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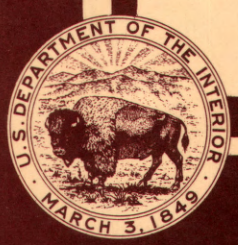
1973

Water Resources Data for Kansas

Part 2. Water Quality Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

CALENDAR FOR WATER YEAR 1973

1972

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
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31						

1973

JANUARY

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FEBRUARY

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29	30					

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JUNE

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JULY

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29	30	31				

AUGUST

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SEPTEMBER

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1973

Water Resources Data for Kansas

Part 2. Water Quality Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Prepared in cooperation with

Kansas State Department of Health,
Division of Environmental Health
Kansas Water Resources Board
State Geological Survey of Kansas
Bureau of Reclamation, U.S. Department
of the Interior
Corps of Engineers, U.S. Army
Environmental Protection Agency

Water resources records, 1973, for Kansas are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Kansas
   Part 1: Surface Water Records

2. Water Resources Data for Kansas
   Part 2: Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
1950 Avenue A, Campus West
Lawrence, Kansas 66044

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WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED

[*Letters after station name designate type of data: (c) chemical, (t) water temperature, (s) sediment*]

WATER RESOURCES DATA FOR KANSAS, 1973

Part 2. Water Quality Records

by A. M. Diaz and C. D. Albert

INTRODUCTION

Water-resources data for the 1973 water year for Kansas include records of data for the chemical and physical characteristics of surface and ground water. Data on the quality of surface water (chemical, microbiological, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly, or less frequently, and at some sites data were recorded on punched paper tape at 60-minute intervals. Records are given for 70 sampling stations of which 7 are partial-record stations, and for 51 miscellaneous sites. Miscellaneous temperatures of streamflow are given for 77 gaging stations, and records of chemical analyses are given for 224 ground-water sites. Locations of surface water-quality stations are shown in Figure 1, page 2. Records for pertinent water-quality stations in bordering States are also included. The records were collected by the Water Resources Division of the U.S. Geological Survey under the direction of C. W. Lane, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Kansas. Kansas District personnel who contributed significantly to the collection and preparation of data included in this report were: B. L. Day, L. R. Shelton, M. L. Penny, L. R. Stringer, and D. J. Dark (Kansas State Department of Health).

The Geological Survey has published records of chemical quality, suspended sediment, and water temperatures since 1941 in annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Beginning with the 1964 water year, water-quality records also have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. These records will be published later in Geological Survey water-supply papers.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

State Department of Health, Division of Environmental Health, M. W. Gray, chief engineer and director
State Water Resources Board, K. S. Krause, executive director and chief engineer
State Geological Survey, W. W. Hambleton, state geologist and director
Bureau of Reclamation, U.S. Department of the Interior
Corps of Engineers, U.S. Army
Environmental Protection Agency

DEFINITION OF TERMS

Terms related to water-quality and hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) units on page 11.

Acre-foot (ac-ft, AC-FT) is a quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Bed material is the shifting portion of fragmented alluvial material of which the streambed is composed.

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

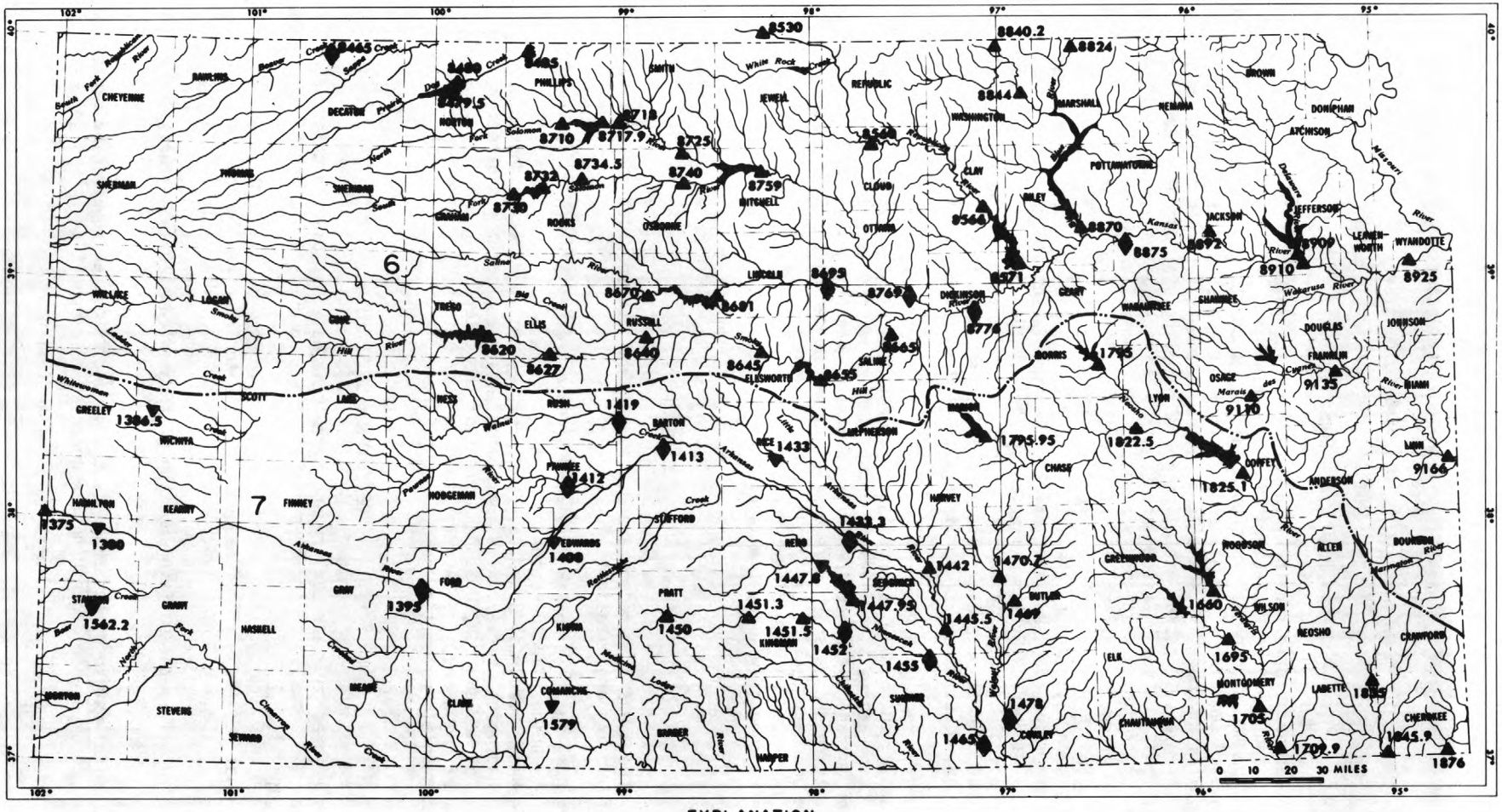

Figure 1.--Map of Kansas showing locations of water-quality stations, 1973 water year.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 milliliters is determined by the immediate or delayed incubation membrane filter method.

Cubic foot per second (cfs, CFS) 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.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

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

Instantaneous discharge is the discharge at a particular instant of time. If this discharge is reported instead of the daily mean, the heading of the discharge column in the tables is "Discharge (cfs)."

Drainage area of a stream at a specified location is that area, measured in horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point.

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 body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only where a continuous record of discharge is obtained.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Micrograms per liter (ug/l, UG/L) is a more precise unit for expressing the concentration of chemical constituents in solution. One thousand micrograms per liter is equivalent to 1 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 weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in table 1, page 4. Concentration of suspended sediment also is expressed in milligrams per liter, and is based on the weight of sediment per liter of water-sediment mixture. Sediment concentration may be converted to parts per million by using the factors in table 2, page 4.

Partial-record station is a particular site where limited streamflow 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 suspended sediment or bed material determined either by 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) (Guy, 1969).

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter.

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})*	0.11119	Iodide (I^{-1})	0.00788
Ammonia as NH_4^{+1}	.05544	Iron (Fe^{+3})*	.05372
Barium (Ba^{+2})	.01456	Lead (Pb^{+2})*	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*	.14411
Bromide (Br^{-1})	.01251	Magnesium (Mg^{+2})	.08226
Calcium (Ca^{+2})	.04990	Manganese (Mn^{+2})*	.03640
Carbonate (CO_3^{-2})	.03333	Nickel (Ni^{+2})*	.03406
Chloride (Cl^{-1})	.02821	Nitrate (NO_3^{-1})	.01613
Chromium (Cr^{+6})*	.11539	Nitrite (NO_2^{-1})	.02174
Cobalt (Co^{+2})*	.03394	Phosphate (PO_4^{-3})	.03159
Copper (Cu^{+2})*	.03148	Potassium (K^{+1})	.02557
Cyanide (CN^{-1})	.03844	Sodium (Na^{+1})	.04350
Fluoride (F^{-1})	.05264	Strontium (Sr^{+2})*	.02283
Hydrogen (H^{+1})	.99209	Sulfate (SO_4^{-2})	.02082
Hydroxide (OH^{-1})	.05880	Zinc (Zn^{+2})*	.03060

*Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/ml and a specific gravity of sediment of 2.65.

Particle-size classification, used in this report agrees with recommendations 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-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material 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.

Picocurie (PC/L, pCi/l) is one millionth of the amount of radioactivity represented by a microcurie, which is the quantity of radiation represented by one millionth of a gram of radium-226. A picocurie of radium results in 2.22 disintegration per minute.

Plankton is the floating (or weakly swimming) animal or plant life in a body of water consisting chiefly of minute plants (as diatoms and blue-green algae) and of minute animals (as protozoan, entomostracans, and various larvae).

Sediment is solid material that originates mostly from disintegrated rocks and is transformed 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.

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 discharge is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or by volume, that is discharged in a given time. It is computed by multiplying discharge times milligrams per liter times 0.0027.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that is discharged during a given time (Colby and Hembree, 1955).

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 period.

Sodium-adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

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." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

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 water year.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Irrigation network stations are water-quality stations located at or near certain streamflow gaging stations west of the main stem of the Mississippi River. Data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands. Prior to the 1966 water year, the data for these stations were published in the annual water-supply paper series, "Quality of Surface Water for Irrigation, Western States."

Pesticide program is a network of regularly sampled water-quality stations where additional water and suspended-sediment samples are collected quarterly to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Radiochemical program is a network of regularly sampled water-quality stations where additional samples are collected twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminuous United States.

Radioisotopes that are determined in this program are those of uranium in micrograms per liter, radium as radium-226 in picocuries per liter, gross beta radiation as strontium/yttrium-90 in picocuries per liter, and gross alpha radiation as micrograms of uranium equivalent per liter.

DOWNSTREAM ORDER AND STATION NUMBERS

Stations are listed in downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all main-stream stations are listed before the first main-stream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of water-quality stations in the front of this report, the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each water-quality station, gaging station, and partial-record station has been assigned a station number. These are in the same downstream order as the records in this report. In assigning station numbers, no distinction is made between partial-record and continuous-record stations; therefore, the station number for a partial-record station indicates downstream-order position in a list of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record stations. Gaps are left in the numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 06887500 which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream order number "887500". In this report, the records are listed in downstream order by parts. The part number refers to the area whose boundaries coincide with certain

natural drainage lines. Records in this report are in Part 6 (Missouri River basin) and Part 7 (Lower Mississippi River basin). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin. Water-quality stations in the Kansas cooperative program have been assigned a Kansas State Department of Health number that indicates the mileage of the station from the mouth of the stream.

WELL NUMBERS

Geological Survey

The well-numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The number consists of 14 digits and one letter; for example, 380146N 973945.2. The first 6 digits denote the degrees, minutes, and seconds of latitude followed by a letter denoting north or south. Seven digits following the letter denote degrees, minutes, and seconds of longitude. The last digit is a sequential number for wells within a 1-second grid. The system provides the geographic location of the well and a unique number for each well.

Local

Local well numbers are used in this report to indicate the locations of wells in accordance with the Bureau of Land Management's system of land subdivision. In the location system, the first set of digits of a well number indicates the township south of the north border of Kansas 40° parallel; the second set, the range east or west of the sixth principal meridian; and the third set, the section in which the well is situated. The first letter denotes the quarter section, or 160-acre tract; the second, the quarter-quarter section, or 40-acre tract; and the third, the quarter-quarter-quarter section, or 10-acre tract. The quarter sections, quarter-quarter sections, etc., are designated A, B, C, and D in a counter-clockwise direction beginning in the northeast quarter section. For example, well 23-3W-21CCC2 is in the SW¼SW¼SW¼ sec.21, T.23 S., R.3 W. (fig. 2). If more than one well is located in the same 10-acre tract, consecutive numbers beginning with 2 are added to the letters in the order in which the wells were inventoried.

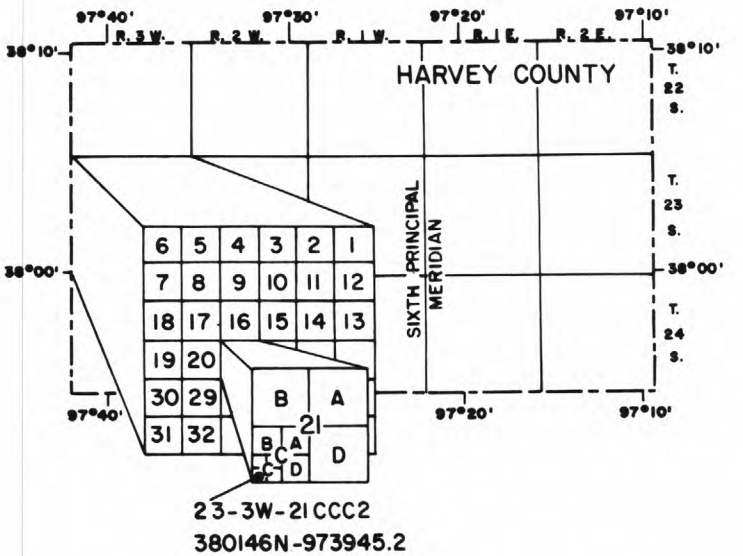

Figure 2.--Well-numbering system.

COLLECTION AND EXAMINATION OF DATA

Water samples for analysis usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads. Discharge records for streams in Kansas have been released in the report, "Water Resources Data for Kansas, 1972, Part 1. Surface Water Records."

The water-quality records in this report include descriptions of the sampling stations and tabulations of the data for the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the various water-quality data, extremes of the pertinent data, and general remarks in a format similar to that used for streamflow gaging stations. For ground-water sampling sites, no descriptive statements are given. However, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Water-quality information presented includes chemical, microbiological, water temperature, and fluvial sediment data. The chemical-quality information includes concentration of individual dissolved constituents and certain properties or characteristics such as hardness, sodium-adsorption ratio, specific conductance, and pH. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations or daily mean values. Fluvial sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment and bed material.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began to use the metric system; data for chemical constituents and concentrations of suspended sediment are now reported in milligrams per liter (mg/l) and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in milligrams per liter should be divided by the density to convert to parts per million (see table 2, page 4). To convert temperature in degrees Fahrenheit to degrees Celsius, see table 3.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter (see "Definition of Terms," p. 1).

Table 3.--Degrees Celsius (°C) and corresponding degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	8.5	47	16.5	62	25.0	77	33.5	92	41.5	107
.5	33	9.0	48	17.0	63	25.5	78	34.0	93	42.0	108
1.0	34	9.5	49	18.0	64	26.0	79	34.5	94	43.0	109
1.5	35	10.0	50	18.5	65	26.5	80	35.0	95	43.5	110
2.0	36	10.5	51	19.0	66	27.0	81	35.5	96	44.0	111
3.0	37	11.0	52	19.5	67	28.0	82	36.0	97	44.5	112
3.5	38	11.5	53	20.0	68	28.5	83	36.5	98	45.0	113
4.0	39	12.0	54	20.5	69	29.0	84	37.0	99	45.5	114
4.5	40	13.0	55	21.0	70	29.5	85	38.0	100	46.0	115
5.0	41	13.5	56	21.5	71	30.0	86	38.5	101	46.5	116
5.5	42	14.0	57	22.0	72	30.5	87	39.0	102	47.0	117
6.0	43	14.5	58	23.0	73	31.0	88	39.5	103	48.0	118
6.5	44	15.0	59	23.5	74	31.5	89	40.0	104	48.5	119
7.0	45	15.5	60	24.0	75	32.0	90	40.5	105	49.0	120
8.0	46	16.0	61	24.5	76	33.0	91	41.0	106	49.5	121

*C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). 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 the mixing of the stream. Some streams must be sampled at several verticals across the channel to determine accurately the solute load.

At chemical-quality stations where records of specific conductance are obtained, the records consist of once-daily values at those stations where samples are collected each day. At those stations where monitors are installed, the records consist of daily-mean values. More detailed records (hourly values) may be obtained by writing the Water Resources Division District Office in Lawrence, Kansas.

Ground water generally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are analyzed individually.

Temperature

Water temperatures are measured at many of the water-quality stations. For daily stations, the water temperatures are taken at about the same time each day when the sample is collected. For stations where monitors are installed the records consist of daily mean values. 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 are usually obtained of a fixed point and a coefficient applied to determine the mean concentration in the cross sections, or samples may be obtained of several verticals in the cross sections.

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

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

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are also given.

WATER-SUPPLY PAPERS

Table 4 lists the annual series of water-supply papers that give information on the quality of surface waters in Kansas. Data for the Kansas River basin are given in Part 6 and data for the Arkansas River basin are given in Part 7.

Table 4.--Water-supply paper numbers and parts, water years 1947-71

Year	Parts 5-6	Parts 7-8	Year	Parts 5-6	Parts 7-8	Year	Parts 5-6	Parts 7-8
1947	1102	--	1956	1451	1452	1965	1963	1964
1948	1132	1133	1957	1521	1522	1966	1993	1994
1949	1162	1163	1958	1572	1573	1967	2013	2014
1950	1187	1188	1959	1643	1644	1968	2095	2096
1951	1198	1199	1960	1743	1744	1969	AB2145	AC2146
1952	1251	1252	1961	1883	1884	1970	AB2155	AC2156
1953	1291	1292	1962	1943	1944	1971	AB2165	AC2166
1954	1351	1352	1963	1949	1950			
1955	1401	1402	1964	1956	1957			

A In preparation.
B Part 6.
C Part 7.

SELECTED REFERENCES

American Public Health Association, and others, 1971, Standard methods for the examination of water and wastewater, 13th ed.: Am. Public Health Assoc., New York, 874 p.

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Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

Porterfield, George, 1972, Computation of fluvial-sediment discharge: U.S. Geol. Survey Techniques of Water Resources Inv., book 3, chap. C3, 66 p.

Ritter, J. R., and Helley, E. J., 1969, Optical method for determining particle sizes of coarse sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C3, 33 p.

U.S. Inter-Agency Committee on Water Resources, Subcommittee on Sedimentation, A study of methods used in measurement and analysis of sediment loads in streams. Published by the St. Anthony Falls Hydraulic Laboratory, Minneapolis, Minn.

_____ 1941, Methods of analyzing sediment samples: Rept. 4.

_____ 1953, Accuracy of sediment size analyses made by the bottom-withdrawal-tube method: Rept. 10.

_____ 1957a, The development and calibration of visual accumulation tube: Rept. 11.

_____ 1957b, Some fundamentals of particle size analysis: Rept. 12.

_____ 1959, Federal inter-agency sedimentation instruments and reports: Rept. AA.

_____ 1961, The single stage sampler for suspended sediment: Rept. 13.

_____ 1963, Determinations of fluvial sediment discharge: Rept. 14.

Table 5. Factors for converting English units to International System (SI) units.

The following factors may be used to convert the English units published herein to the International System of Units (SI).

Multiply English units	By	To obtain SI units
	Length	
feet (ft)	.3048	metres (m)
miles (mi)	1.609	kilometres (km)
	Area	
square miles (mi^2)	2.590	square kilometres (km^2)
	Volume	
cfs-day (ft^3/s-day)	2447	cubic metres (m^3)
	2.447×10^{-3}	cubic hectometres (hm^3)
acre-feet (acre-ft)	1233	cubic metres (m^3)
	1.233×10^{-3}	cubic hectometres (hm^3)
	1.233×10^{-6}	cubic kilometres (km^3)
	Flow	
cubic feet per second (ft^3/s)	28.32	litres per second (l/s)
	28.32	cubic decimetres per second (dm^3/s)
	.02832	cubic metres per second (m^3/s)
	Mass	
ton (short)	.9072	tonne (t)

PART 6. MISSOURI RIVER BASIN

KANSAS RIVER BASIN

06846500 BEAVER CREEK AT CEDAR BLUFFS, KS

LOCATION.--Lat 39°59'06", long 100°33'35", in NW¼NE¼ sec.10, T.1 S., R.29 W., Decatur County, at gaging station at bridge on U.S. Highway 83, 0.2 mi (0.3 km) north of Cedar Bluffs, and 1.0 mi (1.6 km) south of Kansas-Nebraska State line at mile 107.4 (172.8 km).

DRAINAGE AREA.--1,618 mi² (4,191 km²), of which 294 mi² (761 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1962, October 1963 to September 1970.
Water temperatures: October 1961 to September 1965.
Sediment records: October 1961 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
APR. 27...	1530	22.0	.01	645	.02
MAY 30...	1530	23.0	.02	26	.00
JULY 26...	1545	22.0	0.2	404	0.9
SEP. 18...	1710	12.0	1.7	504	2.3

KANSAS RIVER BASIN

06847950 NORTON RESERVOIR NEAR NORTON, KS

LOCATION.--Lat 39°48'27", long 99°56'04", in SW¼NW¼ sec.8, T.3 S., R.23 W., Norton County.

DRAINAGE AREA.--683 mi² (1,769 km²).

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1973.

REMARKS.--Samples are collected at outlet to Norton water supply conduit.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	RESERVOIR STORAGE (AC-FT)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
JULY 12...	6284	1.4	50	0	50	14	14	19	235	0	27	15

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITHITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (JTU)
JULY 12...	.3	.04	.00	80	258	.35	180	0	.5	454	7.8	10

DATE	RESERVOIR STORAGE (AC-FT)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
OCT. 19...	8214	4.5	8.0	10.5	485	7.6	36	--	6
JAN. 23...	8662	5.0	10.0	9.1	495	8.1	24	--	6
APR. 17...	9836	18.0	16.0	8.9	482	8.2	20	2	1
MAY 02...	10106	--	--	7.6	535	8.1	--	--	--
JUNE 07...	10267	20.0	18.0	7.8	418	7.1	--	--	--
JULY 12...	6284	34.0	26.5	7.4	481	7.4	165	34	19
31...	7104	28.5	24.5	7.2	429	8.3	--	--	--

06848000 PRAIRIE DOG CREEK AT NORTON, KS

KSDH Station No. 74.0

LOCATION.--Lat 39°48'36", long 99°55'18", in NW¼NW¼ sec.9, T.3 S., R.23 W., Norton County, 0.9 mi (1.4 km) downstream from Norton Dam, 2.0 mi (3.2 km) southwest of Norton, and at mile 74.0 (119.1 km).

DRAINAGE AREA.--684 mi^2 (1,772 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1949, September 1957 to June 1958, October 1961 to September 1963, February 1970 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
NOV.												
15...	.25	1.5	37	51	17	18	8.6	240	0	25	14	.5
JAN.												
13...	1.1	.0	37	56	14	16	7.8	250	0	19	11	.4
FEB.												
21...	.08	.5	35	54	13	20	7.0	240	0	20	12	.3
MAR.												
20...	.09	9.0	37	59	17	24	9.0	280	0	25	14	.4
APR.												
27...	.19	14.0	14	59	12	23	8.8	260	0	27	13	.4
MAY												
30...	.04	12.0	31	62	16	30	10	320	0	11	15	.5
JULY												
10...	115	25.0	2.0	53	13	14	19	230	0	21	16	.5
18...	48	24.0	3.8	53	11	13	18	220	0	23	13	.4
AUG.												
16...	83	25.5	6.2	48	13	12	19	220	0	18	12	.3
SEP.												
18...	37	12.0	35	58	16	23	10	270	0	26	16	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
NOV.												
15...	.00	.09	140	279	.19	.38	6	200	1	.6	440	7.8
JAN.												
13...	.05	.03	110	292	.87	.40	1	200	0	.5	440	7.5
FEB.												
21...	.07	.04	110	287	.06	.39	1	190	0	.6	430	7.9
MAR.												
20...	.09	.05	120	324	.08	.44	8	220	0	.7	500	7.8
APR.												
27...	.16	.05	150	300	.15	.41	10	200	0	.7	460	7.6
MAY												
30...	.09	.08	140	335	.04	.46	7	220	0	.9	540	7.6
JULY												
10...	.14	.07	90	260	80.7	.35	7	190	0	.4	420	7.6
18...	.09	.05	90	258	33.4	.35	15	180	0	.4	440	7.5
AUG.												
16...	.07	.05	150	251	56.2	.34	8	170	0	.4	420	7.4
SEP.												
18...	.05	.05	150	330	33.0	.45	8	210	0	.7	500	7.9

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
APR.		
27...	80	0

06848500 PRAIRIE DOG CREEK NEAR WOODRUFF, KS

KSDH Station No. 26.5

LOCATION.--Lat 39°59'09", long 99°28'39", in NW¼NW¼ sec.9, T.1 S., R.19 W., Phillips County, at bridge on U.S. Highway 383, 1.0 mi (1.6 km) south of Kansas-Nebraska State line, 2.5 mi (4.0 km) west of Woodruff, and at mile 26.5 (42.6 km).

DRAINAGE AREA.--1,007 mi^2 (2,608 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT. 12...	.35	12.5	8.4	130	30	45	24	430	0	170	33	.4
NOV. 14...	3.9	1.0	24	91	19	25	16	340	0	60	26	.5
DEC. 14...	1.4	.0	25	170	34	47	21	610	0	110	46	.3
JAN. 19...	3.9	.0	33	130	23	34	19	460	0	81	34	.4
FEB. 13...	3.9	.0	30	98	18	27	15	350	0	56	27	.4
MAR. 14...	8.3	9.0	19	96	17	25	17	350	0	44	29	.4
APR. 12...	8.8	7.0	28	96	19	24	16	350	0	49	28	.4
MAY 09...	3.8	15.5	28	120	23	28	16	430	0	67	26	.3
JUNE 19...	2.5	21.5	45	130	25	30	18	450	0	95	26	.5
JULY 17...	14	21.0	25	72	14	16	20	230	0	47	20	.6
AUG. 15...	4.0	22.0	24	110	24	32	21	340	0	130	24	.3
SEP. 17...	2.2	14.0	32	130	26	44	19	410	0	160	31	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 12...	.90	.26	230	692	.65	.94	15	460	100	.9	1040	7.6
NOV. 14...	.41	.39	200	434	4.57	.59	7	300	29	.6	670	7.8
DEC. 14...	1.6	.52	210	776	2.93	1.06	5	560	66	.9	1200	7.6
JAN. 19...	2.0	.65	210	608	6.40	.83	3	430	48	.7	920	8.0
FEB. 13...	1.6	.91	120	464	4.89	.63	1	320	30	.7	710	7.6
MAR. 14...	1.3	1.1	150	436	9.77	.59	8	310	24	.6	680	7.4
APR. 12...	1.2	1.0	180	445	10.6	.61	65	320	30	.6	700	7.6
MAY 09...	.61	.65	200	525	5.39	.71	80	390	34	.6	830	7.7
JUNE 19...	1.2	.08	180	590	5.66	.80	25	420	62	.6	890	7.9
JULY 17...	6.6	.07	170	300	14.4	.52	200	237	47	.5	570	7.3
AUG. 15...	1.3	.28	240	546	5.90	.74	150	366	90	.7	830	7.4
SEP. 17...	2.5	.20	180	680	4.04	.92	6	434	100	.9	1000	7.9

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT. 12...	60	0
APR. 12...	70	0

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE

KSDH Station No. 182.4

LOCATION.--Lat 40°04'05", long 98°22'25", in SW¼NE¼ sec.7, T.1 N., R.9 W., Webster County, at gaging station, 300 ft (91 m) upstream from Willow Creek, 0.2 mi (0.3 km) downstream from Courtland diversion dam, and 2.0 mi (3.2 km) southwest of Guide Rock.

DRAINAGE AREA.--22,060 mi^2 (57,140 km^2), approximately, of which a large area does not contribute directly to surface runoff.

PERIOD OF RECORD.--Chemical analyses: November 1961 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973[1]

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT. 18...	97	8.5	21	75	17	27	10	270	0	75	17	.4
NOV. 28...	125	.0	36	85	17	27	9.6	290	0	78	18	.3
DEC. 18...	80	.0	36	85	15	26	9.0	290	0	69	18	.2
JAN. 30...	140	.5	39	90	15	27	10	300	0	77	19	.3
FEB. 23...	143	6.5	36	88	15	27	10	290	0	79	18	.2
MAR. 20...	148	10.5	32	91	15	29	10	300	0	86	22	.4
APR. 17...	255	16.5	33	100	20	34	11	310	0	120	27	.4
MAY 11...	660	20.5	13	59	18	33	15	240	0	75	19	.6
JUNE 19...	388	23.0	14	62	18	34	15	260	0	73	21	.6
JULY 16...	115	26.0	17	50	15	24	16	200	0	58	17	.6
AUG. 20...	115	31.0	17	53	20	33	16	230	0	74	18	.6
SEP. 20...	150	19.0	33	88	18	31	12	290	0	90	22	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 18...	.34	.21	140	390	102	.53	8	260	37	.7	600	7.7
NOV. 28...	.75	.24	170	424	143	.58	8	280	44	.7	640	8.1
DEC. 18...	.93	.16	80	415	89.6	.56	1	270	36	.7	610	7.6
JAN. 30...	.86	.25	150	435	164	.59	25	290	40	.7	650	7.7
FEB. 23...	.63	.21	90	430	166	.58	15	280	41	.7	640	8.1
MAR. 20...	.50	.18	150	432	173	.59	8	290	44	.7	650	7.9
APR. 17...	.56	.20	140	514	354	.70	55	340	88	.8	770	7.8
MAY 11...	.25	.17	180	361	643	.49	80	220	21	1.0	590	7.7
JUNE 19...	.32	.15	140	356	373	.48	65	230	18	1.0	580	8.1
JULY 16...	.66	.32	140	314	97.5	.43	200	190	20	.8	500	7.6
AUG. 20...	.20	.11	180	352	109	.48	7	210	22	1.0	570	7.5
SEP. 20...	.66	.24	140	450	182	.61	65	290	54	.8	680	7.9

[1]CHEMICAL ANALYSES BY THE KANSAS STATE DEPARTMENT OF HEALTH, TOPEKA, KS.

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
MAR.										
21...	150	7.0	--	--	--	--	--	--	--	--
APR.										
19...	210	15.0	24	100	120	94	18	33	13	308
MAY										
23...	682	17.0	--	--	--	--	--	--	--	--
JUNE										
20...	244	19.0	--	--	--	--	--	--	--	--
JULY										
26...	156	27.0	20	40	20	71	19	31	15	272
AUG.										
16...	238	27.0	--	--	--	--	--	--	--	--
SEP.										
17...	154	14.0	--	--	--	--	--	--	--	--

DATE	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
MAR.									
21...	--	--	18	--	.71	.80	.09	.74	.19
APR.									
19...	0	110	21	.4	.60	.72	.12	.66	.25
MAY									
23...	--	--	17	--	.61	.67	.06	.35	.19
JUNE									
20...	--	--	16	--	.50	.60	.10	.54	.18
JULY									
26...	0	88	18	.7	.48	.61	.13	.67	.25
AUG.									
16...	--	--	16	--	.71	.83	.12	.40	.24
SEP.									
17...	--	--	17	--	.44	.55	.11	1.1	.39

DATE	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)	PH (UNITS)
MAR.									
21...	.14	1.0	--	460	.63	186	699	--	8.1
APR.									
19...	.16	--	40	--	.64	265	721	10	8.0
MAY									
23...	.06	4.3	--	361	.49	665	571	--	--
JUNE									
20...	.07	1.3	--	383	.52	252	588	--	--
JULY									
26...	.17	--	100	--	.54	171	628	8	8.1
AUG.									
16...	.09	1.6	--	345	.47	222	554	--	--
SEP.									
17...	.28	.8	--	436	.59	181	662	--	--

DATE	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
JULY						
26...	0	10	3	20	0	5.0

06856000 REPUBLICAN RIVER AT CONCORDIA, KS

KSDH Station No. 98.5

LOCATION.--Lat 39°35'25", long 97°39'32", in SW¼SW¼NE¼ sec.28, T.5 S., R.3 W., Cloud County, at gaging station at bridge on U.S. Highway 81, 1.0 mi (1.6 km) north of Concordia, 3.4 mi (5.5 km) downstream from Buffalo Creek, and at mile 98.5 (158.5 km).

DRAINAGE AREA.--23,560 mi^2 (61,020 km^2), of which about 7,500 mi^2 (19,400 km^2) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
17...	154	14.5	19	96	20	63	12	280	12	140	55	.4
NOV.												
27...	558	3.0	30	140	21	87	11	340	0	201	96	.4
DEC.												
14...	165	.0	35	150	26	100	11	410	0	220	100	.4
JAN.												
31...	397	2.5	28	120	19	68	10	328	0	170	70	.4
FEB.												
21...	410	4.5	28	110	22	60	9.6	320	0	140	60	.3
MAR.												
19...	650	7.0	21	120	16	72	11	330	0	160	71	.4
APR.												
25...	615	14.0	22	150	18	70	11	350	0	160	68	.4
MAY												
08...	6460	14.5	15	45	6.7	16	10	120	0	50	18	.5
JUNE												
18...	562	24.5	14	80	16	51	14	270	0	110	40	.4
JULY												
13...	299	26.5	14	69	20	65	16	210	0	160	60	.6
AUG.												
24...	201	24.0	19	69	19	61	15	230	0	130	48	.5
SEP.												
05...	8980	21.0	15	35	5.0	9.5	10	120	0	21	10	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
17...	.75	.31	120	570	237	.78	8	320	68	1.5	880	8.5
NOV.												
27...	1.2	.30	210	770	1120	1.05	130	430	160	1.8	1170	8.0
DEC.												
14...	2.0	.20	150	878	391	1.19	3	480	150	2.0	140	8.1
JAN.												
31...	1.3	.24	150	664	712	.90	15	380	110	1.5	1010	7.8
FEB.												
21...	.84	.22	110	614	680	.84	55	370	100	1.4	920	8.0
MAR.												
19...	.79	.19	150	670	1180	.91	130	390	110	1.6	990	7.8
APR.												
25...	.81	.21	170	660	1100	.90	70	390	100	1.5	1030	7.7
MAY												
08...	1.2	.32	120	235	4100	.32	1600	140	40	.6	370	6.9
JUNE												
18...	.27	.18	110	470	713	.64	130	270	46	1.4	730	7.4
JULY												
13...	.29	.15	170	526	425	.72	65	250	82	1.8	840	7.4
AUG.												
24...	.23	.17	210	488	344	.66	130	250	58	1.7	770	7.4
SEP.												
05...	.70	27	80	184	4460	.25	1700	110	8	.4	290	7.1

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
17...	100	0

06856600 REPUBLICAN RIVER AT CLAY CENTER, KS

KSDH Station No. 38.2

LOCATION.--Lat 39°21'20", long 97°07'34", in SW¼NW¼SW¼ sec.17, T.8 S., R.3 E., Clay County at gaging station at bridge on State Highway 15, 1.0 mi (1.6 km) south of Clay Center, 4.0 mi (6.4 km) downstream from Five Creeks, and at mile 38.2 (61.5 km).

DRAINAGE AREA.--24,542 mi^2 (63,564 km^2).

PERIOD OF RECORD.--Chemical analyses: January 1973 to September 1973.
Water temperatures: January 1973 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
JAN.												
10...	1210	3.0	20	89	15	58	8.1	272	0	120	55	.6
FEB.												
22...	582	3.5	23	120	19	77	8.8	359	0	170	81	.5
MAR.												
29...	3390	10.5	15	80	13	46	10	213	0	120	48	.3
APR.												
17...	3480	12.0	13	80	12	50	9.0	225	0	110	52	.5
MAY												
01...	956	16.5	17	120	20	79	8.9	341	0	170	78	.4
JUNE												
22...	684	24.0	15	69	19	63	12	234	0	130	57	.6
JULY												
26...	4310	24.0	14	47	6.1	31	8.6	159	0	55	30	.4
AUG												
29...	334	26.0	20	75	19	77	13	227	0	150	71	.4
SEPT												
20...	1490	18.0	14	64	12	36	13	205	0	90	32	.5

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (JTU)
JAN.											
10...	1.6	--	.46	552	499	280	61	1.5	819	7.7	90
FEB.											
22...	.72	1.2	.29	660	676	380	83	1.7	1060	8.1	20
MAR.											
29...	2.4	1.6	.65	480	437	250	79	1.3	731	7.9	300
APR.											
17...	4.7	1.4	.66	474	437	250	65	1.4	723	7.6	180
MAY											
01...	--	.70	.22	718	661	380	100	1.8	1040	8.2	80
JUNE											
22...	1.6	.00	.26	515	481	250	59	1.7	796	7.0	40
JULY											
26...	3.9	1.4	.81	311	273	150	20	1.1	480	7.6	400
AUG.											
29...	1.5	.00	.17	553	537	270	79	2.1	876	7.5	40
SEPT.											
20...	1.2	.94	.45	372	363	210	41	1.1	581	8.1	90

06856600 REPUBLICAN RIVER AT CLAY CENTER, KS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)
MAR. 29...	4	10	0	<10	0	10	0	<20	23	110	40	19000
JULY 26...	0	24	1	<10	0	30	0	25	12	70	40	36000

DATE	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR. 29...	0	100	10	460	.2	.5	5	14	30	180	17
JULY 26...	3	<50	0	1100	.1	.4	5	8	50	170	37

DATE	ORGANIC CARBON IN BED MA-TERIAL (C) (G/KG)	TOTAL ARSENIC IN BOTTOM DE-POSITS (UG/G)	TOTAL CADMIUM IN BOTTOM DE-POSITS (UG/G)	TOTAL CHRO-MIUM IN BOTTOM DE-POSITS (UG/G)	TOTAL COBALT IN BOTTOM DE-POSITS (UG/G)	TOTAL COPPER IN BOTTOM DE-POSITS (UG/G)	TOTAL IRON IN BOTTOM DE-POSITS (UG/G)
JULY 26...	.3	0	0	2	<3	0	1400

DATE	TOTAL LEAD IN BOTTOM DE-POSITS (UG/G)	TOTAL MANGA-NESE IN BOTTOM DE-POSITS (UG/G)	TOTAL MERCURY IN BOTTOM DE-POSITS (UG/G)	TOTAL SELE-NIUM IN BOTTOM DE-POSITS (UG/G)	TOTAL ZINC IN BOTTOM DE-POSITS (UG/G)	TOTAL PHOS-PHORUS IN BOT-TOM DE-POSITS (MG/KG)
JULY 26...	5	24	.0	0	4	71

06856600 REPUBLICAN RIVER AT CLAY CENTER, KS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHYTO-PLANK-TON (CELLS PER ML)
JAN. 16...	32
FEB. 22...	2400
MAR. 29...	2700
APR. 17...	280
MAY 01...	3100
JUNE 22...	52000
JULY 26...	740
AUG. 29...	7200
SEP. 20...	16000

DATE	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)
JAN. 16...	1400	--	--
FEB. 22...	830	--	--
MAR. 29...	3900	700	280
APR. 17...	88500	83700	5000
MAY 01...	6700	2930	3100
JUNE 22...	4200	2700	930
JULY 26...	>16000	>2000	>5000
AUG 29...	11000	1600	3300

06856600 REPUBLICAN RIVER AT CLAY CENTER, KS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	720	1070	280	1200	1040	1040	794	820
2	---	---	---	---	500	1070	380	1150	1120	1060	791	820
3	---	---	---	---	700	1060	493	1060	1230	1020	873	813
4	---	---	---	---	1000	700	628	1000	600	928	682	764
5	---	---	---	---	1050	350	763	1050	400	860	900	760
6	---	---	---	---	1100	571	901	1000	435	820	926	273
7	---	---	---	---	1150	561	973	650	550	847	947	353
8	---	---	---	---	1130	812	979	300	614	870	925	434
9	---	---	---	---	1050	376	1000	500	1050	928	891	534
10	---	---	---	---	1050	599	1030	450	1050	947	858	576
11	---	---	---	---	1200	226	1060	550	1060	957	851	533
12	---	---	---	---	1260	418	1090	700	1070	941	832	569
13	---	---	---	---	1260	500	1080	750	899	961	784	527
14	---	---	---	---	1200	580	1060	800	719	740	799	541
15	---	---	---	---	1200	660	522	880	805	464	790	502
16	---	---	---	---	1260	800	689	950	828	524	700	498
17	---	---	---	---	1260	920	665	1000	895	585	600	441
18	---	---	---	---	1270	950	645	1010	1040	769	620	504
19	---	---	---	---	1380	980	780	1020	937	302	660	566
20	---	---	---	---	1420	1010	828	1050	920	156	700	567
21	---	---	---	---	1380	1030	922	1040	932	202	730	568
22	---	---	---	---	1330	1060	1020	1050	987	303	760	553
23	---	---	---	---	1200	1090	1050	1060	1140	422	790	590
24	---	---	---	---	1100	700	1060	1070	1060	536	600	746
25	---	---	---	---	1020	402	1070	1080	972	347	620	788
26	---	---	---	---	1030	366	1090	1090	920	480	630	132
27	---	---	---	---	1080	477	1120	1100	940	476	640	124
28	---	---	---	---	1080	618	1130	950	966	631	640	188
29	---	---	---	---	---	730	1130	800	981	750	650	221
30	---	---	---	---	---	837	1180	880	1020	802	630	278
31	---	---	---	---	---	461	---	960	---	772	620	---
AVERAGE	---	---	---	---	1120	709	888	902	912	697	807	521

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	5.0	6.0	8.0	18.0	23.0	30.0	27.0	24.0
2	---	---	---	---	4.0	7.0	8.5	16.0	24.0	29.5	27.0	24.0
3	---	---	---	---	4.0	7.0	9.0	14.0	24.0	28.5	27.0	25.0
4	---	---	---	---	5.0	6.0	9.0	14.0	23.0	29.5	27.0	21.5
5	---	---	---	---	4.0	5.5	10.0	15.0	24.0	28.5	26.0	22.0
6	---	---	---	---	3.0	7.5	11.0	18.0	23.0	28.5	25.5	20.0
7	---	---	---	---	2.0	8.0	11.0	17.0	23.5	29.0	27.0	21.0
8	---	---	---	---	1.0	9.0	9.0	17.0	27.0	30.0	27.5	21.0
9	---	---	---	---	1.0	7.5	6.5	18.0	26.0	30.5	28.5	21.5
10	---	---	---	---	1.0	7.5	6.5	19.0	25.0	29.5	29.0	21.0
11	---	---	---	---	1.5	7.0	9.0	18.0	26.0	30.5	29.5	22.0
12	---	---	---	---	2.0	8.5	11.0	18.0	27.0	29.5	29.0	20.5
13	---	---	---	---	2.0	10.0	12.0	17.0	26.0	27.5	29.0	20.5
14	---	---	---	---	1.5	10.0	12.5	15.0	25.5	24.5	28.5	20.0
15	---	---	---	---	1.0	9.5	12.0	15.0	27.0	24.5	28.5	18.5
16	---	---	---	---	1.0	9.0	12.0	16.0	28.5	25.5	28.0	15.0
17	---	---	---	---	1.0	8.5	13.0	16.0	25.5	26.5	28.0	14.0
18	---	---	---	---	1.0	8.5	14.0	18.0	22.0	28.0	28.5	15.0
19	---	---	---	---	1.5	8.5	15.5	21.0	21.0	24.0	29.0	16.0
20	---	---	---	---	2.5	8.0	15.5	22.0	22.0	23.0	29.0	16.0
21	---	---	---	---	3.5	9.0	17.0	23.0	22.5	22.5	29.0	18.0
22	---	---	---	---	4.0	10.0	17.5	23.0	24.0	22.0	28.5	19.5
23	---	---	---	---	5.0	10.0	18.5	22.0	24.5	23.5	28.0	24.0
24	---	---	---	---	6.0	9.5	18.0	20.0	23.5	24.5	27.5	24.0
25	---	---	---	---	5.0	8.5	16.5	19.0	28.0	23.0	28.0	22.0
26	---	---	---	---	4.5	8.5	13.0	20.0	27.0	25.0	28.0	20.0
27	---	---	---	---	4.0	9.0	13.0	19.0	26.0	27.0	27.0	20.0
28	---	---	---	---	4.5	10.5	14.5	19.0	27.0	27.5	26.0	21.0
29	---	---	---	---	---	10.5	17.0	20.0	28.5	28.5	25.0	20.0
30	---	---	---	---	---	9.5	19.0	21.0	29.0	28.5	24.5	20.0
31	---	---	---	---	---	8.5	---	22.0	---	27.5	24.0	---
AVERAGE	---	---	---	---	3.0	8.5	12.5	18.5	25.0	27.0	27.5	20.0

06857100 REPUBLICAN RIVER BELOW MILFORD DAM, KS

KSDH Station No. 6.0

LOCATION.--Lat 39°04'15", long 96°52'00", Geary County, at gaging station at bridge on U.S. Highway 77, 1.7 mi (2.7 km) below Milford Dam, 2.5 mi (4.0 km) northwest of Junction City, and at mile 6.0 (9.7 km).

DRAINAGE AREA.--24,890 mi² (64,470 km²), of which a large area is noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1964 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
19...	163	15.0	3.6	53	16	40	11	180	0	78	42	.4
DEC.												
20...	196	4.0	6.6	65	14	49	11	210	0	92	54	.4
JAN.												
31...	1040	1.5	8.0	67	13	45	10	210	0	92	48	.4
FEB.												
27...	1570	2.5	7.8	67	14	44	10	210	0	88	45	.4
MAR.												
29...	3040	7.0	9.0	67	13	40	9.0	200	0	84	42	.4
APR.												
11...	9530	8.0	13	64	12	39	8.4	190	0	82	41	.4
MAY												
14...	3110	16.0	12	70	11	38	8.4	200	0	83	38	.4
JUNE												
14...	1080	21.0	10	69	12	38	7.6	200	0	84	40	.4
JULY												
12...	196	23.0	6.3	72	14	40	8.6	210	0	90	52	.4
AUG.												
20...	570	26.0	5.7	58	13	38	8.8	180	0	86	39	.4
SEP.												
13...	2540	23.0	6.4	56	14	38	9.0	180	0	84	38	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
19...	.75	.12	140	356	157	.48	7	200	46	1.2	570	7.8
DEC.												
20...	.54	.10	110	409	216	.56	8	220	48	1.4	650	7.9
JAN.												
31...	.54	.09	140	410	1150	.56	1	220	50	1.3	650	7.6
FEB.												
27...	.47	.07	140	395	1670	.54	1	220	52	1.3	620	7.6
MAR.												
29...	.52	.11	120	376	3090	.51	7	220	56	1.2	600	8.0
APR.												
11...	.66	.14	120	365	9390	.50	8	210	51	1.2	590	7.6
MAY												
14...	.50	.09	120	370	3160	.51	10	220	54	1.1	600	7.3
JUNE												
14...	.66	.09	110	376	1100	.51	6	220	54	1.1	600	7.6
JULY												
12...	.50	.14	110	404	214	.55	7	240	65	1.1	640	7.6
AUG.												
20...	.36	.07	150	351	540	.48	7	200	52	1.2	570	7.4
SEP.												
13...	.14	.02	140	350	2400	.48	4	200	49	1.2	570	7.4

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
19...	150	0
APR.		
11...	90	0

06862000 SMOKY HILL RIVER AT CEDAR BLUFF DAM, KS

KSDH Station No. 333.4

LOCATION.--Lat 38°47'30", long 99°43'20", in NW¼NE¼ sec.1, T.15 S., R.22 W., Trego County, at gaging station, 0.2 mi (0.3 km) downstream from Cedar Bluff Dam, and 14 mi (23 km) southwest of Ellis, and at mile 333.4 (536.4 km).

DRAINAGE AREA.--5,530 mi² (14,320 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Samples are collected 500 feet (152 m) downstream from gaging station and downstream from fish hatchery wasteway. Chemical analyses by Kansas State Department of Health, Topeka, Ks. Flow regulated by Cedar Bluff Reservoir. Field determinations are for samples collected at outlet to the fish hatchery.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
17...	.27	19.0	5.2	140	25	59	18	130	0	390	23	.8
NOV.												
20...	.77	7.5	8.2	140	28	40	16	150	0	410	25	.7
DEC.												
18...	.40	3.0	12	160	35	47	15	160	0	460	26	.8
JAN.												
23...	.52	4.0	9.6	150	30	44	17	150	0	440	25	.8
FEB.												
02...	.47	5.0	7.6	140	27	40	17	130	0	410	25	.8
MAR.												
21...	.41	10.0	9.0	150	38	52	16	170	0	470	27	.8
APR.												
19...	1.1	12.0	9.6	170	41	64	16	180	0	550	29	.8
MAY												
22...	1.5	20.5	9.0	150	40	52	16	150	0	480	30	.8
JUNE												
20...	1.2	21.5	12	160	33	48	16	160	0	470	31	.8
JULY												
19...	1.8	23.0	13	130	29	41	14	--	--	400	22	.7
AUG.												
27...	1.4	24.0	15	160	31	43	16	160	0	430	28	.7
SEP.												
24...	1.6	20.5	11	140	28	37	15	150	0	370	26	.7

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
17...	.09	.03	240	750	.53	.99	3	440	340	.8	990	7.3
NOV.												
20...	.16	.03	210	768	1.60	1.04	2	470	350	.8	1050	7.8
DEC.												
18...	.23	.01	150	856	.92	1.16	2	540	410	.9	1120	7.8
JAN.												
23...	.05	.02	170	818	1.15	1.11	1	500	380	.9	1100	7.6
FEB.												
02...	.07	.03	150	742	.94	1.01	1	460	350	.8	1020	8.0
MAR.												
21...	.07	.03	--	870	.96	1.18	2	540	400	1.0	1140	8.0
APR.												
19...	.16	.03	240	950	2.82	1.29	7	590	450	1.1	1290	7.6
MAY												
22...	.09	.02	260	870	3.52	1.18	5	540	420	1.0	1170	7.4
JUNE												
20...	.05	.02	200	870	2.82	1.18	1	550	400	.9	1140	7.4
JULY												
19...	.02	.03	180	740	3.60	1.01	6	450	340	.8	1050	7.4
AUG.												
27...	.07	.02	230	820	3.10	1.12	7	510	360	.8	1130	7.9
SEP.												
24...	.05	.01	200	724	3.15	.98	3	460	340	.7	1010	7.6

06862000 SMOKY HILL RIVER AT CEDAR BLUFF DAM, KS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
OCT. 17...	70	0
APR. 19...	110	0

DATE	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)
OCT. 17...	19.0	--	990	7.3	--	--	--
JAN. 23...	4.0	8.6	1100	7.6	290	--	78
APR. 19...	12.0	--	1290	7.8	100	<10	<10
JULY 13...	25.5	8.2	1020	7.9	880	200	130

06862700 SMOKY HILL RIVER NEAR SCHOENCHEN, KS

KSDH Station No. 312.3

LOCATION.--Lat 38°43'30", long 99°23'30", in NW¼NW¼ sec.25, T.15 S., R.19 W., Ellis County, at gaging station, 3.0 mi (4.8 km) northwest of Schoenchen, and at mile 312.3 (502.5 km).

DRAINAGE AREA.--5,750 mi² (14,890 km²).

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
17...	16	19.0	16	150	25	68	9.6	220	0	340	72	.6
NOV.												
20...	24	7.0	16	170	25	74	9.2	250	0	360	85	.5
DEC.												
18...	14	.0	20	170	24	70	8.8	250	0	350	72	.4
JAN.												
23...	23	3.5	19	140	22	63	7.8	170	0	330	75	.4
FEB.												
22...	16	9.5	18	160	25	66	8.2	220	0	340	74	.4
MAR.												
21...	31	12.0	17	170	25	68	9.0	250	0	350	73	.5
APR.												
20...	92	10.0	11	130	31	77	10	190	0	340	90	.6
MAY												
23...	56	17.0	14	150	28	78	9.0	240	0	320	84	.6
JUNE												
20...	22	25.0	21	160	27	69	9.6	200	0	370	77	.7
JULY												
20...	485	24.0	14	59	9.0	16	10	130	0	86	19	1.2
AUG.												
27...	24	23.0	23	160	26	70	11	230	0	370	76	.6
SEP.												
24...	30	18.0	22	160	24	68	10	240	0	320	73	.6

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
17...	.50	.05	230	824	35.6	1.12	1	480	310	1.4	1160	7.7
NOV.												
20...	.70	.05	270	884	57.3	1.20	6	550	320	1.4	--	8.0
DEC.												
18...	1.3	.02	140	886	33.5	1.20	1	520	320	1.3	1230	7.6
JAN.												
23...	1.2	.02	180	768	47.7	1.04	4	440	300	1.3	1140	7.9
FEB.												
22...	1.1	.03	170	822	35.5	1.12	1	490	310	1.3	1160	7.7
MAR.												
21...	.75	.03	--	850	71.1	1.16	7	520	320	1.3	1180	7.9
APR.												
20...	.79	.03	180	800	199	1.09	15	460	310	1.6	1220	7.8
MAY												
23...	.50	.02	230	830	125	1.13	20	480	280	1.5	1220	7.6
JUNE												
20...	.41	.03	200	826	49.1	1.12	2	500	330	1.3	1170	7.7
JULY												
20...	1.2	.17	120	300	393	.41	2200	180	76	.5	450	7.4
AUG.												
27...	.95	.01	240	860	55.7	1.17	15	510	330	1.4	1250	7.7
SEP.												
24...	.88	.03	170	840	68.0	1.14	7	480	290	1.3	1190	7.8

06864000 SMOKY HILL RIVER NEAR RUSSELL, KS

KSDH Station No. 266.3

LOCATION.--Lat 38°46'36", long 98°51'16", in NW¼NW¼SW¼ sec.2, T.15 S., R.14 W., Russell County, at gaging station at bridge on U.S. Highway 281, 0.2 mi (0.3 km) upstream from Landon Creek, 7.7 mi (12.4 km) south of Russell, and at mile 266.3 (428.5 km).

DRAINAGE AREA.--6,965 mi² (18,040 km²).

PERIOD OF RECORD.--Chemical analyses: October 1950 to September 1951, October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT. 18...	23	9.0	13	180	38	390	11	260	0	360	620	.5
NOV. 20...	49	2.5	14	160	25	210	10	250	0	280	330	.4
DEC. 19...	20	.0	17	200	33	300	10	320	0	320	500	.4
JAN. 24...	47	1.0	14	160	27	220	8.8	250	0	290	350	.5
FEB. 21...	38	3.5	12	170	27	240	9.4	260	0	290	390	.4
MAR. 22...	127	11.0	18	150	25	170	11	260	0	250	280	.5
APR. 23...	291	17.0	13	160	27	190	11	260	0	280	310	.5
MAY 23...	162	18.5	14	170	28	250	11	250	0	300	400	.6
JUNE 21...	61	22.0	18	180	39	370	12	260	0	370	590	.4
JULY 18...	55	25.0	20	130	23	220	12	190	0	270	330	.7
AUG. 28...	53	26.0	22	170	36	370	14	250	0	340	600	.6
SEP. 25...	77	17.5	20	160	25	220	12	240	0	280	350	.6

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 18...	.09	.08	410	1740	111	2.42	3	600	380	6.9	2930	7.7
NOV. 20...	.54	.46	260	1160	155	1.59	8	500	290	4.1	1860	7.8
DEC. 19...	1.3	.55	240	1530	84.8	2.14	7	620	360	5.2	2460	7.5
JAN. 24...	.93	.46	240	1200	159	1.70	8	520	320	4.2	2020	7.7
FEB. 21...	.70	.49	210	1270	132	1.75	8	530	320	4.5	2120	7.9
MAR. 22...	.70	.18	--	1040	367	1.46	65	490	260	3.4	1690	7.7
APR. 23...	.41	.12	240	1120	880	1.52	55	510	300	3.7	1860	7.7
MAY 23...	.09	.06	290	1290	560	1.74	20	530	320	4.7	2100	7.4
JUNE 21...	.05	.13	360	1700	290	2.39	8	600	390	6.5	2830	7.9
JULY 18...	.20	.19	240	1100	169	1.55	85	410	260	4.7	1890	7.6
AUG. 28...	.16	.13	380	1690	249	2.37	55	570	370	6.7	2860	8.3
SEP. 25...	.45	.33	260	1190	258	1.69	55	500	300	4.3	1980	7.7

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT. 18...	60	0
APR. 23...	80	0

06864500 SMOKY HILL RIVER AT ELLSWORTH, KS

KSDH Station No. 213.7

LOCATION.--Lat 38°43'36", long 98°14'00", in SW¼SW¼SE¼ sec.20, T.15 S., R.8 W., Ellsworth County, at gaging station at bridge on State Highway 14 in Ellsworth, 2.0 mi (3.2 km) downstream from Turkey Creek, and at mile 213.7 (343.8 km).

DRAINAGE AREA.--7,580 mi² (19,600 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: September 1957 to September 1959, October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
04...	52	15.0	15	160	26	320	10	260	0	250	540	.5
NOV.												
01...	79	6.0	14	140	25	220	8.6	240	0	210	380	.4
DEC.												
14...	28	.0	14	210	32	280	9.0	340	0	270	500	.4
JAN.												
22...	100	1.5	14	160	25	180	7.6	270	0	230	320	.4
FEB.												
05...	129	3.0	14	170	22	170	8.0	250	0	230	320	.4
MAR.												
29...	1540	9.0	17	120	13	70	10	200	0	140	150	.4
APR.												
03...	4730	8.5	15	78	5.2	34	9.4	160	0	70	68	.3
24...	398	17.0	13	180	23	180	10	260	0	280	320	.4
MAY												
30...	252	17.0	17	180	28	220	9.2	260	0	290	390	.4
JUNE												
15...	160	25.0	18	160	29	270	11	180	0	300	460	.5
JULY												
16...	55	21.0	19	160	34	320	10	230	0	310	540	.6
AUG.												
14...	1790	24.0	14	80	8.9	57	8.0	170	0	70	110	.4
SEP.												
20...	141	17.0	20	160	23	190	10	260	0	220	320	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
04...	.09	.07	330	1460	211	2.04	15	520	310	6.2	2440	7.7
NOV.												
01...	.38	.15	230	1110	247	1.58	130	460	260	4.5	1890	7.6
DEC.												
14...	.86	.22	270	1480	114	2.05	2	650	360	4.8	2500	7.7
JAN.												
22...	.66	.24	140	1080	297	1.50	55	510	300	3.5	1810	7.9
FEB.												
05...	.86	.24	230	1060	390	1.52	170	520	320	3.3	1820	7.8
MAR.												
29...	1.3	.15	--	617	2640	.86	500	350	190	1.6	1010	7.7
APR.												
03...	1.3	.22	--	363	4850	.52	1300	220	88	1.0	590	7.4
24...	.56	.12	210	1140	1280	1.62	90	550	340	3.4	1890	7.7
MAY												
30...	.32	.10	230	1260	871	1.74	8	570	350	4.0	2060	7.5
JUNE												
15...	.16	.06	270	1340	600	1.89	35	510	350	5.2	2200	7.3
JULY												
16...	.09	.02	350	1500	230	2.11	8	550	360	6.0	2640	7.6
AUG.												
14...	.36	.07	170	431	2150	.60	3200	240	98	1.6	720	7.2
SEP.												
20...	.45	.17	270	1070	423	1.51	110	490	270	3.7	1840	7.9

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
04...	100	0
APR.		
24...	70	0

06865500 SMOKY HILL RIVER NEAR LANGLEY, KS

KSDH Station No. 182.9

LOCATION.--Lat 38°36'38", long 97°57'04", in SW¼SW¼SE¼ sec.35, T.16 S., R.6 W., Ellsworth County, at gaging station at county highway bridge, 0.8 mi (1.3 km) downstream from Kanopolis Dam, 5.0 mi (8.0 km) north of Langley, and at mile 182.9 (294.3 km).

DRAINAGE AREA.--7,857 mi² (20,350 km²).

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
04...	44	19.5	7.9	80	14	90	8.8	150	0	100	160	.4
NOV.												
01...	47	9.5	7.0	83	15	100	8.8	160	0	110	170	.3
DEC.												
19...	64	2.0	9.0	99	16	120	9.0	180	0	130	210	.4
JAN.												
22...	96	3.0	9.1	100	15	120	8.4	180	0	130	200	.4
FEB.												
05...	141	3.0	8.3	94	17	110	8.4	170	0	130	200	.4
MAR.												
29...	3810	10.0	10	69	11	56	7.6	120	0	87	110	.4
APR.												
24...	1040	11.5	12	61	6.8	39	7.4	110	0	72	74	.4
MAY												
09...	1260	15.5	13	80	8.9	57	7.4	140	0	100	110	.2
JUNE												
12...	174	21.5	11	110	17	100	8.2	190	0	160	180	.3
JULY												
17...	75	26.0	4.3	120	17	130	9.0	180	0	190	220	.3
AUG.												
14...	493	25.0	7.3	85	15	93	8.8	140	0	130	160	.4
SEP.												
20...	224	18.5	11	91	14	93	8.7	150	0	130	160	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
04...	.20	.06	170	550	65.3	.75	15	260	140	2.4	960	7.5
NOV.												
01...	.38	.07	180	600	76.1	.82	15	270	140	2.7	990	7.5
DEC.												
19...	.50	.07	120	694	120	.94	3	310	160	3.0	1170	8.1
JAN.												
22...	.41	.05	140	694	180	.94	35	310	160	3.0	1170	8.1
FEB.												
05...	.32	.05	150	688	262	.94	15	300	170	2.7	1180	7.9
MAR.												
29...	.09	.06	--	427	4390	.58	65	220	120	1.7	710	7.5
APR.												
24...	.32	.10	120	345	969	.47	30	180	88	1.3	560	7.6
MAY												
09...	.56	--	120	454	1550	.62	30	240	120	1.6	760	8.1
JUNE												
12...	.09	.02	170	700	329	.95	8	350	190	2.3	1140	7.4
JULY												
17...	.09	.02	150	808	164	1.10	8	370	220	2.9	1350	7.8
AUG.												
14...	.11	.02	180	600	799	.82	8	270	160	2.4	980	7.3
SEP.												
20...	.23	.03	140	614	371	.84	15	280	160	2.4	1050	7.6

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
04...	110	0
APR.		
24...	100	0

06866500 SMOKY HILL RIVER NEAR MENTOR, KS

KSDH Station No. 101.7

LOCATION.--Lat 38°47'54", long 97°34'28", in SW¼SW¼SW¼ sec.29, T.14 S., R.2 W., Saline County, at gaging station at highway bridge, 4.0 mi (6.4 km) north of Mentor, and at mile 101.7 (163.6 km).

DRAINAGE AREA.--8,358 mi² (21,650 km²).

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
03...	108	19.5	10	100	19	72	8.8	240	0	110	120	.3
NOV.												
02...	92	9.0	9.7	100	19	74	8.0	250	0	120	120	.3
DEC.												
12...	83	.0	11	120	21	100	9.0	250	0	150	170	.3
JAN.												
02...	140	.0	14	80	17	51	8.6	160	0	140	79	.5
29...	157	1.0	13	110	23	83	8.0	230	0	170	140	.4
FEB.												
26...	321	4.5	9.5	110	22	100	8.0	210	0	160	180	.5
MAR.												
20...	2940	7.5	7.8	78	15	68	7.4	150	0	100	120	.4
APR.												
12...	2810	10.0	13	64	10	45	7.2	120	0	87	80	.3
MAY												
15...	2260	17.5	13	91	12	67	7.6	160	0	120	120	.3
JUNE												
13...	634	24.0	14	120	21	87	8.2	220	0	160	160	.4
JULY												
06...	155	28.0	15	130	23	79	8.8	260	0	180	140	.3
AUG.												
10...	1350	26.0	6.8	91	15	96	8.5	140	0	140	170	.3
SEP.												
11...	327	22.0	14	100	17	77	8.7	200	0	130	130	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
03...	.09	.06	180	572	167	.78	15	330	130	1.7	960	7.8
NOV.												
02...	.16	.07	180	580	144	.79	3	340	140	1.8	970	7.6
DEC.												
12...	.50	.10	180	740	166	1.01	2	380	170	2.2	1220	7.7
JAN.												
02...	.95	.18	140	492	186	.67	650	270	140	1.4	780	7.2
29...	.70	.12	170	684	290	.93	130	370	180	1.9	1100	7.6
FEB.												
26...	.18	.07	140	724	627	.98	130	360	190	2.3	1180	7.9
MAR.												
20...	.66	.07	--	490	3890	.67	800	260	130	1.8	810	7.3
APR.												
12...	.50	.09	120	368	2790	.50	220	200	100	1.4	630	7.5
MAY												
15...	.50	.08	150	520	3170	.71	180	280	140	1.8	880	7.4
JUNE												
13...	.32	.06	170	708	1210	.96	130	380	200	1.9	1120	7.5
JULY												
06...	.50	.04	150	744	311	1.01	85	420	210	1.7	1190	7.4
AUG.												
10...	.20	.05	200	626	2280	.85	200	290	170	2.5	1030	7.3
SEP.												
11...	.61	.08	210	610	539	.83	190	320	150	1.9	1020	7.7

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
03...	50	0
APR.		
12...	140	0

06867000 SALINE RIVER NEAR RUSSELL, KS

KSDH Station No. 190.6

LOCATION.--Lat 38°58'00", long 98°51'20", in SW¼SW¼NW¼ sec.35, T.12 S., R.14 W., Russell County, at gaging station at bridge on U.S. Highway 281, 2.0 mi (3.2 km) downstream from Salt Creek, and 5.0 mi (8.0 km) north of Russell, and at mile 190.6 (306.7 km).

DRAINAGE AREA.--1,502 mi² (3,890 km²).

PERIOD OF RECORD.--Chemical analyses: January 1946 to September 1949, October 1961 to September 1973.
Specific Conductance: January 1946 to September 1951, October 1964 to July 1970.
Water temperatures: January 1946 to September 1951, October 1964 to July 1970.
Sediment records: May 1946 to September 1951.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
18...	18	7.5	12	180	57	580	12	250	0	500	880	.6
NOV.												
21...	45	2.5	15	170	40	280	9.4	280	0	370	440	.6
DEC.												
19...	17	.0	19	210	50	480	10	320	0	480	730	.4
JAN.												
24...	44	.5	20	180	37	270	9.2	280	0	360	440	.6
FEB.												
21...	47	5.5	21	180	39	280	9.4	270	0	370	440	.6
MAR.												
12...	513	9.0	15	110	20	63	9.4	150	0	230	100	.6
22...	130	13.0	18	190	34	170	8.6	270	0	360	280	.6
APR.												
01...	4100	7.0	17	99	17	39	8.2	170	0	150	75	.4
23...	301	15.5	18	200	36	160	9.4	260	0	390	270	.6
MAY												
23...	232	19.0	18	200	43	160	9.0	240	0	420	280	.5
JUNE												
21...	75	20.5	17	210	47	340	11	240	0	490	550	.6
JULY												
20...	61	24.5	14	180	53	510	12	200	0	520	770	.5
AUG.												
28...	30	24.0	19	210	56	540	14	250	0	560	830	.7
SEP.												
25...	71	17.0	18	180	38	270	12	250	0	390	450	.6

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
18...	.29	.04	440	2340	116	3.24	2	670	470	9.7	3950	7.8
NOV.												
21...	.34	.05	210	1460	182	2.04	25	600	370	5.0	2400	7.9
DEC.												
19...	.18	.04	270	2140	101	2.99	1	730	460	7.7	3400	7.5
JAN.												
24...	.14	.02	200	1450	178	2.04	65	610	380	4.8	2380	7.5
FEB.												
21...	.32	.05	210	1470	188	2.01	75	610	390	4.9	2360	7.8
MAR.												
12...	.75	.07	--	627	886	.87	2600	360	240	1.5	970	7.3
22...	.41	.03	--	1190	432	1.67	130	610	390	3.0	1850	7.8
APR.												
01...	1.1	.12	--	494	5650	.69	2000	320	180	1.0	780	7.4
23...	.50	.02	240	1220	1030	1.73	120	630	420	2.7	1920	7.5
MAY												
23...	.66	.03	270	1250	802	1.74	170	670	470	2.7	1950	7.7
JUNE												
21...	.32	.02	300	1770	364	2.45	55	720	520	5.5	2790	7.7
JULY												
20...	.16	.03	450	2150	362	2.99	85	660	500	8.6	3580	7.8
AUG.												
28...	.09	.00	440	2340	193	3.24	7	740	540	8.6	3820	7.7
SEP.												
25...	.32	.03	150	1490	296	2.09	110	620	410	4.8	2400	7.8

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
18...	60	0
APR.		
23...	80	0

06868100 WILSON LAKE NEAR WILSON, KS

LOCATION.--Lat 38°58'00", long 98°29'35", in NE¼NW¼SE¼ sec.36, T.12 S., R.11 W., Russell County, at Wilson Dam on the Saline River 10 mi (16 km) north of Wilson, and at mile 153.9 (247.6 km).

DRAINAGE AREA.--1,917 mi² (4,965 km²).

PERIOD OF RECORD.--Chemical analyses: August 1966 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks. Samples are collected at the reservoir outlet.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	RESERVOIR STORAGE (AC-FT)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.											
19...	234000	15.0	3.3	120	55	500	170	0	380	750	.5
NOV.											
16...	235000	8.0	1.9	110	43	520	170	0	370	780	.6
DEC.											
13...	236000	3.0	1.2	120	40	520	170	0	390	760	.5
JAN.											
11...	238000	3.0	1.5	120	43	540	180	0	400	800	.4
FEB.											
08...	240000	.4	2.3	120	45	520	180	0	390	780	.6
MAR.											
07...	243000	5.0	1.3	120	41	520	180	0	380	770	.5
APR.											
04...	305000	8.0	1.3	120	41	490	180	0	370	730	.5
11...	296000	9.0	4.8	120	40	420	180	0	340	640	.6
MAY											
16...	260000	15.0	5.3	120	36	370	180	0	330	550	.5
JUNE											
20...	259000	20.0	6.3	120	35	350	190	0	330	520	.5
JULY											
18...	257000	24.0	7.3	130	36	350	190	0	330	530	.6
AUG.											
15...	260000	--	6.1	120	37	360	180	0	340	550	.5
SEP.											
19...	257000	21.0	5.9	120	40	360	160	0	350	540	.6

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.										
19...	.29	.07	590	1910	65	510	370	9.5	3360	7.5
NOV.										
16...	.05	.05	300	1930	7	460	320	11	3270	8.1
DEC.										
13...	.00	.03	290	1920	6	450	310	11	3350	8.1
JAN.										
11...	.02	.02	290	2000	1	480	330	11	3400	7.6
FEB.										
08...	.07	.02	360	1970	3	490	340	10	3400	8.0
MAR.										
07...	.16	.02	--	1940	3	480	330	10	3230	7.9
APR.										
04...	.11	.05	--	1860	3	460	310	9.9	318	8.0
11...	.16	.03	320	1670	6	450	300	8.5	2910	7.4
MAY										
16...	.14	.02	380	1520	5	450	300	7.6	2680	7.6
JUNE										
20...	.52	.02	240	1480	8	460	300	7.2	2520	7.6
JULY										
18...	.27	.03	330	1490	7	460	310	7.0	2570	7.6
AUG.										
15...	.16	.01	300	1500	3	460	310	7.4	2520	7.7
SEP.										
19...	.18	.02	290	1510	2	470	340	7.3	2610	7.8

06869500 SALINE RIVER AT TESCOTT, KS

LOCATION.--Lat 39°00'15", long 97°52'26", in NE¼SE¼SE¼ sec.16, T.12 S., R.5 W., Ottawa County, at gaging station at highway bridge, 0.5 mi (0.8 km) south of Tescott, 0.5 mi (0.8 km) upstream from Dry Creek, and at mile 68.5 (110.2 km).

DRAINAGE AREA.--2,820 mi^2 (7,300 km^2).

PERIOD OF RECORD.--Chemical analyses: December 1949 to September 1953, October 1961 to September 1973.
Water temperatures: April 1950 to September 1953, August 1959 to September 1973.
Sediment records: August 1959 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
11...	17	20.0	8.4	120	36	340	10	270	0	290	470	.4
NOV.												
16...	126	5.5	12	78	15	130	12	161	0	140	180	.3
DEC.												
15...	21	.0	16	200	32	280	8.0	440	0	360	360	.4
JAN.												
18...	172	2.0	13	120	20	180	8.6	240	0	220	230	.4
FEB.												
16...	35	.0	12	170	30	240	8.4	330	0	330	320	.4
MAR.												
16...	315	8.0	17	130	15	65	8.4	270	0	180	80	.4
20...	5720	8.0	14	59	6.1	54	8.8	140	0	68	48	.4
APR.												
01...	8960	--	--	--	--	--	--	--	--	--	--	--
16...	2250	10.5	6.8	150	31	420	14	180	0	350	610	.5
MAY												
16...	536	17.5	9.6	140	30	300	12	250	0	320	430	.6
JUNE												
25...	92	24.5	11	150	39	280	10	230	0	330	400	.4
JULY												
19...	79	26.0	6.8	110	31	264	10	250	0	274	370	.4
AUG.												
17...	1310	26.0	7.7	150	35	350	16	180	0	540	540	.5
SEP.												
19...	136	12.0	12	150	30	300	15	240	0	310	430	.4

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
11...	130	0
APR.		
16...	150	0

06869500 SALINE RIVER AT TESCOTT, KS--Continued

EXTREMES.--1972-73:
Water temperatures: Maximum, 32.0°C July 9; minimum, freezing point on several days during winter period.

Period of record:
Specific conductance (1950-53, 1961-66, 1968-72): Maximum daily, 6,560 micromhos Dec. 28, 1964; minimum daily, 234 micromhos June 15, 1972.
Water temperatures (1950-53, 1961-72): Maximum daily, 37.0°C on Sept. 7, 1972; minimum daily; freezing point on many days during winter period.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT.												
11...	.34	.14	360	1400	15	440	210	7.0	2360	7.4	81	3.7
NOV.												
16...	1.7	.22	200	654	200	250	120	3.6	1130	7.4	275	94
DEC.												
13...	1.2	.08	210	1480	7	620	260	4.9	2390	7.7	--	--
JAN.												
18...	1.5	.12	140	910	350	370	180	4.0	1490	7.4	359	167
FEB.												
16...	.66	.09	180	1270	8	540	270	4.5	2080	7.9	85	8.0
MAR.												
16...	1.3	.09	--	639	500	380	160	1.5	980	7.5	634	539
26...	1.1	.12	--	314	1300	170	54	1.1	500	7.4	1250	12600
APR.												
01...	--	--	--	--	--	--	--	--	--	--	1020	24700
16...	.32	.04	290	1640	200	440	290	8.6	2820	7.4	570	3430
MAY												
18...	.32	.03	360	1370	180	480	270	6.0	2320	7.6	275	596
JUNE												
25...	.41	.06	270	1310	7	480	288	5.5	2220	7.2	55	14
JULY												
19...	.50	.08	290	1180	200	400	210	5.7	2000	7.3	307	65
AUG.												
17...	.32	.03	360	1510	600	464	316	7.0	2520	7.2	717	2540
SEP.												
19...	.70	.06	300	1360	200	456	260	6.2	2300	7.7	238	87

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR.												
16...	1510	8.0	315	634	61	73	91	99	100	--	--	--
26...	1120	8.0	3720	1250	74	82	95	99	100	--	--	--
APR.												
01...	1600	--	8960	1020	74	81	93	99	100	--	--	--
16...	1255	10.5	2230	570	46	66	69	99	100	--	--	--
MAY												
18...	1145	17.5	538	273	62	65	86	99	100	--	--	--

DATE	TIME	TEMPER-ATURE (DEG C)	NUMBER OF SAM-PLING POINTS	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
OCT.							
11...	1435	20.0	1	17	100	--	--
AUG.							
17...	1345	26.0	3	1310	93	100	--

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
OCT.						
11...	--	--	--	--	--	--
AUG.						
17...	--	--	--	--	--	--

06869500 SALINE RIVER AT TESCOTT, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2150	2200	1770	1920	2170	2190	561	2370	2320	2160	1870	2310
2	2160	2180	1800	1970	1360	2010	436	1740	2450	2150	1930	2310
3	2190	2200	973	1820	1160	1720	410	1510	2400	2160	1940	2300
4	2280	2190	1810	1840	1390	1240	664	1500	1680	2180	1970	2300
5	2320	2180	1860	1830	1370	760	1030	1600	738	2170	2010	2260
6	2330	1940	1880	1840	1540	790	1170	1400	1090	2120	2040	2410
7	2340	2120	1900	1840	1680	860	2750	1100	1690	2150	2050	2830
8	2340	2100	1920	1870	1810	976	2520	800	1900	2150	2020	834
9	2340	2090	1940	1880	1910	589	2460	1080	1980	2180	1860	1190
10	2350	2080	1960	1870	2020	487	2550	1180	2050	2180	1740	1420
11	2370	2060	1980	1880	1920	420	2590	1420	2110	2200	1510	1690
12	2420	2080	2000	1880	2030	406	2670	1810	2140	2180	1970	1890
13	2600	2100	2020	1890	2000	595	2660	1810	2170	2240	1980	2030
14	2870	855	2020	1880	2140	632	2660	1990	2160	2400	866	2280
15	3200	1090	1990	1810	2170	817	2700	2110	2140	2230	1220	2380
16	3020	1080	1960	1760	2210	917	2770	2160	2080	2340	2400	2310
17	2820	1190	1920	1620	2230	1080	2720	2220	2100	2150	2550	2350
18	2520	1050	1890	1520	2200	1170	2700	2250	2090	2110	2550	2340
19	2390	1090	1860	1700	2180	1210	2730	2260	2090	1380	2530	2280
20	2350	1200	1820	1770	2140	1240	2710	2270	2110	435	2360	2300
21	2300	1340	1790	1800	2150	1270	2610	2300	2100	500	2130	2340
22	2300	1500	1760	1950	2170	1320	2580	2290	2110	532	2450	2350
23	2300	1390	1720	2040	2200	1290	2650	2280	2120	1020	2420	2300
24	2290	1610	1690	2110	2190	633	2690	2210	2120	620	2340	2000
25	2290	1640	1660	2080	2210	622	2700	2230	2140	481	2270	2040
26	2280	1730	1820	2290	2220	510	2640	2260	2130	875	2280	1200
27	2270	1690	1960	2360	2210	694	2670	2220	2130	1020	2180	400
28	2270	1730	1960	2430	2230	829	2630	2190	2110	1220	2190	732
29	2250	1460	2020	2350	---	1360	2630	2200	2130	1580	2250	1250
30	2200	1720	1950	2300	---	1150	2610	2240	2150	1830	2270	1340
31	2150	---	1950	2230	---	1040	---	2280	---	1900	2260	---
AVERAGE	2400	1700	1860	1950	1970	994	2260	1910	2020	1700	2080	1930

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.0	27.0	13.0	20.0	3.5	5.5	8.0	14.0	20.0	30.0	26.0	25.0
2	30.0	25.0	13.0	15.0	3.0	6.0	8.0	14.0	22.0	30.0	28.0	27.0
3	30.0	25.0	13.0	20.0	6.0	6.5	9.0	14.0	22.0	30.0	26.0	27.0
4	30.0	25.0	4.0	0.0	5.5	7.0	9.0	15.0	20.0	31.0	25.0	24.0
5	30.0	20.0	3.0	0.0	6.0	7.5	11.0	15.5	19.0	30.0	25.0	24.0
6	29.0	20.0	0.0	0.0	4.0	8.0	12.0	16.0	22.0	30.0	28.0	23.0
7	30.0	24.0	0.0	0.0	3.5	8.5	10.0	16.5	24.0	31.0	28.0	21.0
8	30.0	24.0	0.0	0.0	4.0	9.0	9.0	17.0	25.0	28.0	28.0	21.0
9	30.0	24.0	0.0	0.0	5.0	8.0	7.0	18.0	26.0	32.0	27.0	24.0
10	30.0	24.0	0.0	0.0	5.0	8.0	9.0	18.0	25.0	31.0	29.0	29.0
11	30.0	20.0	0.0	0.0	3.0	7.0	10.0	19.0	26.0	28.0	28.0	24.0
12	30.0	20.0	0.0	0.0	4.0	10.0	10.0	19.0	26.0	29.0	25.0	21.0
13	30.0	20.0	0.0	0.0	3.0	10.0	11.0	18.0	27.0	27.0	27.0	20.0
14	30.0	20.0	0.0	0.0	2.5	10.0	12.0	19.0	27.0	26.0	27.0	22.0
15	30.0	20.0	0.0	0.0	2.5	10.0	12.0	19.0	28.0	24.0	26.0	20.0
16	30.0	20.0	0.0	0.0	0.0	9.0	12.0	19.0	25.0	27.0	26.0	17.0
17	30.0	20.0	0.0	0.0	0.0	8.0	12.0	19.0	27.0	27.0	28.0	16.0
18	30.0	18.0	0.0	4.0	0.0	8.0	12.0	20.0	25.0	29.0	27.0	16.0
19	30.0	17.0	0.0	3.5	0.5	10.0	12.0	20.0	25.0	27.0	27.0	18.0
20	30.0	18.0	0.0	3.0	1.0	10.0	14.0	19.0	25.0	25.0	28.0	17.0
21	28.0	18.0	0.0	3.0	1.5	11.0	14.0	23.0	26.0	24.5	28.0	21.0
22	27.0	18.0	0.0	2.5	2.0	11.0	13.0	21.0	25.0	24.0	29.0	22.0
23	24.0	18.0	0.0	4.0	2.5	10.0	15.0	21.0	25.0	25.0	28.0	22.0
24	27.0	15.0	0.0	5.0	3.0	9.0	14.0	21.0	28.0	25.0	28.0	21.0
25	27.0	15.0	0.0	5.0	3.5	9.0	14.0	20.0	27.0	23.0	29.0	20.0
26	27.0	13.0	0.0	5.0	4.0	9.0	12.0	19.0	26.0	25.0	26.0	20.0
27	26.0	13.0	16.0	4.5	4.5	9.0	13.0	17.0	28.0	27.0	26.0	20.0
28	27.0	13.0	20.0	0.0	5.0	9.0	13.0	19.0	29.0	26.0	29.0	21.0
29	27.0	13.0	20.0	1.0	---	9.0	10.0	19.0	29.0	26.0	28.0	20.0
30	27.0	13.0	20.0	3.0	---	9.0	15.0	20.0	29.5	28.0	26.0	20.0
31	27.0	---	20.0	3.5	---	8.0	---	21.0	---	27.0	27.0	---
AVERAGE	29.0	19.5	4.5	3.5	3.0	8.5	11.5	18.5	25.5	27.5	27.5	21.5

06871000 NORTH FORK SOLOMON RIVER AT GLADE, KS

KSDH Station No. 69.9

LOCATION.--Lat 39°40'40", long 99°18'30", in NW¼SW¼ sec.25, T.4 S., R.18 W., Phillips County, at gaging station at bridge on U.S. Highway 183, 0.5 mi (0.8 km) south of Glade.

DRAINAGE AREA.--849 mi^2 (2,200 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
NOV. 21...	9.3	33	40	20	110	17	23	12	309	0	90	30
FEB. 22...	16	32	30	0	99	17	21	10	323	0	88	27
MAY 02...	35	25	40	10	96	18	22	10	309	0	97	28
JUNE 06...	18	30	180	90	110	18	26	13	327	0	100	32
JULY 31...	67	34	30	10	96	17	29	11	272	0	120	43

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO, PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
NOV. 21...	.5	.23	.22	80	496	.67	340	91	.5	711	8.1
FEB. 22...	.6	.26	.16	80	446	.61	320	52	.5	702	8.3
MAY 02...	.4	.01	.19	70	482	.66	310	60	.5	704	8.3
JUNE 06...	.6	.11	.22	100	507	.69	350	81	.6	766	8.2
JULY 31...	.6	.00	.22	160	518	.70	310	87	.7	758	7.8

DATE	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	TURBIDITY (JTU)
NOV. 21...	--	4.0	11.1	10
FEB. 22...	--	11.0	7.6	10
MAY 02...	--	7.5	9.2	30
JUNE 06...	28.5	26.5	7.2	25
JULY 31...	27.5	30.0	7.4	10

06871790 KIRWIN MAIN CANAL BELOW KIRWIN RESERVOIR, KS

LOCATION.--Lat 39°39'30", long 99°07'18", Phillips County, at U.S. Bureau of Reclamation gage 0.2 mi (0.3 km), approximately, downstream from Kirwin Dam.

PERIOD OF RECORD.--Chemical analyses: August 1969 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
JULY												
12...	189	4.3	30	0	56	15	23	17	159	0	94	31
31...	73	3.8	60	0	53	14	24	16	159	0	91	31

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO, PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
JULY											
12...	.3	.08	.01	100	322	.44	200	71	.7	530	7.8
31...	.5	.04	.00	210	325	.44	190	60	.8	525	7.8

DATE	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	TURBIDITY (JTU)
JULY				
12...	28.5	28.5	7.8	30
31...	27.5	24.5	8.2	25

06871800 NORTH FORK SOLOMON RIVER AT KIRWIN, KS

KSDH Station No. 67.2

LOCATION.--Lat 39°39'36", long 99°06'55", in SE¼ sec.33, T.4 S., R.16 W., Phillips County, at gaging station 200 ft (61 m) downstream from toe of Kirwin Dam, 0.5 mi (0.8 km) south of Kirwin, 1.3 mi (2.1 km) upstream from Deer Creek, and at mile 62.2 (108 km).

DRAINAGE AREA.--1,367 mi² (3,541 km²).

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
NOV.											
21...	.02	14	66	10	15	16	170	0	69	30	.4
DEC.											
14...	.01	17	70	10	19	14	180	0	84	29	.4
JAN.											
16...	.01	13	58	11	16	13	160	0	71	25	.4
FEB.											
22...	.01	11	62	12	20	15	170	0	77	28	.4
MAR.											
14...	.01	15	66	17	19	15	170	0	110	26	.3
APR.											
11...	.01	11	100	28	24	14	160	0	260	28	.5
MAY											
09...	.01	7.8	80	16	21	15	170	0	150	27	.5
JULY											
16...	.08	52	91	17	18	14	220	0	120	25	.5
AUG.											
10...	.10	52	82	15	18	15	220	0	91	30	.4
SEP.											
18...	.13	24	67	14	22	16	180	0	86	33	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
NOV.										
21...	.05	.14	150	325	3	210	68	.5	510	7.9
DEC.										
14...	.09	.14	120	359	2	220	66	.6	530	7.6
JAN.										
16...	.07	.12	140	302	3	190	62	.5	470	7.8
FEB.										
22...	.05	.07	90	324	7	200	64	.6	520	7.9
MAR.										
14...	.20	.07	--	362	8	230	94	.5	540	7.4
APR.										
11...	.09	.05	170	561	3	380	240	.5	820	7.5
MAY										
09...	.09	.04	140	406	15	270	130	.6	620	7.3
JULY										
16...	.02	.23	120	470	7	300	120	.5	700	7.6
AUG.										
10...	.05	.21	170	429	6	270	84	.5	610	7.2
SEP.										
18...	.09	.14	170	366	2	220	76	.6	570	7.5

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
APR.		
11...	20	0

DATE	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
NOV.		
21...	5.5	11.9
FEB.		
22...	11.0	8.0
JULY		
31...	28.0	8.3

06872500 NORTH FORK SOLOMON RIVER AT PORTIS, KS

KSDH Station No. 27.0

LOCATION.--Lat 39°33'15", long 98°41'31", in SW¼SW¼SW¼ sec.5, T.6 S., R.12 W., Osborne County, at gaging station at bridge on U.S. Highway 281, 0.5 mi (0.8 km) south of Portis, and at mile 27.0 (43.4 km).

DRAINAGE AREA.--2,315 mi² (5,996 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
19...	21	9.0	7.6	120	18	63	13	310	0	190	41	.4
NOV.												
21...	30	4.0	22	140	21	63	15	360	0	200	48	.3
DEC.												
11...	19	.0	23	160	22	72	13	420	0	240	51	.2
JAN.												
15...	29	.0	30	140	18	60	12	350	0	200	43	.3
MAR.												
15...	71	9.0	23	120	16	47	18	310	0	160	44	.3
APR.												
02...	455	10.0	20	110	14	38	16	240	0	160	39	.3
10...	125	4.0	23	160	23	67	14	330	0	280	64	.4
MAY												
15...	98	13.5	26	170	21	72	14	360	0	290	64	.4
JUNE												
20...	40	22.5	30	150	23	57	14	350	0	230	52	.4
JULY												
16...	39	28.0	21	100	17	52	15	240	0	190	38	.4
AUG.												
14...	75	27.0	25	90	12	36	15	230	0	120	29	.4
SEP.												
03...	714	21.0	18	54	6.2	9.5	11	180	0	23	9.0	.5

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
19...	1.4	.16	210	640	36.3	.87	4	370	110	1.4	970	8.1
NOV.												
21...	1.5	.27	230	720	58.3	.98	6	430	130	1.3	1030	7.9
DEC.												
11...	2.7	.15	230	820	42.1	1.12	1	490	150	1.4	1190	7.7
JAN.												
15...	2.3	.15	200	704	55.1	.96	1	420	130	1.3	1040	7.6
MAR.												
15...	1.6	.52	--	616	118	.84	130	370	110	1.1	890	7.6
APR.												
02...	2.1	.33	--	534	656	.73	1000	320	130	.9	790	7.4
10...	2.1	.28	150	830	280	1.13	55	510	230	1.3	1200	7.6
MAY												
15...	2.3	.31	200	840	222	1.14	130	520	230	1.4	1230	7.8
JUNE												
20...	1.6	.24	170	764	82.5	1.04	8	470	180	1.1	1080	7.7
JULY												
16...	2.0	.22	150	582	61.3	.79	35	320	130	1.3	870	7.2
AUG.												
14...	2.0	.28	150	452	91.5	.61	550	270	82	.9	690	7.3
SEP.												
03...	.50	.22	80	234	451	.32	6000	160	12	.3	370	7.4

DATE	DISSOLVED IRON (FE) (UG/L)	LOSS ON IGNITION (MG/L)	TOTAL RESIDUE (MG/L)
OCT.			
19...	20	136	666
NOV.			
21...	--	168	744
FEB.			
22...	20	146	700
APR.			
17...	--	180	1170
MAY			
02...	9	132	840
JULY			
12...	30	140	692
31...	40	116	804

DATE	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
NOV.			
21...	--	4.0	11.0
FEB.			
22...	--	8.5	7.3
APR.			
17...	--	15.5	8.1
MAY			
01...	--	13.0	7.8
JUNE			
06...	24.5	22.5	8.3
JULY			
12...	27.0	28.5	7.4
31...	26.0	25.0	7.7

06873000 SOUTH FORK SOLOMON RIVER ABOVE WEBSTER RESERVOIR, KS

KSDH Station No. 75.0

LOCATION.—Lat 39°22'26", long 99°34'54", in SW¼NW¼ sec.8, T.8 S., R.20 W., Rooks County, at gaging station at highway bridge, 4.0 mi (6.4 km) north of Damar, 7.0 mi (11.3 km) downstream from Wild Horse Creek, and 11 mi (18 km) upstream from Webster Dam.

DRAINAGE AREA.--1,040 mi² (2,690 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
NOV.												
21...	.11	31	50	40	120	19	33	9.9	280	0	160	39
FEB.												
23...	23	30	9	0	99	19	30	8.5	300	0	130	36
MAY												
02...	79	27	30	40	120	23	41	9.8	287	0	180	58
JUNE												
07...	27	32	280	60	120	21	37	10	290	0	170	46
AUG.												
01...	4.2	30	30	70	110	18	40	8.4	194	0	210	48
SEP.												
13...	9.8	18	60	10	100	14	39	11	155	0	170	86

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
NOV.											
21...	.6	.36	.07	80	624	.85	380	150	.7	853	8.1
FEB.											
23...	.7	.23	.10	80	498	.68	330	79	.7	768	8.1
MAY											
02...	.6	.03	.12	80	677	.92	390	160	.9	931	8.1
JUNE											
07...	.8	.22	.13	100	615	.84	390	150	.8	891	8.2
AUG.											
01...	.6	.29	.03	80	635	.86	350	190	.9	834	7.2
SEP.											
13...	.4	.29	.25	60	555	.75	310	180	1.0	854	7.9

DATE	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	TURBIDITY (JTU)
NOV.				
21...	--	6.0	11.2	10
FEB.				
23...	--	2.0	8.4	10
MAY				
02...	--	10.0	8.8	10
JUNE				
07...	20.0	20.5	8.2	15
AUG.				
01...	22.0	20.5	8.4	5

06873200 SOUTH FORK SOLOMON RIVER BELOW WEBSTER RESERVOIR, KS

KSDH Station No. 92.0

LOCATION.--Lat 39°24'34", long 99°24'53", in SW¼SW¼SW¼ sec.26, T.7 S., R.19 W., Rooks County, at gaging station, 0.4 mi (0.6 km) downstream from Webster Dam, 1.1 mi (1.8 km) upstream from Sand Creek, 8.0 mi (13 km) west of Stockton, and at mile 92.0 (148 km).

DRAINAGE AREA.--1,150 mi^2 (2,980 km^2).

PERIOD OF RECORD.--Chemical analyses: August 1969 to September 1973.

REMARKS.--Chemical Analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
MAR.											
13...	.03	17	61	10	17	10	180	0	71	16	.4
APR.											
12...	.24	14	59	12	24	10	160	0	91	21	.5
MAY											
15...	.16	11	53	13	24	10	160	0	88	18	.5
JUNE											
19...	64	13	120	23	46	15	220	0	260	64	.5
JULY											
17...	84	15	120	25	51	16	200	0	260	61	.5
AUG.											
15...	53	17	110	24	54	18	190	0	260	65	.5
SEP.											
05...	.44	18	96	20	41	13	210	0	180	45	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
MAR.										
13...	.05	.01	--	298	1	190	47	.5	450	7.7
APR.										
12...	.05	.03	150	308	1	200	64	.7	500	8.0
MAY										
15...	.02	.02	110	302	5	190	58	.8	480	7.7
JUNE										
19...	.07	.03	140	668	6	400	220	1.0	970	7.6
JULY										
17...	.02	.03	140	666	8	400	230	1.1	1030	7.8
AUG.										
15...	.14	.06	210	660	7	380	220	1.2	960	7.7
SEP.										
05...	.09	.02	140	532	1	320	150	1.0	820	7.7

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
APR.		
12...	60	0

DATE	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
MAY			
02...	--	13.5	10.4
JUNE			
07...	21.0	22.0	8.2
JULY			
13...	26.0	26.5	7.9

06873450 SOUTH FORK SOLOMON RIVER ABOVE WOODSTON, KS

LOCATION.--Lat 39°25'57", long 99°10'28", in SW¼NW¼ sec.24, T.7 S., R.17 W., Rooks County, on county line bridge 4.0 mi (6.4 km) upstream from Woodston Diversion.

PERIOD OF RECORD.--July 1971 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
FEB.												
23...	.82	13	50	10	110	19	72	11	274	0	180	98
MAY												
02...	220	9.2	40	30	210	28	150	18	234	0	550	200
JUNE												
07...	27	21	40	70	230	32	160	14	264	0	460	250
JULY												
13...	195	15	30	0	120	25	55	16	201	0	260	65
AUG.												
01...	81	15	530	70	130	26	76	12	184	0	310	110
SEP.												
12...	2.5	14	110	20	82	12	40	11	117	0	140	85

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
FEB.											
23...	.4	.02	.21	140	652	.89	350	130	1.7	1040	8.0
MAY											
02...	.3	.15	.08	100	1340	1.82	640	450	2.6	1800	7.8
JUNE											
07...	.5	.32	.12	140	1400	1.90	710	490	2.6	1980	8.0
JULY											
13...	.5	.17	.04	140	654	.89	400	240	1.2	1020	7.7
AUG.											
01...	.5	--	--	140	777	1.06	430	280	1.6	1150	7.2
SEP.											
12...	.3	.67	.13	100	483	.66	250	160	1.1	795	7.5

DATE	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	TURBIDITY (JTU)
FEB.				
23...	10.0	7.0	9.2	10
MAY				
02...	9.0	10.0	10.2	65
JUNE				
07...	21.5	22.0	8.9	10
JULY				
13...	27.5	25.5	8.1	10
AUG.				
01...	23.0	22.5	7.9	15
SEP.				
12...	--	17.5	--	--

06874000 SOUTH FORK SOLOMON RIVER AT OSBORNE, KS

KSDH Station No. 27.6

LOCATION.--Lat 39°25'43", long 98°41'40", in SW¼NW¼SW¼ sec.20, T.7 S., R.12 W., Osborne County, at gaging station at bridge on U.S. Highway 281, 0.5 mi (0.8 km) south of Osborne, 0.6 mi (1.0 km) downstream from Covert Creek, and at mile 27.6 (44.4 km).

DRAINAGE AREA.--2,012 mi² (5,211 km²).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.											
12...	2.4	18	120	22	72	12	300	0	180	79	.3
19...	2.8	17	130	20	90	12	300	0	190	110	.4
NOV.											
21...	9.0	17	120	19	61	11	290	0	180	59	.4
DEC.											
12...	5.2	18	160	21	77	11	380	0	220	75	.4
JAN.											
15...	10	18	130	19	60	8.8	310	0	180	56	.2
FEB.											
23...	10	9.1	110	15	63	9.4	270	0	180	58	.1
MAR.											
13...	60	18	75	10	26	15	180	0	110	29	.5
APR.											
01...	3280	18	82	7.7	37	12	170	0	100	54	.3
02...	1380	18	100	11	49	13	180	0	160	73	.3
10...	307	20	180	22	110	13	230	0	350	170	.5
MAY											
14...	242	18	200	29	120	13	280	0	390	180	.6
JUNE											
12...	41	24	150	23	64	11	320	0	250	80	.5
JULY											
09...	15	26	140	18	65	13	250	0	240	82	.5
AUG.											
09...	47	18	110	12	46	14	220	0	170	45	.4
SEP.											
04...	297	16	72	6.9	15	11	200	0	56	21	.4

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
19...	110	0
APR.		
10...	40	0

DATE	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
NOV.			
21...	--	3.5	11.0
FEB.			
23...	--	8.0	8.8
MAY			
01...	--	14.0	8.1
JUNE			
06...	21.0	19.5	7.9
JULY			
12...	26.0	27.5	7.5
31...	25.0	24.0	7.9

06874000 SOUTH FORK SOLOMON RIVER AT OSBORNE, KS.--Continued

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.										
12...	2.3	1.6	300	686	8	390	140	1.6	1060	7.4
19...	2.7	1.4	300	744	6	400	150	1.9	1160	7.6
NOV.										
21...	1.7	.55	240	644	6	380	140	1.4	960	7.8
DEC.										
12...	3.4	.59	240	808	1	480	170	1.5	1210	7.6
JAN.										
15...	2.5	.36	200	654	1	390	140	1.3	990	7.5
FEB.										
23...	1.3	.68	200	590	4	350	130	1.5	920	7.9
MAR.										
13...	.90	.33	--	382	1000	230	76	.7	570	7.2
APR.										
01...	2.3	.16	--	414	2000	240	98	1.0	630	7.4
02...	2.5	.13	--	554	1000	300	150	1.2	830	7.4
10...	2.7	.12	150	1010	130	530	350	2.1	1540	7.7
MAY										
14...	.50	.10	180	1130	140	630	400	2.1	1650	7.7
JUNE										
12...	1.6	.22	200	792	15	480	220	1.3	1150	7.6
JULY										
09...	1.2	.32	200	730	55	420	210	1.4	1100	7.4
AUG.										
09...	.88	.20	170	546	800	310	130	1.1	810	7.1
SEP.										
04...	.52	.15	90	311	3800	210	48	.5	480	7.3

06875900 SOLOMON RIVER NEAR GLEN ELDER, KS

KSDH Station No. 168.8

LOCATION.—Lat 39°28'27", long 98°16'58", in SE¼SE¼NE¼ sec.2, T.7 S., R.9 W., Mitchell County, at gaging station, 3.6 mi (5.8 km) downstream from Glen Elder Dam, 2.0 mi (3.2 km) southeast of Glen Elder, and at mile 168.8 (271.6 km).

DRAINAGE AREA.--5,340 mi^2 (13,830 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.											
19...	21	3.8	62	17	48	24	170	0	140	49	.4
NOV.											
21...	14	3.0	64	16	46	18	170	0	130	48	.3
DEC.											
11...	22	13	77	15	52	19	200	0	150	52	.3
JAN.											
15...	13	7.2	100	18	60	18	260	0	180	61	.4
FEB.											
22...	20	6.6	120	20	66	15	280	0	230	64	.3
MAR.											
20...	27	13	160	23	70	22	320	0	270	66	.5
APR.											
10...	83	21	180	24	77	13	370	0	290	76	.5
MAY											
09...	261	18	91	14	35	13	220	0	130	37	.4
JUNE											
20...	44	9.0	110	19	52	15	240	0	170	59	.3
JULY											
16...	107	13	82	10	39	14	180	0	120	45	.5
AUG.											
10...	27	9.8	93	17	59	16	210	0	170	64	.4
SEP.											
04...	1700	14	54	4.3	9.0	12	160	0	29	12	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.										
19...	.00	.02	180	446	6	220	84	1.4	690	7.6
NOV.										
21...	.16	.06	180	415	6	230	84	1.3	680	8.0
DEC.										
11...	.25	.04	150	492	6	250	94	1.4	760	8.0
JAN.										
15...	.32	.05	150	590	3	330	120	1.5	890	7.5
FEB.										
22...	.14	.04	110	684	8	390	170	1.5	1020	8.1
MAR.										
20...	7.9	.52	--	844	15	490	230	1.4	1200	7.0
APR.										
10...	3.8	.22	180	908	75	550	250	1.4	1310	7.6
MAY										
09...	.75	.26	120	450	1200	280	100	.9	690	7.2
JUNE										
20...	.50	.10	180	574	35	340	140	1.2	860	8.0
JULY										
16...	1.2	.21	140	446	1000	250	98	1.1	690	7.4
AUG.										
10...	.45	.06	210	556	8	300	130	1.5	860	7.3
SEP.										
04...	.61	.24	1	228	2600	150	18	.3	370	7.2

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
19...	110	0
APR.		
10...	30	0

DATE	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	SPREPTOCOCCI (COLONIES PER 100 ML)
NOV.						
21...	--	7.0	10.6	--	--	--
JAN.						
23...	--	4.5	8.2	190	--	53
FEB.						
22...	--	2.5	11.4	--	--	--
APR.						
17...	--	13.5	8.9	2800	2000	1900
JUNE						
06...	18.5	18.5	7.2	--	--	--
JULY						
12...	26.5	26.0	7.8	1200	300	200
31	23.0	23.0	7.7	--	--	--

06876900 SOLOMON RIVER AT NILES, KS

KSDH Station No. 21.6

LOCATION.--Lat 38°58'08", long 97°28'34", in NW¼SE¼NW¼ sec.31, T.12 S., R.1 W., Ottawa County, at gaging station at county highway bridge, 0.8 mi (1.3 km) west of Niles, and at mile 21.6 (34.8 km).

DRAINAGE AREA.—6,770 mi² (17,530 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1958 to September 1973.
Water temperatures: October 1961 to September 1973.
Sediment records: June 1957 to September 1973.

EXTREMES.--1972-73:
Specific conductance: Maximum daily, 2,440 micromhos Oct. 30, 31; minimum daily, 141 micromhos Sept. 29.
Water temperatures: Maximum, 27.0°C July 4, 8, 9; minimum, freezing point on many days during winter period.

Period of record:
Specific conductance: Maximum daily, 3,260 micromhos Jan. 8, 1968; minimum daily, 137 micromhos Aug. 22, 1966.
Water temperatures: Maximum, 32.0°C July 5, 1966; minimum, freezing point on many days during winter period.

REMARKS.—Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
05...	53	17.0	14	110	31	320	15	360	0	230	420	.4
NOV.												
22...	200	3.0	17	90	16	120	10	250	0	140	150	.4
DEC.												
13...	77	.0	20	170	32	290	9.4	500	0	280	360	.5
JAN.												
29...	90	2.0	19	120	20	150	8.8	330	0	180	180	.4
FEB.												
26...	153	5.5	14	130	23	200	7.4	360	0	220	250	.4
MAR.												
13...	3520	1.0	15	64	8.9	25	6.4	170	0	57	36	.5
APR.												
20...	899	16.0	15	110	14	75	6.0	250	0	160	94	.5
MAY												
31...	394	19.5	21	150	19	150	8.4	380	0	220	190	.4
JUNE												
26...	194	25.5	16	120	22	140	11	330	0	190	180	.3
JULY												
26...	3680	23.0	14	48	4.9	31	8.0	140	0	49	38	.4
AUG.												
30...	242	26.0	17	100	19	140	14	280	0	180	180	.4
SEP.												
19...	438	16.0	17	77	11	68	11	210	0	100	80	.4
29...	15000	17.0	10	29	1.8	10	7.0	85	0	15	13	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT.												
05...	.09	.22	270	1320	130	400	100	6.9	2290	7.7	165	24
NOV.												
22...	1.4	.24	140	677	130	290	86	3.1	1100	7.7	94	51
DEC.												
13...	.79	.18	240	1420	6	570	150	5.4	2360	7.7	--	--
JAN.												
29...	1.0	.17	170	846	65	380	110	5.3	1410	7.6	123	30
FEB.												
26...	.41	.12	--	1020	15	420	130	4.3	1670	7.7	98	40
MAR.												
13...	1.2	.17	--	304	1700	200	56	.8	480	7.3	1620	15400
APR.												
20...	1.2	.15	170	604	800	330	130	1.8	980	7.6	615	1490
MAY												
31...	.02	.02	200	952	65	460	150	3.1	1520	7.1	236	251
JUNE												
26...	.41	.11	210	833	170	380	120	3.1	1410	7.4	275	144
JULY												
26...	.61	.20	90	257	130	140	22	1.1	440	7.3	2240	22300
AUG.												
30...	.45	.16	230	794	200	340	110	3.4	1350	7.6	537	220
SEP.												
19...	.95	.24	170	474	1300	240	67	1.9	810	7.5	928	1100
29...	1.2	.02	60	134	2200	80	10	.5	230	7.3	--	--

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
05...	110	0
APR.		
20...	230	0

06876900 SOLOMON RIVER AT NILES, KS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2090	2190	1470	1370	812	1690	264	1510	1530	1660	855	1360
2	2170	1620	1510	1320	650	1660	280	1440	1530	1810	1000	1340
3	2220	1550	1650	1420	708	1640	318	1500	1560	1830	1190	1290
4	2270	1780	1740	1500	809	1140	373	1510	1550	1900	1310	1200
5	2190	1830	1690	1600	777	418	526	1460	1480	2030	1440	1370
6	2260	1810	1790	1750	942	581	837	1250	1070	1960	1530	1100
7	2300	1970	1730	1900	1400	1010	984	542	952	1930	1580	919
8	2310	1550	2000	2050	1450	1490	1070	662	1370	1920	300	455
9	2160	1440	2050	2200	1510	612	1160	432	1490	1960	688	500
10	2290	1180	1920	2100	1520	570	1240	459	1480	1870	1200	694
11	2300	839	2140	2000	1330	380	1180	462	1580	1850	1470	898
12	2230	1010	2330	1900	1510	416	1440	650	1390	1830	1710	1050
13	2270	820	2330	1800	1610	475	1340	818	848	1850	1880	1010
14	2200	466	2350	1700	1660	565	1390	964	990	1810	1370	812
15	2110	866	2210	1600	1660	636	1430	1100	1140	1770	1280	693
16	2110	549	2190	1510	1710	816	1230	1600	1250	950	1240	894
17	2380	566	1990	1300	1610	936	1330	1290	1210	670	1090	935
18	1900	595	2160	1000	1480	968	1240	1360	1230	971	1760	968
19	2100	664	2100	700	1600	1040	736	1410	1300	1000	1400	765
20	1840	757	2010	787	1620	1110	920	1460	1320	995	1050	916
21	2010	960	1770	794	1860	1150	1060	1500	1340	318	1100	1060
22	2080	1110	1460	850	1900	1160	1160	1460	1350	430	1200	1130
23	1940	1210	1470	889	1750	1280	1300	1460	1350	389	1520	1170
24	1970	1300	1510	968	1690	1210	1310	1520	1350	390	1410	636
25	2110	1380	1590	1000	1670	691	1380	1540	1370	532	1370	527
26	2180	1480	1580	1050	1690	405	1380	1530	1390	532	1510	519
27	2290	1490	1530	1120	1720	412	1450	1570	1430	338	1400	159
28	2310	1530	1590	1320	1600	399	1470	1550	1470	603	1360	150
29	2380	1480	1440	1380	---	456	1480	1440	1580	570	1340	141
30	2440	1500	1110	1360	---	593	1500	1520	1690	657	1340	240
31	2440	---	1290	1330	---	560	---	1500	---	807	1340	---
AVERAGE	2190	1250	1800	1410	1440	854	1090	1240	1350	1230	1290	830

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	8.5	3.5	1.0	1.0	8.5	7.0	16.0	20.0	26.5	19.5	24.5
2	19.5	7.0	4.0	1.0	0.5	5.0	7.0	13.5	21.0	26.5	20.5	24.0
3	20.0	4.5	3.0	1.0	2.0	6.0	6.5	13.0	21.0	26.5	24.0	24.0
4	20.0	7.0	0.0	0.0	3.5	7.0	7.0	14.5	22.0	27.0	24.0	24.0
5	18.5	8.5	0.5	0.0	4.5	6.0	7.0	15.5	19.5	26.5	24.0	23.5
6	15.0	10.0	0.0	0.0	4.0	6.0	9.0	16.0	19.5	26.0	23.0	21.0
7	15.5	10.0	0.0	0.0	3.0	6.0	10.0	16.5	20.0	26.0	24.0	21.5
8	14.0	9.0	0.5	0.0	1.5	8.0	9.0	14.0	21.5	27.0	21.5	21.0
9	20.5	9.5	0.0	0.0	3.5	7.0	7.0	14.5	22.0	27.0	24.5	21.0
10	19.5	8.5	0.0	0.0	1.0	7.0	5.5	15.5	24.0	26.0	25.5	21.0
11	20.5	7.0	0.0	0.0	1.5	7.0	6.5	16.5	24.5	26.0	26.0	21.0
12	16.0	7.0	0.0	0.0	3.5	7.0	8.5	17.0	25.0	26.0	25.0	21.0
13	15.0	6.5	0.0	0.0	5.0	8.5	9.0	17.0	24.0	25.0	25.5	20.0
14	14.0	3.5	0.0	0.0	1.5	9.0	9.0	17.0	24.5	24.0	25.0	19.0
15	15.0	3.0	0.0	0.0	0.5	9.0	13.0	16.0	25.0	23.5	24.0	18.5
16	15.5	3.0	0.0	1.5	1.0	8.5	11.5	17.0	26.0	22.0	24.5	17.0
17	14.5	3.0	0.0	0.0	0.5	7.0	15.0	20.0	24.5	23.5	24.5	11.5
18	10.5	3.0	0.0	0.0	2.0	7.0	13.5	16.5	25.0	26.5	25.0	13.5
19	8.5	1.5	0.0	0.0	2.0	8.0	14.5	18.5	23.5	24.5	25.5	15.0
20	8.0	3.0	0.0	2.0	3.5	8.5	14.5	16.5	24.5	24.0	26.0	17.0
21	9.0	3.5	0.0	1.5	5.0	7.0	15.5	20.0	24.5	21.5	26.5	20.5
22	11.5	3.0	0.0	1.0	4.0	8.5	16.0	21.0	23.5	21.0	26.5	19.0
23	9.5	2.0	0.0	1.0	6.5	10.0	8.0	19.5	24.0	20.0	26.0	20.5
24	9.5	3.0	0.0	0.5	6.0	10.0	17.0	20.0	24.5	20.5	25.0	20.5
25	5.0	3.0	0.0	0.0	6.0	9.0	15.5	19.0	24.5	20.0	25.5	20.0
26	10.0	2.0	0.0	0.0	6.5	5.5	15.0	20.0	25.0	20.0	25.0	19.0
27	11.0	3.0	1.0	4.5	5.0	7.0	13.0	18.0	25.0	19.5	25.0	18.5
28	10.0	1.5	1.0	6.0	4.5	9.0	13.0	16.0	23.5	20.5	25.0	18.0
29	9.0	1.5	3.5	1.0	---	10.0	13.5	16.0	25.0	21.0	25.0	18.0
30	11.0	1.5	1.0	0.5	---	9.5	17.0	17.0	25.5	21.0	25.5	16.0
31	8.5	---	1.0	1.5	---	8.5	---	19.0	---	21.0	25.0	---
AVERAGE	13.5	5.0	0.5	1.0	3.0	7.5	11.0	17.0	23.5	23.5	24.5	19.5

06876900 SOLOMON RIVER AT NILES, KS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR. 13...	1510	1.0	3520	1620	68	73	90	99	100	--	--	--
APR. 20...	1300	16.0	899	615	70	75	90	99	100	--	--	--
SEP. 19...	1150	16.0	438	928	70	83	94	100	--	--	--	--

DATE	TIME	TEMPERATURE (DEG C)	NUMBER OF SAMPLING POINTS	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
OCT. 05...	1000	17.0	1	53	5	8	12

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
OCT. 05...	25	70	86	96	99	100

06877600 SMOKY HILL RIVER AT ENTERPRISE, KS
(Pesticide Station)

KSDH Station No. 43.3

LOCATION.--Lat 38°54'24", long 97°07'12", in NW¼NW¼SE¼ sec.20, T.13 S., R.3 E., Dickinson County, at gaging station at bridge on State Highway 43 in Enterprise, 18.6 mi (29.9 km) upstream from Chapman Creek, and at mile 43.3 (69.7 km).

DRAINAGE AREA.--19,260 mi^2 (49,880 km^2), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1955 to September 1958, October 1961 to September 1973.
Water temperatures: October 1955 to September 1973.
Sediment records: October 1957 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
19...	305	9.0	9.0	140	31	360	10	300	0	250	540	.4
NOV.												
08...	316	--	12	120	26	300	10	300	0	220	430	.5
DEC.												
20...	355	2.0	19	180	40	270	8.4	370	0	330	400	.4
JAN.												
31...	669	2.5	16	150	37	200	7.2	290	0	300	290	.4
FEB.												
28...	828	5.5	13	160	36	200	7.0	310	0	310	290	.4
MAR.												
06...	11700	6.5	11	59	10	30	7.0	160	0	78	33	.4
APR.												
04...	24600	8.0	13	56	5.0	25	7.6	130	0	57	37	.3
20...	6750	14.0	11	110	27	200	10	190	0	250	290	.5
MAY												
25...	3840	20.0	16	120	21	160	8.4	230	0	210	260	.3
JUNE												
15...	1980	24.0	15	120	26	200	8.8	230	0	200	310	.4
JULY												
11...	561	28.5	13	160	35	610	11	280	0	340	940	.4
AUG.												
16...	2810	24.5	11	70	14	110	7.8	150	0	110	160	.3
SEP.												
30...	42400	17.0	12	35	5.0	8.0	6.5	100	0	18	14	.7

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
19...	50	80
APR.		
20...	130	0

06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(Pesticide Station)

EXTREMES.--1972-73:
Specific conductance: Maximum daily, 4,130 micromhos July 14; minimum daily, 269 micromhos Sept. 28.
Water temperatures: Maximum, 33.0°C on several days in July; minimum, freezing point on several days during winter period.
Sediment concentrations: Maximum daily, 5,240 mg/l Feb. 1; minimum daily, 9 mg/l Oct. 25.
Sediment discharge: Maximum daily, 193,000 tons (175,000 tonnes) Sept. 29; minimum daily, 6.5 tons (5.9 tonnes) Oct. 25.

Period of record:
Specific conductance: Maximum daily, 5,340 micromhos Jan. 24, 1957; minimum daily, 254 micromhos Sept. 22, 1967.
Water temperatures (1957-73): Maximum, 33.0°C July 8, 9, 11, 1973; minimum, freezing point on many days during winter period.
Sediment concentrations: Maximum daily, 11,000 mg/l Sept. 4, 1967; minimum daily, 3 mg/l July 9, 1966.
Sediment discharge: Maximum daily, 350,000 tons (318,000 tonnes) Sept. 4, 1967; minimum daily, 1 ton (0.91 tonnes) July 9, 1966.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks. Pesticide analyses by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.												
19...	.34	.30	350	1490	1260	2.08	8	470	220	7.2	2600	7.6
NOV.												
08...	.50	.33	240	1270	1110	1.75	15	410	160	6.5	2120	7.7
DEC.												
20...	1.2	.22	200	1430	1400	1.99	1	610	310	4.7	2290	7.6
JAN.												
31...	1.1	.22	200	1150	2170	1.63	85	520	290	3.8	1910	7.7
FEB.												
28...	.70	.11	--	1160	2660	1.62	85	550	300	3.7	1840	7.5
MAR.												
06...	1.2	.12	--	314	10400	.45	2600	190	54	1.0	490	7.3
APR.												
04...	.81	.15	--	271	18800	.38	500	160	50	.9	420	7.5
20...	.75	.08	210	986	18600	1.39	800	390	230	4.4	1690	7.4
MAY												
25...	.50	.07	200	912	9750	1.28	190	390	210	3.5	1520	7.5
JUNE												
15...	.81	.14	200	993	5510	1.40	320	400	210	4.3	1660	7.4
JULY												
11...	.20	.10	360	2260	3470	3.11	65	550	320	11	4000	7.4
AUG.												
16...	.68	.16	200	560	4330	.78	1300	230	110	3.1	980	7.3
SEP.												
30...	.79	.19	60	155	19800	.24	1600	110	22	.3	260	7.6

06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(Pesticide Station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLORDANE (UG/L)
NOV. 08...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0
MAY 25...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0

DATE	DIAZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	PCB (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)
NOV. 08...	.02	.00	.00	.00	.0	.03	.00	.01	.0
MAY 25...	.01	.00	.00	.00	.0	.23	.00	.00	--

DATE	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	CHLORDANE IN BOTTOM DEPOSITS (UG/KG)
NOV. 08...	.0	.0	.0	.0	.0	.0	.0	.0	0
MAY 25...	--	--	--	--	--	--	--	--	--

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS, SED, FALL DIAM, % FINER THAN .002 MM	SUS, SED, FALL DIAM, % FINER THAN .004 MM	SUS, SED, FALL DIAM, % FINER THAN .016 MM	SUS, SED, FALL DIAM, % FINER THAN .062 MM	SUS, SED, FALL DIAM, % FINER THAN .125 MM	SUS, SED, FALL DIAM, % FINER THAN .250 MM	SUS, SED, FALL DIAM, % FINER THAN .500 MM	SUS, SED, FALL DIAM, % FINER THAN 1.00 MM
MAR. 07...	1550	--	7040	1760	46	56	72	96	98	99	100	--
15...	1120	10.0	16700	1710	55	59	74	94	97	98	100	--
APR. 04...	0935	8.0	24600	1110	50	60	73	92	96	97	100	--
MAY 25...	1135	20.0	3840	370	45	55	69	97	100	--	--	--
SEP. 30...	1430	17.0	42400	1500	68	72	79	93	96	100	--	--

DATE	TIME	TEMPERATURE (DEG C)	NUMBER OF SAMPLING POINTS	INSTANTANEOUS DISCHARGE (CFS)	BED MAT, FALL DIAM, % FINER THAN .062 MM	BED MAT, FALL DIAM, % FINER THAN .125 MM	BED MAT, FALL DIAM, % FINER THAN .250 MM
OCT. 19...	1130	9.0	10	305	7	14	21

DATE	BED MAT, FALL DIAM, % FINER THAN .500 MM	BED MAT, FALL DIAM, % FINER THAN 1.00 MM	BED MAT, SIEVE DIAM, % FINER THAN 2.00 MM	BED MAT, SIEVE DIAM, % FINER THAN 4.00 MM	BED MAT, SIEVE DIAM, % FINER THAN 8.00 MM	BED MAT, SIEVE DIAM, % FINER THAN 16.0 MM
OCT. 19...	46	79	88	94	97	100

06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(Pesticide Station)

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	922	1160	536	659	527	992	495	941	1080	1390	602	1040
2	911	1000	540	589	515	994	436	946	1060	1410	665	1010
3	893	906	553	590	444	997	390	1020	1040	1510	666	936
4	927	902	551	537	455	880	400	941	1000	1640	727	1110
5	946	974	557	549	560	642	421	1080	1010	1660	723	970
6	987	979	561	555	504	487	455	797	998	1660	704	1040
7	958	868	510	559	535	479	487	685	1100	1520	720	903
8	941	790	536	564	510	537	495	627	849	1450	727	893
9	946	631	574	594	490	529	487	541	895	1440	798	889
10	937	625	560	632	479	511	517	569	843	1390	624	989
11	920	650	649	745	478	414	543	640	910	1390	568	766
12	976	735	670	785	505	373	600	559	946	1440	819	708
13	1110	647	638	775	829	410	606	570	1040	1450	712	716
14	1230	592	617	775	610	433	593	611	815	1410	746	688
15	1230	581	647	778	581	490	608	591	763	1330	784	716
16	1250	455	652	776	586	549	618	605	730	1400	745	727
17	1280	476	620	767	574	549	690	625	696	1590	737	672
18	1330	497	662	821	597	581	695	633	728	1360	612	620
19	1370	477	683	594	601	583	673	706	945	1560	655	650
20	1340	500	669	551	608	524	753	970	1030	790	725	681
21	1290	495	657	570	618	542	790	1010	1060	576	763	654
22	1120	499	676	543	626	541	830	1120	1040	447	946	764
23	1150	517	593	526	618	516	1030	1010	1050	464	979	773
24	1130	526	626	539	488	509	1130	1100	1050	448	965	713
25	1200	530	593	544	488	531	1220	1170	1050	502	876	803
26	1230	545	576	555	489	469	1230	1020	1020	493	828	641
27	1260	559	570	561	919	478	1220	1100	1030	544	862	428
28	1270	523	572	559	1010	442	1230	1140	1080	489	995	335
29	1270	538	579	544	997	456	1250	1140	1160	472	932	282
30	1250	533	659	542	---	446	1080	1160	1350	511	934	276
31	1220	---	558	545	---	475	---	1160	---	546	1030	---
AVERAGE	1120	657	601	620	595	560	732	864	979	1110	780	746

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	11.0	7.0	2.0	2.5	7.5	9.5	15.5	23.0	30.5	26.5	25.5
2	20.5	9.5	7.5	2.0	3.0	7.5	10.0	14.0	23.0	30.0	26.5	27.0
3	21.0	11.0	2.5	2.0	3.5	7.0	9.0	16.0	22.5	30.0	26.5	26.5
4	22.0	12.5	1.5	0.0	4.0	7.0	9.5	17.0	21.0	30.5	27.0	26.0
5	20.0	13.5	2.0	0.0	3.5	7.5	10.0	17.0	22.0	27.5	25.5	25.5
6	15.5	12.0	0.5	0.0	3.5	7.0	11.0	17.0	23.0	29.5	26.0	25.5
7	18.0	12.5	0.5	0.0	1.5	7.5	9.0	17.0	24.5	30.0	26.5	27.5
8	18.0	12.0	2.0	0.0	1.5	7.0	8.0	18.0	24.5	31.0	27.0	23.5
9	18.5	10.5	0.0	0.5	2.5	7.0	8.0	17.5	24.5	31.0	27.0	25.5
10	21.5	10.0	0.5	0.5	2.5	7.5	8.5	18.0	25.0	30.5	27.5	26.0
11	22.0	9.5	0.0	1.5	3.0	8.0	9.5	18.5	25.5	31.5	28.0	26.0
12	17.0	9.0	0.5	1.0	2.5	9.5	9.5	18.0	25.5	30.0	29.0	22.0
13	18.5	7.0	0.5	1.0	3.5	9.0	10.0	18.0	25.5	29.0	28.0	21.5
14	18.0	6.0	1.0	2.0	2.0	10.0	9.5	18.0	24.5	25.5	28.5	23.5
15	15.5	5.5	1.0	3.0	1.5	9.0	10.0	18.0	25.0	26.5	26.5	23.5
16	18.0	6.0	0.5	4.0	1.0	8.5	10.5	17.5	24.5	28.0	26.0	19.5
17	14.5	6.0	1.5	7.5	0.5	7.5	12.0	18.5	25.0	29.0	28.0	19.0
18	9.5	5.5	3.0	6.0	2.0	7.5	13.0	19.0	24.5	29.5	27.5	20.0
19	10.0	6.0	2.5	4.0	2.0	7.0	12.5	20.0	24.5	28.5	28.0	21.0
20	9.0	6.5	3.5	4.0	4.0	7.5	14.0	22.0	25.0	26.0	28.5	21.0
21	11.5	6.5	3.0	2.5	4.0	7.5	14.0	22.0	25.5	24.0	29.0	23.5
22	12.5	5.5	3.0	2.0	5.0	7.5	15.0	21.0	26.0	24.0	28.0	23.0
23	10.5	6.5	3.0	2.5	5.0	7.5	16.5	21.0	26.5	25.0	28.0	23.0
24	12.0	5.5	2.0	2.0	4.5	7.5	16.5	21.0	28.0	25.0	27.0	20.5
25	12.5	6.0	2.5	3.5	3.0	7.5	16.0	21.0	26.0	26.0	25.0	20.5
26	14.0	6.0	3.0	3.5	5.0	9.5	13.5	20.0	25.5	26.0	27.5	19.5
27	14.0	6.0	3.5	2.5	5.5	9.0	15.0	18.0	26.5	27.0	28.0	19.0
28	10.5	6.5	3.0	1.5	8.0	9.0	16.0	20.0	27.0	27.5	28.0	19.0
29	11.0	5.5	6.5	1.5	---	9.0	17.0	20.5	28.0	26.5	27.5	18.5
30	13.0	6.5	6.5	2.5	---	9.0	18.0	21.0	23.5	27.5	26.0	18.0
31	11.0	---	3.0	3.5	---	9.0	---	22.5	---	27.0	---	---
AVERAGE	15.5	8.0	2.5	2.0	3.0	8.0	12.0	19.0	25.0	28.0	27.5	22.5

06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(Pesticide Station)

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	291	92	72	275	19	14	554	36	54
2	287	186	144	327	16	14	518	33	46
3	273	94	69	429	26	30	490	30	40
4	266	102	73	436	28	33	410	42	46
5	273	100	74	428	31	36	350	30	28
6	267	76	55	403	33	36	280	30	23
7	255	76	52	361	33	32	270	30	22
8	255	37	25	318	51	44	260	30	21
9	260	46	32	322	76	66	260	30	21
10	258	55	38	375	76	77	260	30	21
11	258	46	32	484	75	98	260	30	21
12	258	37	26	478	74	96	260	30	21
13	253	33	23	810	281	615	270	30	22
14	250	29	20	2800	1600	12100	280	30	23
15	262	30	21	3520	1820	17300	296	30	24
16	269	33	24	2950	1010	8040	300	30	24
17	277	42	31	1920	726	3760	320	32	28
18	291	23	18	1310	603	2130	337	12	11
19	287	36	28	980	423	1120	338	27	25
20	259	12	8.4	846	318	726	364	55	54
21	248	15	10	805	603	1310	474	52	67
22	252	20	14	749	201	406	649	50	88
23	261	20	14	688	109	202	795	164	352
24	266	13	9.3	634	101	173	823	150	333
25	266	9	6.5	623	67	113	848	105	240
26	261	12	8.5	682	73	134	797	115	247
27	255	13	9.0	717	53	103	697	159	299
28	250	21	14	655	76	134	633	104	178
29	245	16	11	621	56	94	668	78	141
30	255	21	14	600	46	75	1190	96	308
31	254	15	10	--	--	--	1720	95	441
TOTAL	8162	--	985.7	26546	--	49111	15971	--	3269

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1170	90	284	4310	5240	73200	784	147	311
2	891	90	217	9970	4620	124000	796	154	331
3	806	90	196	9890	4010	107000	828	182	407
4	498	90	121	7340	2320	46000	2820	3240	42300
5	385	90	94	3050	1420	11700	9220	4400	110000
6	350	90	85	1850	921	4600	11400	2410	74200
7	310	90	75	1370	573	2120	8550	1890	43600
8	300	90	73	2180	392	2310	4980	1670	22500
9	300	90	73	1020	291	801	8580	2400	55600
10	320	90	78	976	232	611	11500	2290	71100
11	390	90	95	1030	282	784	18500	1930	96400
12	438	90	106	1030	272	756	17100	1820	84000
13	420	93	105	1030	267	743	16600	1670	74800
14	416	94	106	1030	204	567	12900	2150	74900
15	427	138	159	1000	168	454	8470	1810	41400
16	708	238	455	923	182	454	6510	1660	29200
17	1780	946	4550	872	218	513	5400	1510	22000
18	2660	1790	12900	865	213	497	4570	1210	14900
19	2430	1540	10100	874	156	368	4110	1090	12100
20	1620	1610	7040	868	161	377	4570	1450	17900
21	1280	615	2130	868	167	391	4960	1460	19600
22	1140	460	1420	857	174	403	4160	967	10900
23	999	468	1260	842	138	314	3650	801	7890
24	944	243	619	830	141	316	4520	1150	14000
25	1010	233	635	816	154	339	9280	2840	71200
26	1240	517	1730	804	215	467	13500	1890	68900
27	1150	350	1090	777	123	258	15900	1560	67000
28	945	226	577	776	168	352	16200	1450	63400
29	768	123	255	--	--	--	12600	1490	50700
30	636	89	153	--	--	--	9950	1260	33800
31	706	118	225	--	--	--	13200	1670	59500
TOTAL	27437	--	47006	58048	--	380695	266108	--	1354839

06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(Pesticide Station)

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	18700	1230	62100	7850	1060	22500	3380	341	3110
2	21900	1380	81600	7640	1040	21500	3320	332	2980
3	25200	1250	85100	7040	796	15100	3070	360	2980
4	24500	1160	76700	5050	629	8580	3050	408	3360
5	21800	1030	60600	4210	544	6180	3910	553	5840
6	17300	1300	60700	6600	1150	20500	4830	1060	13800
7	11200	1430	43200	8270	1270	28400	4890	922	12200
8	7620	2260	46500	8890	1210	29000	4010	543	5880
9	6560	1310	23200	9390	1280	32500	3310	480	4290
10	6530	988	17400	10100	1530	41700	2910	372	2920
11	6620	1110	19800	9830	1210	32100	2410	330	2150
12	6580	750	13300	8510	1010	23200	2260	313	1910
13	6400	726	12500	6350	799	13700	2270	339	2080
14	6490	817	14300	5220	773	10900	2490	512	3440
15	6780	876	16000	4730	558	7130	2000	583	3150
16	7690	1100	22800	4480	475	5750	1710	392	1810
17	7770	915	19200	4270	421	4850	1530	317	1310
18	7130	731	14100	4140	281	3140	1370	308	1140
19	6570	940	16700	4040	208	2270	1230	294	976
20	6580	991	17600	3970	318	3410	1160	269	843
21	6850	1600	29600	3850	361	3750	1110	276	827
22	6750	738	13500	3840	380	3940	1070	207	598
23	6220	636	10700	4030	379	4120	1040	230	646
24	5780	534	8330	4290	513	5940	998	194	523
25	5300	516	7380	3910	486	5130	937	173	438
26	4900	442	5850	3740	405	4090	879	161	382
27	4890	467	6170	3730	303	3050	838	135	305
28	5560	771	11600	3720	331	3320	811	101	221
29	5800	593	9290	3680	326	3240	791	106	226
30	5940	664	10600	3580	306	2960	774	118	247
31	--	--	--	3490	340	3200	--	--	--
TOTAL	287910	--	836420	172440	--	375150	64358	--	80582

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	761	102	210	1620	432	1890	1050	211	598
2	737	92	183	1770	498	2380	1110	221	662
3	725	102	200	1990	584	3140	1040	341	958
4	696	98	184	1940	475	2490	1060	333	953
5	680	129	237	1870	427	2160	1070	300	867
6	733	286	566	1840	375	1860	1090	280	824
7	641	113	196	1800	373	1810	1100	272	808
8	597	107	172	3260	1600	18700	1530	801	3310
9	579	90	141	4020	1680	18200	1560	2030	8550
10	575	85	132	2550	601	4140	1290	1210	4210
11	568	123	189	2080	423	2380	1150	623	1930
12	539	128	186	1990	353	1900	1070	399	1150
13	516	140	195	2110	363	2070	1120	378	1140
14	521	141	198	2650	585	4190	1240	402	1350
15	761	681	1400	2960	823	6580	1500	613	2480
16	688	202	375	2840	1330	10200	1280	804	2780
17	805	183	398	2250	1010	6140	1210	606	1980
18	721	141	274	1960	825	4370	1410	500	1900
19	1120	389	1180	2270	707	4330	1290	500	1740
20	7890	3440	76100	2540	700	4800	1160	557	1740
21	8920	2110	50800	2590	689	4820	1100	501	1490
22	7980	2000	43100	2480	600	4020	1060	500	1430
23	7130	1720	33100	1960	421	2230	1050	457	1300
24	5730	1750	27100	1470	338	1340	1110	525	1570
25	5460	1530	22600	1470	533	2120	1760	1380	6560
26	5430	1550	22700	1520	400	1640	6030	3560	66000
27	6610	1780	31800	1250	248	837	15400	3080	128000
28	5130	1240	17200	1040	203	570	22800	2640	163000
29	3010	1130	9180	984	206	547	31100	2300	193000
30	2330	908	5710	945	241	615	40100	1660	180000
31	1900	671	3440	935	219	553	--	--	--
TOTAL	80483	--	349446	62954	--	123022	145840	--	782280

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 1216257
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 4382805.7

06882400 BIG BLUE RIVER NEAR OKETO, KS

KSDH Station No. 92.4

LOCATION.--Lat 39°58'37", long 96°36'20", in sec.14, T.1 S., R.7 E., Marshall County, at county highway bridge near Oketo, about 3.0 mi (4.8 km) downstream from Kansas-Nebraska State line, and 8.0 mi (12.9 km) downstream from gaging station.

DRAINAGE AREA.--4,444 mi^2 (11,510 km^2) upstream from gaging station.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Records of discharge are given for Big Blue River at Barneston, Ne. No appreciable inflow between gaging station and sampling point except during periods of intense local precipitation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)
JAN. 18...	4060	17	4.2	10	7.6	18	9.6	.5	1.6
MAR. 27...	6360	20	4.9	9.5	9.3	22	5.7	.3	1.6
JUNE 19...	630	65	17	38	9.7	66	27	.4	2.3
JULY 18...	372	43	11	26	11	40	23	.3	3.2
SEP. 05...	3480	64	14	54	10	66	47	.4	1.5

DATE	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	TURBIDITY (JTU)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
JAN. 18...	1.7	162	.22	60	280	1.8	.6	202	6.9
MAR. 27...	--	168	.23	70	120	2.2	.5	211	7.0
JUNE 19...	--	426	.58	230	40	2.8	1.1	644	7.5
JULY 18...	--	268	.36	150	220	3.4	.9	436	7.4
SEP. 05...	--	417	.57	220	200	1.6	1.6	681	7.5

06882400 BIG BLUE RIVER NEAR OKETO, KS.--Continued

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)
JAN. 18...	.00	.00	.00	.00	.00	.00	.00
MAR. 27...	.00	.00	.00	.00	.01	.00	.00
JUNE 19...	.00	.00	.00	.00	.01	.00	.00
JULY 18...	.00	.00	.00	.00	.02	.00	.00
SEP. 05...	.00	.00	.00	.00	.01	.00	.00

DATE	HEPTA-CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLOR-DANE (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)	PCB (UG/L)
JAN. 18...	.00	.00	.0	.07	.00	.01	.0
MAR. 27...	.00	.00	.0	.07	.00	.01	.0
JUNE 19...	.00	.00	.0	.06	.00	.02	.0
JULY 18...	.00	.01	.0	.12	.00	.06	.0
SEP. 05...	.00	.00	.0	.05	.00	.02	.0

DATE	AIR TEMP-ERATURE (DEG C)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)
JAN. 18...	5.5	3.0	9.2	1000	--	190
MAR. 27...	15.5	10.0	8.6	1900	370	200
JUNE 19...	26.5	23.5	8.0	800	370	160
JULY 18...	25.0	26.0	7.4	6200	700	520
SEP. 05...	29.5	24.5	7.5	4600	1100	160

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS

LOCATION.--Lat 39°58'49", long 97°00'14", in SE¼NW¼ in sec.8, T.1 S., R.4 E., Washington County at county highway bridge, 0.6 mi (1.0 km) west of Hollenberg.

PERIOD OF RECORD.--Chemical analyses: July 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLOU-RIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)
JAN.									
18...	21	3.3	8.7	8.0	16	10	.4	1.4	1.2
MAR.									
27...	25	3.6	7.4	9.1	21	7.1	.3	1.2	1.8
JUNE									
19...	76	11	39	8.6	50	40	.3	.02	.21
JULY									
18...	34	5.8	13	12	20	13	1.1	6.9	--
SEP.									
05...	19	5.9	6.1	9.5	9.8	5.7	.6	1.9	--

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	TUR-BID-ITY (JTU)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
JAN.								
18...	166	.23	66	300	2.2	.5	207	7.0
MAR.								
27...	181	.25	77	50	2.6	.4	243	7.0
JUNE								
19...	438	.60	240	40	3.3	1.1	634	8.1
JULY								
18...	200	.27	110	260	3.0	.5	310	7.2
SEP.								
05...	118	.16	72	320	1.7	.3	152	7.0

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)
JAN. 18...	.00	.00	.00	.00	.00	.00	.00
MAR. 27...	.00	.00	.00	.00	.00	.00	.00
JUNE 19...	.00	.00	.00	.00	.00	.00	.00
JULY 18...	.00	.00	.00	.00	.01	.00	.00
SEP. 05...	.00	.00	.00	.00	.00	.00	.00

DATE	HEPTA-CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLOR-DANE (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)	PCB (UG/L)
JAN. 18...	.00	.00	.0	.07	.00	.02	.0
MAR. 27...	.00	.00	.0	.05	.00	.01	.0
JUNE 19...	.00	.00	.0	.08	.00	.01	.0
JULY 18...	.00	.00	.0	.00	.00	.01	.0
SEP. 05...	.00	.00	.0	.05	.00	.00	.0

DATE	AIR TEMP-ERATURE (DEG C)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP TOCOCCI (COL-ONIES PER 100 ML)
JAN. 18...	4.0	1.0	10.8	530	--	60
MAR. 27...	7.5	9.5	8.8	2600	630	400
JUNE 19...	22.0	22.0	7.8	1800	660	410
JULY 18...	25.0	25.5	7.3	4700	730	380
SEP. 05...	28.0	21.0	7.8	2800	290	110

06884400 LITTLE BLUE RIVER NEAR BARNES, KS

KSDH Station No. 19.2

LOCATION.--Lat 39°46'33", long 96°51'29", in NW¼NW¼SW¼ sec.22, T.3 S., R.5 E., Washington County, at gaging station at bridge on State Highway 15 E., 0.4 mi (0.6 km) downstream from Malone Creek, 4.5 mi (7.2 km) north of Barnes, and at mile 19.2 (30.9 km).

DRAINAGE AREA.--3,324 mi^2 (8,609 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
24...	167	9.5	19	81	13	38	6.8	260	0	71	39	.3
NOV.												
20...	750	4.5	22	78	15	20	8.6	240	0	70	25	.4
DEC.												
19...	252	.0	27	120	16	38	5.2	330	0	110	34	.2
JAN.												
24...	1120	.5	16	45	5.7	12	11	130	0	41	14	.2
FEB.												
20...	724	1.0	25	100	15	35	6.2	300	0	100	30	.1
MAR.												
21...	737	9.0	21	110	17	33	6.8	300	0	110	29	.4
APR.												
23...	963	17.0	21	98	18	25	7.6	280	0	93	30	.4
MAY												
23...	558	19.5	20	110	20	38	6.2	310	0	120	37	.3
JUNE												
06...	3090	20.0	3.0	27	3.0	8.0	9.0	80	0	25	8.0	.4
21...	349	25.5	22	90	13	39	7.4	260	0	100	40	.4
JULY												
23...	1730	23.5	18	37	5.7	8.5	9.0	120	0	24	9.0	.4
AUG.												
21...	265	28.0	21	78	14	30	8.8	250	0	90	30	.4
SEP.												
24...	485	20.5	21	56	9.8	21	9.2	180	0	53	23	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
24...	.41	.33	180	420	189	.57	15	260	46	1.0	690	7.6
NOV.												
20...	1.2	--	140	380	769	.52	170	260	60	.5	570	7.7
DEC.												
19...	1.2	.20	60	536	365	.73	6	360	82	.9	780	7.7
JAN.												
24...	2.1	.46	80	228	689	.51	450	140	28	.4	350	7.0
FEB.												
20...	1.5	.27	140	477	932	.65	220	320	74	.9	730	7.8
MAR.												
21...	1.9	.30	90	496	987	.67	220	340	91	.8	740	7.8
APR.												
23...	1.5	.42	140	456	1190	.62	250	320	90	.6	710	7.7
MAY												
23...	.66	.19	140	532	802	.72	30	360	100	.9	810	7.6
JUNE												
06...	2.0	.33	40	142	1190	.19	3200	80	14	.4	220	6.9
21...	.02	.20	110	450	424	.61	85	280	68	1.0	700	7.4
JULY												
23...	2.0	.25	110	202	944	.27	1500	120	20	.3	290	6.9
AUG.												
21...	.54	.31	140	400	286	.54	250	250	64	.8	620	7.4
SEP.												
24...	.70	.42	120	297	389	.40	550	180	32	.7	460	7.6

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
24...	130	0
APR.		
23...	80	0

06887000 BIG BLUE RIVER NEAR MANHATTAN, KS

KSDH Station No. 7.5

LOCATION.--Lat 39°14'14", long 96°34'16", in SW¼NW¼SE¼ sec.30, T.9 S., R.8 E., Riley County, at outlet to Tuttle Creek Reservoir, 2.5 mi (4.0 km) upstream from gaging station 4.0 mi (6.4 km) north of Manhattan.

DRAINAGE AREA.--9,640 mi^2 (24,970 km^2), approximately, upstream from gaging station.

PERIOD OF RECORD.--Chemical analyses: October 1955 to September 1958, October 1961 to September 1973.
Water temperatures: October 1955 to September 1958.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks. At discharges greater than 1,000 ft^3/s (28 m^3/s) samples are collected at bridge at gaging station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
17...	179	17.0	130	44	9.5	14	8.0	150	0	35	16	.4
NOV.												
27...	2070	7.0	13	50	8.5	18	7.6	160	0	56	15	.5
DEC.												
21...	2840	3.0	12	51	11	17	7.4	180	0	42	16	.4
JAN.												
30...	4960	2.5	14	59	13	19	7.0	200	0	52	17	.4
FEB.												
28...	81	6.0	--	--	--	--	--	--	--	--	--	--
MAR.												
28...	9820	8.0	13	54	11	14	6.4	180	0	46	11	.4
APR.												
10...	20900	7.5	13	45	13	11	6.8	160	0	42	10	.5
MAY												
10...	5240	16.0	13	53	12	12	6.6	180	0	47	11	.5
JUNE												
12...	2060	20.0	13	61	12	16	5.4	200	0	52	13	.4
JULY												
09...	962	24.0	13	64	14	17	6.8	210	0	58	15	.4
AUG.												
17...	4200	25.0	11	53	12	15	6.5	180	0	45	11	.3
SEP.												
12...	2090	4.0	13	56	12	17	6.2	190	0	49	14	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
17...	.41	.18	140	230	111	.31	25	150	26	.5	370	7.7
NOV.												
27...	.45	.18	110	251	1400	.34	15	160	28	.6	380	8.1
DEC.												
21...	.72	.17	60	249	1910	.34	7	170	26	.6	410	7.6
JAN.												
30...	.50	.16	120	292	3910	.40	7	200	34	.6	470	7.5
FEB.												
28...	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
28...	1.5	.19	60	260	6890	.35	15	180	34	.5	400	7.6
APR.												
10...	1.4	.19	90	234	13200	.32	130	170	38	.4	360	7.4
MAY												
10...	.32	.18	90	255	3610	.35	40	180	38	.4	410	7.4
JUNE												
12...	1.2	.14	80	292	1620	.40	8	200	36	.5	450	7.6
JULY												
09...	.99	.16	90	306	795	.42	15	220	43	.5	510	7.8
AUG.												
17...	.99	.11	150	261	2960	.35	7	180	34	.5	420	7.5
SEP.												
12...	.88	.08	110	285	1610	.39	8	190	31	.5	460	7.5

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
17...	80	0
APR.		
10...	740	0

06887500 KANSAS RIVER AT WAMEGO, KS

KSDH Station No. 126.9

LOCATION.--Lat 39°11'52", long 96°18'16", in NW¼SW¼NE¼ sec.9, T.10 S., R.10 E., Pottawatomie County, at gaging station at bridge on State Highway 99 at Wamego, 3.0 mi (4.8 km) downstream from Antelope Creek, and at mile 126.9 (204.2 km).

DRAINAGE AREA.--55,280 mi² (143,200 km²), approximately, of which a large area is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1956 to September 1958, October 1961 to September 1973.
Water temperatures: August 1956 to September 1973.
Sediment records: October 1957 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
19...	780	7.0	10	92	24	160	8.6	260	0	140	230	.3
NOV.												
21...	5490	5.5	10	57	11	37	9.0	170	0	74	42	.4
DEC.												
22...	4100	.5	13	72	15	49	7.4	220	0	82	65	.4
JAN.												
29...	9020	.0	13	69	14	33	6.8	210	0	80	37	.4
FEB.												
20...	8000	1.8	11	74	13	39	7.2	210	0	84	49	.4
MAR.												
27...	39900	8.5	13	50	12	24	6.4	160	0	59	26	.3
APR.												
11...	37400	9.0	13	65	12	30	7.4	180	0	74	36	.4
MAY												
09...	25200	17.0	12	64	11	33	6.6	170	0	78	44	.4
JUNE												
11...	7950	23.5	13	90	15	72	6.8	220	0	120	110	.4
JULY												
10...	2520	27.0	10	94	22	160	7.4	220	0	180	240	.3
AUG.												
14...	8470	26.0	11	70	16	60	7.2	190	0	95	84	.4
SEP.												
10...	6540	25.0	13	82	16	100	8.5	220	0	110	140	.4

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
DEC.		
22...	150	0
APR.		
11...	210	0

06887500 KANSAS RIVER AT WAMEGO, KS--Continued

EXTREMES.--1972-73:
Specific conductance: Maximum daily, 1,660 micromhos July 5, 6; minimum daily, 414 micromhos March 11.
Water temperatures: Maximum, 31.5°C July 11; minimum, freezing point on many days during winter period.
Sediment concentrations: Maximum daily, 5,320 mg/l July 21; minimum daily, 13 mg/l Oct. 29.
Sediment discharge: Maximum daily, 361,000 tons (327,000 tonnes) April 7; minimum daily, 27 tons (24 tonnes) Oct. 29.

Period of record:
Specific conductance: Maximum daily, 2,100 micromhos Oct. 25, 1971; minimum daily, 123 micromhos Nov. 20, 1967.
Water temperatures: Maximum, 33.0°C July 18, 1966, Aug. 7, 1968, Aug. 7, 18, 1970; minimum, freezing point on many days during winter period.
Sediment concentrations: Maximum daily, 10,000 mg/l July 5, 1959; minimum daily, 5 mg/l Jan. 28, 1972.
Sediment discharge: Maximum daily, 752,000 tons (682,000 tonnes) May 7, 1959; minimum daily, 9 tons (0.82 tonnes) Jan. 16, 1967.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.												
19...	.41	.25	170	814	1710	1.11	3	330	120	3.8	1380	7.9
NOV.												
21...	.90	.17	110	348	5160	.47	200	190	51	1.2	540	7.4
DEC.												
22...	.79	.19	110	440	4870	.60	15	240	63	1.4	690	7.4
JAN.												
29...	.95	.20	110	388	9450	.53	170	230	60	.9	590	7.5
FEB.												
20...	1.1	.22	110	398	8600	.54	65	240	66	1.1	640	7.4
MAR.												
27...	1.3	.15	80	284	30600	.39	500	170	46	.8	440	7.5
APR.												
11...	.90	.16	120	352	35500	.48	200	210	60	.9	550	7.4
MAY												
09...	.75	.14	120	350	23800	.48	1200	200	66	1.0	550	7.3
JUNE												
11...	.05	.15	120	552	11800	.75	190	290	100	1.9	890	7.6
JULY												
10...	.32	.15	150	834	5680	1.13	25	320	150	3.9	1390	7.4
AUG.												
14...	.70	.12	180	448	10200	.61	130	240	82	1.7	740	7.3
SEP.												
10...	.95	.16	170	598	10600	.81	150	27	94	2.6	1030	7.7

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR.												
27...	1105	8.5	39900	1240	37	43	51	90	98	99	100	--
APR.												
11...	1355	9.0	37400	607	29	33	38	67	72	84	94	100
MAY												
09...	1140	17.0	25200	1640	31	35	48	92	95	97	100	--

DATE	TIME	TEMPER-ATURE (DEG C)	NUMBER OF SAM-PLING POINTS	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
OCT.							
19...	1340	7.0	10	780	--	0	10

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
OCT.						
19...	44	70	83	94	99	100

06887500 KANSAS RIVER AT WAMEGO, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2200	2770	1550	756	603	1910	449	1160	1690	3380	1500	2700
2	2280	2700	1710	877	447	1880	352	1080	1690	3480	1640	2230
3	2340	2280	1750	900	452	1850	398	1190	1800	3510	1590	2240
4	2350	2250	1780	960	574	1050	439	1600	1850	3500	1600	2380
5	2420	2250	1860	1290	774	568	506	1660	1660	3520	1650	2180
6	2500	1980	2200	1450	912	491	595	875	1160	3550	1680	2180
7	2520	2120	2300	1400	956	615	714	675	1250	3670	1710	2190
8	2550	2200	2500	1380	1230	735	866	729	1300	3770	922	1740
9	2570	2210	2550	1560	1350	552	976	725	1420	3760	914	1310
10	2610	2150	2600	1470	1490	444	1240	687	1600	3920	1170	1590
11	2640	2030	2650	1760	1490	384	1410	647	1770	3900	1480	1920
12	2640	1520	2650	1880	1540	369	1430	784	1910	3850	1570	2160
13	2730	1240	2600	2150	1570	407	1450	973	1950	4010	1590	2160
14	2740	594	2500	2250	1580	538	1410	1170	1740	4130	1290	1890
15	2710	580	2500	2270	1610	689	1400	1330	1840	3630	1180	1580
16	2590	635	2470	1800	1670	827	1300	1460	2140	3600	994	1470
17	2570	657	2470	1100	1720	930	1260	1510	2300	2910	1360	1740
18	2630	750	2230	764	1780	1000	1520	1570	2430	2480	1510	1670
19	2510	732	2300	760	1780	1010	1670	1600	2790	1990	1570	1680
20	2570	845	2340	791	1790	947	1690	1620	2870	575	2030	1930
21	2700	938	2040	864	1790	861	1440	1650	2900	396	2100	1990
22	2740	1050	1670	977	1800	944	1690	1650	2920	366	2120	2050
23	2790	1140	1410	1070	1840	1010	1830	1670	2950	417	2110	2170
24	2670	1250	1190	1190	1880	976	1900	1440	2990	534	2160	2290
25	2710	1320	1130	1280	1880	628	1850	1560	3050	478	2160	1430
26	2700	1400	1130	1110	1860	437	1890	1620	3180	493	1910	566
27	2720	1390	1280	1100	1880	417	1880	1670	3310	461	2020	350
28	2770	1420	1380	1200	1900	482	1510	1650	3350	510	2580	269
29	2800	1480	1490	1420	---	539	1500	1640	3400	721	2720	265
30	2800	1550	1360	1620	---	662	1440	1660	3370	1000	2750	261
31	2820	---	910	1870	---	615	---	1650	---	1320	2770	---
AVERAGE	2610	1510	1950	1330	1439	799	1270	1320	2290	2380	1750	1690

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	10.0	7.0	4.5	5.0	9.0	10.0	14.0	22.0	31.0	27.0	26.0
2	20.0	10.0	9.0	4.0	4.0	9.0	12.0	15.0	23.0	31.0	27.0	27.0
3	22.0	11.0	2.0	3.5	6.0	9.0	10.0	16.0	24.0	31.0	27.0	27.0
4	22.0	11.0	0.0	3.5	11.0	8.0	10.0	17.0	21.0	32.0	27.0	26.0
5	20.0	11.0	0.0	3.0	12.0	12.0	12.0	17.0	22.0	30.0	27.0	25.0
6	16.0	11.0	0.0	2.5	4.0	8.0	12.0	19.0	22.0	30.0	27.0	25.0
7	18.0	12.0	0.0	0.0	3.0	9.0	10.0	15.0	24.0	32.0	28.0	22.0
8	18.0	12.0	0.0	0.0	2.0	3.0	9.0	19.0	25.5	33.0	26.0	23.0
9	20.0	10.0	0.0	0.0	4.0	8.0	7.0	20.0	26.0	33.0	28.0	25.0
10	22.0	10.0	0.0	0.0	4.0	9.0	8.0	19.0	26.0	32.0	29.0	25.0
11	18.0	10.0	0.0	0.0	4.0	9.0	12.0	19.0	26.0	33.0	29.0	25.0
12	17.0	9.0	0.0	0.0	4.0	11.0	11.0	19.0	27.0	32.0	29.0	22.0
13	19.0	17.0	0.0	1.5	4.0	11.0	12.0	19.0	26.0	30.0	29.0	20.0
14	16.0	5.0	0.0	2.5	3.0	10.0	12.0	19.0	25.0	26.0	28.0	25.0
15	17.0	4.0	0.0	2.5	4.0	10.0	13.0	19.0	29.0	26.0	27.0	21.0
16	18.0	4.0	0.0	3.0	2.0	10.0	13.0	19.0	29.0	28.0	28.0	17.0
17	15.0	4.0	0.0	4.0	2.0	10.0	14.0	20.0	28.0	30.0	29.0	15.0
18	11.0	3.0	0.0	6.0	2.0	11.0	16.0	22.0	27.0	30.0	28.0	17.0
19	10.0	3.0	4.0	6.0	4.0	11.0	15.0	23.0	25.0	29.0	30.0	17.0
20	10.0	5.0	5.0	6.0	6.0	10.0	17.0	23.0	26.0	16.0	30.0	18.0
21	11.0	4.0	5.0	6.0	6.0	11.0	17.0	24.0	27.0	24.0	30.0	23.0
22	11.0	5.0	6.0	5.5	7.0	10.0	16.0	21.0	29.0	24.0	30.0	23.5
23	10.0	5.0	4.0	5.0	9.0	10.0	19.0	22.0	29.0	15.0	30.0	24.0
24	10.0	5.0	5.0	5.0	10.0	10.0	17.0	21.0	29.0	24.0	29.0	20.0
25	11.0	5.0	4.0	5.0	7.0	10.0	16.	22.0	29.0	25.0	30.0	21.0
26	13.0	5.0	5.0	6.0	9.0	12.0	14.	21.0	27.0	26.0	30.0	19.0
27	13.0	5.0	5.0	5.5	9.0	10.0	15.	19.0	28.0	27.0	30.0	20.0
28	10.0	5.0	3.0	4.5	9.0	13.0	15.	20.0	30.0	27.0	30.0	20.0
29	12.0	6.0	6.0	3.5	---	10.0	18.	20.0	29.0	28.0	30.0	19.0
30	12.0	5.0	0.0	3.5	---	9.0	19.	21.0	30.0	29.0	27.0	---
31	10.0	---	4.0	2.5	---	9.0	---	21.0	---	27.0	25.0	---
AVERAGE	15.5	7.5	2.5	3.5	5.5	9.5	13.5	19.5	26.5	28.0	28.5	22.0

06887500 KANSAS RIVER AT WAMEGO, KS--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1280	67	232	870	36	85	5900	86	1370
2	1230	61	203	1130	79	241	5880	78	1240
3	1230	65	216	1460	73	288	5760	70	1090
4	1230	66	219	1540	70	291	5710	53	817
5	1170	48	152	1630	77	339	5660	55	841
6	1150	48	149	1670	67	302	5490	73	1080
7	1240	55	184	1640	69	306	5300	58	830
8	1230	44	146	1610	69	300	4470	52	628
9	1220	35	115	2150	148	859	4150	56	627
10	1230	40	133	2500	114	770	4090	68	751
11	1220	52	171	2400	81	525	4000	35	378
12	1100	31	92	2590	75	524	3900	72	758
13	874	19	45	3000	146	1180	3900	69	727
14	838	34	77	3540	205	1960	3900	45	474
15	816	24	53	5680	749	11500	3900	43	453
16	786	21	45	7390	1020	20400	4000	51	551
17	776	18	38	7030	587	11100	4000	46	497
18	777	18	38	6860	535	9910	3890	42	441
19	772	44	92	6210	276	4630	3830	47	486
20	780	16	34	5690	251	3860	3850	44	457
21	844	19	43	5330	200	2880	3950	63	672
22	917	28	69	5180	131	1830	4070	48	527
23	879	20	47	5130	112	1550	5330	147	2120
24	811	15	33	5020	136	1840	6020	103	1670
25	812	20	44	5040	90	1220	6090	104	1710
26	804	34	74	4960	102	1370	6070	93	1520
27	794	17	36	5000	92	1240	6050	80	1310
28	782	15	32	5780	135	2110	5900	66	1050
29	776	13	27	6050	102	1670	6240	139	2340
30	776	16	34	5930	82	1310	7030	463	8790
31	789	16	34	--	--	--	7680	971	20100
TOTAL	29933	--	2907	120010	--	86390	156010	--	56305

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	6910	956	17800	11600	428	14900	3810	92	946
2	5850	787	12400	22200	4670	29900	3810	98	1010
3	5230	491	6930	23600	4610	294000	3850	91	946
4	5830	272	4280	19700	2820	150000	5370	376	5450
5	6190	151	2520	16900	2300	105000	12800	2260	78100
6	5850	127	2010	12300	878	29200	16800	3400	154000
7	5830	352	5540	10700	791	22900	18100	2410	118000
8	5800	200	3130	15200	700	28700	16000	1610	69600
9	5800	80	1250	15500	600	25100	15300	1720	71100
10	5800	188	2940	15600	561	23500	21500	4100	238000
11	5000	102	1380	14900	498	20000	26900	2330	182000
12	4310	68	791	14000	282	10760	28500	3000	231000
13	4430	147	1760	6120	204	3370	26400	2220	158000
14	4450	226	2720	8720	236	5560	28400	2370	182000
15	4390	132	1560	9680	255	6660	25400	2590	178000
16	4650	120	1510	9450	244	6230	18500	2130	106000
17	5250	253	3590	8750	143	3380	21900	1410	83400
18	6690	681	12700	8140	158	3470	20900	1350	76200
19	8810	817	19400	8050	101	2200	19900	1000	53700
20	8840	547	13100	8030	111	2410	28400	888	68100
21	8190	507	11200	8000	92	1990	29400	1400	111000
22	7710	343	7140	7970	291	6260	28800	1010	78500
23	8980	339	8220	8110	75	1640	25200	595	40500
24	9560	241	6220	12500	238	8030	24400	501	33000
25	9450	201	5130	12400	178	5960	26900	800	58100
26	9840	191	5070	8420	114	2590	55100	1620	154000
27	10500	137	3880	3950	86	917	39800	2210	237000
28	9790	283	7480	3950	100	1070	37500	2120	215000
29	9120	233	5740	--	--	--	34600	1430	134000
30	8700	153	3590	--	--	--	37100	1170	117000
31	8420	121	2750	--	--	--	37100	1530	153000
TOTAL	216370	--	183731	323840	--	815637	720440	--	3386652

06887500 KANSAS RIVER AT WAMEGO, KS--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	30100	1740	141000	12100	1410	46100	6840	250	4620
2	29800	1970	159000	13600	1800	66100	8110	260	5690
3	30100	1910	155000	11000	1120	33300	8220	201	4460
4	30000	1960	159000	10400	993	27900	8530	250	5760
5	37900	1900	194000	8670	725	17000	8780	261	6190
6	43500	1820	214000	12600	1790	60900	9590	660	17100
7	42200	3170	361000	19400	2730	143000	9480	553	14200
8	40200	2720	295000	18000	2210	107000	9960	609	16400
9	34500	1020	95000	24400	2040	134000	9230	501	12500
10	35600	1330	128000	26700	1310	94400	8470	342	7820
11	38100	635	65300	24500	1130	74700	7940	263	5640
12	37700	738	75100	26500	1310	93700	7210	200	3890
13	37500	721	73000	25000	921	62200	6090	223	3670
14	37100	711	71200	22600	663	40500	9370	718	18200
15	36500	678	66800	26900	579	42100	13400	620	22400
16	32000	885	76500	26400	463	33000	13500	298	10900
17	27100	1070	78300	25800	371	25800	13000	244	8560
18	26000	843	59200	24500	375	24800	12200	203	6690
19	24500	1240	82000	17900	301	14500	8360	163	3680
20	23800	1000	64300	10100	265	7230	6140	144	2390
21	23400	907	57300	9560	310	8000	6120	174	2880
22	23400	783	49500	8190	292	6460	6240	154	2590
23	16100	633	27500	8950	518	12500	6140	238	3950
24	13000	641	22500	8110	340	7440	6090	145	2380
25	11300	558	17000	8220	284	6300	6000	221	3580
26	10200	468	12900	7520	306	6210	5950	153	2460
27	9650	381	9930	7210	300	5840	5900	164	2610
28	9340	1110	28000	7680	353	7320	4650	131	1640
29	9560	611	15800	7080	400	7650	3410	150	1380
30	10200	437	12000	6930	275	5150	2910	151	1190
31	--	--	--	6810	223	4100	--	--	--
TOTAL	810350	--	2865130	473330	--	1225200	237830	--	205420

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2840	140	1070	6980	384	7240	4290	231	2680
2	2780	121	908	6810	359	6600	4410	183	2180
3	2440	96	632	7500	383	7760	4450	132	1590
4	2210	69	412	8280	273	6100	4410	122	1450
5	2190	79	467	8140	244	5360	4290	142	1640
6	2170	76	445	8080	283	6170	4600	178	2210
7	2390	96	619	7970	223	4800	5280	176	2510
8	2660	97	697	6500	235	5390	5570	180	2710
9	2510	102	691	10600	555	15900	5610	183	2770
10	2460	101	671	12800	931	32200	5930	215	3440
11	2440	97	639	9540	563	14500	6310	391	6660
12	2370	98	627	5880	333	5290	6650	350	6280
13	2320	104	651	7190	260	5050	6910	350	6530
14	2570	91	631	8330	217	4880	8470	316	7230
15	2510	104	705	8440	201	4580	8780	216	5120
16	2460	196	1300	8440	253	5770	9060	247	6040
17	2660	144	1030	9140	359	8860	9170	228	5650
18	2530	147	1000	8300	407	9120	8950	235	5680
19	2870	129	1000	7810	360	7590	8980	227	5500
20	10300	3600	120000	7370	319	6350	9090	213	5230
21	23900	5320	343000	8220	300	6660	8840	279	6660
22	18800	2210	112000	8360	300	6770	6190	223	3730
23	14800	1800	71900	8330	279	6270	6770	367	6710
24	14000	1590	60100	8110	241	5280	6690	647	11700
25	14200	1390	53300	7650	209	4320	6840	466	8610
26	14600	1300	51200	7320	183	3620	13600	1600	58800
27	13500	1030	37500	7320	143	2830	30500	564	46400
28	14100	1000	38100	5450	160	2350	33200	361	32400
29	13200	1070	38100	4600	154	1910	30700	282	23400
30	10900	1100	32400	4390	127	1510	29300	383	30300
31	8700	663	15600	4350	130	1530	--	--	--
TOTAL	218380	--	987395	240200	--	212560	303840	--	311810

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 3850533
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 10339137

06889200 SOLDIER CREEK NEAR DELIA, KS

KSDH Station No. 21.9

LOCATION.--Lat 39°12'08", long 95°52'25", in SE¼SW¼SE¼ sec.5, T.10 S., R.14 E., Shawnee County, at gaging station on highway bridge, 5.1 mi (8.2 km) upstream from Walnut Creek, and 5.5 mi (8.8 km) southeast of Delia, and at mile 21.9 (35.2 km).

DRAINAGE AREA.--157 mi² (407 km²).

PERIOD OF RECORD.--Chemical analyses: November 1965 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks. Sediment data for this station on page 131.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	17	14.5	9.0	88	23	23	3.0	307	0	81	22	.3
NOV.												
22...	115	3.0	15	93	23	19	2.8	332	0	72	15	.1
DEC.												
21...	272	.0	11	56	12	10	3.2	183	0	41	10	.4
FEB.												
06...	189	4.0	14	110	22	18	2.8	373	0	68	16	.3
21...	112	3.5	12	110	21	20	1.8	381	0	76	16	.6
MAR.												
12...	428	9.0	11	66	10	10	3.0	217	0	39	7.0	.4
APR.												
25...	113	16.5	12	110	23	20	2.0	371	0	70	15	.3
MAY												
25...	70	17.5	11	86	21	20	2.2	305	0	70	16	.2
JUNE												
19...	33	25.0	14	98	24	20	2.8	344	0	70	18	.3
JULY												
27...	55	27.0	14	72	16	15	2.8	259	0	47	9.0	.3
AUG.												
13...	100	22.5	11	51	10	7.0	3.0	176	0	24	8.0	.4
SEP.												
10...	53	24.0	12	78	19	16	3.2	270	0	58	15	.8

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
02...	.34	.04	140	426	19.6	.58	25	310	62	.6	710	8.0
NOV.												
22...	1.2	.05	110	422	131	.57	65	330	54	.5	670	8.0
DEC.												
21...	.68	.11	80	246	181	.33	200	190	39	.3	380	7.1
FEB.												
06...	1.9	.09	140	461	235	.63	250	370	64	.4	720	7.9
21...	2.1	.06	--	464	140	.63	130	370	59	.5	730	7.8
MAR.												
12...	1.5	.08	--	277	320	.38	1300	210	28	.3	430	7.3
APR.												
25...	1.6	.16	90	440	134	.60	150	360	58	.5	720	7.8
MAY												
25...	2.1	.03	140	390	73.7	.55	100	300	51	.5	630	7.9
JUNE												
19...	1.2	.06	120	432	38.5	.59	35	340	61	.5	710	8.0
JULY												
27...	1.4	.07	120	318	47.2	.43	190	250	34	.4	510	7.3
AUG.												
13...	.88	.08	140	218	58.9	.30	1000	170	24	.2	340	7.2
SEP.												
10...	.72	.09	140	352	50.4	.48	130	270	52	.4	560	7.7

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
02...	60	0
APR.		
25...	20	0

06890900 DELAWARE RIVER BELOW PERRY DAM, KS

KSDH Station No. 5.8

LOCATION.--Lat 39°06'51", long 95°25'33", in NE¼NW¼NW¼ sec.9, T.11 S., R.18 E., Jefferson County, at gaging station, at outlet structure of Perry Dam, 4.5 mi (7.2 km) northwest of Perry.

DRAINAGE AREA.--1,117 mi^2 (2,893 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
17...	24	17.0	2.4	46	11	11	4.4	170	0	29	9.0	.4
NOV.												
22...	1470	7.0	1.6	48	8.8	12	4.6	170	0	28	9.0	.3
JAN.												
16...	2790	2.0	6.1	51	9.0	10	4.6	180	0	28	9.0	.4
MAR.												
06...	2000	3.0	8.4	45	8.6	9.0	4.0	160	0	25	8.0	.4
APR.												
18...	4880	10.0	11	46	8.0	8.0	3.4	150	0	26	7.0	.4
MAY												
29...	105	18.0	10	46	9.0	8.0	3.6	160	0	24	7.0	.4
JULY												
30...	939	21.0	7.3	48	9.0	8.0	3.2	170	0	21	6.0	.3
AUG.												
16...	4780	26.0	5.3	46	8.0	8.5	3.2	160	0	29	5.0	.3
SEP.												
19...	26	20.0	6.8	43	8.6	8.0	3.5	160	0	21	6.0	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
17...	.41	.03	60	220	14.3	.30	15	160	20	.4	350	7.7
NOV.												
22...	.27	.03	60	206	818	.28	1	160	14	.4	340	8.1
JAN.												
16...	.36	.07	90	224	1690	.30	15	160	18	.3	370	7.5
MAR.												
06...	.99	.11	60	204	1100	.28	8	150	18	.3	320	7.6
APR.												
18...	.90	.09	110	204	2690	.28	35	150	22	.3	310	7.4
MAY												
29...	.75	.07	90	207	58.7	.28	150	150	22	.3	340	7.5
JULY												
30...	.36	.04	60	205	520	.28	15	160	17	.3	340	7.3
AUG.												
16...	.54	.03	90	195	2520	.27	8	150	14	.3	320	7.3
SEP.												
19...	.34	.02	90	192	13.5	.26	3	140	15	.3	310	7.4

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
17...	20	0
APR.		
18...	150	0

06891000 KANSAS RIVER AT LECOMPTON, KS

KSDH Station No. 63.8

LOCATION.--Lat 39°03'07", long 95°23'15", in SE¼SW¼NW¼ sec.35, T.11 S., R.18 E., Jefferson County, at gaging station at highway bridge at Lecompton, 0.8 mi (1.3 km) downstream from Delaware River, and at mile 63.8 (102.7 km).

DRAINAGE AREA.--58,460 mi² (151,400 km²), approximately, of which a large area is noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1958, October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
NOV.												
22...	7470	5.5	11	62	12	35	7.8	190	0	69	41	.4
DEC.												
20...	7720	.5	12	69	14	39	6.6	200	0	79	49	.4
JAN.												
26...	13400	4.0	12	70	14	29	6.2	220	0	70	30	.4
FEB.												
23...	9610	6.0	13	77	17	39	6.6	230	0	91	47	.4
MAR.												
27...	44200	9.0	13	58	11	21	5.4	170	0	60	26	.4
APR.												
27...	18500	13.5	12	88	20	110	7.6	220	0	140	150	.4
MAY												
25...	9780	21.0	14	99	18	90	7.2	240	0	130	130	.4
JUNE												
22...	6670	25.0	10	96	21	81	7.4	260	0	120	120	.3
JULY												
30...	14900	27.0	11	56	9.8	30	7.0	170	0	60	35	.4
AUG.												
24...	9240	27.0	12	77	16	86	7.8	200	0	120	12	.4
SEP.												
19...	9120	19.0	13	70	15	51	7.5	210	0	86	60	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
NOV.												
22...	.99	.20	90	352	7100	.48	200	200	46	1.1	550	7.4
DEC.												
20...	1.1	.20	110	390	8130	.53	130	230	64	1.1	610	7.6
JAN.												
26...	.75	.20	110	364	13200	.50	200	230	52	.8	580	7.5
FEB.												
23...	1.4	.15	110	408	10600	.55	75	260	74	1.0	660	7.4
MAR.												
27...	1.2	.11	90	300	35800	.41	380	190	52	.7	460	7.4
APR.												
27...	.75	.28	140	664	33200	.90	200	300	120	2.8	1080	7.7
MAY												
25...	.32	.11	170	636	16800	.86	260	320	120	2.2	1030	7.7
JUNE												
22...	.90	.19	150	608	10900	.83	130	330	110	2.0	1020	7.8
JULY												
30...	.45	.14	150	304	12200	.41	800	180	44	1.0	500	7.3
AUG.												
24...	.72	.14	180	552	13800	.75	200	260	96	2.3	910	7.7
SEP.												
19...	1.0	.15	140	430	10600	.58	150	240	66	1.4	710	7.8

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
APR.		
27...	30	0

06891490 YANKEE TANK CREEK NEAR LAWRENCE, KS

KSDH Station No. 3.2

LOCATION.--Lat 38°56'07", long 95°18'58", in NW¼NW¼SW¼ sec.9, T.13 S., R.19 E., Douglas County, at gaging station at county highway bridge, 3.0 mi (4.8 km) west of Lawrence, and at mile 3.2 (5.1 km).

DRAINAGE AREA.--3.90 mi^2 (10.1 km^2).

PERIOD OF RECORD.--Chemical analyses: February 1971 to July 1973 (discontinued).
Water temperatures: January 1971 to June 1973.

EXTREMES.--1972-73:
Specific conductance: Maximum daily, 606 micromhos June 25; minimum daily, 180 micromhos Dec. 9.
Water temperatures: Maximum, 25.0°C June 15; minimum, 0.5°C on several days during winter period.

Period of record:
Specific conductance: Maximum daily, 867 micromhos Aug. 1971; minimum daily, 180 micromhos Dec. 9, 1972.
Water temperatures: Maximum 28.5°C July 8, 1971; minimum, freezing point on many days during winter period.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT. 02...	.15	15.0	9.0	67	10	11	2.2	190	0	55	13	.1
NOV. 17...	4.3	6.5	9.9	94	10	11	3.0	280	0	47	12	.2
DEC. 21...	3.5	.5	10	67	7.0	8.5	5.2	190	0	37	11	.5
JAN. 26...	6.5	5.5	9.7	86	10	10	2.4	250	0	45	11	.1
FEB. 22...	1.6	8.0	8.7	97	10	11	1.8	280	0	56	12	.1
MAR. 27...	8.8	7.0	9.3	75	10	9.3	2.6	220	0	43	140	.2
APR. 23...	2.4	13.0	5.3	67	10	9.0	2.2	200	0	42	10	.2
JUNE 12...	.35	24.0	13	98	7.7	12	2.2	280	0	51	14	.2
JULY 26...	1.7	20.5	9.6	85	8.7	10	2.8	270	0	42	8.0	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 02...	.34	.13	264	.11	.36	1	210	50	.3	460	8.2
NOV. 17...	.95	.09	328	3.81	.45	15	280	48	.3	550	7.7
DEC. 21...	.95	.18	254	2.40	.35	35	200	38	.3	400	7.9
JAN. 26...	1.4	.04	312	5.48	.42	15	260	48	.3	500	7.6
FEB. 22...	.75	.75	350	1.51	.48	7	280	53	.3	560	7.7
MAR. 27...	1.2	.03	510	12.1	.69	8	230	44	.3	880	7.5
APR. 23...	1.8	.03	256	1.66	.35	8	210	48	.3	410	8.1
JUNE 12...	.50	.04	346	.33	.47	6	280	44	.3	550	7.7
JULY 26...	.34	<.05	310	1.42	.42	15	250	28	.3	500	7.6

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT. 02...	270	0
APR. 23...	320	140

06891490 YANKEE TANK CREEK NEAR LAWRENCE, KS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	481	477	444	336	---	436	276	335	440	---	---	---
2	510	471	460	352	210	443	291	340	460	---	---	---
3	489	515	470	325	180	430	280	344	470	---	---	---
4	505	528	480	331	210	384	289	338	480	---	---	---
5	500	522	490	355	240	470	300	345	490	---	---	---
6	502	498	500	369	270	442	320	367	500	---	---	---
7	486	518	490	374	300	313	330	313	510	---	---	---
8	482	500	480	366	330	328	340	347	520	---	---	---
9	477	498	180	380	360	301	350	340	530	---	---	---
10	410	509	190	388	357	298	350	398	540	---	---	---
11	383	384	500	391	367	304	360	345	550	---	---	---
12	398	330	490	395	373	329	360	331	560	---	---	---
13	476	393	480	379	389	327	370	370	530	---	---	---
14	515	421	490	383	354	355	380	410	510	---	---	---
15	478	422	500	310	351	371	320	450	552	---	---	---
16	513	425	510	250	351	372	306	509	540	---	---	---
17	484	430	350	301	349	373	318	490	545	---	---	---
18	376	426	365	345	363	382	381	480	550	---	---	---
19	360	424	380	348	384	338	387	470	555	---	---	---
20	434	419	397	383	391	311	405	460	550	---	---	---
21	458	431	424	293	386	374	402	428	551	---	---	---
22	480	430	430	297	400	374	373	440	565	---	---	---
23	520	437	430	306	400	387	380	420	580	---	---	---
24	550	430	440	317	408	309	369	400	595	---	---	---
25	530	427	440	313	399	320	382	385	606	---	---	---
26	517	426	450	402	392	365	358	342	600	---	---	---
27	507	431	450	375	388	372	355	342	591	---	---	---
28	547	411	450	339	401	425	367	380	590	---	---	---
29	536	414	350	350	---	391	403	400	595	---	---	---
30	437	431	314	363	---	368	392	420	600	---	---	---
31	421	---	341	345	---	258	---	430	---	---	---	---
AVERAGE	476	446	425	347	345	363	350	393	542	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	9.5	6.0	1.0	5.5	8.0	9.5	11.5	20.0	---	---	---
2	16.5	8.0	6.0	1.5	3.0	9.0	10.0	11.0	20.5	---	---	---
3	15.0	9.5	2.5	2.0	3.5	9.0	7.5	12.5	21.0	---	---	---
4	15.0	10.0	0.5	0.5	5.0	8.5	8.5	13.5	21.5	---	---	---
5	15.0	9.5	0.5	0.5	4.0	8.5	9.5	13.5	21.5	---	---	---
6	14.5	8.0	0.5	0.5	4.5	9.0	10.0	14.5	21.0	---	---	---
7	13.0	9.0	0.5	0.5	2.0	9.0	8.5	16.0	20.5	---	---	---
8	12.5	9.0	0.5	0.5	0.5	8.0	7.0	16.0	22.0	---	---	---
9	14.0	8.5	0.5	0.5	1.0	8.0	5.5	15.5	22.5	---	---	---
10	16.0	8.5	0.5	0.5	2.0	8.5	7.0	14.0	23.0	---	---	---
11	19.0	8.5	0.5	0.5	3.0	9.0	8.5	13.5	22.5	---	---	---
12	15.0	6.5	1.0	0.5	3.5	9.5	9.5	14.0	22.0	---	---	---
13	14.0	6.0	1.5	0.5	5.0	10.5	10.5	14.5	21.5	---	---	---
14	14.5	5.5	1.0	0.5	1.5	10.5	11.0	14.5	22.0	---	---	---
15	11.5	6.0	1.5	0.5	0.5	8.5	12.0	15.0	25.0	---	---	---
16	12.5	6.0	1.5	1.5	0.5	7.5	13.0	14.5	21.0	---	---	---
17	11.5	6.5	1.5	6.5	0.5	7.0	13.5	15.0	21.0	---	---	---
18	8.0	5.5	2.0	7.0	2.0	8.0	14.5	16.5	21.0	---	---	---
19	6.0	5.0	2.0	5.0	3.5	7.0	14.0	16.5	20.0	---	---	---
20	7.0	4.5	2.0	6.5	4.0	7.5	16.0	18.0	20.5	---	---	---
21	9.5	5.5	2.5	4.0	4.0	9.0	16.5	17.5	19.0	---	---	---
22	11.5	5.0	2.0	3.0	6.5	7.5	15.0	17.0	20.0	---	---	---
23	13.5	5.0	1.5	2.5	7.0	9.0	15.0	16.5	21.0	---	---	---
24	15.0	5.0	2.0	3.5	6.5	8.5	13.5	16.5	21.5	---	---	---
25	11.0	5.5	3.0	4.5	5.5	8.0	14.5	16.0	22.0	---	---	---
26	10.5	5.0	2.5	6.0	5.0	10.0	12.0	16.5	22.5	---	---	---
27	9.5	5.0	3.0	4.5	5.0	10.0	12.0	16.5	22.5	---	---	---
28	11.5	3.5	3.5	1.0	7.0	10.5	12.5	16.5	23.0	---	---	---
29	12.5	3.5	7.5	0.5	---	10.0	13.5	18.0	23.5	---	---	---
30	11.0	5.0	4.5	2.0	---	9.5	13.0	17.5	23.5	---	---	---
31	9.5	---	2.0	4.0	---	11.0	---	18.0	---	---	---	---
AVERAGE	12.5	6.5	2.0	2.5	3.5	9.0	11.5	15.5	21.5	---	---	---

06892500 KANSAS RIVER AT BONNER SPRINGS, KS

KSDH Station No. 20.8

LOCATION.--Lat 39°03'37", long 94°52'21", in SE¼SE¼SE¼ sec.29, T.11 S., R.23 E., Wyandotte County, at gaging station at bridge on State Highway 7, 0.6 mi (1.0 km) east of Bonner Springs, 0.9 mi (1.4 km) downstream from Wolf Creek, and at mile 20.8 (33.5 km).

DRAINAGE AREA.--59,928 mi² (155,214 km²), of which a large area is noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973 (discontinued).
Water temperatures: October 1961 to September 1963.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
06...	1720	18.0	9.0	69	15	74	7.8	200	0	96	94	.4
NOV.												
03...	3240	9.5	12	66	15	53	6.4	200	0	72	71	.4
DEC.												
15...	2930	.0	12	77	16	39	7.2	240	0	80	43	.4
JAN.												
18...	28500	4.0	9.0	56	12	21	4.6	180	0	47	26	.4
FEB.												
23...	9750	5.5	13	75	18	35	6.2	230	0	82	42	.4
MAR.												
06...	32400	7.0	11	53	10	15	3.8	160	0	56	16	.4
APR.												
06...	42700	11.5	11	51	7.0	19	5.8	140	0	50	25	.3
MAY												
04...	21400	14.5	11	74	16	66	6.0	190	0	98	96	.4
JUNE												
01...	8680	21.0	13	98	18	82	6.2	250	0	120	120	.4
JULY												
09...	3320	29.5	8.4	80	21	130	7.4	210	0	130	190	.3
AUG.												
03...	9500	24.5	11	64	11	32	6.8	200	0	68	35	.4
SEP.												
14...	7550	19.5	11	75	15	70	8.8	210	0	100	92	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
06...	.50	.26	140	482	2240	.66	25	230	68	2.1	800	7.3
NOV.												
03...	.86	.39	140	420	3670	.57	190	230	64	1.5	680	7.3
DEC.												
15...	1.6	.20	140	414	3280	.56	3	260	64	1.1	640	7.5
JAN.												
18...	.79	.21	90	274	21100	.37	1000	190	43	.7	460	7.4
FEB.												
23...	1.6	.20	140	400	10500	.54	130	260	73	.9	620	8.0
MAR.												
06...	1.6	.10	120	250	21900	.34	2100	170	45	.5	370	7.4
APR.												
06...	1.2	.25	--	250	28800	.34	1000	160	40	.7	400	7.6
MAY												
04...	.75	.11	150	482	27900	.66	400	250	96	1.8	790	7.4
JUNE												
01...	.09	.20	150	606	14200	.82	200	320	110	2.0	990	7.7
JULY												
09...	.02	.12	150	690	6190	.94	25	290	110	3.3	1130	7.3
AUG.												
03...	.47	.22	110	340	8720	.46	200	200	44	1.0	540	7.6
SEP.												
14...	.81	.23	110	500	10200	.68	220	250	76	1.9	800	7.6

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
06...	80	0
APR.		
06...	700	0

06911000 MARAIS DES CYGNES RIVER AT MELVERN, KS

KSDH Station No. 445.7

LOCATION.—Lat 38°30'54", long 95°41'29", in NW¼SW¼NW¼ sec.6, T.18 S., R.16 E., Osage County, at gaging station at bridge on U.S. Highway 75, 3.0 mi (4.8 km) west of Melvern, 6.5 mi (10.5 km) upstream from Long Creek, and at mile 445.7 (717.1 km).

DRAINAGE AREA.--351 mi² (909 km²).

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
26...	3.6	9.0	4.2	73	18	15	3.4	260	0	57	12	.3
NOV.												
28...	15	2.0	9.7	59	13	14	6.2	200	0	54	10	.4
JAN.												
02...	18	2.0	8.0	35	7.9	8.0	4.0	110	0	37	8.0	.5
29...	720	4.0	9.1	48	11	11	3.4	150	0	51	9.0	.4
FEB.												
08...	3610	3.0	11	37	7.7	5.5	3.6	110	0	30	7.0	.3
APR.												
03...	3.2	10.0	12	80	11	8.0	2.0	260	0	37	9.0	.2
MAY												
07...	1090	16.5	11	45	10	6.5	3.4	150	0	33	6.0	.4
JUNE												
12...	95	20.0	8.4	58	1.8	8.5	2.4	160	0	32	5.0	.5
JULY												
24...	.46	23.0	10	58	7.7	8.5	3.0	200	0	22	6.0	.4
AUG.												
14...	13	20.0	10	56	11	10	2.8	210	0	16	8.0	.3
SEP.												
11...	12	24.5	7.7	59	10	10	3.5	220	0	16	8.0	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
26...	.38	.06	90	330	3.21	.45	8	260	46	.4	520	7.5
NOV.												
28...	.36	.08	90	285	11.5	.39	8	200	38	.4	440	7.1
JAN.												
02...	.81	.22	60	181	8.80	.25	1100	120	28	.3	270	7.0
29...	.54	.13	90	228	443	.31	85	160	41	.4	370	7.1
FEB.												
08...	.86	.11	60	189	1840	.26	220	120	32	.2	260	7.2
APR.												
03...	.61	.06	--	300	2.59	.41	65	240	32	.2	470	7.5
MAY												
07...	.32	.04	90	205	603	.28	30	150	32	.2	320	7.2
JUNE												
12...	.05	.04	80	207	53.1	.28	7	150	20	.3	330	7.1
JULY												
24...	.27	.15	120	233	.29	.32	8	180	10	.3	370	7.0
AUG.												
14...	1.7	.17	80	236	8.28	.32	8	180	12	.3	380	6.9
SEP.												
11...	1.4	.05	110	243	7.87	.33	15	190	12	.3	410	7.3

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
26...	30	0
APR.		
03...	140	360

06913500 MARAIS DES CYGNES RIVER NEAR OTTAWA, KS

KSDH Station No. 398.9

LOCATION.--Lat 38°37'00", long 95°15'25", in SW¼SW¼NE¼ sec.36, T.16 S., R.19 E., Franklin County, at East Seventh Street Bridge, 0.9 mi (1.4 km) downstream from gaging station, 0.5 mi (0.8 km) east of Ottawa city limits, and 0.8 mi (1.3 km) downstream from Skunk Creek.

DRAINAGE AREA.--1,250 mi² (3,240 km²), approximately, upstream from gaging station.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Specific conductance: October 1961 to December 1968.
Water temperatures: October 1961 to December 1968.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
NOV.												
02...	122	10.0	9.2	64	13	22	5.0	220	0	43	27	.4
27...	284	3.5	10	81	14	16	4.0	240	4	60	16	.3
JAN.												
08...	575	.0	9.6	65	11	13	4.4	200	0	59	11	.3
31...	3210	2.5	6.4	59	10	14	3.6	180	0	58	11	.4
MAR.												
08...	3280	5.0	13	43	6.9	7.0	3.6	130	0	26	6.0	.5
APR.												
10...	4420	9.0	10	48	9.0	6.5	3.0	150	0	35	7.0	.4
MAY												
10...	4440	19.0	10	53	5.9	9.0	2.8	160	0	38	7.0	.4
JUNE												
18...	207	27.0	11	66	7.7	13	2.6	200	0	39	13	.4
JULY												
20...	1570	26.0	12	40	5.8	11	3.5	130	0	26	14	.4
AUG.												
17...	47	28.0	9.5	53	9.7	15	3.2	180	0	34	14	.3
SEP.												
18...	175	20.5	10	54	7.2	14	4.2	180	0	23	16	.5

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
NOV.												
02...	.54	.28	170	300	98.8	.41	25	210	35	.7	490	7.8
27...	.99	.18	90	318	244	.43	8	260	54	.4	510	8.4
JAN.												
08...	.84	.16	90	284	441	.39	130	210	47	.4	450	7.3
31...	.54	.10	210	273	2370	.37	170	19	42	.4	430	7.6
MAR.												
08...	1.7	.12	60	184	1630	.25	220	140	28	.3	280	7.2
APR.												
10...	.41	.08	110	202	2410	.27	130	160	35	.2	330	7.1
MAY												
10...	.41	.09	80	219	2630	.30	90	160	28	.3	340	7.4
JUNE												
18...	1.1	.20	90	265	148	.36	75	200	32	.4	420	7.3
JULY												
20...	1.1	.10	120	190	805	.26	380	120	20	.4	300	6.7
AUG.												
17...	1.3	.39	140	242	30.7	.33	8	170	26	.5	400	7.2
SEP.												
18...	.86	.22	120	232	110	.32	110	160	20	.5	400	7.3

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV.		
02...	270	0
APR.		
10...	170	0

06916600 MARAIS DES CYGNES RIVER NEAR KANSAS-MISSOURI STATE LINE, KS

KSDH Station No. 313.5

LOCATION.--Lat 38°13'21", long 94°40'04", in NE¼SE¼NW¼ sec.16, T.21 S., R.25 E., Linn County, at gaging station, 1.7 mi (2.7 km) downstream from Big Sugar Creek, 6.8 mi (10.9 km) upstream from Kansas-Missouri State line, and at mile 313.5 (504.4 km).

DRAINAGE AREA.--3,230 mi² (8,370 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: July 1969 to May 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)
JAN. 19...	8280	38	5.5	9.0	3.1	30	8.4	.4	1.7
MAR. 07...	15900	35	4.9	6.3	5.4	23	4.6	.2	1.4
MAY 08...	11800	43	6.1	8.0	3.6	23	27	.3	.96

DATE	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	TURBIDITY (JTU)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
JAN. 19...	.78	198	.27	120	280	2.1	.4	289	7.5
MAR. 07...	--	179	.24	110	220	2.3	.3	242	7.2
MAY 08...	--	200	.27	130	120	2.6	.3	289	7.5

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)
JAN. 19...	.00	.00	.00	.00	.00	.00	.00
MAR. 07...	.00	.00	.01	.01	.01	.00	.00
MAY 08...	.00	.00	.00	.00	.02	.00	.00

DATE	HEPTACHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLORDANE (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)	PCB (UG/L)
JAN. 19...	.00	.00	.0	.02	.00	.02	.0
MAR. 07...	.00	.00	.0	.07	.00	.04	.0
MAY 08...	.00	.00	.0	.24	.00	.04	.0

DATE	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
JAN. 19...	3.5	11.1	1200	--	110
MAR. 07...	8.5	9.1	680	120	80
MAY 08...	17.0	8.3	3800	680	370

ARKANSAS RIVER BASIN

07137500 ARKANSAS RIVER NEAR COOLIDGE, KANS.

LOCATION.--Lat 38°01'34", long 102°00'41", in NW¼NE¼NW¼ sec.26, T.23 S., R.43 W., Hamilton County, at gaging station at bridge, 1.0 mi (1.6 km) south of Coolidge and 1.9 mi (3.1 km) downstream from Colorado-Kansas State line.

DRAINAGE AREA.--25,410 mi² (65,812 km²), of which 1,708 mi² (4,424 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1963 to September 1968, October 1969 to September 1973.
Water temperatures: October 1964 to September 1968.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-CHARGE (CFS)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT.								
11...	48	380	180	281	0	230	2300	80
NOV.								
02...	43	380	170	314	0	258	2300	160
DEC.								
06...	23	440	170	297	0	244	2500	150
JAN.								
04...	87	430	200	329	0	270	2600	180
FEB.								
01...	130	350	170	307	0	252	2200	150
MAR.								
07...	100	370	180	303	0	249	2400	160
APR.								
10...	198	350	170	294	0	241	2200	140
MAY								
10...	189	390	180	311	0	255	2400	160
JUNE								
13...	389	250	110	246	0	202	1400	82
JULY								
11...	101	330	150	283	0	232	2000	130
AUG.								
08...	170	310	130	262	0	215	1900	110
SEP.								
19...	22	400	180	299	0	245	2300	170

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
OCT.							
11...	2.8	469	1700	1500	4390	7.7	13.0
NOV.							
02...	2.6	439	1600	1400	4500	8.2	1.0
DEC.							
06...	2.3	252	1800	1600	5430	7.5	.0
JAN.							
04...	3.1	991	1900	1600	4610	8.0	.0
FEB.							
01...	2.8	1270	1600	1300	4220	7.9	.0
MAR.							
07...	2.7	1050	1700	1400	4370	8.1	12.0
APR.							
10...	2.5	1880	1600	1300	3790	8.1	14.0
MAY							
10...	2.0	1980	1700	1500	4260	7.8	13.0
JUNE							
13...	.98	2390	1100	880	2750	8.2	21.0
JULY							
11...	2.8	--	1400	1200	3690	7.8	19.0
AUG.							
08...	2.6	1400	1300	1100	3290	7.9	21.0
SEP.							
19...	2.3	232	1700	1500	4440	7.9	17.0

07138000 ARKANSAS RIVER AT SYRACUSE, KS

KSDH Station No. 1080.9

LOCATION.--Lat 37°57'58", long 101°45'23", in NW¼SE¼NW¼ sec.18, T.24 S., R.40 W., Hamilton County, at gaging station at bridge on U.S. Highway 270, 0.5 mi (0.8 km) south of Syracuse, and at mile 1,080.9 (1,739.2 km).

DRAINAGE AREA.--25,763 mi² (66,726 km²), of which 1,857 mi² (4,810 km²) is probably noncontributing.

PERIOD OF RECORD.--Sediment records: September 1966 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT.					
02...	1400	19.5	91	510	125
16...	1520	--	70	92	17
NOV.					
03...	1150	8.0	108	400	117
17...	1130	3.0	97	497	130
DEC.					
08...	1230	.0	50	162	22
18...	1510	.0	56	215	32
JAN.					
18...	1120	4.0	167	2570	1160
FEB.					
09...	1700	3.0	105	803	228
20...	1140	3.5	108	237	69
MAR.					
16...	1130	8.0	106	121	35
APR.					
11...	1600	5.5	182	305	150
27...	1215	12.0	191	704	363
MAY					
16...	1350	20.0	136	308	113
30...	1200	15.0	549	1160	1720
JUNE					
12...	1215	23.0	678	1240	2270
25...	1340	16.5	278	959	720
AUG.					
08...	1410	17.5	220	1570	932
24...	1315	21.0	27	92	6.7
SEP.					
10...	1320	17.0	48	1850	240
19...	1410	16.5	70	43	8.1

07139500 ARKANSAS RIVER AT DODGE CITY, KS

KSDH Station No. 970.2

LOCATION.--Lat 37°44'51", long 100°01'08", in NE¼NE¼ sec.35, T.26 S., R.25 W., Ford County, at gaging station at Second Street Bridge in Dodge City, and at mile 970.2 (1,561.1 km).

DRAINAGE AREA.--30,600 mi² (79,254 km²), of which 5,583 mi² (14,460 km²) is probably noncontributing.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (MCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
03...	107	19.0	16	180	61	180	8.0	270	0	740	67	.9
NOV.												
08...	54	10.5	18	150	45	140	6.8	280	0	530	52	.8
DEC.												
13...	54	.0	16	190	67	200	7.4	280	0	820	71	.9
JAN.												
22...	126	3.0	17	280	120	370	8.8	260	0	1600	120	1.1
FEB.												
15...	139	4.0	18	290	130	400	9.0	280	0	1700	120	.3
MAR.												
14...	173	14.0	15	210	88	260	8.0	270	0	1100	86	1.0
24...	896	8.0	--	--	--	--	--	--	--	--	--	--
25...	354	7.0	--	--	--	--	--	--	--	--	--	--
APR.												
10...	356	11.0	16	270	130	360	11	280	0	1500	110	1.1
MAY												
29...	141	19.0	18	180	65	180	6.8	280	0	760	66	.9
JUNE												
14...	928	--	--	--	--	--	--	--	--	--	--	--
21...	88	24.0	12	160	54	160	7.2	280	0	620	58	.8
JULY												
10...	53	17.0	16	160	52	160	7.2	280	0	610	59	.9
AUG.												
09...	40	22.0	14	140	51	140	7.8	250	0	570	53	.9
SEP.												
05...	26	11.0	18	150	46	140	6.8	300	0	540	51	.9

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
03...	90	0
APR.		
10...	50	0

07139500 ARKANSAS RIVER AT DODGE CITY, KS.--Continued

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Sediment records: October 1966 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	SUS-PENDED SEDI-MENT (MG/L)	SUB-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT.												
03...	1.8	.39	320	1400	110	700	470	3.0	1910	7.4	146	42
NOV.												
06...	3.2	.46	320	1100	15	560	330	2.6	1520	8.0	147	21
DEC.												
13...	3.2	.46	320	1520	8	740	510	3.2	2030	7.7	48	7.0
JAN.												
22...	2.7	.25	620	2610	130	1200	970	4.7	3250	7.7	277	94
FEB.												
13...	3.2	.27	570	2780	130	1200	1000	4.9	3400	7.8	164	62
MAR.												
14...	2.7	.29	380	1870	8	880	660	3.8	2420	7.8	79	37
28...	--	--	--	--	--	--	--	--	--	--	1580	3820
29...	--	--	--	--	--	--	--	--	--	--	1760	1680
APR.												
10...	2.1	.15	--	2560	7	1200	960	4.5	3150	7.9	80	77
MAY												
29...	2.7	.30	290	1430	7	720	490	2.9	1910	8.1	62	24
JUNE												
12...	--	--	--	--	--	--	--	--	--	--	8590	21500
21...	2.7	.05	260	1220	7	620	380	2.8	1740	7.6	49	12
JULY												
10...	2.3	.04	270	1200	8	600	370	2.8	1730	7.6	134	19
AUG.												
09...	1.7	.09	270	1110	7	550	350	2.6	1600	7.0	103	11
SEP.												
06...	3.4	--	230	1110	5	570	330	2.6	1600	7.9	112	7.9

DATE	TIME	TEMPER-ATURE (DEG C)	NUMBER OF SAM-PLING POINTS	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
OCT.							
03...	1420	19.0	19	107	--	0	4
APR.							
10...	1725	11.0	11	556	--	0	7

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
OCT.						
03...	39	72	84	94	98	100
APR.						
10...	41	57	70	87	96	100

07140000 ARKANSAS RIVER NEAR KINSLEY, KS

KSDH Station No. 920.3

LOCATION.--Lat 37°55'33", long 99°22'31", in SW¼SE¼ sec.26, T.24 S., R.19 W., Edwards County, at gaging station at bridge on U.S. Highway 50, 2.0 mi (3.2 km) east of Kinsley, and at mile 920.3 (1,480.8 km).

DRAINAGE AREA.--31,066 mi² (80,461 km²), of which 5,660 mi² (14,660 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1965, October 1967 to September 1968.
Water temperatures: October 1960 to September 1967, October 1968 to September 1969.
Sediment records: October 1960 to September 1973.

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	113	286	87	92	27	6.7	106	75	21
2	110	219	65	88	15	3.6	107	75	22
3	104	207	58	83	20	4.5	107	75	22
4	103	204	57	82	12	2.7	107	75	22
5	101	176	48	80	14	3.0	105	75	21
6	101	148	40	79	18	3.8	35	75	7.1
7	100	122	33	78	20	4.2	25	75	5.1
8	99	115	31	78	17	3.6	25	75	5.1
9	98	96	25	90	12	2.9	25	75	5.1
10	96	90	23	90	13	3.2	25	75	5.1
11	93	72	18	90	9	2.2	35	75	7.1
12	90	89	22	89	38	9.1	50	75	10
13	90	118	29	92	25	6.2	70	78	15
14	90	71	17	92	19	4.7	80	70	15
15	89	64	15	92	13	3.2	80	60	13
16	87	50	12	91	12	2.9	80	50	11
17	85	44	10	90	19	4.6	90	35	8.5
18	84	65	15	92	16	4.0	90	35	8.5
19	83	29	6.5	94	52	13	100	33	8.9
20	84	46	10	94	59	15	100	38	10
21	85	15	3.4	94	25	6.3	108	59	17
22	84	36	8.2	96	32	8.3	115	56	17
23	83	21	4.7	96	56	15	129	55	19
24	82	21	4.6	99	50	13	142	108	41
25	82	10	2.2	101	50	14	147	136	54
26	81	16	3.5	102	50	14	153	176	73
27	80	14	3.0	103	50	14	150	132	53
28	80	11	2.4	103	50	14	142	65	25
29	80	9	1.9	103	50	14	140	63	24
30	83	30	6.7	106	50	14	141	90	34
31	86	15	3.5	--	--	--	139	115	43
TOTAL	2806	--	665.6	2759	--	229.7	2948	--	642.5

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	138	107	40	140	128	48	175	21	9.9
2	139	103	39	170	104	48	172	21	9.8
3	141	150	57	183	125	62	173	47	22
4	138	118	44	182	90	44	182	65	32
5	135	82	30	182	107	53	175	28	13
6	132	78	28	183	133	66	172	33	15
7	110	84	25	181	85	42	169	45	21
8	100	80	22	178	84	40	176	50	24
9	80	80	17	177	146	70	175	74	35
10	80	75	16	178	86	41	196	98	52
11	80	75	16	177	100	48	632	1850	4130
12	90	75	18	175	89	42	1360	2270	8340
13	100	70	19	174	114	54	720	835	1620
14	120	70	23	171	184	85	343	413	382
15	140	66	25	170	114	52	291	274	215
16	150	217	88	170	100	46	263	161	114
17	160	158	68	171	72	33	251	119	81
18	170	258	118	172	95	44	246	124	82
19	183	84	42	170	53	24	242	121	79
20	173	72	34	170	51	23	236	127	81
21	170	81	37	169	31	14	237	116	74
22	168	103	47	169	48	22	235	101	64
23	168	100	45	170	39	18	255	131	90
24	170	96	44	169	35	16	505	974	1710
25	170	115	53	169	81	37	1450	1380	5160
26	172	237	110	168	21	9.5	1230	700	2320
27	160	273	118	169	49	22	625	297	501
28	150	173	70	169	25	11	460	163	202
29	166	175	78	--	--	--	407	93	102
30	160	373	161	--	--	--	434	123	144
31	150	176	71	--	--	--	1730	603	2820
TOTAL	4363	--	1603	4826	--	1114.5	13917	--	28544.7

07140000 ARKANSAS RIVER NEAR KINSLEY, KS.--Continued

EXTREMES.--1972-73:
Sediment concentrations: Maximum daily, 11,400 mg/l Sept. 27; minimum daily, 9 mg/l Oct. 29.
Sediment discharge: Maximum daily, 152,000 tons (138,000 tonnes) Nov. 18; minimum daily, 1.9 tons (1.7 tonnes) Oct. 12.

Period of record:
Sediment concentrations: Maximum daily, 15,000 mg/l July 14, 1965; minimum daily, 2 mg/l Mar. 9, 1961.
Sediment discharge: Maximum daily, 750,000 tons (680,000 tonnes) June 21, 1965; minimum daily, 0.08 ton (0.07 tonnes) Oct. 12, 1971.

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	5950	697	11200	479	118	153	221	54	32
2	3530	639	6090	457	110	136	219	63	37
3	1390	242	908	435	102	120	214	76	44
4	912	155	382	413	170	190	218	90	53
5	763	160	330	401	120	130	213	61	35
6	680	194	356	389	130	137	211	65	37
7	624	84	142	378	131	134	202	69	38
8	608	74	121	367	127	126	191	84	43
9	592	130	208	360	107	104	184	104	52
10	576	214	333	351	119	113	176	76	36
11	569	324	498	341	194	179	172	64	30
12	565	88	134	331	156	139	168	96	44
13	549	265	393	321	97	84	164	37	16
14	540	222	324	312	203	171	160	70	30
15	532	246	353	302	104	85	154	72	30
16	543	128	188	295	118	94	144	121	47
17	536	121	175	289	115	90	138	50	19
18	512	261	361	281	133	101	136	44	16
19	509	290	399	274	102	75	134	60	22
20	654	403	712	267	93	67	134	33	12
21	611	422	696	261	119	84	132	83	30
22	524	170	241	256	132	91	129	113	39
23	491	153	203	248	110	74	127	16	5,5
24	491	196	260	241	192	125	124	26	8,7
25	633	489	836	237	113	72	121	37	12
26	715	302	583	239	123	79	121	40	13
27	693	234	438	239	92	59	119	44	14
28	663	258	462	241	61	40	120	73	24
29	564	177	270	237	70	45	124	83	28
30	509	143	197	234	61	39	123	85	28
31	--	--	--	229	93	58	--	--	--
TOTAL	27028	--	27793	9705	--	3194	4793	--	875,2

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	122	69	23	86	80	19	196	926	490
2	116	106	33	84	69	16	140	474	179
3	112	75	23	78	72	15	132	335	119
4	113	79	24	73	58	11	117	273	86
5	109	80	24	70	74	14	110	427	127
6	106	106	30	67	67	12	100	249	67
7	100	82	22	64	54	9,3	109	121	36
8	95	83	21	60	62	10	196	1210	640
9	93	85	21	57	32	4,9	173	1350	631
10	92	108	27	59	48	7,6	135	1080	394
11	90	69	17	61	90	15	120	887	287
12	86	58	13	57	70	11	124	341	114
13	83	74	17	58	70	11	130	358	126
14	95	71	18	59	65	10	126	321	109
15	100	108	29	58	65	10	116	206	65
16	106	85	24	54	65	9,5	112	102	31
17	102	80	22	52	65	9,1	110	65	19
18	96	86	22	48	65	8,4	109	72	21
19	92	89	22	44	64	7,6	109	114	34
20	88	68	16	42	54	6,1	109	61	18
21	86	54	13	39	55	5,8	107	61	18
22	86	62	14	37	36	3,6	103	61	17
23	102	89	25	35	49	4,6	101	72	20
24	122	789	260	35	58	5,5	109	99	29
25	146	721	284	33	51	4,5	154	792	423
26	131	625	221	30	26	2,1	1110	2130	6380
27	119	265	85	29	41	3,2	4930	11400	152000
28	117	233	74	27	43	3,1	2170	750	4390
29	105	115	33	30	79	6,4	639	203	350
30	98	81	21	88	823	402	400	116	125
31	91	72	18	376	2540	3220	--	--	--
TOTAL	3199	--	1496	1990	--	3877,3	12396	--	167345

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 90730
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 237380,5

07141200 PAWNEE RIVER NEAR LARNED, KS

KSDH Station No. 24.8

LOCATION.--Lat 38°12'00", long 99°20'50", in NW¼NW¼ sec. 30, T.21 S., R.18 W., Pawnee County, at bridge on U.S. Highway 156, 0.8 mi (1.3 km) south of gaging station, 14 mi (23 km) west of Larned, and at mile 24.8 (39.9 km).

DRAINAGE AREA.--2,148 mi² (5,563 km²) upstream from gaging station, of which 138 mi² (357 km²) is probably noncontributing.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
03...	.64	20.0	17	64	6.0	1.2	13	210	0	27	15	.5
DEC.												
13...	.66	.0	20	100	14	30	16	350	0	62	31	.5
JAN.												
24...	2.4	4.0	23	120	18	40	14	400	0	78	46	.7
FEB.												
14...	2.0	2.0	13	86	13	34	10	290	0	63	38	.6
MAR.												
13...	1000	10.0	--	--	--	--	--	--	--	--	--	--
14...	417	10.0	21	46	5.1	6.5	11	150	0	14	10	.3
25...	1400	7.0	21	46	3.2	4.0	11	130	0	17	9.0	.3
26...	3650	8.0	--	--	--	--	--	--	--	--	--	--
APR.												
02...	6100	7.0	16	28	4.4	2.0	8.6	100	0	5.8	3.0	.3
04...	1440	7.0	--	--	--	--	--	--	--	--	--	--
06...	249	--	--	--	--	--	--	--	--	--	--	--
27...	175	12.0	31	58	4.7	17	10	150	0	52	23	.4
MAY												
24...	15	21.5	15	100	16	36	11	310	0	110	48	.7
JUNE												
22...	13	15.0	19	120	21	42	13	360	0	110	58	.8
JULY												
10...	16	20.5	21	88	15	36	13	280	0	79	46	.6
AUG.												
07...	8.8	17.5	17	70	11	24	13	190	0	70	34	.6
SEP.												
06...	35	12.0	17	35	3.0	5.5	9.0	120	0	13	8.0	.4

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
03...	60	0
APR.		
27...	110	290

07141200 PAWNEE RIVER NEAR LARNED, KS.--Continued

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Sediment records: October 1960 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT.												
03...	.75	.36	90	288	150	180	14	.0	440	7.4	94	.16
DEC.												
13...	.29	.23	170	464	7	310	26	.7	730	7.7	--	--
JAN.												
22...	.14	.18	140	559	15	380	46	.9	850	7.7	--	--
FEB.												
14...	.11	.10	120	417	65	270	32	.9	660	7.8	--	--
MAR.												
13...	--	--	--	--	--	--	--	--	--	--	2300	6210
14...	2.1	.36	120	208	3200	140	14	.2	300	7.6	--	--
25...	2.1	.39	80	204	2600	130	20	.2	270	7.4	2160	8160
26...	--	--	--	--	--	--	--	--	--	--	2540	25000
APR.												
02...	.90	.39	90	140	2000	88	4	.1	200	7.2	2230	36700
04...	--	--	--	--	--	--	--	--	--	--	3200	12400
06...	--	--	--	--	--	--	--	--	--	--	2560	1720
27...	.81	.52	90	280	1400	160	40	.6	410	7.2	--	--
MAY												
24...	.09	.11	110	510	15	350	96	.9	800	7.3	--	--
JUNE												
22...	.29	.18	170	592	25	390	96	.9	970	7.8	--	--
JULY												
10...	.20	.21	180	463	35	280	51	.9	750	7.6	--	--
AUG.												
07...	.29	.18	150	356	85	220	62	.7	570	7.2	--	--
SEP.												
06...	.41	.24	80	165	800	100	0	.2	250	7.2	832	79

07141300 ARKANSAS RIVER AT GREAT BEND, KS

KSDH Station No. 873.2

LOCATION.--Lat 38°21'11", long 98°45'50", in SW¼NW¼SE¼ sec.33, T.19 S., R.13 W., Barton County, at gaging station at bridge on U.S. Highway 281, 0.5 mi (0.8 km) south of Great Bend, 4.5 mi (7.2 km) upstream from Walnut Creek.

DRAINAGE AREA.--34,356 mi^2 (88,982 km^2), of which 6,002 mi^2 (15,545 km^2) is probably noncontributing.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
04...	82	22.0	16	150	45	140	8.4	260	0	540	65	.9
NOV.												
17...	66	4.0	14	140	40	140	6.8	260	7	470	66	.9
DEC.												
12...	45	.5	19	200	71	220	8.4	310	0	830	94	1.1
JAN.												
16...	120	1.0	18	170	63	200	7.0	270	0	760	78	.3
16...	120	1.0	--	--	--	--	--	--	--	--	--	--
FEB.												
07...	157	2.0	17	220	85	280	7.8	270	0	1100	100	1.0
MAR.												
20...	543	6.0	16	130	46	140	9.2	230	0	560	59	.8
APR.												
18...	934	16.5	15	160	60	170	9.2	260	0	690	68	.8
MAY												
14...	506	15.5	--	--	--	--	--	--	--	--	--	--
14...	506	15.5	14	180	70	220	8.6	260	0	840	84	1.0
JUNE												
15...	199	24.0	13	140	48	140	7.2	250	0	520	66	.9
JULY												
18...	57	25.0	7.8	99	38	120	7.0	170	0	430	59	1.2
AUG.												
17...	62	22.5	12	99	39	120	7.5	190	0	400	68	.9
SEP.												
28...	7580	7.5	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
04...	70	0
APR.		
18...	270	0

07141300 ARKANSAS RIVER AT GREAT BEND, KS.--Continued

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Sediment records: July 1957 to September 1973.

REMARKS:--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT.												
04...	1.8	.49	260	1110	130	560	340	2.6	1570	7.6	114	25
NOV.												
17...	2.2	.42	240	1020	7	520	290	2.7	1470	8.4	30	5.3
DEC.												
12...	2.1	.39	330	1600	7	780	520	3.4	2110	8.3	11	1.5
JAN.												
16...	3.2	.36	350	1440	7	690	470	3.3	1950	7.5	--	--
16...	--	--	--	--	--	--	--	--	--	--	32	10
FEB.												
07...	2.9	.39	380	1960	85	900	680	4.1	2550	7.8	87	37
MAR.												
20...	1.5	.36	--	1080	200	520	340	2.7	1520	7.6	219	321
APR.												
18...	1.7	.55	--	1320	150	650	440	2.9	1800	8.0	167	421
MAY												
14...	--	--	--	--	--	--	--	--	--	--	79	108
14...	.81	.20	320	1540	50	730	510	3.5	2090	7.8	--	--
JUNE												
15...	.99	.14	200	1063	8	540	340	2.6	1500	7.3	74	40
JULY												
18...	.09	.11	210	849	7	400	260	2.6	1270	7.5	39	6.0
AUG.												
17...	.45	.16	270	844	6	410	250	2.6	1270	7.2	10	1.7
SEP.												
28...	--	--	--	--	--	--	--	--	--	--	5200	

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
SEP.												
28...	1800	7.5	7580	5200	28	30	32	34	34	58	77	100

DATE	TIME	TEMPER-ATURE (DEG C)	NUMBER OF SAM-PLING POINTS	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
JUNE							
15...	1020	24.0	11	199	--	--	0

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
JUNE						
15...	22	52	70	92	98	100

07141900 WALNUT CREEK AT ALBERT, KS

KSDH Station No. 43.0

LOCATION.--Lat 38°27'40", long 99°00'50", in SW¼NW¼NW¼ sec.29, T.18 S., R.15 W., Barton County, at gaging station at highway bridge, 0.2 mi (0.3 km) north of Albert, 14 mi (22.5 km) northwest of Great Bend, and at mile 43.0 (69.2 km).

DRAINAGE AREA.--1,410 mi² (3,650 km²), approximately, of which 104 mi² (269 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Water temperatures: October 1963 to September 1969, October 1970 to September 1973.
Sediment records: October 1963 to September 1973.

EXTREMES.--1972-73:
Water temperatures: Maximum, 26.0°C Aug. 19; minimum, freezing point on several days during winter period.
Sediment concentrations: Maximum daily, 6,060 mg/l Sept. 3; minimum, 1 mg/l Jan. 23.
Sediment discharge: Maximum daily, 11,000 tons (9,980 tonnes) Sept. 9; minimum daily, 0.01 ton (0.01 tonne) Jan. 23.

Period of record:
Water temperatures: Maximum, 32.0°C July 21, 1964; minimum, freezing point on many days during winter period.
Sediment concentrations: Maximum daily, 7,400 mg/l Aug. 13, 1968; minimum daily, no flow on many days each year.
Sediment discharge: Maximum daily, 17,400 tons (15,800 tonnes) June 15, 1970; minimum daily, no flow on many days each year.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
04...	.45	15.5	20	85	10	30	11	250	0	57	43	.5
NOV.												
15...	.97	3.0	21	140	15	56	9.4	370	0	130	81	.4
DEC.												
11...	1.3	.0	28	120	18	44	14	330	0	120	60	.4
JAN.												
15...	2.4	1.0	22	140	17	63	11	350	0	140	88	.4
FEB.												
06...	7.6	2.0	15	110	14	41	9.2	280	0	110	57	.3
MAR.												
19...	41	8.0	18	84	9.4	33	12	200	0	82	52	.4
APR.												
16...	153	13.0	13	120	14	57	12	240	0	170	81	.3
MAY												
17...	51	16.0	18	110	15	50	12	280	0	130	72	.4
JUNE												
19...	15	19.0	24	140	21	62	11	370	0	160	84	.5
JULY												
17...	4.4	24.5	24	130	15	62	12	320	0	130	87	.5
20...	1430	21.5	15	42	3.6	5.0	10	130	0	17	9.0	.3
AUG.												
16...	24	26.0	23	80	10	25	14	230	0	73	31	.2
SEP.												
21...	13	18.5	19	94	11	35	12	250	0	91	50	.5

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
04...	.41	.19	170	400	.49	.54	110	250	47	.8	630	7.8
NOV.												
15...	.20	.15	140	650	1.70	.68	7	410	110	1.2	1000	8.1
DEC.												
11...	.18	.10	170	580	2.04	.79	7	370	94	1.0	890	8.1
JAN.												
15...	.11	.09	140	670	4.34	.91	3	410	120	1.3	1050	7.4
FEB.												
06...	.14	.09	120	513	10.5	.70	4	320	94	1.0	800	7.6
MAR.												
19...	.66	.31	120	401	44.4	.55	200	250	80	.9	630	7.4
APR.												
16...	.75	.15	120	612	253	.83	170	360	160	1.3	960	7.7
MAY												
17...	.25	.14	170	548	75.5	.75	100	350	120	1.2	860	7.4
JUNE												
19...	.32	.16	180	692	24.3	.94	85	430	130	1.3	1040	7.6
JULY												
17...	.32	.16	230	630	7.48	.86	130	380	110	1.4	1000	7.4
20...	.61	.22	120	188	726	.26	1600	120	14	.2	280	7.3
AUG.												
16...	.32	.21	200	384	24.9	.52	250	240	54	.7	590	7.4
SEP.												
21...	.23	.19	120	450	15.8	.61	150	280	78	.9	710	7.5

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
04...	200	0
APR.		
16...	160	60

07141900 WALNUT CREEK AT ALBERT, KS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.64	106	.18	1.2	54	.17	2.6	27	.19
2	.54	97	.14	1.0	81	.22	2.2	21	.12
3	.48	127	.16	.92	52	.13	1.9	14	.07
4	.43	75	.09	.92	85	.21	1.9	12	.06
5	.37	91	.09	.96	64	.17	1.8	10	.05
6	.27	74	.05	1.0	124	.33	1.7	8	.04
7	.40	76	.08	1.0	88	.24	1.6	55	.24
8	.45	86	.10	1.0	108	.29	1.6	75	.32
9	.51	133	.18	1.1	99	.29	1.6	78	.34
10	.51	114	.16	1.0	94	.25	1.4	81	.31
11	.54	100	.15	.92	90	.22	1.4	83	.31
12	.58	91	.14	.92	47	.12	1.4	79	.30
13	.61	131	.22	.96	106	.27	1.4	78	.29
14	.64	141	.24	.84	81	.18	1.4	108	.41
15	.58	94	.15	.88	50	.12	1.4	20	.08
16	.54	96	.14	.92	109	.27	1.4	118	.45
17	.54	111	.16	.88	65	.15	1.4	105	.40
18	.51	101	.14	.92	42	.10	1.4	93	.35
19	.48	109	.14	17	52	2.4	1.4	85	.32
20	.54	70	.10	12	50	1.6	1.6	83	.36
21	.61	46	.08	7.7	52	1.1	1.7	38	.17
22	.67	38	.07	5.5	41	.61	1.8	102	.50
23	.74	74	.15	4.4	58	.69	1.8	162	.79
24	.70	51	.10	3.9	55	.58	1.9	174	.89
25	.70	31	.06	3.6	59	.57	2.1	150	.85
26	.77	56	.12	3.5	53	.50	2.0	128	.69
27	.77	84	.17	3.4	48	.44	2.0	104	.56
28	.84	73	.17	3.1	36	.30	2.1	93	.53
29	.84	63	.14	2.9	26	.20	2.3	146	.91
30	1.0	61	.16	2.9	26	.20	2.4	75	.49
31	1.1	52	.15	--	--	--	2.4	56	.36
TOTAL	18.90	--	4.18	87.24	--	12.92	55.0	--	11.75

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.5	25	.17	3.3	10	.09	5.9	37	.59
2	2.6	30	.21	3.6	14	.14	7.7	79	1.6
3	2.6	35	.25	3.6	21	.20	10	83	2.2
4	2.5	40	.27	5.5	48	.71	20	96	5.2
5	2.4	60	.39	7.9	76	1.6	22	64	3.8
6	2.3	78	.48	7.9	20	.43	21	76	4.3
7	2.2	65	.39	8.3	30	.67	22	40	2.4
8	2.2	57	.34	7.5	27	.55	22	40	2.4
9	2.2	20	.12	7.9	21	.45	34	252	26
10	2.2	30	.18	7.1	16	.31	47	176	28
11	2.2	50	.30	6.7	11	.20	1020	2680	7070
12	2.2	65	.39	6.6	6	.11	1910	1810	9330
13	2.1	22	.12	7.3	11	.22	1370	1830	6770
14	2.1	35	.20	6.3	17	.29	513	1860	2580
15	2.2	52	.31	7.5	12	.24	140	1290	488
16	2.4	20	.13	6.4	14	.24	72	900	175
17	2.6	4	.03	5.8	97	1.5	54	595	87
18	2.6	6	.04	5.2	45	.63	47	330	42
19	2.6	7	.05	4.9	67	.89	42	181	21
20	3.4	7	.06	4.8	92	1.2	34	99	9.1
21	4.1	9	.10	5.3	87	1.2	29	104	8.1
22	4.0	6	.06	6.6	82	1.5	26	91	6.4
23	3.5	1	.01	7.3	106	2.1	29	202	13
24	3.6	8	.08	7.1	22	.42	602	2230	4410
25	3.3	8	.07	6.4	43	.74	1900	2510	11000
26	2.9	8	.06	6.3	63	1.1	2330	1230	7740
27	2.8	10	.08	5.8	90	1.4	1950	1040	5480
28	2.6	10	.07	5.5	59	.88	479	899	1160
29	3.6	10	.10	--	--	--	216	623	363
30	3.3	7	.06	--	--	--	370	1130	1180
31	3.1	9	.08	--	--	--	2010	1370	6810
TOTAL	84.9	--	5.20	174.4	--	20.01	15554.6	--	64819.09

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2800	923	6980	186	483	243	31	180	15
2	3090	908	7580	425	899	1030	31	201	17
3	3130	1000	8450	262	721	510	31	152	13
4	2610	797	5620	211	421	240	31	166	14
5	655	733	1300	175	463	219	30	199	16
6	244	581	383	128	300	104	31	178	15
7	200	420	227	108	335	98	33	181	16
8	177	305	146	254	387	265	31	156	13
9	168	217	98	406	600	658	30	166	13
10	164	159	70	379	1010	1030	29	223	17
11	175	146	69	219	681	403	32	214	18
12	207	151	84	140	483	183	27	221	16
13	219	170	101	101	291	79	24	163	11
14	200	183	99	80	221	48	22	250	15
15	174	119	56	69	183	34	20	246	13
16	159	203	87	60	145	23	17	289	13
17	141	157	60	52	288	40	15	256	10
18	117	231	73	54	191	28	13	224	7.9
19	155	629	263	49	184	24	13	237	8.3
20	258	1790	1250	46	172	21	12	203	6.6
21	128	252	87	43	184	21	11	261	7.8
22	101	123	34	43	165	19	11	209	6.2
23	100	104	28	41	163	18	10	241	6.5
24	91	86	21	39	209	22	10	379	10
25	81	104	23	37	218	22	9.0	262	6.4
26	97	128	34	39	191	20	9.0	264	6.4
27	242	306	200	37	197	20	7.2	290	5.6
28	212	223	128	36	179	17	7.6	212	4.4
29	149	181	73	35	164	15	7.4	215	4.3
30	134	152	55	33	262	23	7.4	164	3.3
31	--	--	--	33	238	21	--	--	--
TOTAL	16378	--	33679	3820	--	5498	592.6	--	328.7

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	11	150	4.5	122	1200	395	5.7	320	4.9
2	12	150	4.9	91	1010	248	5.7	223	3.4
3	21	150	8.5	70	636	120	133	6060	2740
4	51	150	21	59	508	81	389	4080	4290
5	28	150	11	50	437	59	104	3330	935
6	19	150	7.7	43	410	48	34	1440	132
7	15	150	6.1	39	400	42	23	815	51
8	12	150	4.9	52	3010	423	27	746	54
9	10	150	4.1	77	912	190	22	990	59
10	10	150	4.1	50	283	38	13	509	18
11	8.6	150	3.5	32	321	28	11	404	12
12	7.4	150	3.0	29	533	42	11	427	13
13	7.2	150	2.9	33	610	54	26	385	27
14	9.2	150	3.7	36	417	41	92	599	149
15	8.8	150	3.6	38	337	35	43	537	62
16	5.0	135	1.8	25	307	21	17	475	22
17	4.4	124	1.5	21	276	16	14	413	16
18	3.9	100	1.1	20	259	14	14	351	13
19	4.5	100	1.2	14	251	9.5	12	289	9.4
20	8.8	100	2.4	12	239	7.7	12	227	7.4
21	11	300	8.9	13	289	10	12	168	5.4
22	69	836	156	12	266	8.6	12	225	7.3
23	213	1100	633	11	226	6.7	11	202	6.0
24	115	821	250	8.8	266	6.3	11	230	6.8
25	556	3060	4620	8.0	220	4.8	19	210	11
26	1450	2590	10100	7.0	236	4.5	74	549	110
27	813	3000	6590	6.5	248	4.4	543	1150	2000
28	921	2410	5990	5.7	277	4.3	1720	1130	5250
29	1100	1210	3590	6.7	220	4.0	1530	1040	4300
30	749	1320	2670	8.6	236	5.5	232	524	328
31	192	1390	721	7.4	250	5.0	--	--	--
TOTAL	6443.8	--	35430.4	1007.7	--	1976.3	5172.4	--	20642.6

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 49189.54
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 162428.15

07141900 WALNUT CREEK AT ALBERT, KS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	8.0	2.5	---	---	9.0	5.5	15.0	18.0	---	22.0	22.0
2	14.0	5.0	5.0	---	5.0	8.0	6.0	12.0	19.0	---	22.0	22.0
3	15.0	8.0	1.5	---	2.5	7.5	7.0	10.5	20.0	---	22.0	18.0
4	13.0	7.0	0.5	---	5.0	5.0	9.0	13.0	20.0	---	25.0	19.0
5	15.0	11.0	1.0	---	1.5	7.0	7.0	14.0	20.0	---	22.0	18.0
6	12.5	10.0	0.0	0.5	1.5	7.0	7.5	15.0	20.0	---	22.0	16.5
7	11.0	8.0	0.0	---	0.0	9.0	9.0	16.0	20.0	---	23.0	19.0
8	13.5	9.0	0.0	0.5	0.0	---	5.5	16.0	20.0	---	23.0	19.5
9	15.0	4.0	0.0	0.5	0.0	7.0	4.5	16.0	20.0	---	23.0	20.0
10	15.0	7.0	0.0	---	1.5	7.0	4.0	17.0	21.0	---	24.5	19.5
11	18.0	6.0	0.0	---	---	5.5	---	18.0	21.0	---	24.5	19.5
12	15.0	8.0	0.0	0.5	2.0	5.0	10.0	17.0	22.5	---	24.0	20.0
13	14.0	6.0	0.0	0.5	2.5	5.0	10.0	16.0	22.5	---	20.0	17.5
14	15.0	5.0	1.5	---	2.5	5.0	10.0	16.0	22.0	---	23.0	---
15	12.0	3.5	2.0	0.5	2.0	5.0	10.0	15.0	22.0	---	24.0	---
16	12.0	5.0	0.0	1.0	---	5.0	10.5	16.0	22.0	---	23.0	---
17	12.0	3.5	1.0	1.0	2.5	5.0	11.0	15.5	---	---	23.0	---
18	11.0	3.0	1.0	2.0	2.0	6.0	13.0	17.0	21.0	---	23.0	---
19	5.0	3.0	1.0	---	3.0	6.0	10.5	18.0	19.0	---	23.5	---
20	6.0	3.0	2.0	2.0	2.0	7.5	12.5	16.0	18.0	---	23.5	---
21	10.0	2.5	2.5	3.0	---	8.0	14.0	18.0	19.0	---	24.0	---
22	11.0	2.0	1.5	1.5	3.0	8.0	14.0	18.0	19.5	---	23.0	18.0
23	7.0	2.0	1.0	1.0	3.0	11.0	14.5	19.5	20.0	---	24.0	20.0
24	6.0	2.0	3.0	1.0	5.0	10.0	15.0	19.0	24.0	---	24.0	19.0
25	7.0	2.0	---	1.0	---	11.0	15.0	18.0	20.5	23.0	24.0	16.5
26	8.5	3.0	---	3.0	3.5	6.5	12.0	19.0	21.5	20.5	24.0	18.5
27	10.0	3.0	2.0	---	8.0	7.5	10.0	---	22.5	22.5	23.0	16.0
28	11.5	1.5	2.0	---	7.5	8.5	11.0	14.0	21.5	22.0	23.0	14.0
29	8.5	2.0	2.5	---	---	8.0	12.0	15.0	23.0	23.0	23.0	13.0
30	9.0	1.5	3.0	1.5	---	7.5	15.0	15.0	23.0	---	22.0	14.0
31	4.5	---	2.0	1.5	---	6.0	---	15.0	---	23.0	22.0	---
AVERAGE	11.5	5.0	1.5	---	3.0	7.0	10.0	16.0	21.0	---	23.0	---

ARKANSAS RIVER BASIN

07143300 COW CREEK NEAR LYONS, KS

LOCATION.--Lat 38°18'30", long 98°11'30", in SW¼SE¼ sec.15, T.20 S., R.8 W., Rice County, at gaging station at Missouri Pacific Railroad bridge, 500 ft (152 m) downstream from Little Cow Creek, 3.0 mi (4.8 km) south of Lyons.

DRAINAGE AREA.--728 mi^2 (1,886 km^2), includes 229 mi^2 (593 km^2) in Cheyenne Bottoms, closed basin.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1970.
Sediment records: October 1963 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT. 05...	1230	19.0	5.3	64	.90
NOV. 16...	1100	4.0	28	62	4.7
DEC. 13...	1200	.0	12	7	.23
JAN. 23...	1215	2.0	27	189	14
FEB. 08...	1115	1.0	32	392	34
MAR. 21...	1015	8.0	140	281	106
APR. 16...	1030	13.0	591	497	525
MAY 14...	1300	18.0	312	283	238
JUNE 19...	1200	23.0	160	775	335
JULY 10...	1345	26.5	16	149	6.4
AUG. 10...	1500	25.5	35	121	11
SEP. 10...	1430	22.0	24	163	11

07143330 ARKANSAS RIVER NEAR HUTCHINSON, KS
(Radiochemical station)

KSDH Station No. 800.3

LOCATION.--Lat 37°56'47", long 97°46'29", in SW¼NW¼SW¼ sec.21, T.24 S., R.4 W., Reno County, at gaging station at county road bridge, 3.0 mi (4.8 km) north of Haven, 4.5 mi (7.2 km) downstream from Cow Creek, 11 mi (17.7 km) southeast of Hutchinson, and at mile 800.3 (1,287.7 km).

DRAINAGE AREA.--38,910 mi² (100,780 km²), of which 7,186 mi² (18,612 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Water temperatures: October 1960 to September 1973.
Sediment records: October 1960 to June 1973.

EXTREMES.--1972-73:
Specific conductance: Maximum daily, 5,500 micromhos Dec. 7; minimum daily, 208 micromhos Sept. 28.
Water temperatures: Maximum, 32.0°C July 1, 3, 8; minimum, freezing point on many days during winter period.

Period of record:
Specific conductance (1968-73): Maximum daily, 6,750 micromhos Jan. 5, 1971; minimum 155 micromhos Oct. 6, 1970.
Water temperatures: Maximum, 38.0°C Aug. 8, 1969; minimum, freezing point on many days during winter period.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks. Radiochemical analyses by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	261	15.0	17	130	57	350	8.8	250	0	400	450	.7
NOV.												
06...	192	12.0	12	130	35	560	7.6	260	0	300	820	.7
DEC.												
06...	161	.0	16	160	46	580	8.4	310	0	470	800	.8
JAN.												
09...	192	.0	18	160	45	880	9.4	290	0	390	1300	.6
FEB.												
09...	663	1.0	17	130	37	390	7.0	240	0	430	480	.6
MAR.												
07...	1340	8.0	12	90	31	250	7.4	160	0	320	320	.6
APR.												
04...	16200	8.5	22	40	3.9	42	8.2	120	0	40	57	.3
18...	2330	15.0	16	120	39	220	9.2	230	0	360	260	.6
MAY												
11...	2540	20.0	14	93	30	170	9.0	180	0	280	200	.6
JUNE												
18...	679	23.0	9.0	110	36	300	8.6	200	0	330	430	.5
JULY												
06...	398	30.0	7.8	100	36	350	8.6	190	0	350	470	.7
AUG.												
17...	537	29.0	14	99	26	350	9.2	220	0	240	490	.7
SEP.												
17...	791	15.5	17	58	13	150	8.0	150	0	110	210	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT.												
02...	1.2	.52	240	1520	190	480	280	7.0	2540	7.5	190	134
NOV.												
06...	.95	.46	350	1990	8	460	240	11	3440	7.7	59	31
DEC.												
06...	1.2	.55	290	2250	2	590	340	10	3770	7.5	10	4.4
JAN.												
09...	1.6	.59	300	2980	1	580	340	16	5030	7.2	8	4.2
FEB.												
09...	1.9	.33	270	1610	170	480	280	7.8	2650	7.6	185	331
MAR.												
07...	1.8	.39	--	1120	1100	350	220	5.8	1820	7.2	1680	6080
APR.												
04...	.66	.46	--	274	1000	120	220	1.7	430	7.3	1150	50300
18...	.95	.26	230	1140	200	460	270	4.5	1820	7.7	245	1540
MAY												
11...	.41	.20	180	895	600	360	200	3.9	1470	7.3	380	2610
JUNE												
18...	.02	.19	210	1320	85	420	260	6.3	2200	7.2	211	387
JULY												
06...	.32	.24	210	1430	25	400	240	7.6	2550	7.1	97	104
AUG.												
17...	.45	.24	26	1340	170	350	180	8.1	2310	7.3	246	357
SEP.												
17...	.86	.46	150	645	800	200	74	4.6	1160	7.6	--	--

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
02...	210	0
APR.		
18...	60	0

07143330 ARKANSAS RIVER NEAR HUTCHINSON, KS.--Continued
(Radiochemical station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED GROSS ALPHA AS U-NAT, (PC/L)	SUS-PENDED GROSS ALPHA AS U-NAT, (PC/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED RA-226 (PLAN-CHET COUNT) (PC/L)	DIS-SOLVED NATURAL URANIUM (U) (UG/L)	DIS-SOLVED GROSS ALPHA AS U-NAT, (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT, (UG/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)
OCT.											
02...	7.6	2.8	12	9.4	.2	11	23	8.3	9.8	8.5	--
NOV.											
06...	--	--	14	3.1	--	7.7	28	1.1	12	2.7	.18
DEC.											
06...	--	--	16	2.3	--	12	30	<.4	14	2.1	.15
JAN.											
09...	--	--	19	1.5	--	10	90	.4	17	1.4	.15
FEB.											
09...	--	--	16	10	--	12	72	9.2	13	8.6	.17
MAR.											
07...	--	--	11	49	--	5.6	28	88	8.7	39	.13
APR.											
18...	--	--	19	13	--	10	58	11	15	11	.16
MAY											
11...	--	--	18	19	--	8.6	41	25	14	16	.14
JUNE											
18...	--	--	15	8.2	--	8.2	53	9.5	13	7.3	.16
JULY											
06...	--	--	16	5.6	--	6.1	29	5.5	13	4.5	.15
AUG.											
17...	--	--	19	12	--	6.1	29	16	16	10	.19
SEP.											
17...	--	--	14	39	--	3.7	24	56	11	31	.12

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR.												
07...	1140	8.0	1340	1680	65	72	83	96	97	99	100	--
APR.												
04...	1250	8.5	16200	1150	53	58	62	66	67	94	100	--
18...	1120	15.0	2330	245	62	69	81	90	--	--	100	--
MAY												
11...	1110	20.0	2540	380	68	75	84	92	94	99	100	--

DATE	TIME	TEMPER-ATURE (DEG C)	NUMBER OF SAM-PLING POINTS	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
OCT.							
02...	1010	15.0	10	261	--	0	7

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
OCT.						
02...	32	61	77	90	97	100

07143330 ARKANSAS RIVER NEAR HUTCHINSON, KS.--Continued
(Radiochemical station)

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2200	2400	3330	2870	358	3050	497	1220	2080	2330	802	2840
2	2330	2440	3330	2940	764	3140	373	1340	2100	2810	900	2860
3	2560	2400	3420	3060	1000	3090	408	1430	2350	2390	1010	2600
4	2560	2700	3420	3430	1250	754	421	1460	2070	2430	1250	2300
5	2370	2970	3300	3530	1510	1520	438	1470	2130	2360	1430	2320
6	2310	3320	3810	4000	1510	1640	485	1490	2290	2360	1520	1750
7	2500	3360	5500	4400	2060	1880	557	1660	2290	2380	1700	973
8	2660	3390	4440	4800	2520	1500	866	1840	2220	2380	2060	1110
9	2480	3420	4300	5090	2680	1100	1060	1930	2290	2310	1820	1400
10	2380	2590	3840	4040	2760	1860	1280	1740	2150	2280	1800	1450
11	2510	2880	3570	4180	2880	608	1440	1500	2260	2330	1830	1310
12	2440	2990	4990	3940	2800	610	1540	1330	2290	2420	1560	1240
13	2310	2530	3780	3690	2940	598	1680	1630	2220	2420	1660	1360
14	2280	2590	4250	3730	3070	414	1700	1870	2100	2140	1920	1460
15	2300	2870	3870	3280	3130	442	1600	2010	2130	2180	1990	1280
16	2330	2730	4040	3030	3090	610	1480	2100	2140	2350	2110	1150
17	2410	3140	4930	1990	3120	869	1760	2210	2250	2350	1910	1130
18	2530	3170	3700	1760	3100	1050	1560	2210	2360	2510	2030	1330
19	2530	3180	3470	2250	3010	1170	1770	2170	2230	2230	2090	1640
20	2650	3130	3470	2300	3180	1250	1870	2100	2210	2250	2200	1900
21	2580	3620	2960	2390	3120	1360	1920	2090	2180	1860	2450	1890
22	2420	3450	3860	2530	3210	1620	1670	2050	2200	2140	2470	1840
23	2190	3420	2840	2740	3150	1750	1640	2050	2340	2150	2520	1950
24	2560	3180	2580	2970	3120	1550	1590	2170	2260	1880	2540	1950
25	2460	3470	2780	2900	3210	687	1840	2100	3120	1460	2700	2080
26	2550	3070	2940	2900	3280	672	1940	2150	2340	974	2800	1250
27	2360	3080	2950	3030	3170	439	2010	2090	2270	844	2780	359
28	2950	3520	2940	3080	3370	390	1920	2100	2300	979	2630	208
29	2570	3560	2980	3280	---	433	1500	2220	2250	628	2810	294
30	2700	3330	3060	3190	---	494	1230	2070	2200	699	2850	302
31	2750	---	2820	3200	---	369	---	2150	---	855	2850	---
AVERAGE	2470	3060	3600	3240	2580	1190	1530	1870	2250	1990	2030	1520

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	7.0	4.0	0.0	3.0	9.0	9.0	17.0	23.0	32.0	24.0	22.0
2	14.0	6.0	7.0	0.0	2.0	9.0	8.0	12.0	22.0	30.0	23.0	28.0
3	14.0	13.0	1.0	0.0	2.0	9.0	9.0	13.0	26.0	32.0	23.0	22.0
4	14.0	15.0	0.0	0.0	3.0	6.0	7.0	14.0	22.0	24.0	22.0	21.0
5	16.0	15.0	0.0	0.0	4.0	7.0	8.0	18.0	24.0	25.0	26.0	19.0
6	15.0	13.0	0.0	0.0	3.0	8.0	9.0	20.0	19.0	25.0	21.0	17.0
7	11.0	8.0	0.0	0.0	2.0	6.0	10.0	17.0	23.0	25.0	22.0	20.0
8	20.0	8.0	0.0	0.0	0.0	7.0	6.0	16.0	20.0	32.0	24.0	20.0
9	16.0	9.0	0.0	0.0	0.0	8.0	4.0	17.0	22.0	24.0	24.0	25.0
10	17.0	6.0	0.0	0.0	1.0	8.0	4.0	18.0	28.0	27.0	25.0	22.0
11	20.0	6.0	0.0	0.0	4.0	10.0	9.0	19.0	22.0	25.0	24.0	22.0
12	17.0	9.0	0.0	0.0	3.0	11.0	10.0	18.0	26.0	24.0	27.0	22.0
13	17.0	8.0	0.0	0.0	5.0	12.0	11.0	19.0	23.0	22.0	26.0	19.0
14	16.0	5.0	0.0	1.0	0.0	10.0	12.0	16.0	23.0	21.0	25.0	18.0
15	11.0	2.0	0.0	1.0	0.0	8.0	12.0	15.0	23.0	26.0	23.0	18.0
16	12.0	2.0	0.0	0.0	0.0	7.0	11.0	16.0	24.0	28.0	23.0	16.0
17	14.0	4.0	0.0	4.0	0.0	7.0	14.0	15.0	25.0	27.0	24.0	13.0
18	9.0	3.0	0.0	5.0	3.0	12.0	14.0	16.0	27.0	30.0	23.0	12.0
19	5.0	5.0	0.0	4.0	3.0	9.0	15.0	20.0	20.0	26.0	29.0	15.0
20	7.0	4.0	0.0	5.0	4.0	7.0	14.0	22.0	20.0	30.0	25.0	17.0
21	10.0	3.0	2.0	4.0	4.0	7.0	16.0	24.0	20.0	21.0	25.0	20.0
22	13.0	3.0	1.0	2.0	4.0	10.0	18.0	21.0	21.0	25.0	23.0	21.0
23	8.0	4.0	0.0	0.0	6.0	12.0	18.0	19.0	23.0	22.0	23.0	25.0
24	5.0	3.0	1.0	2.0	6.0	11.0	17.0	20.0	23.0	24.0	24.0	20.0
25	14.0	4.0	2.0	3.0	7.0	7.0	16.0	18.0	23.0	22.0	23.0	19.0
26	9.0	6.0	2.0	6.0	5.0	7.0	12.0	20.0	24.0	23.0	28.0	19.0
27	11.0	5.0	2.0	7.0	8.0	9.0	12.0	15.0	24.0	24.0	29.0	18.0
28	10.0	2.0	1.0	0.0	7.0	9.0	14.0	15.0	23.0	25.0	22.0	16.0
29	11.0	5.0	7.0	0.0	---	9.0	18.0	20.0	24.0	27.0	22.0	16.0
30	13.0	4.0	2.0	0.0	---	8.0	18.0	20.0	24.0	25.0	23.0	16.0
31	6.0	---	2.0	5.0	---	8.0	---	21.0	---	25.0	23.0	---
AVERAGE	13.0	6.0	1.0	1.5	3.0	8.5	12.0	18.0	23.0	25.5	24.0	19.5

07144200 LITTLE ARKANSAS RIVER AT VALLEY CENTER, KS

KSDH Station No. 1/.5

LOCATION.--Lat 37°49'56", long 97°23'16", in NE¼NW¼SW¼ sec.36, T.25 S., R.1 W., Sedgwick County, at gaging station at highway bridge, 0.5 mi (0.8 km) west of Valley Center.

DRAINAGE AREA.--1,327 mi² (3,437 km²), of which about 77 mi² (199 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Water temperatures: October 1957 to September 1961.
Sediment records: October 1957 to September 1961.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
06...	25	15.0	20	100	18	94	5.8	320	0	60	160	.4
NOV.												
07...	53	6.0	16	64	10	45	7.8	190	0	38	73	.5
DEC.												
04...	53	.0	20	90	15	100	7.6	200	0	50	210	.6
JAN.												
09...	105	.0	17	72	14	74	8.2	180	0	40	140	.5
FEB.												
16...	158	.0	19	110	20	120	6.0	260	0	72	230	.3
MAR.												
11...	14000	4.0	11	12	3.4	5.5	7.0	41	0	8.6	10	.3
26...	2840	8.0	14	18	1.7	10	7.2	39	0	9.5	23	.4
APR.												
06...	1770	9.0	10	27	8.9	22	5.8	83	0	21	45	.3
24...	486	17.0	19	61	16	49	6.2	160	0	33	110	.4
MAY												
08...	370	16.0	14	91	16	80	5.2	240	0	57	150	.4
JUNE												
15...	105	23.0	21	93	24	78	4.6	280	0	57	140	.4
JULY												
11...	48	25.0	23	90	13	64	4.4	300	0	55	89	.4
AUG.												
03...	92	24.0	21	59	11	45	6.0	190	0	30	71	.4
SEP.												
12...	61	21.0	19	85	11	83	4.8	240	0	48	140	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
06...	.41	2.2	200	640	43.2	.87	25	330	76	2.3	1080	7.7
NOV.												
07...	1.2	.62	150	371	53.1	.50	500	200	46	1.4	620	7.2
DEC.												
04...	3.6	1.0	170	628	89.9	.85	65	290	120	2.6	1110	7.3
JAN.												
09...	1.7	.49	110	486	138	.66	55	240	91	2.1	830	7.1
FEB.												
16...	1.2	.39	110	728	311	.99	130	350	140	2.8	1260	7.5
MAR.												
11...	1.2	.46	90	105	3970	.14	1100	44	10	.4	130	6.8
26...	1.0	.39	40	123	943	.17	1300	52	20	.6	160	6.7
APR.												
06...	.61	.33	90	196	937	.27	500	100	36	.9	320	7.0
24...	.36	.23	110	387	508	.53	700	220	84	1.4	680	7.1
MAY												
08...	.50	.46	150	554	553	.75	140	290	93	2.0	960	7.5
JUNE												
15...	.56	.62	140	576	163	.78	35	330	96	1.9	960	7.4
JULY												
11...	.32	.62	170	501	64.9	.68	25	280	28	1.7	850	7.6
AUG.												
03...	.45	.52	170	360	89.4	.49	130	190	36	1.4	600	7.3
SEP.												
12...	.45	.59	140	528	87.0	.72	85	260	63	2.3	930	7.6

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
06...	110	0
APR.		
24...	90	0

07144550 ARKANSAS RIVER AT DERBY, KS

KSDH Station No. 749.5

LOCATION.--Lat 37°32'34", long 97°16'31", SE¼SW¼NW¼ sec.12, T.29 S., R.1 E., Sedgwick County, at gaging station at highway bridge on west edge of Derby, 0.9 mi (1.4 km) below mouth of bypass channel, and at mile 749.5 (1,205.9 km).

DRAINAGE AREA.--40,830 mi² (105,750 km²), of which 7,263 mi² (18,810 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Water temperatures: October 1970 to September 1973.

EXTREMES.--1972-73:
Specific conductance: Maximum daily, 3,030 micromhos Jan. 14; minimum daily, 207 micromhos Sept. 30.
Water temperatures: Maximum, 30.5°C July 6; minimum, freezing point on several days during winter period.

Period of record:
Specific conductance (1968-73): Maximum daily, 3,500 micromhos Feb. 21, 1969; minimum daily, 207 micromhos Sept. 30, 1973.
Water temperatures (1970-73): Maximum, 32.0°C June 27, 30, July 14, 23, 26, 1971; minimum, freezing point on many days during winter period.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
12...	291	19.0	12	97	27	320	8.6	200	0	260	420	.4
NOV.												
03...	311	10.0	12	100	24	300	6.6	230	0	210	410	.5
DEC.												
08...	234	1.0	15	120	32	340	9.0	250	0	250	480	.7
JAN.												
12...	362	.0	18	120	33	390	9.4	240	0	280	570	.6
FEB.												
20...	836	4.0	17	130	40	350	7.6	260	0	380	470	.6
MAR.												
06...	8990	4.0	12	30	7.0	37	6.6	68	0	46	57	.5
11...	21100	4.5	9.0	28	3.4	45	5.6	78	0	46	53	.5
27...	14300	8.0	11	27	4.0	27	7.0	68	0	35	37	.4
APR.												
04...	30100	9.0	10	25	4.3	28	6.4	76	0	32	38	.3
25...	3140	16.0	15	96	27	160	8.6	200	0	250	200	.5
MAY												
18...	1850	21.0	14	120	38	240	8.8	250	0	350	300	.6
JUNE												
22...	830	27.0	9.0	96	31	260	10	190	0	300	360	.6
JULY												
12...	531	30.0	9.6	96	34	280	9.2	210	0	270	380	.6
AUG.												
20...	594	28.0	12	82	21	230	9.2	180	0	170	340	.5
SEP.												
14...	741	21.0	15	67	13	180	8.0	170	0	110	260	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
12...	1.7	1.4	240	1260	1010	1.74	35	350	190	7.4	2150	7.2
NOV.												
03...	1.7	1.1	260	1190	1020	1.66	8	350	160	7.0	2060	7.4
DEC.												
08...	4.1	2.0	270	1400	897	1.93	2	420	220	7.1	2410	7.1
JAN.												
12...	4.3	1.8	240	1560	1540	2.15	7	440	240	8.1	2580	7.0
FEB.												
20...	2.7	.75	240	1540	3570	2.15	85	500	280	6.9	2550	7.6
MAR.												
06...	1.6	.06	110	239	6190	.35	1600	100	48	1.6	400	6.9
11...	1.1	.52	80	235	14300	.34	1300	84	20	2.1	380	6.9
27...	1.1	.42	40	188	7920	.28	1300	84	28	1.3	310	7.2
APR.												
04...	.56	.36	60	185	16600	.28	1000	80	18	1.4	290	7.0
25...	1.2	.52	150	861	7550	1.21	300	350	180	3.7	1410	7.5
MAY												
18...	.32	.39	230	1190	6040	1.65	160	460	250	4.9	1980	7.5
JUNE												
22...	.90	.59	230	1170	2690	1.63	7	370	210	5.9	2050	7.1
JULY												
12...	1.2	.08	290	1180	1720	1.63	6	380	210	6.3	2100	7.2
AUG.												
20...	1.3	.91	260	966	1580	1.34	65	290	140	5.9	1660	7.0
SEP.												
14...	1.2	.49	200	753	1560	1.06	200	220	82	5.3	1370	7.5

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
12...	110	0
APR.		
25...	110	0

07144550 ARKANSAS RIVER AT DERBY, KS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2080	1290	2470	1030	492	2650	239	938	1880	2040	901	2230
2	2020	1920	2600	973	549	2390	285	1270	2110	2100	888	2220
3	2030	2070	2770	1350	398	2530	281	1290	2090	2010	836	2300
4	2160	2080	2490	1670	389	1190	311	1350	1740	2100	1060	2210
5	2060	1700	2500	1890	501	427	454	1460	850	2030	1100	2060
6	2130	1740	2610	2200	589	423	460	1410	1770	2020	1230	2060
7	2170	1990	2470	2230	838	523	511	1460	1790	2030	1580	2060
8	2100	2110	2310	2180	1230	523	1070	1560	1780	1790	1580	1020
9	2040	1770	2470	2420	1590	548	1070	1580	1820	1930	1590	1140
10	2040	2290	2700	2360	1750	382	1070	1590	1890	1120	1690	1210
11	2140	2400	2710	2370	1980	240	1220	1560	1960	1870	1430	1360
12	2230	2390	2800	2540	2130	278	1500	1420	1930	1850	1490	1340
13	2230	856	2770	2710	2100	256	1500	1690	1900	1810	1500	1340
14	1460	1860	2650	3030	2260	296	1500	1690	1980	497	1550	1340
15	1800	1960	2600	2850	2260	312	1550	1690	1910	1660	1550	1370
16	2100	2060	2520	2560	2350	443	1370	1810	1900	1800	1560	1490
17	2100	1730	2520	2520	2460	783	1120	1920	1950	2060	1560	1300
18	2030	1990	2530	1700	2460	793	1100	1960	1960	2070	1530	1270
19	2180	2200	2220	971	2420	1050	1240	1980	1940	2210	1530	1610
20	2180	2210	1930	1040	2470	1050	1230	1980	2060	2210	1600	1610
21	1700	2240	2360	1040	2570	915	1200	1890	2000	1670	2110	1620
22	1240	2190	2350	1440	2520	912	1310	1930	2050	915	2110	1760
23	1960	2130	2490	1410	2560	971	1420	1660	2050	920	2050	1700
24	2080	2100	2260	1570	2570	1210	1420	1810	2000	1360	2010	1700
25	1980	2080	2370	1570	2570	733	1540	1810	2080	1240	2050	1250
26	2070	2180	2390	1570	2570	313	1540	1880	2080	704	2070	577
27	2160	2200	2110	1550	2580	298	1530	1880	2200	647	2080	351
28	2210	2450	1870	1740	2610	299	1610	1940	2070	612	2100	319
29	2110	2200	2350	1840	---	333	1700	1880	2050	616	2100	231
30	2080	2220	1940	2080	---	415	950	1900	2050	615	2100	207
31	2030	---	1470	2260	---	459	---	1870	---	620	2060	---
AVERAGE	2030	2020	2410	1890	1850	772	1110	1680	1930	1520	1630	1400

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	9.0	1.0	0.0	5.0	10.0	10.0	19.0	23.0	29.0	22.0	24.0
2	15.0	8.0	0.0	0.0	12.0	14.0	10.0	18.0	25.0	28.0	23.5	27.0
3	14.0	5.0	0.0	0.0	12.0	10.0	10.0	11.0	25.0	28.0	23.5	22.0
4	13.5	11.0	0.0	0.0	12.0	9.0	10.0	19.0	21.0	29.0	25.0	22.0
5	18.0	12.0	0.0	0.0	8.0	9.0	10.0	17.0	25.0	28.5	25.5	22.0
6	15.0	14.0	0.0	0.0	4.0	9.0	12.0	19.0	22.0	30.5	20.5	23.0
7	13.0	7.0	0.0	0.0	1.0	10.0	11.0	17.0	23.0	24.0	21.0	21.0
8	16.0	8.0	0.0	0.0	1.0	10.0	10.0	19.0	24.0	24.5	22.0	22.0
9	20.0	10.0	0.0	0.0	1.0	10.0	7.0	19.0	24.5	24.5	23.0	27.0
10	18.0	11.0	0.0	0.0	1.0	11.0	8.0	18.0	24.5	24.5	24.0	22.0
11	20.0	10.0	0.0	0.0	1.0	11.0	11.0	18.0	25.5	28.5	25.0	22.0
12	15.0	9.0	0.0	0.0	1.0	13.0	12.0	17.0	26.0	26.0	25.0	20.0
13	15.0	7.0	0.0	1.0	1.0	15.0	14.0	16.0	27.0	24.5	24.0	18.0
14	20.0	3.0	0.0	5.0	1.0	14.0	14.0	16.0	25.0	23.5	25.0	19.0
15	18.0	4.0	0.0	6.0	2.0	11.0	15.0	18.0	26.0	31.5	24.0	18.0
16	15.0	7.0	0.0	4.0	4.0	9.0	13.0	20.0	27.0	26.5	27.0	18.0
17	14.0	4.0	0.0	8.0	5.0	10.0	15.0	21.0	24.0	25.0	26.0	14.0
18	7.0	3.0	0.0	8.0	4.0	12.0	18.0	22.0	25.0	26.5	28.0	12.0
19	3.0	2.0	1.0	3.0	5.0	10.0	19.0	23.0	22.0	24.5	29.0	13.0
20	7.0	2.0	1.0	4.0	9.0	9.0	19.0	23.0	25.0	26.5	25.0	12.0
21	12.0	4.0	1.0	4.0	9.0	10.0	20.0	24.0	24.5	23.5	27.0	20.0
22	13.0	2.0	0.0	4.0	10.0	12.0	18.0	23.0	24.0	25.5	29.0	21.0
23	9.0	2.0	5.0	0.0	15.0	12.0	20.0	22.0	24.5	25.5	22.0	20.0
24	8.0	4.0	1.0	0.0	14.0	11.0	18.0	22.0	24.0	24.0	25.0	21.0
25	6.0	6.0	1.0	1.0	10.0	8.0	15.0	22.0	25.0	25.5	25.0	19.0
26	9.0	4.0	0.0	4.0	10.0	9.0	14.0	19.0	26.0	24.0	28.0	18.0
27	12.0	5.0	2.0	4.0	11.0	11.0	14.0	15.0	25.0	24.5	25.0	16.0
28	12.0	3.0	2.0	0.0	11.0	11.0	16.0	17.0	24.0	25.5	24.0	17.0
29	12.0	3.0	7.0	0.0	---	11.0	17.0	19.0	24.0	24.5	25.0	16.0
30	10.0	3.0	4.0	0.0	---	11.0	18.0	20.0	29.5	24.0	25.0	17.0
31	8.0	---	0.0	8.0	---	11.0	---	23.0	---	24.0	22.0	---
AVERAGE	13.0	6.0	1.0	2.0	6.5	10.5	14.0	19.0	24.5	26.0	24.5	19.5

07144780 NORTH FORK NINNESCAH RIVER ABOVE CHENEY RESERVOIR, KS

LOCATION.--Lat 37°50'41", long 97°56'09", in SW¼NE¼SW¼ sec.25, T.25 S., R.6 W., Reno County, at gaging station at bridge on State Highway 17, 12 mi (19.3 km) south of Hutchinson, 12.5 mi (20.1 km) upstream from Cheney Dam at river mile 28.2 (45.4 km).

DRAINAGE AREA.--787 mi² (2,038 km²), of which 237 mi² (614 km²) is probably noncontributing.

PERIOD OF RECORD.--Sediment records: October 1965 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT.					
02...	1400	21.0	20	36	1.9
17...	1045	14.0	21	12	.68
NOV.					
02...	1200	6.0	63	109	18
15...	1020	1.0	72	71	14
DEC.					
01...	1200	4.0	71	81	16
14...	1115	.0	41	8	.88
JAN.					
05...	1110	.0	55	25	3.7
19...	1100	4.0	168	86	39
FEB.					
01...	1300	3.0	1340	1340	4850
15...	1345	1.0	121	31	10
MAR.					
02...	1355	10.0	127	65	22
16...	1415	11.0	274	122	90
APR.					
05...	1330	8.0	330	122	109
17...	1330	16.0	502	204	276
MAY					
02...	1215	11.0	191	60	31
16...	1200	19.0	88	45	11
JUNE					
01...	1050	22.0	66	52	9.3
14...	1415	24.0	36	56	5.4
JULY					
05...	1110	29.0	19	28	1.4
17...	1425	32.0	27	64	4.7
30...	1345	33.0	31	94	7.9
AUG.					
16...	1700	36.0	28	130	9.8
30...	1305	32.0	5.5	176	2.6

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
FEB.												
01...	1300	3.0	1340	1340	71	76	82	91	93	98	100	--
APR.												
17...	1330	16.0	502	204	47	73	81	91	94	99	100	--

07145200 SOUTH FORK NINNESCAH RIVER NEAR MURDOCK, KS

KSDH Station No. 68.0

LOCATION.--Lat 37°33'51", long 97°51'10", in SW¼SW¼SE¼ sec.34, T.28 S., R.5 W. Kingman County, at gaging station at county highway bridge, 4.0 mi (6.4 km) southeast of Murdock, and at mile 68.0 (109.4 km).

DRAINAGE AREA.--650 mi² (1,680 km²), of which 107 mi² (277 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Sediment records: October 1962 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
05...	42	17.0	9.4	76	10	240	5.4	210	0	50	380	.3
NOV.												
22...	164	3.0	17	78	10	180	2.8	230	0	46	280	.3
DEC.												
07...	72	.0	20	107	14	260	3.8	320	0	70	410	.4
JAN.												
11...	119	.0	22	85	12	200	3.0	250	0	47	310	.2
FEB.												
13...	238	5.0	18	78	12	140	3.6	240	0	48	220	.3
MAR.												
15...	462	9.0	16	62	13	88	5.2	200	0	37	140	.3
APR.												
20...	360	16.0	16	69	11	100	4.4	230	0	40	150	.3
MAY												
03...	308	13.0	17	74	11	120	4.6	240	0	40	180	.4
JUNE												
19...	88	23.0	14	54	14	200	5.4	170	0	54	320	.4
JULY												
13...	49	26.0	19	51	19	260	4.4	150	0	61	410	.4
AUG.												
14...	90	32.0	15	50	11	260	5.0	140	0	60	400	.3
SEP.												
25...	2080	22.5	12	43	7.9	46	4.2	140	0	21	71	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT.												
05...	.54	.13	120	898	7	230	58	6.9	1630	7.8	40	4.5
NOV.												
22...	1.3	.22	80	762	65	240	48	5.1	1340	8.2	84	37
DEC.												
07...	1.4	.23	150	1080	6	320	66	6.3	1910	7.9	40	7.8
JAN.												
11...	1.7	.12	120	822	8	260	56	5.4	1450	7.5	29	9.3
FEB.												
13...	1.4	.16	90	658	75	240	50	3.9	1160	7.9	101	65
MAR.												
15...	.75	.17	110	486	220	210	40	2.7	820	7.3	373	465
APR.												
20...	.81	.15	120	530	120	220	27	3.0	920	7.7	139	135
MAY												
03...	.99	.17	120	572	60	230	34	3.4	1030	7.6	94	78
JUNE												
19...	.09	.15	140	756	35	190	56	6.3	1350	7.4	93	22
JULY												
13...	.02	.10	150	928	8	200	79	7.9	1710	7.4	48	6.4
AUG.												
14...	.02	.06	240	900	55	170	52	6.7	1630	7.1	--	--
SEP.												
25...	.47	.16	40	292	1700	140	26	1.7	490	7.4	1450	8140

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
05...	50	0
APR.		
20...	90	0

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
SEP.												
25...	1220	22.5	2080	1450	61	71	81	92	92	96	100	--

07145500 NINNESCAH RIVER NEAR PECK, KS

KSDH Station No. 31.6

LOCATION.--Lat 37°27'34", long 97°25'20", in NW¼SW¼NW¼ sec.10, T.30 S., R.1 W., Sumner County, at gaging station at highway bridge, 3.0 mi (4.8 km) southwest of Peck, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--2,129 mi² (5,514 km²), of which 344 mi² (891 km²) is probably noncontributing.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	65	21.5	7.6	59	13	230	3.8	170	0	52	360	.3
NOV.												
06...	129	13.0	18	74	12	180	3.6	220	0	48	290	.4
DEC.												
04...	94	.0	15	83	14	180	3.0	250	0	53	290	.3
07...	56	.0	--	--	--	--	--	--	--	--	--	--
JAN.												
10...	122	.0	19	94	18	180	3.6	290	0	56	280	.2
FEB.												
13...	348	2.0	17	80	16	110	4.0	240	0	65	170	.3
MAR.												
05...	3400	3.5	11	32	6.8	20	5.0	100	0	20	29	.4
APR.												
01...	9460	9.0	11	32	6.8	13	4.6	100	0	14	24	.4
23...	1210	17.0	11	56	12	80	5.6	180	0	51	120	.4
MAY												
10...	1330	20.0	10	58	15	97	5.2	200	0	51	150	.4
JUNE												
12...	138	25.0	14	61	18	140	3.4	200	0	76	220	.5
JULY												
24...	83	24.0	17	61	14	200	4.0	180	0	68	300	.4
AUG.												
13...	76	28.0	13	48	14	200	4.2	150	0	54	300	.3
SEP.												
13...	108	21.0	10	50	16	170	3.7	150	0	57	260	.3

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
02...	110	0
APR.		
23...	80	0

07145500 NINNESCAH RIVER NEAR PECK, KS.--Continued

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Sediment records: October 1960 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT.												
02...	.38	.12	150	854	8	200	58	7.1	1560	7.5	48	8.4
NOV.												
06...	.95	.17	170	758	15	230	58	5.1	1350	7.7	70	24
DEC.												
04...	.95	.16	110	780	15	260	62	4.8	1400	7.9	44	11
07...	--	--	--	--	--	--	--	--	--	--	75	11
JAN.												
10...	1.4	.10	110	832	6	310	68	4.5	1450	7.4	23	7.6
FEB.												
13...	1.4	.15	90	616	65	270	68	2.9	1050	7.8	88	83
MAR.												
05...	1.6	.30	90	206	800	110	22	.8	310	7.4	1080	9910
APR.												
01...	.56	.22	110	180	500	110	22	.5	280	7.1	727	18600
23...	.66	.13	120	444	150	190	41	2.5	770	7.4	211	689
MAY												
10...	.66	.14	150	492	90	210	46	2.9	880	7.6	91	327
JUNE												
12...	.07	.10	140	666	7	230	66	4.0	1140	7.3	95	35
JULY												
24...	.27	.18	180	780	8	210	62	6.0	1390	7.2	75	17
AUG.												
13...	.20	.14	260	732	6	180	52	6.5	1350	7.0	71	14
SEP.												
13...	.38	.13	150	670	150	190	71	5.4	1200	7.3	--	--

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS, SED, FALL DIAM, % FINER THAN .002 MM	SUS, SED, FALL DIAM, % FINER THAN .004 MM	SUS, SED, FALL DIAM, % FINER THAN .016 MM	SUS, SED, FALL DIAM, % FINER THAN .062 MM	SUS, SED, FALL DIAM, % FINER THAN .125 MM	SUS, SED, FALL DIAM, % FINER THAN .250 MM	SUS, SED, FALL DIAM, % FINER THAN .500 MM	SUS, SED, FALL DIAM, % FINER THAN 1.00 MM
MAR.												
05...	1225	5.5	3400	1080	61	65	71	83	85	93	99	110
APR.												
01...	1045	9.0	9460	727	85	87	92	98	100	--	--	--
23...	1145	17.0	1210	211	66	69	78	93	100	--	--	--

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS
(Irrigation network and pesticide station)

KSDH Station No. 701.4

LOCATION.--Lat 37°03'23", long 97°03'32", in NE¼NE¼NE¼ sec.35, T.34 S., R.3 E., Cowley County, at gaging station at bridge on U.S. Highway 166, 0.1 mi (0.2 km) downstream from St. Louis-San Francisco Railway Co. bridge, 0.5 mi (0.8 km) west of Arkansas City, 5.4 mi (8.7 km) upstream from Walnut River, and at mile 701.4 (1,128.6 km).

DRAINAGE AREA.--43,713 mi² (113,217 km²), of which 7,607 mi² (19,702 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1973.
Water temperatures: October 1951 to September 1973.
Sediment records: September 1961 to September 1973.

EXTREMES.--1972-73:
Sediment concentrations: Maximum daily, 6,240 mg/l March 31; minimum daily, 14 mg/l Dec. 5.
Sediment discharge: Maximum daily, 426,000 tons (386,000 tonnes) March 31; minimum daily, 19 tons (17 tonnes) Dec. 6.

Period of record:
Sediment concentrations: Maximum daily, 6,240 mg/l March 31, 1973; minimum daily, 8 mg/l Dec. 26, 1970.
Sediment discharge: Maximum daily, 426,000 tons (386,000 tonnes) March 31, 1973; minimum daily, 10 tons (9.1 tonnes) Dec. 26, 1970.

REMARKS.--Records of chemical quality, specific conductance, and water temperature for this station will be published in "Water Resources Data for Oklahoma, Part 2. Water Quality Records, 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLORDANE (UG/L)
NOV. 03...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0
MAR. 22...	.00	.00	.00	.00	.00	.00	.00	.00	--	.0
JUNE 21...	.00	.00	.00	.02	.02	.00	.00	.00	.00	.0

DATE	DIAZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	PCB (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)
NOV. 03...	.05	.00	.00	.00	.0	.03	.00	.00	--
MAR. 22...	.03	.00	.00	.00	.0	.06	.00	.02	.0
JUNE 21...	.02	.00	.00	.00	.2	.03	.00	.00	--

DATE	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	CHLORDANE IN BOTTOM DEPOSITS (UG/KG)
NOV. 03...	--	--	--	--	--	--	--	--	--
MAR. 22...	.0	.0	.0	.0	.0	.0	.0	.0	0
JUNE 21...	--	--	--	--	--	--	--	--	--

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR. 08...	1300	4.5	15700	1640	62	66	74	82	86	95	99	100
09...	1340	5.0	20700	2000	52	55	64	73	77	91	97	100
22...	1145	6.0	6170	828	55	59	65	72	74	90	100	--

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS.--Continued
(Irrigation network and pesticide station)

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	448	130	157	435	247	290	694	181	339
2	436	152	179	542	215	315	674	391	712
3	423	234	267	554	90	135	644	443	770
4	417	136	153	493	103	137	622	206	346
5	405	204	223	468	210	265	590	14	22
6	395	386	412	447	49	59	434	16	19
7	388	210	220	444	267	320	470	20	25
8	379	136	139	529	100	143	511	130	179
9	385	145	151	463	53	66	623	59	99
10	384	160	166	466	43	54	625	203	343
11	376	168	171	504	363	494	635	66	113
12	358	226	218	504	553	753	629	65	110
13	352	174	165	767	308	638	666	45	81
14	352	211	201	1130	139	424	698	24	45
15	352	1080	1030	944	148	377	743	24	48
16	413	920	1030	716	317	613	730	43	85
17	378	68	69	677	103	188	731	39	77
18	364	191	188	713	244	470	730	34	67
19	352	63	60	703	137	260	761	17	35
20	346	51	48	736	137	272	839	23	52
21	382	88	91	746	140	282	965	125	326
22	462	80	100	758	200	409	865	105	245
23	489	82	108	762	666	1370	838	67	152
24	442	118	141	747	420	847	810	208	455
25	400	47	51	776	154	323	773	488	1020
26	391	272	287	829	89	199	835	603	1360
27	382	54	56	810	329	720	982	132	350
28	377	452	460	755	217	442	986	142	378
29	381	160	165	715	179	346	998	176	474
30	371	56	56	708	293	560	1410	4020	15300
31	378	52	53	--	--	--	1170	1680	5310
TOTAL	12158	--	6815	19841	--	11771	23681	--	28937

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	963	603	1570	4090	1040	11500	1060	220	630
2	1300	3600	12600	14200	2690	103000	1120	70	212
3	1490	2580	10400	14900	3490	140000	1160	77	241
4	1560	1210	5100	10200	2130	58700	1450	226	885
5	1140	598	1840	8840	2100	50100	9820	2380	63100
6	758	761	1560	7310	1800	35500	16400	2220	98300
7	600	534	865	5200	1020	14300	11900	1820	58500
8	560	500	756	3360	800	7260	11300	2240	68300
9	500	316	427	2300	600	3730	19900	2670	143000
10	500	310	419	2020	509	2780	26100	2420	171000
11	520	320	449	1840	272	1350	38300	2630	272000
12	540	350	510	1710	184	850	40400	2410	263000
13	540	380	554	1630	155	682	25900	1810	127000
14	580	410	642	1550	1080	4520	18400	1910	94900
15	600	440	713	1480	116	464	19700	2400	128000
16	700	470	888	1380	110	410	15100	2430	99100
17	900	500	1220	1310	78	276	10400	2000	56200
18	1420	947	3630	1250	136	459	7390	1730	34500
19	3220	1040	9040	1220	91	300	6130	1170	19400
20	2890	1180	9210	1270	96	329	6110	1010	16700
21	2700	1360	9910	1180	76	242	6380	1220	21000
22	3590	1080	10500	1140	100	308	6330	1020	17400
23	2770	818	6120	1110	69	207	6170	811	13500
24	2340	607	3840	1090	71	209	5400	789	11500
25	1830	436	2150	1060	93	266	11500	1760	54600
26	1720	300	1390	1050	62	176	24300	2320	152000
27	1720	249	1160	1050	148	420	25800	2210	154000
28	1950	292	1540	1080	245	714	18800	1900	96400
29	1730	275	1280	--	--	--	18200	2200	108000
30	1520	260	1070	--	--	--	17000	2230	102000
31	1450	256	1000	--	--	--	24800	6240	426000
TOTAL	44601	--	102353	95820	--	439052	452720	--	2871368

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS.--Continued
(Irrigation network and pesticide station)

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	36300	4110	403000	6160	763	12700	1610	142	617
2	45900	2020	250000	11600	1180	37000	1610	173	752
3	30700	1790	148000	8300	881	19700	1550	191	799
4	31300	2600	220000	6000	583	9440	1450	221	865
5	27400	2560	189000	5830	337	5300	1880	318	1610
6	21100	2390	136000	5590	296	4470	3600	919	8930
7	18900	2200	112000	5420	409	5990	3230	1320	11500
8	17100	1100	50800	5220	282	3970	2150	522	3030
9	12700	889	30500	4830	328	4280	1880	317	1610
10	9410	1210	30700	4580	288	3560	1740	226	1060
11	7650	911	18800	4580	307	3800	1630	203	893
12	6890	887	16500	4200	308	3490	1530	191	789
13	6490	600	10500	3750	312	3160	1480	181	723
14	6150	595	9880	3660	487	4810	1440	162	630
15	5880	425	6750	3110	363	3050	1420	157	602
16	6370	600	10300	2780	275	2060	1380	152	566
17	10600	1140	32600	2590	263	1840	1320	150	535
18	8810	1020	24300	2440	207	1360	1250	162	547
19	7990	801	17300	2320	200	1250	1180	208	663
20	9990	811	21900	2210	221	1320	1160	143	448
21	8940	603	14600	2090	391	2210	1140	132	406
22	7340	544	10800	1990	132	709	1110	132	396
23	7080	344	6580	1970	181	963	1100	140	416
24	5730	484	7490	2420	439	2870	1080	125	365
25	5410	472	6890	2240	400	2420	1070	125	361
26	4610	371	4620	2010	262	1420	1040	122	343
27	4780	340	4390	1890	200	1020	1010	131	357
28	4490	241	2920	1840	163	810	993	123	330
29	4040	233	2540	1830	202	998	991	115	308
30	4320	343	4000	1760	163	775	976	114	300
31	--	--	--	1680	160	726	--	--	--
TOTAL	384370	--	1803660	116890	--	147471	45000	--	40751

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	957	113	292	2300	1000	6210	452	59	72
2	968	130	340	1940	724	3790	452	82	100
3	936	122	308	1840	765	3800	444	65	78
4	897	108	262	1660	659	2950	436	53	62
5	845	114	260	1480	513	2050	444	57	68
6	787	341	725	1340	320	1160	460	66	82
7	752	214	435	1200	242	784	484	80	105
8	732	294	581	1090	203	597	572	115	178
9	718	146	283	998	164	442	1060	521	1490
10	706	354	675	912	144	355	1140	525	1620
11	955	174	449	971	157	412	950	338	867
12	850	189	434	948	148	379	870	237	557
13	721	3110	6050	904	176	430	1020	240	661
14	743	2360	4730	924	159	397	1170	386	1220
15	1170	186	588	900	145	352	1010	219	597
16	1020	926	2550	867	110	257	950	166	426
17	824	211	469	872	118	278	950	192	492
18	754	182	371	889	172	413	1030	218	606
19	766	153	316	880	194	461	1010	305	832
20	681	128	235	798	160	345	980	279	738
21	643	115	200	730	123	242	910	228	560
22	784	162	343	689	100	186	930	174	437
23	1200	442	1430	644	81	141	2390	549	5890
24	1400	790	2990	604	69	113	6390	2070	35700
25	1240	563	1880	564	82	125	7340	3010	59700
26	1170	358	1130	508	77	106	10600	2120	60700
27	1550	578	2420	468	76	96	21700	2370	139000
28	2640	1410	10100	468	60	76	31000	2490	208000
29	3040	1320	10800	468	52	66	36600	2280	225000
30	3300	1200	10700	452	67	82	42300	1630	186000
31	2960	1410	11300	468	76	96	--	--	--
TOTAL	36709	--	73646	29776	--	27191	176044	--	931838

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 1437610
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 6484853

07146900 WALNUT RIVER NEAR AUGUSTA, KS

KSDH Station No. 77.8

LOCATION.--Lat 37°39'36", long 96°58'54", in sec.34, T.27 S., R.4 E., Butler County, at bridge on U.S. Highway 77, 1.0 mi (1.6 km) south of Augusta.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
04...	4.1	18.0	1.5	80	18	180	5.4	230	0	110	250	3.6
NOV.												
08...	6.6	10.5	9.4	88	18	230	7.6	210	0	150	330	4.8
DEC.												
01...	39	5.0	11	74	12	85	3.6	210	0	40	150	.7
JAN.												
09...	87	.0	10	56	7.9	50	3.8	160	0	30	83	.4
FEB.												
16...	148	.5	12	96	15	83	2.6	280	0	35	150	.3
MAR.												
28...	422	9.0	11	54	8.2	34	2.6	170	0	21	56	.3
APR.												
13...	38	10.0	13	120	22	57	2.8	290	0	100	100	.3
19...	1320	17.0	11	44	7.3	26	3.0	140	0	16	42	.3
MAY												
17...	93	19.0	11	88	14	70	2.8	270	0	41	120	.4
JUNE												
20...	30	25.0	13	90	14	96	3.4	270	0	59	160	1.3
JULY												
12...	14	28.0	1.8	80	17	150	3.4	240	0	72	230	2.4
AUG.												
10...	14	28.0	6.7	85	18	170	4.2	250	0	89	250	4.0
23...	10	28.0	3.7	85	18	200	5.2	220	0	97	310	4.0
SEP.												
17...	14	18.0	3.3	86	22	190	4.5	260	0	87	290	1.6

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
04...	.45	.22	180	784	8.72	1.07	15	270	82	4.7	1390	7.5
NOV.												
08...	1.6	1.2	180	984	17.8	1.34	8	290	120	5.8	1680	7.2
DEC.												
01...	1.2	.23	120	512	54.5	.70	15	230	62	2.4	890	7.7
JAN.												
09...	1.1	.16	90	338	79.4	.46	55	170	42	1.7	570	7.1
FEB.												
16...	1.2	.12	90	560	224	.76	15	300	69	2.1	980	7.6
MAR.												
28...	.75	.09	--	286	326	.39	130	170	26	1.1	480	7.4
APR.												
13...	1.2	.12	150	570	59.3	.78	35	380	140	1.3	960	7.7
19...	.81	.12	60	233	830	.32	800	140	22	1.0	390	7.2
MAY												
17...	1.2	.17	140	490	124	.67	40	280	53	1.8	860	7.6
JUNE												
20...	.50	.23	170	600	49.6	.82	8	280	62	2.5	1040	7.7
JULY												
12...	.02	.08	180	694	26.4	.94	7	270	74	4.0	1240	7.4
AUG.												
10...	.09	.19	200	760	29.8	1.03	7	290	82	4.4	1350	7.3
23...	.36	.25	260	850	25.0	1.16	6	280	110	5.1	1510	7.5
SEP.												
17...	.45	.36	140	846	32.2	1.15	8	300	91	4.7	1530	7.5

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
04...	210	0
APR.		
13...	70	50
19...	110	80

07147070 WHITEWATER RIVER AT TOWANDA, KS

KSDH Station No. 17.5

LOCATION.--Lat 37°47'45", long 97°00'45", in SE¼SW¼SE¼ sec.8, T.26 S., R.4 E., Butler County, at gaging station at bridge on State Highway 254, 0.5 mi (0.8 km) west of Towanda, 2.4 mi (3.9 km) downstream from West Branch, and at mile 17.5 (28.2 km).

DRAINAGE AREA.--426 mi² (1,103 km²).

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
03...	1.1	17.0	9.0	230	60	440	7.6	300	0	310	890	.4
NOV.												
08...	3.2	8.5	12	220	51	150	8.0	300	0	410	260	.2
DEC.												
01...	13	5.0	13	150	32	76	7.4	240	0	240	140	.4
JAN.												
09...	36	.0	13	130	31	68	6.2	230	0	230	130	.4
FEB.												
01...	575	1.5	16	27	7.9	6.0	6.4	88	0	28	7.0	.5
16...	88	.5	16	210	55	85	5.0	360	0	390	160	.4
MAR.												
28...	342	10.0	13	110	31	40	5.8	250	0	180	82	.3
APR.												
12...	146	10.0	16	210	57	80	5.8	390	0	390	150	.3
MAY												
09...	123	17.0	12	160	44	57	4.8	310	0	300	100	.4
JUNE												
11...	68	23.0	16	160	41	57	5.0	310	0	280	110	.5
JULY												
09...	22	29.0	5.5	200	57	110	5.0	250	0	470	210	.5
AUG.												
08...	14	26.0	7.9	180	53	130	4.8	200	0	420	260	.4
SEP.												
11...	21	23.0	13	200	59	95	4.0	280	0	580	180	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
03...	.41	.12	300	2100	6.42	2.94	55	830	580	6.7	3690	7.6
NOV.												
08...	.25	.11	270	1240	10.9	1.71	15	760	510	2.1	1890	7.6
DEC.												
01...	2.7	.25	200	792	28.6	1.11	65	500	300	1.5	1280	8.0
JAN.												
09...	.84	.10	180	753	71.5	1.00	15	460	270	1.4	1140	7.1
FEB.												
01...	.97	.29	80	147	253	.22	5200	100	28	.3	230	6.8
16...	2.0	.16	170	1120	273	1.56	8	760	460	1.3	1700	7.7
MAR.												
28...	2.1	.23	--	595	565	.83	200	410	220	.9	930	7.4
APR.												
12...	1.7	.09	200	1100	453	1.56	7	760	440	1.3	1640	7.6
MAY												
09...	1.2	.09	200	840	285	1.17	40	560	330	1.0	1260	7.6
JUNE												
11...	1.5	.15	230	851	157	1.16	130	580	320	1.0	1240	7.5
JULY												
09...	.16	.04	270	1170	73.1	1.67	6	720	530	1.8	1600	7.1
AUG.												
08...	.34	.10	300	1150	45.0	1.62	25	670	500	2.2	1780	7.1
SEP.												
11...	.45	.12	300	1340	77.7	1.86	35	890	650	1.4	1980	7.6

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
03...	210	0
APR.		
12...	80	240

07147800 WALNUT RIVER AT WINFIELD, KS

KSDH Station No. 24.8

LOCATION.--Lat 37°13'27", long 96°59'40", in SW¼SW¼NE¼ sec.33, T.32 S., R.4 E., Cowley County, at gaging station at bridge on U.S. Highway 77, 1.0 mi (1.6 km) south of Winfield, 1.0 mi (1.6 km) upstream from Black Crook Creek, and at mile 24.8 (39.9 km).

DRAINAGE AREA.--1,872 mi² (4,848 km²).

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1973.
Specific conductance: October 1961 to September 1969.
Water temperatures: October 1961 to September 1973.
Sediment records: September 1961 to September 1973.

EXTREMES.--1972-73:
Sediment concentrations: Maximum daily, 3,580 mg/l Sept. 27; minimum daily, 8 mg/l Dec. 15.
Sediment discharge: Maximum daily, 99,800 tons (90,500 tonnes) Feb. 2; minimum daily, 0.19 tons (0.17 tonnes) Oct. 16.

Period of record:
Water temperatures: Maximum, 34.0°C Aug. 5, 1964; minimum, freezing point on many days during winter period.
Sediment concentrations: Maximum daily, 9,630 mg/l April 19, 1969; minimum daily, 2 mg/l Dec. 6, 1962, Feb. 20, 1966, Nov. 3, 1966.
Sediment discharge: Maximum daily, 320,000 tons (290,000 tonnes) June 6, 1965; minimum daily, 0.41 tons (0.37 tonnes) Aug. 20, 1972.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	19	19.0	11	62	11	42	3.8	180	0	37	77	.6
NOV.												
06...	114	11.0	9.0	100	20	94	4.8	250	0	86	180	.4
DEC.												
01...	371	4.5	13	69	12	50	3.6	180	0	50	90	.5
JAN.												
12...	365	.0	12	65	12	33	3.2	180	0	45	60	.4
FEB.												
02...	13000	3.5	13	48	5.9	24	4.0	140	0	27	37	.5
13...	833	1.5	13	100	19	51	3.0	260	0	88	95	.4
APR.												
13...	997	10.0	13	120	22	57	2.8	290	0	100	100	.3
MAY												
22...	363	24.0	7.3	110	27	68	2.6	240	0	140	130	.4
JUNE												
13...	227	26.0	11	83	20	41	4.2	220	0	81	81	.4
JULY												
17...	156	27.0	11	130	36	100	4.2	270	0	200	200	.5
AUG.												
21...	50	29.0	7.7	140	37	150	5.0	250	0	210	270	.9
SEP.												
18...	49	20.0	10	140	37	140	3.8	260	0	220	250	.9

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
02...	.38	.12	150	346	17.7	.47	15	200	56	1.3	600	7.4
NOV.												
06...	.05	.13	150	642	198	.87	6	340	140	2.2	1090	7.6
DEC.												
01...	.66	.14	90	406	407	.55	65	220	70	1.5	680	7.6
JAN.												
12...	.66	.01	90	333	328	.45	25	210	60	1.0	540	7.4
FEB.												
02...	.50	.09	60	242	8490	.33	1600	140	32	.9	390	7.0
13...	1.0	.07	110	524	1180	.71	25	330	120	1.2	850	7.5
APR.												
13...	1.2	.12	150	570	1530	.78	35	380	140	1.3	960	7.7
MAY												
22...	.32	.03	150	630	617	.86	6	380	180	1.5	1010	7.4
JUNE												
13...	1.1	.13	140	449	275	.61	85	290	110	1.0	720	7.5
JULY												
17...	.11	.08	230	850	358	1.16	7	480	260	2.0	1360	7.4
AUG.												
21...	.07	.08	240	960	130	1.31	6	490	280	2.9	1590	7.7
SEP.												
18...	.20	.08	260	956	126	1.30	15	490	280	2.7	1600	7.6

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
02...	190	0
APR.		
13...	70	50

07147800 WALNUT RIVER AT WINFIELD, KS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
RANDOM (INSTANTANEOUS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.5	5.5	4.5	6.5	8.5	11.5	19.5	22.0	---	28.5	28.0
2	20.0	11.5	5.0	3.5	6.0	9.5	---	18.5	23.0	29.5	29.0	---
3	21.0	11.0	---	2.0	5.5	9.5	10.5	19.5	---	30.0	29.0	28.5
4	22.0	10.5	2.0	---	7.0	9.0	11.0	18.5	24.0	31.0	---	26.5
5	20.0	---	0.5	0.5	6.5	9.5	12.0	15.5	24.5	31.0	---	25.0
6	18.0	11.5	0.0	0.0	6.0	10.5	13.5	---	24.5	31.0	28.5	26.0
7	19.5	11.0	0.0	---	---	12.0	14.5	18.5	20.0	31.0	29.0	25.5
8	---	11.0	0.0	0.0	5.0	10.0	---	19.0	23.0	---	28.0	25.5
9	20.0	11.0	0.0	0.0	2.0	10.5	8.5	19.5	24.0	31.0	29.5	---
10	21.0	11.0	---	0.0	3.5	9.5	8.5	21.5	---	31.0	30.0	27.0
11	23.0	10.0	0.0	0.0	---	10.0	9.5	21.5	25.5	31.0	30.5	26.0
12	21.5	---	0.0	0.0	4.0	12.0	11.5	21.0	26.0	31.0	---	25.5
13	21.0	9.0	0.0	0.0	4.5	13.0	13.5	---	26.0	30.0	29.5	25.0
14	20.5	8.0	0.0	---	4.0	13.0	14.5	20.5	26.5	28.0	29.5	24.0
15	---	7.0	0.0	0.5	5.5	12.0	---	---	28.0	---	29.0	24.5
16	20.5	6.0	0.0	---	5.0	10.5	14.5	---	27.0	29.0	29.5	---
17	18.5	6.0	---	1.5	5.0	11.0	15.5	---	---	29.0	29.5	21.0
18	15.0	5.0	0.5	4.5	---	---	16.0	---	28.5	28.5	30.0	21.0
19	13.5	---	0.5	5.5	5.5	11.0	16.5	22.0	27.0	29.5	---	22.0
20	13.0	5.0	0.5	6.5	4.0	10.5	18.0	---	28.0	30.0	31.0	22.0
21	14.0	4.5	1.0	---	4.5	10.0	19.0	24.0	27.0	29.5	30.5	20.5
22	---	5.0	1.5	5.0	5.0	11.0	---	24.5	26.5	---	30.0	24.0
23	12.0	5.0	1.0	4.5	5.5	11.0	19.5	24.0	26.5	27.0	29.5	---
24	14.0	4.5	---	4.0	6.5	11.0	18.0	24.0	---	27.0	30.5	22.0
25	12.0	4.5	0.5	4.0	---	9.5	18.0	24.0	---	28.0	29.5	23.0
26	12.0	---	1.5	5.0	8.0	10.0	16.0	22.0	28.5	28.0	---	20.5
27	13.0	5.0	1.0	5.0	6.5	10.5	16.0	---	29.0	29.0	29.5	19.5
28	12.0	5.0	1.5	---	8.5	12.0	16.0	21.0	28.0	28.5	29.5	19.0
29	---	5.0	4.5	3.0	---	11.5	---	21.0	28.0	---	29.0	18.5
30	13.0	5.0	7.0	3.5	---	11.5	19.0	21.5	28.5	27.0	28.5	18.5
31	10.5	---	5.5	4.5	---	11.0	---	21.5	---	28.0	28.5	---
AVERAGE	17.0	7.5	1.5	2.5	5.0	10.5	14.5	---	26.0	29.5	29.5	23.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS, SED, FALL DIAM, % FINER THAN .002 MM	SUS, SED, FALL DIAM, % FINER THAN .004 MM	SUS, SED, FALL DIAM, % FINER THAN .016 MM	SUS, SED, FALL DIAM, % FINER THAN .062 MM	SUS, SED, FALL DIAM, % FINER THAN .125 MM	SUS, SED, FALL DIAM, % FINER THAN .250 MM	SUS, SED, FALL DIAM, % FINER THAN .500 MM	SUS, SED, FALL DIAM, % FINER THAN 1.00 MM
FEB. 02...	1105	3.5	13000	2760	48	55	76	99	100	--	--	--

07147800 WALNUT RIVER AT WINFIELD, KS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	23	30	1.9	55	18	2.7	372	42	42
2	20	31	1.7	227	22	13	330	37	33
3	18	26	1.3	289	16	12	295	41	33
4	16	17	.73	209	20	11	265	40	29
5	15	19	.77	145	15	5.9	247	23	15
6	14	23	.87	117	20	6.3	207	20	11
7	12	14	.45	98	19	5.0	189	20	10
8	12	18	.58	86	20	4.6	196	18	9.5
9	16	22	.95	86	21	4.9	169	15	6.8
10	13	19	.67	76	20	4.1	156	31	13
11	11	16	.48	182	27	13	162	48	21
12	9.0	14	.34	306	411	340	163	11	4.8
13	8.0	16	.35	2020	773	4220	158	19	8.1
14	7.2	13	.25	4410	1370	16300	159	211	91
15	6.2	15	.25	2270	465	2850	151	8	3.3
16	6.9	10	.19	1270	168	576	148	20	8.0
17	6.8	16	.29	801	200	433	145	20	7.8
18	9.0	15	.36	582	291	457	150	19	7.7
19	16	10	.43	468	199	251	283	14	11
20	16	14	.60	415	66	74	744	20	40
21	29	17	1.3	397	56	60	1050	64	181
22	43	18	2.1	398	49	53	1060	66	189
23	81	19	4.2	414	44	49	864	60	140
24	63	18	3.1	459	44	55	624	44	74
25	85	16	3.7	753	83	169	500	44	59
26	81	13	2.8	1070	72	208	386	31	32
27	67	14	2.5	932	75	189	319	34	29
28	56	16	2.4	709	72	138	283	26	20
29	49	15	2.0	546	66	97	363	34	33
30	44	14	1.7	441	54	64	2290	1620	10000
31	45	15	1.8	--	--	--	4120	2180	24300
TOTAL	898.1	--	41.06	20231	--	26665.5	16548	--	35462.0

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2560	1430	9880	6560	1540	35700	401	38	41
2	1220	1210	3990	13200	2800	99800	467	20	25
3	1480	743	2970	14500	1570	61500	784	58	123
4	2950	2230	17800	7770	941	19700	6950	1580	30100
5	2240	1120	6770	2180	426	2510	13000	2100	73700
6	800	102	220	1620	279	1220	15600	1240	52200
7	600	98	159	1340	198	716	15900	1130	48500
8	500	94	127	1250	118	398	15000	923	37400
9	430	66	77	1110	67	201	19200	1360	70500
10	380	51	52	945	67	171	24000	1310	84900
11	370	44	44	885	60	143	30400	1040	85400
12	360	45	44	854	53	122	26900	961	69800
13	360	30	29	817	57	126	20400	799	44000
14	370	27	27	784	61	129	7360	1410	28000
15	366	24	24	729	57	112	5530	1140	17000
16	532	39	56	662	41	73	3090	863	7200
17	3960	1420	15200	591	45	72	2190	486	2870
18	6770	1710	31300	565	56	85	1800	280	1360
19	3940	1070	11400	549	66	98	1580	163	695
20	1730	500	2340	537	60	87	1720	263	1220
21	1340	545	1970	523	98	138	1630	190	939
22	3130	764	6460	499	61	82	1480	180	719
23	4330	663	7750	484	64	84	1260	240	816
24	3350	400	3620	466	60	75	1520	208	854
25	2560	331	2290	455	45	55	10300	1240	36600
26	2670	249	1800	434	30	35	13800	1450	54000
27	2910	324	2550	414	67	75	11700	880	25300
28	2720	250	1840	405	27	30	3900	463	4880
29	2100	176	998	--	--	--	2440	254	1670
30	1430	136	525	--	--	--	2110	200	1140
31	1450	108	423	--	--	--	9460	1440	39100
TOTAL	59908	--	132735	61128	--	223537	272072	--	823052

07147800 WALNUT RIVER AT WINFIELD, KS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	10200	703	19400	1110	85	255	282	26	20
2	7730	461	9620	4710	1260	18100	275	35	26
3	2790	350	2640	3520	998	9480	268	34	25
4	1940	202	1060	1320	400	1430	271	32	23
5	1570	123	521	981	163	432	400	63	68
6	1350	101	368	848	84	192	2310	427	2660
7	1210	78	255	844	51	116	1760	1680	7980
8	1210	85	278	1140	81	249	536	453	656
9	1440	93	362	1210	57	186	366	199	197
10	1380	77	287	895	52	126	304	149	122
11	1220	104	343	747	29	58	270	103	75
12	1080	79	230	674	40	73	245	91	60
13	978	65	172	595	37	59	227	76	47
14	912	49	121	534	34	49	216	69	40
15	905	50	122	496	52	70	213	47	27
16	4700	892	15200	468	50	63	218	35	21
17	6090	1290	21200	438	50	59	221	38	23
18	3320	775	6950	421	49	56	215	41	24
19	3360	803	7280	402	39	42	197	40	21
20	6280	1090	18500	387	52	54	179	41	20
21	4670	848	10700	370	26	26	167	42	19
22	2760	599	4460	362	26	25	154	28	12
23	2510	531	3600	344	23	21	147	32	13
24	1600	322	1390	465	31	39	141	27	10
25	1300	273	958	493	35	47	131	23	8.1
26	1170	156	493	357	25	24	124	22	7.4
27	1080	101	295	329	26	23	137	20	7.4
28	959	73	189	316	27	23	157	22	9.3
29	869	47	110	310	27	23	134	30	11
30	817	43	95	306	31	26	124	22	7.4
31	--	--	--	296	26	21	--	--	--
TOTAL	77400	--	127199	25688	--	31447	10389	--	12239.6

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	127	23	7.9	74	18	3.6	24	25	1.6
2	125	24	8.1	74	17	3.4	24	31	2.0
3	117	44	14	80	18	3.9	45	37	4.5
4	107	43	12	79	18	3.8	51	39	5.4
5	100	23	6.2	70	34	6.4	42	22	2.5
6	94	19	4.8	62	50	8.4	34	18	1.7
7	90	33	8.0	57	26	4.0	35	52	4.9
8	85	31	7.1	54	33	4.8	48	49	6.4
9	83	15	3.4	52	17	2.4	46	39	4.8
10	81	17	3.7	54	14	2.0	45	25	3.0
11	78	19	4.0	53	16	2.6	45	19	2.3
12	73	17	3.4	59	18	2.9	58	25	3.9
13	69	28	5.2	66	16	3.2	72	25	4.9
14	72	48	9.3	114	32	9.8	69	20	3.7
15	75	50	10	127	39	13	61	27	4.4
16	126	53	18	117	16	5.1	56	34	5.1
17	153	52	21	93	16	4.0	51	41	5.6
18	120	20	6.5	76	43	8.8	50	45	6.1
19	179	22	11	60	30	5.3	49	11	1.5
20	101	60	16	59	18	2.9	50	13	1.8
21	80	57	12	51	17	2.3	52	20	2.8
22	108	56	16	46	23	2.9	52	22	3.1
23	260	55	39	43	14	1.6	48	22	2.9
24	120	24	7.8	39	23	2.4	64	39	8.6
25	168	27	12	37	29	2.9	275	121	90
26	165	27	12	35	24	2.3	2500	1580	10700
27	123	24	8.0	31	19	1.6	8740	3580	84500
28	113	21	6.4	28	14	1.1	12000	1310	42400
29	95	20	5.1	26	15	1.1	11600	539	17200
30	91	22	5.4	26	44	3.1	4790	372	4810
31	84	22	5.0	24	22	1.4	--	--	--
TOTAL	3462	--	308.3	1872	--	123.0	41296	--	159793.7

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 590892.1
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 1572603.16

07157900 CAVALRY CREEK AT COLDWATER, KS

LOCATION.--Lat 37°16'00", long 99°20'40", in NE¼NE¼ sec.14, T.32 S., R.19 W., Comanche County, at gaging station at county highway bridge, 1.0 mi (1.6 km) west of Coldwater, and at mile 18.3 (29.4 km).

DRAINAGE AREA.--39 mi² (101 km²).

PERIOD OF RECORD.--Sediment records: September 1966 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT.					
03...	1045	17.0	.76	4	.01
APR.					
02...	0855	9.0	4.5	148	1.8
SEP.					
12...	1700	11.5	249	7120	4790

ARKANSAS RIVER BASIN

07166000 VERDIGRIS RIVER NEAR COYVILLE, KS

KSDH Station No. 268.0

LOCATION.--Lat 37°42'20", long 95°54'20", in SW¼SW¼ sec.8, T.27 S., R.14 E., Wilson County, at gaging station on county highway bridge, 1.2 mi (1.9 km) upstream from Meadow Creek, 1.5 mi (2.4 km) northwest of Coyville, 2.5 mi (4.0 km) downstream from Pig Creek, and at mile 268.0 (431.2 km).

DRAINAGE AREA.--747 mi² (1,935 km²).

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
04...	22	15.5	5.6	52	10	21	3.4	180	0	17	37	.3
NOV.												
02...	36	10.0	9.4	50	7.6	23	3.8	170	0	16	39	.4
DEC.												
13...	91	.0	7.9	80	7.9	39	4.8	220	0	32	77	.4
JAN.												
10...	3200	.5	7.2	48	10	23	3.2	150	0	28	43	.3
FEB.												
05...	2520	4.5	10	50	6.6	22	2.4	150	0	28	38	.4
MAR.												
07...	3160	10.0	9.0	58	10	25	2.2	180	0	33	44	.3
APR.												
03...	114	11.5	11	53	8.8	18	2.2	170	0	21	31	.3
MAY												
10...	1670	17.0	9.0	51	8.0	20	2.4	170	0	26	32	.3
JUNE												
12...	339	22.5	8.4	61	9.7	21	2.4	200	0	27	39	.2
JULY												
13...	15	30.0	6.8	67	12	24	2.8	215	0	27	42	.4
AUG.												
06...	53	24.0	6.0	61	9.7	26	3.0	200	0	25	41	.3
SEP.												
11...	17	25.0	9.1	32	5.8	13	2.5	110	0	13	22	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
04...	.09	.05	120	245	14.6	.33	110	170	26	.7	420	7.6
NOV.												
02...	.20	.23	90	250	24.3	.34	15	160	20	.8	410	7.9
DEC.												
13...	.09	.02	120	380	93.4	.52	8	230	54	1.1	640	7.9
JAN.												
10...	.09	.02	80	251	2170	.34	65	160	41	.8	410	7.2
FEB.												
05...	.16	.06	80	242	1650	.33	150	150	32	.8	400	7.5
MAR.												
07...	.50	.02	--	272	2320	.37	130	190	40	.8	460	7.4
APR.												
03...	.27	.05	--	249	76.6	.34	45	170	28	.6	400	7.7
MAY												
10...	.27	.02	80	237	1070	.32	30	160	22	.7	410	7.6
JUNE												
2...	.23	.03	90	269	246	.37	130	192	32	.7	460	7.6
JULY												
13...	.16	.05	120	297	12.0	.40	25	216	40	.7	520	7.8
AUG.												
06...	.09	.03	140	290	41.5	.39	170	192	26	.8	490	7.5
SEP.												
11...	.20	.05	90	163	7.48	.22	85	104	14	.6	270	7.6

07169500 FALL RIVER AT FREDONIA, KS

KSDH Station No. 25.3

LOCATION.--Lat 37°30'30", long 95°50'00", in SW¼NW¼ sec.24, T.29 S., R.14 E., Wilson County, at gaging station at bridge on State Highway 96, 0.8 mi (1.3 km) upstream from Clear Creek, 1.0 mi (1.6 km) downstream from Salt Creek, 1.0 mi (1.6 km) south of Fredonia, and at mile 25.3 (40.7 km).

DRAINAGE AREA.--827 mi^2 (2,142 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
04...	20	15.5	10	62	10	21	3.6	210	0	21	53	.3
NOV.												
02...	392	10.5	15	51	9.0	15	4.0	170	0	24	23	.4
DEC.												
13...	126	.0	8.8	77	16	25	2.6	240	0	35	53	.2
JAN.												
10...	2440	.0	7.7	56	12	21	2.6	170	0	28	44	.4
FEB.												
05...	303	4.0	10	62	8.2	17	2.4	200	0	27	26	.4
MAR.												
07...	467	5.0	13	56	8.9	15	2.4	190	0	21	23	.4
APR.												
03...	332	12.0	10	70	7.2	12	2.4	210	0	30	15	.2
MAY												
10...	904	18.0	9.0	66	8.6	16	2.2	200	0	23	29	.4
JUNE												
12...	319	22.0	6.3	83	13	23	1.8	280	0	26	40	.3
JULY												
13...	22	30.6	8.4	86	12	29	2.8	290	0	27	47	.2
AUG.												
06...	25	24.0	9.9	64	10	19	3.5	220	0	18	28	.4
SEP.												
10...	26	25.0	8.9	82	12	32	3.0	280	0	25	51	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
04...	.41	.21	110	310	16.7	.42	2	200	28	.7	520	7.6
NOV.												
02...	.20	.11	90	232	246	.32	65	160	24	.5	380	7.4
DEC.												
13...	.34	.09	110	344	117	.47	7	260	64	.7	580	7.9
JAN.												
10...	.27	.04	80	272	1790	.37	35	190	49	.7	440	7.4
FEB.												
05...	.27	.07	110	262	214	.36	85	190	24	.5	440	7.3
MAR.												
07...	.56	.10	80	251	316	.34	190	180	22	.5	390	7.3
APR.												
03...	.66	.05	--	263	236	.36	65	200	30	.4	410	7.6
MAY												
10...	.16	.04	110	262	639	.36	80	200	34	.5	440	7.7
JUNE												
12...	.02	.05	110	338	291	.46	15	260	30	.6	560	7.7
JULY												
13...	.20	.25	110	356	21.1	.48	7	264	28	.8	650	7.7
AUG.												
06...	.27	.18	140	280	18.9	.38	55	200	20	.6	470	7.5
SEP.												
10...	.66	.24	110	380	26.7	.52	7	254	26	.9	640	7.7

07170500 VERDIGRIS RIVER AT INDEPENDENCE, KS

KSDH Station No. 194.3

LOCATION.--Lat 37°13'26", long 95°40'43", in NW¼NE¼NE¼ sec.32, T.32 S., R.16 E., Montgomery County, at gaging station at bridge on U.S. Highway 160, 1.0 mi (1.6 km) east of Independence, 3.6 mi (5.8 km) downstream from Elk River, and at mile 194.3 (312.6 km).

DRAINAGE AREA.--2,892 mi² (7,490 km²).

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Specific conductance: October 1961 to September 1968.
Water temperatures: October 1961 to September 1968.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	69	18.0	8.6	51	11	20	3.6	160	0	22	40	.3
NOV.												
02...	3140	11.0	14	40	6.8	9.0	4.0	120	0	22	14	.6
DEC.												
13...	736	1.0	11	66	10	24	2.8	200	0	31	44	.3
JAN.												
05...	15300	1.0	8.0	48	8.8	19	3.2	150	0	27	35	.4
FEB.												
05...	3380	4.0	10	53	7.8	16	2.4	160	0	28	26	.4
MAR.												
07...	17300	9.5	11	40	6.8	13	3.6	130	0	21	22	.3
APR.												
02...	2840	12.0	11	50	5.6	12	2.4	150	0	25	17	.3
MAY												
10...	4310	17.0	9.6	58	3.8	14	2.4	160	0	25	22	.2
JUNE												
12...	497	23.0	7.8	70	11	23	2.4	230	0	32	41	.4
JULY												
12...	42	31.0	8.4	74	12	26	3.0	240	0	28	46	.3
AUG.												
07...	112	25.5	8.3	35	6.0	12	2.8	120	0	12	18	.4
SEP.												
10...	59	24.5	8.9	66	8.6	25	3.5	210	0	24	39	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
02...	.34	.28	120	249	46.4	.34	25	170	40	.7	440	7.4
NOV.												
02...	.79	.15	80	188	1590	.26	200	130	28	.3	280	7.8
DEC.												
13...	.29	.03	90	301	598	.41	8	210	44	.7	510	7.8
JAN.												
05...	.20	.04	60	235	9710	.32	200	160	36	.7	380	7.2
FEB.												
05...	.36	.07	120	239	2180	.33	130	160	34	.5	390	7.6
MAR.												
07...	.90	.08	--	193	9020	.26	380	130	24	.5	300	7.2
APR.												
02...	.50	.07	--	210	1610	.29	200	150	26	.4	330	7.4
MAY												
10...	.20	.05	110	222	2580	.30	80	160	28	.5	370	7.4
JUNE												
12...	.14	.03	90	307	412	.42	35	220	34	.7	510	7.5
JULY												
12...	.75	.05	150	332	57.6	.45	7	234	34	.7	570	7.6
AUG.												
07...	.36	.08	80	172	52.0	.23	170	112	14	.5	280	7.4
SEP.												
10...	.79	.03	140	296	47.2	.40	8	200	26	.8	510	7.4

07170990 VERDIGRIS RIVER NEAR COFFEYVILLE, KS

LOCATION--Lat 37°00'20", long 95°35'32", Montgomery County, at bridge on county road approximately 0.8 mi (1.3 km) downstream from sewage treatment plant, and 1.0 mi (1.6 km) south of Coffeyville.

PERIOD OF RECORD.--July 1969 to September 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)
NOV.									
14...	32	4.6	9.2	3.7	21	13	.3	.03	.78
MAR.									
07...	33	5.4	9.9	4.3	25	14	.3	.63	--
JUNE									
14...	67	12	28	2.4	43	43	.3	.47	--

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	TUR-BID-ITY (JTU)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
NOV.								
14...	166	.23	99	110	3.4	.4	257	6.8
MAR.								
07...	180	.24	100	190	2.2	.4	258	7.2
JUNE								
14...	347	.47	220	35	3.3	.8	552	7.6

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)
NOV.							
14...	.00	.00	.00	.00	.00	.00	.00
MAR.							
07...	.00	.00	.00	.00	.00	.00	.00
JUNE							
14...	.00	.00	.00	.00	.00	.00	.00

DATE	HEPTA-CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLOR-DANE (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)	PCB (UG/L)
NOV.							
14...	.00	.00	.0	.00	.00	.00	.0
MAR.							
07...	.00	.00	.0	.04	.00	.03	.0
JUNE							
14...	.00	.00	.0	.04	.00	.03	.0

DATE	AIR TEMP-ERATURE (DEG C)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)
NOV.						
14...	--	8.0	11.3	5600	1600	570
MAR.						
07...	--	14.0	8.4	5100	530	120
JUNE						
14...	25.5	26.0	7.1	7000	--	3600

07179500 NEOSHO RIVER AT COUNCIL GROVE, KS

KSDH Station No. 448.0

LOCATION.--Lat 38°39'54", long 96°29'38", in NE¼NW¼ sec.14, T.16 S., R.8 E., Morris County, at gaging station, on highway bridge at city water plant 300 ft (91 m) downstream from Mozler Creek, 1.7 mi (2.7 km) downstream from Council Grove Reservoir, and at mile 448.0 (721 km).

DRAINAGE AREA.--250 mi^2 (650 km^2).

PERIOD OF RECORD.--October 1970 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
04...	15	18.5	2.3	48	7.8	9.0	4.4	180	0	17	6.0	.3
NOV.												
08...	15	10.0	2.8	48	9.7	9.0	4.6	180	0	17	7.0	.3
DEC.												
08...	4.5	1.0	4.0	59	9.0	10	4.6	220	0	21	7.0	.3
JAN.												
09...	111	2.5	6.9	40	5.9	6.5	4.6	140	0	11	6.0	.3
FEB.												
21...	10	2.0	8.4	43	5.0	9.0	4.0	150	0	13	5.0	.3
MAR.												
30...	910	9.0	12	38	6.1	7.0	3.4	130	0	14	5.0	.3
APR.												
17...	46	15.0	11	40	6.8	7.0	3.4	150	0	16	4.0	.4
MAY												
17...	44	18.0	11	48	4.9	8.0	3.6	160	0	16	5.0	.4
JUNE												
20...	426	23.0	11	48	6.8	8.0	3.2	170	0	16	7.0	.4
JULY												
17...	18	24.5	9.0	53	6.8	8.5	4.0	180	0	18	7.0	.4
AUG.												
22...	97	26.0	8.6	48	7.8	8.0	4.0	170	0	18	8.0	.2
SEP.												
19...	17	18.0	7.5	48	8.3	9.0	3.7	180	0	14	7.0	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
04...	.09	.03	80	201	8.14	.27	3	150	4	.3	330	7.2
NOV.												
08...	.16	.07	110	202	8.18	.27	15	160	8	.3	340	8.2
DEC.												
08...	.29	.05	60	240	2.92	.33	8	180	8	.3	380	7.6
JAN.												
09...	.61	.08	60	174	52.1	.24	150	120	6	.3	270	7.2
FEB.												
21...	.99	.11	60	175	4.72	.24	130	130	4	.3	280	7.3
MAR.												
30...	.66	.19	--	170	418	.23	130	120	10	.3	250	7.4
APR.												
17...	.99	.16	110	181	22.5	.25	130	130	8	.3	280	7.4
MAY												
17...	.50	.07	90	190	22.6	.26	120	140	10	.3	300	7.3
JUNE												
20...	.90	.04	60	200	230	.27	85	150	8	.3	320	7.6
JULY												
17...	.56	.05	90	215	10.4	.29	130	160	8	.3	340	7.6
AUG.												
22...	.34	.03	80	199	52.1	.27	85	150	10	.3	320	7.5
SEP.												
19...	.54	.04	110	210	9.64	.29	25	150	6	.3	340	7.6

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
04...	90	0
APR.		
17...	280	0

07179795 COTTONWOOD RIVER BELOW MARION LAKE, KS

KSDH Station No. 126.5

LOCATION.--Lat 38°22'00", long 97°05'00", in SE¼ sec.27, T.19 S., R.3 E., Marion County, at gaging station 0.25 mi (0.40 km) below outlet of dam, 1.6 mi (2.6 km) upstream from South Fork Cottonwood River, 3.0 mi (4.8 km) northwest of Marion, and at mile 126.5 (203.5 km).

DRAINAGE AREA.--200 mi² (518 km²).

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT. 05...	8.0	18.0	3.2	70	24	15	6.8	180	0	130	16	.4
NOV. 29...	7.0	5.0	2.0	75	23	17	6.2	200	0	130	18	.4
JAN. 11...	4.7	2.5	1.7	81	23	17	6.6	190	0	150	19	.4
FEB. 22...	32	5.0	2.8	66	20	15	5.8	160	0	120	16	.3
MAR. 28...	1130	8.5	4.8	56	18	12	5.2	140	0	100	13	.2
APR. 16...	3.5	14.0	7.8	57	22	15	4.6	180	0	94	16	.3
MAY 16...	30	17.0	5.3	59	17	14	5.2	150	0	100	14	.3
JUNE 19...	100	22.5	1.8	61	20	14	4.6	150	0	110	17	.4
JULY 16...	6.8	24.5	1.3	66	19	14	5.4	160	0	120	14	.4
AUG. 21...	8.0	26.5	2.2	59	18	15	5.5	140	0	120	14	.3
SEP. 18...	6.9	18.0	2.0	59	21	15	5.2	150	0	120	15	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 05...	.34	.09	140	382	8.25	.52	8	270	120	.4	580	7.5
NOV. 29...	.09	.02	110	386	7.30	.52	1	280	120	.4	590	7.4
JAN. 11...	.29	.03	90	410	5.20	.56	2	300	140	.4	620	7.6
FEB. 22...	.23	.05	120	338	29.2	.46	6	250	110	.4	520	7.4
MAR. 28...	.56	.07	--	288	879	.39	65	210	96	.4	450	7.6
APR. 16...	.50	.08	120	318	3.01	.43	65	230	88	.4	500	7.6
MAY 16...	.32	.02	140	310	25.1	.42	70	220	97	.4	490	7.4
JUNE 19...	.66	.05	110	318	85.9	.43	8	230	110	.4	500	7.7
JULY 16...	.27	.02	120	338	6.21	.46	15	240	110	.4	530	7.5
AUG. 21...	.20	.03	170	320	6.91	.44	65	220	100	.4	500	7.3
SEP. 18...	.07	.02	150	330	6.15	.45	7	230	110	.4	540	7.4

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT. 05...	20	0
APR. 16...	60	0

07182250 COTTONWOOD RIVER NEAR PLYMOUTH, KS

KSDH Station No. 39.2

LOCATION.--Lat 38°23'51", long 96°21'21", in NE¼NE¼SE¼ sec.13, T.19 S., R.9 E., Chase County, at gaging station at county highway bridge, 0.8 mi (1.3 km) downstream from Buckeye Creek, 1.5 mi (2.4 km) southwest of Plymouth, and at mile 39.2 (63.1 km).

DRAINAGE AREA.--1,740 mi² (4,510 km²).

PERIOD OF RECORD.--Chemical analyses: September 1963 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
04...	46	19.0	8.4	93	25	19	5.0	260	0	120	23	.3
NOV.												
08...	59	9.0	9.7	110	31	28	4.2	300	0	150	47	.4
DEC.												
08...	109	.0	14	110	26	24	4.2	320	0	110	37	.4
FEB.												
21...	735	1.5	11	110	23	17	2.4	340	0	100	22	.2
MAR.												
13...	14600	10.0	10	32	4.9	4.5	4.0	100	0	19	5.0	.4
29...	3660	10.5	9.0	82	18	12	3.4	250	0	76	13	.3
APR.												
17...	6190	13.0	10	61	13	10	3.4	160	0	74	12	.4
MAY												
17...	821	17.0	8.4	86	23	13	3.0	270	0	82	17	.3
JUNE												
19...	419	24.0	13	120	31	25	2.6	340	0	160	36	.2
JULY												
16...	214	27.0	13	100	29	23	2.8	300	0	130	31	.3
AUG.												
21...	208	28.0	9.2	110	31	22	4.2	240	0	210	27	.4
SEP.												
19...	377	17.0	15	120	30	30	3.2	300	0	160	50	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
04...	.16	.05	170	450	55.9	.61	8	340	120	.5	690	7.6
NOV.												
08...	.00	.12	140	544	86.7	.74	8	410	160	.6	850	7.7
DEC.												
08...	.70	.07	120	500	147	.68	2	380	120	.5	780	7.4
FEB.												
21...	.99	.08	110	480	953	.65	8	380	99	.4	720	7.9
MAR.												
13...	1.6	.26	60	148	5830	.20	700	100	16	.2	210	7.5
29...	.81	.10	--	340	3360	.46	200	280	76	.3	540	7.6
APR.												
17...	1.1	.11	120	276	4610	.38	380	210	74	.3	430	7.3
MAY												
17...	.56	.07	150	380	842	.52	80	310	85	.3	610	7.7
JUNE												
19...	.75	.12	140	580	656	.79	130	440	160	.5	870	7.8
JULY												
16...	.20	.09	170	510	295	.69	130	380	130	.5	780	7.6
AUG.												
21...	.38	.10	200	550	309	.75	25	400	200	.5	810	7.6
SEP.												
19...	.75	.13	180	584	594	.79	110	420	170	.6	900	7.8

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
04...	60	0
APR.		
17...	21	0

07183500 NEOSHO RIVER NEAR PARSONS, KS

KSDH Station No. 201.4

LOCATION.--Lat 37°18'30", long 95°06'40", in NW¼NE¼ sec.33, T.31 S., R.21 E., Labette County, at gaging station at intake structure of water Filtration Plant, 150 ft (46 m) downstream from dam of Kansas Army Ammunition Plant, 8.0 mi (12.9 km) southeast of Parsons, and at mile 201.4 (324.1 km).

DRAINAGE AREA.--4,905 mi² (12,704 km²), includes that of Hickory Creek.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.
Specific conductance: October 1964 to September 1968.
Water temperatures: October 1963 to September 1968.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks. At discharges greater than 500 ft³/s (14 m³/s) samples are collected at railroad bridge approximately 1,800 ft (548 m) downstream from gaging station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	110	20.0	14	36	5.4	9.5	4.4	120	0	19	14	.4
NOV.												
06...	546	11.5	16	42	8.5	8.0	5.2	130	0	26	15	.5
DEC.												
04...	1680	3.0	11	57	10	20	5.6	170	0	43	30	.4
JAN.												
16...	1360	1.0	8.7	61	10	15	3.6	180	0	47	20	.4
FEB.												
12...	12600	3.0	9.6	35	6.9	6.5	3.8	120	0	19	8.0	.6
MAR.												
13...	22700	11.5	13	24	2.9	6.0	4.0	71	0	12	9.0	.5
APR.												
11...	11100	12.0	11	51	8.0	10	5.4	150	0	40	10	.4
MAY												
16...	2770	19.5	9.0	62	11	12	3.2	200	0	42	13	.4
JUNE												
13...	3800	22.5	9.0	64	11	11	3.4	210	0	42	13	.4
JULY												
18...	490	25.0	8.0	61	11	14	5.0	200	0	40	17	.3
AUG.												
21...	447	29.0	5.2	61	13	16	5.2	200	0	42	20	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
02...	.38	.23	60	178	52.9	.24	130	110	16	.4	270	7.1
NOV.												
06...	.54	.22	120	203	299	.28	15	140	32	.3	310	7.3
DEC.												
04...	.52	.10	80	270	1250	.38	55	180	43	.6	430	7.3
JAN.												
16...	.99	.10	80	282	1040	.38	25	190	45	.5	440	7.3
FEB.												
12...	1.0	.15	60	168	5720	.23	220	120	20	.3	250	7.4
MAR.												
13...	.70	.16	60	120	7360	.16	220	72	14	.3	170	7.0
APR.												
11...	.50	.20	90	225	6740	.31	160	160	34	.3	360	7.4
MAY												
16...	.32	.07	120	266	1990	.36	50	200	38	.4	430	7.5
JUNE												
13...	.99	.08	110	270	2770	.37	130	200	34	.3	460	7.5
JULY												
18...	.23	.08	120	278	368	.38	8	200	31	.4	440	7.3
AUG.												
21...	.07	.06	140	274	331	.37	8	210	40	.5	450	7.5

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
02...	540	50
APR.		
11...	140	0

07184590 NEOSHO RIVER AT CHETOPA, KS

LOCATION.--Lat 37°02'10", long 95°04'50", in SE¼SW¼ sec.35, T.34 S., R.21 E., Labette County, at bridge on U.S. Highway 166, 0.5 mi (0.8 km) east of Chetopa.

PERIOD OF RECORD.--Chemical analyses: July 1972 to September 1973 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)
MAR. 07...	25	5.1	7.1	5.1	27	5.8	.3	.75
JUNE 14...	65	13	12	3.3	43	11	.4	1.0

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	TUR-BID-ITY (JTU)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
MAR. 07...	134	.18	83	190	1.5	.3	205	6.9
JUNE 14...	290	.39	220	50	3.2	.4	465	7.8

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)
MAR. 07...	.00	.00	.00	.01	.00	.00	.00
JUNE 14...	.00	.00	.00	.00	.01	.00	.00

DATE	HEPTA-CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLOR-DANE (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)	PCB (UG/L)
MAR. 07...	.00	.00	.0	.03	.00	.03	.0
JUNE 14...	.00	.00	.0	.15	.00	.03	.0

DATE	AIR-TEMP-ERATURE (DEG C)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)
MAR. 07...	14.0	12.0	9.1	780	150	120
JUNE 14...	27.5	26.0	8.0	7200	100	150

07187600 SPRING RIVER NEAR BAXTER SPRINGS, KS

KSDH Station No. 1.6

LOCATION.--Lat 37°01'25", long 94°43'15", in sec.6, T.35 S., R.25 E., Cherokee County, at bridge on U.S. Highway 166, about 1.0 mi (1.6 km) east of Baxter Springs, and about 7.0 mi (11.3 km) upstream from gaging station near Quapaw, Okla.

DRAINAGE AREA.--2,510 mi^2 (6,501 km^2) upstream from gaging station.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1973.

REMARKS.--Records of discharge are given for gaging station at Spring River near Quapaw, Okla.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-CHARGE (CFS)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)
OCT. 04...	805	46	4.1	7.3	3.4	51	8.3	.3	--
NOV. 14...	29400	21	3.0	3.6	3.6	25	4.6	.2	.96
DEC. 16...	2470	52	4.8	9.8	2.9	55	10	.2	--
FEB. 15...	2180	55	4.8	8.8	2.2	56	11	.2	--
MAR. 07...	23500	25	3.4	4.5	3.7	29	4.9	.3	1.1
APR. 11...	5110	44	4.7	7.2	2.0	46	7.1	.2	--
MAY 08...	20800	24	2.9	3.4	2.2	28	5.0	.2	.76
JUNE 12...	2360	51	4.0	5.6	1.7	33	7.2	.2	--
AUG. 07...	610	50	3.9	7.4	2.3	32	7.7	.2	--

DATE	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	TUR-BID-ITY (JTU)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT. 04...	--	199	.27	130	--	--	.3	319	7.6
NOV. 14...	.66	108	.15	65	80	3.8	.2	162	6.7
DEC. 16...	--	216	.29	150	--	--	.3	363	7.5
FEB. 15...	--	210	.29	160	--	--	.3	358	7.6
MAR. 07...	--	135	.18	76	140	2.9	.2	188	6.8
APR. 11...	--	178	.24	130	--	--	.3	318	7.9
MAY 08...	--	124	.17	72	80	3.1	.2	169	7.4
JUNE 12...	--	220	.30	140	--	--	.2	315	7.8
AUG. 07...	--	191	.26	140	--	--	.3	350	8.1

07187600 SPRING RIVER NEAR BAXTER SPRINGS, KS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)
NOV. 14...	.00	.00	.00	.00	.01	.00	.00
MAR. 07...	.00	.00	.00	.01	.01	.00	.00
MAY 08...	.00	.00	.00	.00	.01	.00	00

DATE	HEPTA-CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLOR-DANE (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)	PCB (UG/L)
NOV. 14...	.00	.00	.0	.00	.00	.00	.0
MAR. 07...	.00	.00	.0	.05	.00	.02	.0
MAY 08...	.00	.00	.0	.08	.00	.04	.0

DATE	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)
OCT. 04...	20.5	6.3	420	220
NOV. 14...	8.5	10.8	300	110
DEC. 16...	1.5	12.3	800	320
FEB. 15...	6.0	9.6	270	65
MAR. 07...	12.0	8.8	180	120
APR. 11...	11.0	9.7	1200	820
MAY 08...	16.5	8.8	2500	2600
JUNE 12...	25.0	7.4	400	160
AUG. 07...	26.0	5.8	130	100

PART 6. MISSOURI RIVER BASIN

KANSAS RIVER BASIN

06891486 WEST BRANCH YANKEE TANK CREEK NEAR LAWRENCE, KS

LOCATION.--Lat 38°56'52", long 95°19'29", in NW¼NW¼SE¼ sec.5, T.13 S., R.19 E., Douglas County, on left bank 0.4 mi (0.6 km) upstream from confluence with East Branch, and 3.0 mi (5.0 km) west of Lawrence.

DRAINAGE AREA.--1.85 mi^2 (4.79 km^2).

PERIOD OF RECORD.--Chemical analyses: January 1969 to June 1973 (discontinued).

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	.04	14.5	8.7	59	12	11	1.6	190	0	48	12	.2
NOV.												
17...	2.4	5.5	9.3	91	7.0	9.5	2.8	270	0	41	9.0	.2
DEC.												
21...	1.9	1.0	10	62	6.2	7.5	6.8	180	0	32	9.0	.5
JAN.												
26...	3.2	5.0	9.4	81	9.3	9.0	2.4	240	0	41	7.0	.2
FEB.												
22...	.67	15.0	7.2	94	9.1	10	1.6	280	0	47	9.0	.2
MAR.												
27...	4.5	13.5	11	70	7.2	7.0	2.6	210	0	33	5.0	.2
APR.												
23...	1.2	23.0										

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.											
02...	.34	.10	248	.03	.34	1	200	40	.3	420	8.0
NOV.											
17...	1.6	.10	308	2.00	.42	15	260	38	.3	520	7.9
DEC.											
21...	2.0	.26	243	1.25	.33	15	180	32	.2	380	7.4
JAN.											
26...	2.5	.03	296	2.56	.40	65	240	40	.3	470	7.6
FEB.											
22...	1.6	.03	340	.62	.46	3	270	44	.3	540	7.7
MAR.											
27...	1.6	.06	256	3.11	.35	65	200	34	.2	410	7.8

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
02...	300	0

KANSAS RIVER BASIN

06891488 EAST BRANCH YANKEE TANK CREEK NEAR LAWRENCE, KS

LOCATION.--Lat 38°56'50", long 95°19'08", in SW¼NE¼SE¼ sec.5, T.13 S., R.19 E., Douglas County, on left bank 0.2 mi (0.3 km) upstream from confluence with West Branch, and 3.0 mi (4.8 km) west of Lawrence.

DRAINAGE AREA.--1.35 mi^2 (3.50 km^2).

PERIOD OF RECORD.--Chemical analyses: January 1969 to June 1973 (discontinued).

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	.02	14.5	14	106	8.6	9.0	1.6	300	0	52	13	.2
NOV.												
17...	1.8	5.5	8.4	91	12	10	2.2	270	0	56	8.0	.2
DEC.												
21...	1.0	.5	9.1	76	8.4	9.5	3.4	220	0	49	13	.4
JAN.												
26...	2.5	4.5	8.2	80	8.9	10	1.8	240	0	49	10	.2
FEB.												
22...	.43	3.0	7.8	94	11	10	1.2	280	0	56	9.0	.1
MAR.												
27...	2.8	13.0	9.6	78	6.0	8.0	2.2	220	0	41	9.0	.2
APR.												
23...	.65	21.5										
JULY												
26...	.38	22.5										

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.											
02...	.34	.18	357	.02	.49	8	300	50	.2	600	8.0
NOV.											
17...	.45	.09	325	1.58	.44	2	280	52	.3	540	7.7
DEC.											
21...	.50	.06	283	.76	.38	6	180	48	.3	440	7.6
JAN.											
26...	.61	.04	290	1.96	.39	7	240	40	.3	470	8.0
FEB.											
22...	.36	.03	340	.39	.46	2	280	50	.3	540	7.7
MAR.											
27...	.66	.05	274	2.07	.37	65	220	41	.2	430	7.9

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
02...	250	0

PART 7. LOWER MISSISSIPPI RIVER BASIN

ARKANSAS RIVER BASIN

07144795 NORTH FORK NINNESCAH RIVER AT CHENEY DAM, KS

KSDH Station No. 15.5

LOCATION.--Lat 37°43'17", long 97°47'39", in NE¼SW¼SE¼ sec.6, T.27 S., R.4 W., Sedgwick County, 1,400 ft (427 m) downstream from Cheney Dam, 6.0 mi (9.7 km) north of Cheney, and at mile 15.5 (24.9 km).

DRAINAGE AREA.--901 mi² (2,334 km²), of which 237 mi² (614 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
02...	.54	14.0	4.5	97	37	110	4.6	230	0	150	210	.3
JAN.												
05...	.37	1.0	12	130	45	85	3.8	260	0	210	200	.2
MAR.												
29...	1230	9.0	6.0	53	15	118	5.8	180	0	54	180	.4
APR.												
17...	.50	14.0	8.4	57	23	90	5.2	200	0	67	140	.4
JUNE												
01...	.70	26.0	4.3	70	27	76	4.0	170	0	110	140	.3

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
02...	.05	.05	180	754	1.10	1.03	1	390	200	2.4	1270	7.8
JAN.												
05...	.05	.02	200	842	.84	1.15	1	520	300	1.6	1360	7.6
MAR.												
29...	.41	.05	120	532	1770	.72	65	190	42	3.7	940	7.4
APR.												
17...	.41	.05	140	496	.67	.67	15	240	74	2.5	860	7.8
JUNE												
01...	.11	.03	170	536	1.01	.75	1	290	150	2.0	930	7.6

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
02...	40	0
APR.		
17...	70	0

ARKANSAS RIVER BASIN

07145000 SOUTH FORK NINNESCAH RIVER NEAR PRATT, KS

KSDH Station No. 76.0

LOCATION.--Lat 37°38'45", long 98°38'40", on south line sec.33, T.27 S., R.12 W., Pratt County, at bridge on U.S. Highway 54, 4.0 mi (6.4 km) east of Pratt.

DRAINAGE AREA.--204 mi^2 (528 km^2).

PERIOD OF RECORD.--Chemical analyses: March 1963 to September 1973 (discontinued).

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT. 11...	30	24.0	17	64	4.0	44	3.8	200	0	24	57	.3
JAN. 18...	34	8.0	22	58	5.7	36	3.8	190	0	19	47	.2
JULY 27...	24	30.0	20	62	5.2	46	3.8	200	0	19	60	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 11...	2.1	.59	120	342	27.7	.47	170	180	10	1.4	560	7.3
JAN. 18...	2.1	.46	60	305	28.0	.41	65	170	14	1.2	490	7.2
JULY 27...	1.6	.39	120	324	21.0	.44	75	180	12	1.5	550	7.3

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT. 11...	70	0

07145130 SOUTH FORK NINNESCAH RIVER NEAR CALISTA, KS

KSDH Station No. 50.1

LOCATION.--Lat 37°38'45", long 98°17'12", Kingman County, at bridge on U.S. Highway 54, 0.5 mi (0.8 km) north of Calista, and 1.5 mi (2.4 km) west of State Lake.

PERIOD OF RECORD.--Chemical analyses: May 1963 to September 1973 (discontinued).

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT. 11...	84	18.0	14	80	10	220	3.2	220	0	49	360	.3
JAN. 18...	151	3.0	19	75	10	180	3.2	220	0	43	290	.2
FEB. 16...	123	3.0	22	83	9.0	200	3.0	230	0	48	310	.3
JULY 27...	70	25.0	19	70	10	250	3.5	200	0	57	390	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 11...	1.2	.16	150	870	197	1.18	25	240	58	6.2	1560	7.5
JAN. 18...	1.4	.11	90	762	311	1.04	25	230	46	5.2	1340	7.4
FEB. 16...	1.6	.18	90	814	270	1.11	--	240	58	5.6	1430	7.7
JULY 27...	.75	.14	150	934	177	1.27	25	220	56	7.4	1690	7.3

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT. 11...	60	140

07145150 SOUTH FORK NINNESCAH RIVER NEAR KINGMAN, KS

KSDH Station No. 31.9

LOCATION.--Lat 37°38'00", long 98°11'40", in sec.2, T.28 S., R.7 W., Kingman County, at county highway bridge, 4.5 mi (7.2 km) southeast of Kingman.

PERIOD OF RECORD.--Chemical analyses: July 1963 to September 1973 (discontinued).

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT. 11...	92	20.0	14	78	10	220	3.2	220	0	49	350	.3
JAN. 18...	241	8.0	19	70	8.2	140	3.4	210	0	38	220	.2
JULY 27...	82	26.0	18	67	10	240	3.5	200	0	57	370	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 11...	1.2	.18	150	860	214	1.17	25	240	56	6.2	1560	7.5
JAN. 18...	1.0	.12	90	620	403	.84	65	210	38	4.2	1090	7.4
JULY 27...	.59	.14	200	872	193	1.19	25	210	46	7.2	1570	7.2

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT. 11...	50	0

ARKANSAS RIVER BASIN

07182510 NEOSHO RIVER AT BURLINGTON, KS

KSDH Station No. 338.4

LOCATION.--Lat 38°11'40", long 95°44'10", in SE¼NW¼ sec.26, T.21 S., R.15 E., Coffey County, at gaging station at highway bridge at Burlington, 0.3 mi (0.5 km) upstream from Rock Creek, and at mile 338.4 (554.5 km).

DRAINAGE AREA.--3,042 mi² (7,879 km²), includes that of Rock Creek.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1964, October 1965 to September 1973.

REMARKS.--Chemical analyses by Kansas State Department of Health, Topeka, Ks.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.												
03...	77	20.5	1.9	57	13	17	4.4	160	0	56	20	.3
JAN.												
15...	41	2.0	8.2	51	11	13	4.2	160	0	42	15	.4
APR.												
19...	8610	13.5	11	51	10	8.0	3.6	160	0	35	10	.4
JULY												
24...	2100	27.5	8.2	72	15	14	3.5	240	0	57	16	.4
AUG.												
24...	427	27.5	5.0	62	17	18	3.5	200	0	65	21	.4

DATE	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
03...	.50	4.6	80	272	56.5	.37	8	200	50	.5	450	7.6
JAN.												
15...	.90	1.3	80	245	27.1	.33	65	170	38	.4	390	7.7
APR.												
19...	.99	.13	110	226	5250	.31	55	170	36	.3	360	7.3
JULY												
24...	.32	.03	80	314	1780	.43	65	240	45	.4	510	7.3
AUG.												
24...	.34	.05	90	305	352	.41	15	220	62	.5	500	7.5

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT.		
03...	30	1
APR.		
19...	1500	70

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
PART 6. MISSOURI RIVER BASIN												
KANSAS RIVER BASIN												
06889000 - KANSAS R AT TOPEKA, KS (LAT 39 04 00 LONG 095 38 58)												
SEP., 1973 27...	62200	13	42	8.0	16	4.8	140	0	25	25	.4	.52
PART 7. LOWER MISSISSIPPI RIVER BASIN												
ARKANSAS RIVER BASIN												
07142200 - RATTLESNAKE C NR HAVILAND, KS (LAT 37 42 52 LONG 099 10 29)												
FEB., 1973 15...	.25	10	45	3.8	8.5	4.0	160	0	10	7.0	.2	4.7
07142270 - RATTLESNAKE C TR NR HOPEWELL, KS (LAT 37 50 33 LONG 098 59 09)												
FEB., 1973 15...	.34	18	82	10	50	3.8	170	0	85	51	.6	.07
07142540 - WILD HORSE C NR ST. JOHN, KS (LAT 38 03 39 LONG 098 45 52)												
FEB., 1973 15...	.27	17	58	10	24	7.8	210	0	23	30	.5	.45
07142570 - RATTLESNAKE C AB L SALT MARSH NR HUDSON, KS (LAT 38 05 13 LONG 098 34 52)												
FEB., 1973 15...	49	18	82	11	310	4.2	260	0	59	460	.3	.50
07142650 - PEACE C NR SYLVIA, KS (LAT 38 04 34 LONG 098 26 18)												
FEB., 1973 12...	1.2	16	42	3.7	99	11	140	0	23	150	.1	.05
07142670 - PEACE C NR STERLING, KS (LAT 38 08 43 LONG 098 15 13)												
FEB., 1973 12...	4.8	17	83	18	580	6.8	220	0	88	900	.3	1.5
07142740 - SALT C NR HUTCHINSON, KS (LAT 38 04 23 LONG 098 02 11)												
FEB., 1973 12...	11	22	110	25	620	5.6	300	0	130	970	.3	1.1
07143300 - COW C NR LYONS, KS (LAT 38 18 30 LONG 098 11 30)												
AUG., 1973 10	35	19	88	6.9	94	8.0	210	0	42	170	.3	1.3
07143620 - LITTLE ARKANSAS RIVER NEAR WINDOM, KANS. (LAT 38 16 56 LONG 097 55 30)												
OCT., 1972 03...	2.7	20	170	26	80	6.4	480	0	84	150	.3	.38

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
PART 6. MISSOURI RIVER BASIN											
KANSAS RIVER BASIN											
06889000 - KANSAS R AT TOPEKA, KS (LAT 39 04 00 LONG 095 38 58)											
SEP., 1973 27...	.18	130	220	48800	.30	1600	140	26	.6	340	7.6
PART 7. LOWER MISSISSIPPI RIVER BASIN											
ARKANSAS RIVER BASIN											
07142200 - RATTLESNAKE C NR HAVILAND, KS (LAT 37 42 52 LONG 099 10 29)											
FEB., 1973 13...	.07	60	177	.12	.24	--	130	0	.3	290	7.4
07142270 - RATTLESNAKE C TR NR HOPEWELL, KS (LAT 37 50 33 LONG 098 59 09)											
FEB., 1973 13...	.03	80	428	.39	.58	--	250	26	1.4	650	8.2
07142540 - WILD HORSE C NR ST. JOHN, KS (LAT 38 03 59 LONG 098 45 52)											
FEB., 1973 13...	.23	90	288	.21	.39	--	190	14	.8	440	7.9
07142570 - RATTLESNAKE C AB L SALT MARSH NR HUDSON, KS (LAT 38 05 13 LONG 098 34 52)											
FEB., 1973 13...	.06	170	1100	146	1.50	--	250	38	8.5	1930	7.8
07142650 - PEACE C NR SYLVIA, KS (LAT 38 04 34 LONG 098 26 18)											
FEB., 1973 12...	.33	60	430	1.39	.58	--	120	8	3.9	740	7.0
07142670 - PEACE C NR STERLING, KS (LAT 38 08 43 LONG 098 15 13)											
FEB., 1973 12...	.23	140	1830	23.7	2.49	--	280	100	15	3290	7.4
07142740 - SALT C NR HUTCHINSON, KS (LAT 38 04 23 LONG 098 02 11)											
FEB., 1973 12...	.16	140	2080	61.8	2.83	--	380	140	14	3600	8.1
07143300 - COW C NR LYONS, KS (LAT 38 18 30 LONG 098 11 30)											
AUG., 1973 10...	.42	--	550	52.0	.75	170	250	170	2.6	950	7.3
07143620 - LITTLE ARKANSAS RIVER NEAR WINDOM, KANS. (LAT 38 16 56 LONG 097 55 30)											
OCT., 1972 03...	.29	170	776	5.66	1.06	--	520	130	1.5	1270	8.1

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
ARKANSAS RIVER BASIN												
07143621 - SAND CREEK NEAR MEDORA, KANS. (LAT 38 14 47 LONG 097 55 36)												
OCT., 1972 03...	.02	10	1300	250	3700	11	120	0	24	8800	.1	.34
07143630 - L ARKANSAS R AT MEDORA, KS (LAT 38 09 07 LONG 097 50 22)												
OCT., 1972 03...	3.7	20	187	32	150	5.8	480	0	80	320	.3	.38
07143631 - LITTLE ARKANSAS RIVER AT BUHLER, KANS. (LAT 38 07 13 LONG 097 46 31)												
OCT., 1972 03...	5.8	16	150	27	120	6.2	430	0	69	240	.3	.09
07143642 - DRY TURKEY CREEK AT MCPHERSON, KANS. (LAT 38 21 44 LONG 097 39 14)												
OCT., 1972 02...	.01	12	64	10	17	8.8	220	0	23	30	.4	.20
07143643 - BULL CREEK NEAR MCPHERSON, KANS. (LAT 38 23 28 LONG 097 41 32)												
OCT., 1972 02...	.80	30	100	8.8	15	2.8	320	0	14	27	.1	.54
07143646 - DRY TURKEY CREEK TRIB NEAR MCPHERSON, KANS (LAT 38 16 53 LONG 097 40 00)												
OCT., 1972 02...	2.7	39	85	15	230	10	130	0	170	310	1.8	13
07143654 - TURKEY CREEK NEAR ELYRIA, KANS. (LAT 38 15 39 LONG 097 37 39)												
OCT., 1972 02...	.01	4.8	560	100	1400	16	150	0	24	3300	.1	.20
07143670 - LITTLE ARKANSAS RIVER NEAR BURRTON, KANS. (LAT 38 01 43 LONG 097 32 26)												
OCT., 1972 03...	8.0	23	150	26	140	6.0	380	0	57	270	.3	2.7
07143680 - LITTLE ARKANSAS RIVER AT HALSTEAD, KANS. (LAT 38 00 29 LONG 097 31 06)												
OCT., 1972 03...	17	19	130	22	150	6.2	330	0	68	280	.6	.16
07143900 - L ARKANSAS R NR HALSTEAD, KS (LAT 37 59 06 LONG 097 29 15)												
OCT., 1972 03...	20	22	120	20	130	6.8	330	0	65	230	.6	.95
07144075 - SAND CREEK AT NEWTON, KANS. (LAT 38 01 42 LONG 097 21 37)												
OCT., 1972 04...	2.1	28	66	13	95	11	250	0	65	89	.4	15
07144090 - SAND C NR SEDGWICK, KS (LAT 37 55 19 LONG 097 25 36)												
OCT., 1972 04...	1.3	26	69	18	100	10	270	0	78	100	.3	9.5
07144590 - NF NINNESCAH R NR SYLVIA, KS (LAT 37 55 59 LONG 098 24 36)												
FEB., 1973 15...	5.3	21	86	9.1	200	3.6	260	0	59	300	.4	.70
07144620 - NF NINNESCAH R AB SILVER C NR ARLINGTON, KS (LAT 37 51 09 LONG 098 09 30)												
FEB., 1973 15...	53	22	86	7.2	150	3.2	240	0	52	220	.4	1.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
ARKANSAS RIVER BASIN											
07143621 - SAND CREEK NEAR MEDORA, KANS. (LAT 38 14 47 LONG 097 55 36)											
OCT., 1972 03...	.33	540	14500	.78	19.7	--	4400	4300	25	25400	7.3
07143630 - L ARKANSAS R AT MEDORA, KS (LAT 38 09 07 LONG 097 50 22)											
OCT., 1972 03...	.25	170	1050	10.5	1.43	--	600	210	2.7	1750	7.8
07143631 - LITTLE ARKANSAS RIVER AT BUHLER, KANS. (LAT 38 07 13 LONG 097 46 31)											
OCT., 1972 03...	.31	150	856	13.4	1.16	--	490	140	2.4	1450	7.9
07143642 - DRY TURKEY CREEK AT MCPHERSON, KANS. (LAT 38 21 44 LONG 097 39 14)											
OCT., 1972 02...	.14	170	286	.01	.39	--	200	22	.5	460	7.6
07143643 - BULL CREEK NEAR MCPHERSON, KANS. (LAT 38 23 28 LONG 097 41 32)											
OCT., 1972 02...	.42	120	375	.81	.51	--	290	26	.4	590	7.7
07143646 - DRY TURKEY CREEK TRIB NEAR MCPHERSON, KANS (LAT 38 16 53 LONG 097 40 00)											
OCT., 1972 02...	4.6	330	1040	7.58	1.41	--	270	160	6.0	1700	6.9
07143654 - TURKEY CREEK NEAR ELYRIA, KANS. (LAT 38 15 39 LONG 097 37 39)											
OCT., 1972 02...	.09	330	5500	.15	7.48	--	1800	1700	14	9700	6.9
07143670 - LITTLE ARKANSAS RIVER NEAR BURRTON, KANS. (LAT 38 01 45 LONG 097 32 26)											
OCT., 1972 03...	.39	150	862	18.6	1.17	--	470	160	2.8	1470	8.1
07143680 - LITTLE ARKANSAS RIVER AT HALSTEAD, KANS. (LAT 38 00 29 LONG 097 31 06)											
OCT., 1972 03...	.46	180	840	38.6	1.14	--	420	150	3.2	1450	8.0
07143900 - L ARKANSAS R NR HALSTEAD, KS (LAT 37 59 06 LONG 097 29 15)											
OCT., 1972 03...	.59	180	780	42.1	1.06	--	390	120	2.9	1290	7.9
07144075 - SAND CREEK AT NEWTON, KANS. (LAT 38 01 42 LONG 097 21 37)											
OCT., 1972 04...	12	660	604	3.42	.82	--	220	52	2.8	900	7.7
07144090 - SAND C NR SEDGWICK, KS (LAT 37 55 19 LONG 097 25 36)											
OCT., 1972 04...	9.5	530	632	2.22	.86	--	250	28	2.8	950	8.0
07144590 - NF NINNESCAH R NR SYLVIA, KS (LAT 37 55 59 LONG 098 24 36)											
FEB., 1973 15...	.07	110	830	11.9	1.13	--	250	40	5.5	1450	7.9
07144620 - NF NINNESCAH R AB SILVER C NR ARLINGTON, KS (LAT 37 51 09 LONG 098 09 30)											
FEB., 1973 15...	.10	90	690	98.7	.94	--	240	48	4.2	1190	7.6

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
ARKANSAS RIVER BASIN												
07144640 - SILVER C NR LANGDON, KS (LAT 37 47 54 LONG 098 19 59)												
FEB., 1973 15...	7.5	19	110	17	280	3.0	280	0	71	470	.5	.86
07144660 - SILVER C NR ARLINGTON, KS (LAT 37 50 30 LONG 098 11 47)												
FEB., 1973 15...	27	17	100	17	260	3.0	280	0	77	410	.3	.81
07144680 - GOOSE C NR ARLINGTON, KS (LAT 37 49 24 LONG 098 11 32)												
FEB., 1973 15...	6.3	19	100	12	160	2.8	280	0	61	250	.4	1.3
07144740 - RED ROCK C NR CASTLETON, KS (LAT 37 53 55 LONG 098 00 55)												
FEB., 1973 15...	4.6	19	86	21	61	4.8	320	0	82	58	.3	2.5
07144890 - SF NINNESCAH R AT PRATT, KS (LAT 37 38 05 LONG 098 44 15)												
FEB., 1973 16...	13	26	62	5.2	27	3.4	200	0	16	32	.3	1.3
07145220 - SMOOTS C NR MURDOCK, KS (LAT 37 38 15 LONG 097 54 06)												
DEC., 1972 04...	4.3	11	55	25	49	2.8	210	0	94	45	.4	.18
FEB., 1973 16...	25	11	72	19	40	3.0	260	0	75	38	.4	1.2
07148200 - MULE C NR WILMORE, KS (LAT 37 16 55 LONG 099 02 34)												
FEB., 1973 14...	16	28	85	11	18	2.2	200	0	100	17	.4	.77
07148580 - TURKEY C NR CROFT, KS (LAT 37 29 52 LONG 098 56 56)												
FEB., 1973 14...	4.2	24	54	7.2	16	2.4	190	0	17	15	.1	2.7
07148600 - MEDICINE LODGE R AT SUN CITY, KS (LAT 37 22 13 LONG 098 54 53)												
FEB., 1973 14...	54	21	110	20	46	3.2	250	0	170	54	.4	.99
07148900 - ELM C AT MEDICINE LODGE, KS (LAT 37 16 25 LONG 098 34 28)												
FEB., 1973 14...	46	20	83	8.0	29	3.0	250	0	37	43	.2	.54
07151200 - CHIKASKIA R NR ZENDA, KS (LAT 37 28 25 LONG 098 16 55)												
FEB., 1973 16...	25	22	80	8.9	18	1.8	260	0	17	24	.3	1.4
07151290 - SAND C NR ZENDA, KS (LAT 37 24 41 LONG 098 16 55)												
FEB., 1973 14...	15	22	62	8.2	19	2.6	200	7	18	19	.2	1.1

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
ARKANSAS RIVER BASIN											
07144640 - SILVER C NR LANGDON, KS (LAT 37 47 54 LONG 098 19 59)											
FEB., 1973 15...	.07	110	1140	23.1	1.55	--	340	110	6.6	2000	8.1
07144660 - SILVER C NR ARLINGTON, KS (LAT 37 50 30 LONG 098 11 47)											
FEB., 1973 15...	.05	90	1060	77.3	1.44	--	330	96	6.3	1890	7.5
07144680 - GOOSE C NR ARLINGTON, KS (LAT 37 49 24 LONG 098 11 32)											
FEB., 1973 15...	.08	110	770	13.1	1.05	--	300	76	4.0	1340	7.9
07144740 - RED ROCK C NR CASTLETON, KS (LAT 37 55 55 LONG 098 00 35)											
FEB., 1973 15...	.15	120	524	6.51	.71	--	300	41	1.5	800	8.2
07144890 - SF NINNESCAH R AT PRATT, KS (LAT 37 38 03 LONG 098 44 15)											
FEB., 1973 16...	.11	90	293	10.3	.40	--	180	8	.9	460	8.0
07145220 - SMOOTS C NR MURDOCK, KS (LAT 37 38 13 LONG 097 54 06)											
DEC., 1972 04...	.03	120	388	4.50	.53	--	230	54	1.4	630	8.2
FEB., 1973 16...	.05	110	400	27.0	.54	--	260	44	1.1	630	8.2
07148200 - MULE C NR WILMORE, KS (LAT 37 16 55 LONG 099 02 34)											
FEB., 1973 14...	.04	90	382	16.5	.52	--	260	89	.5	570	8.0
07148580 - TURKEY C NR CROFT, KS (LAT 37 29 52 LONG 098 56 56)											
FEB., 1973 14...	.05	60	260	2.95	.35	--	160	10	.5	380	7.9
07148600 - MEDICINE LODGE R AT SUN CITY, KS (LAT 37 22 13 LONG 098 54 53)											
FEB., 1973 14...	.05	140	570	83.1	.78	--	360	150	1.1	850	7.7
07148900 - ELM C AT MEDICINE LODGE, KS (LAT 37 16 25 LONG 098 34 28)											
FEB., 1973 14...	.06	80	364	45.2	.50	--	240	34	.8	580	8.0
07151200 - CHIKASKIA R NR ZENDA, KS (LAT 37 28 25 LONG 098 16 55)											
FEB., 1973 16...	.05	40	320	21.6	.44	--	240	24	.5	530	8.0
07151290 - SAND C NR ZENDA, KS (LAT 37 24 41 LONG 098 16 55)											
FEB., 1973 14...	.11	80	272	11.0	.37	--	190	10	.6	420	8.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
PART 6. MISSOURI RIVER BASIN					
KANSAS RIVER BASIN					
06876200 - M PIPE C NR MILTONVALE, KS (LAT 39 21 00 LONG 097 34 08)					
JULY, 1973					
20...	1110	--	258	660	460
06877120 - MUD CREEK AT ABILENE, KANS. (LAT 38 55 47 LONG 097 15 39)					
AUG., 1973					
08...	1110	22.0	2200	3180	18900
06889100 - SOLDIER C NR GUFF, KS (LAT 39 37 27 LONG 095 57 57)					
OCT., 1972					
03...	1415	17.0	.03	30	.00
NOV.					
15...	1050	--	1.4	97	.37
FEB., 1973					
06...	0855	2.0	.71	32	.06
APR.					
23...	1455	17.5	.27	23	.02
AUG.					
16...	1020	21.0	.06	9	.00
06889120 - SOLDIER C NR BANCROFT, KS (LAT 39 35 42 LONG 095 58 17)					
OCT., 1972					
03...	1120	--	.07	41	.01
NOV.					
15...	1225	2.0	6.8	137	2.5
DEC.					
27...	1525	.0	5.1	62	.85
JAN., 1973					
26...	1350	2.5	18	298	14
MAR.					
04...	0445	--	547	1520	1420
31...	0210	--	633	2130	3640
APR.					
26...	1125	11.5	2.4	49	.32
JUNE					
20...	1230	25.0	.17	413	.18
AUG.					
15...	1005	22.0	2.0	69	.37
SEP.					
11...	1025	--	.67	69	.12
06889140 - SOLDIER C NR SOLDIER, KS (LAT 39 33 57 LONG 095 57 45)					
OCT., 1972					
03...	1305	17.5	.44	22	.02
NOV.					
15...	1345	2.0	11	104	3.1
DEC.					
27...	1435	1.5	9.1	46	1.1
JAN., 1973					
26...	1530	3.0	43	426	49
APR.					
26...	1350	12.5	5.0	29	.39
JUNE					
20...	1400	25.0	1.4	29	.11
AUG.					
15...	1215	21.0	5.6	0	.08
SEP.					
11...	1320	21.0	2.0	41	.22

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
		KANSAS RIVER BASIN			
06889160 - SOLDIER C NR CIRCLEVILLE, KS (LAT 39 27 47 LONG 095 57 00)					
OCT., 1972					
04...	1430	17.0	2.4	37	.24
NOV.					
09...	0450	--	99	1940	518
15...	1540	2.0	51	129	18
DEC.					
27...	1555	2.0	28	60	4.5
JAN., 1973					
30...	1125	.0	34	50	4.6
MAY					
07...	0210	--	1620	3040	13300
JUNE					
20...	1545	25.0	5.1	22	.30
22...	1045	--	4.6	40	.50
AUG.					
08...	0030	--	830	5020	11200
08...	0120	--	2720	5680	41700
15...	1415	21.5	14	50	1.9
SEP.					
11...	1140	21.0	6.4	60	1.0
06889180 - SOLDIER C NR ST. CLERE, KS (LAT 39 22 33 LONG 095 55 05)					
OCT., 1972					
04...	1610	17.0	7.7	19	.40
NOV.					
09...	2110	--	690	9390	17500
09...	2345	--	1190	7300	23400
JAN., 1973					
30...	0930	.0	43	127	15
APR.					
15...	2050	--	690	6350	11800
15...	2200	--	1190	6490	20900
23...	1300	17.0	66	107	19
MAY					
01...	0115	--	690	12400	23100
01...	0220	--	1860	7460	37500
AUG.					
14...	1145	22.5	29	106	8.3
06889200 - SOLDIER C NR DELIA, KS (LAT 39 12 08 LONG 095 52 25)					
OCT., 1972					
02...	1235	14.5	17	78	3.6
FEB., 1973					
06...	1150	4.0	189	481	245
MAR.					
12...	1355	9.0	428	2660	3070
MAY					
01...	1150	--	1020	11200	30800
JUNE					
19...	1245	25.0	35	147	13
JULY					
03...	2240	--	1660	7790	34900
AUG.					
13...	1540	22.5	100	1160	313
SEP.					
10...	1315	24.0	53	166	24

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
PART 7. LOWER MISSISSIPPI RIVER BASIN					
ARKANSAS RIVER BASIN					
07138650 - WHITEWOMAN C NR LEOTI, KS (LAT 38 28 52 LONG 101 29 16)					
JULY, 1973					
10...	1000	16.0	276	2080	1550
07140600 - PAWNEE R TR NR KALVESTA, KS (LAT 38 03 42 LONG 100 21 00)					
MAR., 1973					
24...	1210	7.0	58	833	130
07140700 - GUZZLERS GULCH NEAR NESS CITY, KS (LAT 38 17 40 LONG 099 57 10)					
MAR., 1973					
24...	1500	7.0	247	1760	1170
24...	1735	7.0	157	1800	763
31...	1355	6.0	928	2180	5460
07141400 - SF WALNUT CR TR NR DIGHTON, KS (LAT 38 25 58 LONG 100 24 54)					
MAY, 1973					
22...	0530	--	14	11700	442
JULY					
25...	1200	--	293	425	336
07141800 - OTTER C NR RUSH CENTER, KS (LAT 38 24 16 LONG 099 18 26)					
APR., 1973					
19...	1035	7.5	3.8	443	4.5
07157500 - CROOKED C NR NYE, KS (LAT 37 02 02 LONG 100 11 55)					
APR., 1973					
01...	1645	9.0	2450	1550	10300
04...	1605	8.0	1830	1920	9500
05...	1400	10.0	860	2720	6320
06...	1905	12.0	512	1480	2040
10...	1425	10.0	161	522	227
SEP.					
13...	1430	--	424	518	593
07157700 - KIGER C NR ASHLAND, KS (LAT 37 11 36 LONG 099 54 48)					
SEP., 1973					
07...	1500	--	3.5	570	5.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)

PART 6. MISSOURI RIVER BASIN

BIG NEMAHA RIVER BASIN

06814000 TURKEY C NR SENECA, KS (LAT 39 56 52 LONG 096 06 30)

OCT., 1972			
4...	1150	17.0	0.30
NOV.			
17...	1240	1.0	69
DEC.			
27...	1045	0.	44
JAN., 1973			
26...	1130	1.0	541
FEB.			
23...	1150	3.0	138
MAR.			
29...	1400	11.5	313
APR.			
27...	1240	11.0	129
MAY			
24...	1250	17.5	70
JUNE			
21...	1220	21.0	27
JULY			
26...	1240	24.5	61
AUG.			
16...	1220	19.5	20
SEP.			
12...	0930	17.5	10

KANSAS RIVER BASIN

06847900 PRAIRIE DOG C AB NORTON RE, KS (LAT 39 46 13 LONG 100 06 00)

JUNE, 1973			
20...	1150	17.0	3.6

06853500 REPUBLICAN R NR HARDY, NE (LAT 40 00 01 LONG 097 54 55)

OCT., 1972			
4...	1320	2.0	105
NOV.			
28...	1200	2.5	179
DEC.			
18...	1545	0.	123
JAN., 1973			
30...	1410	0.5	213
FEB.			
23...	1400	9.0	174
MAR.			
20...	1530	12.5	219
APR.			
17...	1620	16.0	476
MAY			
4...	1340	18.5	337
JUNE			
19...	1525	25.5	288
JULY			
16...	1420	26.0	545
AUG.			
20...	1630	32.5	182
SEP.			
3...	1610	20.5	7480
21...	1420	22.5	275

06853800 WHITE ROCK C NR BURR OAK, KS (LAT 39 53 55 LONG 098 15 05)

OCT., 1972			
18...	1140	8.5	0.84
NOV.			
28...	1000	0.5	4.6
DEC.			
18...	1255	0.	2.7
JAN., 1973			
30...	1110	0.	7.1
FEB.			
23...	1135	1.0	6.8
MAR.			
20...	1300	6.5	2.2
24...	1430	8.5	53
APR.			
17...	1340	11.0	88
MAY			
11...	1130	17.0	34
JUNE			
19...	1300	19.5	11
JULY			
16...	1120	20.5	9.1
AUG.			
20...	1415	24.0	5.8
SEP.			
3...	1325	20.0	3700
4...	1340	24.0	127
20...	1430	15.5	18

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
KANSAS RIVER BASIN			
06854000 WHITE ROCK C AT LOVEWELL, KS (LAT 39 53 10 LONG 098 01 20)			
MAR., 1973			
20...	1025	6.0	15
APR.			
9...	1120	5.5	259
17...	1035	9.0	259
MAY			
11...	1500	0.2	64
SEP.			
7...	1340	21.5	748
13...	1120	20.5	996
18...	1500	17.0	485
20...	1150	17.0	147
06855800 BUFFALO C NR JAMESTOWN, KS (LAT 39 36 55 LONG 097 51 20)			
OCT., 1972			
17...	1610	12.5	3.6
NOV.			
27...	1445	3.0	80
DEC.			
14...	1310	0.	25
JAN., 1973			
19...	1110	2.5	274
FEB.			
27...	1025	2.5	37
MAR.			
19...	1250	6.0	134
24...	1730	9.0	838
APR.			
25...	1310	13.5	122
MAY			
7...	1120	13.5	1150
8...	1420	14.0	2740
JUNE			
18...	1500	25.0	38
JULY			
17...	1115	23.5	58
AUG.			
17...	1440	26.5	99
SEP.			
21...	1030	18.5	21
06855900 WOLF C NR CONCORDIA, KS (LAT 39 32 35 LONG 097 43 20)			
OCT., 1972			
17...	1015	12.0	1.7
NOV.			
27...	1040	3.0	26
DEC.			
14...	1420	0.	8.2
JAN., 1973			
19...	1325	1.5	22
FEB.			
21...	1500	4.0	14
MAR.			
19...	1030	6.5	43
APR.			
25...	1040	13.5	35
MAY			
7...	1350	13.0	1120
JUNE			
12...	1450	23.5	11
JULY			
13...	1350	26.0	2.6
AUG.			
13...	1210	23.5	11
SEP.			
18...	1020	10.5	8.9
06858500 NF SMOKY HILL R NR MCALLASTER, KS (LAT 39 01 01 LONG 101 20 51)			
JAN., 1973			
18...	1720	5.0	1.2
FEB.			
22...	1120	4.0	1.1
MAY			
31...	1615	23.0	0.59

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
KANSAS RIVER BASIN			
06859500 LADDER C BL CHALK C NR SCOTT CITY, KS (LAT 38 47 20 LONG 100 52 10)			
NOV., 1972			
17...	1135	2.0	2.0
DEC.			
14...	1245	0.	1.9
JAN., 1973			
17...	1410	0.5	4.4
FEB.			
20...	1425	5.0	2.9
MAR.			
19...	1530	12.0	2.2
MAY			
29...	1610	18.0	0.51
JUNE			
20...	1420	27.0	0.30
JULY			
13...	1150	23.0	0.10
AUG.			
20...	1135	26.0	0.56
30...	1350	23.0	0.30
06860000 SMOKY HILL R AT ELKADER, KS (LAT 37 47 33 LONG 100 51 19)			
NOV., 1972			
17...	0950	2.0	3.1
DEC.			
14...	1240	0.	1.9
JAN., 1973			
17...	1550	2.0	2.8
FEB.			
20...	1520	8.0	2.5
MAR.			
19...	1735	12.0	2.3
MAY			
29...	1705	18.0	0.96
JUNE			
20...	1320	24.0	0.83
JULY			
13...	1105	22.0	0.04
AUG.			
20...	1240	26.0	0.61
30...	1245	23.0	0.02
06861000 SMOKY HILL R NR ARNOLD, KS (LAT 38 48 31 LONG 100 01 13)			
JAN., 1973			
17...	1145	2.0	9.6
FEB.			
20...	1135	4.0	8.3
MAR.			
20...	1050	8.0	15
MAY			
24...	1645	23.0	36
JUNE			
21...	1650	27.0	5.1
JULY			
12...	1445	29.0	1.1
25...	1545	22.0	1100
26...	1010	23.0	265
27...	1320	26.0	121
30...	1445	26.0	46
AUG.			
15...	1645	32.0	24
SEP.			
17...	1330	18.0	11
06863500 BIG C NR HAYS, KS (LAT 38 48 45 LONG 099 15 14)			
OCT., 1972			
17...	1045	13.0	3.9
NOV.			
21...	1425	3.0	10
DEC.			
18...	1100	0.	5.6
JAN., 1973			
23...	1535	0.5	10
FEB.			
22...	1610	6.0	10
MAR.			
22...	0850	7.0	17
APR.			
20...	0900	10.0	110
MAY			
22...	1550	21.0	52
JUNE			
20...	1600	23.0	12
JULY			
19...	1325	24.0	126
AUG.			
28...	0820	22.0	12
SEP.			
24...	1510	17.0	16

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
KANSAS RIVER BASIN			
06863900 NF BIG C NR VICTORIA, KS (LAT 38 53 12 LONG 099 12 21)			
MAR., 1973			
21...	1620	11.0	3.5
APR.			
20...	1100	10.5	33
MAY			
22...	1645	22.0	6.0
JUNE			
21...	0730	17.0	0.01
JULY			
19...	1435	27.0	0.02
AUG.			
27...	1510	25.0	0.03
SEP.			
24...	1710	2.0	1.4
06867500 PARADISE C NR PARADISE, KS (LAT 39 04 25 LONG 098 51 15)			
MAR., 1973			
12...	1330	8.0	258
15...	1445	10.0	25
APR.			
1...	1120	7.0	1510
9...	1340	4.0	117
MAY			
23...	1235	21.0	55
JUNE			
21...	0850	17.0	6.2
JULY			
20...	1250	23.0	61
AUG.			
28...	0950	24.0	0.17
SEP.			
25...	0910	17.0	13
06868200 SALINE R AT WILSON DAM, KS (LAT 38 58 35 LONG 098 29 20)			
OCT., 1972			
16...	1155	15.0	4.7
NOV.			
17...	1135	8.0	5.3
DEC.			
19...	1100	3.5	5.4
JAN., 1973			
24...	1110	4.0	22
FEB.			
22...	1005	4.5	4.1
MAR.			
19...	1420	8.0	3.1
APR.			
6...	1050	8.0	1060
24...	1115	12.5	1460
MAY			
1...	1120	12.0	3.1
14...	1100	15.0	353
JUNE			
18...	1000	20.0	18
JULY			
9...	1025	22.0	17
AUG.			
8...	1100	24.5	18
SEP.			
14...	1040	23.0	98
06871500 BOW C NR STOCKTON, KS (LAT 39 33 46 LONG 099 17 04)			
OCT., 1972			
11...	1335	15.0	0.17
NOV.			
14...	1040	0.5	4.4
DEC.			
13...	1400	0.	1.1
19...	1620	0.	1.3
29...	1305	0.5	6.1
JAN., 1973			
24...	1635	0.5	6.3
FEB.			
13...	0840	0.5	7.0
MAR.			
14...	0810	7.5	9.2
APR.			
1...	1250	8.0	55
12...	1035	9.5	19
MAY			
8...	1420	17.5	19
JUNE			
19...	1040	17.0	6.9
JULY			
10...	0910	21.5	3.1
AUG.			
9...	0820	26.5	5.0
SEP.			
5...	1015	17.5	2.3

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
KANSAS RIVER BASIN			
06871900 DEER C NR PHILLIPSBURG, KS			(LAT 39 46 50 LONG 099 25 20)
FEB., 1973			
13...	1620	0.	1.3
14...	1000	0.	0.71
20...	1320	0.	1.1
MAR.			
14...	1650	11.0	3.3
APR.			
11...	1640	16.5	2.8
MAY			
8...	1835	22.0	1.8
06873700 KILL C NR BLOOMINGTON, KS			(LAT 39 22 45 LONG 098 51 33)
MAR., 1973			
12...	1640	9.0	2.5
13...	1225	9.0	0.11
APR.			
2...	0900	9.0	82
9...	1710	4.0	32
19...	1410	16.0	4.5
MAY			
7...	1500	14.0	28
17...	1310	14.0	20
29...	1525	17.0	10
JUNE			
12...	1120	22.0	4.5
26...	1155	23.5	1.3
JULY			
9...	1530	29.0	0.03
AUG.			
8...	1720	27.5	0.07
SEP.			
3...	1435	19.5	126
4...	1250	18.5	49
06876700 SALT C NR ADA, KS			(LAT 39 08 30 LONG 097 50 10)
OCT., 1972			
11...	1140	18.5	3.4
NOV.			
16...	1020	1.5	179
DEC.			
13...	1420	0.	12
JAN., 1973			
29...	1010	0.	9.3
FEB.			
16...	1120	0.	20
MAR.			
16...	1110	8.0	329
26...	1355	8.5	2870
APR.			
19...	1530	13.0	207
MAY			
18...	1400	17.0	105
JUNE			
25...	1255	23.5	26
JULY			
19...	1400	24.5	67
AUG.			
16...	1410	25.0	77
SEP.			
14...	1440	19.0	28
06878000 CHAPMAN C NR CHAPMAN, KS			(LAT 39 10 00 LONG 097 13 00)
OCT., 1972			
2...	1005	14.5	14
NOV.			
3...	1315	7.5	67
DEC.			
1...	1310	3.5	44
JAN., 1973			
9...	1110	0.	32
FEB.			
2...	0940	0.5	2380
MAR.			
12...	1250	9.5	2080
APR.			
30...	1350	19.5	106
MAY			
31...	1350	20.0	81
JUNE			
7...	1030	23.5	42
JULY			
26...	1350	23.0	474
AUG.			
9...	1030	22.0	1130

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
KANSAS RIVER BASIN			
06878500 LYON C NR WOODBINE, KS			(LAT 38 53 05 LONG 096 54 35)
OCT., 1972			
2...	1310	17.0	16
DEC.			
1...	1050	3.0	37
JAN., 1973			
9...	1300	0.5	39
NOV., 1972			
3...	1025	7.5	29
FEB., 1973			
2...	1205	2.0	1310
MAR.			
12...	1000	9.0	586
APR.			
13...	1355	10.0	155
MAY			
14...	1440	18.0	104
JUNE			
12...	1500	26.0	72
JULY			
9...	1450	29.0	41
AUG.			
16...	1400	27.0	148
SEP.			
12...	1530	22.0	48
06879100 KANSAS R AT FORT RILEY, KS			(LAT 39 03 09 LONG 096 46 33)
DEC., 1972			
21...	1500	1.5	876
JAN., 1973			
30...	1620	2.5	2000
MAR.			
7...	1205	7.0	15000
APR.			
5...	1110	8.5	24700
JULY			
12...	1220	27.0	998
AUG.			
20...	1410	27.0	3280
SEP.			
13...	1045	20.5	4020
06884200 MILL C AT WASHINGTON, KS			(LAT 39 48 50 LONG 097 02 20)
OCT., 1972			
25...	1000	7.0	20
NOV.			
20...	1130	4.0	246
DEC.			
19...	0930	0.	62
JAN., 1973			
24...	1250	0.5	119
FEB.			
21...	0910	0.	98
MAR.			
21...	0945	6.5	160
APR.			
23...	1355	17.0	193
MAY			
23...	1120	20.5	91
JUNE			
21...	1150	23.0	36
JULY			
23...	1340	21.5	147
AUG.			
21...	0930	25.5	23
SEP.			
24...	1120	20.0	30
28...	1000	17.0	5500

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
KANSAS RIVER BASIN			
06885500 BLACK VERMILLION R NR FRANKFORT, KS (LAT 39 41 03 LONG 096 26 15)			
OCT., 1972			
19...	1100	12.5	5.6
NOV.			
20...	1620	4.5	153
DEC.			
19...	1405	0.	38
JAN., 1973			
23...	1450	1.0	95
FEB.			
2...	1140	0.	5120
20...	1315	2.5	167
MAR.			
22...	0945	8.0	165
APR.			
19...	1045	15.5	249
29...	1155	17.0	89
JUNE			
21...	1650	23.5	24
JULY			
19...	1110	22.0	3110
AUG.			
21...	1550	28.0	35
SEP.			
24...	1600	20.0	463
06888500 MILL C AT PAXICO, KS (LAT 39 03 44 LONG 096 10 52)			
OCT., 1972			
24...	1510	10.0	16
NOV.			
21...	1400	4.0	68
DEC.			
18...	1120	0.5	36
JAN., 1973			
29...	1425	0.5	367
FEB.			
20...	1430	2.0	203
APR.			
13...	1710	13.0	279
MAY			
10...	0925	16.0	413
JUNE			
19...	0950	25.0	65
JULY			
31...	1110	24.5	131
AUG.			
17...	1110	23.0	66
06889000 KANSAS R AT TOPEKA, KS (LAT 39 04 00 LONG 095 38 58)			
OCT., 1972			
13...	1035	20.0	1420
27...	0940	13.0	1120
NOV.			
10...	1020	10.0	3330
22...	1400	5.0	5590
DEC.			
20...	0805	0.5	6100
JAN., 1973			
15...	1005	0.5	5230
FEB.			
6...	1515	3.0	15900
MAR.			
8...	1035	6.0	21700
27...	1020	8.5	39000
APR.			
13...	1140	11.0	38400
MAY			
10...	1420	18.0	27900
JUNE			
8...	1100	22.0	9750
26...	0920	26.0	6400
JULY			
9...	1520	30.0	2840
31...	1520	24.0	11300
AUG.			
24...	1025	26.0	7970
SEP.			
28...	1105	1950.0	8390
27...	1345	19.0	82200
06889100 SOLDIER C NR GOFF, KS (LAT 39 37 27 LONG 095 57 57)			
DEC., 1972			
27...	1205	0.	0.75
FEB., 1973			
22...	1355	4.0	0.48
MAR.			
23...	1340	7.0	114
SEP.			
11...	1350	21.5	0.04

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
KANSAS RIVER BASIN			
06889120 SOLDIER C NR BANCROFT, KS			(LAT 39 35 42 LONG 095 58 17)
FEB., 1973			
22...	1250	3.5	3.1
MAR.			
23...	1510	7.0	345
MAY			
23...	1200	18.0	0.82
JULY			
20...	1105	22.0	124
06889140 SOLDIER C NR SOLDIER, KS			(LAT 39 33 57 LONG 095 57 45)
FEB., 1973			
22...	1140	4.5	4.8
MAR.			
23...	1135	4.5	79
MAY			
23...	1315	18.5	3.1
JUNE			
20...	1345	25.0	1.4
JULY			
20...	1150	22.0	150
06889160 SOLDIER C NR CIRCLEVILLE, KS			(LAT 39 27 47 LONG 095 57 00)
FEB., 1973			
22...	1015	3.5	20
MAR.			
26...	1240	10.0	109
APR.			
26...	1530	12.0	23
MAY			
23...	1450	19.0	13
JULY			
20...	1350	22.5	297
AUG.			
15...	1400	21.5	14
06889180 SOLDIER C NR ST CLERE, KS			(LAT 39 22 33 LONG 095 55 05)
NOV., 1972			
21...	1055	2.5	52
DEC.			
21...	1305	0.	99
FEB., 1973			
23...	1430	0.	45
MAR.			
26...	1420	10.0	208
MAY			
23...	1620	19.0	34
JUNE			
22...	1025	14.5	14
JULY			
20...	1505	22.0	544
SEP.			
11...	0950	19.5	12
06889500 SOLDIER C NR TOPEKA, KS			(LAT 39 06 00 LONG 095 43 27)
OCT., 1972			
2...	1530	15.5	21
NOV.			
17...	1555	1.0	301
DEC.			
28...	1520	0.	159
JAN., 1973			
29...	1550	0.5	165
FEB.			
20...	1550	4.5	147
MAR.			
12...	1110	8.0	971
APR.			
25...	1230	16.0	188
MAY			
25...	1135	17.5	102
JUNE			
19...	1425	26.0	49
JULY			
27...	1455	26.0	118
AUG.			
15...	1615	25.0	86
SEP.			
10...	1410	24.0	79
27...	1100	18.5	6220

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	
KANSAS RIVER BASIN				
06890100 DELAWARE R NR MUSCOTAH, KS				(LAT 39 31 17 LONG 095 31 57)
OCT., 1972				
5...	1130	16.5	11	
NOV.				
21...	1420	3.0	143	
DEC.				
28...	1010	0.5	303	
JAN., 1973				
30...	1330	0.5	259	
FEB.				
21...	1315	2.0	216	
MAR.				
29...	1045	11.0	1780	
APR.				
30...	1340	17.5	177	
MAY				
7...	1240	17.0	7480	
24...	1550	17.5	101	
JUNE				
25...	1225	26.0	36	
JULY				
25...	1410	27.0	302	
06891483 WAKARUSA R BL CLINTON DAM, KS				(LAT 38 55 14 LONG 095 17 17)
DEC., 1972				
28...	1330	1.0	197	
FEB., 1973				
1...	1510	3.5	6780	
20...	1210	1.0	169	
MAR.				
13...	1050	9.0	840	
APR.				
25...	1540	17.0	279	
MAY				
29...	1120	21.0	571	
JUNE				
15...	1405	26.0	217	
AUG.				
13...	1645	27.5	32	
SEP.				
10...	1440	24.5	13	
06892000 STRANGER C NR TONGANOXIE, KS				(LAT 39 06 59 LONG 095 00 39)
OCT., 1972				
5...	1450	18.0	23	
JAN., 1973				
26...	1050	2.0	939	
FEB.				
20...	1025	0.	208	
MAR.				
13...	1320	8.5	779	
APR.				
17...	1140	12.5	4050	
JUNE				
1...	1235	21.0	156	
15...	1020	23.0	175	
AUG.				
13...	1100	23.5	1080	
SEP.				
14...	1255	18.0	98	
BLUE RIVER BASIN				
06893300 INDIAN C AT OVERLAND PARK, KS				(LAT 38 56 30 LONG 094 40 10)
OCT., 1972				
13...	1100	15.0	3.4	
NOV.				
17...	1210	4.0	8.4	
DEC.				
15...	1145	0.	1.7	
JAN., 1973				
18...	1230	5.0	3.9	
FEB.				
21...	1545	2.5	9.8	
APR.				
20...	1300	13.0	273	
MAY				
4...	1350	16.0	12	
31...	1535	22.0	14	
JULY				
2...	1320	24.0	212	
23...	1140	23.5	644	
AUG.				
3...	1340	26.0	4.2	

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
OSAGE RIVER BASIN			
06910800 MARAIS DES CYGNES R NR READING, KS (LAT 38 34 00 LONG 095 57 50)			
OCT., 1972			
26...	1435	11.0	0.82
NOV.			
28...	1500	2.0	37
JAN., 1973			
2...	1430	0.	57
FEB.			
5...	1125	0.	151
MAR.			
5...	1030	4.5	888
APR.			
3...	1415	10.0	167
MAY			
7...	1510	16.5	754
JUNE			
12...	1230	25.5	25
JULY			
24...	1450	24.0	36
AUG.			
14...	1345	26.5	11
SEP.			
11...	1355	25.0	2.1
06911500 SALT C NR LYNDON, KS (LAT 38 36 32 LONG 095 38 17)			
OCT., 1972			
2...	1315	19.0	0.25
NOV.			
2...	1605	11.0	1.6
28...	0950	2.0	26
JAN., 1973			
2...	0950	0.	40
29...	1540	4.0	50
MAR.			
5...	1310	5.5	478
APR.			
5...	1450	10.0	58
MAY			
9...	1210	18.5	95
JUNE			
13...	1310	25.5	7.9
JULY			
24...	1535	29.0	6.6
AUG.			
15...	1020	22.5	1.7
SEP.			
12...	1030	24.0	1.0
06911900 DRAGOON C NR BURLINGAME, KS (LAT 38 42 30 LONG 095 50 20)			
OCT., 1972			
26...	1615	11.0	3.1
JAN., 1973			
2...	1620	0.5	40
NOV., 1972			
28...	1630	2.0	26
FEB., 1973			
2...	1510	3.0	482
MAR.			
7...	1020	7.5	1580
7...	1530	8.0	599
APR.			
3...	1610	10.0	103
MAY			
9...	1610	16.5	88
JUNE			
12...	1040	24.0	16
JULY			
24...	1650	25.0	13
AUG.			
14...	1545	26.0	1.8
SEP.			
11...	1520	25.0	0.59
06912500 HUNDRED AND TEN MILE C NR QUENEMO, KS (LAT 38 38 41 LONG 095 33 34)			
OCT., 1972			
2...	1530	20.0	19
NOV.			
27...	1500	3.0	9.1
JAN., 1973			
31...	1500	3.0	1750
MAR.			
7...	1400	4.0	102
APR.			
5...	1105	10.5	1.2
MAY			
9...	1300	18.0	2660
JUNE			
13...	1425	19.5	21
SEP.			
12...	1225	24.0	19

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
OSAGE RIVER BASIN			
06913000 MAPAIS DES CYGNES R NR POMONA, KS (LAT 38 35 03 LONG 095 27 12)			
OCT., 1972			
3...	1555	18.0	33
NOV.			
2...	1320	11.5	30
27...	1225	3.0	190
JAN., 1973			
30...	1240	5.0	3210
FEB.			
8...	1100	17.0	5580
MAR.			
5...	1430	5.5	6860
APR.			
5...	1250	10.0	299
MAY			
9...	1725	18.0	5020
JUNE			
13...	1655	23.0	162
AUG.			
15...	1505	26.0	46
SEP.			
12...	1425	25.0	40
06914000 POTTAWATOMIE C NR GARNETT, KS (LAT 38 20 01 LONG 095 14 55)			
OCT., 1972			
30...	1505	11.5	1.0
NOV.			
29...	1320	3.0	64
JAN., 1973			
4...	1100	0.	1030
FEB.			
8...	1350	2.0	139
MAR.			
7...	1430	6.0	3850
APR.			
10...	1100	7.0	134
MAY			
10...	1445	20.0	138
JUNE			
18...	1105	24.5	35
JULY			
20...	1100	26.0	5.9
AUG.			
13...	1310	26.0	2.2
SEP.			
17...	1530	22.0	38
06915000 BIG BULL C NR HILLSDALE, KS (LAT 38 38 12 LONG 094 53 29)			
OCT., 1972			
30...	1210	11.0	0.84
NOV.			
29...	1105	3.5	14
JAN., 1973			
8...	1150	0.	34
FEB.			
2...	1100	2.5	889
MAR.			
7...	1120	5.5	1030
9...	1540	8.0	1980
APR.			
4...	1420	9.0	144
MAY			
14...	1310	20.0	62
22...	1520	19.0	59
JUNE			
15...	0950	22.0	139
JULY			
25...	1210	25.0	506
AUG.			
17...	1115	25.5	3.6
SEP.			
17...	1150	21.0	1330

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
OSAGE RIVER BASIN			
06917000 L OSAGE R AT FULTON, KS			(LAT 38 01 09 LONG 094 42 48)
NOV., 1972			
2...	1445	10.5	241
30...	1720	4.0	152
JAN., 1973			
10...	1405	0.	201
FEB.			
6...	1520	3.5	293
APR.			
6...	1450	11.5	257
MAY			
11...	1300	20.0	210
JUNE			
14...	1050	23.5	131
JULY			
18...	1510	29.5	4.9
AUG.			
21...	1230	27.0	2.3
SEP.			
24...	1545	21.5	24
06917340 MARMATON R NR MARMATON, KS			(LAT 37 49 03 LONG 094 47 30)
OCT., 1972			
31...	1310	11.0	1000
NOV.			
14...	1350	9.0	833
30...	1145	3.0	158
JAN., 1973			
10...	1205	0.	144
FEB.			
6...	1130	3.5	225
MAR.			
9...	1200	7.0	4200
APR.			
6...	1220	11.5	194
MAY			
11...	1040	20.0	140
JUNE			
8...	1630	23.0	65
JULY			
18...	1330	30.0	1.6
AUG.			
21...	1355	29.0	67
SEP.			
24...	1520	22.5	3.7

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
PART 7. LOWER MISSISSIPPI RIVER BASIN			
ARKANSAS RIVER BASIN			
07140700 GUZZLERS GULCH NR NESS CITY, KS			(LAT 38 17 40 LONG 099 57 10)
MAR., 1973			
25...	1730	7.0	23
07141780 WALNUT C NR RUSH CENTER, KS			(LAT 38 28 07 LONG 099 22 07)
OCT., 1972			
3...	1800	18.0	0.20
NOV.			
15...	1240	3.0	5.7
DEC.			
11...	1320	0.	0.95
JAN., 1973			
15...	1250	1.0	1.7
FEB.			
6...	1245	1.0	6.3
MAR.			
19...	1250	7.0	23
APR.			
19...	1140	15.0	63
MAY			
22...	1130	21.5	32
JUNE			
18...	1040	21.5	5.9
JULY			
17...	1120	22.0	20
AUG.			
16...	1120	22.0	23
SEP.			
21...	1030	17.5	8.7
07142300 RATTLESNAKE C NR MACKSVILLE, KS			(LAT 37 52 20 LONG 098 52 30)
OCT., 1972			
3...	1238	18.0	9.1
NOV.			
7...	1150	11.0	9.0
DEC.			
7...	1010	0.	11
JAN., 1973			
11...	1110	0.	12
FEB.			
6...	1020	2.5	32
MAR.			
7...	1145	5.0	20
APR.			
10...	1514	7.0	80
MAY			
4...	1315	14.0	66
JUNE			
6...	1255	23.0	49
JULY			
19...	1220	27.5	31
AUG.			
20...	1400	29.0	22
SEP.			
24...	1155	19.0	42
26...	1410	18.0	1900
07142575 RATTLESNAKE C NR ZENITH, KS			(LAT 38 06 01 LONG 098 30 32)
JUNE, 1973			
27...	1250	26.0	33
JULY			
11...	1505	35.5	26
AUG.			
13...	1550	33.0	38
SEP.			
11...	1430	29.0	60
26...	1300	18.0	2340

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
ARKANSAS RIVER BASIN			
07142620 RATTLESNAKE C NR RAYMOND, KS			(LAT 38 13 50 LONG 098 25 00)
OCT., 1972			
2...	1505	20.0	2.6
NOV.			
6...	1340	15.0	13
DEC.			
11...	1320	0.	19
JAN., 1973			
17...	0915	3.0	77
FEB.			
7...	1125	2.0	166
MAR.			
20...	1020	5.0	393
APR.			
11...	1350	7.0	332
MAY			
15...	1300	18.0	157
JUNE			
19...	1510	24.0	22
JULY			
11...	1120	29.5	12
AUG.			
13...	1215	27.0	21
SEP.			
11...	1130	24.0	39
28...	1110	19.0	1360
07142860 COW C NR CLAFLIN, KS			(LAT 38 31 20 LONG 098 35 00)
DEC., 1972			
12...	1430	0.	0.04
JAN., 1973			
16...	1400	1.0	0.34
FEB.			
7...	1350	3.0	1.4
MAR.			
20...	1420	7.0	3.2
APR.			
18...	1410	17.0	5.3
MAY			
14...	1400	16.0	3.5
JULY			
17...	1530	25.0	0.03
AUG.			
17...	1020	23.0	0.55
SEP.			
21...	1400	20.0	1.0
07142900 BLOOD C NR BOYD, KS			(LAT 38 32 10 LONG 098 51 35)
OCT., 1972			
4...	1120	13.0	0.20
NOV.			
16...	1400	3.0	0.85
DEC.			
12...	1245	0.	1.0
JAN., 1973			
16...	1125	0.	1.3
FEB.			
7...	1530	2.0	1.0
MAR.			
20...	1610	8.0	2.9
APR.			
16...	0955	10.5	15
MAY			
14...	1305	15.0	5.3
JUNE			
19...	0955	17.0	1.2
JULY			
17...	0950	21.0	0.63
AUG.			
16...	0930	22.0	2.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
ARKANSAS RIVER BASIN			
07143300 COW C NR LYONS, KS (LAT 38 18 30 LONG 098 11 30)			
OCT., 1972			
5...	1055	19.0	5.3
NOV.			
16...	0930	4.0	28
DEC.			
13...	1045	0.	12
JAN., 1973			
23...	1120	2.0	27
FEB.			
8...	1015	1.0	32
MAR.			
21...	0920	8.0	139
APR.			
16...	1130	13.0	393
MAY			
14...	1140	18.0	311
JUNE			
19...	1110	23.0	159
JULY			
10...	1240	26.5	16
AUG.			
10...	1300	26.5	35
SEP.			
10...	1200	22.0	24
07143665 L ARKANSAS R AT ALTA MILLS, KS (LAT 38 06 44 LONG 097 35 30)			
JUNE, 1973			
19...	1200	20.5	27
JULY			
17...	1000	22.5	18
SEP.			
14...	1015	18.5	17
07144300 ARKANSAS R AT WICHITA, KS (LAT 37 38 41 LONG 097 20 06)			
OCT., 1972			
4...	1040	17.0	306
NOV.			
8...	1200	11.0	229
DEC.			
4...	1300	0.5	266
JAN., 1973			
10...	1500	0.	245
FEB.			
2...	1450	3.5	9710
6...	1440	2.0	4260
MAR.			
11...	1155	4.5	13000
APR.			
25...	1050	16.0	3040
MAY			
21...	1005	22.0	1620
JUNE			
20...	1050	23.0	777
JULY			
11...	1320	29.0	454
AUG.			
16...	1150	27.0	878
SEP.			
7...	1140	22.0	550

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
ARKANSAS RIVER BASIN			
07144780 NF NINNESCAH R AB CHENEY RE, KS			(LAT 37 58 41 LONG 097 56 09)
OCT., 1972			
2...	1320	21.0	20
17...	1015	14.0	21
NOV.			
2...	1130	7.0	63
15...	1000	1.0	73
DEC.			
1...	1130	4.0	71
14...	1050	0.	41
JAN., 1973			
5...	1050	0.	55
19...	1030	4.0	167
FEB.			
1...	1210	3.0	1340
15...	1315	1.0	121
MAR.			
2...	1330	10.0	126
16...	1325	11.0	276
APR.			
5...	1300	8.0	329
17...	1250	16.0	503
MAY			
2...	1130	11.0	190
16...	1125	19.0	88
JUNE			
1...	1025	22.0	66
14...	1350	24.0	36
JULY			
5...	1050	29.0	19
17...	1355	32.0	27
30...	1350	33.0	31
AUG.			
16...	1620	36.0	28
30...	1230	32.0	5.5
SEP.			
14...	1330	24.0	58
07144850 SF SF NINNESCAH R NR PRATT, KS			(LAT 37 35 10 LONG 098 49 40)
SEP., 1973			
24...	1610	19.0	53
26...	1540	18.0	202
07145500 NINNESCAH R NR PECK, KS			(LAT 37 27 34 LONG 097 25 20)
OCT., 1972			
2...	1530	21.5	65
NOV.			
6...	1430	13.0	128
DEC.			
4...	1105	0.	94
7...	1250	0.	57
13...	1055	0.	85
JAN., 1973			
10...	1135	0.	121
FEB.			
13...	1335	2.0	347
MAR.			
5...	1130	3.5	3580
APR.			
1...	0855	9.0	10000
23...	1030	17.0	1540
MAY			
10...	1005	20.0	1330
JUNE			
12...	1020	25.0	137
JULY			
24...	1210	24.0	83
AUG.			
13...	1120	28.0	76
SEP.			
13...	1045	21.0	107

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
ARKANSAS RIVER BASIN			
07145700 SLATE C AT WELLINGTON, KS			(LAT 37 15 00 LONG 097 24 12)
OCT., 1972			
2...	1400	17.5	0.74
NOV.			
6...	1125	11.5	1.4
DEC.			
4...	0940	0.	4.8
JAN., 1973			
10...	1250	0.	6.3
FEB.			
13...	1200	2.0	27
MAR.			
6...	1410	6.0	1350
9...	1030	5.0	4100
27...	1310	7.0	113
APR.			
23...	1325	18.0	46
MAY			
10...	1315	21.0	24
JUNE			
12...	1325	25.0	4.7
JULY			
26...	1125	24.0	25
AUG.			
13...	1345	25.0	4.4
SEP.			
13...	1315	20.0	40
07146500 ARKANSAS R AT ARKANSAS CITY, KS			(LAT 37 03 23 LONG 097 03 32)
OCT., 1972			
2...	0745	14.5	430
NOV.			
3...	1120	10.0	558
DEC.			
1...	0820	2.5	674
JAN., 1973			
12...	1150	0.	538
FEB.			
20...	1050	2.0	1200
MAR.			
6...	1215	4.5	15700
9...	1245	5.0	20700
22...	1030	6.0	6170
APR.			
26...	1230	15.0	4760
MAY			
23...	1050	25.0	2000
JUNE			
21...	1120	24.0	1140
JULY			
18...	0920	26.0	769
AUG.			
22...	0920	27.0	697
SEP.			
19...	0920	17.0	1010
07146570 COLE C NR DEGRAFF, KS			(LAT 37 56 50 LONG 096 46 50)
DEC., 1972			
1...	1530	5.0	1.8
JAN., 1973			
9...	1300	0.	2.4
FEB.			
1...	1100	3.0	1390
16...	1050	0.	6.1
16...	1050	0.	6.1
MAR.			
14...	1345	13.0	68
APR.			
12...	1305	11.0	9.0
MAY			
9...	1305	17.0	6.3
JUNE			
11...	1340	24.0	2.0
JULY			
9...	1050	30.0	0.05

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMP-ERATURE (DEG C)	DIS-CHARGE (CFS)
ARKANSAS RIVER BASIN			
07149000 MEDICINE LODGE R NR KIOWA, KS			(LAT 37 02 17 LONG 098 28 04)
OCT., 1972			
3...	0830	13.5	30
NOV.			
7...	0900	8.5	59
DEC.			
7...	0740	0.	30
JAN., 1973			
11...	0840	0.	74
FEB.			
6...	0750	2.0	201
MAR.			
7...	0830	4.0	186
APR.			
9...	1130	5.0	655
MAY			
7...	1120	15.0	465
JUNE			
4...	1145	24.0	135
JULY			
27...	1220	30.0	64
SEP.			
25...	1250	21.0	559
07155590 CIMARRON R NR ELKHART, KS			(LAT 37 07 30 LONG 101 53 50)
FEB., 1973			
9...	1215	0.	1.5
MAY			
30...	1600	18.5	0.72
JULY			
25...	2110	14.5	1560
26...	1815	17.5	658
27...	1000	14.0	357
30...	1130	17.5	42
AUG.			
6...	1305	25.0	1.6
07156010 NF CIMARRON R AT RICHFIELD, KS			(LAT 37 15 30 LONG 101 46 30)
JUNE, 1973			
27...	1435	16.5	3.8
07157900 CAVALRY C AT COLDWATER, KS			(LAT 37 16 00 LONG 099 20 40)
OCT., 1972			
3...	1040	17.0	0.76
NOV.			
7...	1310	13.5	1.0
JAN., 1973			
23...	1010	4.5	1.7
FEB.			
14...	1500	8.0	2.2
MAR.			
13...	1415	14.5	7.1
APR.			
2...	0840	9.0	4.5
MAY			
21...	2000	18.0	3.0
JUNE			
22...	1310	14.0	1.5
JULY			
11...	1105	16.0	1.3
AUG.			
9...	1845	17.0	1.6
SEP.			
7...	1310	11.0	1.8
12...	1700	11.5	248
12...	2005	11.5	155
13...	0915	10.0	44
13...	1315	13.0	39
13...	1450	13.0	30
27...	1000	7.5	62
29...	1355	17.0	9.1

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
ARKANSAS RIVER BASIN			
07166000 VERDIGRIS R NR COYVILLE, KS			(LAT 37 42 20 LONG 095 54 20)
NOV., 1972			
15...	0940	7.0	822
20...	0920	4.0	616
27...	0850	4.0	426
DEC.			
29...	0920	3.0	405
JAN., 1973			
4...	0930	0.	4470
9...	1535	0.	3290
17...	1320	1.0	1040
24...	0940	2.0	2820
FEB.			
7...	0945	2.0	5540
12...	0920	2.0	644
26...	0910	3.5	236
MAR.			
8...	0900	9.5	3940
14...	0915	9.5	5960
29...	0915	10.5	3620
APR.			
11...	0940	8.0	1590
MAY			
1...	1140	15.5	1070
15...	0915	17.0	2350
29...	1350	21.0	1700
JUNE			
12...	0920	22.0	338
JULY			
26...	1325	27.0	173
SEP.			
17...	0925	18.0	1390
07166500 VERDIGRIS R NR ALTOONA, KS			(LAT 37 29 26 LONG 095 40 49)
NOV., 1972			
1...	1440	11.0	2150
15...	1145	6.0	1160
DEC.			
26...	1050	1.5	547
JAN., 1973			
8...	1130	0.	326
17...	1045	3.0	2570
31...	0955	1.0	3330
FEB.			
2...	1015	4.0	7690
12...	1300	3.0	855
26...	1100	4.0	329
MAR.			
7...	1015	9.0	7840
21...	1000	9.0	6250
APR.			
2...	1425	12.0	648
19...	0950	14.0	450
30...	1340	15.5	1100
MAY			
15...	1115	17.0	2370
30...	1125	21.0	1720
JUNE			
12...	1120	21.5	337
JULY			
23...	1100	26.5	2780
SEP.			
17...	1215	19.0	1360
07167000 FALL R NR EUREKA, KS			(LAT 37 47 07 LONG 096 13 52)
NOV., 1972			
13...	1140	8.5	1640
JAN., 1973			
2...	1150	0.	244
16...	1100	0.5	1320
FEB.			
1...	1200	3.5	5500
MAR.			
5...	1210	7.0	2020
9...	1215	9.0	3500
APR.			
16...	1210	10.5	1980
MAY			
2...	1120	15.5	915
SEP.			
28...	1300	19.0	1850

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	
			ARKANSAS RIVER BASIN		
07157500	OTTER C AT CLIMAX, KS				(LAT 37 42 30 LONG 096 13 30)
	NOV., 1972				
	13...	1340	8.5	1300	
	JAN., 1973				
	16...	1210	0.	292	
	FEB.				
	1...	1440	3.5	2090	
	MAR.				
	5...	1410	7.0	528	
	APR.				
	16...	1340	11.5	583	
07158500	FALL R NR FALL R, KS				(LAT 37 38 34 LONG 096 03 33)
	NOV., 1972				
	15...	1010	6.5	1790	
	20...	1140	4.0	472	
	JAN., 1973				
	4...	1130	0.	4160	
	23...	1340	2.0	2750	
	MAR.				
	8...	1230	9.5	2310	
	14...	1330	9.5	5830	
	29...	1000	9.5	1660	
	JULY				
	16...	1100	26.0	18	
	SEP.				
	11...	0930	23.0	20	
	14...	1310	21.0	352	
	24...	1455	20.5	14	
07169800	ELK R AT ELK FALLS, KS				(LAT 37 22 32 LONG 096 11 07)
	OCT., 1972				
	31...	1110	10.5	196	
	NOV.				
	13...	1045	8.5	6500	
	16...	1445	5.5	226	
	DEC.				
	8...	1230	0.	73	
	JAN., 1973				
	2...	1100	2.0	197	
	15...	1020	0.	231	
	22...	1330	3.5	1130	
	FEB.				
	1...	1420	4.0	4630	
	MAR.				
	5...	1030	10.0	1210	
	6...	1015	10.5	2780	
	20...	1215	9.0	686	
	28...	1410	10.0	370	
	APR.				
	16...	0950	13.0	2620	
	25...	1100	16.0	2080	
	MAY				
	7...	1030	18.0	889	

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
ARKANSAS RIVER BASIN			
07170700 BIG HILL C NR CHERRYVALE, KS (LAT 37 16 00 LONG 095 28 05)			
OCT., 1972			
2...	1130	16.5	4.0
18...	1105	13.5	0.17
NOV.			
1...	1020	11.0	889
14...	1040	8.0	113
30...	1000	4.0	15
DEC.			
18...	1015	2.0	4.8
JAN., 1973			
8...	1515	0.5	15
16...	1030	2.0	45
22...	1100	3.0	504
31...	1140	3.5	43
FEB.			
1...	1120	3.0	371
12...	1030	5.0	15
28...	1010	8.0	5.9
MAR.			
5...	1320	10.5	130
6...	1120	9.0	1540
9...	1315	10.5	241
21...	1045	11.0	39
APR.			
2...	1220	11.5	46
18...	1200	14.5	36
30...	1130	15.5	12
MAY			
7...	1020	16.0	300
11...	1315	18.5	9.7
31...	1430	20.0	1.5
JUNE			
13...	1440	26.0	0.60
28...	1010	27.0	0.15
SEP.			
10...	1350	25.5	3.7
13...	1430	23.0	16
25...	1435	22.0	0.55
07172000 CANEY R NR ELGIN, KS (LAT 37 00 13 LONG 096 18 54)			
OCT., 1972			
31...	1245	11.0	344
NOV.			
1...	1110	11.0	903
13...	1330	8.5	5130
16...	1145	5.5	766
21...	1220	9.5	636
JAN., 1973			
2...	1330	3.5	793
29...	1115	3.0	848
FEB.			
5...	1320	5.5	631
MAR.			
6...	1300	10.5	5490
16...	1140	11.5	991
26...	1245	12.0	3090
MAY			
7...	1250	18.0	616
JUNE			
7...	1305	21.0	86

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
ARKANSAS RIVER BASIN			
07179730 NEOSHO R NR AMERICUS, KS (LAT 38 35 LONG 096 23)			
OCT., 1972			
4...	1500	20.0	20
NOV.			
8...	1410	9.0	25
DEC.			
8...	1430	0.	62
JAN., 1973			
9...	1455	1.0	979
FEB.			
21...	1440	2.0	179
MAR.			
30...	1200	9.0	1540
MAY			
17...	1110	17.5	236
JUNE			
20...	0955	25.0	341
JULY			
16...	1540	27.0	53
AUG.			
22...	0915	26.5	122
SEP.			
19...	1035	16.0	55
07180400 COTTONWOOD R NR FLORENCE, KS (LAT 38 14 10 LONG 096 52 37)			
OCT., 1972			
5...	1400	18.5	32
NOV.			
29...	1230	4.0	72
JAN., 1973			
11...	1340	0.	114
FEB.			
22...	1240	4.0	218
MAR.			
9...	1245	9.0	7300
12...	1240	10.5	2220
APR.			
16...	1330	12.5	3550
MAY			
16...	1505	17.5	234
JUNE			
19...	1140	24.0	187
JULY			
16...	1010	26.5	112
AUG.			
21...	1200	28.0	73
SEP.			
18...	1240	14.0	140

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)
ARKANSAS RIVER BASIN			
07180500 CEDAR C NR CEDAR POINT, KS (LAT 38 11 55 LONG 096 49 22)			
OCT., 1972			
5...	1600	18.0	1.1
NOV.			
29...	1020	4.0	11
JAN., 1973			
12...	1130	0.	23
FEB.			
22...	1025	4.0	44
MAR.			
28...	1745	12.0	126
APR.			
16...	1535	12.5	228
MAY			
16...	1805	18.5	62
JUNE			
19...	1455	25.5	24
JULY			
16...	1210	28.0	12
AUG.			
21...	1335	28.0	6.6
SEP.			
18...	1540	15.0	7.6
07182250 COTTONWOOD R NR PLYMOUTH, KS (LAT 38 23 51 LONG 096 21 21)			
OCT., 1972			
4...	1335	19.0	46
NOV.			
8...	1220	9.0	59
DEC.			
8...	1300	0.	108
JAN., 1973			
12...	1420	0.	301
FEB.			
21...	1235	1.5	734
MAR.			
13...	1000	10.0	14600
29...	1410	10.5	3740
APR.			
17...	1140	13.0	6190
MAY			
17...	0830	17.0	820
JUNE			
19...	1720	24.0	418
AUG.			
21...	1630	27.0	207
SEP.			
19...	0840	17.0	376

RESULTS IN MILLIGRAMS PER LITER,

GEOLOGICAL SURVEY WELL NUMBER (LAT)	(LONG)	LOCAL WELL NUMBER	WELL DEPTH (FEET)	GEOLOGIC SOURCE[2,3]	DATE OF COLLECTION	TEMPERATURE (°C)	SILICA (SIO2)	TOTAL IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)
				EDWARDS COUNTY								
375652N	99 759.1	24 17W 24DDD	61	L PLEISTOCENE DEP	9 13 73	15.6	21	.26	.00	61	3.9	19
375436N	99 327.1	25 16W 28BB	62	L PLEISTOCENE DEP	9 18 73	15.6	17	5.8	.11	62	5.2	24
375256N	992447.1	25 19W 16ABB	44	ALLUVIUM	9 19 73	15.6	16	18	.49	208	40	100
3748 2N	99 357.1	26 16W 10CCC	42	L PLEISTOCENE DEP	9 18 73	....	22	1.4	.00	58	4.8	12
				FORD COUNTY								
375153N	993612.1	25 21W 23BCB	....	DAKOTA FM	7 6 73	....	30	.03	.00	64	11	34
375338N	994633.1	25 22W 7ACA	....	DAKOTA FM	7 18 73	....	44	2.9	.02	42	18	59
374954N	9943 6.1	25 22W 34DCB	....	DAKOTA FM	7 20 73	....	49	.11	.00	78	15	24
375048N	994821.1	25 23W 25CCC	....	DAKOTA FM	7 31 73	....	43	.03	.00	35	19	59
374957N	995212.1	25 23W 32DBB	....	DAKOTA FM	7 24 73	....	28	.11	.00	37	15	62
374957N	995033.1	25 23W 34CCB	....	DAKOTA FM	7 24 73	....	46	.05	.00	35	20	45
3750 5N	994837.1	25 23W 35ADC	....	DAKOTA FM	7 18 73	....	50	.46	.00	42	18	38
375011N	994756.1	25 23W 36BDA	....	DAKOTA FM	7 9 73	....	42	.04	.00	43	16	50
3749 4N	993350.1	26 21W 1ACA	....	DAKOTA FM	7 11 73	....	25	.44	.00	46	13	88
3749 4N	993423.1	26 21W 1BCA	....	DAKOTA FM	7 11 73	....	26	.07	.00	42	9.5	88
374729N	993519.1	26 21W 11CDC	....	DAKOTA FM	7 18 73	....	30	.40	.00	123	25	35
374843N	994513.1	26 22W 5CBA	....	DAKOTA FM	7 20 73	....	35	.33	.00	27	13	81
374855N	994629.1	26 22W 6BCD	....	DAKOTA FM	7 11 73	....	34	.03	.00	29	13	74
374726N	994456.1	26 22W 8CAD	....	DAKOTA FM	7 24 73	....	19	.03	.00	30	15	90
374726N	994432.1	26 22W 8DDC	....	DAKOTA FM	7 18 73	....	21	.25	.00	26	11	82
374725N	994149.1	26 22W 11CDC	....	DAKOTA FM	7 18 73	....	31	.42	.00	64	11	20
374542N	994334.1	26 22W 21DCD	....	DAKOTA FM	7 24 73	....	14	.07	.00	43	11	148
374613N	9940 4.1	26 22W 24AAA	....	DAKOTA FM	8 14 73	....	26	.06	.00	32	11	100
374743N	994856.1	26 23W 10DAD	....	DAKOTA FM	8 23 73	....	41	.08	.00	27	15	69
374653N	994856.1	26 23W 15ADA	....	DAKOTA FM	7 31 73	....	37	.02	.00	30	17	67
374638N	994912.1	26 23W 15DCD	....	DAKOTA FM	7 18 73	....	41	.05	.00	30	13	70
373939N	993817.2	27 21W 29DBB2	....	DAKOTA FM	7 12 73	....	47	.58	.00	75	20	106
373939N	993858.1	27 21W 30DDD	....	DAKOTA FM	7 12 73	....	31	.04	.00	144	30	132
373846N	993955.1	27 21W 31CBB	....	DAKOTA FM	8 23 73	....	21	1.5	.17	171	32	86
374219N	994325.1	27 22W 9DAB	....	DAKOTA FM	7 20 73	....	42	.19	.00	70	13	24
374126N	994035.1	27 22W 13CDD	....	DAKOTA FM	7 20 73	....	47	1.3	.00	70	7.2	22
374127N	9944 5.1	27 22W 16CCA	....	DAKOTA FM	7 73	....	58	1.6	.00	59	10	20
374055N	994536.1	27 22W 19AAC	....	DAKOTA FM	7 18 73	....	46	.46	.00	69	9.0	16
374042N	994536.1	27 22W 19DAB	....	DAKOTA FM	7 31 73	....	47	.03	.00	72	6.9	16
374055N	9945 9.1	27 22W 20BBD	....	DAKOTA FM	7 18 73	....	40	.03	.00	70	10	14
374042N	9945 1.1	27 22W 20CAC	....	DAKOTA FM	7 18 73	....	45	.93	.14	75	8.0	16
374042N	994437.1	27 22W 20DCD	....	DAKOTA FM	7 18 73	....	49	.03	.00	74	6.7	15
373950N	994452.1	27 22W 29CAA	....	DAKOTA FM	7 18 73	....	48	.03	.00	70	6.2	23
373950N	994452.1	27 22W 29BDD	....	DAKOTA FM	7 18 73	....	47	.07	.00	70	7.2	23
3739 9N	9940 3.1	27 22W 36AAD	....	DAKOTA FM	8 23 73	....	46	.12	.00	91	10	60
374132N	994918.1	27 23W 15DCB	....	DAKOTA FM	7 9 73	....	23	.35	.00	51	13	88
374048N	994740.1	27 23W 24BCB	....	DAKOTA FM	7 18 73	....	27	9.3	.19	50	15	40
				HARVEY COUNTY								
38 955N	973413.1	22 2W 5CB	....		8 7 73	14.4	24	.03	.00	74	8.6	28
38 742N	973128.1	22 2W 22AB	138		8 14 73	15.6	25	1.6	.15	72	12	21
38 653N	9734 8.1	22 2W 29BBA	81		8 14 73	15.0	28	.05	.00	94	12	29
3810 8N	973711.1	22 3W 2CDD	80		8 14 73	14.4	27	.08	.00	118	11	45
381010N	9740 6.1	22 3W 5ADB	....		8 7 73	....	31	4.1	.68	118	17	48
38 9 3N	974047.1	22 3W 8CCD	....		8 7 73	15.0	34	.03	.95	237	36	227
38 835N	9740 1.2	22 3W 17AA2	....		8 7 73	15.0	33	.04	.14	168	24	60
38 728N	974144.1	22 3W 19CDB	122		8 7 73	....	36	.06	.59	82	13	40
38 634N	973530.1	22 3W 25ADD	....		8 8 73	13.3	34	.42	.00	102	14	39
38 6 1N	973636.1	22 3W 35AAA	90		8 8 73	....	31	.03	.95	80	8.9	19
38 311N	972829.1	23 1W 18CAC	....		7 18 73	15.6	25	.08	.00	78	12	22
38 456N	973237.1	23 2W 4DBB	....		7 18 73	15.0	34	.0	.00	91	11	21
38 219N	973414.1	23 2W 20CCB	....		8 6 73	16.1	24	.97	.27	38	3.2	26
38 225N	973155.1	23 2W 22BBD	....		7 18 73	15.6	28	.36	.16	110	13	43
38 5 9N	973947.1	23 3W 4BBB	79		10 15 72	....	....	....	....	.....	.....	.....
38 5 9N	973947.2	23 3W 4BBB2	127		10 15 72	....	....	....	....	.....	.....	.....

WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973.

LOCAL WELL NUMBER	DATE OF COLLEC-TION	POTAS-SIUM (K)	CARBONATE (CO3)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (EVAPORATED AT 180°C)	HARDNESS (CA,MG)	HARDNESS NON CARBONATE	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)	PH
EDWARDS COUNTY														
24 17W 24DDD	9 13 73	3.2	..	195	15	9.0	.3	33	270	.....	....	.7	410	8.2
25 16W 28BB	9 18 73	5.5		227	19	15	.2	6.0	276	.....	....	.8	450	8.1
25 19W 16ABB	9 19 73	6.0	..	195	634	59	.4	10	1210	.....	....	1.7	1620	7.7
26 16W 10CCC	9 18 73	2.2	..	178	8.6	20	.2	6.8	230	.....	....	.4	370	8.1
FORD COUNTY														
25 21W 23BCB	7 6 73	3.0	..	283	17	16	.8	2.2	310	204	0	1.0	520	7.5
25 22W 7ACA	7 18 73	5.8	..	283	46	20	2.2	1.2	374	179	0	1.9	560	7.9
25 22W 34DDB	7 20 73	4.0	..	264	21	35	.6	18	390	256	40	.7	570	7.4
25 23W 25CCC	7 31 73	5.2	..	266	43	17	2.0	2.0	356	166	0	2.0	540	7.3
25 23W 32DBB	7 24 73	5.5	..	271	50	12	2.4	.9	352	154	0	2.2	540	7.3
25 23W 34CCB	7 24 73	4.8		256	39	10	2.2	2.7	334	170	0	1.5	490	7.4
25 23W 35ADC	7 18 73	4.5	..	261	31	12	2.0	2.4	314	179	0	1.3	480	7.4
25 23W 36BDA	7 9 73	4.5	..	261	32	18	2.0	7.3	340	174	0	1.7	530	7.3
26 21W 1ACA	7 11 73	3.5	..	307	54	34	1.6	1.3	410	168	0	3.0	660	7.5
26 21W 1BCA	7 11 73	3.2	..	281	55	30	1.6	.4	384	144	0	3.2	620	8.2
26 21W 11CDC	7 18 73	3.2	..	327	54	95	.5	32	580	410	1420	.8	940	7.3
26 22W 5CBA	7 20 73	5.0	..	261	51	17	2.2	2.9	360	121	0	3.2	560	7.4
26 22W 6BCD	7 11 73	5.0	..	256	50	15	2.4	2.2	364	126	0	2.9	550	7.3
26 22W 8CAD	7 24 73	4.5	..	259	80	22	2.0	.2	382	136	0	3.4	600	7.4
26 22W 8DDC	7 18 73	4.2	..	234	77	16	2.4	.3	352	110	0	3.4	540	7.6
26 22W 11CDC	7 18 73	3.8	..	273	17	13	.4	.1	296	204	0	.6	470	7.3
26 22W 21DCD	7 24 73	5.2	..	283	137	74	3.1	2.1	578	152	0	5.2	920	7.8
26 22W 24AAA	8 14 73	3.8	..	259	70	42	1.1	.5	410	125	0	3.9	660	7.3
26 23W 10DAD	8 23 73	5.0	10	234	49	12	2.4	1.5	348	129	0	2.6	540	8.4
26 23W 15ADA	7 31 73	4.5	..	256	55	15	2.0	1.6	350	145	0	2.4	540	7.4
26 23W 15DCD	7 18 73	5.0	..	256	53	11	2.2	2.0	342	128	0	2.7	530	7.4
27 21W 29DBB2	7 12 73	3.5	..	227	228	40	1.2	22	654	269	83	2.8	960	7.7
27 21W 30DDD	7 12 73	4.0	..	334	348	68	.8	41	974	483	209	2.6	1380	7.4
27 21W 31CBB	8 23 73	5.5	..	329	366	49	1.6	42	948	558	288	1.6	1360	7.6
27 22W 9DAB	7 20 73	3.5	..	288	16	12	.4	15	338	228	0	.7	520	7.3
27 22W 13CDD	7 20 73	3.2	..	256	12	11	.5	18	316	204	0	.7	480	7.4
27 22W 16CCA	7 73	2.2	..	242	17	10	.4	11	302	188	0	.6	450	7.8
27 22W 19AAC	7 18 73	2.8	..	251	6.6	12	.4	14	310	209	3	.5	460	7.4
27 22W 19DAB	7 31 73	3.0	..	244	9.9	13	.3	24	324	208	8	.5	460	7.4
27 22W 20BBD	7 18 73	3.2	..	256	12	11	.4	8.5	310	216	6	.4	460	7.5
27 22W 20CAC	7 18 73	3.0	..	249	11	16	.4	24	320	220	16	.5	480	7.5
27 22W 20DCD	7 18 73	3.0	..	232	4.9	13	.5	33	320	212	22	.5	470	7.5
27 22W 29CAA	7 18 73	2.5	..	229	14	17	.4	34	340	200	12	.7	480	7.4
27 22W 29BDD	7 18 73	3.0	..	229	14	15	.4	34	336	204	16	.7	480	7.4
27 22W 36AAD	8 23 73	4.2	..	300	86	41	.3	10	506	268	22	1.6	770	7.5
27 23W 15DCB	7 9 73	4.8	..	259	66	61	1.6	6.2	450	180	0	2.9	720	7.5
27 23W 24BCB	7 18 73	4.2	..	239	43	25	.4	6.8	324	186	0	1.3	520	7.3
HARVEY COUNTY														
22 2W 5CB	8 7 73	2.8	..	246	32	34	.2	5.8	330	220	18	.8	530	7.2
22 2W 22AB	8 14 73	1.2	..	259	29	24	.2	.1	312	229	17	.6	530	7.7
22 2W 29BBA	8 14 73	1.7	..	320	30	31	.1	5.5	389	284	22	.8	640	7.5
22 3W 2CDD	8 14 73	2.2	..	303	42	106	.1	1.0	501	340	92	1.1	870	7.5
22 3W 5ADB	8 7 73	3.0	..	437	37	57	.3	.4	5270	3640	6	1.1	8410	7.3
22 3W 8CCD	8 7 73	5.6	..	373	110	580	.2	4.4	1420	740	434	3.6	2480	7.3
22 3W 17AA2	8 7 73	4.2	..	368	184	114	.3	13	782	518	216	1.2	1190	7.3
22 3W 19CDB	8 7 73	2.6	..	378	14	17	.1	.3	391	258	0	1.1	620	7.4
22 3W 25ADD	8 8 73	1.6	..	420	33	11	.1	4.4	446	312	0	1.0	690	7.4
22 3W 35AAA	8 8 73	1.6	..	310	6.6	12	.5	.6	313	236	0	.6	490	7.4
23 1W 18CAC	7 18 73	1.0	..	285	19	12	.1	20	329	244	10	.6	550	7.9
23 2W 4DBB	7 18 73	1.2	..	324	11	23	.1	3.6	355	272	6	.6	610	7.9
23 2W 20CCB	8 6 73	2.0	..	171	14	11	.3	.6	203	108	0	1.1	310	7.3
23 2W 22BBD	7 18 73	1.6	..	403	55	22	.1	.1	471	328	0	1.0	770	7.9
23 3W 4BBB	10 15 72	....		....	.....	15	...	.....	.....	112	....	.0	200	...
23 3W 4BBB2	10 15 72	....		....	.....	20	...	.....	.....	132	....	.0	240	...

CHEMICAL ANALYSES OF GROUND

RESULTS IN MILLIGRAMS PER LITER,

GEOLOGICAL SURVEY WELL NUMBER (LAT)	(LONG)	LOCAL WELL NUMBER	WELL DEPTH (FEET)	GEOLOGIC SOURCE[2,3]	DATE OF COLLECTION	TEMPERATURE (°C)	SILICA (SIO2)	TOTAL IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)
		HARVEY COUNTY CONTINUED										
38 4 2N	973954.1	23 3W 8DDD	35		10 15 72	....	....	....	....	.....	.....	.....
38 4 2N	973954.2	23 3W 8DDD2	86		10 15 72	....	....	....	....	.....	.....	.....
38 218N	973945.1	23 3W 21CCC	40		10 15 72	....	....	....	....	.....	.....	.....
38 218N	973945.2	23 3W 21CCC2	66		10 15 72	....	....	....	....	.....	.....	.....
38 226N	973749.1	23 3W 22AAC	120		8 6 73	14.4	28	2.2	.08	19	5.0	16
38 211N	973757.1	23 3W 22DBD	195		7 18 73	16.7	26	2.4	.19	30	6.1	17
38 211N	973724.1	23 3W 23CBD	180		7 18 73	17.2	26	.0	.00	22	4.1	12
38 048N	973952.1	23 3W 32AAA	88		10 15 72	....	....	....	....	.....	.....	.....
38 048N	973952.2	23 3W 32AAA2	128		10 15 72	....	....	....	....	.....	.....	.....
38 033N	974017.1	23 3W 32DCC	42		10 15 72	....	....	....	....	.....	.....	.....
38 033N	974017.2	23 3W 32DCC2	100		10 15 72	....	....	....	....	.....	.....	.....
3758 4N	972527.1	24 1W 15BBC	110		8 8 73	15.0	29	.68	.00	110	15	44
375750N	972841.1	24 1W 18CC	140		9 6 73	15.0	14	7.9	.49	56	10	57
3756 6N	972737.1	24 1W 29CCB	....		8 8 73	15.0	22	.55	.52	75	14	74
375750N	973056.1	24 2W 14CCC	....		8 8 73	....	22	.84	.27	53	8.8	43
375750N	9734 8.1	24 2W 17CB	170		9 20 73	15.0	16	3.8	.30	96	14	96
375936N	973748.1	24 3W 3DDC	....		7 18 73	16.7	21	1.9	.38	70	15	60
375936N	974058.1	24 3W 6DDD	61		10 15 72	....	....	....	....	.....	.....	.....
375936N	974058.2	24 3W 6DDD2	97		10 15 72	....	....	....	....	.....	.....	.....
375843N	9740 8.1	24 3W 8DCD	65		7 19 73	27.2	18	.27	.19	75	16	82
375751N	973755.1	24 3W 15DCD	....		7 18 73	15.0	17	.84	.38	97	20	89
375751N	974049.1	24 3W 17CCC	62		10 15 72	....	....	....	....	.....	.....	.....
375811N	974155.1	24 3W 18BBB	71		10 15 72	....	....	....	....	.....	.....	.....
375811N	974155.2	24 3W 18BBB2	157		10 15 72	....	....	....	....	.....	.....	.....
3757 4N	973844.1	24 3W 21DDA	14		10 15 72	....	....	....	....	.....	.....	.....
375611N	973942.1	24 3W 28CCC	20		10 15 72	....	....	....	....	.....	.....	.....
375519N	974056.1	24 3W 31DDD	7		10 15 72	....	....	....	....	.....	.....	.....
375519N	974056.2	24 3W 31DDD2	106		10 15 72	....	....	....	....	.....	.....	.....
375519N	974056.3	24 3W 31DDD3	163		10 15 72	....	....	....	....	.....	.....	.....
		HODGEMAN COUNTY										
38 820N	9956 2.1	22 24W 14BCC	....	DAKOTA FM	7 24 73	....	11	.28	.00	19	12	128
38 827N	995643.1	22 24W 15BDA	....	DAKOTA FM	7 18 73	....	11	.14	.00	16	7.8	128
38 827N	995725.1	22 24W 16ADB	....	DAKOTA FM	7 18 73	19.4	10	.06	.00	16	8.8	134
38 443N	995023.1	23 23W 3CBD	....	DAKOTA FM	7 17 73	15.6	11	.03	.00	40	10	189
38 5 4N	995040.1	23 23W 4AAD	....	DAKOTA FM	7 17 73	17.8	13	.05	.00	42	11	192
38 412N	995130.1	23 23W 9BBD	....	DAKOTA FM	7 17 73	....	9.6	1.4	.00	19	9.8	195
38 412N	994738.1	23 23W 12ABD	....	DAKOTA FM	7 17 73	....	15	.05	.00	40	12	213
38 357N	9948 3.1	23 23W 12CAC	....	DAKOTA FM	7 17 73	....	15	.10	.00	32	19	142
38 228N	995048.1	23 23W 21AAC	....	DAKOTA FM	7 17 73	17.2	22	.05	.00	59	12	90
38 214N	100 313.1	23 25W 22DBB	....	DAKOTA FM	7 73	....	11	.48	.05	16	6.8	104
375659N	993916.1	24 21W 20CBA	....	DAKOTA FM	7 6 73	....	34	.02	.00	58	11	36
375958N	9953 1.1	24 23W 6AAB	....	DAKOTA FM	7 18 73	....	11	.63	.08	27	12	220
		KINGMAN COUNTY										
374337N	982016.1	27 9W 6DDB	133	L PLEISTOCENE DEP	8 1 73	16.7	24	.03	.00	59	6.1	32
		LEAVENWORTH COUNTY										
391846N	95 157.1	8 21E 35AD	60	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 3 73	14.4	18	.29	.36	162	21	21
391923N	9459 3.1	8 22E 29CDD	106	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 3 73	16.1	18	.77	.24	48	13	18
391740N	95 731.1	9 20E 10DA	30	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 3 73	....	14	.44	.00	117	10	7.5
391555N	945614.1	9 22E 15DAA	100	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 2 73	12.2	11	....	.00	26	1.7	3.0
391410N	945710.1	9 22E 27CC	119	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 2 73	12.8	28	.11	.00	94	25	50
391040N	951138.1	10 20E 16CAB	100	PENNSYLVANIAN SYS KANWAKA SH	5 3 73	....	21	....	.16	128	23	14
391133N	95 452.1	10 21E 9CDC	56	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 3 73	....	5.6	4.8	.23	29	3.8	15
391041N	95 517.1	10 21E 17DAD	53	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 4 73	13.9	15	1.3	.30	80	11	38

LOCAL WELL NUMBER	DATE OF COLLECTION	POTASSIUM (K)	CARBONATE (CO3)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (EVAPORATED AT 180°C)	HARDNESS (CA,MG)	HARDNESS NON CARBONATE	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)	pH
					HARVEY COUNTY			CONTINUED						
23 3W 8DDD	10 15 72	....		....	.....	15	...	.....	.....	44	....	.0	100	...
23 3W 8DDD2	10 15 72	....		....	.....	15	...	.....	.....	90	....	.0	170	...
23 3W 21CCC	10 15 72	....		....	.....	900	...	.....	.....	680	....	.0	1900	...
23 3W 21CCC2	10 15 72	....		....	.....	1150	...	.....	.....	1060	....	.0	2250	...
23 3W 22AAC	8 6 73	1.8	..	80	12	17	.4	2.6	141	68	2	.8	200	6.8
23 3W 22DBD	7 18 73	2.0	..	93	10	9.0	.4	42	188	100	24	.8	300	6.7
23 3W 23CBD	7 18 73	2.0	..	85	5.3	14	.3	1.2	129	72	2	.6	220	7.4
23 3W 32AAA	10 15 72	....		....	.....	175	...	.....	.....	272	....	.0	650	...
23 3W 32AAA2	10 15 72	....		....	.....	950	...	.....	.....	940	....	.0	2100	...
23 3W 32DCC	10 15 72	....		....	.....	145	...	.....	.....	244	....	.0	610	...
23 3W 32DCC2	10 15 72	....		....	.....	270	...	.....	.....	338	....	.0	850	...
24 1W 15BBC	8 8 73	1.2	..	327	65	64	.1	1.2	490	336	68	1.0	770	7.4
24 1W 18CC	9 6 73	2.5	..	285	30	26	.2	.9	337	180	0	1.8	540	7.8
24 1W 29CCB	8 8 73	2.2	..	327	80	43	.4	.3	472	244	0	2.1	750	7.4
24 2W 14CCC	8 8 73	2.2	..	207	73	15	.3	.1	319	168	0	1.4	500	7.3
24 2W 17CB	9 20 73	3.5	..	288	152	79	.4	.4	599	297	61	2.4	950	7.9
24 3W 3DDC	7 18 73	3.0	..	239	102	42	.4	.4	432	236	40	1.7	700	7.8
24 3W 6DDD	10 15 72	....		....	.....	110	...	.....	.....	198	....	.0	720	...
24 3W 6DDD2	10 15 72	....		....	.....	125	...	.....	.....	258	....	.0	800	...
24 3W 8DCD	7 19 73	3.0	..	266	86	84	.5	.1	496	253	35	2.2	830	7.8
24 3W 15DCD	7 18 73	3.4	..	329	107	96	.5	.1	592	324	54	2.2	980	7.8
24 3W 17CCC	10 15 72	....		....	.....	100	...	.....	.....	274	....	.0	670	...
24 3W 18BBB	10 15 72	....		....	.....	150	...	.....	.....	150	....	.0	750	...
24 3W 18BBB2	10 15 72	....		....	.....	190	...	.....	.....	206	....	.0	900	...
24 3W 21DDA	10 15 72	....		....	.....	90	...	.....	.....	156	....	.0	700	...
24 3W 28CCC	10 15 72	....		....	.....	160	...	.....	.....	256	....	.0	900	...
24 3W 31DDD	10 15 72	....		....	.....	135	...	.....	.....	148	....	.0	950	...
24 3W 31DDD2	10 15 72	....		....	.....	175	...	.....	.....	54	....	.0	680	...
24 3W 31DDD3	10 15 72	....		....	.....	390	...	.....	.....	186	....	.0	1200	...
					HODGEMAN COUNTY									
22 24W 14BCC	7 24 73	5.5	..	242	79	65	2.0	.1	460	97	0	5.7	740	7.6
22 24W 15BDA	7 18 73	5.0	..	244	64	62	1.6	.1	410	72	0	6.6	690	7.5
22 24W 16ADB	7 18 73	5.5	..	242	85	49	2.4	.6	434	76	0	6.7	700	7.6
23 23W 3CBD	7 17 73	8.2	..	293	108	143	2.4	1.1	652	141	0	6.9	1120	7.3
23 23W 4AAD	7 17 73	8.2	..	49	125	147	2.0	230	816	150	110	6.8	1490	6.8
23 23W 9BBD	7 17 73	7.2	..	278	88	131	2.4	.3	606	88	0	9.1	1030	7.3
23 23W 12ABD	7 17 73	7.8	..	312	87	190	2.4	1.1	740	150	0	7.6	1240	7.6
23 23W 12CAC	7 17 73	8.0	..	283	76	110	2.4	1.4	546	158	0	4.9	920	7.2
23 23W 21AAC	7 17 73	5.0	..	283	69	60	2.0	.7	460	196	0	2.8	730	7.5
23 25W 22DBB	7 73	4.8	..	227	63	29	2.0	.2	362	68	0	5.5	590	7.6
24 21W 20CBA	7 6 73	3.8	..	244	26	27	1.2	2.5	320	190	0	1.2	500	7.3
24 23W 6AAB	7 18 73	8.0	..	300	87	181	2.4	.1	712	117	0	8.9	1220	7.8
					KINGMAN COUNTY									
27 9W 6DDB	8 1 73	1.5	..	195	9.1	44	.4	17	172	.....	....	1.1	480	7.4
					LEAVENWORTH COUNTY									
8 21E 35AD	5 3 73	2.6	..	307	138	50	.2	91	642	490	238	.4	980	...
8 22E 29CDD	5 3 73	2.6	..	176	57	6.0	.2	.9	254	174	30	.6	390	6.6
9 20E 1DDA	5 3 73	.8	..	376	21	10	.2	.1	362	333	25	.2	600	7.1
9 22E 15DAA	5 2 73	4.2	..	76	8.2	4.0	.3	6.5	112	72	10	.2	160	6.8
9 22E 27CC	5 2 73	1.8	..	376	56	27	.1	44	500	338	30	1.2	770	7.2
10 20E 16CAB	5 3 73	1.0	..	449	54	3.0	.3	15	500	414	46	.3	750	7.1
10 21E 9CDC	5 3 73	.8	..	110	19	8.0	.2	.2	148	88	0	.7	230	7.6
10 21E 17DAD	5 4 73	1.0	..	334	20	18	.2	3.6	368	244	0	1.1	600	7.2

CHEMICAL ANALYSES OF GROUND

RESULTS IN MILLIGRAMS PER LITER,

GEOLOGICAL SURVEY WELL NUMBER (LAT) (LONG)	LOCAL WELL NUMBER	WELL DEPTH (FEET)	GEOLOGIC SOURCE[2,3]	DATE OF COLLECTION	TEMPERATURE (°C)	SILICA (SIO2)	TOTAL IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)
			LEAVENWORTH COUNTY CONTINUED								
39 949N 95 329.1	10 21E 22DBC	81	PENNSYLVANIAN SYS DOUGLAS GP	5 2 73	12.8	12	.87	.07	91	18	65
39 830N 95 251.1	10 21E 35BB	183	PENNSYLVANIAN SYS DOUGLAS GP	5 2 73	10.0	19	.15	.00	34	13	102
391144N 945459.1	10 22E 12CBC	124	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	....	25	1.1	.16	75	11	17
391052N 945616.1	10 22E 15DCA	169	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 1 73	13.9	21	.27	.06	70	15	32
391014N 945512.1	10 22E 23AA	129	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 1 73	....	24	1.8	.00	74	11	24
39 9 7N 945452.1	10 22E 25CCD	....	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	12.8	19	.02	.00	104	17	15
39 9 7N 945443.1	10 22E 25CDC	60	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	13.9	22	.11	.00	29	3.8	6.0
39 9 7N 945933.1	10 22E 29CBC	125	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 2 73	....	16	2.5	.08	160	52	41
39 9 7N 945950.1	10 22E 30DDC	100	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 2 73	13.9	24	4.8	.13	59	11	19
39 814N 945734.1	10 22E 33DDC	66	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 2 73	....	27	1.4	.00	48	8.8	17
39 813N 9455 9.1	10 22E 35ADD	100	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	12.8	22	.08	.00	90	10	17
39 523N 95 9 6.1	11 20E 14DCA	30	PENNSYLVANIAN SYS KANWAKA SH	5 3 73	12.8	13	.04	.00	117	23	18
39 734N 95 357.1	11 21E 3BAD	155	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 2 73	13.9	9.0	3.8	.07	42	15	42
39 445N 95 332.1	11 21E 22ADC	138	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 4 73	13.3	29	.08	.00	85	12	19
39 248N 95 7 2.1	11 21E 31DBA	85	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 2 73	....	31	.21	1.1	88	16	33
39 616N 945724.1	11 22E 10CD	70	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	15.0	28	.21	.00	86	14	23
39 543N 95 013.1	11 22E 18ADB	100	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 2 73	12.8	24	.33	.00	53	13	20
39 017N 951049.1	12 20E 15CD	125	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	14.4	42	.08	.00	27	4.0	11
385943N 951024.1	12 20E 22A	10	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 4 73	13.3	29	.09	.00	96	5.0	12
39 113N 95 311.1	12 21E 11CB	120	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	14.4	20	.09	.00	46	6.1	12
39 021N 95 523.1	12 21E 16CC	75	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	13.9	22	.11	.00	91	13	113
39 222N 945957.1	12 22E 5BBC	140	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	15.0	23	.27	.07	104	19	13
39 222N 95 0 5.1	12 22E 6AAD	98	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 1 73	12.2	13	.65	.00	102	12	7.5
			MCPHERSON COUNTY								
382727N 9742 7.1	18 3W 30CCC	208		8 16 73	15.0	44	.09	.63	85	14	18
382820N 974633.1	18 4W 21CCC	80		8 16 73	15.0	24	.09	.00	109	17	33
382121N 972717.1	19 1W 32	....		7 13 73	14.4	31	.70	.70	102	8.2	48
382358N 972922.1	19 2W 13DC	....		7 13 73	16.1	25	.08	1.1	230	18	52
382358N 9742 3.1	19 3W 18CC	185		8 16 73	15.0	37	.24	.00	96	6.9	16
382139N 974146.1	19 3W 31BA	159		8 16 73	15.0	34	.16	.00	91	7.0	17
382546N 9743 9.1	19 4W 1CC	221		8 16 73	15.0	33	.02	.00	86	10	18
3824 1N 974412.1	19 4W 14CBC	232		8 15 73	14.4	22	.07	.22	98	16	39
382416N 974432.1	19 4W 15AA	226		8 15 73	15.0	26	.05	.00	152	17	58
382139N 974416.1	19 4W 35BB	127		8 15 73	14.4	21	2.5	.29	88	15	36
382040N 972627.1	20 1W 4B	91		7 13 73	16.1	26	.74	1.0	73	7.3	41
382025N 972627.1	20 1W 4C	....		7 13 73	15.6	29	.03	.00	78	4.3	40
382047N 972742.1	20 1W 5BB	....		7 13 73	15.6	29	.09	1.0	108	9.4	43
382040N 9728 7.1	20 1W 6A	....		7 13 73	15.6	24	.05	.38	116	7.4	36
381954N 972725.1	20 1W 8BA	....		7 13 73	14.4	26	.03	1.0	105	9.3	33
3818 4N 972520.1	20 1W 22B	....		7 13 73	14.4	28	.06	.43	68	7.4	28
381613N 973241.1	20 2W 33AC	....		7 20 73	13.9	27	4.7	.76	89	9.3	66

WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973.

LOCAL WELL NUMBER	DATE OF COLLECTION	POTASSIUM (K)	CARBONATE (CO3)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (EVAPORATED AT 180°C)	HARDNESS (CA,MG)	HARDNESS NON CARBONATE	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)	PH
					LEAVENWORTH COUNTY			CONTINUED						
10 21E 22DBC	5 2 73	1.6	..	403	63	19	.2	25	490	301	0	1.6	790	7.3
10 21E 35BB	5 2 73	2.6	..	346	40	16	.2	12	400	138	0	3.8	640	7.6
10 22E 12CBC	5 1 73	.8	..	315	.4	4.0	.3	.1	294	232	0	.5	490	7.4
10 22E 15DDA	5 1 73	1.0	..	346	2.5	9.0	.3	.1	324	236	0	.9	540	7.5
10 22E 23AA	5 1 73	.8	..	324	.0	7.0	.3	.1	308	230	0	.7	500	7.5
10 22E 25CCD	5 1 73	.6	..	359	51	8.0	.2	.5	400	330	36	.4	630	7.3
10 22E 25CDC	5 1 73	.6	..	59	26	7.0	.2	19	146	88	40	.3	220	6.4
10 22E 29CBC	5 2 73	2.0	..	442	313	11	.1	.3	842	612	250	.7	1100	6.6
10 22E 30DDC	5 2 73	1.0	..	249	11	10	.2	.1	252	192	0	.6	420	7.1
10 22E 33DDC	5 2 73	.4	..	129	40	7.0	.2	48	268	156	50	.6	380	6.9
10 22E 35ADD	5 1 73	.8	..	310	13	6.0	.2	27	352	266	12	.5	550	7.3
11 20E 14DDA	5 3 73	8.0	..	234	67	49	.2	116	536	386	194	.4	800	6.8
11 21E 3BAD	5 2 73	.4	..	237	53	6.0	.2	.1	296	169	0	1.4	480	7.2
11 21E 22ADC	5 4 73	1.0	..	342	1.2	10	.2	.1	342	262	0	.5	540	7.3
11 21E 31DBA	5 2 73	1.4	..	327	42	26	.1	1.8	400	286	18	.9	620	6.9
11 22E 10CD	5 1 73	.8	..	337	15	4.0	.3	23	368	272	0	.6	570	7.3
11 22E 18AD'	5 2 73	.8	..	185	40	9.0	.2	24	276	186	34	.7	420	7.2
12 20E 15CD	5 1 73	1.2	..	83	6.6	11	.1	20	176	84	16	.5	230	6.2
12 20E 22A	5 4 73	.6	..	300	22	12	.2	.2	330	260	14	.3	530	7.1
12 21E 11CB	5 1 73	.6	..	73	40	12	.1	65	250	140	80	.4	340	6.6
12 21E 16CC	5 1 73	2.4	..	378	212	5.0	.3	.2	650	280	0	2.9	950	7.2
12 22E 5BBC	5 1 73	.8	..	383	27	11	.1	10	396	338	24	.3	650	7.1
12 22E 6AAD	5 1 73	1.4	..	327	44	7.0	.3	.1	346	304	36	.2	570	7.2
					MCPHERSON COUNTY									
18 3W 30CCC	8 16 73	3.0	..	327	19	14	.2	.1	358	270	2	.5	590	7.5
18 4W 21CCC	8 16 73	4.2	..	329	91	33	.3	10	484	342	72	.8	760	7.5
19 1W 32	7 13 73	2.8	..	390	34	27	.2	5.8	451	288	0	1.2	740	7.4
19 2W 13DC	7 13 73	3.2	..	220	10	405	.1	2.9	855	648	468	.9	1540	7.3
19 3W 18CC	8 16 73	2.5	..	290	1.2	40	.3	9.0	352	268	30	.4	640	7.4
19 3W 31BA	8 16 73	2.0	..	307	16	19	.3	.6	338	256	4	.5	540	7.4
19 4W 1CC	8 16 73	2.7	..	281	17	33	.3	.9	339	256	26	.5	590	7.5
19 4W 14CBD	8 15 73	3.2	..	390	54	17	.2	.3	442	310	0	1.0	720	7.5
19 4W 15AA	8 15 73	6.0	..	364	116	94	.2	29	677	449	151	1.2	1100	7.3
19 4W 35BB	8 15 73	2.7	..	366	44	14	.2	.3	401	281	0	.9	670	7.4
20 1W 4B	7 13 73	2.4	..	339	15	10	.2	.3	342	212	0	1.2	550	7.7
20 1W 4C	7 13 73	2.4	..	327	18	10	.2	1.2	344	212	0	1.2	540	7.7
20 1W 5BB	7 13 73	2.6	..	383	48	27	.1	1.0	457	308	0	1.1	750	7.5
20 1W 6A	7 13 73	2.6	..	332	37	62	.2	.6	449	320	48	.9	750	7.7
20 1W 8BA	7 13 73	2.0	..	334	39	43	.3	2.9	425	300	26	.8	700	7.6
20 1W 22B	7 13 73	1.6	..	278	11	8.0	.2	12	301	200	0	.9	480	7.6
20 2W 33AC	7 20 73	2.4	..	388	38	33	.4	.4	456	260	0	1.8	730	7.7

RESULTS IN MILLIGRAMS PER LITER,

GEOLOGICAL SURVEY WELL NUMBER (LAT)	(LONG)	LOCAL WELL NUMBER	WELL DEPTH (FEET)	GEOLOGIC SOURCE[2,3]	DATE OF COLLECTION	TEMPERATURE (°C)	SILICA (SIO2)	TOTAL IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)
				MCPHERSON COUNTY CONTINUED								
381742N	973755.1	20 3W 22DA	....		8 16 73	15.0	40	.08	.05	114	11	27
381718N	9742 3.1	20 3W 30BB	230		8 14 73	14.4	32	.05	.00	98	7.7	22
3816 9N	9740 3.1	20 3W 32ADD	100		8 14 73	15.0	35	.03	.00	117	8.8	28
381924N	974432.1	20 4W 10DD	170		8 15 73	14.4	21	2.3	.52	114	30	48
381951N	974223.1	20 4W 12AAC	205		8 15 73	15.0	33	.06	.22	109	10	22
381850N	9745 6.1	20 4W 15BD	91		8 14 73	14.4	22	.05	.08	88	20	39
381651N	974445.1	20 4W 27DCD	138		8 15 73	13.3	21	.06	.00	88	18	130
381243N	9735 4.1	21 2W 19BD	....		7 20 73	15.0	28	.06	.00	94	11	43
381136N	9733 8.1	21 2W 28CB	101		8 16 73	14.4	27	.08	.00	54	6.2	22
3815 6N	9742 1.1	21 3W 6CB	140		8 14 73	15.0	27	1.9	.50	90	7.7	31
381413N	9740 4.1	21 3W 8DD	....		9 6 73	15.0	27	.36	.52	86	12	20
381349N	974144.1	21 3W 18BA	200		8 15 73	14.4	24	.11	.30	104	10	47
381257N	973840.1	21 3W 22BB	....		7 20 73	15.0	33	1.3	.47	166	24	92
381112N	973946.1	21 3W 33BB	....		7 20 73	15.6	30	.07	.33	83	11	22
381242N	974216.1	21 4W 24DA	116		8 15 73	14.4	28	2.5	.59	114	12	44
381149N	974355.1	21 4W 26CD	133		8 14 73	22.2	27	.03	.47	139	32	86
				PAWNEE COUNTY								
381429N	985652.1	21 15W 11CBB	20	ALLUVIUM	9 12 73	....	16	8.3	.71	74	15	19
				RENO COUNTY								
38 914N	974247.1	22 4W 12CD	....		8 7 73	15.0	31	.06	1.1	144	33	65
38 742N	974246.1	22 4W 24BA	123		8 7 73	....	34	2.4	1.2	155	32	68
38 729N	975135.1	22 5W 22BD	....		9 6 73	15.0	44	2.3	.08	59	7.0	17
38 532N	975049.1	22 5W 35CBC	125		8 6 73	15.6	45	.07	.00	13	2.8	11
38 716N	975849.1	22 6W 21DD	60		9 6 73	14.4	18	.07	.00	107	27	167
38 136N	974816.1	23 4W 30BA	....		8 6 73	14.4	19	2.2	.08	58	11	35
38 047N	974721.1	23 4W 32BBA	32		8 6 73	14.4	18	.10	.00	70	19	39
38 311N	975057.1	23 5W 15DDD	45		8 6 73	14.4	19	.03	.00	90	8.6	54
375849N	974516.2	24 4W 10CCC2	68		10 15 72	....	....	....	....	.....	.....	.....
375757N	974258.1	24 4W 13CC	45		10 15 72	....	....	....	....	.....	.....	.....
375757N	974258.2	24 4W 13CC2	230		10 15 72	....	....	....	....	.....	.....	.....
375757N	974314.1	24 4W 14DA	....		8 6 73	13.9	18	.03	.00	93	12	65
375520N	974745.1	24 4W 31DAB	....		7 19 73	15.0	28	.02	.00	86	12	44
375942N	974913.1	24 5W 1	15		7 19 73	15.0	16	.03	.00	132	16	175
375843N	975120.1	24 5W 10ACC	....		9 6 73	15.0	24	.08	.00	88	6.0	55
375252N	982357.1	25 10W 14BBB	85	L PLEISTOCENE DEP	9 3 73	15.6	25	4.4	.14	56	5.0	98
				SCOTT COUNTY								
382855N	1005638.1	18 33W 22AAA	110		12 21 72	11.1	42	.20	.00	165	54	31
				SEDGWICK COUNTY								
375329N	972811.1	25 1W 7ACC	75		9 21 73	15.0	16	6.7	.10	73	10	31
375250N	9726 0.1	25 1W 16AEC	110		9 21 73	15.0	13	5.6	.06	65	11	50
375236N	972712.1	25 1W 17CDD	....		9 20 73	17.2	15	.12	.00	102	19	43
375348N	973419.1	25 2W 7AAA	32		10 15 72	....	....	....	....	.....	.....	.....
375241N	973055.1	25 2W 14CCC	24		10 15 72	....	....	....	....	.....	.....	.....
375256N	9733 5.1	25 2W 16BBB	15		10 15 72	....	....	....	....	.....	.....	.....
375256N	973427.1	25 2W 18AAB	19		10 15 72	....	....	....	....	.....	.....	.....
3752 4N	9731 3.1	25 2W 22AAA	210		10 15 72	....	....	....	....	.....	.....	.....
3752 4N	9732 0.1	25 2W 22BBB	32		10 15 72	....	....	....	....	.....	.....	.....
375149N	972853.1	25 2W 24DDD	20		10 15 72	....	....	....	....	.....	.....	.....
375149N	972853.3	25 2W 24DDD3	165		10 15 72	....	....	....	....	.....	.....	.....
375019N	972917.1	25 2W 36ABB	....		9 21 73	15.0	6.0	....	.22	121	33	227
375427N	973524.1	25 3W 1DDD	33		10 15 72	....	....	....	....	.....	.....	.....
375427N	973737.1	25 3W 3DDD	17		10 15 72	....	....	....	....	.....	.....	.....
375349N	9737 3.1	25 3W 11BAA	....		9 21 73	15.0	17	.31	.00	80	12	74
				SHAWNEE COUNTY								
391149N	954630.1	10 15E 8CBC	35	WISCONSINAN ST TERRACE DEP	5 16 73	....	18	.19	.00	205	52	57

WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973.

LOCAL WELL NUMBER	DATE OF COLLEC-TION	PO-TAS-SIUM (K)	CAR-BON-ATE (CO3)	BICAR-BONATE (HCO3)	SUL-FATE (SO4)	CHLORIDE (CL)	FLUO-RIDE (F)	NI-TRATE (NO3)	DIS-SOLVED SOLIDS (EVAPO-RATED AT 180°C)	HARDNESS (CA,MG)	HARDNESS NON CAR-BONATE	SO-DIUM AD-SORP-TION RATIO	SPECIFIC CONDUCT-ANCE (MI-CROMHOS AT 25°C)	PH
MCPHERSON COUNTY CONTINUED														
20 3W 22DA	8 16 73	1.7	..	278	32	94	.1	2.3	459	330	102	.7	800	7.3
20 3W 30BB	8 14 73	3.2	..	312	11	46	.1	2.0	376	276	20	.6	620	7.4
20 3W 32ADD	8 14 73	1.7	..	307	14	85	.1	10	451	328	76	.7	740	7.5
20 4W 10DD	8 15 73	3.0	..	386	38	106	.2	4.4	555	408	92	1.0	970	7.4
20 4W 12AAC	8 15 73	2.7	..	327	66	24	.1	.3	428	313	45	.5	670	7.4
20 4W 15BD	8 14 73	2.7	..	364	48	30	.2	2.5	432	302	4	1.0	770	7.5
20 4W 27DCD	8 15 73	2.7	..	551	63	40	.1	8.4	642	294	0	3.3	1120	7.5
21 2W 19BD	7 20 73	1.8	..	351	44	25	.1	.1	420	280	0	1.1	680	7.7
21 2W 28CB	8 16 73	2.7	..	190	18	20	.1	6.2	250	160	4	.8	410	7.1
21 3W 6CB	8 14 73	2.7	..	337	17	23	.1	.3	365	256	0	.8	600	7.5
21 3W 8DD	9 6 73	2.5	..	317	15	22	.2	.1	341	264	4	.6	530	7.6
21 3W 18BA	8 15 73	3.0	..	334	31	66	.1	.3	450	300	26	1.2	760	7.6
21 3W 22BB	7 20 73	3.2	..	305	11	323	.1	.2	803	512	262	1.8	1500	7.5
21 3W 33BB	7 20 73	3.0	..	315	24	11	.3	.1	340	252	0	.6	550	7.8
21 4W 24DA	8 15 73	3.2	..	400	44	42	.2	.1	484	334	6	1.1	830	7.5
21 4W 26CD	8 14 73	3.0	..	390	46	192	.2	29	746	478	158	1.7	1290	7.5
PAWNEE COUNTY														
21 15W 11CBB	9 12 73	3.0	..	244	48	10	1.2	19	330	.....	....	.5	540	8.2
RENO COUNTY														
22 4W 12CD	8 7 73	4.0	..	359	218	87	.4	.3	759	495	201	1.3	1150	7.4
22 4W 24BA	8 7 73	3.8	..	324	204	136	.4	.4	793	518	252	1.3	1240	7.3
22 5W 22BD	9 6 73	1.5	..	195	24	18	.2	1.7	268	176	16	.6	390	7.5
22 5W 35CBC	8 6 73	1.6	..	61	3.3	9.0	.2	.7	117	44	0	.7	135	6.6
22 6W 21DD	9 6 73	4.5	..	271	182	228	.6	6.1	873	378	156	3.8	1450	7.7
23 4W 30BA	8 6 73	2.2	..	224	58	18	.4	.3	312	190	6	1.1	490	7.3
23 4W 32BBA	8 6 73	2.4	..	295	53	29	.8	2.2	379	252	10	1.1	620	7.5
23 5W 15DDD	8 6 73	2.4	..	210	85	69	.6	36	468	260	88	1.5	750	7.4
24 4W 10CCC2	10 15 72	....		....	.....	175	...	.....	.....	228	....	.0	820	...
24 4W 13CC	10 15 72	....		....	.....	170	...	.....	.....	200	....	.0	780	...
24 4W 13CC2	10 15 72	....		....	.....	170	...	.....	.....	138	....	.0	780	...
24 4W 14DA	8 6 73	2.0	..	293	51	88	.6	20	494	282	42	1.7	830	7.4
24 4W 31DAB	7 19 73	2.2	..	332	25	41	.1	11	413	264	0	1.2	690	7.7
24 5W 1	7 19 73	3.4	..	207	79	333	.4	79	936	396	226	3.8	1640	7.6
24 5W 10ACC	9 6 73	3.2	..	329	19	44	.2	12	414	244	0	1.5	670	7.7
25 10W 14BBB	9 3 73	4.2	..	217	26	109	.4	20	446	.....	....	3.4	750	7.8
SCOTT COUNTY														
18 33W 22AAA	12 21 72	8.4	..	312	275	99	1.0	23	850	634	378	.6	1220	8.0
SEDGWICK COUNTY														
25 1W 7ACC	9 21 73	2.2	..	205	96	14	.4	7.6	351	223	55	.9	540	7.9
25 1W 16ABC	9 21 73	3.0	..	254	51	38	.3	4.7	361	207	0	1.5	600	7.9
25 1W 17CDD	9 20 73	2.5	..	349	101	26	.5	.9	482	332	46	1.0	750	8.2
25 2W 7AAA	10 15 72	....		....	.....	150	...	.....	.....	116	....	.0	500	...
25 2W 14CCC	10 15 72	....		....	.....	60	...	.....	.....	206	....	.0	.....	...
25 2W 16BBB	10 15 72	....		....	.....	45	...	.....	.....	188	....	.0	520	...
25 2W 18AAB	10 15 72	....		....	.....	105	...	.....	.....	210	....	.0	710	...
25 2W 22AAA	10 15 72	....		....	.....	110	...	.....	.....	136	....	.0	470	...
25 2W 22BBB	10 15 72	....		....	.....	75	...	.....	.....	175	....	.0	600	...
25 2W 24DDD	10 15 72	....		....	.....	60	...	.....	.....	230	....	.0	520	...
25 2W 24DDD3	10 15 72	....		....	.....	70	...	.....	.....	234	....	.0	550	...
25 2W 36ABB	9 21 73	5.0	..	237	140	416	.4	2.2	1070	438	244	4.7	1940	7.9
25 3W 1DDD	10 15 72	....		....	.....	80	...	.....	.....	198	....	.0	600	...
25 3W 3DDD	10 15 72	....		....	.....	95	...	.....	.....	252	....	.0	600	...
25 3W 11BAA	9 21 73	3.2	..	249	66	82	.4	20	477	249	45	2.0	800	7.8
SHAWNEE COUNTY														
10 15E 8CBC	5 16 73	2.0	..	361	82	157	.2	329	1120	725	429	.9	1640	7.1

RESULTS IN MILLIGRAMS PER LITER,

GEOLOGICAL SURVEY WELL NUMBER (LAT)	(LONG)	LOCAL WELL NUMBER	WELL DEPTH (FEET)	GEOLOGIC SOURCE[2,3]	DATE OF COLLECTION	TEMPERATURE (°C)	SILICA (SIO2)	TOTAL IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)
				SHAWNEE COUNTY CONTINUED								
391111N	954324.1	10 15E 14BBB	12	PENNSYLVANIAN SYS AUBURN SH	5 16 73	....	9.6	2.4	.00	118	28	32
391019N	9545 6.1	10 15E 21BAA	40	PENNSYLVANIAN SYS AUBURN SH	5 16 73	....	13	.23	.00	52	8.4	77
391151N	9539 1.1	10 16E 9CBB	31	PENNSYLVANIAN SYS SCRANTON SH	5 16 73	....	17	2.7	.24	85	13	23
3910 6N	953837.1	10 16E 21CCD	29	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 16 73	....	25	.05	.00	101	24	118
39 821N	954022.1	10 16E 31DAA	16	PENNSYLVANIAN SYS SCRANTON SH	5 16 73	....	13	.18	.00	101	20	140
39 651N	954641.1	11 15E 8BBB	70	WISCONSINAN ST TERRACE DEP	5 16 73	....	24	6.5	1.3	82	19	127
39 644N	954339.1	11 15E 10AAC	90	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 16 73	....	28	.18	.00	84	7.4	14
39 721N	9536 1.1	11 16E 2DCD	20	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 16 73	....	23	.08	.00	45	8.6	13
39 117N	954615.1	12 15E 8CDD	28	PENNSYLVANIAN SYS SCRANTON SH	5 14 73	....	16	.07	.00	181	32	125
385932N	954223.1	12 15E 23DAA	38	PENNSYLVANIAN SYS SEVERY SH	5 4 73	....	5.8	....	.32	115	73	91
385810N	954648.1	12 15E 31AAA	33	PENNSYLVANIAN SYS AUBURN SH	5 14 73	....	6.3	.98	.08	139	23	54
385848N	953543.1	12 16E 26ADA	22	PENNSYLVANIAN SYS SEVERY SH	5 4 73	....	16	.04	.00	178	70	133
39 229N	953142.1	12 17E 4ABB	S	PENNSYLVANIAN SYS CALHOUN SH	5 4 73	....	16	.13	.00	144	17	13
385939N	953231.1	12 17E 20DDC	30	PENNSYLVANIAN SYS CALHOUN SH	5 14 73	....	2.3	3.7	.40	56	17	23
385939N	953043.1	12 17E 22CDD	55	PENNSYLVANIAN SYS CALHOUN SH	5 14 73	....	28	.09	.00	163	44	47
385519N	9544 2.1	13 15E 15CAA	65	PENNSYLVANIAN SYS SCRANTON SH	5 14 73	....	15	.09	.00	139	45	111
385442N	954713.1	13 15E 19ABB	18	PENNSYLVANIAN SYS SCRANTON SH	5 14 73	....	16	.19	.00	115	35	40
385238N	954533.1	13 15E 33BCC	30	WISCONSINAN ST TERRACE DEP	5 14 73	....	14	.06	.00	144	27	32
385618N	953714.1	13 16E 10ABC	10	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 14 73	....	22	.09	.00	197	18	40
385526N	9539 3.1	13 16E 17AAD	25	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 14 73	....	20	1.2	.16	123	26	78
385625N	953141.1	13 17E 9ABB	24	PENNSYLVANIAN SYS CALHOUN SH	5 14 73	....	13	.34	.00	144	32	73
385334N	953149.1	13 17E 28CAC	39	WISCONSINAN ST TERRACE DEP	5 14 73	....	14	....	.00	163	22	20
385250N	953427.1	13 17E 31BBC	35	PENNSYLVANIAN SYS CALHOUN SH	5 14 73	....	17	.07	.00	238	47	320
				STAFFORD COUNTY								
38 929N	983451.1	22 11W 7BBB	54	L PLEISTOCENE DEP	9 25 73	16.1	23	2.5	.16	24	1.0	324
38 357N	984659.1	23 13W 8CCB	126	L PLEISTOCENE DEP	9 25 73	16.1	12	12	.38	40	12	415
				WYANDOTTE COUNTY								
391159N	944855.1	10 23E 11BB	75	PENNSYLVANIAN SYS VILAS SH	5 10 73	....	15	.08	.00	117	17	6.5
391053N	945018.1	10 23E 16AC	90	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 10 73	....	16	.10	1.1	326	90	70
39 829N	945034.1	10 23E 33BA	90	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 10 73	....	20	.14	.00	102	11	26
39 740N	945349.1	11 23E 6ABB	110	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 10 73	....	11	....	.00	42	5.6	7.0
39 552N	945252.1	11 23E 17BA	80	PENNSYLVANIAN SYS TONGANOXIE SS ME	5 9 73	....	24	.46	.00	88	13	23
39 355N	9454 2.1	11 23E 30CD	110	PENNSYLVANIAN SYS VILAS SH	5 9 73	....	3.1	4.7	.00	72	47	2170
39 631N	943956.1	11 25E 8BD	100	PLEISTOCENE SER KAN GLAC-FLUV DEP	5 8 73	....	9.6	2.6	.00	54	10	20

[1]CHEMICAL ANALYSES BY KANSAS STATE DEPARTMENT OF HEALTH.

[2]THE CLASSIFICATION AND NOMENCLATURE OF THE ROCK UNITS USED IN THIS REPORT ARE THOSE OF THE KANSAS GEOLOGICAL SURVEY AND DIFFER SOMEWHAT FROM THOSE USED BY THE U.S. GEOLOGICAL SURVEY.

[3]DEP, DEPOSITS; FM, FORMATION; GP, GROUP; KAN GLAC-FLUV, KANSAN GLACIO-FLUVIAL; L, LOWER; ME, MEMBER; SER, SERIES; SH, SHALE; ST, STAGE; SS, SANDSTONE; SYS, SYSTEM.

LOCAL WELL NUMBER	DATE OF COLLECTION	POTASSIUM (K)	CARBONATE (CO3)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (EVAPORATED AT 180°C)	HARDNESS (CA,MG)	HARDNESS NON CARBONATE	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)	PH
					SHAWNEE COUNTY			CONTINUED						
10 15E 14BBB	5 16 73	.6	..	339	168	17	.4	1.0	560	410	132	.7	870	...
10 15E 21BAA	5 16 73	6.0	..	129	108	85	.8	2.9	422	164	58	2.6	700	...
10 16E 9CBB	5 16 73	.8	..	293	44	20	.3	.7	356	266	26	.6	580	...
10 16E 21CDD	5 16 73	.6	..	537	142	14	.3	8.0	700	350	0	2.7	1070	7.2
10 16E 31DAA	5 16 73	1.0	..	388	123	61	.2	145	792	334	16	3.3	1200	7.3
11 15E 8BBB	5 16 73	1.8	..	456	37	106	.2	1.4	618	282	0	3.3	1070	...
11 15E 10AAC	5 16 73	.8	..	259	16	7.0	.2	31	326	240	28	.4	500	7.4
11 16E 2DCD	5 16 73	.8	..	88	31	11	.3	65	242	148	76	.5	340	6.9
12 15E 8CDD	5 14 73	1.8	..	508	150	75	.2	230	1100	583	167	2.3	1600	7.1
12 15E 23DAA	5 4 73	4.0	..	349	412	54	.2	5.4	948	587	301	1.6	1360	7.2
12 15E 31AAA	5 14 73	1.6	..	198	148	127	.3	65	682	442	280	1.1	1100	7.6
12 16E 26ADA	5 4 73	24	..	454	347	128	.8	180	1340	732	360	2.2	1900	7.6
12 17E 4ABB	5 4 73	.8	..	298	188	7.0	.2	.3	526	430	186	.3	800	7.4
12 17E 20DDC	5 14 73	52	..	234	60	36	.3	25	396	210	18	.7	610	6.7
12 17E 22CDD	5 14 73	2.0	..	339	96	70	.2	260	890	588	310	.8	1360	7.3
13 15E 15CAA	5 14 73	2.0	..	268	428	54	.4	33	972	532	312	2.1	1430	7.4
13 15E 19ABB	5 14 73	3.4	..	449	82	24	.2	33	574	431	63	.9	960	7.1
13 15E 33BCC	5 14 73	21	..	390	94	31	.2	120	684	470	150	.6	1050	7.1
13 16E 10ABC	5 14 73	.8	..	351	112	62	.2	188	830	566	278	.7	1280	7.1
13 16E 17AAD	5 14 73	1.8	..	246	316	12	.8	42	770	414	212	1.7	1070	7.1
13 17E 9ABB	5 14 73	1.4	..	256	126	86	.3	230	850	491	281	1.4	1280	7.4
13 17E 28CAD	5 14 73	5.0	..	381	148	32	.2	36	640	497	185	.4	990	6.9
13 17E 31BBC	5 14 73	1.4	..	427	192	203	.2	835	2100	787	437	5.0	2900	...
					STAFFORD COUNTY									
22 11W 7BBB	9 25 73	2.8	..	303	43	369	.8	2.9	970	.....	....	18	1720	8.2
23 13W 8CCB	9 25 73	3.5	..	271	56	550	.3	.4	1240	.....	....	15	2250	8.1
					WYANDOTTE COUNTY									
10 23E 11BB	5 10 73	1.2	..	368	59	7.0	.3	1.1	418	362	60	.2	650	7.2
10 23E 16AC	5 10 73	2.0	..	354	172	381	.4	421	1680	1180	894	.9	2480	7.4
10 23E 33BA	5 10 73	.8	..	271	47	37	.2	36	426	300	78	.7	690	7.5
11 23E 6ABB	5 10 73	1.4	..	124	25	6.0	.4	5.1	178	128	26	.3	270	7.2
11 23E 17BA	5 9 73	1.2	..	364	11	3.0	.3	3.6	346	273	0	.6	560	7.5
11 23E 30CD	5 9 73	9.0	..	354	9.1	3440	2.5	.4	5890	372	82	49	10000	7.3
11 25E 8BD	5 8 73	3.6	..	168	59	7.0	.4	12	260	176	38	.7	400	7.3

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