	81
23	73	79	90	94	90	91	91	90	89	86	83	81
24	73	79	90	92	90	91	91	90	88	86	83	81
25	72	79	90	92	90	90	91	90	88	86	83	81
26	72	80	90	91	90	90	92	90	88	85	83	81
27	72	80	90	91	90	90	92	90	88	85	83	81
28	72	81	90	91	90	90	91	90	87	84	83	80
29	72	81	90	91	---	90	91	90	87	88	83	80
30	72	82	90	92	---	90	91	90	87	88	83	80
31	73	---	90	92	---	90	---	90	---	88	82	---
MAX	73	82	90	94	92	93	98	93	102	90	88	82
MIN	65	73	82	90	90	90	90	89	87	84	82	80
(‡)	1146.87	1147.75	1148.46	1148.64	1148.46	1148.49	1148.55	1148.47	1148.21	1148.30	1147.83	1147.60
(‡‡)	+7	+9	+8	+2	-2	0	+1	-1	-3	+1	-6	-2

CAL YR 2001 MAX 96 MIN 65 (‡‡) +1
WTR YR 2002 MAX 102 MIN 65 (‡‡) +14

e Estimated
(‡) ELEVATION, IN FEET, AT END OF MONTH
(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET

07327484 SCS POND NO. 11 NEAR NINNEKAH, OK--Continued



07327550 LITTLE WASHITA RIVER EAST OF NINNEKAH, OK

LOCATION.--Lat 34°57'48", long 97°53'57", in NW $^1/_4$ SW $^1/_4$ sec.25, T.6 N., R.7 W., Grady County, Hydrologic Unit 11130302, on downstream right bank at bridge on county road 1.5 mi northeast of Ninnekah.

DRAINAGE AREA.--236 mi^2.

PERIOD OF RECORD.--February 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,041.16 ft.

REMARKS.--Records poor. Flow regulated by numerous flood retarding structures. U.S. Geological Survey satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	12	23	22	e32	e17	22	28	16	e17	e14	e5.9
2	6.5	12	22	20	e29	e16	22	24	13	22	e8.4	e4.8
3	6.2	15	21	22	e25	e15	20	22	11	27	e7.5	e4.0
4	6.1	17	22	24	e24	e18	18	22	58	32	e5.8	e3.6
5	5.8	15	21	28	e29	22	18	21	207	38	e5.4	e3.2
6	6.6	16	20	32	e37	22	20	22	79	37	e5.2	e3.2
7	7.2	15	24	25	e34	21	131	20	57	28	4.7	e3.3
8	6.6	13	24	23	31	22	213	19	47	23	e4.7	e4.5
9	8.2	13	22	22	28	21	77	17	42	e21	e4.5	59
10	24	12	18	22	24	18	51	16	38	e20	e4.4	27
11	20	13	17	21	22	17	41	18	34	20	e4.7	e18
12	22	14	22	20	21	18	66	19	30	49	e4.5	e14
13	38	15	24	20	21	19	244	19	36	40	e4.5	e11
14	23	16	23	20	21	18	205	16	55	27	25	e12
15	15	16	21	20	22	17	79	14	43	21	e21	e12
16	12	17	27	19	21	17	56	14	49	e20	e17	e9.2
17	11	19	34	19	21	17	46	68	45	e19	e11	e8.4
18	9.5	28	26	19	22	22	40	62	36	e20	e6.3	7.8
19	9.6	26	22	21	24	63	37	32	29	e19	e4.9	e7.4
20	10	21	20	22	25	65	36	23	25	e18	e4.3	e17
21	10	17	19	20	23	39	35	19	23	e17	e4.0	e13
22	11	16	19	20	22	30	32	16	e20	e17	e4.0	e9.6
23	11	17	19	36	21	26	29	15	e21	e16	e3.9	9.1
24	11	17	18	38	20	25	29	16	e19	e16	e3.7	e7.2
25	9.6	17	18	e32	19	24	26	17	e19	e17	e3.7	e5.5
26	9.2	15	19	e26	19	23	46	20	e18	e16	e3.6	e4.4
27	9.2	15	19	e23	20	21	47	e24	e19	e15	21	e3.9
28	9.8	16	19	e23	18	21	37	e24	e19	e14	e15	e4.2
29	9.9	23	18	e22	---	22	31	e25	e18	63	e11	e4.0
30	10	22	18	e22	---	22	29	e23	e17	26	e8.3	e3.8
31	11	---	18	e40	---	24	---	e18	---	e21	e7.1	---
TOTAL	365.3	500	657	743	675	742	1783	713	1143	756	253.1	300.0
MEAN	11.78	16.67	21.19	23.97	24.11	23.94	59.43	23.00	38.10	24.39	8.165	10.00
MAX	38	28	34	40	37	65	244	68	207	63	25	59
MIN	5.8	12	17	19	18	15	18	14	11	14	3.6	3.2
AC-FT	725	992	1300	1470	1340	1470	3540	1410	2270	1500	502	595

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

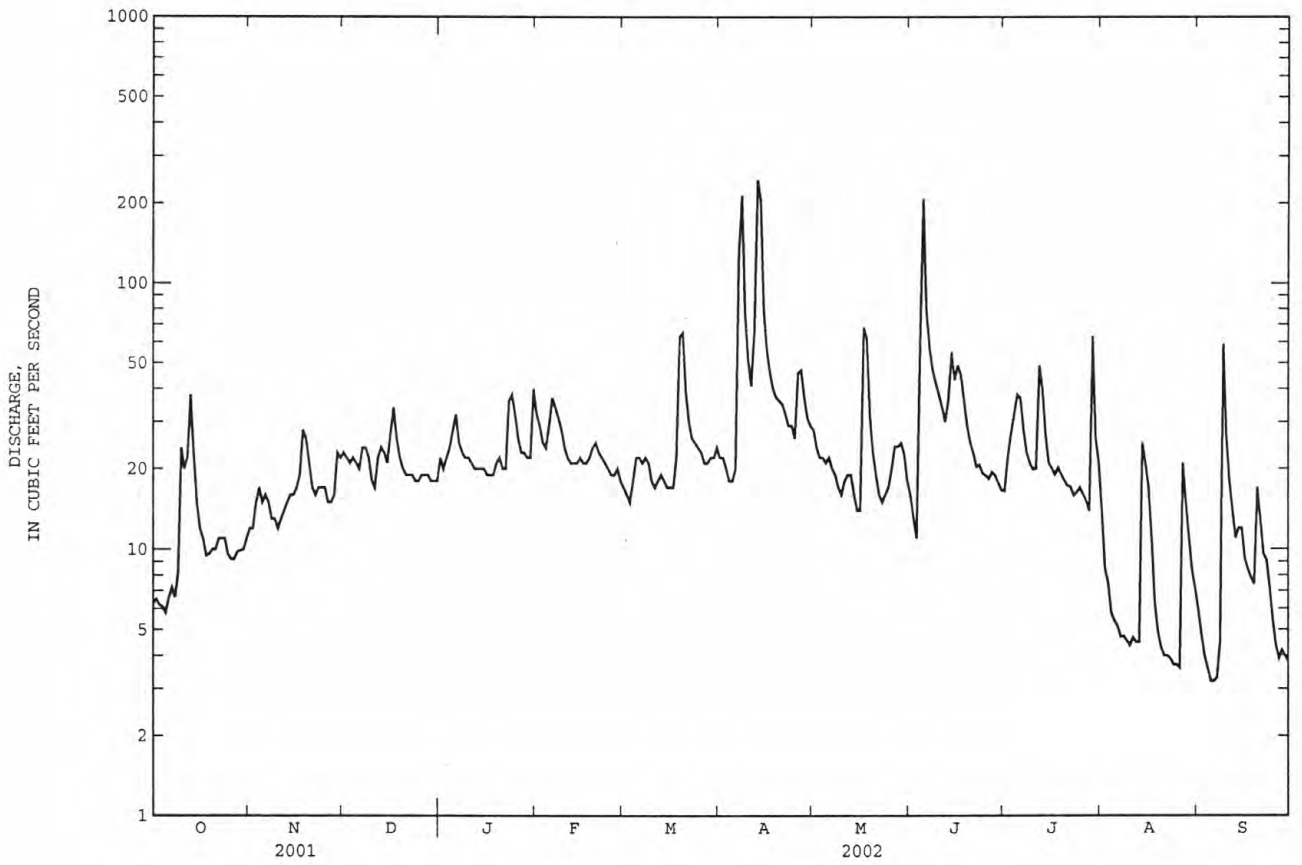
MEAN	49.20	52.18	64.80	74.08	83.34	94.96	102.1	120.6	109.5	45.28	31.31	31.81
MAX	164	105	185	264	196	320	181	325	352	126	92.7	85.4
(WY)	2001	1993	1993	1998	1993	1998	1998	1993	1995	1992	1992	1992
MIN	9.75	16.0	21.2	24.0	24.1	23.9	37.5	18.1	35.8	12.9	2.77	4.94
(WY)	1999	2000	2002	2002	2002	2002	2000	1996	2001	2001	2000	2000

e Estimated

07327550 LITTLE WASHITA RIVER EAST OF NINNEKAH, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	15169.9		8630.4			
ANNUAL MEAN	41.56		23.64		68.71	
HIGHEST ANNUAL MEAN					137	1993
LOWEST ANNUAL MEAN					23.6	2002
HIGHEST DAILY MEAN	456	May 30	244	Apr 13	3570	May 30 1997
LOWEST DAILY MEAN	4.2	Aug 12	3.2	Sep 5,6	1.5	Sep 2 2000
ANNUAL SEVEN-DAY MINIMUM	4.8	Aug 6	3.8	Sep 2	1.8	Aug 12 2000
MAXIMUM PEAK FLOW			557	Jun 5	[a]9920	May 9 1993
MAXIMUM PEAK STAGE			10.33	Jun 5	[b]20.70	May 9 1993
ANNUAL RUNOFF (AC-FT)	30090		17120		49780	
10 PERCENT EXCEEDS	83		38		130	
50 PERCENT EXCEEDS	23		20		42	
90 PERCENT EXCEEDS	7.4		6.3		9.9	

[a]From rating extended above 2,300 ft^3/s.
[b]From high-water mark on crest-stage gage.



07328100 WASHITA RIVER AT ALEX, OK

LOCATION.--Lat 34°55'33", long 97°46'25", in NW $^1/_4$ sec.7, T.5 N., R.5 W., Grady County, Hydrologic Unit 11130303, near right bank on downstream side of county road bridge, 1.0 mi north of Alex, 3.8 mi downstream from Winter Creek, and at mile 226.5.

DRAINAGE AREA.--4,787 mi^2.

PERIOD OF RECORD.--October 1964 to September 1986, October 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.00 ft above sea level. Oct. 1, 1988 to Sept. 30, 2000, datum 5.00 ft higher. Prior to Oct. 1, 1988, datum 10.00 ft higher.

REMARKS.--No estimated daily discharge. Records good. Some regulation since March 1959 by Fort Cobb Reservoir (station 07325900), since February 1961 by Foss Reservoir (07324300), and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telementer at station.

COOPERATION.--Records furnished by Agricultural Research Service prior to January 1978.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	153	206	209	631	190	234	345	312	299	131	99
2	188	153	203	224	550	194	229	338	269	315	122	143
3	187	165	201	219	730	201	220	340	236	334	132	116
4	183	167	200	222	733	203	213	315	236	322	196	97
5	173	166	200	254	577	204	210	301	658	316	195	84
6	169	160	199	266	480	202	210	292	398	309	152	78
7	164	159	196	262	432	202	343	281	306	293	124	73
8	172	152	197	252	397	200	1180	281	265	279	110	74
9	182	150	195	244	367	195	828	254	305	263	98	156
10	212	152	194	238	331	195	598	244	742	272	95	242
11	244	151	197	239	315	193	510	242	2660	323	92	121
12	292	156	206	232	299	192	461	234	2770	321	90	93
13	507	159	210	231	281	187	1060	233	1880	290	85	87
14	522	164	211	228	266	184	1840	223	1800	252	117	86
15	306	162	208	226	251	176	1250	218	1490	221	100	93
16	248	165	246	223	238	176	1780	206	1420	202	95	91
17	228	173	259	220	229	175	1600	317	1380	190	91	91
18	228	200	239	224	223	193	1170	483	1200	176	84	91
19	206	220	225	229	223	290	937	428	1100	170	79	255
20	194	206	216	228	220	379	778	326	1000	159	70	229
21	188	198	211	229	221	371	663	266	930	149	67	262
22	185	202	206	227	216	334	592	239	724	143	67	255
23	180	202	202	250	209	311	516	274	541	129	65	230
24	170	203	201	292	207	297	466	324	468	123	57	210
25	163	194	200	248	197	275	427	345	419	164	55	219
26	157	188	201	241	193	262	443	409	387	128	61	198
27	156	182	202	234	191	248	451	311	363	118	96	166
28	153	190	207	231	190	240	407	292	334	113	124	138
29	152	201	205	231	---	238	382	348	315	178	89	122
30	149	205	206	274	---	235	362	352	293	180	86	116
31	154	---	210	513	---	233	---	327	---	153	91	---
TOTAL	6602	5298	6459	7640	9397	7175	20360	9388	25201	6884	3116	4315
MEAN	213.0	176.6	208.4	246.5	335.6	231.5	678.7	302.8	840.0	222.1	100.5	143.8
MAX	522	220	259	513	733	379	1840	483	2770	334	196	262
MIN	149	150	194	209	190	175	210	206	236	113	55	73
AC-FT	13100	10510	12810	15150	18640	14230	40380	18620	49990	13650	6180	8560

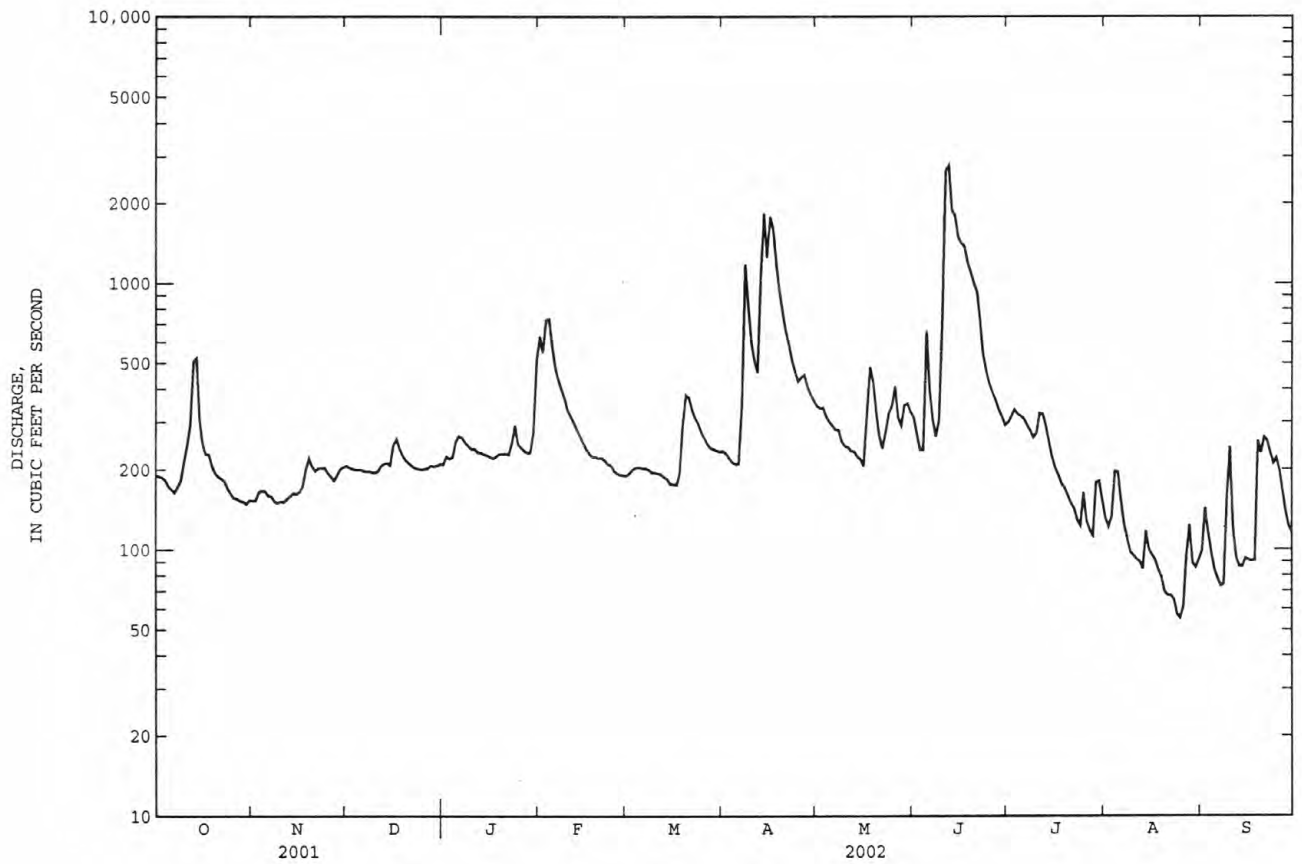
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)

MEAN	577.1	487.7	471.7	430.5	486.3	734.5	786.1	1338	1465	520.0	395.4	524.5
MAX	4441	1672	2615	2057	1829	4446	3598	6916	6865	1678	2325	3345
(WY)	1984	1993	1993	1998	1998	1998	1997	1993	1995	1975	1995	1996
MIN	61.1	52.9	64.5	77.3	86.1	73.8	23.9	22.9	96.9	13.9	3.88	40.0
(WY)	1979	1971	1968	1971	1967	1971	1971	1971	1967	1970	1972	1972

07328100 WASHITA RIVER AT ALEX, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1965 - 2002	
ANNUAL TOTAL	281085		111835			
ANNUAL MEAN	770.1		306.4		683.7	
HIGHEST ANNUAL MEAN					1902	1993
LOWEST ANNUAL MEAN					120	1971
HIGHEST DAILY MEAN	5250	Jun 2	2770	Jun 12	22500	Oct 21 1983
LOWEST DAILY MEAN	105	Aug 11	55	Aug 25	0.00 [a]	Aug 13 1970
ANNUAL SEVEN-DAY MINIMUM	112	Aug 5	63	Aug 20	0.01	Aug 12 1970
MAXIMUM PEAK FLOW			3610	Jun 12	25000	Jun 8 1995
MAXIMUM PEAK STAGE			9.68	Jun 12	[b]33.78	Oct 21 1983
ANNUAL RUNOFF (AC-FT)	557500		221800		495300	
10 PERCENT EXCEEDS	1750		511		1590	
50 PERCENT EXCEEDS	547		220		308	
90 PERCENT EXCEEDS	156		115		77	

[a]No flow Aug. 13, 18, 1970, Aug. 30 to Sept. 1, 1971.
[b]Present datum.



07328180 NORTH CRINER CREEK NEAR CRINER, OK

LOCATION.--Lat 34°58'17", long 97°35'04", in SE $^1/_4$ SE $^1/_4$ sec.23, T.6 N., R.4 W., McClain County, Hydrologic Unit 11130303, near left bank on downstream side of county road bridge, 1.2 mi west of Criner, and at mile .83.

DRAINAGE AREA.--7.33 mi^2

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1023.66 ft above sea level.

REMARKS.--Records poor. U.S. Geological Survey's satellite telemeter at station. Flow partially regulated by retention ponds 1.5 mi northwest of gage.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.31	0.0	0.62	e0.65	2.8	1.6	1.3	2.2	2.2	2.7	e0.13	e0.24
2	0.26	0.0	0.62	e0.60	2.6	e1.5	1.6	2.1	1.7	2.3	e0.12	e0.23
3	0.24	0.21	0.57	e0.60	2.3	e1.5	1.5	1.9	1.4	2.3	e0.12	e0.22
4	0.22	0.14	0.63	0.64	2.0	2.0	1.2	1.8	2.3	2.2	e0.11	e0.21
5	0.17	0.30	0.65	1.1	2.1	1.9	1.2	1.7	3.8	1.9	e0.11	e0.20
6	0.20	0.33	0.60	1.2	2.3	1.9	1.3	1.7	3.2	1.6	e0.11	e0.19
7	0.18	0.31	0.53	0.93	2.2	1.9	9.5	1.6	2.5	1.4	e0.10	e0.18
8	0.15	0.37	0.74	0.85	2.0	2.0	9.5	1.5	2.0	1.1	0.10	e0.17
9	0.53	0.36	0.59	0.73	2.0	2.6	5.0	1.7	2.0	0.96	e0.10	e0.16
10	0.91	0.34	0.52	0.88	2.5	2.2	3.5	1.3	1.7	0.81	e0.09	e0.15
11	0.91	0.38	0.56	0.74	1.9	2.1	2.8	1.3	1.4	0.62	e0.08	e0.15
12	2.4	0.35	0.70	0.67	1.7	2.2	2.8	1.3	1.1	0.37	e0.08	e0.14
13	2.0	0.40	0.78	0.59	1.5	2.2	14	1.3	1.1	0.37	0.23	e0.14
14	1.7	0.44	0.88	0.59	1.3	2.2	10	1.1	1.0	0.30	0.66	e0.14
15	1.5	0.48	0.75	0.48	1.5	2.5	5.7	0.99	0.89	0.17	e0.22	e0.13
16	1.3	0.51	2.8	0.52	1.4	2.3	4.1	0.95	2.1	0.17	e0.16	e0.13
17	0.59	0.52	2.8	0.54	1.3	2.2	3.5	2.8	2.1	0.53	e0.14	e0.12
18	0.33	0.57	2.1	0.49	1.3	2.7	2.9	2.4	1.8	0.30	e0.13	e0.12
19	0.21	0.76	1.8	0.61	1.7	5.5	2.6	1.9	1.6	0.23	e0.12	e0.12
20	0.10	0.53	1.4	0.57	1.8	4.7	2.4	1.7	1.4	e0.21	e0.11	e0.11
21	0.06	0.50	1.2	0.51	2.0	3.8	2.1	1.6	1.3	e0.20	e0.10	e0.11
22	0.05	0.47	1.2	0.51	1.9	3.2	1.8	1.4	1.1	e0.18	e0.10	e0.11
23	0.05	0.49	1.1	2.4	1.7	2.7	1.8	1.3	1.0	e0.16	e0.09	0.10
24	0.05	0.45	0.99	3.0	1.8	2.6	1.9	1.3	0.89	e0.15	e0.09	0.18
25	0.01	0.35	0.92	2.2	2.2	2.6	1.6	1.4	0.79	e0.15	e0.08	0.19
26	0.0	0.30	0.89	1.9	2.4	2.1	2.3	1.3	0.62	e0.14	e0.08	0.19
27	0.0	0.30	0.82	1.7	1.9	1.9	2.5	2.0	0.44	e0.13	1.3	0.20
28	0.0	0.47	0.66	1.4	1.7	1.8	2.5	2.1	0.37	e0.12	e0.41	0.15
29	0.0	0.52	e0.65	1.4	---	1.9	2.3	3.8	0.30	0.51	e0.31	0.10
30	0.0	0.55	e0.63	2.8	---	1.7	2.2	3.7	0.30	0.17	e0.27	0.08
31	0.0	---	e0.60	3.4	---	1.7	---	2.9	---	e0.15	e0.25	---
TOTAL	14.43	11.70	30.30	35.20	53.8	73.7	107.4	56.04	44.40	22.60	6.10	4.66
MEAN	0.465	0.390	0.977	1.135	1.921	2.377	3.580	1.808	1.480	0.729	0.197	0.155
MAX	2.4	0.76	2.8	3.4	2.8	5.5	14	3.8	3.8	2.7	1.3	0.24
MIN	0.00	0.00	0.52	0.48	1.3	1.5	1.2	0.95	0.30	0.12	0.08	0.08
AC-FT	29	23	60	70	107	146	213	111	88	45	12	9.2

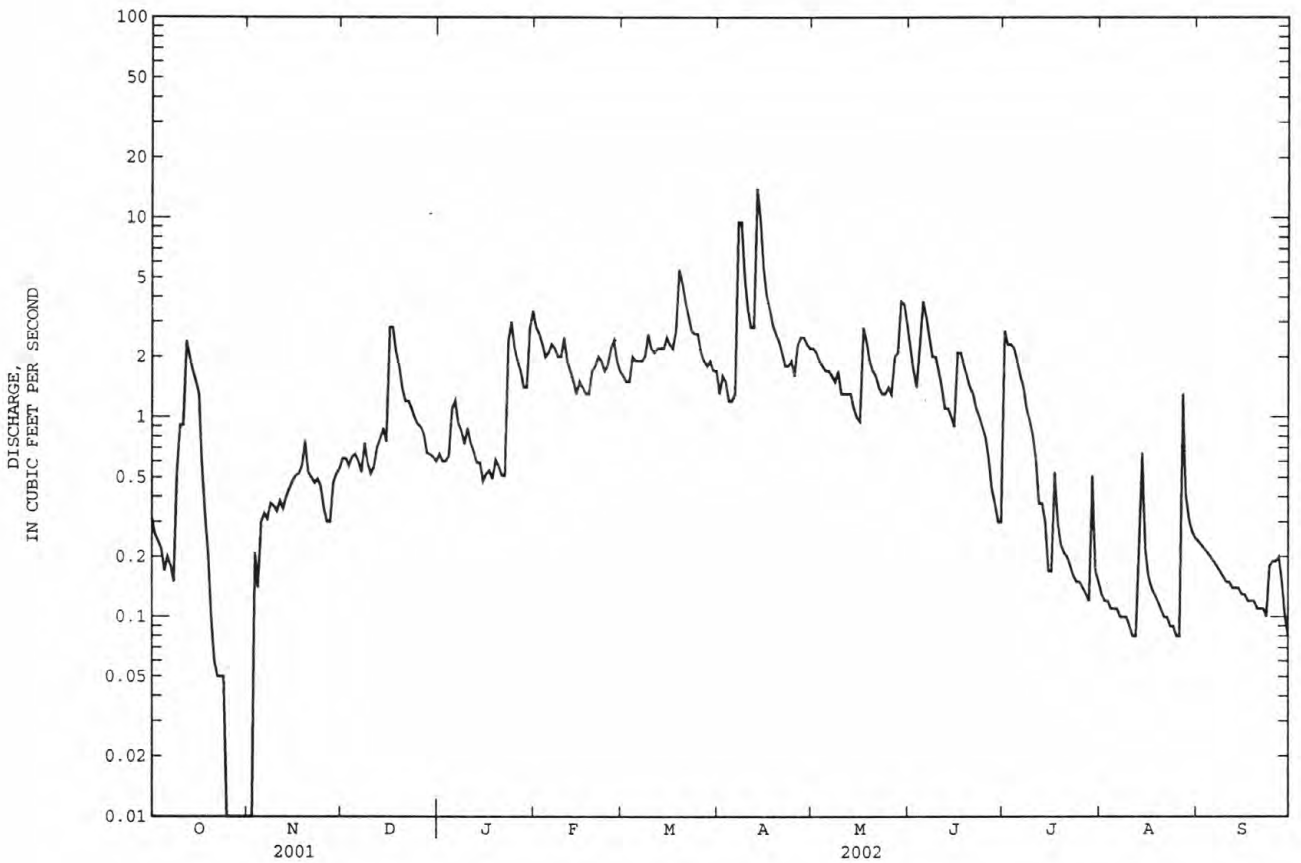
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

MEAN	1.276	2.015	2.535	2.398	3.292	4.299	4.865	5.929	3.303	1.600	1.694	1.407
MAX	3.68	7.23	9.59	7.37	9.67	12.5	14.7	23.1	9.93	5.98	11.1	5.91
(WY)	1997	1997	1993	1993	1993	1998	1990	1993	1992	1992	1996	1996
MIN	0.12	0.39	0.33	0.16	0.77	0.86	0.50	0.78	0.42	0.086	0.009	0.016
(WY)	2000	2002	1991	2000	2000	1991	2000	1996	1994	2001	2000	2000

e Estimated

07328180 NORTH CRINER CREEK NEAR CRINER, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1990 - 2002	
ANNUAL TOTAL	751.34		460.33			
ANNUAL MEAN	2.058		1.261		2.881	
HIGHEST ANNUAL MEAN					6.65	1993
LOWEST ANNUAL MEAN					0.70	2000
HIGHEST DAILY MEAN	20	Feb 24	14	Apr 13	151	May 2 1990
LOWEST DAILY MEAN	0.00	Sep 14	0.00	Oct 26,Nov 2	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 26	0.00	Oct 26	0.00	Jun 21 1994
MAXIMUM PEAK FLOW			34	Apr 13	605	May 23 1993
MAXIMUM PEAK STAGE			4.49	Apr 13	11.24	May 23 1993
ANNUAL RUNOFF (AC-FT)	1490		913		2090	
10 PERCENT EXCEEDS	5.6		2.5		6.4	
50 PERCENT EXCEEDS	0.91		0.89		1.3	
90 PERCENT EXCEEDS	0.06		0.12		0.14	



07328500 WASHITA RIVER NEAR PAULS VALLEY, OK

LOCATION.--Lat 34°45'17", long 97°15'04", in NE $^1/_4$, SE $^1/_4$ sec.1. T.3 N., R.1 W., Garvin County, Hydrologic Unit 11130303, on downstream right bank near end of bridge on U.S. Highway 77, 2.0 mi northwest of Pauls Valley, 6.0 mi downstream from Owl Creek, 7.0 mi upstream from Washington Creek, and at mile 146.5.

DRAINAGE AREA.--5,330 mi^2.

PERIOD OF RECORD.--May to December 1899 (gage heights only), October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "at Pauls Valley, Indian Territory" in 1899.

GAGE.--Water-stage recorder. Datum of gage is 854.61 ft above sea level. During 1899, nonrecording gage at site 9 mi downstream, at different datum. Mar. 29, 1938, to Jan. 25, 1939, nonrecording gage and Jan. 26, 1939, to Oct. 6, 1948, water-stage recorder at site 0.7 mi upstream, at datum 1.53 ft higher. Mar. 11, 1975, to Jan. 26, 1981, water-stage recorder at site 200 ft upstream, and at same datum.

REMARKS.--Records poor. Some diversion for irrigation upstream from station. Some regulation since March 1959, by Fort Cobb Reservoir (station 07325900); since February 1961, by Foss Reservoir (station 07324300); and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stream is reported to have receded to no flow in 1882 and in 1897 (information provided by local resident).

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e220	e210	e240	e230	545	e213	e255	510	358	e338	e175	e208
2	e200	e212	e238	e232	688	e217	e247	465	309	375	e184	e190
3	e180	e210	e236	e245	566	e221	e240	425	285	389	e181	e173
4	165	e210	e230	e255	652	e225	e237	418	282	389	e175	e162
5	e162	e212	e228	297	767	e227	e230	395	661	442	e143	e153
6	e158	e221	223	326	692	e227	e230	373	969	368	e134	e148
7	e156	e212	e218	e297	607	e225	620	348	518	e344	e136	e142
8	e155	e210	e209	e282	537	e221	2680	327	356	e332	359	e147
9	e180	e201	e204	e277	483	e219	2180	312	288	e297	e141	e232
10	636	e200	e206	e273	432	e218	1470	300	283	e321	e139	e320
11	472	e193	e210	e272	380	e217	1170	285	729	e342	e134	e375
12	347	e188	e214	e272	346	e218	1090	292	2820	e339	e132	e310
13	397	e186	e221	e265	329	e216	1650	e269	1860	e320	e129	e248
14	449	e183	e226	e262	e298	e213	2980	e255	1570	e300	e151	e215
15	569	e178	e322	e262	e288	e208	2200	e250	1550	e262	349	e190
16	390	e172	760	e263	e283	e206	1660	e240	1380	e231	e240	e168
17	e315	e172	821	e263	e278	e208	2090	342	1310	e220	e195	e153
18	e295	e190	528	e259	e267	e230	1510	439	1240	e201	e185	e145
19	e290	e202	414	e262	310	330	1220	494	1070	e191	e172	132
20	e267	e218	355	e263	e277	631	1080	524	979	e183	e158	609
21	e260	e203	300	e266	e250	595	956	410	940	e174	e148	449
22	e245	e201	e272	e268	e242	512	836	307	882	e165	e135	e302
23	e239	e200	e253	e272	e238	445	752	e265	747	e153	e128	e270
24	e223	e199	e242	478	e230	373	694	282	586	e146	e113	e250
25	e212	e200	e233	398	e224	324	617	317	535	e194	e108	e235
26	e208	e195	e232	310	e218	e293	693	356	480	e170	e105	e222
27	e205	e191	e228	e290	e212	e292	753	426	416	e158	469	e200
28	e204	e202	e224	e280	e210	e273	681	405	375	e146	463	e183
29	e203	e220	e232	e280	---	e262	611	638	e341	e200	e390	e172
30	e205	e238	e230	e292	---	e258	550	452	e318	e206	e298	e160
31	e207	---	e226	452	---	e258	---	406	---	e179	e257	---
TOTAL	8414	6029	8975	8943	10849	8775	32182	11527	24437	8075	6226	6863
MEAN	271.4	201.0	289.5	288.5	387.5	283.1	1073	371.8	814.6	260.5	200.8	228.8
MAX	636	238	821	478	767	631	2980	638	2820	442	469	609
MIN	155	172	204	230	210	206	230	240	282	146	105	132
AC-FT	16690	11960	17800	17740	21520	17410	63830	22860	48470	16020	12350	13610

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

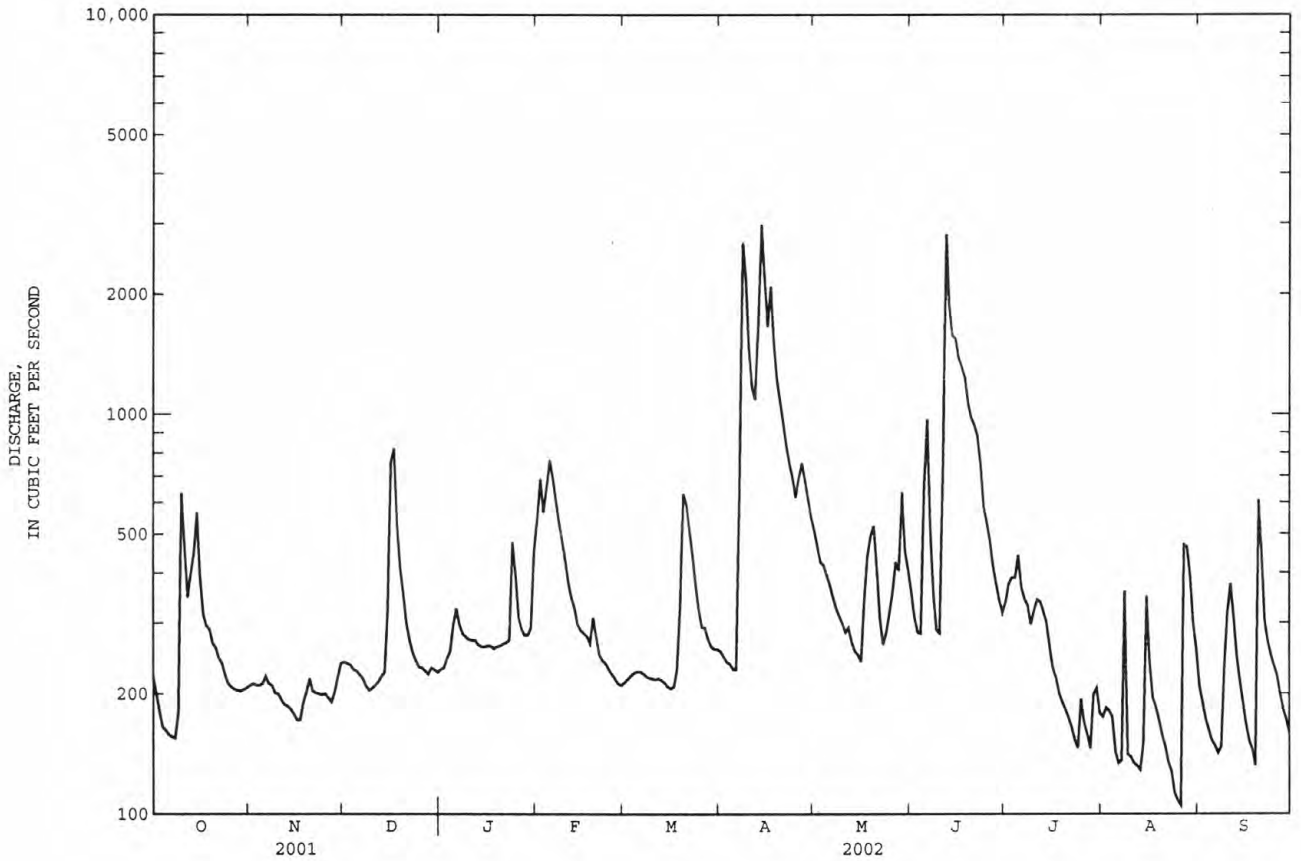
MEAN	897.6	765.6	641.7	621.8	746.4	1066	1084	1883	1981	680.7	460.2	634.0
MAX	7934	3608	3347	2868	3149	5573	4311	10690	9788	3174	2961	4086
(WY)	1987	1987	1992	1998	1987	1998	1997	1993	1995	1987	1995	1996
MIN	35.2	61.7	69.6	91.3	87.8	78.9	58.9	38.1	151	16.3	0.28	23.6
(WY)	1964	1968	1968	1967	1967	1967	1982	1971	1966	1964	1972	1972

e Estimated

07328500 WASHITA RIVER NEAR PAULS VALLEY, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	366316		141295			
ANNUAL MEAN	1004		387.1		[a]955.0	
HIGHEST ANNUAL MEAN					3661	1987
LOWEST ANNUAL MEAN					181	1967
HIGHEST DAILY MEAN	5550	Jun 3	2980	Apr 14	41700	May 29 1987
LOWEST DAILY MEAN	86	Aug 12	105	Aug 26	[b]0.00	Jul 21 1964
ANNUAL SEVEN-DAY MINIMUM	96	Aug 7	128	Aug 20	0.00	Jul 21 1964
MAXIMUM PEAK FLOW			3210	Apr 14	43600	May 29 1987
MAXIMUM PEAK STAGE			6.56	Apr 8	[c]28.72	May 29 1987
ANNUAL RUNOFF (AC-FT)	726600		280300		691800	
10 PERCENT EXCEEDS	2350		692		2160	
50 PERCENT EXCEEDS	760		262		420	
90 PERCENT EXCEEDS	192		169		92	

[a]Prior to regulation, water years 1938-50, 829 ft^3/s.
[b]No flow in 1956, 1964, 1966, 1967, 1970, 1972.
[c]Maximum gage height for period of record, 29.08 ft, May 11, 1950.



07329700 WILDHORSE CREEK NEAR HOOVER, OK

LOCATION.--Lat 34°32'29", long 97°14'49", on west line of SW $^1/_4$ sec. 19, T.1 N., R.1 E., Garvin County, Hydrologic Unit 11130303, on downstream left bank at bridge on State Highway 19A, 1.0 mi north of Hoover, 1.8 mi downstream from Sandy Creek and at mile 7.9.

DRAINAGE AREA.--604 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1944, 1951-69, October 1969 to September 1993, July 2000 to June 2002 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 798.3 ft above sea level. Prior to July 1, 2000, datum 5.0 ft higher.

REMARKS.--Records poor. Flow regulated by Duncan, Clear Creek, Humphries, and Fuqua Lakes, combined surface-area, 3,340 acres, and capacity, 44.800 acre-ft, and numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e26	e30	e28	e40	e30	e32	87	90	48	---	---	---
2	e24	e30	e26	e38	e29	e33	76	79	43	---	---	---
3	e22	e29	e25	e37	e29	e34	64	73	39	---	---	---
4	21	e29	e24	e39	e29	e34	57	68	36	---	---	---
5	e20	e28	24	52	e28	e33	54	63	191	---	---	---
6	e20	e28	e24	60	e28	e32	79	61	146	---	---	---
7	e20	e28	e23	e52	53	31	3930	57	81	---	---	---
8	e19	e27	e23	e46	42	29	5250	55	60	---	---	---
9	e19	e27	e23	e41	e40	27	1490	52	66	---	---	---
10	465	e27	e23	e38	e39	25	987	50	51	---	---	---
11	793	e26	e22	e36	e38	24	737	54	44	---	---	---
12	396	e26	e22	e34	e37	24	837	54	39	---	---	---
13	250	e26	e22	e32	e34	24	3500	96	39	---	---	---
14	145	e26	e22	e31	e32	23	2600	62	52	---	---	---
15	103	e26	e21	e30	e32	22	1180	52	42	---	---	---
16	75	e25	1140	e29	e30	22	802	48	45	---	---	---
17	61	e25	1250	e28	e29	22	596	269	47	---	---	---
18	51	e25	488	e28	e28	23	469	267	40	---	---	---
19	e44	e30	314	e39	43	82	376	106	35	---	---	---
20	e39	e28	202	e36	99	545	306	77	33	---	---	---
21	e37	e27	148	e35	55	308	247	61	31	---	---	---
22	e36	e26	119	e34	e43	173	199	52	29	---	---	---
23	e35	e25	97	e34	e36	133	168	48	27	---	---	---
24	e34	e24	81	e33	e32	111	146	46	26	---	---	---
25	e33	e24	70	e33	e31	93	113	48	26	---	---	---
26	e31	e23	62	e32	e30	78	185	68	25	---	---	---
27	e31	e23	57	e32	e29	72	227	66	24	---	---	---
28	e31	e27	53	31	e31	66	149	70	24	---	---	---
29	e30	e31	49	e31	---	60	113	131	23	---	---	---
30	e30	e30	e42	e30	---	68	100	69	23	---	---	---
31	e30	---	e41	e30	---	102	---	55	---	---	---	---
TOTAL	2971	806	4565	1121	1036	2385	25124	2447	1435	---	---	---
MEAN	95.84	26.87	147.3	36.16	37.00	76.94	837.5	78.94	47.83	---	---	---
MAX	793	31	1250	60	99	545	5250	269	191	---	---	---
MIN	19	23	21	28	28	22	54	46	23	---	---	---
AC-FT	5890	1600	9050	2220	2050	4730	49830	4850	2850	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

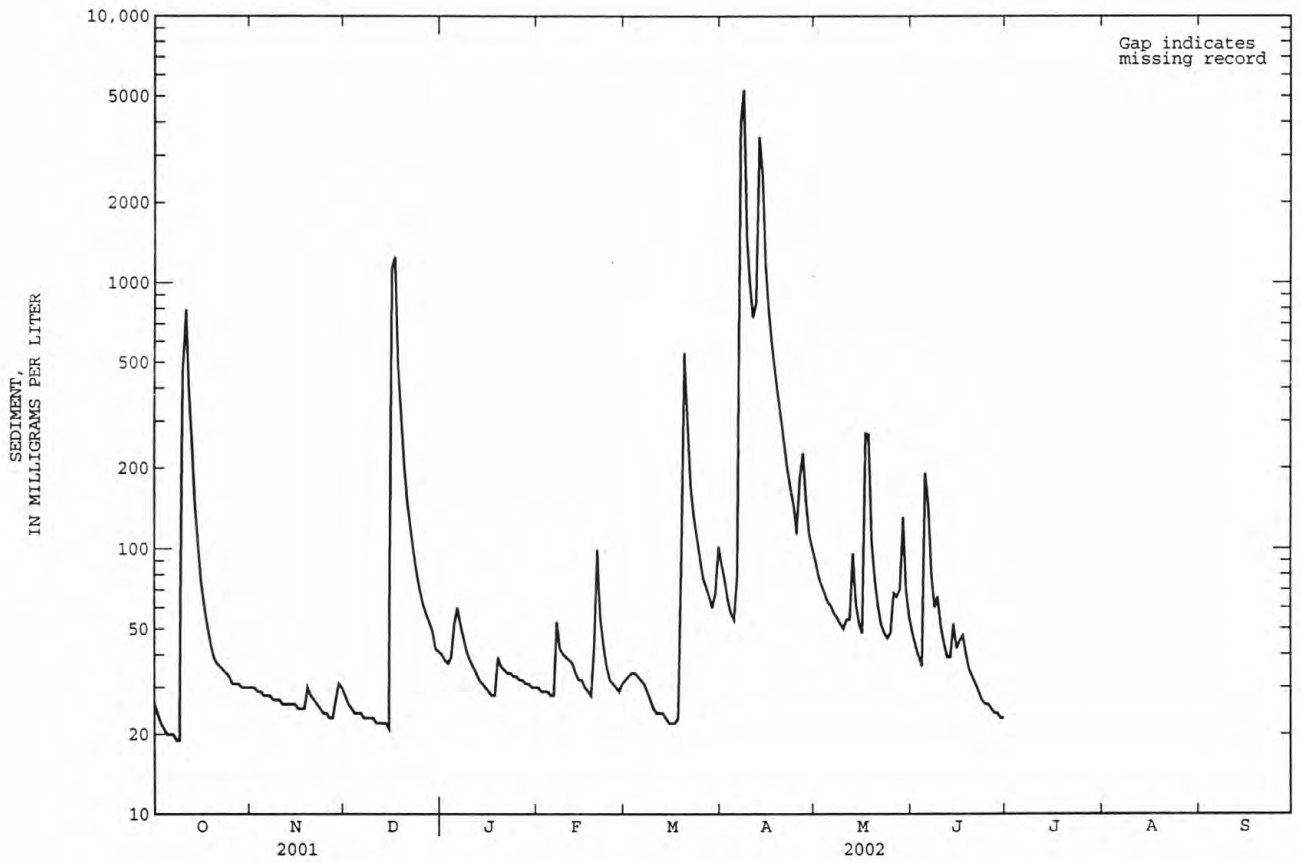
MEAN	178.8	186.6	239.4	184.1	236.1	376.3	387.0	695.6	450.5	104.4	33.21	126.3
MAX	647	920	1614	1371	1023	1283	2564	2937	1385	640	249	750
(WY)	1986	1974	1988	1988	1987	1990	1990	1982	1975	1975	1975	1991
MIN	1.14	3.33	2.00	4.88	8.76	8.48	6.73	35.8	16.5	0.92	0.16	0.33
(WY)	1979	1978	1978	1978	1970	1972	1982	1984	1970	1980	1970	1971

e Estimated

07329700 WILDHORSE CREEK NEAR HOOVER, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR PERIOD OCT 2001-JUN 2002		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	85560.3					
ANNUAL MEAN	234.4				271.4	
HIGHEST ANNUAL MEAN					631	1987
LOWEST ANNUAL MEAN					35.3	1970
HIGHEST DAILY MEAN	5750	Feb 16	5250	Apr 8	27000	May 29 1987
LOWEST DAILY MEAN	3.3	Aug 31	19	Oct 8	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	3.4	Aug 26	20	Oct 3	0.00	Sep 8 1980
MAXIMUM PEAK FLOW			10700	Apr 8	40600	May 3 1990
MAXIMUM PEAK STAGE			18.13	Apr 8	[a]31.13	May 3 1990
ANNUAL RUNOFF (AC-FT)	169700				196600	
10 PERCENT EXCEEDS	560				578	
50 PERCENT EXCEEDS	68				49	
90 PERCENT EXCEEDS	4.7				4.0	

[a]Present datum.



07329852 ROCK CREEK AT SULPHUR, OK

LOCATION.--Lat 34°29'43", long 96°59'18", in SE $^1/_4$ SE $^1/_4$ sec.4, T.1 S., R.3 E., Murray County, Hydrologic Unit 11130303, 80 ft west of campsite 69 in Rock Creek Campground, in the Chickasaw National Park at Sulphur, OK, and at mile 11.0.

DRAINAGE AREA.--44.1 mi^2.

PERIOD OF RECORD.--Oct. 1, 1989 to current year.

REVISED RECORDS.--WDR OK-94-2: 1993.

GAGE.--Water-stage recorder. Datum of gage is 896.97 ft above sea level.

REMARKS.--Records good. Flow regulated by numerous flood-retarding structures. U.S. Geological Survey satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	17	24	e16	17	39	50	24	35	9.8	9.3
2	14	18	16	24	e16	e16	33	46	21	28	9.5	9.2
3	14	17	16	23	e15	e18	27	42	20	32	9.4	8.9
4	15	18	15	22	e15	20	24	41	18	24	9.3	8.8
5	15	18	16	37	e28	21	23	39	827	20	9.4	9.0
6	15	17	15	38	e20	21	32	37	359	17	9.9	8.9
7	15	17	15	31	18	20	1210	36	180	15	9.9	8.8
8	15	16	14	28	23	21	846	34	98	14	9.9	9.8
9	31	16	14	27	23	20	525	32	65	14	9.9	52
10	197	17	17	26	20	17	375	30	46	13	10	16
11	530	17	16	23	18	18	279	30	36	13	10	12
12	214	17	16	23	18	18	286	149	29	12	10	10
13	188	16	15	23	17	19	692	243	49	12	18	10
14	93	16	15	22	17	18	509	94	32	12	159	16
15	59	16	15	21	17	18	327	57	26	12	18	14
16	40	16	505	20	17	17	204	41	35	11	14	10
17	32	17	416	20	16	17	158	286	28	12	12	10
18	29	17	230	21	17	20	122	135	23	12	10	10
19	27	19	117	23	28	119	98	69	21	11	11	9.9
20	26	18	78	22	33	293	83	47	20	11	11	9.4
21	25	17	61	20	33	115	74	37	18	10	9.3	9.3
22	23	16	49	20	21	62	64	32	17	9.8	8.9	9.1
23	23	16	40	21	19	46	58	30	17	9.8	8.7	9.0
24	22	16	34	20	18	40	57	29	16	14	8.6	8.8
25	20	15	32	19	17	36	52	29	15	11	11	8.6
26	19	15	30	18	17	31	107	31	15	9.8	9.1	8.4
27	17	14	30	18	16	28	114	36	15	9.5	40	8.5
28	17	17	29	18	16	28	78	43	14	9.5	12	8.4
29	17	17	27	e17	---	27	61	40	14	19	10	8.2
30	17	17	25	e17	---	51	55	33	14	11	9.7	8.3
31	17	---	24	e17	---	53	---	27	---	10	9.4	---
TOTAL	1802	501	1959	703	549	1265	6612	1905	2112	453.4	506.7	338.6
MEAN	58.13	16.70	63.19	22.68	19.61	40.81	220.4	61.45	70.40	14.63	16.35	11.29
MAX	530	19	505	38	33	293	1210	286	827	35	159	52
MIN	14	14	14	17	15	16	23	27	14	9.5	8.6	8.2
AC-FT	3570	994	3890	1390	1090	2510	13110	3780	4190	899	1010	672

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

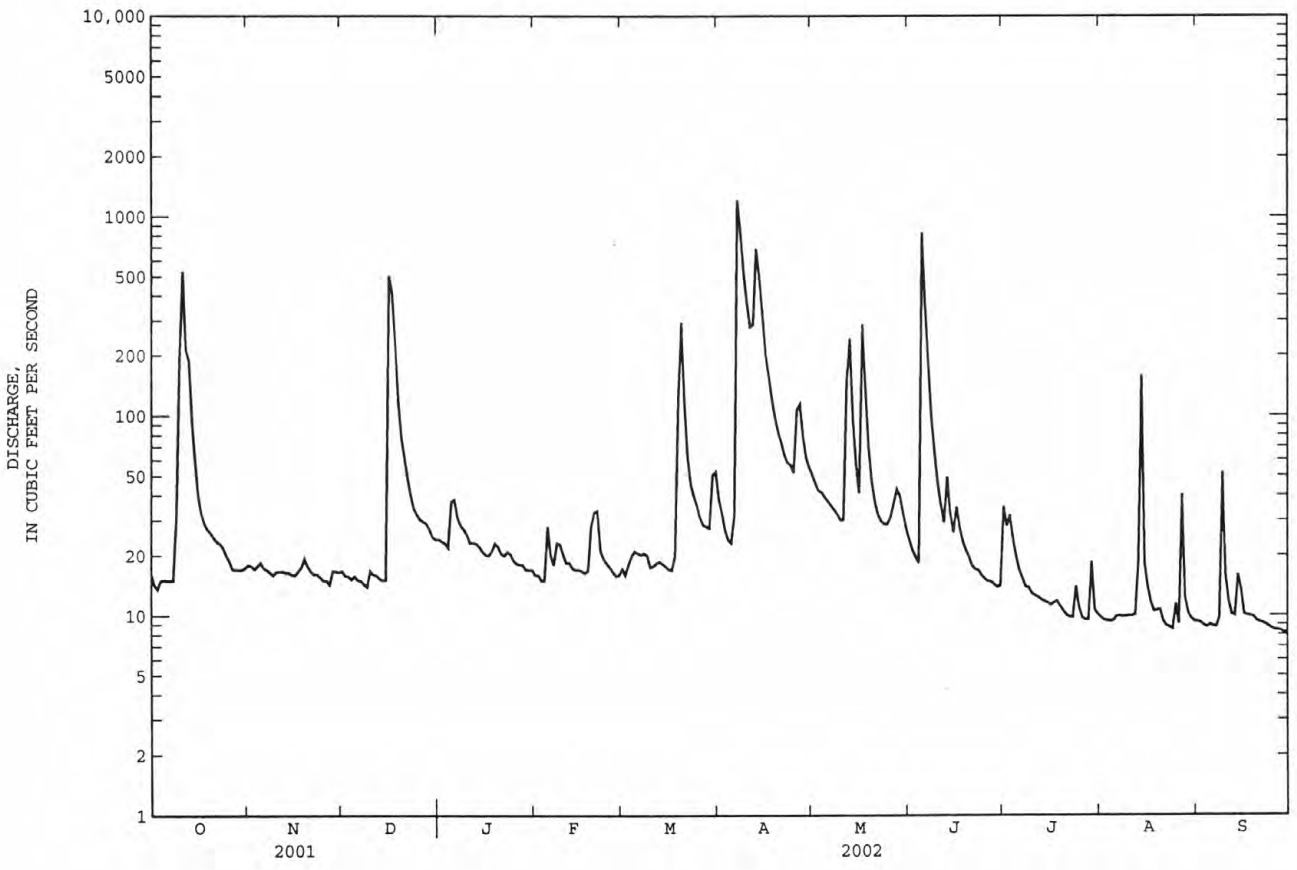
MEAN	29.42	44.01	59.73	65.25	62.55	103.2	107.3	98.66	66.88	24.06	18.13	55.76
MAX	77.3	170	210	281	243	261	390	406	211	121	53.1	213
(WY)	1997	1997	1992	1998	2001	1990	1990	1990	1991	1992	1996	1993
MIN	6.33	9.65	8.34	7.69	7.66	27.0	23.4	10.2	8.49	6.09	3.48	2.34
(WY)	1995	1998	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

e Estimated

07329852 ROCK CREEK AT SULPHUR, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1990 - 2002	
ANNUAL TOTAL	27614.4		18706.7			
ANNUAL MEAN	75.66		51.25		61.15	
HIGHEST ANNUAL MEAN					129	1990
LOWEST ANNUAL MEAN					10.4	2000
HIGHEST DAILY MEAN	1360	Feb 16	1210	Apr 7	3450	May 2 1990
LOWEST DAILY MEAN	5.3	Sep 14	8.2	Sep 29	1.9	Sep 21 2000
ANNUAL SEVEN-DAY MINIMUM	5.9	Aug 27	8.5	Sep 24	2.0	Sep 16 2000
MAXIMUM PEAK FLOW			2750	Apr 7	[a]10400	Apr 26 1990
MAXIMUM PEAK STAGE			11.79	Apr 7	19.65	Apr 26 1990
ANNUAL RUNOFF (AC-FT)	54770		37100		44300	
10 PERCENT EXCEEDS	184		93		108	
50 PERCENT EXCEEDS	22		18		21	
90 PERCENT EXCEEDS	7.0		9.9		8.0	

[a]From indirect measurement.



07331000 WASHITA RIVER NEAR DICKSON, OK

LOCATION.--Lat 34°14'00", long 96°58'32", in SW $^1/_4$ SE $^1/_4$ sec.3, T.4 S., R.3 E., Carter County, Hydrologic Unit 11130303, on right bank on downstream side of bridge on U.S. Highway 177, 1.3 mi downstream from Caddo Creek, 3.2 mi north of Dickson, 12.0 mi northeast of Ardmore, and at mile 63.4.

DRAINAGE AREA.--7,202 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to Oct. 1, 1979, published as Washita River near Durwood.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1281: 1935 (M).

GAGE.--Water-stage recorder. Datum of gage is 650.57 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Feb. 16, 1939, nonrecording gage, at same site and datum. Dec. 15, 1950, to Feb. 19, 1952, nonrecording gage, at site 500 ft upstream, at same datum. Apr. 24, 1975, to May 8, 1986, water-stage recorder, at site 500 ft upstream, at same datum.

REMARKS.--Records poor. Some diversions for irrigation upstream from station. Flow regulated by Fort Cobb Reservoir (station 07325900) since March 1959; by Foss Reservoir (station 07324300) since February 1961; and by numerous flood-retarding structures. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	216	247	e760	545	395	1670	1290	694	456	e210	394
2	1210	215	247	e776	802	344	1350	1140	490	525	e206	292
3	1110	210	240	e765	922	334	1150	1020	379	457	e197	239
4	1020	211	238	e744	892	341	999	750	e368	549	e213	215
5	954	224	236	e701	829	332	823	611	2800	508	e215	257
6	450	264	236	e754	1050	334	745	559	3420	413	e173	340
7	346	254	228	e851	1110	331	9520	505	2740	403	e155	279
8	305	221	220	e915	1140	319	27400	453	1850	375	e164	204
9	281	208	213	e877	1040	318	16100	419	1520	e373	e161	309
10	445	197	207	e824	930	308	10000	379	1220	e379	e161	897
11	6800	200	210	e685	821	304	7680	e356	955	e392	e155	1050
12	4600	199	230	e694	732	304	6540	e356	1540	e379	e148	527
13	5140	198	238	e503	662	e300	11800	593	4170	e385	e159	491
14	3570	200	247	483	601	e298	17400	997	3300	e392	5470	395
15	2950	200	253	543	484	e296	11400	630	2500	e341	4130	463
16	2590	200	2200	521	437	e294	8160	666	2320	e312	2470	252
17	2290	203	10500	514	412	e290	6860	665	2050	375	1880	197
18	1630	213	e4900	500	395	e298	6570	2330	1860	e255	1350	172
19	1030	216	e4000	514	414	903	5370	1390	1790	e220	945	157
20	824	223	e3450	509	483	3710	4640	852	1450	e205	915	162
21	702	223	e2710	423	699	3330	4100	876	1180	e190	847	e187
22	619	238	e2100	402	528	2410	3610	765	1040	e179	614	e671
23	605	232	e1800	393	421	2110	3210	603	934	e168	391	e472
24	470	221	e1680	404	384	1850	2890	506	843	e168	330	e305
25	390	214	e1580	459	367	1690	2680	378	661	e213	303	e259
26	348	208	e1350	693	340	1500	2530	e374	524	e188	333	e237
27	320	208	1110	571	381	1290	2470	575	438	e177	1270	e213
28	295	230	e1090	475	399	1180	2220	842	370	e168	2600	198
29	280	240	e1080	426	---	1100	1640	1590	e404	e226	1670	197
30	266	240	e984	406	---	1160	1500	1820	e398	e296	908	177
31	236	---	e888	435	---	1980	---	1180	---	e217	529	---
TOTAL	43426	6526	44912	18520	18220	29953	183027	25470	44208	9884	29272	10208
MEAN	1401	217.5	1449	597.4	650.7	966.2	6101	821.6	1474	318.8	944.3	340.3
MAX	6800	264	10500	915	1140	3710	27400	2330	4170	549	5470	1050
MIN	236	197	207	393	340	290	745	356	368	168	148	157
AC-FT	86140	12940	89080	36730	36140	59410	363000	50520	87690	19600	58060	20250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

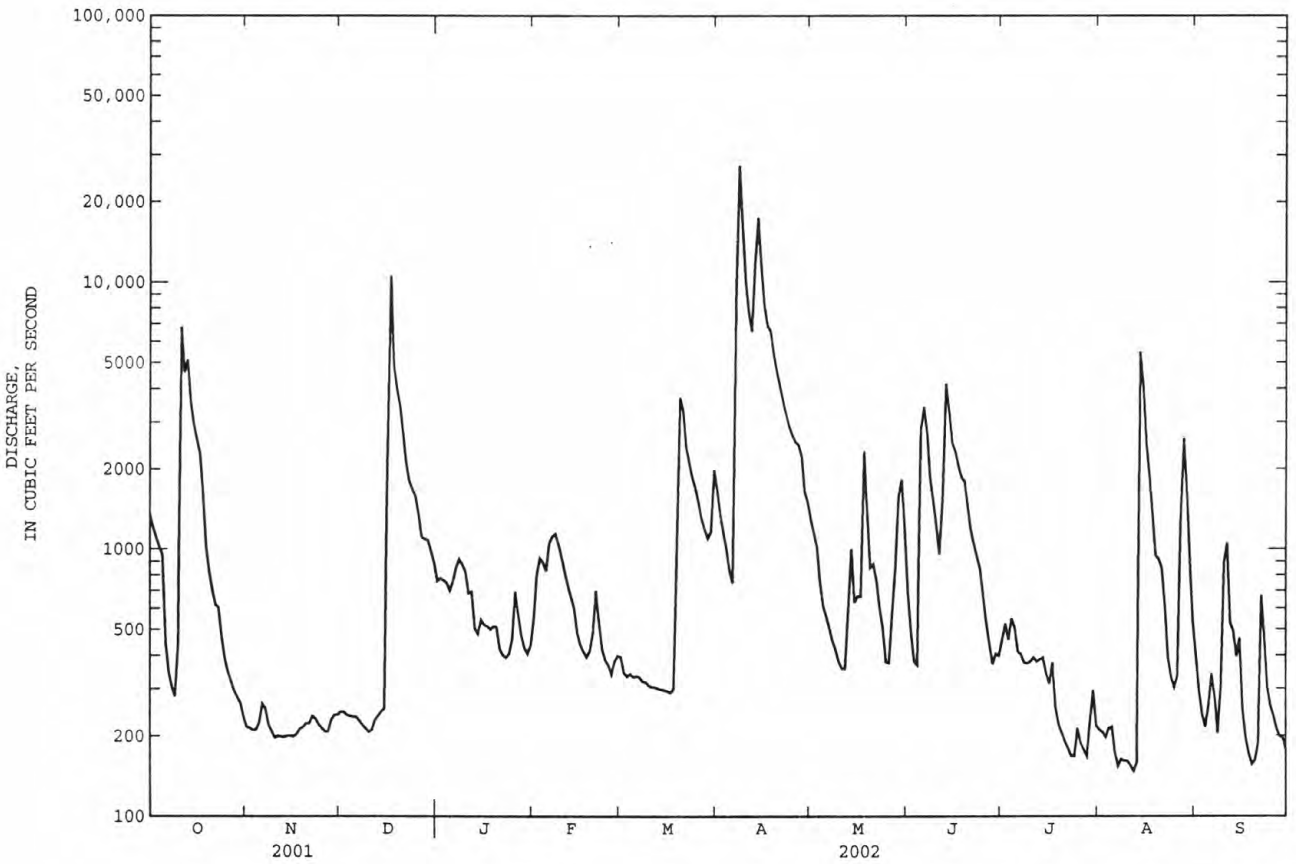
MEAN	1525	1615	1415	1234	1569	2413	2540	4033	3500	1006	609.8	1142
MAX	8274	5879	9324	6061	6996	10890	15940	18720	14090	4042	3048	5236
(WY)	1987	1987	1992	1998	2001	1990	1990	1993	1995	1987	1995	1991
MIN	30.4	73.5	103	103	93.6	78.4	210	249	158	31.4	12.8	42.1
(WY)	1964	1964	1967	1967	1967	1967	1971	1971	1966	1964	1972	1972

e Estimated

07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	835492		463626			
ANNUAL MEAN	2289		1270		[a]1882	
HIGHEST ANNUAL MEAN					5644	1987
LOWEST ANNUAL MEAN					340	1964
HIGHEST DAILY MEAN	27800	Feb 16	27400	Apr 8	94400	May 3 1990
LOWEST DAILY MEAN	156	Aug 14	148	Aug 12	[b]0.10	Aug 11 1964
ANNUAL SEVEN-DAY MINIMUM	161	Aug 9	158	Aug 7	0.30	Aug 8 1964
MAXIMUM PEAK FLOW			28700	Apr 8	[c]118000	May 3 1990
MAXIMUM PEAK STAGE			24.82	Apr 8	45.24	May 30 1987
ANNUAL RUNOFF (AC-FT)	1657000		919600		1364000	
10 PERCENT EXCEEDS	5140		2720		4280	
50 PERCENT EXCEEDS	1670		491		724	
90 PERCENT EXCEEDS	215		208		145	

[a]Prior to regulation, water years 1929-58, 1,573 ft^3/s.
[b]No flow Aug. 28, Sept. 14 to Oct. 1, 7-12, 1956.
[c]Gage height 44.26 ft.



07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1944 to September 1995; October 1996 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1944 to January 1982, February 1984 to April 1990; December 1996 to current year.
WATER TEMPERATURE: April 1947 to January 1982, February 1984 to April 1990; December 1996 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,180 microsiemens, Sept. 29, 2000; minimum daily, 95 microsiemens, Nov. 2, 1951.
WATER TEMPERATURE: Maximum daily, 38.0°C, July 16, 1985; minimum daily, -0.5°C, Dec. 20, 1996, Jan. 12-18, 1997, Jan. 4, 5, 10, 1999.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,670 microsiements, Aug. 10; minimum, 258 microsiemens, Oct. 13.
WATER TEMPERATURE: Maximum, 36.9°C, July 11; minimum, 0.3°C, Jan. 3.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	GAGE HEIGHT (FEET) (00065)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (00009)
SEP											
03...	1345	1028	1028	10.04	239	765	8.9	7.7	874	30.6	--
18...	0928	1028	1028	9.85	176	741	6.9	8.0	816	25.6	4.00
18...	0931	1028	1028	9.85	176	741	6.8	8.0	817	25.4	21.0
18...	0933	1028	1028	9.85	176	741	6.6	8.0	817	25.4	38.0
18...	0936	1028	1028	9.85	176	741	6.6	8.0	817	25.4	55.0
18...	0939	1028	1028	9.85	176	741	6.7	8.0	817	25.4	72.0
18...	0942	1028	1028	9.85	176	741	6.7	8.0	816	25.4	89.0
18...	0945	1028	1028	9.85	176	741	6.7	8.0	816	25.4	106
18...	0948	1028	1028	9.85	176	741	6.6	8.0	817	25.4	123
18...	0951	1028	1028	9.85	176	741	6.6	8.0	817	25.4	140
18...	0954	1028	1028	9.85	176	741	7.1	8.0	825	25.6	157

Date	Time	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	GAGE HEIGHT (FEET) (00065)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CACO3) (00900)
OCT													
10...	1130	80020	1028	10.65	431	747	97	8.5	8.4	1330	26.7	20.7	550
NOV													
30...	0910	80020	1028	10.45	240	746	97	12.8	8.3	1440	10.1	2.8	630
DEC													
27...	1735	80020	1028	11.51	1000	745	102	12.2	8.1	959	9.5	6.4	420
JAN													
15...	1030	80020	1028	10.31	228	754	95	11.7	8.1	1380	13.5	5.7	610
FEB													
20...	1000	80020	1028	10.61	474	749	128	13.4	8.2	1340	17.3	12.2	560
MAR													
12...	1200	80020	1028	10.30	304	740	111	11.0	7.9	1390	19.1	14.3	630
APR													
09...	1100	80020	1028	19.87	14900	749	96	10.0	7.9	423	22.1	12.8	140
MAY													
08...	1030	80020	1028	10.44	453	736	100	8.2	8.1	1170	23.3	23.1	500
JUN													
13...	0930	80020	1028	13.83	4420	739	56	4.2	7.8	1080	29.7	27.4	470
JUL													
17...	1120	80020	1028	10.30	375	742	142	10.6	7.8	1350	30.3	28.8	520
AUG													
15...	1045	80020	1028	13.61	4130	745	71	5.8	7.7	318	26.1	24.4	120
SEP													
18...	0930	80020	1028	9.85	176	741	84	6.7	8.0	816	26.0	25.4	300

07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT													
10...	340	129	56.0	4.46	1	78.6	23	212	254	2	85.1	.5	10.3
NOV													
30...	410	151	62.0	3.81	2	87.4	23	218	266	0	96.2	.5	10.7
DEC													
27...	200	111	34.8	3.14	1	50.7	21	220	270	0	58.6	.3	8.9
JAN													
15...	370	149	57.8	2.94	1	79.7	22	242	291	2	88.8	.4	8.1
FEB													
20...	360	135	53.1	3.52	1	70.5	21	202	243	0	82.2	.4	6.2
MAR													
12...	440	149	63.7	3.41	1	86.5	23	197	237	1	95.6	.4	4.1
APR													
09...	28	39.4	11.1	3.39	.5	14.2	17	116	141	0	41.5	.2	5.8
MAY													
08...	290	119	48.2	3.87	1	68.2	23	209	252	0	77.9	.3	5.3
JUN													
13...	330	117	42.2	5.60	1	50.8	19	141	171	0	51.5	.3	10.7
JUL													
17...	410	116	55.1	5.51	2	83.4	26	105	122	3	97.8	.4	7.5
AUG													
15...	29	35.6	8.54	3.81	.5	12.3	17	96	115	0	13.2	.2	7.2
SEP													
18...	140	71.0	30.3	4.78	1	52.7	27	165	195	3	58.2	.6	8.3

Date	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3) (71851)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
OCT													
10...	374	.87	<.04	--	--	--	--	E.02	--	<.008	--	--	E.04
NOV													
30...	457	.81	.13	.11	.93	.17	.491	.12	.026	.008	.68	.104	E.04
DEC													
27...	215	.57	E.03	--	.92	--	--	.35	--	E.007	--	.071	E.03
JAN													
15...	394	.80	E.04	.25	1.1	--	1.12	.27	.069	.021	--	--	<.06
FEB													
20...	398	1.2	E.02	.19	1.4	--	.845	.21	.069	.021	--	--	<.06
MAR													
12...	446	.61	<.04	.07	.69	--	.297	.08	.046	.014	--	--	<.06
APR													
09...	59.1	2.8	.08	.19	3.0	.10	.841	.20	.036	.011	2.7	.086	<.06
MAY													
08...	330	.68	<.04	--	--	--	--	E.02	--	E.006	--	--	E.05
JUN													
13...	343	3.1	.21	.42	3.8	.27	1.84	.67	.841	.256	2.9	.067	E.06
JUL													
17...	452	2.4	<.04	--	--	--	--	E.04	--	E.006	--	.254	.09
AUG													
15...	28.0	2.4	.08	.58	3.0	.11	2.55	.62	.128	.039	2.3	.147	.06
SEP													
18...	150	1.1	<.04	.18	1.3	--	.801	.21	.099	.030	--	.086	E.03

07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT													
10...	E.02	.14	25	1.18	1010	865	3	E3	192	190	<8	<.1	<.8
NOV													
30...	.03	.11	116	1.36	648	1000	3	3	144	146	<8	<.1	<.8
DEC													
27...	.02	.08	54	.84	1670	617	E1	2	140	145	<8	E.1	<.8
JAN													
15...	<.02	.06	26	1.26	570	927	E1	E2	150	155	<8	<.1	<.8
FEB													
20...	<.02	.11	50	1.18	1110	870	2	3	140	142	<8	<.1	<.8
MAR													
12...	E.02	.09	22	1.32	794	967	E1	3	137	135	<8	<.1	<.8
APR													
09...	.03	.98	167	.33	9870	245	<2	6	74.2	431	<8	.2	<.8
MAY													
08...	E.02	.13	61	1.06	950	777	<5	E2	183	195	<8	<.1	<.8
JUN													
13...	.02	.94	1690	.96	8460	709	2	11	224	591	<8	.6	<.8
JUL													
17...	.08	.32	<10	1.20	892	881	3	3	184	207	<8	E.1	<.8
AUG													
15...	.05	.75	60	.23	1890	169	3	6	61.6	329	<8	.2	<.8
SEP													
18...	.03	.16	49	.65	226	476	2	3	138	151	<8	<.1	<.8

Date	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)
OCT													
10...	E.5	<6	2.3	<10	380	.09	M	5.0	95.0	<.01	<.01	<30	<70
NOV													
30...	<.8	<6	1.5	<10	230	E.04	M	28.4	44.0	<.01	E.01	<30	<70
DEC													
27...	E.4	<6	2.0	<10	530	E.07	1	21.1	57.9	<.01	<.02	<30	<70
JAN													
15...	E.4	<6	1.7	<10	170	.10	<1	18.8	34.3	E.01	.01	<30	<70
FEB													
20...	E.4	<6	1.6	<10	410	.34	<1	11.7	84.0	E.01	.05	<30	<70
MAR													
12...	E.5	<6	2.5	<10	220	.36	M	16.5	90.7	.03	E.01	<30	<70
APR													
09...	11.2	<6	18.8	20	13700	E.06	21	3.3	1160	<.01	.04	<30	<70
MAY													
08...	E.5	<6	4.2	<10	470	.47	1	18.5	118	<.01	E.01	<30	<70
JUN													
13...	13.0	E3	23.7	<10	13400	.43	18	E1.4	1870	<.01	.03	<30	<70
JUL													
17...	<.8	<6	2.5	<10	460	.35	1	7.1	128	<.01	<.01	<30	<70
AUG													
15...	9.9	<6	20.0	13	11300	.10	17	E1.0	1210	.01	.03	<30	<70
SEP													
18...	E.8	<6	2.4	<10	770	.13	1	4.5	157	<.01	<.01	<30	<70

07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALDRIN, TOTAL (UG/L) (39330)	ALPHA BHC TOTAL (UG/L) (39337)	ALPHA-HCH-D6 SUR SCD 1608 WATER UNFLTRD PERCENT (99778)	AROCLOR 1016/ 1242 PCB WATER UNFLTRD (UG/L) (81648)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)
OCT													
10...	<2	<4	<.2	<.3	<24	<20	--	--	--	--	--	--	--
NOV													
30...	<2	<2	<.2	<.3	<24	70	--	--	--	--	--	--	--
DEC													
27...	E1	<2	<.2	<.3	<24	<20	--	--	--	--	--	--	--
JAN													
15...	E2	E1	<.2	<.3	<24	<20	--	--	--	--	--	--	--
FEB													
20...	E2	E1	<.1	<.3	<24	<20	--	--	--	--	--	--	--
MAR													
12...	<2	<2	<.1	<.3	<24	<20	<.04	<.03	63.0	<.1	<1	<.1	<.1
APR													
09...	<2	E1	<.1	<.3	<24	50	--	--	--	--	--	--	--
MAY													
08...	<2	<2	<.1	<.3	<24	<20	--	--	--	--	--	--	--
JUN													
13...	<2	E1	<.4	<.3	<24	90	--	--	--	--	--	--	--
JUL													
17...	<2	<2	<.1	<.3	<24	E20	--	--	--	--	--	--	--
AUG													
15...	<2	<2	<.1	<.3	<24	80	--	--	--	--	--	--	--
SEP													
18...	<2	<2	<.2	<.3	<24	40	<.04	<.03	130	<.1	<1	<.1	<.1

Date	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	BETA BENZENE HEXA-CHLOR-IDE TOTAL (UG/L) (39338)	CHLOR-DANE CIS WATER WHOLE TOTAL (UG/L) (39062)	CHLOR-DANE, TECH-NICAL TOTAL (UG/L) (39350)	CHLOR-DANE TRANS WATER WHOLE TOTAL (UG/L) (39065)	DELTA BENZENE HEXA-CHLOR-IDE TOTAL (UG/L) (34259)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN-I WATER WHOLE REC (UG/L) (34361)	ENDO-SULFAN II TOTAL (UG/L) (34356)	ENDO-SULFAN SULFATE TOTAL (UG/L) (34351)	ENDRIN ALDE-HYDE TOTAL (UG/L) (34366)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)
OCT													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
12...	<.1	<.1	<.03	<.1	<.1	<.1	<.09	<.02	<.1	<.04	<.6	<.2	<.06
APR													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
18...	<.1	<.1	<.03	<.1	<.1	<.1	<.09	<.02	<.1	<.04	<.6	<.2	<.06

07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	ISODRIN SUR SCD 1608 WTR, UNFLTRD PERCENT (90570)	LINDANE TOTAL (UG/L) (39340)	PCB 207 SUR SCD 1608 WATER UNFLTRD PERCENT (99781)	P,P' DDD, TOTAL (UG/L) (39310)	P,P' DDE, TOTAL (UG/L) (39320)	P,P' DDT, TOTAL (UG/L) (39300)	TOX-APHENE, TOTAL (UG/L) (39400)
OCT 10...	--	--	--	--	--	--	--	--	--
NOV 30...	--	--	--	--	--	--	--	--	--
DEC 27...	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--
MAR 12...	<.8	<.03	39.0	<.03	22.3	<.1	<.04	<.1	<2
APR 09...	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--	--	--	--
SEP 18...	<.8	<.03	61.8	<.03	116	<.1	<.04	<.1	<2

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	695	675	690	1310	1280	1290	1510	1480	1500	1300	1220	1270
2	714	690	700	1330	1310	1330	1490	1460	1480	1330	1300	1320
3	738	713	724	1340	1330	1330	1460	1420	1450	1360	1330	1350
4	770	738	749	1360	1330	1350	1440	1360	1410	1380	1360	1370
5	778	767	774	1380	1350	1360	1420	1390	1410	1370	1340	1360
6	1020	744	819	1410	1380	1400	1400	1370	1390	1370	1340	1360
7	1200	1020	1120	1420	1350	1390	1400	1360	1380	1340	1300	1310
8	1240	1150	1190	1420	1370	1390	1430	1400	1410	1340	1310	1330
9	1280	1200	1240	1400	1330	1370	1440	1420	1430	1340	1320	1330
10	1330	880	1230	1400	1340	1360	1460	1440	1450	1360	1340	1340
11	1080	271	445	1440	1400	1420	1470	1450	1460	1370	1360	1360
12	348	281	320	1450	1440	1450	1460	1450	1450	1360	1340	1350
13	338	258	293	1450	1430	1440	1460	1410	1440	1380	1360	1370
14	408	338	377	1480	1450	1470	1440	1410	1430	1370	1360	1360
15	553	408	480	1480	1470	1480	1440	1410	1420	1380	1240	1330
16	643	515	559	1490	1480	1480	1420	310	972	1250	1230	1240
17	754	643	702	1500	1480	1490	910	302	365	1250	1220	1230
18	670	626	645	1490	1470	1480	405	321	365	1260	1240	1250
19	692	644	668	1480	1440	1460	448	405	426	1250	1240	1250
20	768	681	719	1470	1460	1470	488	448	466	1260	1240	1250
21	892	768	831	1500	1460	1470	548	488	516	1380	1250	1310
22	940	892	922	1530	1500	1510	652	548	609	1410	1380	1400
23	979	914	946	1540	1520	1530	735	652	697	1400	1390	1400
24	1080	973	1000	1530	1510	1520	803	735	766	1420	1390	1400
25	1120	1080	1100	1510	1480	1490	870	803	841	1420	1400	1410
26	1100	1030	1070	1520	1500	1510	922	870	896	1480	1300	1420
27	1060	1010	1030	1550	1520	1530	972	920	943	1310	1150	1220
28	1130	1060	1090	1520	1480	1500	1010	971	986	1290	1120	1190
29	1160	1130	1150	1480	1460	1470	1040	1010	1020	1310	1270	1290
30	1190	1150	1170	1500	1470	1480	1060	1040	1050	1320	1270	1300
31	1280	1190	1240	---	---	---	1220	1050	1080	1350	1320	1340
MONTH	1330	258	838	1550	1280	1440	1510	302	1080	1480	1120	1320

07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1360	1330	1340	1240	1230	1240	951	819	912	893	868	885
2	1340	1120	1290	1330	1210	1270	947	911	928	938	893	910
3	1230	1120	1170	1380	1330	1350	1010	926	966	970	938	951
4	1270	1230	1240	1400	1370	1390	1060	1010	1040	1090	970	1020
5	1270	1160	1230	1410	1400	1400	1170	1050	1110	1090	1090	1090
6	1300	1080	1190	1410	1400	1400	1220	1160	1180	1110	1070	1100
7	1330	1270	1300	1430	1380	1410	1160	284	605	1150	1100	1130
8	1350	1220	1300	1410	1390	1400	355	286	308	1180	1150	1170
9	1350	1110	1230	1390	1360	1370	474	331	410	1220	1180	1200
10	1120	1090	1110	1380	1350	1360	549	474	520	1250	1220	1240
11	1160	1120	1140	1380	1360	1370	538	513	523	1260	1250	1260
12	1150	1100	1120	1390	1370	1380	529	500	520	1260	1180	1240
13	1140	1100	1120	1400	1380	1390	510	388	449	1180	1070	1150
14	1160	1140	1150	1420	1400	1410	456	358	394	1070	855	998
15	1250	1140	1190	1430	1410	1420	606	456	516	923	821	880
16	1310	1240	1280	1450	1430	1440	606	533	553	934	873	901
17	1340	1310	1330	1460	1440	1450	621	550	568	1060	867	936
18	1360	1340	1360	1460	1370	1420	812	621	745	927	739	816
19	1370	1320	1350	1370	467	1080	856	716	790	840	784	804
20	1340	1310	1330	770	396	593	716	647	666	921	804	872
21	1350	1220	1300	713	572	604	673	644	655	940	877	901
22	1220	1130	1170	694	583	635	719	670	694	994	895	956
23	1220	1210	1220	778	685	726	740	718	735	1030	936	1000
24	1270	1220	1250	845	778	821	749	721	740	1030	1020	1020
25	1310	1270	1290	915	845	885	765	746	755	1120	1000	1050
26	1340	1300	1320	958	915	942	790	744	766	1140	1120	1130
27	1360	1230	1320	972	944	959	964	758	870	1150	1040	1110
28	1250	1230	1240	984	959	972	883	846	861	1160	1040	1100
29	---	---	---	987	967	977	893	853	868	1090	755	895
30	---	---	---	1040	827	966	899	853	870	1070	810	937
31	---	---	---	935	804	838	---	---	---	923	791	887
MONTH	1370	1080	1250	1460	396	1160	1220	284	717	1260	739	1020

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	834	725	760	1190	764	1060	1280	1230	1260	859	685	777
2	998	834	934	1050	754	928	1240	998	1160	901	828	870
3	1010	966	994	1020	931	975	1400	1000	1260	1000	829	919
4	1130	1010	1080	1060	941	1000	1400	1190	1280	1180	1000	1090
5	1140	514	718	1110	1060	1080	1350	1050	1250	1210	1120	1170
6	814	490	667	1070	1020	1040	1290	1120	1220	1120	969	1020
7	785	678	720	1150	1070	1120	1240	936	1070	1180	1080	1150
8	812	727	769	1140	949	1050	1500	1240	1420	---	---	e1020
9	756	665	709	1140	1050	1110	1590	1470	1530	---	---	e950
10	714	672	687	1200	1130	1170	1670	1410	1560	---	---	e840
11	828	714	770	1270	1200	1240	---	---	e1260	---	---	e790
12	1110	802	851	1270	1030	1190	---	---	e1030	---	---	e740
13	1240	833	1090	1320	1200	1260	---	---	e760	1060	843	982
14	833	648	707	1320	1060	1170	---	---	e550	1180	1060	1130
15	721	649	682	1180	1120	1150	---	---	e320	1140	707	941
16	751	716	732	1300	1150	1240	472	356	408	927	797	857
17	806	751	782	1410	1300	1350	577	472	539	831	798	822
18	861	806	831	1560	1370	1450	586	569	579	906	814	837
19	905	861	891	1560	1420	1530	590	545	561	1040	906	985
20	897	859	876	---	---	e1450	760	590	687	1150	1040	1100
21	937	897	924	---	---	e1350	697	676	685	1240	1150	1190
22	956	936	948	---	---	e1250	721	697	712	1300	1010	1240
23	986	956	975	---	---	e1150	888	718	790	1010	882	956
24	977	965	973	1330	827	1230	950	888	926	905	823	845
25	1000	964	981	1340	1190	1260	1030	950	993	1250	871	1060
26	1030	1000	1020	1190	1080	1120	1060	1020	1040	1330	1240	1280
27	1090	1020	1060	1090	822	986	1050	612	846	1450	1330	1400
28	1100	1090	1090	1130	911	1060	681	466	545	1480	1390	1440
29	1140	1090	1110	1250	1080	1140	616	479	573	1400	1280	1350
30	1200	1140	1180	1220	570	997	683	590	644	1280	1200	1250
31	---	---	---	1260	1160	1200	685	589	641	---	---	---
MONTH	1240	490	884	1560	440	1160	1670	356	906	1480	685	1030

e Estimated

07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.8	19.2	20.9	19.8	16.3	17.8	8.7	4.6	6.7	4.5	2.8	3.6
2	22.6	19.3	20.9	21.4	18.3	19.7	11.1	6.7	8.9	3.6	2.1	2.9
3	22.7	19.5	21.0	22.2	18.9	20.6	12.8	10.5	11.5	2.9	0.3	1.6
4	24.1	20.7	22.2	22.2	20.1	21.1	15.7	12.8	14.2	2.9	0.7	1.9
5	22.8	18.3	20.9	22.3	19.1	20.5	17.6	15.7	16.6	4.3	2.8	3.4
6	19.7	15.7	17.7	20.6	17.9	19.3	16.7	14.6	15.5	6.1	3.0	4.4
7	19.8	15.7	17.6	19.5	16.6	18.2	15.4	13.3	14.2	5.8	3.4	4.6
8	20.3	16.6	18.3	19.4	16.4	17.7	13.4	9.3	11.2	6.9	3.8	5.2
9	20.7	19.0	19.7	17.2	14.9	15.8	9.8	6.8	8.4	8.9	5.3	7.0
10	21.7	19.7	20.6	16.7	13.0	14.8	9.0	5.6	7.4	9.3	8.4	8.8
11	19.7	17.5	18.0	17.2	13.9	15.6	7.7	6.1	7.1	9.8	7.2	8.4
12	18.9	17.0	17.9	18.0	16.4	17.1	9.4	7.6	8.4	9.1	6.5	7.7
13	19.0	17.9	18.4	17.6	16.7	17.1	8.8	8.4	8.6	8.9	6.0	7.4
14	19.2	17.1	18.2	18.8	16.2	17.4	10.1	7.4	8.6	9.1	6.3	7.6
15	19.2	17.6	18.4	18.2	16.2	17.2	8.6	7.7	8.3	8.4	5.7	7.1
16	18.0	15.7	17.0	17.8	16.8	17.2	11.1	8.6	9.8	10.0	6.8	8.1
17	17.5	15.4	16.6	17.9	16.3	17.0	10.7	10.1	10.5	8.4	6.6	7.4
18	18.2	15.3	16.8	18.6	16.5	17.5	10.1	9.0	9.6	6.6	5.3	5.6
19	20.0	16.6	18.1	17.7	13.6	16.0	9.6	8.4	9.0	7.7	4.8	6.0
20	21.5	17.6	19.5	13.8	10.7	12.3	8.8	7.3	8.2	7.8	4.8	6.2
21	22.4	18.8	20.5	12.4	9.0	10.9	9.3	7.6	8.6	8.2	4.8	6.5
22	22.6	19.7	21.1	13.9	9.8	11.8	11.2	9.3	10.2	10.0	6.3	7.9
23	23.4	20.5	21.7	16.0	13.1	14.5	10.0	7.5	8.8	10.9	9.1	9.9
24	21.8	19.6	20.8	15.3	12.7	14.0	7.5	5.7	6.4	9.8	7.9	8.8
25	19.6	16.3	17.9	14.4	11.2	12.9	6.5	4.5	5.5	9.3	5.8	7.5
26	18.0	14.2	16.3	14.7	12.5	13.3	6.2	4.3	5.2	9.3	5.8	7.5
27	17.3	14.0	15.7	12.6	6.8	9.5	6.4	4.1	5.3	10.3	7.0	8.6
28	17.0	13.9	15.5	6.8	3.2	4.7	7.6	5.2	6.3	12.7	8.4	10.4
29	16.3	14.0	15.1	4.7	2.9	3.5	6.6	4.9	5.8	15.6	12.0	13.5
30	17.3	13.4	15.3	7.1	3.0	4.8	5.5	3.9	4.6	13.9	9.2	11.4
31	17.2	14.4	15.9	---	---	---	5.2	2.9	3.9	9.2	6.7	8.2
MONTH	24.1	13.4	18.5	22.3	2.9	15.0	17.6	2.9	8.8	15.6	0.3	6.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.3	4.9	6.5	9.3	8.2	8.8	19.6	15.6	17.5	27.2	22.5	24.7
2	7.1	5.0	6.1	9.1	4.4	6.3	18.2	15.0	17.1	26.2	21.4	23.6
3	8.5	6.3	7.2	6.2	2.0	4.1	15.4	12.1	13.9	21.4	19.4	20.1
4	8.4	6.6	7.5	8.4	2.7	5.5	14.2	12.0	13.1	22.7	18.5	20.2
5	7.5	5.7	6.7	11.1	5.8	8.4	16.5	11.4	14.0	25.0	20.3	22.6
6	6.2	5.2	5.7	14.3	8.9	11.4	15.6	13.2	14.3	26.0	23.0	24.5
7	8.0	5.3	6.4	17.5	12.5	15.0	13.2	10.9	11.6	26.5	23.2	24.9
8	9.9	6.4	7.9	17.3	15.9	16.6	12.0	11.1	11.4	25.4	23.0	24.3
9	11.2	8.3	9.5	17.3	12.5	14.2	14.4	12.0	13.0	24.5	21.5	23.2
10	9.8	7.3	8.5	13.9	9.6	11.8	16.1	14.1	15.0	22.8	20.6	21.8
11	8.7	5.5	7.1	13.7	10.9	12.2	17.6	15.3	16.4	25.1	21.0	22.9
12	9.8	6.0	7.7	16.5	11.8	14.0	17.4	16.5	16.9	24.5	20.9	23.3
13	10.4	7.2	8.5	18.2	13.0	15.5	16.6	15.6	15.9	22.7	18.3	20.4
14	9.8	6.9	8.4	20.5	15.0	17.7	18.5	15.9	16.9	23.1	18.9	21.0
15	10.3	8.0	8.9	19.4	14.5	16.5	20.0	18.5	19.2	22.4	20.0	21.1
16	11.3	7.0	9.1	14.7	12.0	13.5	19.8	19.1	19.5	22.6	19.8	21.2
17	12.2	8.3	10.2	15.6	12.9	14.2	21.8	18.9	20.2	22.1	20.7	21.4
18	11.6	9.9	10.8	14.8	14.3	14.6	21.7	20.8	21.4	21.8	18.9	20.3
19	15.1	11.6	13.2	14.5	13.9	14.3	21.3	20.2	20.7	23.3	19.2	21.1
20	15.8	12.2	14.0	14.8	13.1	13.9	20.8	19.5	20.2	24.3	20.0	22.0
21	15.1	13.2	14.0	14.1	11.7	13.2	20.7	19.3	20.1	24.6	20.9	22.6
22	14.9	11.5	13.1	11.8	9.4	10.8	20.6	18.0	19.5	24.0	20.9	22.5
23	14.9	11.4	13.1	13.3	9.7	11.4	20.0	17.9	19.0	23.0	20.7	22.0
24	15.9	12.2	14.0	16.8	12.5	14.5	22.2	18.6	20.3	22.0	20.7	21.4
25	14.8	9.8	12.6	16.2	10.8	13.5	21.2	17.0	18.2	22.8	20.1	21.2
26	9.8	6.5	7.7	13.0	8.7	10.9	17.2	14.3	15.5	27.5	20.7	23.7
27	8.4	4.0	6.2	15.0	10.7	12.7	18.2	14.0	15.7	26.2	23.2	24.5
28	10.1	5.2	7.5	17.4	13.0	15.2	22.0	17.8	19.5	23.9	22.0	22.8
29	---	---	---	19.9	16.1	17.7	24.0	19.8	21.6	24.3	21.4	22.8
30	---	---	---	18.3	15.2	16.6	24.2	21.8	23.1	27.7	23.3	25.1
31	---	---	---	17.8	14.2	15.9	---	---	---	29.1	24.9	27.0
MONTH	15.9	4.0	9.2	20.5	2.0	12.9	24.2	10.9	17.4	29.1	18.3	22.6

07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	30.7	25.5	28.0	27.1	25.4	26.2	34.6	28.2	31.2	32.7	27.0	29.6
2	30.9	26.8	28.9	28.3	24.9	26.3	35.1	29.1	32.2	32.9	27.5	30.0
3	31.0	26.8	28.9	28.9	25.5	27.0	36.0	29.4	32.6	33.0	27.8	30.2
4	30.9	26.9	28.9	30.5	25.9	28.1	35.6	29.6	32.6	33.4	28.2	30.5
5	28.9	23.5	24.9	32.5	27.0	29.6	35.0	29.2	32.0	32.9	28.4	30.5
6	26.7	24.1	25.2	33.0	27.9	30.5	35.2	26.9	31.5	32.7	27.9	30.1
7	27.8	24.7	26.2	34.3	28.7	31.4	34.4	25.3	30.6	31.5	27.4	29.4
8	28.3	25.9	27.0	35.2	29.6	32.4	34.1	28.6	31.4	---	---	---
9	29.7	26.0	27.6	35.9	30.5	33.2	33.7	27.8	30.7	---	---	---
10	29.6	26.7	28.1	36.3	30.5	33.3	32.0	27.4	29.8	---	---	---
11	30.2	26.5	28.3	36.9	30.3	33.1	32.9	25.4	28.5	---	---	---
12	30.6	26.9	28.6	34.9	29.1	31.7	31.5	23.4	27.4	---	---	---
13	29.2	26.0	27.4	34.2	28.7	31.5	31.9	24.9	27.9	30.2	25.8	28.0
14	27.6	24.8	26.1	34.6	29.1	31.7	---	---	---	30.1	25.8	27.7
15	28.3	25.4	26.8	33.4	28.9	31.0	---	---	---	27.3	22.9	25.6
16	27.9	25.2	26.5	31.6	28.5	30.1	29.1	25.7	27.1	28.0	24.0	25.9
17	29.1	25.4	27.1	29.8	27.6	28.8	30.2	26.7	28.3	29.4	24.6	26.8
18	29.0	26.2	27.6	32.6	26.7	29.3	31.9	27.3	29.3	30.5	25.8	27.8
19	29.9	26.2	27.9	33.9	27.9	30.6	32.1	28.1	30.0	28.9	25.5	27.0
20	30.9	27.1	28.9	34.3	28.4	31.1	32.4	28.4	30.3	28.2	22.6	25.1
21	32.3	28.2	30.0	32.7	27.9	29.8	31.8	27.5	29.6	27.6	22.3	24.9
22	32.4	28.6	30.4	34.9	25.8	30.2	33.0	27.7	30.1	25.8	22.0	24.0
23	32.3	27.8	30.1	35.0	28.9	31.8	34.0	28.8	31.1	25.5	20.4	22.8
24	32.1	28.1	30.1	34.6	29.2	31.4	34.6	29.4	31.7	25.3	19.8	22.5
25	32.4	28.0	30.3	34.6	27.2	30.7	32.5	29.6	30.5	26.5	20.1	23.0
26	32.0	28.2	30.1	34.8	28.8	31.7	33.2	27.7	30.0	27.3	21.6	24.4
27	33.4	27.7	30.4	33.9	28.3	30.9	31.2	24.5	27.3	27.8	22.0	24.7
28	33.8	28.6	31.1	32.8	26.6	30.0	28.5	24.9	26.6	28.2	22.7	25.4
29	33.3	29.0	30.9	30.4	26.6	28.4	29.6	26.5	27.8	28.8	23.4	26.0
30	30.1	27.1	28.5	28.5	25.1	27.3	30.5	26.0	28.1	28.3	23.9	26.1
31	---	---	---	32.9	26.2	29.3	31.5	26.2	28.6	---	---	---
MONTH	33.8	23.5	28.4	36.9	24.9	30.3	36.0	23.4	29.8	33.4	19.8	26.7
YEAR	36.9	0.3	18.8									

07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX

LOCATION.--Lat 33°49'08", long 96°33'47", Grayson County, Hydrologic Unit 11140101, on right bank 1,800 ft downstream from Denison Dam powerhouse, 0.4 mi upstream from Shawnee Creek (spillway flow return), 4.5 mi north of Denison, and at mile 725.5.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--39,720 mi^2, of which 5,936 mi^2 is probably noncontributing. At site used prior to October 1961 drainage area was 39,777 mi^2, of which 5,936 mi^2 probably was noncontributing.

PERIOD OF RECORD.--October 1923 to September 1989; December 1996 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1934, published as "near Denison, TX", and October 1934 to September 1961, published as "near Colbert, OK". Gage-height records collected at various sites in this vicinity 1892-93, 1906-28, 1931-49 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 807: 1935 (M). WSP 1211: Drainage area. WSP 1241: 1924-29, 1932-33, 1934 (M), 1935.

GAGE.--Water-stage recorder. Datum of gage is 495.00 ft above National Geodetic Vertical Datum of 1929. Oct. 9, 1923, to Sept. 24, 1934, nonrecording gage, and July 29, 1942, to Sept. 30, 1961, water-stage recorder, at county road bridge 2.5 mi downstream. Prior to Oct. 1, 1931, at datum 11.85 ft higher; Oct. 1, 1931, to Sept 24, 1934, at datum 12.07 ft higher; and July 29, 1942, to Sept. 30, 1961, at datum 2.36 ft higher; Sept. 25, 1934, to July 28, 1942, water-stage recorder at railway bridge 1.9 mi downstream at datum 12.36 ft higher. July 29, 1942 to Sept. 30, 1989, at same site and datum 5.00 ft higher.

REMARKS.--No estimated daily discharge. Records fair except for discharges less than 100 ft^3/s which are poor. Flow regulated since October 1943 by Lake Texoma (station 07331500). U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 26, 1908, reached a stage of 45.5 ft (at site and datum used July 29, 1942, to Sept. 30, 1961); from record of National Weather Service.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1790	2600	210	7030	4610	2010	3950	11100	279	3510	3530	136
2	2030	1040	53	7200	4850	4960	4980	11100	52	3440	3870	4760
3	2020	208	1050	6990	4540	10100	7300	11200	1300	3620	3870	5050
4	2040	51	1290	7120	5410	10900	6240	4820	1560	4170	3870	5030
5	2040	857	1310	636	7850	6060	7250	6370	1930	3940	4030	5200
6	284	1020	1270	60	5480	1340	5770	7120	1550	3410	3720	1440
7	51	1050	1270	5030	5500	1160	5250	7450	1560	5010	3600	192
8	1790	1020	266	5310	4560	1190	2170	3830	313	4570	4390	115
9	2050	980	52	3840	447	3650	333	3750	55	2630	4780	1300
10	2090	203	2310	3230	53	693	5090	5170	1560	3400	4260	5230
11	2280	51	3280	4530	3230	962	10900	3050	1810	3870	4240	4370
12	2010	863	2480	581	3600	1120	13700	2800	1570	4770	4370	4510
13	557	1020	2230	59	2360	1140	17500	2040	1570	3510	3790	4620
14	68	1040	2250	5050	3600	1180	18900	2880	1560	2440	4890	2630
15	1790	1030	305	5840	3550	1150	18900	2700	308	3100	10300	308
16	2040	1030	315	6180	416	230	20700	2440	61	2850	10400	1960
17	2690	209	261	6280	58	53	22600	2380	1270	3600	4480	3330
18	2050	51	70	6540	2740	3180	24900	318	1550	4040	3940	2650
19	4630	849	8060	3010	2580	3660	26800	57	1540	6350	3920	2360
20	312	1020	10800	2310	2380	2190	26900	57	1550	6290	3620	1820
21	53	1030	10800	5820	2380	184	27000	1300	1530	6060	2660	1300
22	4030	1020	7290	6540	4300	2860	22000	592	306	6840	2380	1390
23	3060	1020	6940	6510	2150	455	13300	1880	54	7100	2390	2100
24	2440	173	7370	6540	2800	5000	12000	2310	3740	7090	343	1330
25	2020	53	6710	6710	3530	8810	13700	422	4100	7090	68	1270
26	3360	846	6950	957	5090	11100	13800	54	2940	7400	2430	1250
27	297	1540	6990	63	4710	11200	13700	54	2510	7220	4140	2000
28	53	1070	2570	873	4130	6150	13700	1920	2490	7300	4470	160
29	1790	1010	6570	1030	---	3550	12300	1500	2510	6410	5480	47
30	2040	1020	7010	1770	---	4210	11100	2190	2500	5080	5120	627
31	3550	---	7020	2360	---	3650	---	1160	---	4070	1420	---
TOTAL	57305	24974	115352	125999	96904	114097	402733	104014	45628	150180	124771	68485
MEAN	1849	832.5	3721	4064	3461	3681	13420	3355	1521	4845	4025	2283
MAX	4630	2600	10800	7200	7850	11200	27000	11200	4100	7400	10400	5230
MIN	51	51	52	59	53	53	333	54	52	2440	68	47
AC-FT	113700	49540	228800	249900	192200	226300	798800	206300	90500	297900	247500	135800

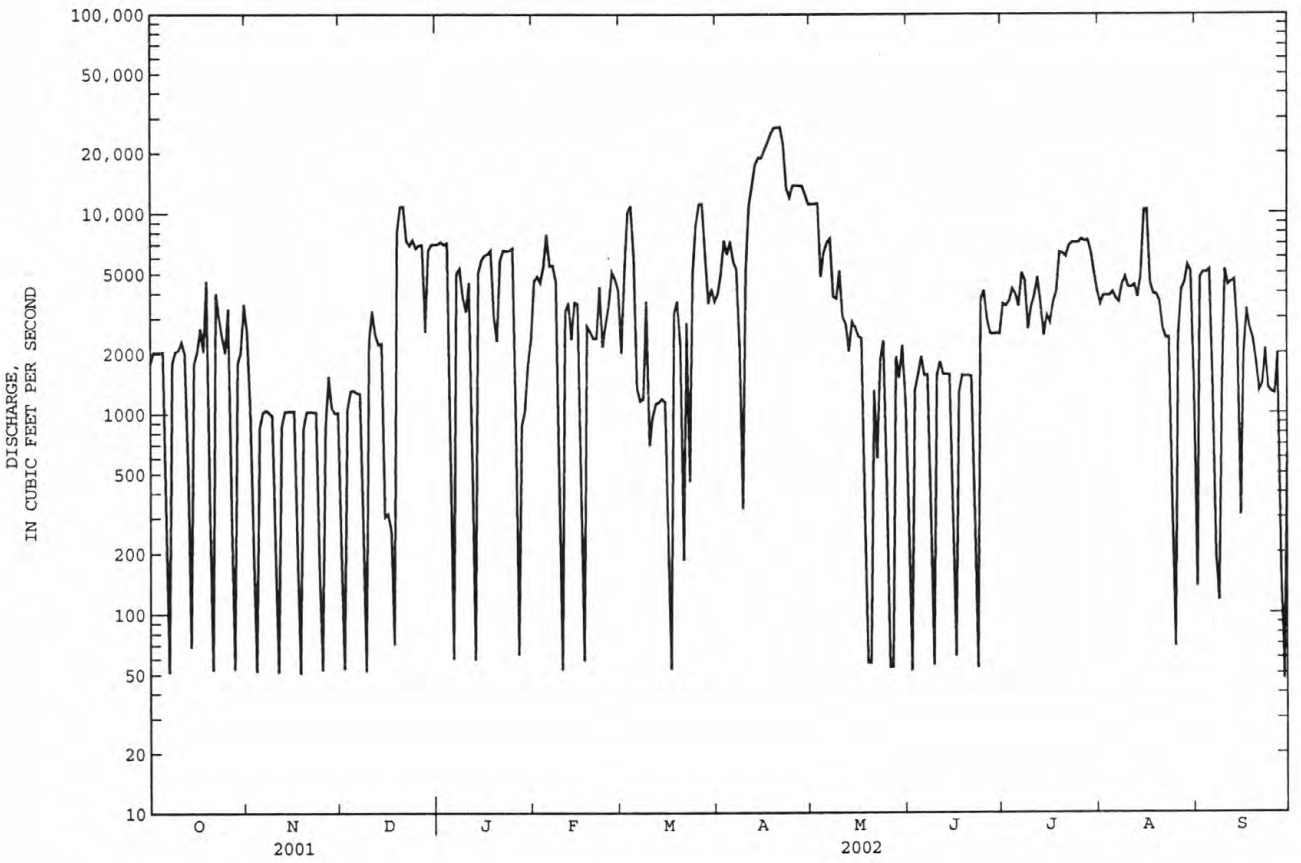
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2002, BY WATER YEAR (WY)

MEAN	4782	3688	3431	3675	3569	4745	5006	7473	11160	5458	3499	2606
MAX	27860	18880	13320	20630	13800	24760	20400	34710	66960	21820	25570	10330
(WY)	1987	1975	1997	1998	1987	1987	1945	1957	1957	1982	1950	1950
MIN	66.7	79.6	569	271	678	614	789	712	1449	1580	953	325
(WY)	1957	1957	1981	1945	1945	1976	1978	1959	1956	1956	1972	1984

07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1945 - 2002	
ANNUAL TOTAL	2373951		1430442			
ANNUAL MEAN	6504		3919		[a]4871	
HIGHEST ANNUAL MEAN					16030	1987
LOWEST ANNUAL MEAN					1510	1964
HIGHEST DAILY MEAN	32800	Mar 11	27000	Apr 21	96200	Jun 5 1957
LOWEST DAILY MEAN	46	Jun 17	47	Sep 29	18	Feb 27 2000
ANNUAL SEVEN-DAY MINIMUM	519	Sep 4	737	Nov 20	25	Mar 8 2000
MAXIMUM PEAK FLOW			27500	Apr 22	[b]102000	Jun 5 1957
MAXIMUM PEAK STAGE			16.24	Apr 22	[c]26.26	Jun 5 1957
ANNUAL RUNOFF (AC-FT)	4709000		2837000		3529000	
10 PERCENT EXCEEDS	11500		7380		10600	
50 PERCENT EXCEEDS	4850		2650		2780	
90 PERCENT EXCEEDS	277		210		190	

[a]Prior to regulation, water years 1924-43, 5,684 ft^3/s.
[b]Maximum discharge for period of record, 201,000 ft^3/s May 21, 1935.
[c]Maximum gage height for period of record, 32.00 ft Apr. 25, 1942, site and datum then in use.



07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1944 to August 1989; October 1996 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1944 to September 1989; February 1997 to current year.
WATER TEMPERATURE: October 1945 to September 1989; February 1997 to current year.

INSTRUMENTATION.--Water-quality monitor February 1997 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,520 microsiemens Aug. 14, 1944; minimum daily, 656 microsiemens Oct. 16, 1945.
WATER TEMPERATURE: Maximum daily, 31.0°C July 17, 1969; minimum daily, 3.0°C Feb. 2-4, 7, 1966.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,140 microsiemens Dec. 15; minimum, 779 microsiemens Aug. 27.
WATER TEMPERATURE: Maximum, 25.8°C Oct. 1, Sept. 11; minimum, 5.0°C Mar. 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	GAGE HEIGHT (FEET) (00065)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (00009)
SEP											
17...	1440	1028	1028	8.11	5380	743	3.7	7.7	1350	25.5	370
17...	1443	1028	1028	8.11	5380	743	3.6	7.6	1340	25.5	330
17...	1446	1028	1028	8.11	5380	743	3.5	7.6	1330	25.4	290
17...	1449	1028	1028	8.11	5380	743	3.1	7.6	1340	25.1	250
17...	1452	1028	1028	8.11	5380	743	2.9	7.6	1340	24.9	210
17...	1455	1028	1028	8.11	5380	743	2.8	7.6	1340	24.8	170
17...	1458	1028	1028	8.11	5380	743	2.8	7.6	1340	24.8	130
17...	1501	1028	1028	8.11	5380	743	2.8	7.6	1330	24.6	90.0
17...	1504	1028	1028	8.11	5380	743	2.8	7.6	1320	24.6	50.0
17...	1507	1028	1028	8.11	5380	743	2.8	7.6	1330	24.6	10.0

Date	Time	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	GAGE HEIGHT (FEET) (00065)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CACO3) (00900)
OCT													
11...	0940	80020	1028	5.44	560	751	85	7.3	8.0	1480	19.0	21.8	350
NOV													
28...	0920	80020	1028	5.06	129	756	87	9.0	8.4	1490	.2	13.0	360
DEC													
27...	1105	80020	1028	10.67	10800	752	88	9.6	8.2	1490	14.2	10.9	380
JAN													
15...	1650	80020	1028	5.59	773	757	99	11.2	7.8	1500	12.1	9.5	360
FEB													
20...	1700	80020	1028	4.99	83	751	149	15.8	8.5	1520	17.2	11.8	340
MAR													
13...	0800	80020	1028	5.15	207	736	105	12.1	8.2	1480	10.1	7.5	370
APR													
09...	2000	80020	1028	5.18	239	750	141	13.6	8.5	1520	24.1	16.0	350
MAY													
08...	1945	80020	1028	10.25	9870	737	87	7.9	7.9	1270	25.1	18.3	310
JUN													
13...	1530	80020	1028	4.98	75	746	104	9.0	7.8	1070	22.4	21.1	370
JUL													
17...	1930	80020	1028	9.08	7370	743	74	6.3	7.9	1280	32.7	21.6	420
AUG													
15...	1500	80020	1028	10.46	10300	754	28	2.3	7.5	1320	33.0	23.6	310
SEP													
17...	1510	80020	1028	8.11	5380	743	39	3.1	7.6	1340	30.6	25.0	300

07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SODIUM ADSORPTION RATIO (00931)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
OCT													
11...	240	86.6	32.2	4.84	4	160	50	111	135	0	241	.3	4.8
NOV													
28...	240	88.5	32.7	5.12	4	170	51	116	134	4	250	.4	3.3
DEC													
27...	260	95.5	33.2	4.60	4	172	50	113	137	0	266	.3	3.6
JAN													
15...	240	86.2	34.0	4.70	4	175	51	115	139	0	254	.3	3.6
FEB													
20...	240	85.3	30.9	4.48	4	163	51	105	124	2	256	.3	3.1
MAR													
13...	260	93.8	33.3	4.62	4	172	50	112	135	1	258	.3	3.9
APR													
09...	230	87.5	31.3	5.00	4	171	51	118	142	1	261	.3	3.5
MAY													
08...	190	80.8	26.6	4.14	4	143	49	122	148	0	221	.2	5.1
JUN													
13...	260	101	27.5	8.64	6	255	60	106	128	0	412	.3	8.1
JUL													
17...	300	122	28.9	8.94	7	353	64	126	154	0	568	.3	12.5
AUG													
15...	190	82.4	24.5	4.65	3	137	49	119	144	0	215	.3	4.7
SEP													
17...	180	74.4	26.6	4.84	4	154	53	115	139	0	231	.3	5.1

Date	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4) (71846)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3) (71851)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2) (71856)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4) (00660)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
OCT													
11...	238	.39	E.03	--	.57	--	--	.18	--	E.004	--	.055	E.03
NOV													
28...	245	.40	<.04	--	.55	--	--	.15	--	<.008	--	--	<.06
DEC													
27...	250	.42	E.04	.13	.57	--	.584	.14	.039	.012	--	--	<.06
JAN													
15...	241	.43	.05	.17	.61	.06	.744	.18	.049	.015	.38	.138	E.04
FEB													
20...	242	.41	E.03	.15	.57	--	.655	.16	.026	.008	--	--	<.06
MAR													
13...	239	.43	.06	--	.62	.08	--	.19	--	E.005	.37	--	<.06
APR													
09...	240	.46	<.04	--	.58	--	--	.12	--	E.005	--	--	<.06
MAY													
08...	201	.40	<.04	--	.70	--	--	.30	--	E.004	--	--	E.04
JUN													
13...	240	.53	E.04	.45	.98	--	1.97	.46	.033	.010	--	.067	E.04
JUL													
17...	302	2.2	E.03	.49	2.7	--	2.15	.50	.049	.015	--	.282	.12
AUG													
15...	177	.68	.23	--	--	.30	--	<.05	--	<.008	.45	.135	E.06
SEP													
17...	181	.81	.28	--	--	.36	--	<.05	--	<.008	.53	.150	.08

07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT 11...	.02	E.04	<10	1.14	1260	835	2	E2	118	114	<8	<.1	<.8
NOV 28...	<.02	E.03	14	1.18	302	866	3	2	125	125	<8	<.1	<.8
DEC 27...	E.01	<.06	<10	1.21	26100	893	E2	E2	129	124	<8	<.1	<.8
JAN 15...	.04	E.05	<10	1.18	1810	869	E1	E2	126	126	<8	<.1	<.8
FEB 20...	<.02	<.06	<10	1.15	190	848	2	2	119	108	<8	<.1	<.8
MAR 13...	<.02	E.04	<10	1.19	488	873	E1	E2	124	117	<8	<.1	<.8
APR 09...	<.02	<.06	<10	1.18	562	871	<2	E1	120	115	<8	<.1	<.8
MAY 08...	E.01	E.04	<10	1.03	20200	756	E1	E1	109	110	<8	<.1	<.8
JUN 13...	.02	E.05	308	1.52	226	1120	4	6	170	230	<8	.3	<.8
JUL 17...	.09	.84	<10	2.01	29300	1480	6	9	134	369	<24	E.1	<.8
AUG 15...	.04	.07	<10	.97	20000	717	3	3	107	106	<8	<.1	<.8
SEP 17...	.05	.12	<10	1.02	10800	746	2	2	120	116	<8	E.1	<.8

Date	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)
OCT 11...	<.8	<6	E.9	<10	60	<.08	<1	4.5	22.2	<.01	<.01	<30	<70
NOV 28...	<.8	<6	E1.0	<10	80	E.07	M	<2.0	26.5	<.01	E.01	<30	<70
DEC 27...	<.8	<6	E1.0	<10	60	.09	M	E.9	13.1	<.01	<.02	<30	<70
JAN 15...	<.8	<6	1.3	<10	40	<.08	<1	E1.6	15.3	E.01	.01	<30	<70
FEB 20...	<.8	<6	E1.2	<10	20	.19	<1	E1.8	7.7	.02	<.01	<30	<70
MAR 13...	<.8	<6	E.9	<10	30	.14	<1	E2.0	12.6	<.01	E.01	<30	<70
APR 09...	<.8	<6	1.5	<10	80	E.05	<1	3.8	14.8	<.01	<.01	<30	<70
MAY 08...	<.8	<6	1.9	<10	110	E.07	<1	3.6	18.1	<.01	<.01	<30	<70
JUN 13...	4.1	11	10.4	E6	3390	1.48	5	5.9	250	<.01	.02	<30	<70
JUL 17...	9.6	E10	19.8	<30	9500	.31	12	6.7	705	<.01	.02	<90	E40
AUG 15...	<.8	<6	E.8	13	40	E.05	<1	306	282	<.01	E.01	<30	E40
SEP 17...	<.8	<6	4.3	<10	60	.13	M	316	331	E.01	E.01	<30	<70

07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, DISSOLVED (UG/L AS AG) (01075)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ALDRIN, TOTAL (UG/L) (39330)	ALPHA BHC TOTAL (UG/L) (39337)	ALPHA-HCH-D6 SUR SCD 1608 WATER UNFLTRD PERCENT (99778)	AROCLOR 1016/ 1242 PCB WATER UNFLTRD (UG/L) (81648)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)
OCT													
11...	E1	<2	<.1	<.3	<24	<20	--	--	--	--	--	--	--
NOV													
28...	<2	E1	<.2	<.3	<24	<20	--	--	--	--	--	--	--
DEC													
27...	E1	<2	<.2	<.3	<24	<20	--	--	--	--	--	--	--
JAN													
15...	E1	E1	<.2	<.3	<24	<20	--	--	--	--	--	--	--
FEB													
20...	E1	E1	<.1	<.3	<24	<20	--	--	--	--	--	--	--
MAR													
13...	<2	<2	<.1	<.3	<24	<20	<.04	<.03	92.4	<.1	<1	<.1	<.1
APR													
09...	<2	E1	<.1	<.3	<24	<20	--	--	--	--	--	--	--
MAY													
08...	<2	<2	<.1	<.3	<24	<20	--	--	--	--	--	--	--
JUN													
13...	<2	<2	<.4	<.3	33	40	--	--	--	--	--	--	--
JUL													
17...	2	<2	<.2	<.3	<72	50	--	--	--	--	--	--	--
AUG													
15...	E2	<2	<.1	<.3	<24	E20	--	--	--	--	--	--	--
SEP													
17...	<2	<2	<.2	<.3	<24	E30	<.04	<.03	118	<.1	<1	<.1	<.1

Date	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	BETA BENZENE HEXA-CHLOR-IDE TOTAL (UG/L) (39338)	CHLORDANE CIS WATER WHOLE TOTAL (UG/L) (39062)	CHLORDANE, TECHNICAL TOTAL (UG/L) (39350)	CHLORDANE TRANS WATER WHOLE TOTAL (UG/L) (39065)	DELTA BENZENE HEXA-CHLOR-IDE TOTAL (UG/L) (34259)	DIELDRIN TOTAL (UG/L) (39380)	ENDOSULFAN-I WATER WHOLE REC (UG/L) (34361)	ENDOSULFAN II TOTAL (UG/L) (34356)	ENDOSULFAN SULFATE TOTAL (UG/L) (34351)	ENDRIN ALDEHYDE TOTAL (UG/L) (34366)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)
OCT													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.1	<.1	<.03	<.1	<.1	<.1	<.09	<.02	<.1	<.04	<.6	<.2	<.06
APR													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
17...	<.1	<.1	<.03	<.1	<.1	<.1	<.09	<.02	<.1	<.04	<.6	<.2	<.06

07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	ISODRIN SUR SCD 1608 WTR, UNFLTRD PERCENT (90570)	LINDANE TOTAL (UG/L) (39340)	PCB 207 SUR SCD 1608 WATER UNFLTRD PERCENT (99781)	P,P' DDD, TOTAL (UG/L) (39310)	P,P' DDE, TOTAL (UG/L) (39320)	P,P' DDT, TOTAL (UG/L) (39300)	TOX-APHENE, TOTAL (UG/L) (39400)
OCT 11...	--	--	--	--	--	--	--	--	--
NOV 28...	--	--	--	--	--	--	--	--	--
DEC 27...	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--
MAR 13...	<.8	<.03	75.9	<.03	51.5	<.1	<.04	<.1	<2
APR 09...	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--	--	--	--
SEP 17...	<.8	<.03	72.2	<.03	106	<.1	<.04	<.1	<2

SPECIFIC CONDUCTANCE VIA SATELLITE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1660	1500	1560	1490	1460	1490	1550	1540	1540	1490	1480	1480
2	1540	1510	1530	1490	1460	1480	1550	1530	1540	1480	1480	1480
3	1540	1500	1520	1500	1460	1480	1540	1510	1530	1500	1480	1490
4	1530	1500	1520	1500	1470	1480	1530	1520	1530	1500	1480	1490
5	1520	1520	1520	1500	1460	1490	1530	1510	1520	1490	1420	1450
6	1640	1500	1540	1510	1470	1500	1520	1510	1510	1480	1460	1470
7	1640	1500	1570	1540	1500	1520	1510	1500	1510	1510	1480	1490
8	1660	1510	1610	1580	1530	1560	1510	1490	1500	1510	1490	1500
9	1650	1510	1530	1580	1520	1550	1510	1500	1500	1500	1490	1500
10	1520	1490	1510	1530	1510	1520	1510	1500	1500	1500	1480	1490
11	1510	1420	1480	1520	1500	1510	1900	1510	1610	1500	1490	1490
12	1620	1470	1530	1520	1500	1510	2000	1590	1680	1500	1460	1480
13	1610	1470	1520	1530	1510	1520	1860	1580	1670	1490	1470	1490
14	1610	1480	1560	1530	1500	1520	1920	1580	1680	1500	1490	1500
15	1610	1500	1570	1530	1500	1520	2140	1650	2000	1500	1490	1500
16	1610	1500	1570	1530	1500	1520	1990	1840	1920	1490	1480	1490
17	1620	1520	1560	1540	1510	1520	1970	1530	1660	1490	1480	1490
18	1610	1500	1560	1530	1520	1520	1840	1520	1680	1490	1480	1490
19	1610	1520	1540	1530	1510	1530	1840	1500	1580	1490	1470	1490
20	1590	1490	1520	1530	1510	1530	1510	1500	1500	1500	1470	1490
21	1530	1490	1510	1540	1510	1530	1510	1500	1500	1500	1490	1500
22	1520	1510	1510	1540	1520	1530	1500	1500	1500	1500	1490	1500
23	1510	1440	1480	1540	1530	1540	1510	1500	1500	1500	1500	1500
24	1460	1420	1450	1550	1530	1540	1500	1490	1500	1500	1490	1500
25	1480	1430	1460	1550	1530	1540	1500	1480	1490	1500	1500	1500
26	1480	1440	1460	1550	1530	1540	1490	1480	1490	1500	1490	1500
27	1480	1450	1470	1550	1540	1550	1490	1470	1480	1510	1490	1500
28	1500	1450	1480	1550	1510	1540	1490	1470	1480	1510	1500	1500
29	1500	1460	1480	1550	1530	1550	1490	1460	1480	1520	1500	1510
30	1500	1450	1480	1550	1540	1550	1490	1480	1480	1520	1500	1510
31	1500	1480	1490	---	---	---	1490	1480	1480	1510	1240	1430
MONTH	1660	1420	1520	1580	1460	1520	2140	1460	1570	1520	1240	1490

07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX--Continued

SPECIFIC CONDUCTANCE VIA SATELLITE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1510	1500	1510	1530	1500	1520	1530	1260	1510	1480	1300	1400
2	1510	1500	1510	1520	1510	1520	1530	1510	1520	1330	1240	1280
3	1510	1510	1510	1530	1520	1520	1530	1530	1530	1260	1240	1250
4	1510	1510	1510	1530	1520	1520	1530	1440	1510	1350	1260	1290
5	1520	1500	1510	1540	1520	1520	1510	1490	1500	1370	1280	1300
6	1510	1490	1510	1530	1520	1530	1540	1470	1500	1340	1270	1290
7	1510	1500	1510	1540	1500	1520	1530	1000	1410	1340	1270	1290
8	1510	1500	1510	1540	1500	1520	1520	1460	1480	1400	1260	1320
9	1510	1490	1500	1520	1430	1450	1530	1510	1520	1400	1260	1320
10	1530	1490	1510	1490	1340	1420	1530	1500	1520	1380	1270	1310
11	1530	1500	1520	1350	1300	1320	1520	1510	1510	1390	1280	1330
12	1530	1500	1520	1500	1310	1380	1520	1500	1510	1390	1280	1330
13	1530	1510	1520	1490	1460	1480	1510	1480	1500	1550	1280	1410
14	1530	1520	1530	1500	1450	1480	1500	1500	1500	1380	1280	1320
15	1530	1520	1530	1500	1440	1470	1510	1500	1510	1380	1280	1330
16	1530	1510	1520	1500	1440	1480	1540	1510	1520	1430	1270	1340
17	1530	1520	1530	1500	1440	1480	1520	1490	1500	1510	1280	1380
18	1540	1520	1530	1480	1240	1390	1500	1480	1490	1540	1280	1380
19	1540	1420	1500	1490	1210	1370	1500	1440	1460	1370	1370	1370
20	1540	1520	1520	1410	1270	1370	1450	1430	1440	1380	1360	1370
21	1520	1460	1500	1400	1340	1370	1450	1400	1430	1370	1270	1360
22	1550	1480	1510	1360	1340	1350	---	---	e1450	1370	1300	1330
23	1550	1520	1540	1350	1230	1310	---	---	e1460	1370	1270	1340
24	1520	1500	1510	1440	1190	1260	---	---	e1490	1360	1270	1310
25	1530	1500	1520	1320	1160	1270	1460	1440	1440	1360	1280	1330
26	1530	1520	1520	1170	1160	1160	1480	1450	1470	1500	1340	1370
27	1530	1520	1520	1300	1160	1290	1520	1480	1500	1510	1340	1360
28	1530	1520	1520	1290	1150	1280	1520	1460	1490	1370	1250	1330
29	---	---	---	1400	1140	1270	1470	1450	1460	1340	1260	1300
30	---	---	---	1530	1270	1500	1500	1430	1460	1340	1240	1300
31	---	---	---	1540	1400	1500	---	---	---	1340	1260	1310
MONTH	1550	1420	1520	1540	1140	1410	1540	1000	1490	1550	1240	1330

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1350	1280	1320	1340	1290	1310	1300	1270	1290	1310	1280	1300
2	1360	1340	1350	1330	1280	1310	1300	1280	1290	1310	1290	1300
3	1350	1280	1330	1330	1280	1300	1300	1280	1290	1300	1290	1300
4	1330	1270	1300	1320	1290	1300	1300	1280	1290	1310	1290	1300
5	1470	1280	1370	1330	1280	1300	1300	1280	1280	1310	1290	1300
6	1410	1260	1320	1320	1280	1300	1310	1280	1290	1310	1280	1300
7	1440	1260	1320	1310	1270	1290	1300	1280	1290	1310	1280	1290
8	1490	1400	1450	1320	1280	1290	1300	1280	1290	1290	1030	1230
9	1480	1460	1470	1330	1290	1300	1300	1290	1290	1320	1280	1290
10	1470	1370	1440	1350	1260	1300	1310	1290	1290	1340	1290	1320
11	1450	1330	1400	1320	1280	1300	1300	1290	1290	1350	1300	1320
12	1420	1360	1390	1320	1280	1290	1310	1290	1300	1340	1290	1320
13	---	---	e1100	1310	1280	1290	1310	1290	1300	1380	1330	1370
14	---	---	e1130	1310	1280	1290	1340	1180	1280	1410	1310	1370
15	---	---	e1160	1320	1280	1290	1330	1320	1330	1400	1350	1360
16	---	---	e1190	1330	1280	1290	1340	1320	1330	1410	1340	1370
17	---	---	e1210	1300	1250	1280	1350	1320	1330	1400	1340	1360
18	---	---	e1240	1310	1280	1290	1340	1310	1330	1340	1320	1330
19	---	---	e1270	1310	1290	1300	1330	1310	1320	1350	1300	1330
20	---	---	e1290	1320	1290	1300	1330	1310	1320	1350	1300	1330
21	1350	1300	1330	1320	1300	1300	1330	1300	1310	1350	1300	1320
22	1360	1310	1340	1300	1290	1300	1320	1300	1310	1360	1290	1320
23	1360	1350	1360	1300	1290	1300	1320	1290	1300	1520	1300	1380
24	1360	1290	1330	1300	1290	1290	1310	1280	1290	1540	1410	1470
25	1350	1280	1310	1310	1280	1290	1290	1240	1280	1510	1420	1460
26	1380	1290	1320	1300	1280	1290	1290	1270	1280	1480	1330	1420
27	1350	1290	1320	1300	1280	1290	1290	779	1190	1340	1290	1320
28	1340	1290	1320	1290	1280	1280	1310	1280	1300	1330	1280	1300
29	1340	1290	1320	1300	1280	1280	1310	1300	1310	1300	1280	1290
30	1340	1290	1310	1310	1280	1290	1310	1300	1300	1330	1280	1300
31	---	---	---	1300	1280	1290	1320	1300	1310	---	---	---
MONTH	1490	1260	1310	1350	1250	1290	1350	779	1300	1540	1030	1330
YEAR	2140	779	1420									

e Estimated

07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX--Continued

WATER TEMPERATURE VIA SATELLITE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.8	21.1	22.9	20.4	18.8	19.2	15.8	12.9	14.2	10.1	9.5	9.8
2	25.0	21.7	23.3	21.4	19.1	19.7	15.8	12.5	14.1	9.5	9.0	9.4
3	25.1	22.0	23.3	21.6	18.6	19.8	14.6	13.7	14.0	9.5	8.3	9.0
4	25.5	22.5	23.5	20.5	18.7	19.5	15.6	13.9	14.5	9.0	8.2	8.8
5	23.4	22.3	23.0	21.3	18.1	19.2	15.4	13.8	14.4	9.0	8.1	8.6
6	24.0	20.5	22.1	21.0	17.7	19.1	15.4	13.6	14.2	10.5	7.3	8.4
7	24.1	19.9	21.6	20.5	17.7	18.9	15.9	13.7	14.5	9.6	7.0	8.3
8	22.9	20.0	21.4	21.0	18.0	19.2	14.2	12.2	13.1	9.8	7.9	8.6
9	22.5	21.3	22.0	19.0	17.6	18.2	14.5	11.9	12.9	10.1	8.4	8.8
10	23.0	21.9	22.3	20.2	17.3	18.6	14.4	11.5	13.3	9.5	8.5	8.8
11	22.2	20.9	21.7	20.1	17.3	18.6	13.4	12.4	13.1	10.4	8.2	8.8
12	23.9	20.6	21.7	19.3	18.1	18.6	13.6	12.8	13.2	10.5	7.6	8.8
13	21.7	20.1	21.1	19.6	18.2	18.7	13.1	12.2	12.8	10.3	7.1	8.6
14	23.9	19.4	21.1	19.8	18.0	18.6	13.6	11.6	12.7	10.1	7.7	8.6
15	23.2	19.5	20.9	19.7	17.6	18.5	12.5	11.7	12.0	9.6	7.8	8.8
16	22.4	19.0	20.7	19.0	18.0	18.4	12.6	11.7	12.2	11.0	9.0	9.5
17	21.3	19.0	20.4	19.6	18.0	18.6	13.9	11.5	12.5	9.4	9.0	9.2
18	22.3	18.9	20.4	19.4	17.5	18.4	13.7	10.5	12.0	9.2	8.8	9.0
19	21.0	19.7	20.6	18.2	17.1	17.7	12.5	10.6	12.1	10.8	8.3	9.0
20	23.0	19.9	21.2	18.6	15.6	17.1	12.4	12.3	12.3	10.3	7.9	8.7
21	23.1	19.4	21.0	18.4	15.4	16.9	12.3	12.2	12.2	10.1	8.2	8.9
22	20.8	19.8	20.5	18.6	15.6	17.1	12.7	12.0	12.2	9.6	8.5	8.8
23	21.9	20.4	20.7	18.6	16.7	17.5	12.0	11.2	11.8	10.4	8.8	9.1
24	22.4	20.1	20.6	17.4	15.1	16.1	11.7	10.7	11.4	9.7	8.8	9.1
25	22.0	18.2	19.8	18.1	15.1	16.3	11.7	10.7	11.3	10.9	8.6	9.2
26	21.4	18.4	20.0	18.1	15.7	16.7	11.4	10.2	11.0	10.9	8.0	9.2
27	21.3	18.0	19.5	16.1	14.4	15.1	11.6	10.2	11.0	10.7	7.9	9.3
28	21.0	17.6	19.0	15.5	12.7	14.0	11.6	10.4	11.0	11.6	8.8	9.6
29	20.2	17.6	18.8	14.5	12.5	13.4	11.1	9.5	10.7	11.1	9.1	9.9
30	21.2	17.6	19.0	15.4	12.7	14.0	10.7	10.0	10.4	9.3	8.9	9.1
31	19.4	17.8	18.9	---	---	---	10.7	9.7	10.2	9.6	8.4	9.0
MONTH	25.8	17.6	21.1	21.6	12.5	17.7	15.9	9.5	12.5	11.6	7.0	9.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.6	8.0	9.1	8.0	7.4	7.6	14.1	10.8	11.6	17.7	16.8	17.3
2	9.4	8.2	8.9	7.7	5.0	6.5	13.0	10.8	11.4	19.8	17.7	18.7
3	10.0	8.8	9.2	7.0	5.6	6.7	11.5	9.9	11.1	19.6	18.7	19.2
4	10.0	8.7	9.2	7.1	6.7	6.8	13.0	11.0	11.6	19.2	16.2	17.8
5	9.0	8.6	8.9	8.8	6.4	7.2	12.0	10.7	11.6	18.2	15.9	17.5
6	9.1	8.6	8.8	9.7	6.5	7.5	11.8	11.5	11.6	18.0	17.0	17.7
7	10.0	8.6	9.0	9.7	6.8	7.7	11.5	11.2	11.3	18.3	16.8	17.8
8	10.7	8.3	9.0	8.9	7.2	7.8	14.2	11.3	12.1	18.5	17.3	18.0
9	11.6	8.3	9.4	8.2	5.6	7.2	16.0	11.4	13.6	20.3	16.7	18.6
10	9.5	7.6	8.4	10.0	6.3	7.9	15.0	12.9	13.5	20.0	17.2	18.8
11	11.1	6.9	8.8	7.7	6.9	7.2	13.6	13.2	13.3	19.2	17.0	18.3
12	11.2	8.0	9.2	10.3	6.8	8.2	13.6	13.2	13.4	19.6	17.1	18.2
13	11.2	7.9	9.1	12.2	8.1	9.4	14.7	13.6	14.1	20.6	15.4	18.3
14	10.4	7.9	8.9	12.6	8.9	9.9	14.2	13.8	14.0	20.7	16.6	18.7
15	10.6	8.5	9.1	10.9	9.3	9.8	14.0	13.4	13.7	20.0	16.9	18.7
16	12.5	7.8	9.6	11.6	8.3	9.8	13.7	13.2	13.4	20.0	17.4	18.9
17	11.8	7.9	9.5	12.0	9.5	10.5	14.2	13.4	13.8	20.9	17.1	18.9
18	10.0	8.2	9.1	10.7	9.4	10.1	14.6	14.0	14.4	20.8	17.0	18.9
19	12.1	9.0	10.1	10.6	9.4	9.9	15.2	14.2	14.9	20.3	15.5	17.9
20	11.9	8.5	9.7	11.9	9.8	10.5	15.6	15.1	15.3	20.4	15.8	18.0
21	10.2	8.1	8.7	13.8	8.8	10.7	16.6	15.1	15.7	20.3	16.0	18.3
22	11.0	7.7	8.7	12.8	8.0	9.8	---	---	---	21.1	17.7	19.2
23	10.8	7.4	8.7	13.3	9.2	11.0	---	---	---	19.8	17.1	18.5
24	10.9	7.8	8.8	11.4	10.1	10.5	---	---	---	20.2	17.9	19.0
25	10.2	8.1	8.6	10.5	10.2	10.4	18.0	17.2	17.7	21.2	17.9	19.4
26	8.3	6.9	7.7	10.5	10.0	10.2	17.5	16.0	16.6	21.6	17.1	18.9
27	9.7	6.7	7.9	10.3	10.0	10.2	16.8	15.6	16.0	19.0	17.4	18.2
28	9.4	6.7	7.8	11.3	9.8	10.3	17.6	15.6	17.0	20.9	17.0	18.5
29	---	---	---	14.4	10.4	11.4	17.7	17.2	17.5	21.6	18.2	19.6
30	---	---	---	11.1	10.2	10.5	17.8	16.5	17.3	21.5	18.2	19.9
31	---	---	---	14.0	10.2	11.4	---	---	---	21.9	18.2	20.0
MONTH	12.5	6.7	8.9	14.4	5.0	9.2	18.0	9.9	14.0	21.9	15.4	18.6

07331600 RED RIVER AT DENISON DAM NEAR DENISON, TX--Continued

WATER TEMPERATURE VIA SATELLITE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	17.9	19.6	22.4	19.7	20.9	23.2	20.3	21.5	24.6	20.6	22.4
2	22.1	17.2	19.3	22.3	19.6	20.7	23.5	20.8	21.8	25.0	20.2	23.0
3	22.3	17.8	19.4	22.3	19.7	20.8	23.5	20.6	21.7	25.2	21.2	23.8
4	21.5	18.7	19.7	22.2	20.1	21.0	23.2	20.8	21.7	25.2	21.5	23.9
5	21.0	18.4	19.7	22.0	20.2	21.1	23.6	20.7	21.8	25.3	21.4	23.8
6	22.3	18.6	20.0	22.7	19.6	21.1	23.9	20.4	22.1	25.5	21.8	23.5
7	22.3	18.8	20.1	22.7	20.3	21.7	24.1	20.4	22.0	24.2	20.7	22.5
8	21.0	18.8	20.0	22.7	20.1	21.6	23.6	21.2	22.3	22.1	20.8	21.3
9	22.1	18.5	20.2	22.1	20.1	21.1	23.9	21.0	22.3	23.6	20.5	21.9
10	22.3	19.1	20.1	22.8	20.0	21.2	23.4	21.0	22.0	25.5	20.6	23.5
11	22.6	19.4	20.3	22.8	19.8	21.2	23.4	21.1	22.2	25.8	21.9	24.2
12	22.6	19.4	20.4	22.7	20.4	21.4	23.7	20.9	22.2	25.5	21.4	23.8
13	---	---	---	21.8	20.5	21.2	23.7	21.3	22.3	24.5	19.8	22.1
14	---	---	---	22.7	20.5	21.2	24.9	20.8	22.7	23.2	20.0	21.8
15	---	---	---	22.6	19.9	20.8	24.7	23.5	24.0	21.8	19.0	20.3
16	---	---	---	22.5	20.3	21.2	24.1	23.7	23.9	22.2	18.2	20.1
17	---	---	---	22.8	20.4	21.5	24.1	21.7	23.0	25.5	18.6	21.9
18	---	---	---	22.0	19.5	20.6	24.2	21.1	22.6	23.9	21.5	22.9
19	---	---	---	21.7	19.6	20.9	24.5	21.1	22.7	24.6	21.1	23.0
20	---	---	---	21.5	19.5	20.7	24.0	20.8	22.3	24.1	20.1	22.4
21	22.8	19.2	20.5	21.4	19.4	20.6	22.7	20.9	21.9	24.5	20.0	22.5
22	22.8	19.1	20.7	21.9	19.7	21.0	23.4	20.9	22.2	24.3	20.1	22.5
23	23.5	18.4	20.5	22.2	20.2	21.6	23.6	21.1	22.2	24.5	19.3	21.5
24	22.3	18.7	20.5	23.1	20.1	21.8	23.5	21.0	22.2	20.1	16.7	18.3
25	22.9	19.7	21.2	23.1	20.5	22.0	22.7	20.2	21.3	20.0	16.2	18.1
26	23.7	19.6	21.1	22.5	19.9	21.7	24.9	20.2	22.1	24.3	17.1	19.7
27	22.9	19.4	21.0	22.4	20.4	21.7	25.6	21.3	23.3	24.7	20.8	23.0
28	23.0	19.6	21.2	22.7	20.7	21.7	24.8	14.2	21.2	24.7	20.9	22.7
29	22.6	19.6	20.9	23.8	21.1	22.5	25.1	13.9	22.4	24.2	20.6	22.3
30	22.1	19.7	20.7	23.6	20.4	22.1	25.0	21.0	23.4	24.4	20.7	22.5
31	---	---	---	23.0	20.8	21.9	24.3	21.4	23.0	---	---	---
MONTH	23.7	17.2	20.3	23.8	19.4	21.3	25.6	13.9	22.3	25.8	16.2	22.2
YEAR	25.8	5.0	16.4									

07332500 BLUE RIVER NEAR BLUE, OK

LOCATION.--Lat 33°59'49", long 96°14'27", on line between sec.27 and 34, T.6 S., R.10 E., Bryan County, Hydrologic Unit 11140102, on left bank on downstream side near end of bridge on U.S. Highway 70, 1.0 mi west of Blue, 7.0 mi east of Durant, 7.7 mi upstream from Caddo Creek, and at mile 38.8.

DRAINAGE AREA.--476 mi^2.

PERIOD OF RECORD.--June 1936 to current year. Monthly discharge only for some periods, published in WSP 1311, 1731.

REVISED RECORDS.--WSP 957: 1938. WSP 1241: 1936, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 500.60 ft above sea level. Prior to Oct. 1, 1988, at datum 3.00 ft higher. Prior to Mar. 13, 1945, nonrecording gage and Mar. 13, 1945, to Feb. 2, 1960, water-stage recorder at site 1.2 mi downstream at datum 5.00 ft lower.

REMARKS.--No estimated daily discharge. Records good. Some regulation at low flow by a State fish hatchery, 16.0 mi upstream from station. Small diversion for municipal water supply for city of Durant upstream from station. U.S. Army Corps of Engineers' satellite telemeter at station. No flow also occurred Aug. 4, 1936, result of regulation at fish hatchery, and no flow Sept. 19 to Oct. 16, 1956.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 11	2230	5,520	19.24	Mar 20	1030	14,200	27.86
Oct 13	0830	5,900	19.78	Apr 8	1030	23,900	33.55
Dec 18	0300	8,130	22.48	Apr 14	0800	4,020	16.83
Feb 19	1730	4,970	18.40	Aug 15	1630	7,660	21.96

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	92	85	144	704	111	438	260	171	110	80	77
2	80	92	83	140	264	115	299	246	158	295	63	71
3	77	93	81	136	187	127	249	231	150	427	59	68
4	75	93	79	134	159	124	220	222	147	204	57	64
5	73	96	78	151	152	116	205	217	246	151	54	62
6	72	94	77	198	299	116	203	235	754	127	52	60
7	72	89	76	184	528	114	5500	228	492	110	53	59
8	70	85	74	158	325	115	19900	221	244	101	53	80
9	64	84	70	146	226	112	12600	211	222	104	50	651
10	69	86	67	141	182	107	2410	204	244	93	49	1030
11	2720	82	68	137	152	101	773	197	187	89	50	271
12	3870	81	73	131	138	100	599	194	169	86	66	156
13	4520	81	80	127	131	101	1430	207	487	86	59	116
14	1850	80	87	124	127	100	3940	234	623	93	1960	96
15	429	80	91	121	122	98	2090	249	244	89	6760	88
16	259	79	1800	118	119	94	775	197	179	79	1800	92
17	199	78	7480	115	115	90	612	587	185	77	238	99
18	171	78	5930	114	113	228	567	564	164	80	165	86
19	150	77	699	112	2110	9450	459	308	141	78	132	81
20	140	76	395	113	1020	13300	408	231	129	75	112	84
21	131	75	307	112	328	7450	376	198	121	70	100	88
22	124	74	265	111	210	936	347	188	117	66	91	76
23	119	75	239	107	169	524	320	181	111	68	85	70
24	116	79	214	135	150	415	300	173	107	68	80	67
25	111	80	194	176	137	363	286	170	105	71	80	66
26	104	77	185	142	124	339	314	168	103	71	95	65
27	100	74	177	122	115	325	434	170	101	69	101	64
28	97	80	170	115	110	281	391	181	132	65	176	63
29	95	97	165	112	---	261	318	191	115	63	160	62
30	93	92	156	113	---	291	277	188	100	65	116	60
31	93	---	149	1580	---	590	---	215	---	73	88	---
TOTAL	16228	2499	19694	5569	8516	36594	57040	7266	6448	3303	13084	4072
MEAN	523.5	83.30	635.3	179.6	304.1	1180	1901	234.4	214.9	106.5	422.1	135.7
MAX	4520	97	7480	1580	2110	13300	19900	587	754	427	6760	1030
MIN	64	74	67	107	110	90	203	168	100	63	49	59
AC-FT	32190	4960	39060	11050	16890	72580	113100	14410	12790	6550	25950	8080

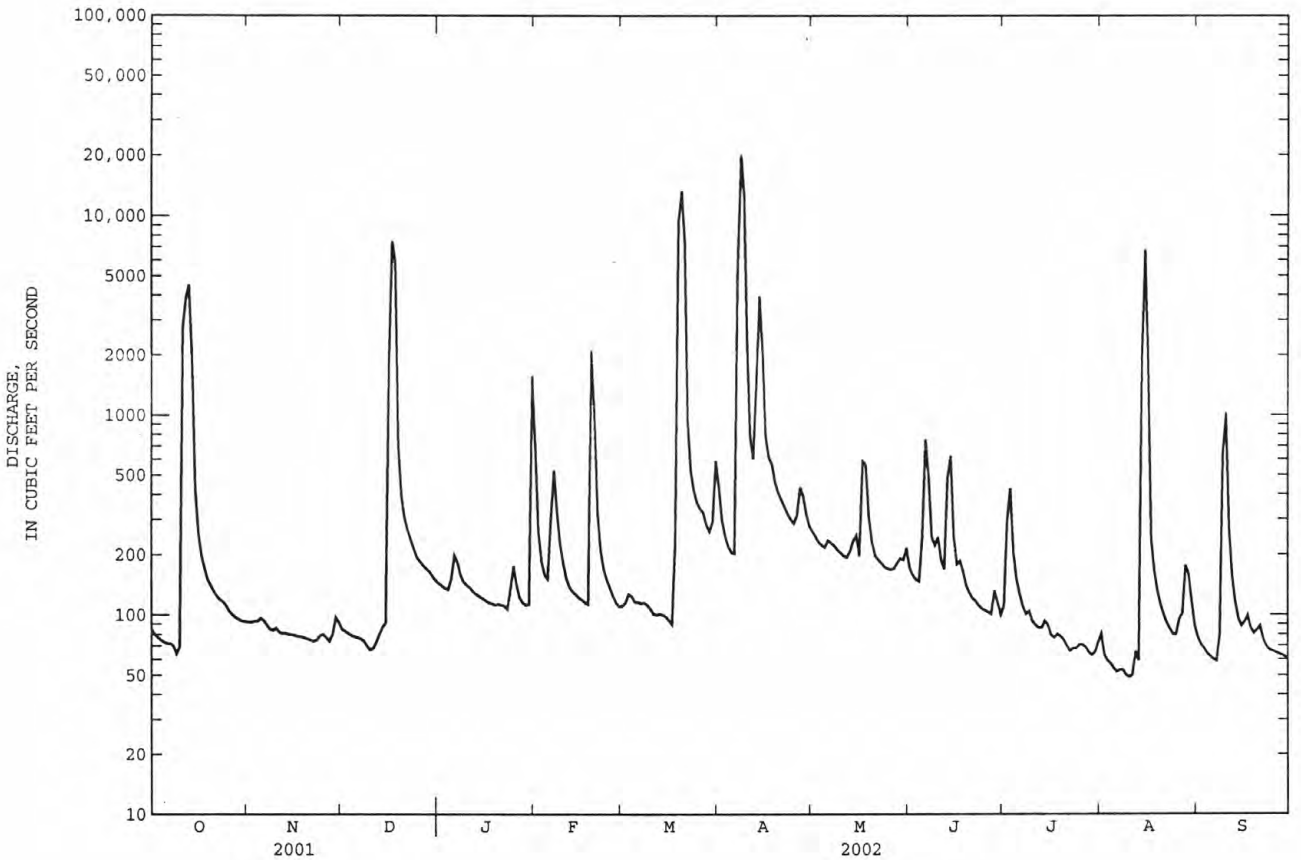
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2002, BY WATER YEAR (WY)

MEAN	245.5	271.4	271.4	237.4	393.2	472.9	591.2	623.9	420.7	145.8	81.81	162.6
MAX	3613	1813	1384	1291	2156	3089	3846	2953	2510	780	755	1501
(WY)	1982	1997	1972	1998	1938	1945	1990	1990	1945	1950	1950	1957
MIN	4.37	11.3	17.8	18.1	27.0	22.8	51.5	33.2	24.2	5.23	0.94	0.42
(WY)	1940	1940	1940	1940	1967	1940	1956	1939	1939	1956	1956	1956

07332500 BLUE RIVER NEAR BLUE, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1936 - 2002	
ANNUAL TOTAL	172574		180313			
ANNUAL MEAN	472.8		494.0		326.2	
HIGHEST ANNUAL MEAN					972	1945
LOWEST ANNUAL MEAN					30.8	1956
HIGHEST DAILY MEAN	10100	Feb 17	19900	Apr 8	45500	Oct 14 1981
LOWEST DAILY MEAN	24	Aug 25	49	Aug 10	[a]0.00	Aug 3 1936
ANNUAL SEVEN-DAY MINIMUM	26	Aug 3	52	Aug 5	0.00	Sep 19 1956
MAXIMUM PEAK FLOW			23900	Apr 8	65200	Oct 14 1981
MAXIMUM PEAK STAGE			33.55	Apr 8	[b]44.20	Oct 14 1981
INSTANTANEOUS LOW FLOW			49	Aug 10		
ANNUAL RUNOFF (AC-FT)	342300		357700		236300	
10 PERCENT EXCEEDS	724		575		542	
50 PERCENT EXCEEDS	154		124		89	
90 PERCENT EXCEEDS	42		70		28	

[a]Result of regulation at fish hatchery and no flow Sept. 19 to Oct. 16, 1956.
[b]From high-water mark.



07333010 ATOKA RESERVOIR NEAR STRINGTOWN, OK.

LOCATION.--Lat 34°26'43", long 96°05'00", in NW $^1/_4$ NE $^1/_4$ sec.30, T.1 S., R.12 E., Atoka County, Hydrologic Unit 11140103, in intake tower on north side of dam on North Boggy Creek, 2.2 mi southwest of Stringtown and at mile 7.4.

DRAINAGE AREA.--172 mi^2 (City of Oklahoma City).

PERIOD OF RECORD.--October 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthen dam, construction completed 1960. Top of dam 602.5 ft, contents 225,000 acre-ft, emergency spillway elevation is 590.00 ft, contents 123,500 acre-ft, normal pool. Figures herein represent total contents. Reservoir is used for water supply. U.S. Geological Survey satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 148,900 acre-ft, Apr. 8, 2002, elevation 594.14 ft; minimum, 81,600 acre-ft, Oct. 20, 25, 26, 2000, elevation 581.98 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 148,900 acre-ft, Apr. 8, elevation 594.14 ft; minimum, 101,400 acre-ft, Oct. 30, elevation 586.03 ft.

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

580	72,780	588	112,000
582	81,670	590	123,500
584	91,160	595	154,400
586	101,300		

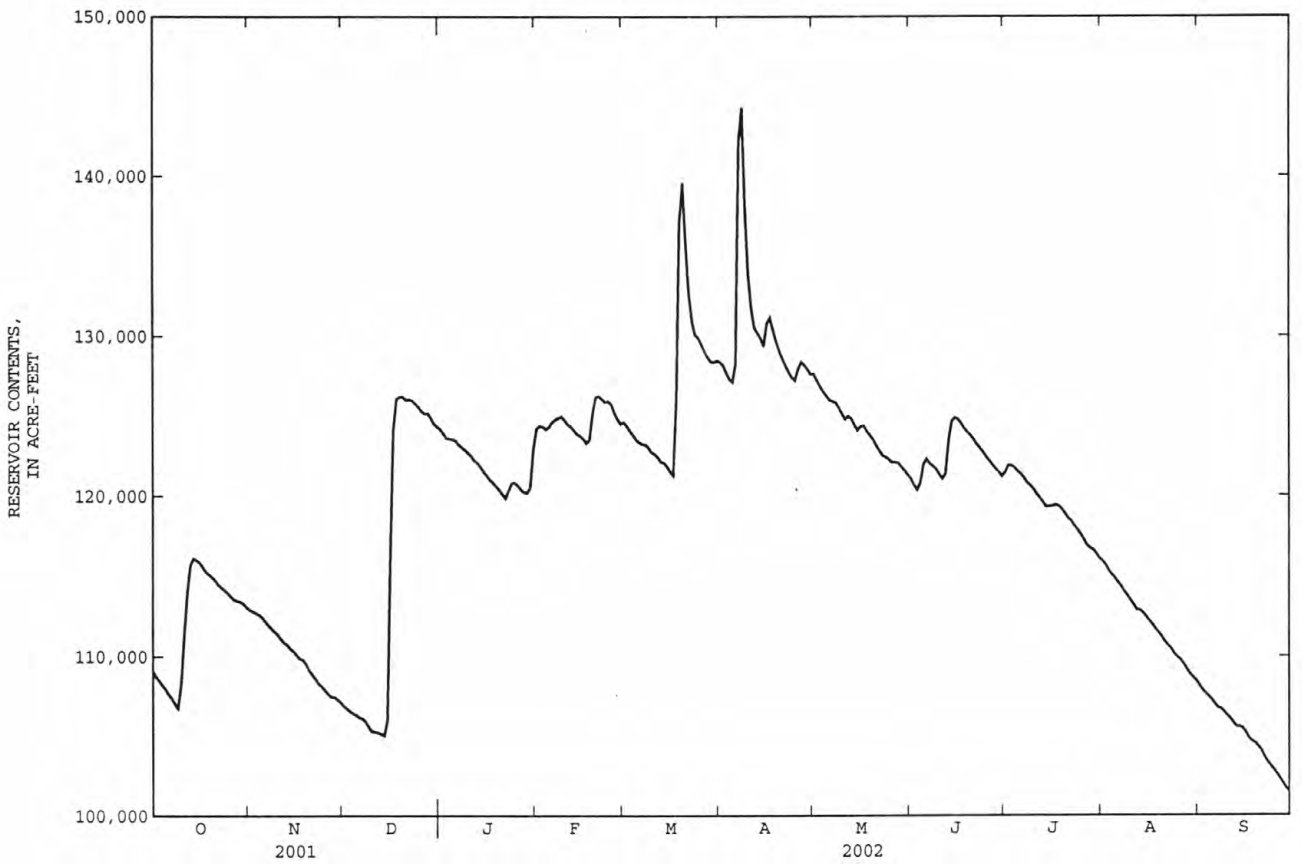
RESERVOIR STORAGE VIA SATELLITE, in (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109200	113000	107100	124300	124000	124400	128500	127500	121200	121100	116000	108400
2	109000	112900	106800	124100	124300	124700	128300	127700	121000	121600	115900	108100
3	108600	112800	106700	123800	124400	124200	128100	127000	120500	122000	115600	107800
4	108400	112700	106500	123500	124300	124000	127500	126800	120300	121800	115200	107600
5	108100	112600	106400	123600	124100	123700	127200	126400	121000	121700	115000	107400
6	107900	112400	106300	123500	124400	123400	127100	126200	122400	121400	114800	107200
7	107500	112100	106100	123400	124700	123300	128900	125900	122200	121300	114500	106900
8	107300	111900	106100	123100	124800	123200	148800	125900	121900	121000	114300	106700
9	106900	111700	105800	123000	124900	123200	142000	125800	121800	120700	113900	106700
10	106700	111500	105500	122800	125000	122900	136100	125400	121600	120600	113700	106400
11	109000	111300	105200	122600	124600	122600	132900	125000	121200	120300	113400	106200
12	112400	111000	105300	122400	124400	122600	131200	124700	121000	120000	113100	106000
13	114600	110800	105200	122100	124300	122300	130200	125100	121500	119800	112800	105700
14	116200	110700	105100	122000	124000	122000	130200	124700	124400	119500	112900	105500
15	116100	110400	105000	121700	123800	122100	129700	124300	124800	119200	112600	105600
16	116000	110300	106500	121400	123700	121700	129200	124000	124900	119400	112400	105400
17	115800	110000	120700	121200	123500	121400	131600	124500	124700	119300	112100	105100
18	115500	109800	125800	120900	123200	121200	130900	124300	124400	119500	111900	104700
19	115200	109800	126200	120800	123600	128700	130100	123900	124100	119300	111600	104600
20	115100	109400	126200	120500	125900	141300	129400	123700	123900	119100	111400	104500
21	114900	109000	126200	120300	126300	138700	128900	123400	123700	118800	111100	104200
22	114700	108800	125900	120000	126200	134400	128400	123000	123400	118500	110800	104000
23	114400	108500	126100	119800	126000	131900	128000	122700	123100	118400	110600	103500
24	114300	108200	125900	120600	125800	130500	127600	122400	122900	118000	110400	103300
25	114100	108100	125700	120900	126000	129900	127300	122400	122600	117800	110000	103000
26	113900	107800	125500	120800	125600	129900	127200	122200	122300	117500	109900	102800
27	113700	107600	125200	120600	125000	129300	128300	122000	122100	117200	109700	102500
28	113500	107400	125100	120300	124700	128900	128400	122100	121800	116800	109400	102200
29	113500	107500	125200	120200	---	128600	128100	122000	121600	116700	109100	101900
30	113400	107200	124700	120200	---	128300	127800	121700	121400	116600	108800	101600
31	113300	---	124400	120700	---	128400	---	121500	---	116300	108600	---
MAX	116200	113000	126200	124300	126300	141300	148800	127700	124900	122000	116000	108400
MIN	106700	107200	105000	119800	123200	121200	127100	121500	120300	116300	108600	101600
(‡)	588.19	587.11	590.14	589.97	590.18	590.84	590.71	589.63	589.61	588.73	587.35	586.04
(‡‡)	+4300	-6100	+17200	-3700	+4000	+3700	-600	-6300	-100	-5100	-7700	-7000

CAL YR 2001	MAX 140000	MIN 105000	(‡‡) +5400
WTR YR 2002	MAX 148800	MIN 101600	(‡‡) -7400

(‡) ELEVATION, IN FEET, AT END OF MONTH
(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET

07333010 ATOKA RESERVOIR NEAR STRINGTOWN, OK.--Continued



07334000 MUDDY BOGGY CREEK NEAR FARRIS, OK

LOCATION.--Lat 34°16'17", long 95°54'43", in NE $^1/_4$ NW $^1/_4$ sec.26, T.3 S., R.13 E., Atoka County, Hydrologic Unit 11140103, on downstream left bank of bridge on State Highway 3, 1.3 mi downstream from McGee Creek, 2.8 mi northwest of Farris, and at mile 57.7.

DRAINAGE AREA.--1,087 mi^2.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 439.58 ft above sea level. Prior to Mar. 13, 1945, nonrecording gage, and Mar. 13, 1945, to Sept. 30, 1961, water-stage recorder at same site at datum 7 ft higher. Prior to Oct. 1, 1989, water-stage recorder at same site and datum 5 ft higher.

REMARKS.--No estimated daily discharge. Records good. Some regulation since June 1959 by Atoka Reservoir, drainage area, 176 mi^2; pipeline diversions to Oklahoma City since November 1963, and since April 1987 by McGee Creek Lake, drainage area 178 mi^2. U.S. Army Corps of Engineers' satellite telemeter at station.

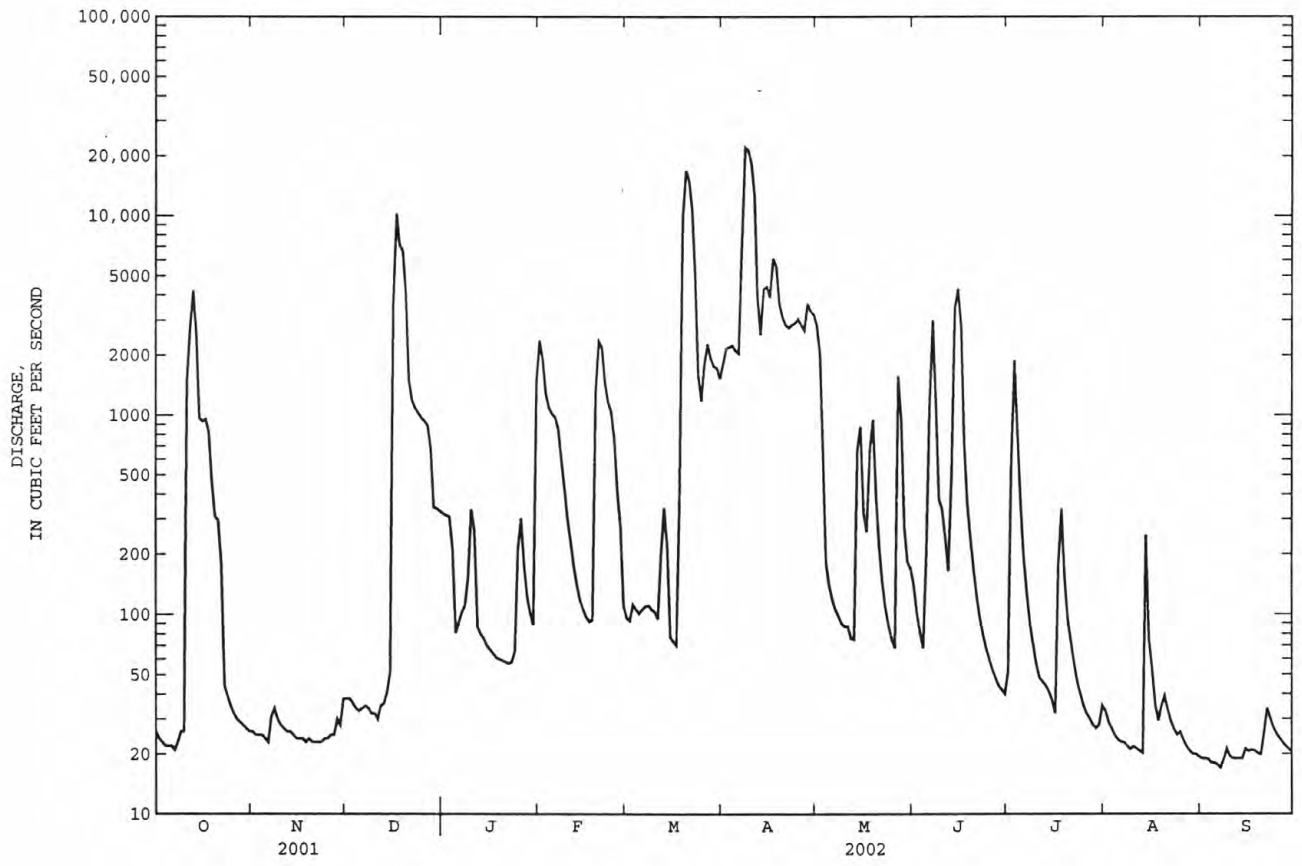
DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	26	38	321	2380	96	1810	2810	140	52	33	19
2	24	25	38	314	1910	93	2170	2020	101	599	29	19
3	23	25	36	309	1280	112	2200	625	81	1880	27	19
4	22	25	34	216	1090	106	2240	182	68	793	25	18
5	22	24	33	81	1020	101	2100	141	199	354	24	18
6	22	23	34	91	973	106	2050	119	1150	191	23	18
7	21	31	35	103	855	110	7230	106	2990	126	23	17
8	23	34	34	111	597	111	22000	98	1150	89	22	19
9	26	30	32	154	430	106	21300	90	378	70	21	21
10	26	28	32	336	300	103	18400	87	337	56	22	19
11	1490	27	30	267	232	95	12400	87	242	48	21	19
12	2770	26	35	87	174	197	3830	76	165	46	21	19
13	4210	26	36	80	140	341	2540	75	509	44	20	19
14	2530	25	41	76	118	222	4300	682	3460	41	249	19
15	966	24	52	70	106	77	4410	876	4310	37	75	21
16	935	24	3610	67	97	73	3890	319	2810	32	53	21
17	955	24	10200	64	92	70	6110	260	721	179	35	21
18	824	23	7120	61	94	348	5600	676	359	337	29	21
19	460	24	6710	60	1310	9770	3620	948	242	151	35	20
20	309	23	4070	59	2350	16800	3110	389	169	94	39	20
21	296	23	1500	58	2200	15100	2840	217	125	73	33	26
22	181	23	1190	57	1450	10700	2740	144	97	57	29	34
23	44	23	1090	58	1160	5060	2840	107	80	46	27	30
24	39	24	1030	66	1040	1600	2890	87	68	40	25	27
25	35	24	973	215	761	1180	3030	75	60	35	26	25
26	32	25	937	303	410	1800	2830	68	53	32	24	24
27	30	25	894	176	276	2290	2670	1570	48	30	22	23
28	29	30	685	123	110	1940	3630	945	44	28	21	22
29	28	28	344	101	---	1760	3330	274	42	27	20	21
30	27	38	340	89	---	1730	3200	183	40	28	20	21
31	26	---	330	1490	---	1530	---	169	---	35	19	---
TOTAL	16451	780	41563	5663	22955	73727	161310	14505	20238	5650	1092	640
MEAN	530.7	26.00	1341	182.7	819.8	2378	5377	467.9	674.6	182.3	35.23	21.33
MAX	4210	38	10200	1490	2380	16800	22000	2810	4310	1880	249	34
MIN	21	23	30	57	92	70	1810	68	40	27	19	17
AC-FT	32630	1550	82440	11230	45530	146200	320000	28770	40140	11210	2170	1270
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)												
MEAN	276.4	942.1	1465	1072	1258	1973	1936	1992	1044	314.8	209.6	361.4
MAX	1489	4184	4223	5313	4165	4541	6622	8384	2764	1854	1525	1026
(WY)	1992	1997	1992	1998	2001	1990	1990	1990	1991	1992	1992	1992
MIN	13.5	26.0	25.5	81.6	41.5	265	267	34.7	25.0	15.5	13.7	13.8
(WY)	2000	2002	1990	2000	1996	2000	2000	1988	1988	1998	1998	1988

07334000 MUDDY BOGGY CREEK NEAR FARRIS, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1988 - 2002	
ANNUAL TOTAL	352083.9		364574			
ANNUAL MEAN	964.6		998.8		[a]1069	
HIGHEST ANNUAL MEAN					2145	1990
LOWEST ANNUAL MEAN					208	2000
HIGHEST DAILY MEAN	15100	Feb 17	22000	Apr 8	45700	May 5 1990
LOWEST DAILY MEAN	7.9	Aug 2	17	Sep 7	[b]7.5	Sep 26 2000
ANNUAL SEVEN-DAY MINIMUM	16	Aug 1	18	Sep 1	11	Oct 18 1991
MAXIMUM PEAK FLOW			22400	Apr 8	[c]49800	May 5 1990
MAXIMUM PEAK STAGE			42.68	Apr 8	[d]48.73	May 5 1990
INSTANTANEOUS LOW FLOW			19	Sep 5	7.5	Sep 26 2000
ANNUAL RUNOFF (AC-FT)	698400		723100		774400	
10 PERCENT EXCEEDS	2790		2810		2680	
50 PERCENT EXCEEDS	155		92		150	
90 PERCENT EXCEEDS	22		22		20	

[a]Prior to regulation, water years 1938-86, 880 ft^3/s.
[b]No flow at times in many years prior to regulation.
[c]Maximum discharge for period of record 61,900 ft^3/s, June 17, 1945, from rating curve above 37,000 ft^3/s.
[d]Maximum gage height for period of record 51.94 ft, June 17, 1945, present datum.



07334200 BYRDS MILL SPRING NEAR FITTSTOWN, OK

LOCATION.--Lat 34°35'40", long 96°39'55", in SW $^1/_4$ SW $^1/_4$ sec.34, T.2 N., R.6 E., Pontotoc County, Hydrologic Unit 11140104, upstream from weir outlet of spring, 0.5 mi upstream from Big Spring Creek, 2.0 mi west of Fittstown, and 12.0 mi south of Ada.

PERIOD OF RECORD.--Creek only, April 1959 to current year. Combined flow from December 1989 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 1,021.17 ft above sea level. Flow meters on diversion pipe and wells, to City of Ada.

REMARKS.--Records poor. Prior to December 1989 records do not include diversion of about 6 to 15 ft^3/s by City of Ada for municipal water supply, a part of which is discharged as effluent to Sandy Creek, tributary to Canadian River. Records of zero flow do not include seepage of up to 0.10 ft^3/s. Satellite telemeter at station.

AVERAGE DISCHARGE.--Creek only: 42 years, 9.13 ft^3/s. Combined spring flow: 12 years, 19.9 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Combined flow: maximum daily discharge, 43 ft^3/s, May 4, 5, 1990; minimum daily discharge, 7.0 ft^3/s, Sept. 15, 2000.

EXTREMES FOR CURRENT YEAR.--Combined flow: maximum daily discharge, 28.0 ft^3/s, Apr. 23-30; minimum daily discharge, 16.0 ft^3/s, at times.

DISCHARGE VIA SATELLITE, CK FLOW, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	11	9.4	11	9.8	9.0	9.4	17	14	12	8.6	7.2
2	8.3	10	9.4	11	9.8	8.8	9.5	17	14	12	8.9	7.1
3	6.4	10	9.2	11	9.7	8.6	9.5	17	14	12	8.9	7.1
4	8.0	10	9.0	11	9.7	8.6	9.7	17	14	12	8.8	6.9
5	9.4	10	9.0	11	11	8.6	9.7	17	15	12	8.5	4.5
6	8.9	11	9.0	11	11	8.1	9.8	17	15	12	8.3	3.1
7	8.9	12	9.0	11	9.4	7.4	11	17	15	12	8.9	5.2
8	8.9	11	9.0	11	9.4	7.4	12	17	15	12	7.7	9.6
9	9.0	10	9.0	11	9.4	7.2	12	16	15	15	7.4	9.0
10	8.9	10	9.0	11	9.4	7.3	12	16	15	13	7.3	6.8
11	9.2	10	9.0	11	9.4	7.4	12	16	15	11	7.2	6.8
12	9.4	10	9.0	11	9.4	7.4	15	16	16	11	7.1	6.7
13	9.8	10	8.9	11	9.3	7.4	14	16	16	11	7.1	6.7
14	10	9.9	8.8	11	9.3	7.8	15	16	14	11	7.2	6.7
15	10	9.8	8.7	11	9.2	7.1	15	16	14	11	7.3	6.7
16	10	9.8	9.8	11	9.0	7.1	16	16	14	11	7.8	6.5
17	10	9.8	10	11	9.0	7.1	16	16	14	11	7.6	6.5
18	10	9.8	10	10	9.0	7.1	16	16	14	11	7.8	6.5
19	10	9.8	10	10	6.7	7.4	17	15	14	10	7.7	6.5
20	10	9.8	11	10	4.5	8.4	17	15	14	10	7.6	6.4
21	10	9.8	11	10	4.5	8.6	17	15	14	10	7.5	6.4
22	10	9.8	11	10	4.4	8.6	17	15	14	10	7.0	6.2
23	11	9.8	11	13	4.4	8.8	18	15	14	9.9	6.4	6.2
24	11	9.7	11	12	4.4	9.0	17	15	14	8.1	6.2	6.3
25	10	9.6	11	9.9	4.6	9.0	18	15	14	8.0	6.3	6.3
26	10	9.5	11	9.9	7.4	9.0	18	15	13	8.8	6.3	6.3
27	11	9.5	11	10	8.9	9.1	18	15	12	8.8	7.0	6.3
28	11	9.4	11	9.9	8.8	9.3	18	15	12	8.8	7.4	6.2
29	10	9.4	11	9.9	---	9.3	18	15	12	8.6	7.4	6.1
30	11	9.4	11	9.8	---	9.4	18	14	12	8.6	7.3	6.1
31	11	---	11	9.8	---	9.4	---	14	---	8.5	7.2	---
TOTAL	299.8	299.6	307.2	331.2	230.8	254.7	434.6	489	422	330.1	233.7	194.9
MEAN	9.671	9.987	9.910	10.68	8.243	8.216	14.49	15.77	14.07	10.65	7.539	6.497
MAX	11	12	11	13	11	9.4	18	17	16	15	8.9	9.6
MIN	6.4	9.4	8.7	9.8	4.4	7.1	9.4	14	12	8.0	6.2	3.1
AC-FT	595	594	609	657	458	505	862	970	837	655	464	387

CAL YR 2001 TOTAL 4333.7 MEAN 11.87 MAX 20 MIN 4.0 AC-FT 8600
WTR YR 2002 TOTAL 3827.6 MEAN 10.49 MAX 18 MIN 3.1 AC-FT 7590

07334200 BYRDS MILL SPRING NEAR FITTSTOWN, OK--Continued

DISCHARGE COMBINED SPRING FLOW, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	20	18	20	19	18	19	26	24	22	20	17
2	17	19	18	20	19	17	19	26	24	22	20	18
3	16	19	18	20	18	17	19	26	24	22	20	17
4	17	19	18	20	18	17	19	26	24	22	20	18
5	18	19	18	20	18	17	19	26	24	22	20	17
6	18	18	18	20	18	17	19	26	25	22	19	16
7	18	18	18	20	18	17	20	26	24	22	19	16
8	18	19	18	20	18	17	22	27	24	22	19	18
9	18	19	18	20	18	17	22	26	24	22	18	18
10	18	19	18	20	18	17	22	26	25	22	18	17
11	18	19	18	20	18	17	22	26	25	21	18	17
12	18	19	18	20	18	17	23	26	24	21	18	17
13	18	19	18	20	18	17	24	26	24	21	18	17
14	19	19	17	20	18	17	24	25	24	21	18	17
15	19	18	17	20	18	17	24	26	24	21	18	17
16	19	18	18	20	18	16	25	26	24	21	19	17
17	19	18	19	20	18	16	26	26	24	21	19	17
18	19	18	19	19	18	16	26	26	24	21	18	17
19	19	18	19	19	17	17	26	24	24	20	18	17
20	19	18	18	19	16	18	26	24	24	20	18	17
21	19	18	18	19	16	18	26	24	24	20	18	17
22	19	18	20	19	16	18	26	24	24	20	18	17
23	20	18	20	18	16	18	28	24	24	20	18	17
24	20	18	20	17	16	18	26	24	24	20	18	17
25	19	18	20	19	17	18	28	24	24	20	18	17
26	19	18	20	19	17	18	28	24	23	20	18	17
27	20	18	20	19	18	19	28	24	22	20	18	17
28	20	18	20	19	17	19	28	24	22	20	18	16
29	19	18	20	19	---	19	28	24	22	20	18	16
30	20	18	20	19	---	19	28	24	22	20	18	16
31	20	---	20	19	---	19	---	23	---	20	18	---
TOTAL	577	553	579	603	492	542	720	779	714	648	573	509
MEAN	18.61	18.43	18.68	19.45	17.57	17.48	24.00	25.13	23.80	20.90	18.48	16.97
MAX	20	20	20	20	19	19	28	27	25	22	20	18
MIN	16	18	17	17	16	16	19	23	22	20	18	16
AC-FT	1140	1100	1150	1200	976	1080	1430	1550	1420	1290	1140	1010

CAL YR 2001 TOTAL 7548 MEAN 20.68 MAX 28 MIN 14 AC-FT 14970
WTR YR 2002 TOTAL 7289 MEAN 19.97 MAX 28 MIN 14 AC-FT 14460

07335300 MUDDY BOGGY CREEK NEAR UNGER, OK

LOCATION.--Lat 34°01'36", long 95°45'00", in SE $^1/_4$ SE $^1/_4$ sec.17, T.6 S., R.15 E., Choctaw County, Hydrologic Unit 11140103, at bridge on U.S. Highway 70, 3.5 mi west of Soper, 1.8 mi east of Unger and at mile 18.6.

DRAINAGE AREA.--2,273 mi^2.

PERIOD OF RECORD.--August 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 392.72 ft above sea level. Prior to Sept. 19, 1985, gage 500 ft downstream at same datum.

REMARKS.--No estimated daily discharge. Records good. Some regulation by Atoka and McGee Creek Reservoirs. U.S. Army Corp of Engineers' telemeter at site.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

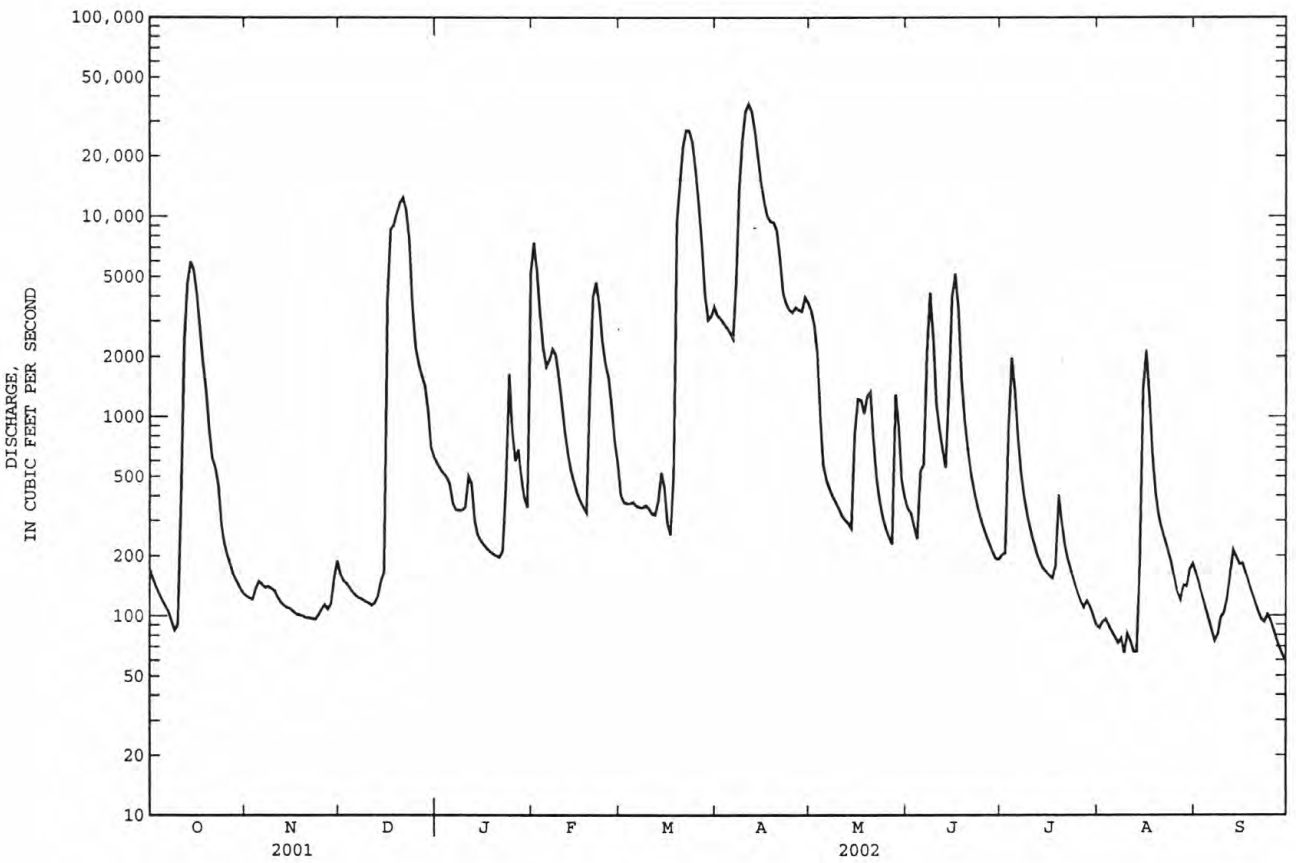
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	126	162	582	7420	402	3200	3390	344	202	87	164
2	154	123	150	544	5320	371	3090	2850	328	206	93	144
3	140	121	145	518	3250	365	2930	2020	279	867	96	125
4	129	138	138	497	2190	365	2790	982	243	1970	89	110
5	120	149	131	458	1790	371	2640	569	534	1360	83	97
6	112	144	126	366	1930	355	2460	481	571	794	78	85
7	105	139	123	340	2180	350	4660	435	2130	522	73	75
8	94	141	121	338	2050	348	13800	397	4160	395	77	80
9	85	137	118	338	1580	358	23900	371	2480	319	65	98
10	90	134	116	350	1160	345	33500	345	1160	270	81	103
11	388	124	113	500	837	325	36600	317	866	235	75	122
12	2390	117	116	462	650	321	33900	302	679	206	66	162
13	4660	113	125	301	534	374	27100	291	555	186	66	213
14	5970	110	149	254	466	525	19900	274	1410	173	192	197
15	5430	109	166	238	412	439	14700	820	4010	166	1400	181
16	4130	105	3860	226	376	288	11800	1220	5150	159	2150	183
17	2790	102	8580	217	350	255	9990	1210	3450	154	1250	164
18	1850	101	9070	210	329	500	9420	1030	1530	177	650	146
19	1350	100	10400	204	1400	9410	9360	1270	965	404	417	130
20	859	98	11700	200	3980	14600	8460	1330	690	292	318	117
21	617	98	12400	197	4690	22400	6160	753	529	224	272	105
22	551	97	10700	211	3630	27000	4160	492	432	189	241	96
23	444	96	7600	442	2380	26900	3670	377	364	167	212	93
24	283	101	3540	1630	1840	23600	3420	312	315	147	186	101
25	228	108	2230	860	1570	17200	3320	273	279	131	156	95
26	199	114	1840	599	1130	11600	3520	247	251	118	131	85
27	177	108	1610	687	750	7260	3410	228	228	110	120	76
28	159	115	1430	495	583	4110	3360	1290	209	119	143	69
29	148	155	1080	389	---	3050	3950	910	193	111	140	63
30	138	189	697	350	---	3180	3720	480	192	100	171	59
31	130	---	626	5220	---	3540	---	392	---	90	182	---
TOTAL	34091	3612	89362	18223	54777	180507	312890	25658	34526	10563	9360	3538
MEAN	1100	120.4	2883	587.8	1956	5823	10430	827.7	1151	340.7	301.9	117.9
MAX	5970	189	12400	5220	7420	27000	36600	3390	5150	1970	2150	213
MIN	85	96	113	197	329	255	2460	228	192	90	65	59
AC-FT	67620	7160	177200	36150	108700	358000	620600	50890	68480	20950	18570	7020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2002, BY WATER YEAR (WY)

MEAN	752.8	1982	2800	2025	2692	3942	3794	4366	2272	610.2	348.5	648.7
MAX	3713	9607	9832	9591	7497	10970	14270	21720	7293	4536	2517	2218
(WY)	1985	1997	1992	1998	2001	1990	1990	1990	1991	1992	1992	1996
MIN	34.0	84.0	76.3	177	195	677	480	92.3	49.8	57.8	28.7	16.7
(WY)	1989	1989	1990	1984	1996	1986	1987	1988	1988	1998	1988	2000

07335300 MUDDY BOGGY CREEK NEAR UNGER, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1983 - 2002	
ANNUAL TOTAL	726164		777107			
ANNUAL MEAN	1989		2129		2182	
HIGHEST ANNUAL MEAN					4951	1990
LOWEST ANNUAL MEAN					450	2000
HIGHEST DAILY MEAN	19900	Feb 19	36600	Apr 11	76000	May 6 1990
LOWEST DAILY MEAN	19	Aug 5	59	Sep 30	1.8	Sep 8 1984
ANNUAL SEVEN-DAY MINIMUM	24	Aug 5	72	Aug 7	2.6	Sep 3 1984
MAXIMUM PEAK FLOW			37000	Apr 11	76700	May 6 1990
MAXIMUM PEAK STAGE			45.83	Apr 11	55.27	May 6 1990
INSTANTANEOUS LOW FLOW			59	Sep 30		
ANNUAL RUNOFF (AC-FT)	1440000		1541000		1581000	
10 PERCENT EXCEEDS	5950		4870		6700	
50 PERCENT EXCEEDS	523		348		498	
90 PERCENT EXCEEDS	53		101		53	



07335500 RED RIVER AT ARTHUR CITY, TX

LOCATION.--Lat 33°52'30", long 95°30'06", in NW $^1/_4$ sec.11, T.8 S., R.17 E., Choctaw County, OK, Hydrologic Unit 11140101, on right downstream bank of bridge on U.S. Highway 271 at Arthur City, 10.6 mi downstream from Muddy Boggy River, 26.0 mi upstream from Kiamichi River, and at mile 633.1.

DRAINAGE AREA.--44,531 mi^2, of which 5,936 mi^2 probably is noncontributing.

PERIOD OF RECORD.--January to September 1905 (gage heights and discharge measurements only), October 1905 to December 1911, July 1936 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage- height records collected at same site since 1891 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1241: Drainage area. WSP 1311: 1906-11.

GAGE.--Water-stage recorder. Datum of gage is 380.07 ft above sea level. From 1905-11 nonrecording gage at St. Louis-San Francisco Railway Co. bridge 200 ft upstream at same datum. July 1, 1936, to Mar. 24, 1940, nonrecording gage at present site and datum.

REMARKS.--Records fair. Flow regulated since October 1943 by Lake Texoma (station 07331500), 92.8 mi upstream from station. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1630	2010	1680	8490	39200	5990	20800	17000	3380	2830	5250	5660
2	e1500	2800	1570	8390	29700	5230	17900	16000	3670	2850	4640	3880
3	e1300	2920	1520	8520	18800	3920	13100	15100	3010	3820	3840	1900
4	1870	2370	1250	8190	11900	6650	12700	14000	2620	6310	3840	2800
5	2130	1760	1030	8270	9920	11500	14900	8350	3080	7050	3680	5300
6	2130	e1420	1330	7980	10700	11200	11800	e9200	5560	6180	3560	5380
7	2140	1210	1610	4460	15100	7030	16400	e9700	5520	5460	3710	5370
8	2080	1330	1680	3160	14400	3740	56400	e6060	7660	4630	3670	3900
9	e1500	1550	1630	5200	11900	2900	e62400	e5940	6770	5450	3610	2980
10	e1300	1630	1620	6260	9070	2780	47700	e6800	4680	5400	3950	2300
11	2150	1600	1260	5360	6030	4410	41500	e4310	3410	4160	4810	3110
12	7510	1640	1150	4650	4480	3110	42800	e4050	3020	3930	4290	5030
13	15600	1320	2610	4990	5000	2000	43200	e3880	3360	4340	4270	5430
14	19800	1090	2580	3530	5750	2330	46800	e4950	3550	5190	4880	5060
15	16500	1200	2400	2180	4870	2480	48400	4930	6550	4310	5980	5200
16	9140	1430	11300	4150	5310	2260	42400	5900	8120	3610	10500	4030
17	6080	1450	34300	6230	5200	2090	39400	6460	7230	3460	15200	2950
18	5000	1440	32700	6650	3800	2100	43600	8490	4080	4060	10900	2220
19	4590	1440	25900	6730	3410	20800	44500	8820	2770	4080	6210	3010
20	3990	1180	19100	6580	10200	59000	44200	6530	2800	4660	5140	3350
21	4670	977	22800	4460	14800	63200	41800	4530	2750	6150	4890	2740
22	3460	1090	25000	3630	9990	45000	39100	3750	2510	6440	4560	2460
23	2150	1350	21000	5990	7500	35600	35500	3380	2450	6190	3740	2200
24	2660	1400	14400	9420	7400	33500	25200	3720	2320	6900	3240	e2140
25	3470	1400	11200	11800	5700	29100	18500	3230	1780	6960	3030	e1820
26	3260	1410	10700	10900	5440	26700	21100	3920	2030	7070	2500	2100
27	2720	1180	9900	8970	5400	26600	22100	3750	4060	7080	1900	e1670
28	3070	1000	9680	4820	6410	22400	21100	3150	3700	7150	2600	e1600
29	2440	1160	9270	2960	---	17500	21100	3830	3050	6990	5980	e1570
30	1500	1900	6150	2440	---	14900	20500	3310	2750	6940	5430	e1200
31	e1300	---	7660	15100	---	18000	---	3890	---	6440	5990	---
TOTAL	138640	45657	295980	200460	287380	494020	976900	206930	118240	166090	155790	98360
MEAN	4472	1522	9548	6466	10260	15940	32560	6675	3941	5358	5025	3279
MAX	19800	2920	34300	15100	39200	63200	62400	17000	8120	7150	15200	5660
MIN	1300	977	1030	2180	3410	2000	11800	3150	1780	2830	1900	1200
AC-FT	275000	90560	587100	397600	570000	979900	1938000	410400	234500	329400	309000	195100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2002, BY WATER YEAR (WY)

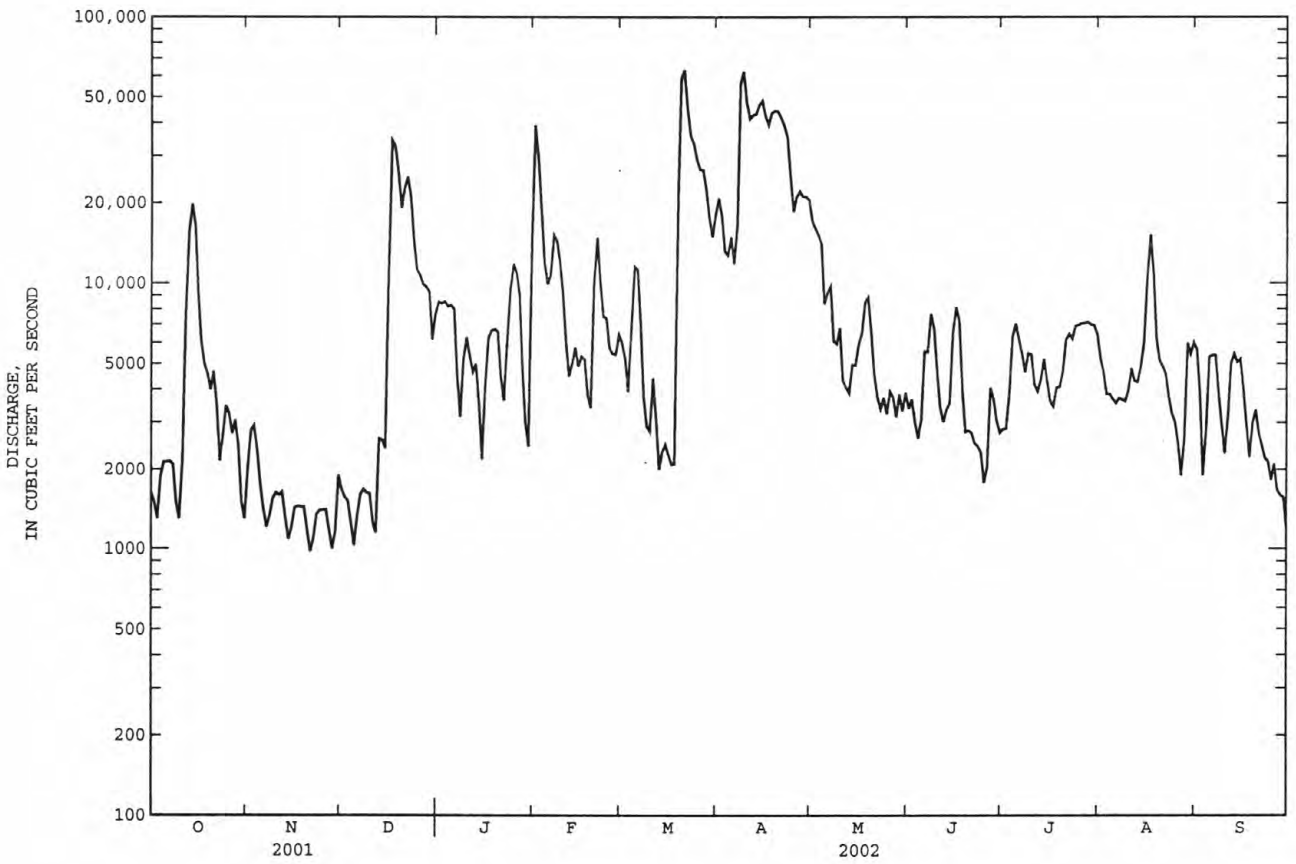
MEAN	6742	7419	7507	7062	8782	11270	12040	16680	17640	7742	4877	4741
MAX	40240	37170	32340	39930	32130	39430	55500	103900	83820	27700	34840	19010
(WY)	1982	1975	1992	1992	2001	2001	1990	1990	1957	1989	1950	1950
MIN	263	242	894	1126	1138	1118	1344	2837	2074	1586	1108	859
(WY)	1957	1957	1957	1964	1959	1967	1956	1980	1956	1956	1972	1988

e Estimated

07335500 RED RIVER AT ARTHUR CITY, TX--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1945 - 2002	
ANNUAL TOTAL	4379767		3184447			
ANNUAL MEAN	12000		8725		[a]9368	
HIGHEST ANNUAL MEAN					23290	1990
LOWEST ANNUAL MEAN					2754	1964
HIGHEST DAILY MEAN	74100	Feb 17	63200	Mar 21	269000	May 4 1990
LOWEST DAILY MEAN	977	Nov 21	977	Nov 21	134	[b]Dec 11 1956
ANNUAL SEVEN-DAY MINIMUM	1260	Nov 20	1260	Nov 20	134	Dec 11 1956
MAXIMUM PEAK FLOW			70800	Mar 21	[c]275000	May 4 1990
MAXIMUM PEAK STAGE			18.88	Mar 21	[d]34.21	May 4 1990
INSTANTANEOUS LOW FLOW			977	Nov 21		
ANNUAL RUNOFF (AC-FT)	8687000		6316000		6787000	
10 PERCENT EXCEEDS	33300		21100		24200	
50 PERCENT EXCEEDS	6770		4670		4320	
90 PERCENT EXCEEDS	1480		1590		1380	

[a]Prior to regulation, water years 1906-11, 1937-43, 9,266 ft^3/s.
[b]Also occurred Dec. 12, 1956.
[c]Maximum discharge for period of record, 400,000 ft^3/s, May 28, 1908.
[d]Maximum gage height for period of record, 43.2 ft, May 28, 1908.



07335700 KIAMICHI RIVER NEAR BIG CEDAR, OK
(Hydrologic benchmark station)

LOCATION.--Lat 34°38'18", long 94°36'45", in SW $^1/_4$ SE $^1/_4$ sec.18, T.2 N., R.26 E., Le Flore County, Hydrologic Unit 11140105, in Ouachita National Forest, on downstream side of right bank pier of bridge on State Highway 63, 0.2 mi upstream from Rattlesnake Creek, 1.1 mi upstream from Big Branch, 2.1 mi east of Big Cedar, and at mile 157.6.

DRAINAGE AREA.--40.1 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 886.97 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 16	2000	16,100	16.65	Mar 19	0200	16,200	16.69
Jan 24	0000	2,430	9.39	Apr 8	0030	19,300	17.57
Jan 31	1200	16,600	16.80				

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	13	94	25	538	39	91	52	115	2.4	0.61	0.0
2	1.8	13	86	22	247	51	88	44	83	13	0.44	0.0
3	1.8	13	75	21	169	43	76	39	61	32	0.30	0.0
4	1.7	21	65	20	126	41	67	33	47	13	0.24	0.0
5	2.2	25	56	23	105	42	59	27	198	7.3	0.20	0.0
6	2.2	23	150	24	98	42	52	23	123	4.8	0.18	0.0
7	2.0	21	261	20	89	42	1690	20	86	3.5	0.15	0.0
8	2.0	20	226	18	86	56	3290	18	65	2.5	0.08	0.0
9	2.4	20	148	17	85	269	381	18	53	1.9	0.0	0.0
10	11	18	114	16	78	174	221	18	47	1.5	0.0	0.0
11	118	17	92	15	73	142	157	16	37	19	0.0	0.0
12	152	15	193	14	70	136	122	16	30	4.7	0.0	0.0
13	300	14	216	13	62	110	102	265	56	3.7	0.0	0.0
14	155	13	222	13	55	97	91	122	96	2.6	0.0	0.0
15	93	12	172	11	51	87	74	84	52	2.1	0.05	0.0
16	63	11	4680	11	46	75	66	63	38	1.8	0.01	0.0
17	49	11	1290	11	41	66	102	94	28	1.9	0.0	0.0
18	40	10	369	10	37	518	82	85	21	8.0	0.0	e0.0
19	34	15	211	11	141	5170	74	69	15	15	0.0	e0.0
20	29	14	147	11	160	1480	66	58	11	7.6	0.0	e0.0
21	25	13	117	9.9	123	363	58	48	8.3	4.5	0.0	e0.0
22	22	13	98	52	99	212	50	39	6.7	3.2	0.0	e0.0
23	21	16	80	388	84	156	44	32	4.7	2.3	0.0	0.0
24	18	31	66	878	72	126	40	27	3.7	2.1	0.0	0.0
25	16	35	56	337	62	120	32	24	3.3	2.7	0.0	0.0
26	14	35	49	197	51	119	68	21	3.1	1.9	0.0	0.0
27	12	34	43	141	45	100	101	27	3.8	1.4	0.0	e0.0
28	11	64	39	111	40	91	88	495	2.8	1.1	0.0	e0.0
29	10	101	34	92	---	83	74	711	2.5	0.93	0.0	e0.0
30	9.3	90	30	82	---	83	64	378	2.4	0.87	0.0	e0.0
31	9.2	---	27	3860	---	97	---	178	---	0.94	0.0	---
TOTAL	1229.7	751	9506	6473.9	2933	10230	7570	3144	1303.3	170.24	2.26	0.0
MEAN	39.67	25.03	306.6	208.8	104.8	330.0	252.3	101.4	43.44	5.492	0.073	0.000
MAX	300	101	4680	3860	538	5170	3290	711	198	32	0.61	0.00
MIN	1.7	10	27	9.9	37	39	32	16	2.4	0.87	0.00	0.00
AC-FT	2440	1490	18860	12840	5820	20290	15020	6240	2590	338	4.5	0.00
CFSM	0.99	0.62	7.65	5.21	2.61	8.23	6.29	2.53	1.08	0.14	0.00	0.00
IN.	1.14	0.70	8.82	6.01	2.72	9.49	7.02	2.92	1.21	0.16	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

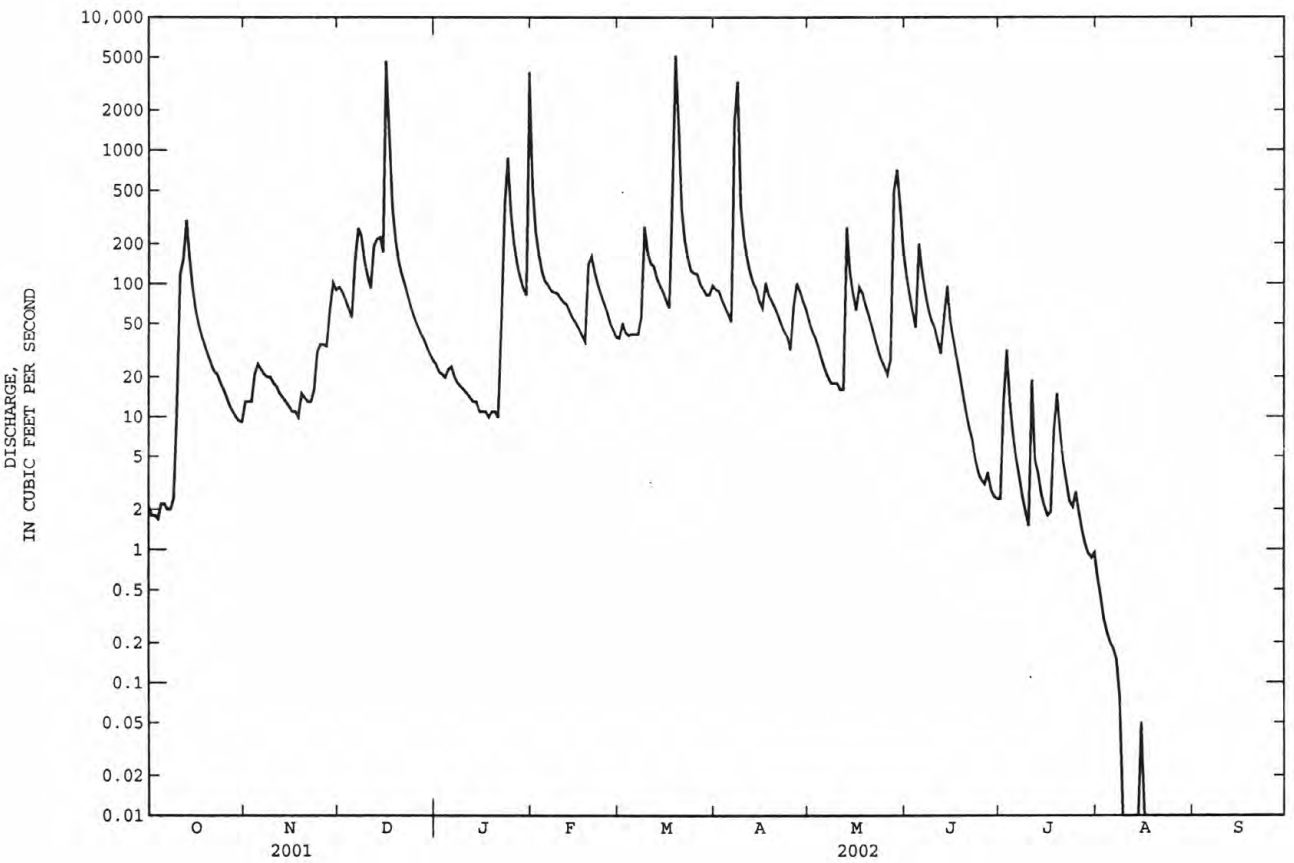
MEAN	64.10	101.2	132.5	102.2	121.2	150.6	130.6	131.8	61.51	21.32	6.709	19.52
MAX	514	533	445	253	354	362	362	614	263	128	51.0	283
(WY)	1985	1997	1972	1998	2001	1973	1991	1990	2000	1991	1988	1992
MIN	0.000	0.000	0.92	2.50	6.12	28.8	34.5	6.97	0.078	0.000	0.000	0.000
(WY)	1984	1967	1967	1967	1967	1967	1972	1977	1988	1988	1972	1983

e Estimated

07335700 KIAMICHI RIVER NEAR BIG CEDAR, OK--Continued
(Hydrologic benchmark station)

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1966 - 2002	
ANNUAL TOTAL	33035.11		43313.40			
ANNUAL MEAN	90.51		118.7		86.78	
HIGHEST ANNUAL MEAN					152	1985
LOWEST ANNUAL MEAN					33.9	1978
HIGHEST DAILY MEAN	4680	Dec 16	5170	Mar 19	5960	May 13 1982
LOWEST DAILY MEAN	0.00	Aug 1	0.00	at times	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 1	0.00	Aug 17	0.00	Oct 16 1966
MAXIMUM PEAK FLOW			19300	Apr 8	[a]27400	May 19 1990
MAXIMUM PEAK STAGE			17.57	Apr 8	19.60	May 19 1990
ANNUAL RUNOFF (AC-FT)	65530		85910		62870	
ANNUAL RUNOFF (CFSM)	2.26		2.96		2.16	
ANNUAL RUNOFF (INCHES)	30.65		40.18		29.40	
10 PERCENT EXCEEDS	180		164		177	
50 PERCENT EXCEEDS	30		28		27	
90 PERCENT EXCEEDS	0.11		0.00		0.08	

[a]From rating curve extended above 9,000 ft^3/s.



07335790 KIAMICHI RIVER NEAR CLAYTON, OK

LOCATION.--Lat 34°34'29", long 95°20'26", in NE $^1/_4$ SE $^1/_4$ sec.7, T.1 N., R.19 E., Pushmataha County, Hydrologic Unit 11140105, on left bank near downstream bridge abutment on U.S. Highway 271, approximately 1 mi southeast of Clayton, and at mile 101.6.

DRAINAGE AREA.--708 mi^2.

PERIOD OF RECORD.--November 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 520.00 ft above sea level.

REMARKS.--Records poor. Some regulation since December 1982 by Sardis Lake (station 07335775), on Jackfork Creek 4.5 mi upstream. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	278	35	579	747	e14800	303	3910	1740	643	33	63	1.7
2	36	32	495	721	11200	307	3710	1260	413	489	43	1.5
3	25	31	413	701	1990	372	3440	347	289	123	29	1.4
4	22	98	569	485	2070	587	2250	e210	216	71	23	1.3
5	19	393	977	120	2790	847	965	e171	722	63	21	1.1
6	16	181	1030	144	2810	834	402	334	3210	51	15	1.00
7	14	190	996	152	2890	580	e10000	444	2140	72	13	0.81
8	12	335	573	135	2830	307	e32000	420	1430	66	147	0.98
9	11	317	569	121	2700	1270	e24000	327	1250	44	e395	1.3
10	54	306	402	110	2560	1880	e7800	e236	747	35	e125	1.4
11	4030	296	317	100	2430	1120	e5220	e118	269	28	e62	1.3
12	3710	288	396	92	1960	1300	e4490	e92	214	96	e392	1.2
13	4700	185	854	84	916	1570	e5730	660	204	136	e44	1.1
14	2820	45	973	84	518	1180	e5460	1790	279	56	17	0.89
15	1750	41	897	75	466	633	e5180	1280	322	45	7.5	1.9
16	2430	38	12300	69	438	559	e7730	741	268	29	6.5	2.2
17	2430	36	e24000	64	404	505	7030	329	179	24	5.8	2.1
18	2230	34	15500	60	363	1570	e6050	630	132	131	5.2	1.8
19	2370	32	3210	61	1010	e20400	e4400	484	102	109	4.8	1.6
20	2750	30	3780	60	2460	e28000	e3030	685	84	59	4.3	1.4
21	2710	27	4100	60	2640	e20800	e1190	744	69	44	3.8	1.1
22	1770	26	3910	61	2170	2970	e1160	202	58	31	3.2	0.87
23	124	29	3740	75	1430	3050	e1150	163	48	24	2.8	0.69
24	99	30	3540	2140	1340	3840	e797	131	41	26	2.5	0.58
25	80	27	3400	3120	1240	3510	e709	112	38	28	2.4	0.50
26	68	29	3330	1950	1170	2810	e1500	101	46	25	2.9	0.48
27	58	29	2660	1500	796	4020	e2520	95	66	20	3.2	0.40
28	50	54	1000	1280	327	3920	e2440	183	36	15	2.9	0.33
29	44	519	236	898	---	3850	e1350	1380	30	13	2.5	0.28
30	40	803	201	468	---	3690	e1660	1490	28	104	2.2	0.23
31	37	---	335	8380	---	3770	---	1160	---	108	1.9	---
TOTAL	34787	4516	95282	24117	68718	120354	157273	18059	13573	2198	1453.4	33.44
MEAN	1122	150.5	3074	778.0	2454	3882	5242	582.5	452.4	70.90	46.88	1.115
MAX	4700	803	24000	8380	14800	28000	32000	1790	3210	489	395	2.2
MIN	11	26	201	60	327	303	402	92	28	13	1.9	0.23
AC-FT	69000	8960	189000	47840	136300	238700	312000	35820	26920	4360	2880	66

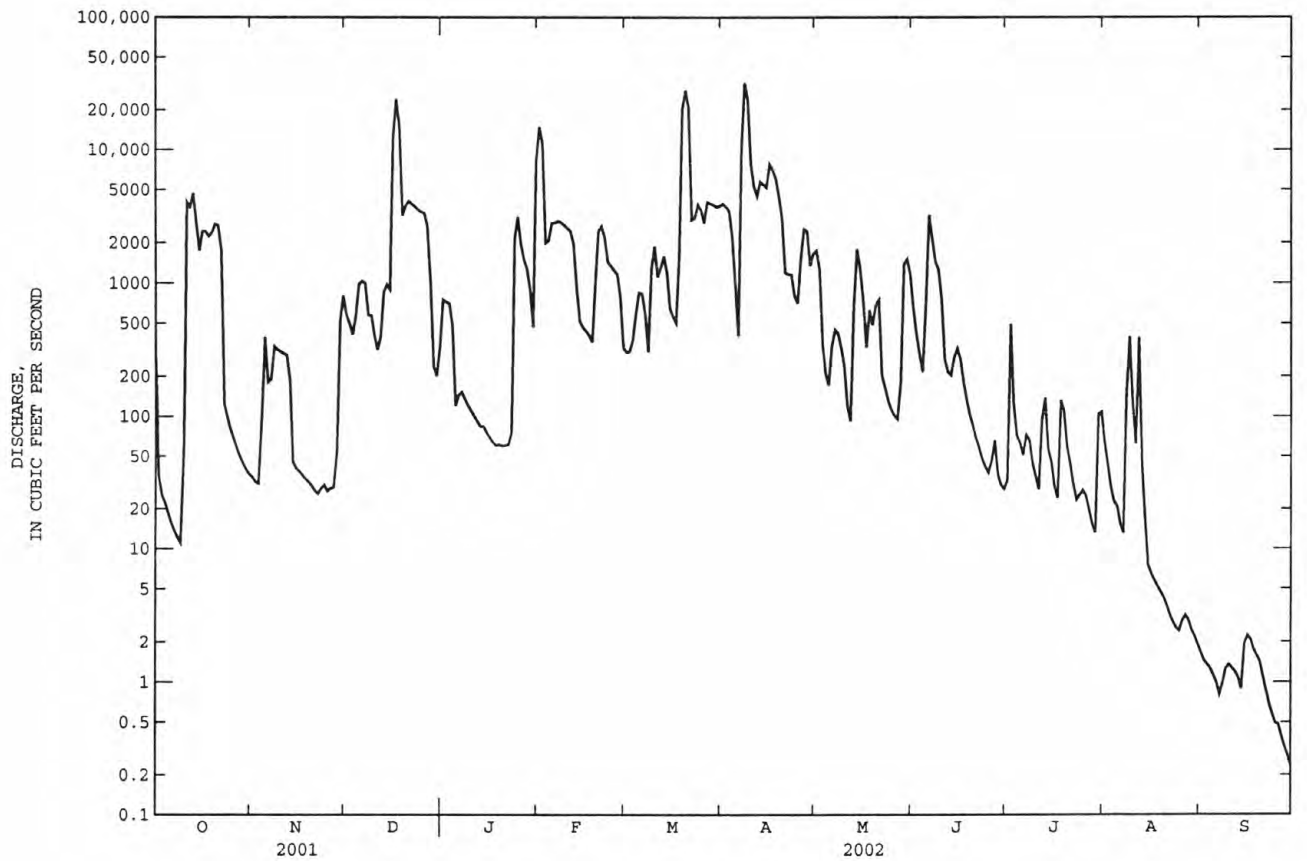
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2002, BY WATER YEAR (WY)

MEAN	727.0	1321	1610	1253	1601	1636	1674	1871	946.6	228.1	172.8	280.9
MAX	4628	4837	3376	4569	4196	3882	5242	7658	2288	984	1268	2735
(WY)	1985	1985	1988	1998	1990	2002	2002	1990	1986	1992	1992	1992
MIN	0.13	2.89	24.5	88.3	116	517	226	53.7	7.33	3.52	0.29	0.36
(WY)	2000	2000	1990	1986	1996	2000	1982	1988	1988	1998	1998	2000

e Estimated

07335790 KIAMICHI RIVER NEAR CLAYTON, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1982 - 2002	
ANNUAL TOTAL	434691.92		540363.84			
ANNUAL MEAN	1191		1480		1107	
HIGHEST ANNUAL MEAN					1967	1990
LOWEST ANNUAL MEAN					429	2000
HIGHEST DAILY MEAN	24000	Dec 17	32000	Apr 8	36800	May 4 1990
LOWEST DAILY MEAN	0.54	Aug 7	0.23	Sep 30	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	0.79	Aug 2	0.40	Sep 24	0.00	Oct 3 1983
MAXIMUM PEAK FLOW					40200	May 4 1990
MAXIMUM PEAK STAGE					22.23	May 4 1990
ANNUAL RUNOFF (AC-FT)	862200		1072000		802000	
10 PERCENT EXCEEDS	3130		3700		3130	
50 PERCENT EXCEEDS	335		279		266	
90 PERCENT EXCEEDS	4.9		2.9		4.1	



07336200 KIAMICHI RIVER NEAR ANTLERS, OK

LOCATION.--Lat 34°14'55", long 95°36'18", in SW $^1/_4$ sec.35, T.3 S., R.16 E., Pushmataha County, Hydrologic Unit 11140105, on right bank, 50 ft downstream from bridge on U.S. Highway 271 and State Highway 2, 2.0 mi northeast of Antlers, 7.7 mi downstream from Tenmile Creek, 5.4 mi upstream from Cedar Creek and at mile 59.6.

DRAINAGE AREA.--1,138 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 419.82 ft above sea level.

REMARKS.--Records good. Some regulation since December 1982 by Sardis Lake (station 07335775), located on Jackfork Creek, 42.0 miles upstream from station. Small diversion for municipal water supply for city of Antlers upstream from station. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

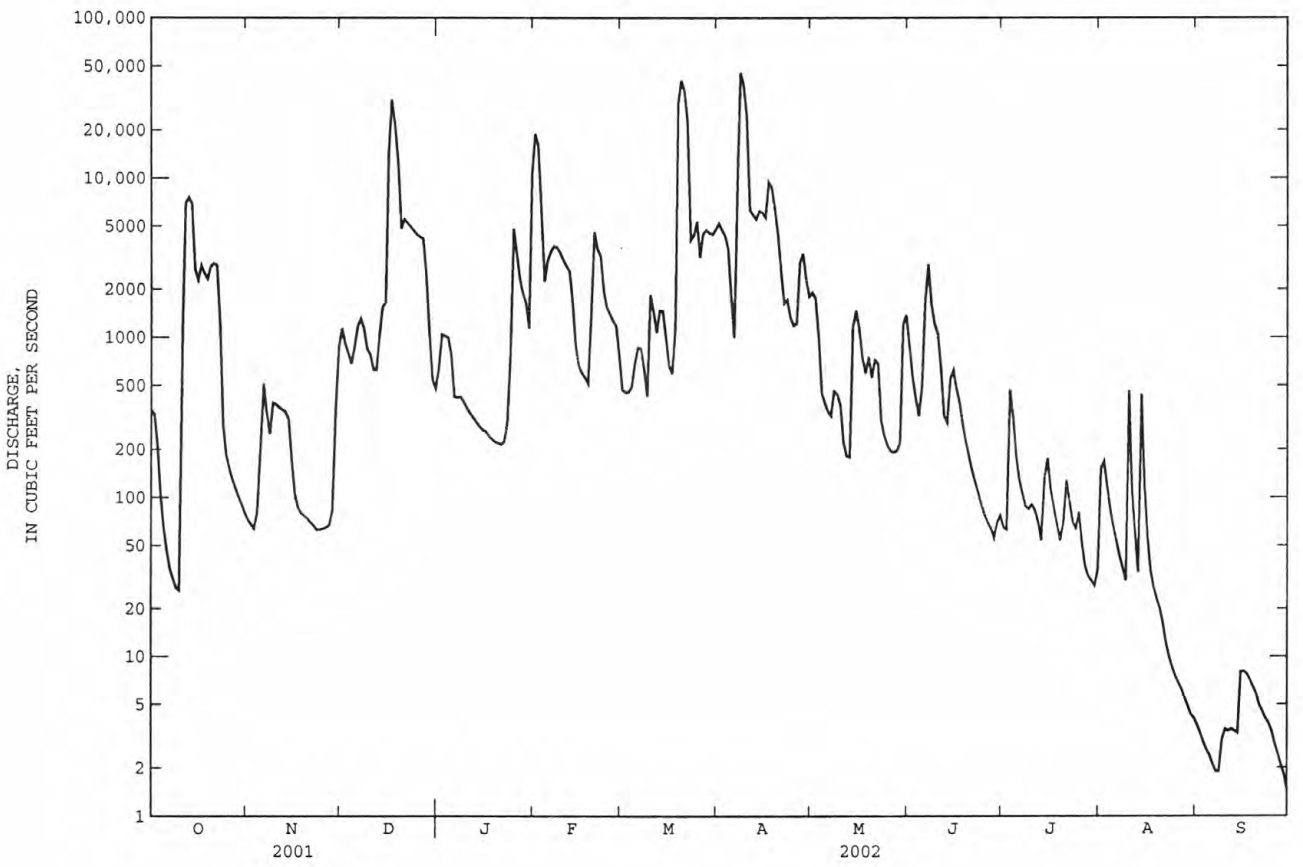
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	348	73	1140	638	18900	471	5190	1910	879	65	153	3.7
2	333	68	913	1040	16100	452	4740	1760	567	63	167	3.3
3	212	64	795	1020	5930	455	4360	1010	415	469	117	2.9
4	106	81	683	996	2250	490	3610	449	323	320	84	2.6
5	65	203	872	776	3030	688	1800	388	493	180	65	2.4
6	47	512	1180	425	3470	863	997	344	1660	129	53	2.1
7	36	335	1310	421	3730	850	8650	325	2860	106	43	1.9
8	31	248	1140	425	3660	622	45400	459	1620	88	36	1.9
9	27	390	845	396	3400	431	38200	442	1210	85	30	3.0
10	26	381	783	363	3070	1850	24500	379	1060	90	465	3.5
11	1120	364	628	337	2800	1460	6280	221	650	83	112	3.4
12	6980	354	628	317	2610	1070	5860	181	322	70	59	3.5
13	7540	342	1020	297	1680	1470	5530	179	294	54	34	3.4
14	6910	308	1550	280	891	1460	6190	1170	553	133	442	3.3
15	2650	171	1660	265	663	986	6060	1470	622	175	121	e8.0
16	2300	106	14200	259	601	662	5670	1130	472	112	57	e8.1
17	2820	87	30900	244	560	595	9390	746	385	86	35	e7.8
18	2520	80	22100	232	516	1140	8800	597	281	68	27	e7.1
19	2330	77	12700	223	1390	29000	6320	757	220	54	23	e6.4
20	2790	74	4820	219	4600	40600	4400	561	178	69	20	e5.9
21	2910	70	5510	215	3580	35300	2560	720	146	128	16	e4.9
22	2840	67	5220	223	3240	22600	1640	685	124	95	12	e4.5
23	1220	63	4940	293	1960	4090	1720	301	106	70	9.9	e4.1
24	284	63	4670	780	1540	4370	1320	243	90	64	8.5	e3.8
25	184	64	4430	4820	1400	5350	1190	212	78	81	7.5	e3.4
26	153	65	4280	3350	1270	3190	1220	195	70	51	6.8	e2.8
27	131	67	4160	2320	1180	4500	2950	191	64	37	6.2	e2.5
28	115	83	2430	1870	771	4720	3350	196	56	32	5.5	e2.1
29	102	355	1080	1630	---	4530	2310	218	70	30	4.9	e1.8
30	91	874	542	1140	---	4440	1810	1210	77	28	4.3	e1.5
31	81	---	481	10500	---	4740	---	1380	---	35	4.1	---
TOTAL	47302	6089	137610	36314	94792	183445	222017	20029	15945	3150	2228.7	115.6
MEAN	1526	203.0	4439	1171	3385	5918	7401	646.1	531.5	101.6	71.89	3.853
MAX	7540	874	30900	10500	18900	40600	45400	1910	2860	469	465	8.1
MIN	26	63	481	215	516	431	997	179	56	28	4.1	1.5
AC-FT	93820	12080	272900	72030	188000	363900	440400	39730	31630	6250	4420	229
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)												
MEAN	1048	2219	2530	1910	2477	2812	2847	2884	1416	385.1	247.6	401.5
MAX	7763	8614	5288	7159	6316	5918	7401	12700	3784	1704	2017	2960
(WY)	1985	1997	1993	1998	1990	2002	2002	1990	1992	1992	1992	1992
MIN	2.37	5.19	7.84	154	154	853	456	77.9	21.5	10.1	0.000	0.16
(WY)	2000	1990	1990	1986	1996	2000	1987	1988	1988	1998	1998	2000

e Estimated

07336200 KIAMICHI RIVER NEAR ANTLERS, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1984 - 2002	
ANNUAL TOTAL	648398.4		769037.3			
ANNUAL MEAN	1776		2107		[a]1760	
HIGHEST ANNUAL MEAN					3184	1990
LOWEST ANNUAL MEAN					646	2000
HIGHEST DAILY MEAN	30900	Dec 17	45400	Apr 8	57000	May 4 1990
LOWEST DAILY MEAN	1.7	Aug 15	1.5	Sep 30	[b]0.00	at times
ANNUAL SEVEN-DAY MINIMUM	2.3	Aug 9	2.4	Sep 3	0.00	Jul 31 1998
MAXIMUM PEAK FLOW			48400	Apr 8	62300	May 3 1990
MAXIMUM PEAK STAGE			36.13	Apr 8	42.65	May 3 1990
INSTANTANEOUS LOW FLOW			1.5	Sep 30		
ANNUAL RUNOFF (AC-FT)	1286000		1525000		1275000	
10 PERCENT EXCEEDS	4590		4740		4770	
50 PERCENT EXCEEDS	489		421		425	
90 PERCENT EXCEEDS	13		8.1		9.1	

[a]Prior to regulation by Sardis Lake, 1973-82, 1,484 ft^3/s.
[b]Prior to regulation by Sardis Lake, no flow many years.



07337900 GLOVER RIVER NEAR GLOVER, OK

LOCATION.--Lat 34°05'51", long 94°54'07", in NW $^1/_4$ NE $^1/_4$ sec.28, T.5 S., R.23 E., McCurtain County, Hydrologic Unit 11140107, on right downstream end of bridge on State Highways 3 and 7, 2.0 mi north of Glover, 11.0 mi northwest of Broken Bow, and at mile 9.2.

DRAINAGE AREA.--315 mi^2.

PERIOD OF RECORD.--October 1961 to current year. Prior to October 1990, published as Glover Creek near Glover.

GAGE.--Water-stage recorder. Datum of gage is 378.70 ft above sea level.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1961 reached a stage of 28.84 ft, from floodmark. Flood in 1908 was higher than in May 1961, from information provided by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 16	2230	51,000	23.03	Apr 8	0730	44,500	21.69
Jan 31	1930	43,500	21.48	May 28	1430	19,600	14.19
Mar 19	1100	31,500	18.23				

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

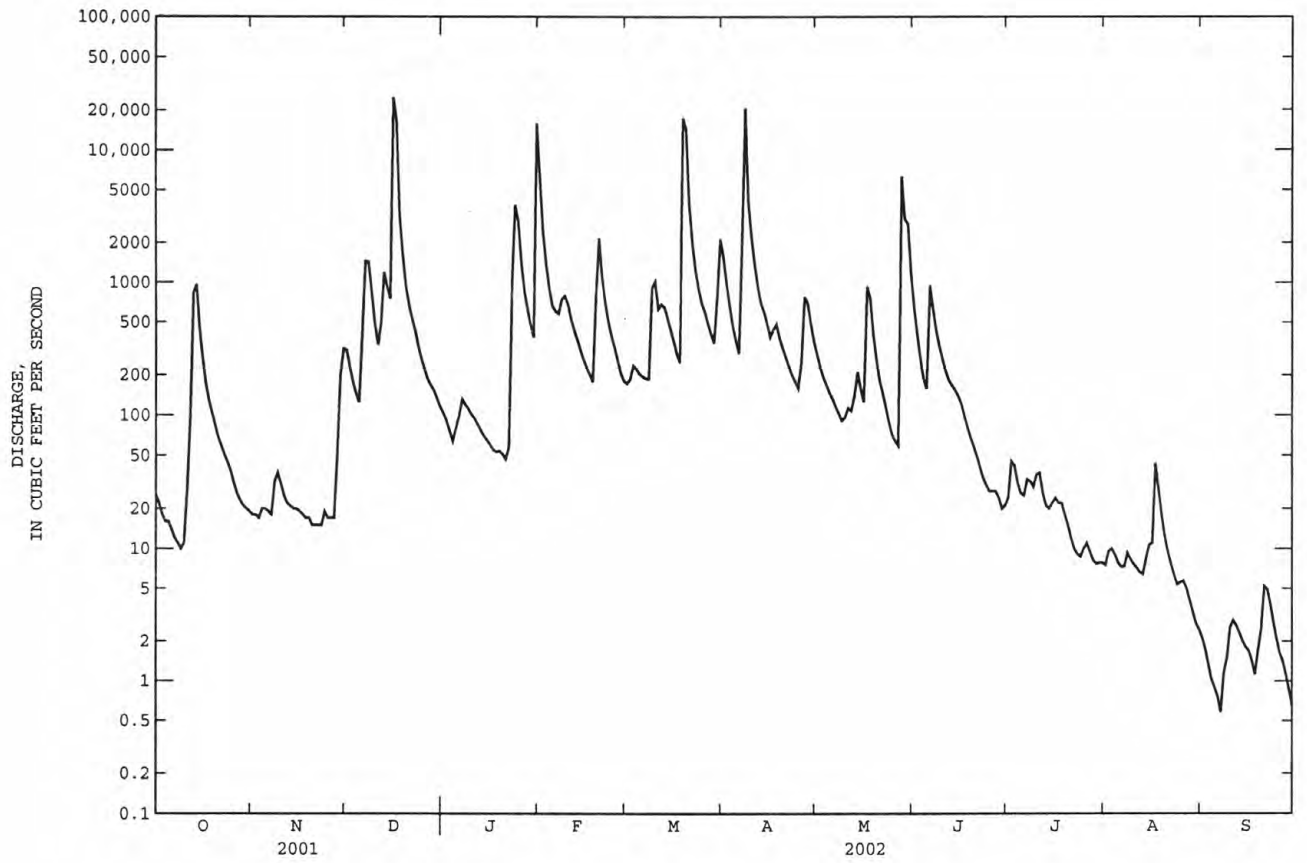
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	18	309	103	6340	172	1560	286	639	24	7.5	2.1
2	22	18	229	91	2400	185	971	229	402	45	9.6	1.8
3	18	17	177	76	1370	235	665	193	266	42	10	1.4
4	16	20	144	64	902	222	465	168	186	31	9.0	1.0
5	16	20	125	80	663	204	361	147	158	26	7.8	0.89
6	14	19	437	98	605	195	292	133	956	25	7.3	0.76
7	12	18	1450	131	580	188	2010	116	631	33	7.3	0.58
8	11	32	1430	120	743	187	20700	103	433	32	9.3	1.2
9	10	37	830	111	790	916	4060	91	331	29	8.3	1.5
10	11	31	480	101	685	1010	2210	96	264	36	7.6	2.5
11	28	25	339	94	529	632	1380	113	215	37	7.2	2.9
12	96	22	490	85	437	682	943	108	184	26	6.6	2.6
13	843	21	1200	77	371	649	697	139	168	21	6.4	2.3
14	969	20	915	70	310	535	600	211	154	20	8.4	2.0
15	434	20	753	65	262	436	491	156	140	22	11	1.8
16	259	19	24900	60	228	357	388	125	122	24	11	1.7
17	170	18	16900	55	201	286	441	939	99	22	44	1.4
18	128	17	3200	53	178	249	483	760	81	22	28	1.1
19	103	17	1590	54	773	17400	380	401	68	18	18	1.7
20	83	15	924	51	2160	14400	319	261	58	15	12	2.5
21	68	15	669	47	1090	3920	271	183	49	12	9.4	5.2
22	58	15	526	57	696	2010	232	147	41	10	7.7	4.9
23	50	15	425	1020	501	1250	200	115	34	9.1	6.3	3.8
24	44	19	324	3860	394	902	178	89	30	8.7	5.4	2.8
25	38	17	261	2910	321	699	160	72	27	10	5.6	2.1
26	31	17	218	1390	257	603	249	64	27	11	5.7	1.6
27	26	17	185	851	206	493	778	59	27	9.5	5.0	1.4
28	23	50	167	617	181	406	695	6320	24	8.2	4.1	1.1
29	21	201	152	473	---	350	486	3020	20	7.7	3.3	0.86
30	20	315	132	385	---	776	358	2770	21	7.8	2.7	0.65
31	19	---	115	15900	---	2130	---	1160	---	7.8	2.5	---
TOTAL	3666	1105	59996	29149	24173	52679	43023	18774	5855	651.8	294.0	58.14
MEAN	118.3	36.83	1935	940.3	863.3	1699	1434	605.6	195.2	21.03	9.484	1.938
MAX	969	315	24900	15900	6340	17400	20700	6320	956	45	44	5.2
MIN	10	15	115	47	178	172	160	59	20	7.7	2.5	0.58
AC-FT	7270	2190	119000	57820	47950	104500	85340	37240	11610	1290	583	115
CFSM	0.38	0.12	6.14	2.99	2.74	5.39	4.55	1.92	0.62	0.07	0.03	0.01
IN.	0.43	0.13	7.09	3.44	2.85	6.22	5.08	2.22	0.69	0.08	0.03	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

MEAN	380.4	587.0	767.4	517.4	702.8	845.6	713.7	837.8	354.2	88.84	66.98	207.0
MAX	2427	2615	3376	1556	1943	2506	2753	3503	1514	534	461	2690
(WY)	1985	1997	1972	1998	1997	1973	1991	1990	1973	1994	1992	1974
MIN	0.000	0.33	2.80	1.96	48.7	96.9	125	40.4	4.59	1.06	0.000	0.000
(WY)	1979	1964	1964	1964	1996	1980	1987	1988	1972	1966	1972	1972

07337900 GLOVER RIVER NEAR GLOVER, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	198247.9		239423.94			
ANNUAL MEAN	543.1		656.0		504.7	
HIGHEST ANNUAL MEAN					979	1973
LOWEST ANNUAL MEAN					169	1976
HIGHEST DAILY MEAN	24900	Dec 16	24900	Dec 16	53100	Dec 10 1971
LOWEST DAILY MEAN	4.2	Jul 24	0.58	Sep 7	0.00	at times
ANNUAL SEVEN-DAY MINIMUM	4.6	Jul 21	1.0	Sep 3	0.00	Aug 4 1970
MAXIMUM PEAK FLOW			51000	Dec 16	98600	Dec 10 1971
MAXIMUM PEAK STAGE			23.03	Dec 16	29.72	Dec 10 1971
ANNUAL RUNOFF (AC-FT)	393200		474900		365700	
ANNUAL RUNOFF (CFSM)	1.72		2.08		1.60	
ANNUAL RUNOFF (INCHES)	23.41		28.27		21.77	
10 PERCENT EXCEEDS	955		961		1060	
50 PERCENT EXCEEDS	140		103		125	
90 PERCENT EXCEEDS	7.5		5.5		3.6	



07338500 LITTLE RIVER BELOW LUKFATA CREEK NEAR IDABEL, OK

LOCATION.--Lat 33°56'28", long 94°45'30", in SE $^1/_4$ SE $^1/_4$ sec.14, T.7 S., R.24 E., McCurtain County, Hydrologic Unit 11140107, on left bank at downstream side of bridge on U.S. Highway 70 just downstream from Lukfata Creek, 5.0 mi northeast of Idabel, and at mile 103.4.

DRAINAGE AREA.--1,226 mi^2.

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 312.08 ft above sea level. Oct. 1, 1946, to Oct. 26, 1950, and for stages below 9.0 ft Oct. 26, 1950, to Oct. 10, 1951, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharge. Records good. Flow regulated since June 1969 by Pine Creek Lake (station 07337300), 41.9 mi upstream. Small diversions for municipal use by City of Idabel at station and by Weyerhaeuser 41 miles above station. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1938 reached a stage of 39.7 ft, from information provided by local resident, discharge, 86,000 ft^3/s.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	62	636	5490	10800	475	7800	4180	3660	92	2150	45
2	62	63	663	5400	12900	555	6060	4040	1200	190	978	45
3	58	63	578	5290	11300	770	6270	3780	904	218	299	45
4	55	62	975	5180	8220	766	6710	2210	1230	193	123	44
5	56	61	1340	3790	5960	862	7220	658	1160	129	67	44
6	59	65	1210	1760	5620	878	7070	501	792	99	53	44
7	59	67	1720	1510	6120	860	6500	483	2580	86	49	42
8	53	64	2710	1160	6790	850	9330	615	2590	83	48	42
9	46	73	2080	802	6980	726	15700	593	2180	79	49	44
10	51	83	1200	765	6850	1480	16000	683	2190	74	48	51
11	199	94	1900	741	6620	1240	11900	641	1760	68	45	58
12	334	86	2740	550	6390	1130	9350	431	1660	73	44	55
13	973	76	2810	300	5770	2520	8220	565	876	81	45	49
14	2020	71	3180	252	4910	3300	7350	935	373	80	51	47
15	1160	70	2460	233	4540	3210	7180	1240	359	97	61	47
16	1630	82	7500	474	3720	1970	7440	1140	252	89	68	46
17	2870	112	19700	628	3030	1020	7760	1960	193	88	62	44
18	2780	118	28500	276	2890	954	7830	3720	165	93	56	43
19	2690	119	19000	227	3520	3440	7660	1600	147	88	60	91
20	1570	115	12900	231	6330	14300	7460	817	132	85	69	130
21	648	113	8080	219	6060	25200	7300	1680	118	81	66	65
22	597	113	4520	220	4840	23100	7160	2630	108	77	60	61
23	452	112	4020	446	2870	14300	7000	1580	98	70	58	55
24	179	120	4960	2750	1360	9540	6900	429	88	68	55	48
25	109	125	5830	5120	1150	8250	6810	291	83	64	52	45
26	93	126	6000	5120	2590	7930	7100	256	79	63	49	45
27	82	123	5960	5490	1890	7730	7260	233	77	63	47	45
28	74	269	5850	5260	703	7540	5750	1030	76	61	47	46
29	69	479	5770	5290	---	7380	4810	6930	75	61	46	181
30	66	543	5680	5490	---	8610	4380	7360	76	61	46	314
31	64	---	5590	6480	---	10700	---	6820	---	1520	45	---
TOTAL	19229	3729	176062	76944	150723	171586	235280	60031	25281	4274	4996	1961
MEAN	620.3	124.3	5679	2482	5383	5535	7843	1936	842.7	137.9	161.2	65.37
MAX	2870	543	28500	6480	12900	25200	16000	7360	3660	1520	2150	314
MIN	46	61	578	219	703	475	4380	233	75	61	44	42
AC-FT	38140	7400	349200	152600	299000	340300	466700	119100	50140	8480	9910	3890

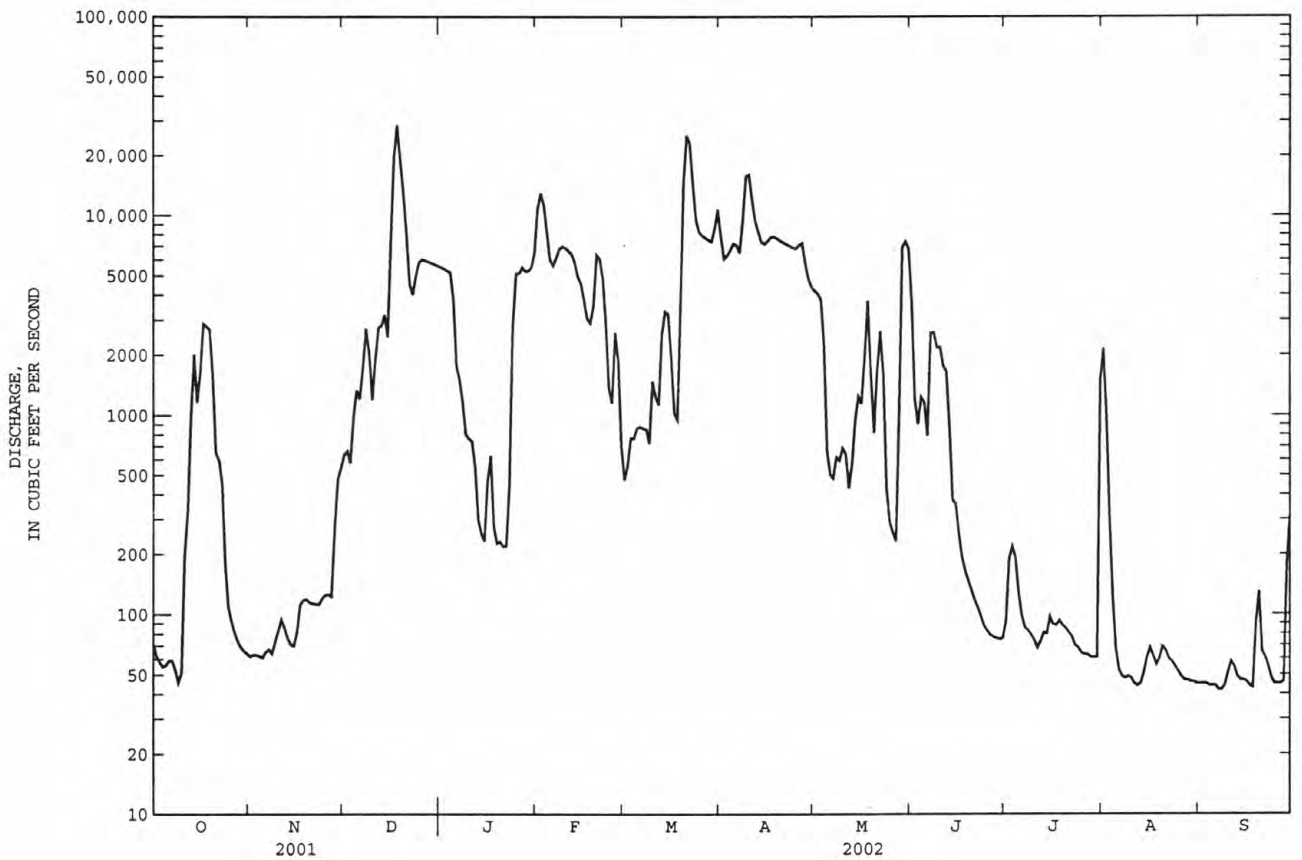
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

MEAN	1121	2323	3008	2152	2651	3139	2483	2997	1875	425.8	293.2	672.0
MAX	4453	8381	10320	7746	5513	7730	7843	8976	6044	2058	2299	6992
(WY)	1985	1997	1972	1998	1997	1973	2002	1990	1973	1992	1992	1974
MIN	26.4	38.2	37.3	157	176	209	380	143	46.9	31.0	18.5	25.0
(WY)	1979	1990	1990	1981	1976	1996	1987	1988	1972	1977	1972	1972

07338500 LITTLE RIVER BELOW LUKFATA CREEK NEAR IDABEL, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1971 - 2002	
ANNUAL TOTAL	793372		930096			
ANNUAL MEAN	2174		2548		[a]1924	
HIGHEST ANNUAL MEAN					3424	1973
LOWEST ANNUAL MEAN					676	1976
HIGHEST DAILY MEAN	28500	Dec 18	28500	Dec 18	66800	Dec 11 1971
LOWEST DAILY MEAN	33	Aug 25	42	Sep 7	[b]7.8	Aug 14 1976
ANNUAL SEVEN-DAY MINIMUM	41	Aug 20	44	Sep 3	11	Oct 15 1972
MAXIMUM PEAK FLOW			31800	Dec 18	103000	Dec 10 1971
MAXIMUM PEAK STAGE			34.36	Dec 18	39.39	Dec 10 1971
INSTANTANEOUS LOW FLOW			[c]42	Sep 7		
ANNUAL RUNOFF (AC-FT)	1574000		1845000		1394000	
10 PERCENT EXCEEDS	6290		7320		6060	
50 PERCENT EXCEEDS	607		628		600	
90 PERCENT EXCEEDS	64		51		46	

[a]Prior to regulation, water years 1947-68, 1,622 ft^3/s.
[b]Minimum daily discharge for period of record, 0.4 ft^3/s, Sept. 15-16, 21 to Oct. 1, 1956.
[c]Also occurred Sept. 8.



07338750 MOUNTAIN FORK AT SMITHVILLE, OK

LOCATION.--Lat 34°27'44", long 94°38'06", in SE $^1/_4$ SW $^1/_4$ sec.13, T.1 S., R.25 E., McCurtain County, Hydrologic Unit 11140108, on right downstream abutment of bridge on Highway 4, .5 mi east of Smithville, 0.6 mi downstream from Rock Creek, 3.5 mi upstream from Big Eagle Creek, and at mi 55.6.

DRAINAGE AREA.--320 mi^2.

PERIOD OF RECORD.--October 1991 to current year.

REVISED RECORDS.--WDR OK-99-2: 1994(M); 1995(M).

GAGE.--Water-stage recorder. Datum of gage is 664.70 ft above sea level.

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 10,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 16	2230	45,100	29.62	Apr 8	1030	26,900	20.61
Jan 31	2100	26,000	20.20	May 29	1200	12,400	14.11
Mar 19	1130	26,200	20.28				

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

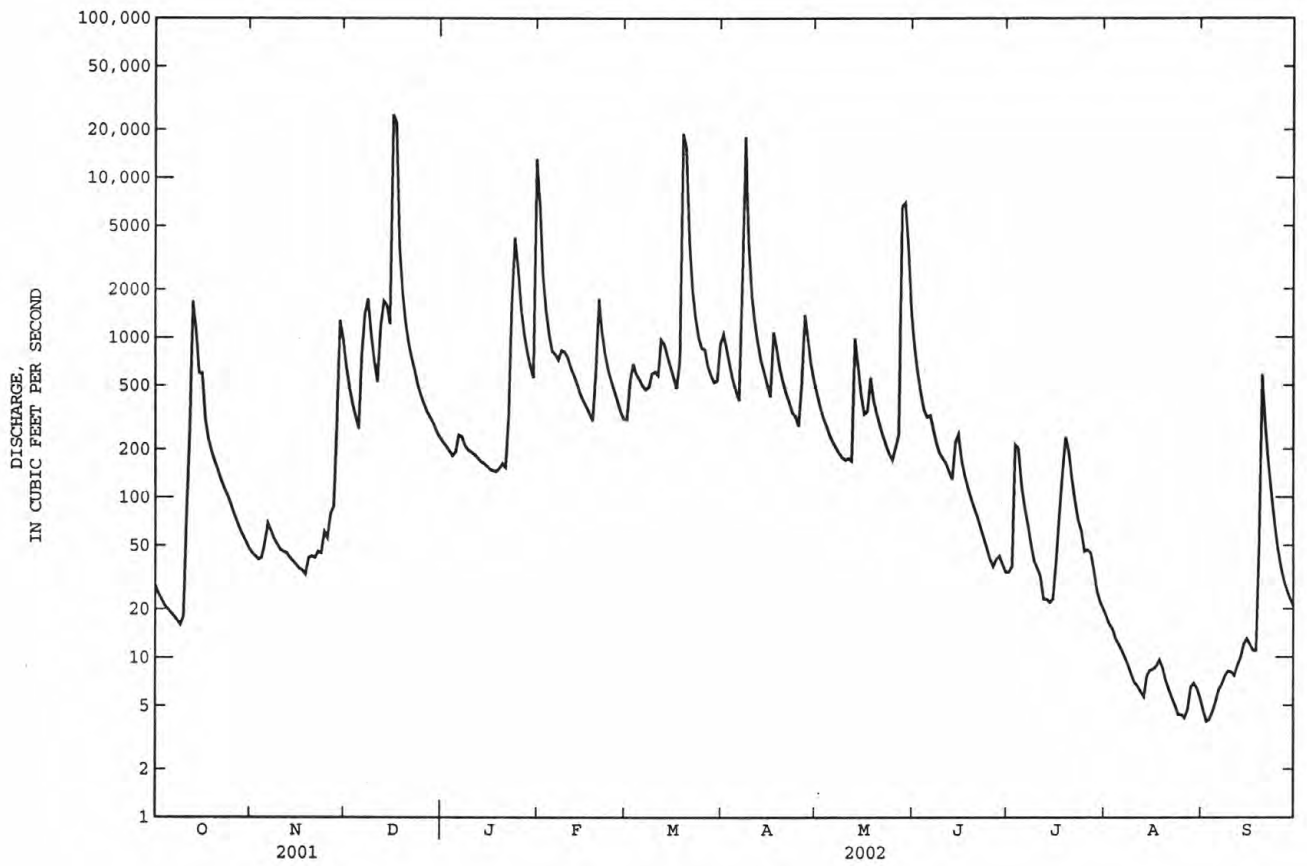
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	45	660	221	6960	307	1050	440	859	34	18	4.7
2	25	43	491	208	2410	530	843	365	597	37	16	4.0
3	23	41	382	195	1480	686	670	312	447	212	15	4.1
4	21	42	318	182	1050	587	539	278	350	202	13	4.6
5	20	52	268	192	818	548	462	245	318	119	12	5.3
6	19	69	782	245	786	497	403	221	325	87	11	6.3
7	18	62	1410	239	725	472	2350	204	263	68	9.9	6.8
8	17	55	1750	210	829	488	17900	189	216	51	8.9	7.7
9	16	51	1050	198	813	593	3840	177	187	40	7.8	8.2
10	18	47	706	192	751	610	1860	171	175	36	7.0	8.1
11	83	46	527	185	646	579	1230	175	163	32	6.6	7.7
12	262	45	1160	177	577	966	912	169	144	23	6.1	8.9
13	1690	42	1690	168	512	907	714	984	130	23	5.7	9.9
14	1130	40	1590	163	444	770	604	670	223	22	7.7	12
15	597	38	1210	157	400	653	503	434	248	23	8.3	13
16	597	36	24800	150	368	559	427	331	171	40	8.4	12
17	305	35	22200	147	333	479	1080	345	137	77	8.8	11
18	230	33	3740	145	302	718	849	559	115	142	9.6	11
19	194	42	1920	152	597	18800	639	400	99	237	8.6	49
20	168	43	1230	162	1750	15400	528	329	86	194	7.2	583
21	149	42	914	154	1070	4080	447	279	76	130	6.3	282
22	130	46	737	314	780	1990	393	241	65	95	5.6	162
23	115	45	610	1580	624	1330	339	209	56	72	5.0	105
24	104	61	495	4230	530	1010	320	186	48	62	4.4	69
25	93	56	426	2730	458	852	279	171	41	46	4.4	48
26	81	79	377	1540	398	845	514	205	37	47	4.2	37
27	72	88	338	1060	341	660	1390	248	41	45	4.7	30
28	64	290	312	807	308	578	974	6620	43	35	6.5	26
29	58	1280	286	656	---	523	684	6960	38	26	6.9	23
30	53	989	256	560	---	537	535	3620	34	22	6.4	21
31	48	---	236	13100	---	916	---	1440	---	20	5.6	---
TOTAL	6428	3883	72871	30419	27060	58470	43278	27177	5732	2299	255.6	1580.3
MEAN	207.4	129.4	2351	981.3	966.4	1886	1443	876.7	191.1	74.16	8.245	52.68
MAX	1690	1280	24800	13100	6960	18800	17900	6960	859	237	18	583
MIN	16	33	236	145	302	307	279	169	34	20	4.2	4.0
AC-FT	12750	7700	144500	60340	53670	116000	85840	53910	11370	4560	507	3130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	537.3	879.6	1206	826.3	851.9	896.5	693.6	688.2	469.0	160.6	44.24	212.9
MAX	1936	1814	2351	1417	2208	1886	1443	1397	1825	549	158	1525
(WY)	1999	1997	2002	1998	2001	2002	2002	1993	2000	1994	1996	1992
MIN	7.69	8.97	115	190	129	271	235	97.1	78.4	8.01	5.90	5.40
(WY)	2000	1996	1996	2000	1996	1996	1992	1997	2001	1998	2000	2000

07338750 MOUNTAIN FORK AT SMITHVILLE, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	228919.8		279452.9			
ANNUAL MEAN	627.2		765.6		621.1	
HIGHEST ANNUAL MEAN					821	1999
LOWEST ANNUAL MEAN					214	1996
HIGHEST DAILY MEAN	24800	Dec 16	24800	Dec 16	33700	Oct 6 1998
LOWEST DAILY MEAN	2.8	Jul 25	4.0	Sep 2	0.12	Aug 31 1995
ANNUAL SEVEN-DAY MINIMUM	3.9	Jul 20	4.9	Aug 21	0.70	Aug 29 1995
MAXIMUM PEAK FLOW			45100	Dec 16	46500	Oct 6 1998
MAXIMUM PEAK STAGE			29.62	Dec 16	30.40	Oct 6 1998
ANNUAL RUNOFF (AC-FT)	454100		554300		450000	
10 PERCENT EXCEEDS	1210		1180		1250	
50 PERCENT EXCEEDS	168		204		219	
90 PERCENT EXCEEDS	9.0		9.8		9.6	



07338905 MOUNTAIN FORK AT HIGHWAY 259A NEAR BROKEN BOW, OK

LOCATION.--Lat 34°08'15", long 94°41'16", in SE $^{1}/_{4}$ NE $^{1}/_{4}$ sec.9, T.5 S., R.25 E., McCurtain County, Hydrologic Unit 11140108, on right upstream abutment of bridge on State Highway 259A, 1.0 mi below Broken Bow Dam, 8.0 mi northeast of Broken Bow, and at mile 17.5.

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1996 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 25.5°C Sept. 14, 1997; minimum, 0.3°C Jan. 27, 2000.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 23.1°C July 22; minimum, 1.6°C Jan. 4.

WATER TEMPERATURE DEG. C VIA SATELLITE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.1	19.2	20.0	16.7	15.7	16.2	11.3	6.6	8.5	5.3	3.2	4.2
2	21.1	19.1	19.9	18.2	16.5	17.1	12.2	8.0	9.8	4.3	2.1	3.4
3	20.7	18.7	19.5	18.7	17.6	18.1	12.1	10.2	11.3	4.0	1.7	2.6
4	20.5	18.6	19.4	19.3	18.3	18.7	15.6	11.9	13.3	4.5	1.6	2.7
5	20.2	17.8	19.5	19.3	17.4	18.3	16.4	13.2	14.7	4.3	3.0	3.7
6	18.6	16.7	17.7	19.0	17.4	18.1	17.4	15.4	16.1	6.6	3.1	4.3
7	20.0	18.3	18.9	18.2	17.0	17.6	17.1	15.1	15.9	6.0	3.1	4.3
8	19.9	18.0	18.8	17.9	16.3	17.2	15.5	11.3	13.6	7.1	3.1	4.7
9	19.4	18.2	18.8	17.5	16.9	17.2	12.0	9.1	10.5	8.3	4.1	5.9
10	19.7	18.6	19.2	18.2	16.5	17.1	11.1	7.7	9.1	8.9	6.4	7.7
11	19.4	18.5	19.0	17.6	16.0	16.8	9.7	6.8	8.2	9.5	7.0	7.8
12	20.9	19.3	19.9	17.6	16.4	16.9	10.0	8.8	9.5	9.0	6.0	7.0
13	20.8	19.4	20.0	17.4	16.5	16.9	11.4	9.7	10.5	8.8	4.6	6.3
14	19.6	18.1	18.8	17.4	16.1	16.7	11.5	9.4	10.3	8.0	5.4	6.3
15	19.9	17.8	18.6	17.4	15.6	16.5	9.9	8.8	9.4	8.3	4.3	6.0
16	18.5	16.7	17.7	17.3	16.1	16.6	12.9	9.8	12.2	8.0	5.9	6.8
17	17.9	16.2	16.9	17.0	16.3	16.5	13.2	11.1	12.4	7.9	6.8	7.4
18	17.5	15.8	16.6	16.6	15.6	16.2	12.2	9.6	10.7	7.0	5.9	6.4
19	17.4	16.3	16.9	16.5	15.3	16.0	10.2	8.0	8.9	7.0	4.7	6.0
20	18.7	17.0	17.7	15.3	13.6	14.3	9.5	6.7	7.8	8.0	4.3	5.7
21	19.7	17.9	18.6	13.9	12.2	13.1	9.6	6.0	7.4	8.4	4.4	5.9
22	19.8	18.6	19.1	13.4	12.3	12.9	10.3	7.6	8.9	7.0	5.0	6.2
23	20.4	19.5	19.8	14.5	13.3	13.8	9.2	7.2	8.2	9.7	6.9	8.0
24	21.1	19.4	20.2	14.6	13.6	14.2	8.1	6.0	6.9	9.7	7.2	8.9
25	19.4	18.0	18.6	14.4	12.7	13.5	6.9	5.1	5.9	8.6	5.8	7.1
26	18.0	16.6	17.3	14.2	12.6	13.4	6.2	4.1	4.9	8.2	4.1	6.1
27	17.4	15.8	16.5	12.6	7.9	10.7	7.0	3.6	4.9	8.3	4.4	6.1
28	16.7	15.1	15.8	9.1	7.9	8.4	7.0	4.4	5.5	10.2	6.0	7.9
29	16.4	14.8	15.5	8.1	6.5	7.2	7.0	4.8	5.8	11.6	9.5	10.5
30	16.5	14.6	15.4	9.6	5.8	7.3	5.5	4.5	5.0	14.3	10.9	12.4
31	16.3	14.6	15.4	---	---	---	5.6	3.4	4.4	13.4	9.4	11.7
MONTH	21.1	14.6	18.3	19.3	5.8	15.1	17.4	3.4	9.4	14.3	1.6	6.5

07338905 MOUNTAIN FORK AT HIGHWAY 259A NEAR BROKEN BOW, OK--Continued

WATER TEMPERATURE DEG. C VIA SATELLITE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	6.6	8.2	6.7	6.3	6.5	16.2	13.5	14.6	22.6	20.8	21.4
2	9.0	5.0	6.9	6.7	3.2	5.8	17.2	15.2	16.0	22.6	21.7	22.2
3	9.5	7.2	8.1	5.8	1.8	3.3	16.5	15.2	15.8	21.7	19.0	19.8
4	9.5	7.3	8.3	7.8	2.6	4.5	15.5	14.1	14.5	20.4	18.5	19.3
5	8.7	5.1	6.9	8.8	3.3	6.0	15.6	13.2	14.4	20.7	19.5	20.1
6	5.6	4.7	5.1	7.8	6.3	6.9	15.5	14.3	14.9	21.7	19.7	20.4
7	6.1	4.3	5.1	9.8	7.5	8.3	14.9	13.4	14.1	22.3	21.2	21.6
8	7.0	5.3	5.9	10.0	9.4	9.7	13.4	12.2	12.8	22.3	22.1	22.2
9	8.1	4.9	6.2	12.2	10.0	11.2	15.5	13.2	14.3	22.2	18.3	20.5
10	6.3	4.4	5.4	11.3	9.2	10.2	17.2	14.7	15.8	18.3	16.8	17.4
11	7.9	3.6	5.4	10.2	9.3	9.4	18.6	17.2	17.9	17.8	16.0	16.9
12	8.4	3.7	5.7	11.3	9.2	10.0	19.3	17.6	18.3	17.9	16.7	17.4
13	8.5	5.3	6.5	12.0	9.6	10.8	18.9	18.0	18.4	18.0	15.6	17.0
14	9.0	4.7	6.7	13.6	11.4	12.3	19.8	17.6	18.4	18.6	16.5	17.5
15	8.0	5.5	6.7	14.8	13.4	13.9	19.7	18.8	19.2	20.7	18.6	19.4
16	9.6	4.7	6.7	13.9	12.6	13.0	19.5	18.9	19.2	20.8	19.8	20.2
17	9.6	6.1	7.5	12.9	12.3	12.6	19.5	18.4	19.0	20.5	15.3	17.3
18	9.2	7.1	8.2	12.8	12.4	12.7	20.8	19.1	19.8	17.2	14.7	15.8
19	10.4	8.8	9.6	12.4	11.6	12.0	21.7	20.5	20.9	18.1	15.4	16.7
20	12.4	9.1	10.3	12.6	11.6	11.9	22.0	20.9	21.4	17.4	15.7	16.5
21	11.8	9.3	10.2	14.0	10.9	12.1	21.7	20.8	21.2	17.6	15.7	16.6
22	11.2	7.7	9.3	12.4	9.7	10.9	21.1	19.1	20.1	18.4	16.0	17.1
23	11.2	7.5	9.0	12.6	10.2	11.3	20.7	19.3	19.9	18.8	16.8	17.6
24	11.6	7.9	9.6	12.2	11.4	11.7	20.8	19.2	19.9	19.0	16.8	17.9
25	11.0	6.5	9.8	11.8	11.0	11.6	20.6	18.9	19.6	16.9	14.5	15.8
26	6.5	2.8	4.7	11.7	10.1	10.7	19.2	15.8	17.3	17.6	15.8	16.5
27	8.1	2.1	4.6	12.3	10.1	11.1	15.8	15.3	15.5	18.2	16.5	17.3
28	9.1	3.7	6.0	15.0	11.7	13.0	18.3	15.4	16.4	18.1	15.4	16.7
29	---	---	---	16.3	14.0	14.9	18.4	17.8	18.1	19.5	18.1	18.8
30	---	---	---	16.2	12.9	14.9	21.2	18.1	19.0	20.0	19.2	19.5
31	---	---	---	13.8	12.0	12.9	---	---	---	21.3	19.7	20.4
MONTH	12.4	2.1	7.2	16.3	1.8	10.5	22.0	12.2	17.6	22.6	14.5	18.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.6	20.3	20.9	18.9	17.9	18.2	21.1	19.8	20.4	20.4	19.1	19.6
2	20.5	18.3	19.4	18.3	17.1	17.7	20.6	19.1	20.1	20.7	19.2	19.7
3	20.3	18.4	19.3	19.4	17.5	18.4	20.2	19.1	19.6	20.3	19.3	19.8
4	20.5	18.7	19.5	20.2	18.4	19.3	20.5	19.8	20.1	20.4	19.7	20.0
5	19.4	18.2	18.8	20.0	18.7	19.4	20.4	19.7	20.0	20.1	18.9	19.7
6	18.8	17.2	18.0	21.2	19.0	19.9	20.3	19.5	19.9	19.9	18.8	19.3
7	19.7	18.1	18.8	20.8	19.9	20.4	19.9	18.9	19.5	20.8	19.6	20.1
8	19.9	18.6	19.3	20.9	19.3	20.1	19.9	18.2	19.0	20.2	18.7	19.7
9	19.5	18.3	18.8	21.0	19.5	20.2	20.2	18.4	19.5	19.5	18.5	19.0
10	19.5	18.1	18.7	21.4	19.1	20.1	19.5	18.1	18.7	19.8	18.4	19.0
11	19.7	18.5	19.1	21.4	19.7	20.4	19.2	18.1	18.6	20.0	18.8	19.3
12	21.0	18.7	19.6	20.9	19.5	20.1	19.7	18.5	19.0	20.7	19.3	19.8
13	22.4	20.5	21.3	20.2	18.3	19.3	19.7	18.5	18.9	20.9	19.1	19.7
14	22.3	20.7	21.5	19.7	18.3	19.1	19.1	18.1	18.6	20.7	19.2	19.8
15	21.4	19.6	20.5	19.6	18.2	18.8	19.3	18.1	18.5	20.4	18.8	19.5
16	20.9	18.8	19.9	19.0	18.2	18.6	19.8	18.9	19.3	20.4	18.7	19.8
17	20.3	18.7	19.5	18.7	17.3	17.9	20.6	18.6	19.4	19.9	18.2	18.8
18	20.2	18.4	19.4	19.1	17.5	18.1	21.4	19.3	20.1	20.9	18.8	19.6
19	20.5	18.6	19.6	21.0	18.0	19.4	21.7	20.3	20.8	20.6	18.6	19.7
20	21.0	19.5	20.3	22.4	19.4	20.6	21.0	20.0	20.4	20.0	18.5	19.0
21	21.6	19.9	20.6	22.6	20.0	21.1	20.8	19.7	20.1	20.8	19.2	19.9
22	21.2	20.1	20.6	23.1	19.9	21.4	21.2	19.6	20.1	20.8	19.2	19.8
23	20.3	19.1	19.6	22.2	20.5	21.2	21.8	20.0	20.5	21.2	18.9	19.9
24	19.9	18.2	19.0	21.1	19.0	19.7	21.4	20.0	20.4	20.0	18.2	19.0
25	20.2	18.4	19.3	20.2	18.2	19.2	20.7	19.3	20.1	20.0	18.1	18.9
26	19.9	18.7	19.4	21.7	20.2	20.9	20.5	19.3	19.7	20.9	18.9	19.8
27	19.6	18.3	18.9	22.9	20.7	21.6	20.4	18.5	19.8	22.6	20.2	21.4
28	20.8	19.1	19.8	22.8	20.3	21.4	19.7	18.1	18.9	21.0	19.5	20.3
29	20.8	19.6	20.1	22.1	20.2	21.0	20.7	19.2	19.9	20.6	19.3	19.9
30	19.6	18.0	18.8	20.5	18.9	19.5	20.5	19.2	19.7	20.5	19.0	19.6
31	---	---	---	21.3	19.2	20.0	20.0	19.0	19.4	---	---	---
MONTH	22.4	17.2	19.6	23.1	17.1	19.8	21.8	18.1	19.6	22.6	18.1	19.6
YEAR	23.1	1.6	15.2									

07338960 MOUNTAIN FORK AT PRESBYTERIAN FALLS NEAR EAGLETOWN, OK

LOCATION.--Lat 34°04'21", long 94°37'42", in NE $^{1}/_{4}$ NW $^{1}/_{4}$ sec.31, T.5 S., R.26 E., McCurtain County, Hydrologic Unit 11140108, on right downstream bank, 4.0 mi northwest of Eagletown, 9.7 mi downstream from Broken Bow Dam, and at mile 11.3.

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum 27.0°C July 25, 26, 27, 1998; minimum 2.9°C Jan. 1, 2001.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum 24.7°C Aug. 19; minimum recorded 9.6°C Dec. 20 (more than 20% missing record).

WATER TEMPERATURE DEG C VIA SATELLITE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	17.3	16.3	16.7	12.9	11.0	12.0	---	---	---
2	21.1	18.4	19.5	18.0	16.4	17.0	13.0	10.8	12.0	---	---	---
3	20.7	17.2	18.6	18.2	16.8	17.4	12.6	11.6	12.1	---	---	---
4	20.7	18.7	19.5	18.3	16.9	17.5	14.4	12.3	13.3	---	---	---
5	19.7	18.1	18.7	18.7	15.1	17.0	14.0	12.3	13.1	---	---	---
6	19.4	17.1	18.0	18.7	16.7	17.5	15.0	13.3	14.2	---	---	---
7	19.2	16.9	17.9	18.1	16.5	17.1	14.9	13.6	14.2	---	---	---
8	19.2	16.3	17.5	18.0	16.1	16.9	14.8	12.9	14.1	---	---	---
9	18.7	17.3	18.0	17.4	16.5	16.9	13.2	11.5	12.5	---	---	---
10	19.2	18.0	18.5	18.1	16.0	17.0	12.9	10.8	11.8	---	---	---
11	19.1	18.2	18.5	17.9	15.3	16.7	12.4	11.4	11.9	---	---	---
12	19.6	17.7	18.4	17.6	15.5	16.5	12.4	11.7	12.0	---	---	---
13	---	---	---	17.4	16.1	16.6	12.4	11.8	12.0	---	---	---
14	---	---	---	17.5	16.2	16.6	12.4	11.8	12.1	---	---	---
15	---	---	---	17.7	15.8	16.6	12.0	11.5	11.7	---	---	---
16	18.7	16.1	17.3	17.0	15.4	16.2	12.2	11.4	11.7	---	---	---
17	18.5	16.2	17.1	16.7	15.5	16.1	13.0	12.2	12.5	---	---	---
18	17.7	14.9	16.2	16.8	15.0	16.0	13.2	11.5	12.3	---	---	---
19	17.9	15.8	16.8	16.6	14.3	15.7	12.1	10.8	11.4	---	---	---
20	18.7	16.3	17.4	14.9	12.9	14.0	11.8	9.6	10.7	---	---	---
21	18.9	15.7	17.3	14.2	12.6	13.4	11.2	10.0	10.5	---	---	---
22	19.0	16.2	17.6	14.1	13.2	13.7	---	---	---	---	---	---
23	19.1	17.4	18.3	15.6	13.8	14.6	---	---	---	---	---	---
24	19.3	17.6	18.5	15.5	13.9	14.6	---	---	---	---	---	---
25	17.9	16.6	17.3	14.9	12.9	14.1	---	---	---	---	---	---
26	17.9	16.6	17.2	14.8	13.4	14.0	---	---	---	---	---	---
27	18.4	16.2	17.3	14.0	12.2	13.2	---	---	---	---	---	---
28	17.1	14.8	16.1	12.5	11.4	11.8	---	---	---	---	---	---
29	17.2	14.6	15.8	12.3	11.7	12.0	---	---	---	---	---	---
30	16.8	15.8	16.3	12.2	11.2	11.7	---	---	---	---	---	---
31	16.8	16.0	16.3	---	---	---	---	---	---	---	---	---
MONTH	21.1	14.6	17.6	18.7	11.2	15.5	15.0	9.6	12.3	---	---	---

07338960 MOUNTAIN FORK AT PRESBYTERIAN FALLS NEAR EAGLETOWN, OK--Continued

WATER TEMPERATURE DEG C VIA SATELLITE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	21.9	19.9	20.6	22.2	19.6	20.5	23.6	19.7	21.3
2	---	---	---	22.2	19.6	20.6	22.7	20.6	21.5	23.8	20.1	21.7
3	---	---	---	21.4	18.1	19.5	23.5	20.5	21.8	23.4	19.4	21.8
4	---	---	---	22.9	19.2	20.8	23.5	20.6	22.4	23.4	21.2	22.0
5	---	---	---	22.8	19.4	21.0	22.9	18.6	20.9	24.1	21.8	22.6
6	---	---	---	22.0	18.0	19.9	23.2	20.7	21.6	23.8	21.5	22.4
7	---	---	---	20.1	17.2	18.6	22.6	20.6	21.6	23.5	21.7	22.4
8	---	---	---	22.6	18.4	20.0	23.6	20.6	21.6	23.2	22.1	22.5
9	---	---	---	21.2	18.6	19.5	23.4	20.6	21.8	22.9	21.3	22.0
10	---	---	---	21.3	18.6	19.9	23.0	20.4	21.8	23.2	21.0	21.9
11	---	---	---	22.3	19.4	20.7	22.9	19.5	21.1	23.3	21.4	22.3
12	---	---	---	21.4	19.4	20.4	22.4	19.4	20.8	23.4	21.8	22.4
13	---	---	---	21.7	18.9	20.1	21.8	19.5	20.5	23.4	21.2	22.0
14	---	---	---	23.0	19.1	20.5	21.8	20.2	21.0	22.8	21.2	21.9
15	---	---	---	22.4	17.6	19.4	21.9	19.6	20.9	22.6	20.9	21.8
16	---	---	---	19.7	18.2	19.2	21.2	19.7	20.6	21.8	20.6	21.1
17	---	---	---	20.4	18.5	19.4	20.8	19.3	20.0	23.0	20.3	21.4
18	---	---	---	20.1	18.0	19.2	22.8	20.0	21.0	22.7	20.2	21.2
19	---	---	---	19.9	18.2	19.0	24.7	20.2	22.0	21.7	20.4	20.9
20	---	---	---	21.5	19.1	20.1	23.5	20.1	22.1	22.6	20.4	21.3
21	---	---	---	22.3	20.0	20.8	23.7	20.4	22.1	21.8	19.6	20.8
22	---	---	---	23.4	20.4	21.5	24.1	20.9	22.3	21.9	19.4	20.5
23	---	---	---	22.2	20.1	21.0	23.3	20.5	21.7	22.0	19.4	20.6
24	---	---	---	22.1	20.4	20.9	24.1	21.4	22.4	22.4	19.9	20.9
25	21.1	18.9	19.6	23.0	20.2	21.3	23.7	21.8	22.5	23.0	19.9	21.0
26	22.8	19.6	21.0	22.6	19.5	21.1	23.7	21.2	22.2	22.6	20.2	21.2
27	23.2	19.6	20.9	21.7	18.2	20.2	21.7	19.4	20.5	22.9	20.3	21.3
28	23.3	19.6	21.1	22.2	18.6	20.6	22.5	19.7	20.9	23.2	20.7	21.5
29	20.9	19.0	20.4	22.3	19.5	20.9	22.9	20.3	21.3	23.6	20.7	21.5
30	21.2	19.0	19.9	21.9	18.2	19.8	23.0	19.7	21.0	23.2	20.5	21.4
31	---	---	---	23.1	19.1	20.8	23.1	19.7	21.1	---	---	---
MONTH	23.3	18.9	20.5	23.4	17.2	20.2	24.7	18.6	21.4	24.1	19.4	21.6
YEAR	24.7	9.6	18.5									

07339000 MOUNTAIN FORK NEAR EAGLETOWN, OK

LOCATION.--Lat 34°02'30", long 94°37'11", in SE $^1/_4$ SE $^1/_4$ sec.7, T.6 S., R.26 E., McCurtain County, Hydrologic Unit 11140108, on right downstream bank on U.S. Highway 70, 2.0 mi west of Eagletown, 10.7 mi downstream from Broken Bow Dam, and at mile 8.9.

DRAINAGE AREA.--787 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1924 to December 1925, October 1929 to current year. Published as Mountain Fork River near Broken Bow 1924-25 and as Mountain Fork River near Eagletown 1929-60. Monthly discharge only for some periods, pub- lished in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1241: 1924-26, 1930 (M), 1936-37 (M), 1938, 1939 (M) 1942 (M).

GAGE.--Water-stage recorder. Datum of gage is 333.87 ft above sea level. See WSP 1920 for history of changes prior to July 23, 1950.

REMARKS.--No estimated daily discharge. Records good. Flow completely regulated except for 33 mi^2 intervening area, since October 1968 by Broken Bow Lake (station 07338900). U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 18-19, 1915, reached a stage of 26.4 ft, from information provided by local resident, discharge, 92,500 ft^3/s.

DISCHARGE VIA SATELLITE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	798	227	4440	1130	2170	468	5630	3500	346	1980	365
2	307	484	125	3620	326	1280	6650	1910	4780	551	2350	384
3	230	581	127	3320	185	1660	7250	1010	4960	441	1520	822
4	562	151	296	3480	3220	2680	7280	986	3530	371	908	1100
5	852	257	130	2910	7400	2530	7130	219	4780	662	1130	1160
6	420	593	266	2270	7400	1920	4420	1020	3000	730	1100	1270
7	337	614	228	2810	7460	536	2280	1750	2760	1010	877	691
8	236	652	452	2540	7560	146	1170	1620	1820	937	752	389
9	297	590	137	2240	2050	347	375	1480	488	1680	453	589
10	226	148	474	2500	263	289	212	1240	425	1470	400	932
11	348	118	1140	2580	2000	382	2760	1170	1360	638	445	576
12	204	113	1230	1160	2770	474	7090	224	1200	517	414	386
13	1170	265	723	216	4860	669	7120	161	486	365	626	353
14	386	578	1540	1390	3080	409	7140	144	350	309	573	423
15	199	480	977	2520	3530	340	7160	141	183	714	429	501
16	219	134	4820	1550	3770	180	7210	754	173	1990	703	490
17	295	114	2500	2040	3790	115	7460	2670	179	1240	696	359
18	239	108	494	2440	2810	1030	7340	831	356	787	387	387
19	345	101	226	989	4040	1430	7310	274	793	2120	376	518
20	162	97	380	166	3660	2970	7330	1300	916	2480	505	416
21	148	188	638	731	3280	484	7350	1530	889	2120	378	449
22	142	336	2820	1270	3340	941	6520	423	845	1430	790	322
23	272	145	7440	1220	3410	3020	4630	358	546	1280	1970	326
24	904	259	7450	919	3550	3260	5740	286	756	1620	1190	453
25	1260	113	7480	2330	2910	5390	5740	152	1130	1320	520	391
26	1470	114	7440	4970	2110	7880	5110	141	402	866	581	413
27	746	221	6400	3690	1980	7930	1600	154	353	652	1050	509
28	170	339	4460	3290	1900	7980	275	1180	340	569	986	416
29	663	883	5990	3160	---	7420	747	4280	421	681	547	349
30	1820	735	5430	2670	---	2210	3840	7790	311	830	410	328
31	2190	---	3550	3990	---	1000	---	7720	---	896	382	---
TOTAL	17035	10309	75590	73421	93784	69072	146707	48548	42032	31622	25428	16067
MEAN	549.5	343.6	2438	2368	3349	2228	4890	1566	1401	1020	820.3	535.6
MAX	2190	883	7480	4970	7560	7980	7460	7790	4960	2480	2350	1270
MIN	142	97	125	166	185	115	212	141	173	309	376	322
AC-FT	33790	20450	149900	145600	186000	137000	291000	96290	83370	62720	50440	31870

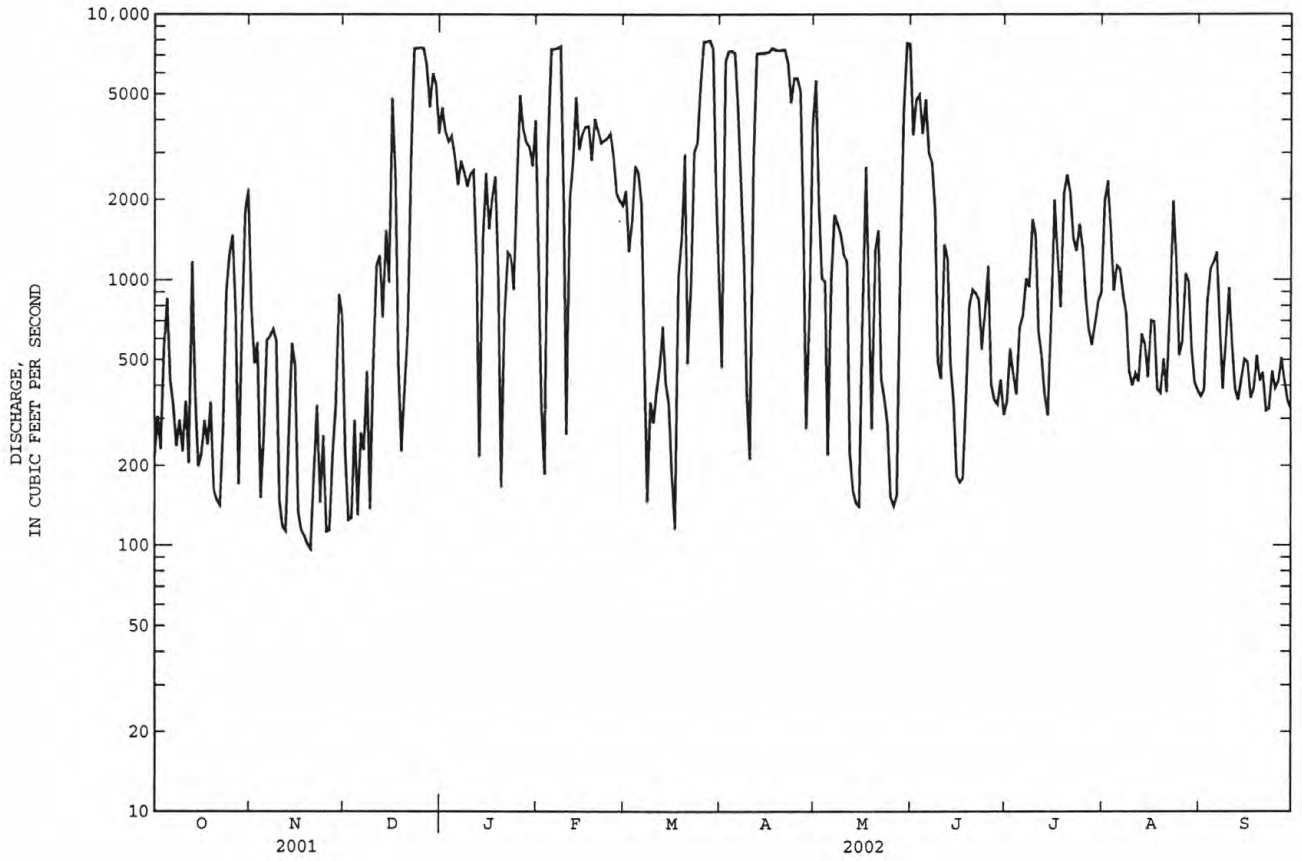
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	673.5	1233	2069	1796	1870	2243	2113	2039	1590	987.1	768.4	626.0
MAX	2638	6897	5286	5121	4159	5623	4976	7264	6061	3371	1515	2300
(WY)	1994	1985	1997	1988	1989	1997	1979	1991	1990	1999	1983	1992
MIN	136	110	154	166	292	348	306	357	219	155	238	155
(WY)	1989	1996	1990	2000	1981	1996	1980	1988	1988	1988	1985	1989

07339000 MOUNTAIN FORK NEAR EAGLETOWN, OK--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	565609		649615			
ANNUAL MEAN	1550		1780		[a]1499	
HIGHEST ANNUAL MEAN					2468	1973
LOWEST ANNUAL MEAN					450	1996
HIGHEST DAILY MEAN	7480	Dec 25	7980	Mar 28	11500	May 19 1991
LOWEST DAILY MEAN	97	Nov 20	97	Nov 20	[b]16	Dec 12 1971
ANNUAL SEVEN-DAY MINIMUM	154	Nov 16	154	Nov 16	68	Jan 12 1996
MAXIMUM PEAK FLOW			8250	Feb 19	[c]18200	Jun 2 1990
MAXIMUM PEAK STAGE			7.68	Feb 19	[d]11.58	Jun 2 1990
INSTANTANEOUS LOW FLOW			99	Nov 20		
ANNUAL RUNOFF (AC-FT)	1122000		1289000		1086000	
10 PERCENT EXCEEDS	4880		5220		4120	
50 PERCENT EXCEEDS	663		831		697	
90 PERCENT EXCEEDS	188		202		158	

[a]Prior to regulation by Broken Bow Lake, 1925, 1930-68, 1,291 ft^3/s.
[b]No flow in several years prior to regulation by Broken Bow Lake.
[c]Maximum discharge for period of record, 101,000 ft^3/s May 20, 1960, from rating curve extended above 65,000 ft^3/s.
[d]Maximum gage-height for period of record, 26.73 ft May 20, 1960.



07339000 MOUNTAIN FORK NEAR EAGLETOWN, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948, 1955, 1961-1963, October 1992 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1947 to September 1948, November 1960 to September 1963.
WATER TEMPERATURE: October 1947 to September 1948, March to September 1955, November 1960 to September 1963, October 1992 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 128 microsiemens Nov. 19, 1947; minimum daily, 21 microsiemens Jan. 1, 1948.
WATER TEMPERATURE: Maximum daily, 34.5°C July 29, 1955; minimum daily, 0.0°C several days in winter months.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum 24.7°C June 18; minimum 5.7°C Mar. 4.

WATER TEMPERATURE DEGREES CELISUS, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.6	18.0	19.2	17.2	15.5	16.4	12.3	10.2	11.3	9.7	8.9	9.3
2	20.5	17.2	18.9	17.9	15.8	16.7	13.8	10.8	11.9	9.5	8.4	8.9
3	20.9	18.4	19.3	18.2	16.1	17.2	12.5	11.5	12.0	8.9	7.8	8.4
4	20.8	17.9	19.1	19.2	16.6	17.7	14.6	11.9	13.0	8.8	7.8	8.3
5	19.0	17.5	18.4	18.0	15.8	16.8	15.1	13.3	13.9	8.8	8.3	8.5
6	18.6	16.4	17.6	17.9	16.0	17.0	14.7	13.4	14.0	9.3	8.0	8.5
7	18.5	16.0	17.3	17.5	15.7	16.7	15.4	13.8	14.5	9.0	7.7	8.2
8	18.9	16.3	17.5	17.4	15.5	16.4	14.5	12.7	13.7	9.0	7.9	8.3
9	18.1	16.7	17.4	17.0	15.9	16.5	13.0	11.1	11.9	9.4	8.0	8.5
10	19.5	17.8	18.6	17.8	16.0	16.6	12.2	10.2	11.2	9.5	8.4	8.8
11	18.9	17.5	18.2	18.0	15.2	16.2	12.0	10.5	11.3	9.3	8.2	8.7
12	19.7	17.6	18.4	18.0	15.3	16.3	12.1	11.2	11.6	9.9	8.0	8.8
13	19.1	17.6	18.3	17.2	15.7	16.3	12.1	11.5	11.8	9.3	7.2	8.3
14	19.2	16.8	18.0	17.0	15.6	16.2	12.3	11.2	11.7	8.9	7.5	8.1
15	19.5	16.8	18.0	17.2	15.1	16.0	11.7	10.9	11.3	8.9	8.0	8.3
16	17.6	16.0	16.7	17.2	15.4	16.2	11.9	10.9	11.2	9.0	7.9	8.4
17	17.5	15.5	16.6	16.5	15.1	15.7	12.9	11.7	12.3	8.7	8.1	8.4
18	17.3	15.2	16.2	16.4	14.5	15.4	12.5	10.9	11.7	8.4	7.7	8.1
19	17.5	15.2	16.3	16.2	14.2	15.5	11.8	10.0	11.0	8.9	7.6	8.1
20	19.4	16.6	17.5	14.9	12.3	13.6	11.2	9.0	10.1	8.5	7.0	7.7
21	19.9	16.5	17.7	13.9	11.4	12.6	10.9	9.3	10.2	8.8	6.5	7.5
22	18.9	16.9	17.7	13.6	12.3	12.9	11.2	9.9	10.6	8.3	7.0	7.7
23	19.3	17.5	18.4	15.3	13.2	14.3	11.4	10.5	10.9	9.1	7.8	8.4
24	18.6	17.8	18.2	15.1	13.7	14.4	11.0	10.4	10.7	8.9	8.1	8.6
25	18.2	15.9	16.9	15.4	12.5	13.7	11.1	10.4	10.7	8.9	7.4	8.0
26	17.9	15.6	16.7	14.6	12.9	13.6	10.7	10.0	10.3	8.5	7.4	8.0
27	17.7	15.6	16.6	13.6	11.3	12.6	10.6	9.7	10.2	8.6	7.6	8.1
28	16.8	14.5	15.7	11.6	10.3	11.0	10.6	9.7	10.2	9.0	7.8	8.3
29	16.7	14.0	15.3	11.9	10.8	11.3	10.3	9.6	10.0	9.0	8.3	8.7
30	16.9	15.0	15.7	12.0	10.7	11.4	9.9	9.3	9.6	9.6	8.3	8.8
31	16.8	15.2	15.9	---	---	---	9.8	9.0	9.4	9.4	8.3	9.0
MONTH	20.9	14.0	17.5	19.2	10.3	15.1	15.4	9.0	11.4	9.9	6.5	8.4

07339000 MOUNTAIN FORK NEAR EAGLETOWN, OK--Continued

WATER TEMPERATURE DEGREES CELISUS, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.6	7.7	8.6	8.4	7.5	7.9	15.3	11.3	13.4	14.6	12.9	13.6
2	9.1	7.4	8.4	8.1	6.7	7.6	13.6	10.2	11.3	14.5	13.1	13.7
3	9.8	8.5	9.1	7.7	5.8	6.7	12.7	10.5	11.8	14.9	13.9	14.3
4	9.3	8.2	8.7	7.9	5.7	6.8	12.3	11.0	11.6	17.6	13.8	15.5
5	8.6	7.6	8.0	8.5	7.0	7.6	11.7	10.3	11.1	17.0	15.1	16.0
6	8.2	7.6	7.9	8.4	7.3	7.9	11.7	10.8	11.2	19.7	15.6	17.2
7	8.2	7.6	8.0	10.3	7.4	8.8	11.2	10.5	10.7	17.2	14.6	15.4
8	8.4	7.7	8.0	10.9	9.5	10.1	12.9	10.7	11.7	16.5	14.4	15.1
9	8.9	7.5	8.1	11.4	9.4	10.5	15.3	11.7	13.4	16.6	14.5	15.3
10	8.3	6.7	7.4	10.6	7.9	9.4	17.5	13.8	15.2	17.3	15.1	16.0
11	8.0	5.8	6.9	10.3	8.3	9.1	16.0	12.4	14.3	18.3	15.6	16.9
12	8.5	7.1	7.7	10.6	8.2	9.3	12.7	11.2	12.0	17.9	15.3	17.0
13	8.4	7.6	8.0	10.7	8.7	9.6	12.5	11.7	12.1	19.0	16.4	17.6
14	8.6	7.4	7.9	12.1	8.5	10.2	12.9	11.6	12.2	21.6	17.2	18.9
15	8.3	7.5	7.9	11.9	10.7	11.2	12.4	11.3	11.9	22.0	18.1	19.8
16	8.5	7.1	7.8	11.6	10.1	10.8	12.2	11.1	11.5	19.9	17.9	18.8
17	8.7	7.5	8.1	12.5	10.8	11.5	12.6	11.3	11.8	17.9	15.6	16.4
18	8.7	7.9	8.3	11.7	10.1	11.1	13.4	11.9	12.7	17.8	15.0	16.3
19	8.8	8.0	8.4	11.7	9.8	10.4	13.0	11.5	12.3	18.6	15.2	16.9
20	9.0	8.0	8.5	12.5	10.9	11.6	13.7	12.0	12.9	18.3	15.7	17.4
21	9.0	8.2	8.6	13.5	10.7	12.0	13.3	12.0	12.5	18.0	15.4	16.4
22	9.5	8.4	8.8	12.8	10.5	11.6	14.5	12.3	13.6	19.5	15.7	17.4
23	9.5	8.3	8.8	10.7	9.6	10.1	14.1	12.5	13.4	18.9	17.0	18.2
24	9.5	8.4	8.8	10.2	9.3	9.8	13.8	12.7	13.2	18.5	17.2	17.8
25	8.9	7.9	8.5	9.7	9.0	9.4	15.5	12.7	14.0	20.3	17.3	18.6
26	8.3	6.6	7.4	10.0	8.9	9.5	14.7	13.0	13.7	21.4	18.5	19.6
27	8.6	6.5	7.4	10.4	9.2	9.8	14.0	12.6	13.2	22.0	18.6	19.8
28	9.0	6.9	7.8	10.5	9.2	9.8	17.2	13.5	15.1	21.1	18.2	20.0
29	---	---	---	10.7	9.3	9.9	18.1	15.5	17.0	18.2	16.1	16.8
30	---	---	---	10.6	9.8	10.1	15.9	14.0	14.7	17.5	16.1	16.7
31	---	---	---	14.0	10.4	12.1	---	---	---	17.6	15.7	16.8
MONTH	9.8	5.8	8.1	14.0	5.7	9.7	18.1	10.2	12.8	22.0	12.9	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.8	15.9	17.0	21.5	19.1	20.4	22.5	18.6	19.9	23.2	19.1	21.2
2	17.6	16.0	16.7	21.8	19.3	20.4	22.5	19.8	20.8	23.3	19.2	21.3
3	17.6	16.3	16.8	20.9	18.5	19.6	23.9	19.6	21.5	23.6	19.8	21.3
4	18.4	16.1	17.0	22.3	18.4	20.4	24.3	20.3	22.2	23.5	20.0	21.2
5	17.9	16.4	17.2	23.2	19.1	20.8	22.8	19.2	20.5	23.7	20.7	21.9
6	19.4	17.2	18.1	22.4	17.9	19.8	23.4	19.6	21.1	24.1	20.7	21.9
7	19.9	17.4	18.1	20.8	17.5	18.9	22.8	20.0	21.3	22.9	20.8	21.8
8	19.1	16.8	17.8	22.0	17.0	19.2	23.2	19.7	21.3	22.9	20.9	21.8
9	21.9	17.0	19.0	21.7	18.0	19.2	23.2	20.2	21.7	22.7	20.6	21.7
10	21.8	19.3	20.7	21.8	17.6	19.3	23.3	20.0	21.7	23.0	19.8	21.2
11	21.2	18.3	19.7	21.6	19.2	20.3	22.9	20.2	21.5	23.1	20.5	21.7
12	21.8	17.3	19.1	21.7	19.3	20.3	22.2	18.9	20.3	23.3	21.1	22.1
13	21.6	17.5	19.6	21.8	19.4	20.7	21.2	19.3	20.4	23.1	20.8	21.9
14	21.8	18.9	20.3	21.8	18.3	20.1	21.5	19.2	20.5	22.5	20.3	21.4
15	23.3	20.0	21.2	24.3	19.6	21.2	22.5	19.4	20.8	22.5	20.4	21.4
16	22.5	20.1	21.0	19.7	17.4	18.7	21.5	19.2	20.3	21.7	19.9	20.7
17	23.7	19.8	21.4	20.3	17.4	18.7	21.5	18.9	20.1	22.5	19.6	21.1
18	24.7	20.6	22.6	20.9	18.3	19.4	23.4	19.2	21.1	22.9	19.7	21.2
19	23.9	20.8	22.1	19.9	17.5	18.5	23.5	19.9	21.7	21.3	19.7	20.5
20	22.4	18.3	20.3	21.1	17.9	19.4	23.5	20.8	22.1	22.0	19.5	20.6
21	23.8	18.9	20.8	22.2	19.1	20.2	23.6	19.7	21.9	22.1	19.5	20.7
22	21.5	17.6	19.5	23.6	19.5	21.0	24.0	20.0	21.7	21.5	18.7	20.1
23	21.8	18.3	20.2	22.1	19.5	20.6	22.8	19.5	20.9	21.2	19.0	20.1
24	22.4	19.0	20.6	21.7	19.6	20.4	24.2	20.4	21.9	21.5	18.9	20.1
25	21.6	18.0	19.5	23.4	19.3	20.8	23.1	21.4	22.2	21.8	18.7	20.4
26	22.3	18.6	20.4	23.4	19.2	21.2	23.3	20.9	21.9	21.8	19.2	20.5
27	22.9	18.9	20.9	22.2	18.9	20.5	21.4	19.0	20.3	22.0	19.3	20.8
28	23.2	19.6	21.3	22.5	18.4	20.5	22.2	18.7	20.3	22.6	19.7	21.0
29	22.3	19.3	20.6	22.4	18.6	20.4	22.5	19.7	21.0	22.5	19.6	21.1
30	20.8	18.6	19.7	21.8	18.1	20.0	22.3	19.3	20.7	22.2	19.4	20.8
31	---	---	---	23.1	18.1	20.1	23.0	19.1	21.2	---	---	---
MONTH	24.7	15.9	19.6	24.3	17.0	20.0	24.3	18.6	21.1	24.1	18.7	21.1
YEAR	24.7	5.7	15.2									

COMANCHE COUNTY

WELL-IDENTIFICATION NUMBER.--343540098342001. Local number 01N-13W-04 BAA 1.

LOCATION.--Lat 34°35'36", long 098°34'22", Hydrologic Unit 11130203, 4.0 mi southeast of Cache.

GEOLOGIC UNIT.--Arbuckle Group.

WELL CHARACTERISTICS.--Test well, diameter 6 in., depth 997 ft.

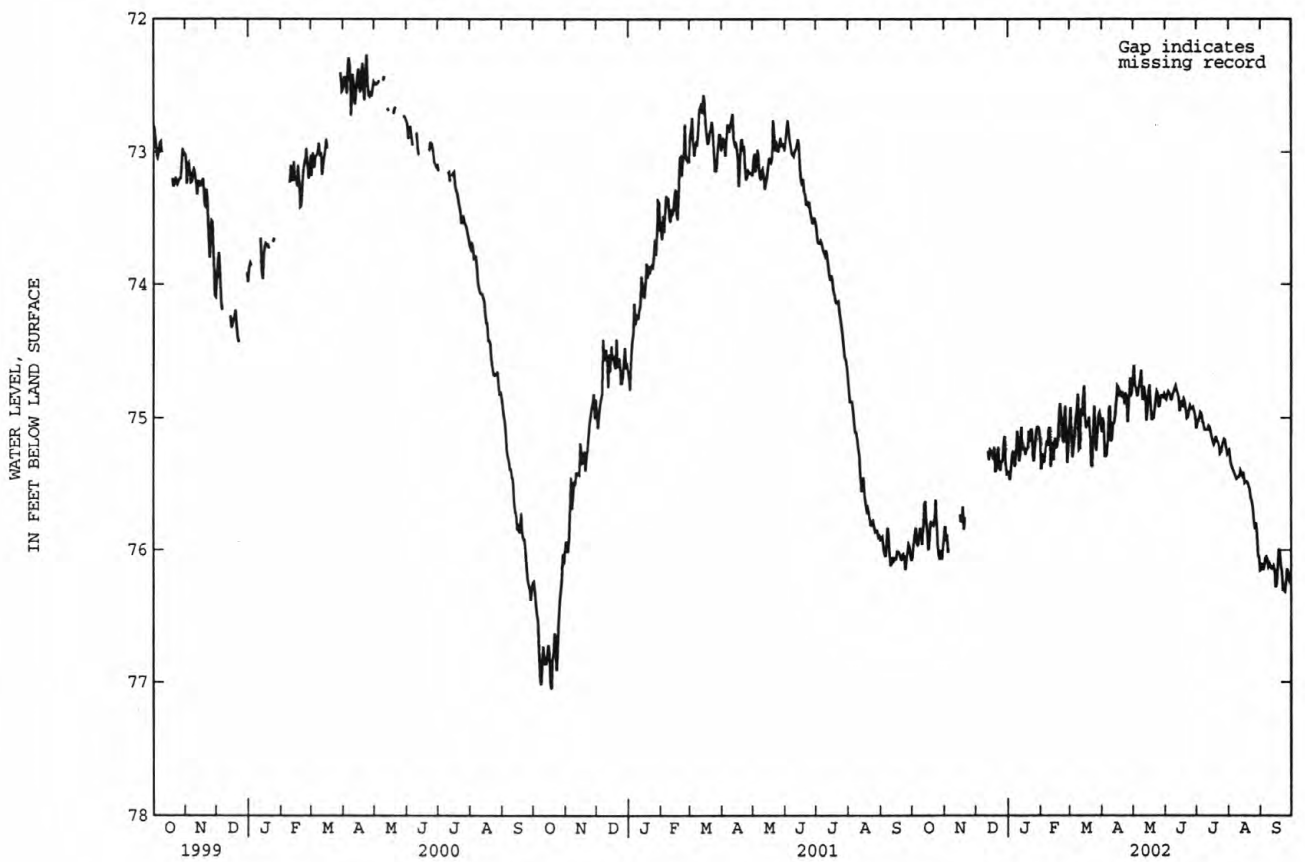
DATUM.--Altitude of land-surface datum is 1,200 ft. Measuring point: top of casing 1.8 ft above land-surface datum.

PERIOD OF RECORD.--1972 to September 1995, October 1998 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.33 ft below land-surface datum, June 1, 1993; lowest water level, 88.62 ft below land-surface datum, May 10, 1972.

DEPTH BELOW LAND S. VIA SATELLITE, in FT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	75.95	---	---	75.25	75.25	75.11	75.27	74.82	74.84	74.97	75.40	76.06
10	75.96	---	---	75.19	75.37	75.23	75.16	74.86	74.76	75.09	75.45	76.12
15	75.88	75.73	75.25	75.24	75.20	75.01	74.76	74.81	74.89	75.15	75.41	76.28
20	75.80	75.75	75.39	75.10	74.99	75.14	74.80	75.00	74.95	75.17	75.52	76.11
25	75.97	---	75.33	75.33	75.13	75.13	75.03	74.92	74.93	75.22	75.78	76.24
EOM	75.90	---	75.41	75.17	75.06	75.11	74.68	74.85	75.08	75.25	76.15	76.21
MAX	76.07	---	---	75.47	75.39	75.37	75.29	75.02	75.08	75.27	76.15	76.31
MIN	75.62	---	---	75.07	74.89	74.76	74.68	74.60	74.76	74.96	75.24	75.99



PONTOTOC COUNTY

WELL-IDENTIFICATION NUMBER.--343457096404501. Local number 01N-06E-04 CAD 1.

LOCATION.--Lat 34°34'57", long 096°40'45", Hydrologic Unit 11140102, 3.3 mi southwest of Fittstown.

GEOLOGIC UNIT.--Arbuckle Group.

WELL CHARACTERISTICS.--Drilled oil test well, diameter 14 in., depth 396 ft.

DATUM.--Altitude of land-surface datum is 1,155 ft. Measuring point: base of recorder shelter 1.10 ft above land-surface datum.

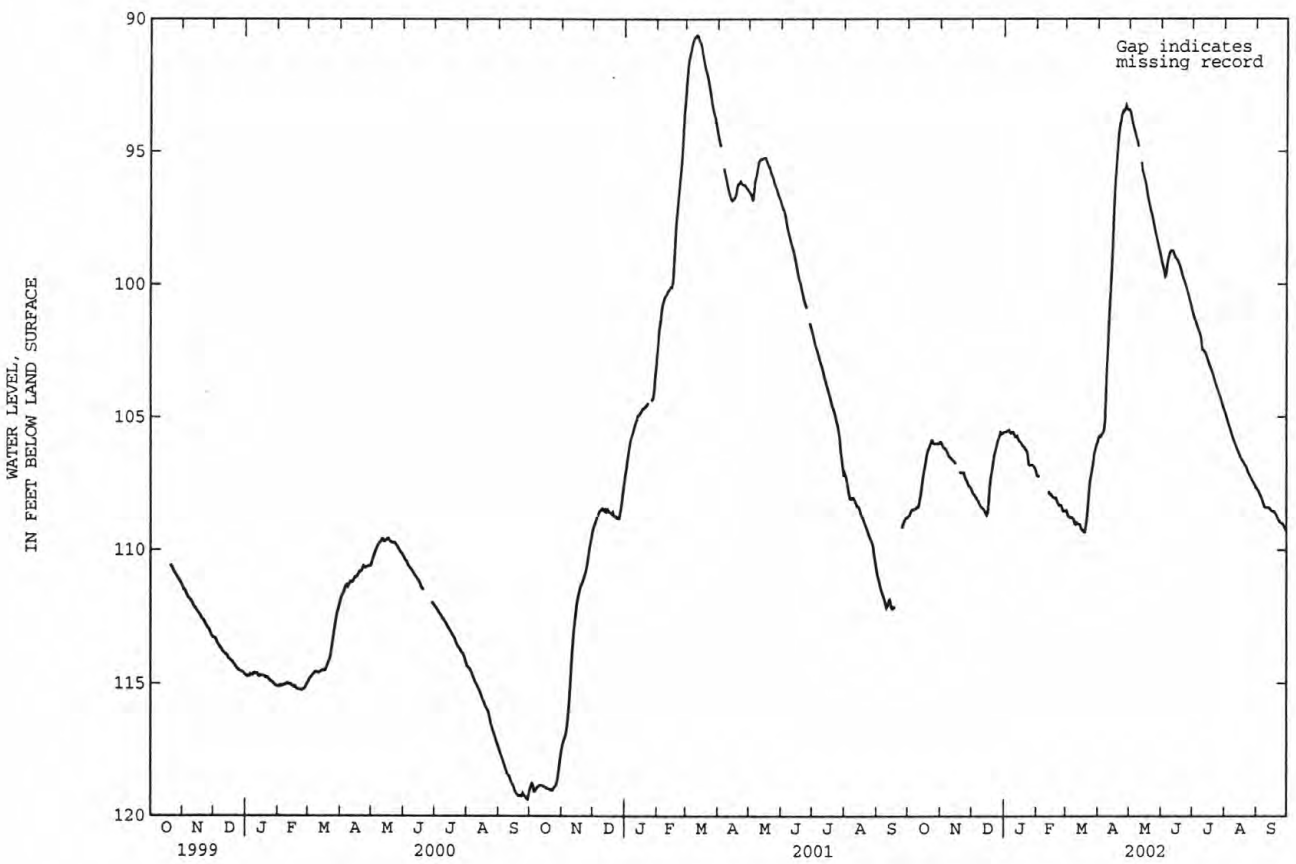
REMARKS.--Well originally 1,707 ft deep.

PERIOD OF RECORD.--December 1958 to August 1997, October 1998 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest observed water level, 70.19 ft below land-surface datum, May 17, 1990; lowest water level, 128.23 ft below land-surface datum, Apr. 10, 1967.

DEPTH BELOW LAND S. VIA SATELLITE, in FT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	108.48	106.18	108.05	105.48	---	108.77	105.60	94.19	99.63	101.55	105.30	107.97
10	108.39	106.51	108.38	105.62	---	109.04	102.29	---	98.73	102.45	105.90	108.40
15	107.24	106.76	108.69	105.90	107.95	109.17	97.84	96.03	99.04	102.80	106.40	108.52
20	106.21	107.10	106.98	106.13	108.14	109.07	94.40	97.06	99.56	103.35	106.78	108.68
25	105.98	107.34	105.96	106.82	108.43	107.13	93.50	97.95	100.19	103.95	107.19	108.99
EOM	105.94	107.68	105.57	107.02	108.53	105.94	93.42	99.00	100.94	104.68	107.64	109.28
MAX	108.74	---	108.69	107.02	---	109.32	105.78	---	100.94	104.68	107.64	109.28
MIN	105.87	---	105.57	105.48	---	105.94	93.27	---	98.73	101.09	104.79	107.69



WOODWARD COUNTY

WELL-IDENTIFICATION NUMBER.--361714099315101. Local number 21N-22W-23 BBB 1.

LOCATION.--Lat 36°17'25", long 99°31'58", Hydrologic Unit 11100203, 11.0 mi west of Sharon.

GEOLOGIC UNIT.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled test hole, diameter 6 in., depth 322 ft.

DATUM.--Altitude of land-surface datum is 2,335 ft. Measuring point: top of shelf 3 ft above land-surface datum.

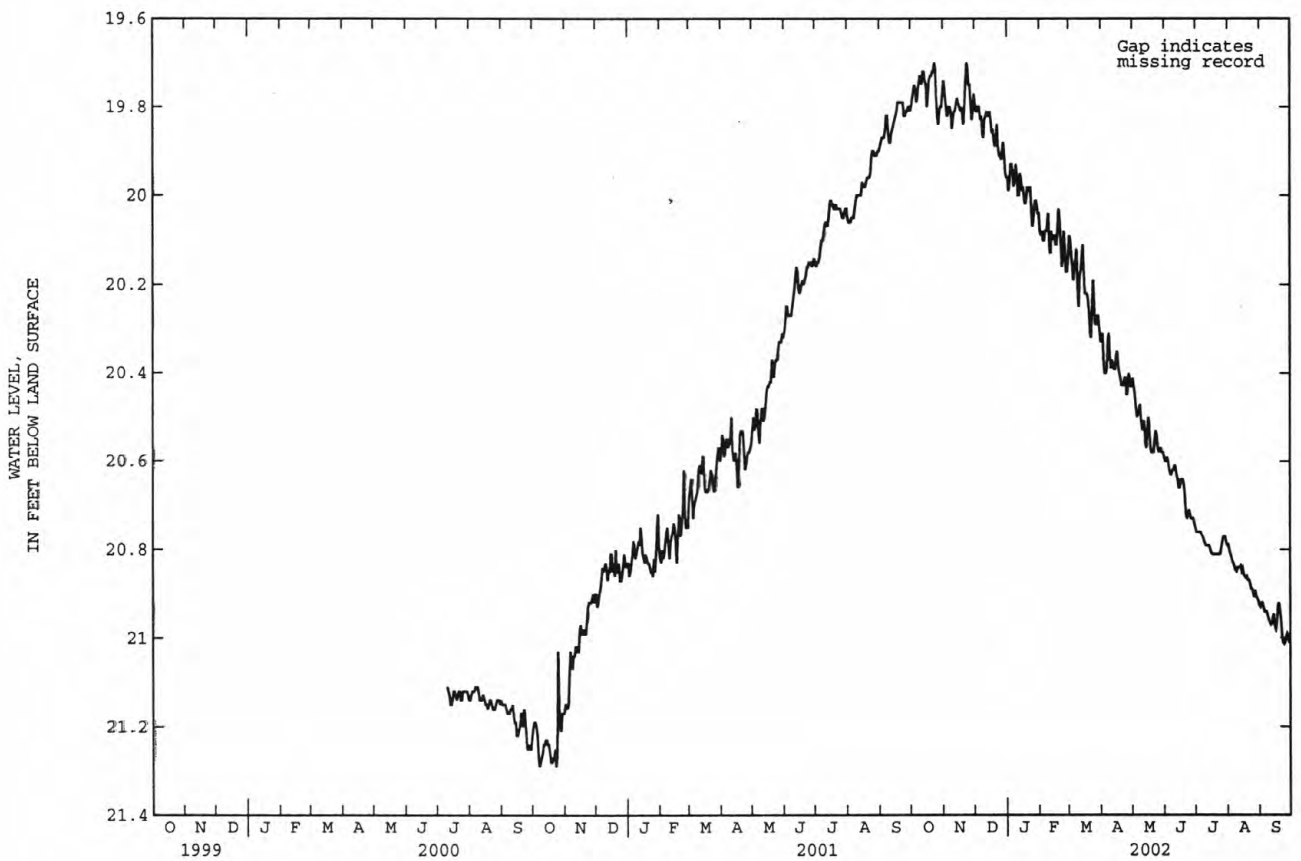
REMARKS.--Digital recorder installed Sept. 30, 1982, mean-daily water levels published thereafter, except Oct. 5, 1993 to Apr. 17, 1994 when bimonthly measurements were made. Satellite telemeter at station since July 10, 2000.

PERIOD OF RECORD.--1957 to 1963, 1965 to September 1995, July 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily water level, 19.70 ft below land-surface datum, Oct. 21, 2001; lowest water level, 32.64 ft below land-surface datum, May 19, 1971.

DEPTH BELOW LAND S., in FT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.76	19.82	19.80	19.93	20.10	20.19	20.40	20.50	20.62	20.76	20.83	20.94
10	19.73	19.83	19.83	19.95	20.11	20.25	20.39	20.53	20.61	20.79	20.84	20.96
15	19.75	19.79	19.81	19.99	20.09	20.16	20.36	20.53	20.66	20.80	20.84	20.97
20	19.73	19.84	19.89	19.98	20.06	20.26	20.43	20.58	20.68	20.81	20.87	20.94
25	19.78	19.75	19.91	20.07	20.12	20.24	20.45	20.57	20.72	20.80	20.90	21.01
EOM	19.76	19.77	19.96	20.04	20.14	20.33	20.43	20.59	20.75	20.79	20.93	21.01
MAX	19.84	19.85	19.96	20.07	20.17	20.33	20.45	20.59	20.75	20.81	20.93	21.01
MIN	19.70	19.70	19.79	19.93	20.03	20.09	20.31	20.41	20.59	20.76	20.79	20.92



DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

DISCHARGE AT PARTIAL-RECORD STATIONS

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		RED RIVER BASIN				
07303500	Elm Fork of North Fork Red River near Mangum, OK	Lat 35°55'36", long 99°30'00", in NW 1/4, NW 1/4, sec.10 T.5 N., R.22 E., Greer County, Hydrologic Unit 11120304, at bridge on US Hwy 283, 3 miles north of Mangum and 5 miles downstream from Haystack Creek.	838	*1905-08, 65-76 2002	04-11-02 09-06-02	23.1 0.74
07304500	Elk Creek near Hobart, OK	Lat 34°54'51", long 99°06'49", in NE 1/4, NE 1/4, sec.17 T.5 N., R.18 W.,Kiowa County, Hydrologic Unit 11120303, on county road bridge, 7 miles downstream from Little Elk Creek, 7.5 miles south of Hobart.	549	*1904-08, 49-93 2002	04-11-02 04-13-02	20.1 1450
07308240	Red River near Davidson, OK	Lat 34°12'42", long 99°04'54", in NE 1/4, NE 1/4, sec.12 T.4 S., R.18 W., Tillman County, Hydrologic Unit 11130102, on US Hwy 183 bridge, 2.0 miles south of Davidson and 2.5 miles downstream of Pease River.		2002	04-10-02 04-15-02	416 6100
07311510	West Cache Creek near Taylor, OK	Lat 34°12'34", long 98°19'50", in NW 1/4, SW 1/4, sec.14 T.4 S., R.11 W., Tillman County, Hydrologic Unit 11130203, on SH 5 B bridge, 1.5 miles upstream Of East Cache Creek and 2.5 north of Taylor.	404	2002	04-13-02 04-14-02 04-24-02 06-05-02 08-06-02	3510 8620 36.0 2850 3.08
07312720	Red River near Waurika, OK	Lat 34°07'58", long 98°05'30", in SW 1/4, SE 1/4, sec.12 T.5 S., R.9 W., Jefferson County, Hydrologic Unit 11130201, On SH 79 bridge, 2.6 miles downstream of Whiskey Creek and 5.8 miles southwest of Waurika.	21,614	2002	04-14-02 08-07-02	11000 296
07313610	Cow Creek near Waurika, OK	Lat 34°10'09", long 98°00'18", in SW 1/4, NE 1/4, sec.35 T.4 S., R.8 W., Jefferson County, Hydrologic Unit 11130208, on SH 5 bridge, .3 mile upstream from Beaver Creek and .5 mile northwest of Waurika.	192	2002	04-13-02 04-23-02	861 25.0
07325150	Washita River near Cordell, OK	Lat 35°17'30", long 98°50'11", in NE 1/4, NE 1/4, sec.1 T.9 N., R.16 W., Washita County, Hydrologic Unit 11130302, on SH 152 bridge, 1.2 miles upstream of Cavalry Creek and 2.6 miles north of Cloud Chief.		2002	04-03-02	53.1

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		RED RIVER BASIN				
07332950	Muddy Boggy River at Atoka, OK	Lat 34°23'23", long 96°07'12", in NW 1/4, SW 1/4, sec.11 T.2 S., R.11 E., Atoka County, Hydrologic Unit 11140103, On US Hwy 69 bridge, .1 mile north of SH 3 US Hwy 69 junction and .5 mile upstream of MKT railroad bridge.	445	*1978-81 2002	03-19-02 04-09-02 06-06-02 08-08-02	6490 11100 2950 0.35
07335000	Clear Boggy near Caney, Ok	Lat 34°15'09", long 96°12'19", in NW 1/4, SE 1/4, sec.36 T.3 S., R.10 E., Atoka County, Hydrologic Unit 11140104, on Old Hwy 69 bridge, 0.5 mile downstream of Caney Creek and 1.5 miles north of Caney.	720	*1943-89 2002	03-19-02 03-21-02 06-06-02	6960 8600 2680
07335770	Kiamichi River at Tuskahoma, OK	Lat 34°36'44", long 95°16'38", in NW 1/4, SE 1/4, sec.26 T.2 N., R.19 E.,Pushmataha County, Hydrologic Unit 11140105, on county road bridge, .3 mile south of Tuskahoma and 3.9 miles upstream of Jackfork Creek.	405	2002	03-19-02 04-10-02 06-05-02 08-07-02	17800 2890 1060 12.4
07336820	Red River near DeKalb, Tx	Lat 33°41'15", long 94°41'39", in NW 1/4, NW 1/4, sec.15 T.10 S., R.25 E.,McCurtain County, Hydrologic Unit 11140106, on US Hwy 259, 4.8 miles upstream of Northmill Creek and 13 miles north of DeKalb, TX	47,348	*1967-98 2002	04-09-02 04-12-02 06-04-02	106000 61300 4430
07337100	Little River near Cloudy, OK	Lat 34°19'32", long 95°11'58", in SE 1/4, NW 1/4, sec.3 T.3 S., R.20 E., Pushmataha County, Hydrologic Unit 11140107, on county road bridge, 0.2 mile downstream of Cloudy Creek and 5.2 miles northeast of Cloudy.	324	2002	03-20-02 03-20-02 06-05-02	24100 10300 2680

*Operated as a continuous-record gaging station.

RED RIVER BASIN

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

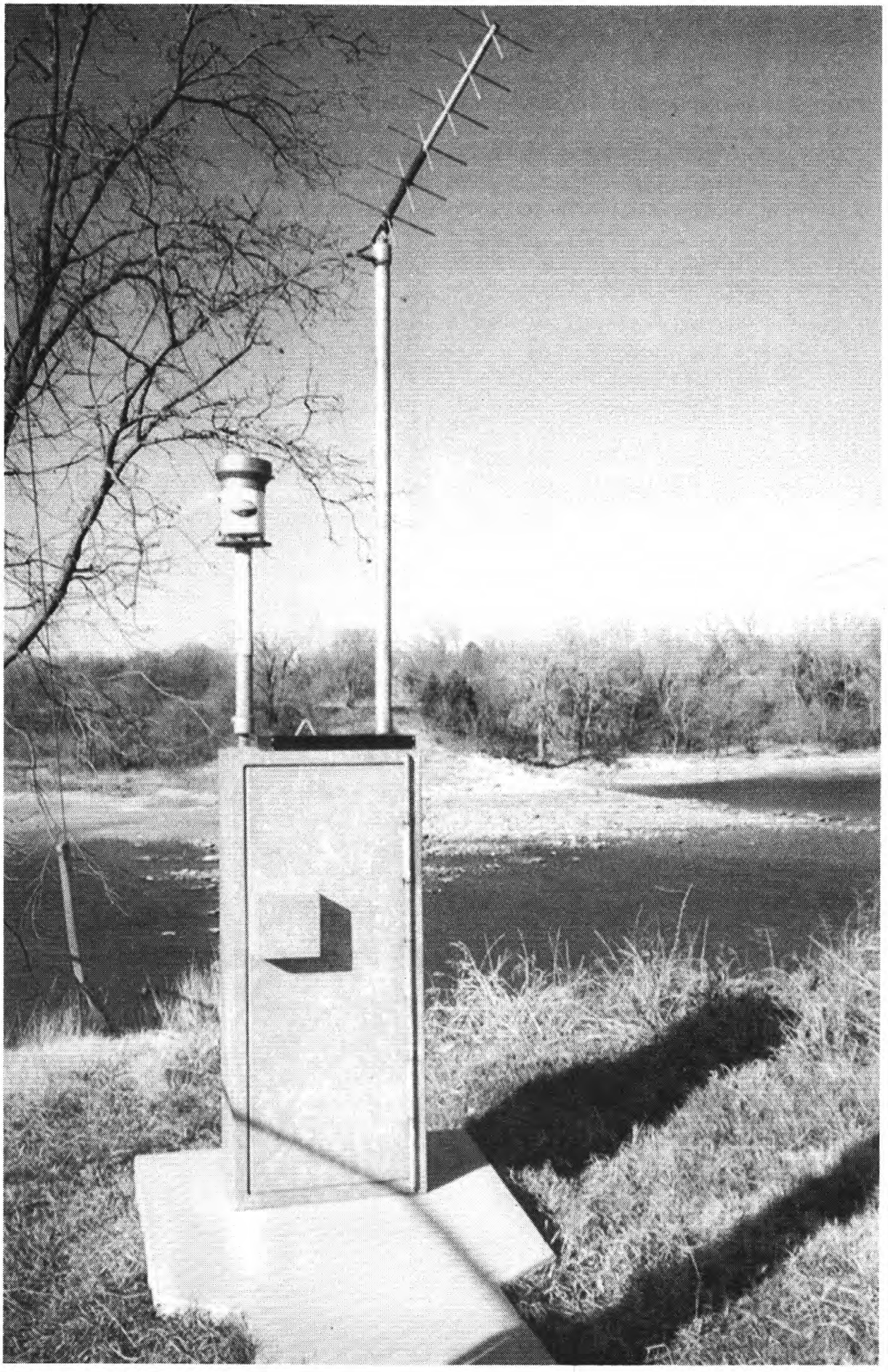
DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	GAGE HEIGHT (FEET) (00065)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
07301190 North Fork Red River near Back, TX (LAT 35 22 32N LONG 100 33 38W)													
JUL 2002 08...	1400	80020	1028	--	20	708	6.6	99	8.0	3040	33.0	32.5	470
07301225 North Fork Red River near Kellerville, TX (LAT 35 22 48N LONG 100 33 18W)													
JUL 2002 08...	1530	80020	1028	--	50	708	6.9	101	8.1	1830	33.0	31.0	230
07301220 McClellan Creek near Back, TX (LAT 35 22 21N LONG 100 33 35W)													
JUL 2002 08...	1700	80020	1028	--	29	708	6.8	96	8.1	1040	32.5	29.0	60
07301250 North Fork Red River near Magic City, TX (LAT 35 23 25N LONG 100 23 03W)													
JUL 2002 08...	1900	80020	1028	--	54	708	6.3	95	8.1	1950	30.5	33.0	240
07301300 North Fork Red River near Shamrock, TX (LAT 35 15 51N LONG 100 14 29W)													
JUL 2002 09...	0800	80020	1028	1.92	51	711	7.8	99	8.0	2100	27.5	23.5	360
07301303 Bronco Creek near Twitty, TX (LAT 35 18 47N LONG 100 12 24W)													
JUL 2002 09...	0930	80020	1028	--	.02	711	5.7	73	7.7	5780	27.5	23.5	2900
07301306 East Branch Creek near Twitty, TX (LAT 35 18 49N LONG 100 10 46W)													
JUL 2002 09...	1000	80020	1028	--	.14	711	7.2	96	7.8	4190	32.0	25.5	1900
07301310 North Fork Red River Tributary near Twitty, TX (LAT 35 18 49N LONG 100 08 15W)													
JUL 2002 09...	1100	80020	1028	--	1.6	711	5.5	73	7.3	2330	32.0	26.0	1300
07301410 Sweetwater Creek near Kelton, TX (LAT 35 28 23N LONG 100 07 14W)													
JUL 2002 09...	1630	80020	1028	5.75	5.3	711	8.9	133	8.2	828	34.5	32.5	92
07301420 Sweetwater Creek near Sweetwater, OK (LAT 35 25 20N LONG 099 58 08W)													
JUL 2002 09...	1800	80020	1028	7.47	18	711	7.8	116	8.4	780	34.5	32.5	73
07301315 North Fork Red River near Texola, OK (LAT 35 17 40N LONG 099 59 23W)													
JUL 2002 10...	0800	80020	1028	--	46	717	7.8	101	8.0	2770	27.0	24.5	590
07301422 Sweetwater Creek near Mayfield, OK (LAT 35 19 38N LONG 099 58 57W)													
JUL 2002 10...	0930	80020	1028	--	14	717	7.3	96	8.1	1100	28.0	26.0	120
07301424 Salt Creek near Texola, OK (LAT 35 18 57N LONG 099 58 56W)													
JUL 2002 10...	1100	80020	1028	--	2.5	717	8.0	107	8.0	3790	32.0	26.5	1300
07301425 Sweetwater Creek near Texas Line, OK (LAT 35 19 07N LONG 099 57 52W)													
JUL 2002 10...	1200	80020	1028	--	18	717	8.1	111	8.2	1600	33.0	28.0	290
07301450 North Fork Red River near Erick, OK (LAT 35 18 00N LONG 099 52 30W)													
JUL 2002 10...	1400	80020	1028	--	62	717	7.1	108	8.1	2500	36.5	34.0	500
07301453 North Fork Red River near Hext, OK (LAT 35 17 40N LONG 099 45 04W)													
JUL 2002 10...	1530	80020	1028	--	78	717	7.9	121	8.2	2460	37.0	34.5	550
07301481 North Fork Red River near Sayre, OK (LAT 35 17 05N LONG 099 37 18W)													
JUL 2002 10...	1700	80020	1028	3.04	96	717	8.0	126	8.2	2270	39.0	36.0	510
07301500 North Fork Red River near Carter, OK (LAT 35 10 05N LONG 099 30 25W)													
JUL 2002 11...	0800	80020	1028	2.81	86	725	7.8	103	8.1	2200	25.0	26.5	550
07301700 North Fork Red River near Retrop, OK (LAT 35 04 25N LONG 099 22 10W)													
JUL 2002 11...	1000	80020	1028	--	94	725	8.2	110	8.2	2210	25.0	27.5	510

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SODIUM ADSORPTION RATIO (00931)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
07301190 North Fork Red River near Back, TX (LAT 35 22 32N LONG 100 33 38W)													
JUL 2002 08...	600	174	41.0	6.16	6	340	55	130	158	.0	2.02	786	.7
07301225 North Fork Red River near Kellerville, TX (LAT 35 22 48N LONG 100 33 18W)													
JUL 2002 08...	410	118	26.9	4.73	5	210	53	180	220	.0	.76	440	.7
07301220 McClellan Creek near Back, TX (LAT 35 22 21N LONG 100 33 35W)													
JUL 2002 08...	260	77.3	17.2	3.84	3	111	47	203	248	.0	<.03	124	.8
07301250 North Fork Red River near Magic City, TX (LAT 35 23 25N LONG 100 23 03W)													
JUL 2002 08...	390	114	26.5	4.80	4	198	52	151	184	.0	.70	416	.7
07301300 North Fork Red River near Shamrock, TX (LAT 35 15 51N LONG 100 14 29W)													
JUL 2002 09...	480	137	32.3	4.84	4	209	49	114	139	.0	.82	435	.8
07301303 Bronco Creek near Twitty, TX (LAT 35 18 47N LONG 100 12 24W)													
JUL 2002 09...	3200	509	468	4.38	3	325	18	260	317	.0	.25	256	.7
07301306 East Branch Creek near Twitty, TX (LAT 35 18 49N LONG 100 10 46W)													
JUL 2002 09...	2100	461	239	7.00	2	248	20	189	230	.0	.04	158	.5
07301310 North Fork Red River Tributary near Twitty, TX (LAT 35 18 49N LONG 100 08 15W)													
JUL 2002 09...	1400	408	93.6	4.90	.6	48.4	7	116	141	.0	<.03	33.2	.5
07301410 Sweetwater Creek near Kelton, TX (LAT 35 28 23N LONG 100 07 14W)													
JUL 2002 09...	270	75.5	20.1	2.67	2	59.1	32	179	218	.0	.06	41.5	.6
07301420 Sweetwater Creek near Sweetwater, OK (LAT 35 25 20N LONG 099 58 08W)													
JUL 2002 09...	250	64.4	22.6	2.56	2	68.0	37	180	220	.0	.03	40.7	.7
07301315 North Fork Red River near Texola, OK (LAT 35 17 40N LONG 099 59 23W)													
JUL 2002 10...	700	200	49.3	5.23	5	291	47	114	139	.0	.94	539	.7
07301422 Sweetwater Creek near Mayfield, OK (LAT 35 19 38N LONG 099 58 57W)													
JUL 2002 10...	310	77.3	28.4	2.91	3	110	43	189	230	.0	.05	99.1	.8
07301424 Salt Creek near Texola, OK (LAT 35 18 57N LONG 099 58 56W)													
JUL 2002 10...	1500	421	102	2.89	3	270	28	187	228	.0	.18	402	.5
07301425 Sweetwater Creek near Texas Line, OK (LAT 35 19 07N LONG 099 57 52W)													
JUL 2002 10...	490	129	39.8	2.89	3	147	39	193	235	.0	.06	162	.7
07301450 North Fork Red River near Erick, OK (LAT 35 18 00N LONG 099 52 30W)													
JUL 2002 10...	630	177	46.5	5.12	4	242	45	129	157	.0	.69	447	.8
07301453 North Fork Red River near Hext, OK (LAT 35 17 40N LONG 099 45 04W)													
JUL 2002 10...	670	185	51.1	4.75	4	233	43	124	151	.0	.52	389	.7
07301481 North Fork Red River near Sayre, OK (LAT 35 17 05N LONG 099 37 18W)													
JUL 2002 10...	630	172	48.7	4.60	3	202	41	121	148	.0	.37	336	.7
07301500 North Fork Red River near Carter, OK (LAT 35 10 05N LONG 099 30 25W)													
JUL 2002 11...	660	177	52.6	5.07	3	202	40	106	129	.0	.37	328	.7
07301700 North Fork Red River near Retrop, OK (LAT 35 04 25N LONG 099 22 10W)													
JUL 2002 11...	600	162	47.8	5.04	4	202	42	91	111	.0	.48	350	.6

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
07301190 North Fork Red River near Back, TX (LAT 35 22 32N LONG 100 33 38W)								
JUL 2002								
08...	26.6	105	2.38	94.5	1750	1560	<30	E2.4
07301225 North Fork Red River near Kellerville, TX (LAT 35 22 48N LONG 100 33 18W)								
JUL 2002								
08...	30.7	96.6	1.54	154	1130	1040	10	8.1
07301220 McClellan Creek near Back, TX (LAT 35 22 21N LONG 100 33 35W)								
JUL 2002								
08...	37.3	87.1	.88	50.7	645	580	50	8.1
07301250 North Fork Red River near Magic City, TX (LAT 35 23 25N LONG 100 23 03W)								
JUL 2002								
08...	30.5	128	1.53	166	1130	1010	<10	E3.2
07301300 North Fork Red River near Shamrock, TX (LAT 35 15 51N LONG 100 14 29W)								
JUL 2002								
09...	27.5	233	1.77	179	1300	1150	<30	12.4
07301303 Bronco Creek near Twitty, TX (LAT 35 18 47N LONG 100 12 24W)								
JUL 2002								
09...	31.7	3450	8.21	.33	6040	5200	<50	565
07301306 East Branch Creek near Twitty, TX (LAT 35 18 49N LONG 100 10 46W)								
JUL 2002								
09...	24.3	2370	5.61	1.56	4120	3620	<30	245
07301310 North Fork Red River Tributary near Twitty, TX (LAT 35 18 49N LONG 100 08 15W)								
JUL 2002								
09...	25.8	1290	3.01	9.26	2210	1970	E20	192
07301410 Sweetwater Creek near Kelton, TX (LAT 35 28 23N LONG 100 07 14W)								
JUL 2002								
09...	22.1	167	.73	7.71	537	496	<10	12.1
07301420 Sweetwater Creek near Sweetwater, OK (LAT 35 25 20N LONG 099 58 08W)								
JUL 2002								
09...	19.9	138	.68	24.3	501	465	<10	E2.9
07301315 North Fork Red River near Texola, OK (LAT 35 17 40N LONG 099 59 23W)								
JUL 2002								
10...	27.6	448	2.38	218	1750	1630	<30	18.6
07301422 Sweetwater Creek near Mayfield, OK (LAT 35 19 38N LONG 099 58 57W)								
JUL 2002								
10...	19.7	203	.96	27.4	704	654	<10	E3.1
07301424 Salt Creek near Texola, OK (LAT 35 18 57N LONG 099 58 56W)								
JUL 2002								
10...	41.8	1420	4.22	20.8	3110	2770	<30	13.1
07301425 Sweetwater Creek near Texas Line, OK (LAT 35 19 07N LONG 099 57 52W)								
JUL 2002								
10...	22.7	376	1.48	52.4	1090	996	<10	3.6
07301450 North Fork Red River near Erick, OK (LAT 35 18 00N LONG 099 52 30W)								
JUL 2002								
10...	24.4	445	2.17	268	1600	1470	<30	5.6
07301453 North Fork Red River near Hext, OK (LAT 35 17 40N LONG 099 45 04W)								
JUL 2002								
10...	23.5	496	2.18	339	1600	1460	<30	10.5
07301481 North Fork Red River near Sayre, OK (LAT 35 17 05N LONG 099 37 18W)								
JUL 2002								
10...	21.5	503	2.04	389	1500	1360	<30	5.7
07301500 North Fork Red River near Carter, OK (LAT 35 10 05N LONG 099 30 25W)								
JUL 2002								
11...	20.2	520	2.03	347	1490	1370	<30	<5.0
07301700 North Fork Red River near Retrop, OK (LAT 35 04 25N LONG 099 22 10W)								
JUL 2002								
11...	17.2	491	1.99	370	1460	1330	<30	E2.4



07331600 Red River blw Denison Dam near Denison, Tx

CONVERSION FACTORS

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$°F = (1.8 \times °C) + 32$

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