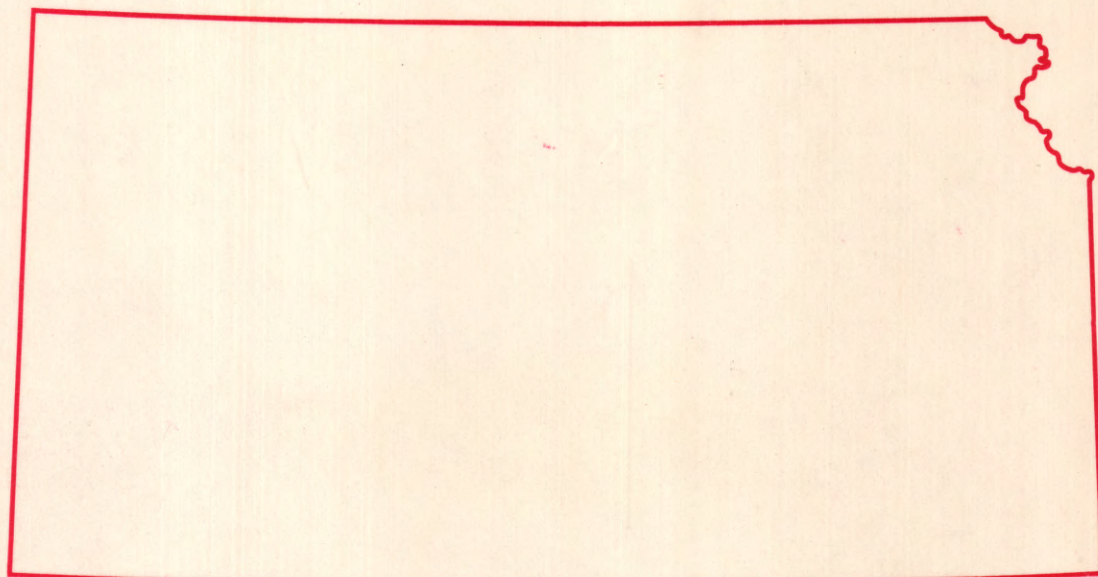




Water Resources Data Kansas Water Year 1987



U.S. GEOLOGICAL SURVEY WATER DATA REPORT KS-87-1
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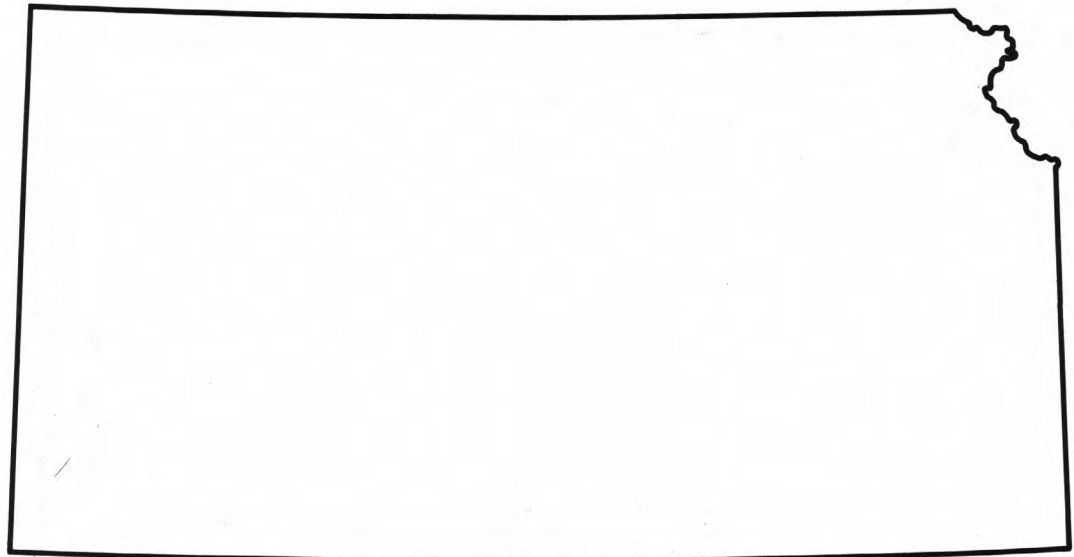
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Water Resources Data Kansas

Water Year 1987

by C.O. Geiger, D.L. Lacock, J.E. Putnam, C.E. Merry, and D.R. Schneider



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT KS-87-1
Prepared in cooperation with the State of Kansas
and with other agencies

DEPARTMENT OF THE INTERIOR

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U.S. GEOLOGICAL SURVEY

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For information on the water program in Kansas write to:

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U.S. Geological Survey
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PREFACE

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

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

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This report was prepared in cooperation with the State of Kansas and with other agencies under the general supervision of Claude O. Geiger, Hydrologic Data Management Section Chief, and Thomas L. Huntzinger, Associate District Chief, Kansas.

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16. Abstract (Limit: 200 words) Water-resources data for the 1987 water year for Kansas consist of records of stage, discharge, and water quality of streams; elevation, contents, and water quality of lakes or reservoirs; and water levels and water quality of ground-water wells. This report contains records for water discharge at 140 gaging stations; elevation and contents at 24 lakes or reservoirs; water quality at 31 gaging stations; and water levels at 1,590 observation wells and water quality at 221 wells. Also included are data for 87 high-flow, 10 low-flow, and 1 flood hydrograph partial-record station; and 2 chemical-quality of precipitation stations. Miscellaneous field water-quality data were collected at 101 measured sites, and miscellaneous water-quality data were collected at 14 sampling sites. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and federal agencies in Kansas.			
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B L A N K P A G E

INTRODUCTION

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

This report contains records for discharge at 140 complete-record streamflow-gaging stations; elevation and contents at 24 lakes or reservoirs; water-quality records at 31 complete-record streamflow-gaging stations, and 221 wells; and water levels at 1,590 observation wells. Also included are data for 87 high-flow partial-record streamflow-gaging stations and 10 low-flow partial-record streamflow-gaging stations. Locations of complete-record streamflow-gaging stations, 1987 water year, are shown in figure 1 (see pages 18-19). Locations of partial-record streamflow-gaging stations, 1987 water year, are shown in figure 2 (see pages 20-21). Locations of water-quality streamflow-gaging stations, 1987 water year, are shown in figure 3 (see pages 22-23). Locations of ground-water-quality stations, 1987 water year, are shown in figure 4 (see pages 24-25). Number of ground level observation wells per county, 1987 water year, are shown in figure 8 (see page 30).

This series of annual reports for Kansas began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Kansas were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir elevation and contents, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 6 and 7. For the 1961 through 1970 water years, the data were published in two 5-year reports, 1961-65 and 1966-70. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply Papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report KS-87-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (913) 864-4321.

COOPERATION

The U.S. Geological Survey and agencies of the State of Kansas have had cooperative agreements for the collection of water-resources records since 1895. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are: Kansas Water Office, J. F. Harkins, Director; Kansas Department of Health and Environment, Division of Environment, S. Bhatia, Director, succeeded by J. A. Power, Jr.; Kansas Geological Survey, L. C. Gehard, State Geologist and Director; Kansas Department of Transportation, K. D. Hurst, Bridge Engineer; Kansas State Board of Agriculture, Division of Water Resources, D. L. Pope, Chief Engineer; City of Hays, Ken Carter, City Manager.

Assistance with funds or services was given by the U.S. Army Corps of Engineers in collecting records for 58 continuous-record streamflow-gaging stations and 17 lakes or reservoirs, 8 high-flow partial-record streamflow-gaging stations; and by the U.S. Department of the Interior, Bureau of Reclamation, in collecting continuous record of elevation for 1 reservoir.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Large variations in streamflow characterize hydrologic conditions in Kansas. Average annual precipitation exceeds 40 inches in the extreme east, and average annual runoff exceeds 10 inches in the same area. Also in the east, stream channels are deeply incised in wide, alluvial flood plains, and streamflow generally is perennial. In the extreme west, however, average annual precipitation is less than 16 inches, and average annual runoff is less than 0.1 inch in the same area. In western Kansas, streams generally have shallow, ill-defined channels, and streamflow generally is ephemeral.

Precipitation data from monthly reports of the National Weather Service, for selected areas in Kansas, are shown in table 1 (see page 31). Precipitation during water year 1987 was greater than normal throughout the State.

The location of selected streamflow-gaging stations and a comparison of median monthly and yearly mean discharges at these stations for the period of record to monthly and yearly mean discharges for water year 1987 are shown in figure 5 (see pages 26-27). These stations were selected to depict natural-flow conditions at representative locations within Kansas. In table 2 (see page 32) minimum daily discharge and 7-day, 2-year low flow for the period of record at these same stations are compared to minimum daily discharge and 7-day low flow for water year 1987.

Streamflow was greater than the long-term median during water year 1987 in all but northwest and southwest Kansas. Extensive flooding occurred in early October in southeast Kansas as a result of precipitation of as much as 22 inches in a 5-day period, beginning September 29, 1986. As a result of this flood, peaks of record were recorded at streamflow-gaging stations on the Caney River near Elgin (49-year record), on Lightning Creek near McCune (36-year record), on the Marais des Cygnes River near Kansas-Missouri State line (29-year record), on the Little Osage River at Fulton (38-year record), on the Marmaton River near Marmaton (16-year record), on the Elk River below Elk City Lake (22-year record), on Elk City Lake near Independence (21-year record), and on Toronto Lake near Toronto (27-year record). Peaks of record also were recorded on the Solomon River near Glen Elder (23-year record), on Wilson Lake near Wilson (22-year record), and on Waconda Lake at Glen Elder (18-year record).

Water levels in irrigation reservoirs in central and western Kansas remained tens of feet below the tops of the irrigation-pools during the 1987 water year. Water levels in reservoirs not used for irrigation in eastern and central Kansas generally were at or near conservation-pool elevations by the end of the water year.

Surface-Water Quality

Concentrations of most chemical constituents, determined from water samples collected at streamflow-gaging stations during water year 1987, did not exceed the extremes for the period of record. However, concentrations of dissolved selenium exceeded the U.S. Environmental Protection Agency's primary drinking-water standard of 10 micrograms per liter in water samples collected from the Arkansas River near Coolidge on October 15 (19 micrograms per liter) and March 4 (28 micrograms per liter).

Ground Water

Ground-water-level changes that occurred during calendar year 1987 were determined from a water-level monitoring network of about 1,590 observation wells measured in January 1987 by various Federal, State, and local agencies. During water year 1987, record low water levels were measured at 644 observation wells, and record high water levels were measured at 242 observation wells.

In northwest Kansas (area north of the Smoky Hill River), the average water level rose 0.1 foot during calendar year 1987. During 1966-87, water levels in northwest Kansas declined an average of 0.6 foot per year. In west-central Kansas (area between the Smoky Hill River and the Scott-Finney County line), the average water level declined 0.7 foot during 1987. During 1966-87, water levels in west-central Kansas declined an average of 1.3 feet per year. In southwest Kansas (area south of the Scott-Finney County line), the average water level declined 0.7 foot during 1987. During 1966-87, water levels in southwest Kansas declined an average of 1.8 feet per year. In south-central Kansas (Big Bend Prairie south of the Arkansas River), the average water level rose 0.9 foot during 1987. During 1974-87, water levels in this area declined an average of 0.2 foot per year.

Because annual measurements of water-level change generally are affected by temporary conditions, developing trends are identified more accurately from long-term records. In general, water levels in western and south-central Kansas have declined about 0.6 foot less per year during the past 5 years (1983-87) than during the previous 5 years (1978-82).

The location of selected water-level monitoring wells and the water-level changes during the period of record at these wells are shown in figure 6 (see pages 28-29). These wells were selected to represent water-level changes in various parts of the State.

Ground-Water Quality

A ground-water-quality monitoring network of 221 wells was sampled during water year 1987; the samples were analyzed for selected chemical constituents. Concentrations of dissolved nitrogen, iron, and selenium exceeded drinking-water standards in localized areas. Dissolved concentrations of nitrite plus nitrate, as nitrogen, exceeding the U.S. Environmental Protection Agency's primary drinking-water standard of 10 milligrams per liter were detected in water samples from 30 water-supply wells. The largest concentration, 51 milligrams per liter, was detected in a sample from a well in Graham County. Dissolved-iron concentrations exceeding the U.S. Environmental Protection Agency's secondary drinking-water standard of 300 micrograms per liter were detected in water samples from 29 water-supply wells. The largest concentration, 15,000 micrograms per liter, was detected in a sample from a well in Douglas County. Dissolved-selenium concentrations exceeding the U.S. Environmental Protection Agency's primary drinking-water standard of 10 micrograms per liter were detected in water samples from three water-supply wells. The largest concentration, 20 micrograms per liter, was detected in a sample from a well in Kearny County.

SPECIAL NETWORKS AND PROGRAMS

NATIONAL HYDROLOGIC BENCH-MARK STATION is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

NATIONAL STREAM QUALITY ACCOUNTING NETWORK (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

NATIONAL TRENDS NETWORK (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1986 water year that began October 1, 1985, and ended September 30, 1986. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, elevation and content data for lakes or reservoirs, water-quality data for surface- and ground-water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 1, 2, 3, and 4. A map showing the number of ground-water level observation wells per county, is shown in figure 8. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

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

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record streamflow-gaging stations and other stations; therefore, the station number for a partial-record streamflow-gaging station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 07144300, which appears just to the left of the station name, includes the two-digit Part number "07" plus the six-digit downstream-order number "144300." The Part number designates the major river basin; for example, Part "07" is the Mississippi River basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous streamflow-gaging sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells

or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. See figure 7 on page 30.

Records of Elevation and Water Discharge

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

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "High-flow partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and partial-record streamflow-gaging stations for which data are given in this report are shown in figures 1 and 2.

Data Collection and Computation

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

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

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

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

At some streamflow-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

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

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake or reservoir content. Comments to follow clarify information presented under the various headings of the station description.

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

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

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

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

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

REMARKS.--This paragraph is used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the lake or reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

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

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030; 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

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

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton elevation-capacity table when daily contents are given.

The daily table for streamflow-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

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

Accuracy of the Records

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

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

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

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

Other Records Available

Precipitation data that is collected by the U.S. Geological Survey and State agencies are not published in the present report. The Kansas District operated many digital recorders (15-minute-punch interval) to collect rainfall data. The sites operated during the 1987 water year are shown in table 6 (see page 34). Locations of rainfall stations, 1987 water year, are shown in figure 10 (see page 34).

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

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Kansas District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near streamflow-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 3 (see pages 22-23).

Arrangement of Records

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

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on pages 16 and 17 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Kansas District office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

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

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for streamflow-gaging stations. Conversions of degrees Celsius to degrees Fahrenheit are shown in table 3 (see page 32). Water temperatures measured at the time of water-discharge measurements are on file in the District office. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Sediment

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

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 subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, CO or Doraville, GA. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remark Codes

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

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)

Records of ground-water levels

Only water-level data from a basic network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Map of Kansas showing number of ground-water level observation wells per county are shown in figure 8 (see page 30).

Records are obtained through cooperative efforts of many Federal, State, and local agencies for several hundred observations wells throughout Kansas and are placed in computer storage. Information about the availability of the data in the water-level file may be obtained from the District Chief, Kansas District. (See address on back of front page.)

Data Collection and Computation

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude, and (2) a local number that is provided for local needs. See figure 7 on page 30.

Water-level records are obtained from either direct measurements with a steel tape or from the graph of a water-stage recorder. Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears under the column heading SITE-ID. The secondary identification number is the local well number, an alphanumeric number derived from the township-range location of the well.

The water-level measurements in this report are given in feet with reference to land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported every 5 days and at the end of each month.

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

Data Presentation

Each well record consists of two parts, the well description and the table of water levels observed during the water year. The description of the well is presented either by descriptive table headings or by a narrative statement. A table of water levels follows the well description. Water levels are reported in feet below land-surface datum, and all taped measurements of water levels are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-levels for every fifth day at 1200 hrs and at the end of the month. The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table.

Records of ground-water quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

Ground-water quality data from a network of wells are published in this report. A number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed on a following page. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The National WATER Data STORAGE and RETRIEVAL System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, VA.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

DEFINITION OF TERMS

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

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

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

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

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

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

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

TOTAL COLIFORM BACTERIA are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35 deg C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 deg C \pm 1.0 deg C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

FECAL COLIFORM BACTERIA are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 deg C \pm 0.2 deg C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

FECAL STREPTOCOCCAL BACTERIA are bacteria found also in intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35 deg C \pm 1.0 deg C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

BIOCHEMICAL OXYGEN DEMAND (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

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

ASH MASS is the mass or amount of residue present after the residue from the dry-mass determination has been ashed in a muffle furnace at a temperature of 500 deg C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

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

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

WET MASS is the mass of living matter plus contained water.

BOTTOM MATERIAL: See Bed material.

CELLS/VOLUME refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

CHEMICAL OXYGEN DEMAND (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

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

CONTENTS is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

CONTROL designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

CONTROL STRUCTURE as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream.

CUBIC FOOT PER SECOND (CFS, cu ft per sec) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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

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

INSTANTANEOUS DISCHARGE is the discharge at a particular instant of time.

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

DISSOLVED-SOLIDS CONCENTRATION of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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

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

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

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

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

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

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

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

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

MICROGRAMS PER LITER ($\mu\text{g/L}$, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as the mass (micrograms) of solute per unit volume (liter) of water. 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 mass of solute per unit volume (liter) 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 using the factors in table 4 (see page 33). Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million (ppm) by using the factors in table 5 (see page 33).

NATIONAL HYDROLOGIC BENCH-MARK NETWORK (NHBMN) is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions in basins more obviously affected by the activities of man.

NATIONAL STREAM QUALITY ACCOUNTING NETWORK (NASQAN) is nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The NATIONAL TRENDS NETWORK (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

ORGANISM is any living entity.

ORGANISM COUNT/AREA refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (m^2), acre, or hectare. Periphyton benthic organisms, and macrophytes are expressed in these terms.

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

TOTAL ORGANISM COUNT is the total number of organisms collected and enumerated in any particular sample.

PARAMETER CODE is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

PARTICLE SIZE is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

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

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

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

PERCENT COMPOSITION is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

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

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

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

PLANKTON is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

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

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

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

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

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

SEA LEVEL refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "Mean Sea Level of 1929."

SEDIMENT is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

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

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

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

SUSPENDED-SEDIMENT CONCENTRATION is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

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

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

SUSPENDED-SEDIMENT LOAD is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

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

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

7-DAY 2-YEAR LOW FLOW ($7 Q_2$) is the discharge at the 2-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

7-DAY 10-YEAR LOW FLOW ($7 Q_{10}$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

SODIUM-ADSORPTION-RATIO (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

SOLUTE is any substance that is dissolved in water.

SPECIFIC CONDUCTANCE is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 deg C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

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

SUBSTRATE is the physical surface upon which an organism lives.

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

ARTIFICIAL SUBSTRATE is a device that is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton.

SUSPENDED (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

TONS PER ACRE-FOOT indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

TONS PER DAY (T/DAY) is the quantity of substance in solution or suspension that passes a stream section during a 24-hour period.

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

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

WATER YEAR in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year".

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

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

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

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

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 Pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

- 3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*. by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*. by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*. edited by P. E. Greenson, T. A. Ehlike, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*. by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
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- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*. by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*. by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

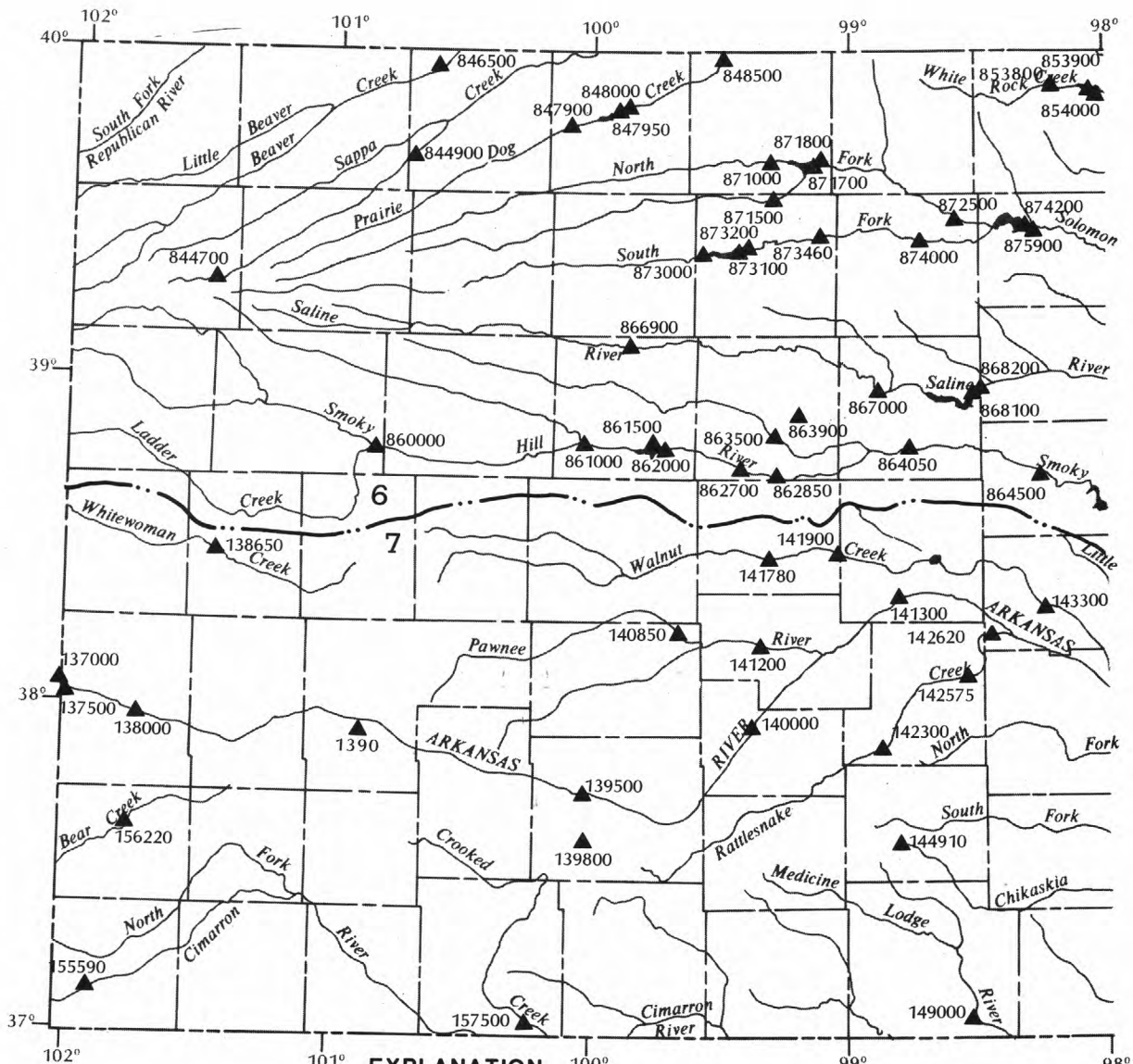
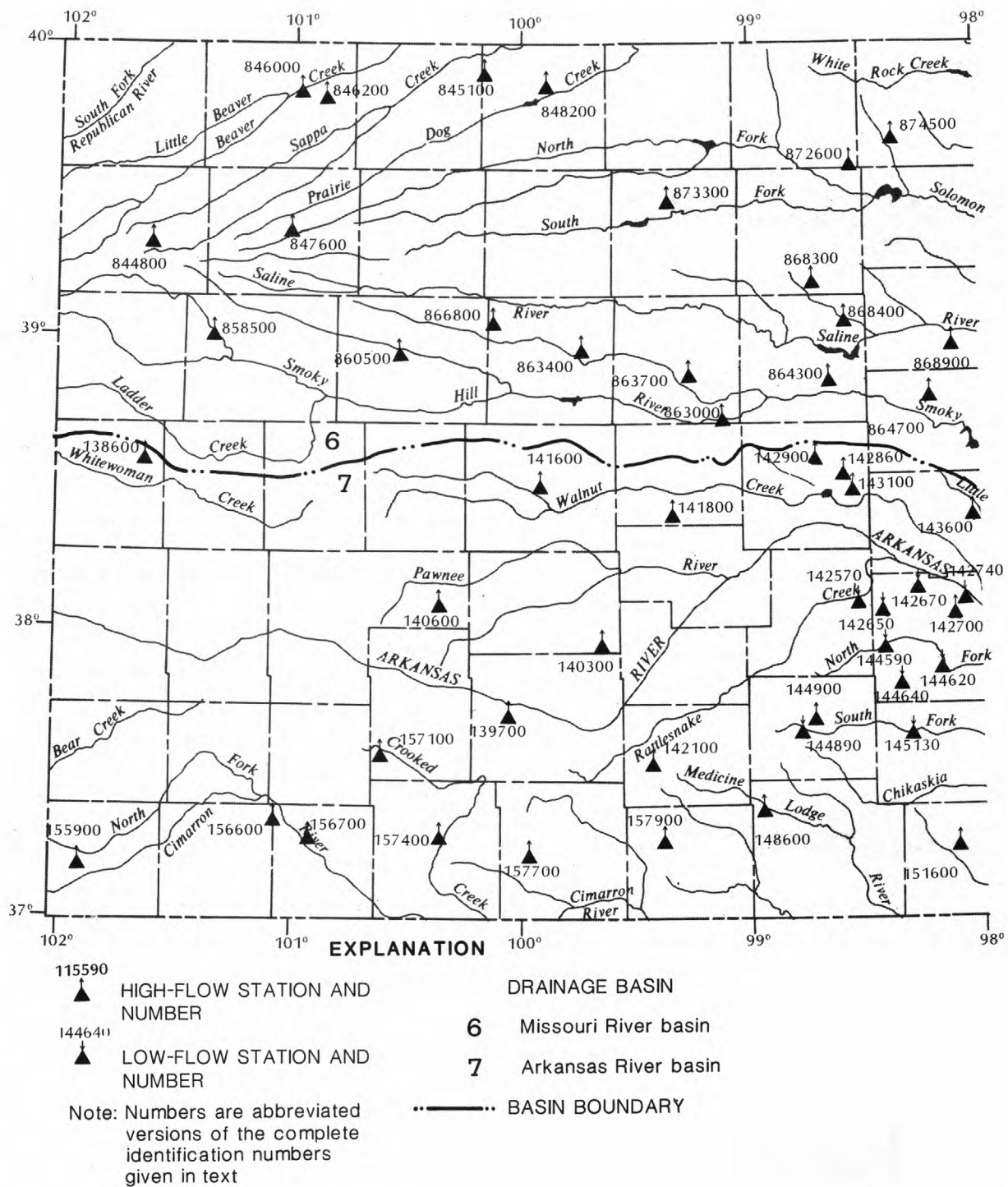


Figure 1.--Location of complete-record streamflow-gaging stations,
1987 water year.



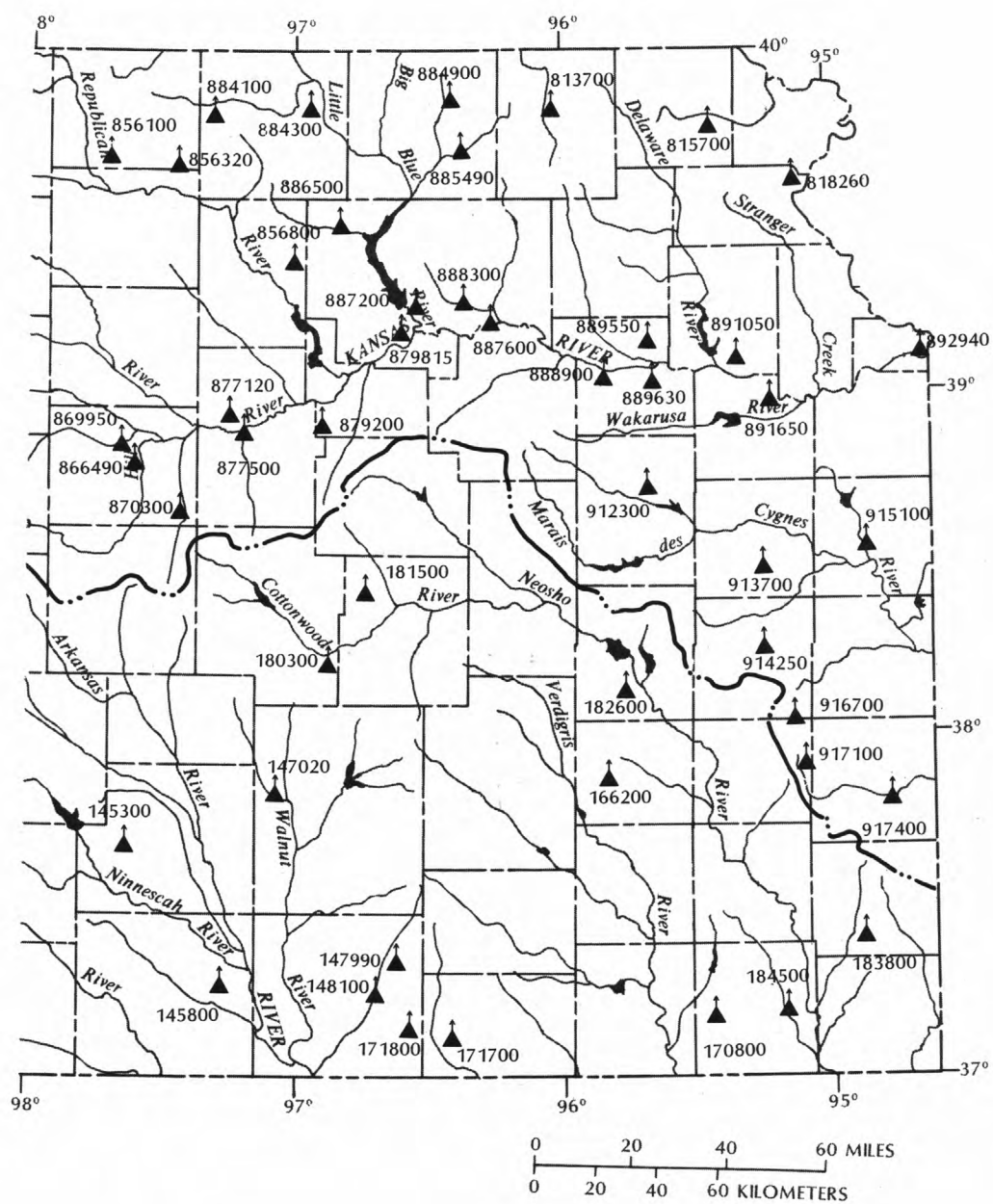
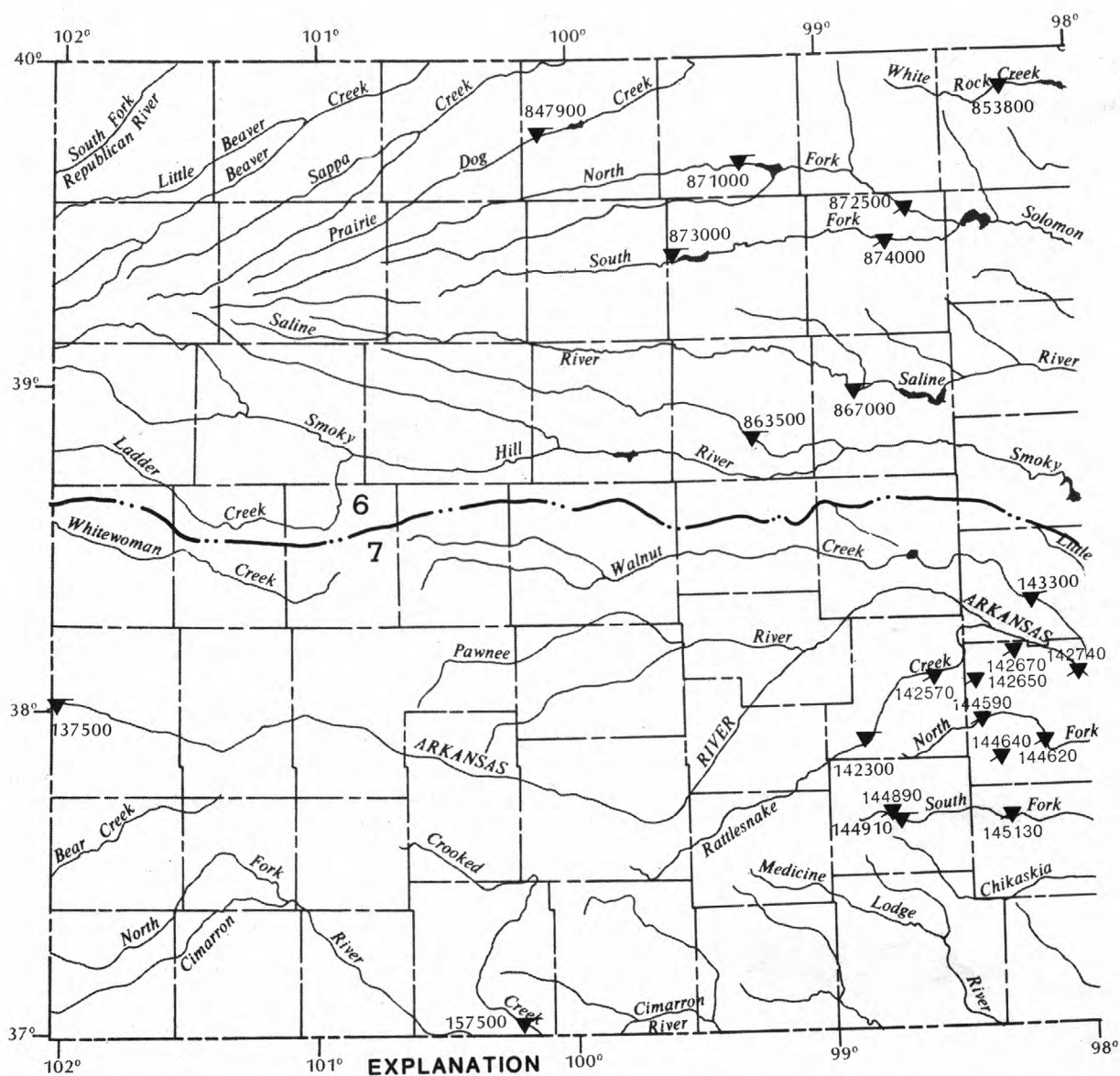


Figure 2.--Location of partial-record streamflow-gaging stations, 1987 water year.



884025
▲ CHEMICAL STATION AND NUMBER

137500
△ SEDIMENT STATION AND NUMBER

Note: Numbers are abbreviated versions of the complete identification numbers given in text

DRAINAGE BASIN

6 Missouri River basin

7 Arkansas River basin

--- BASIN BOUNDARY

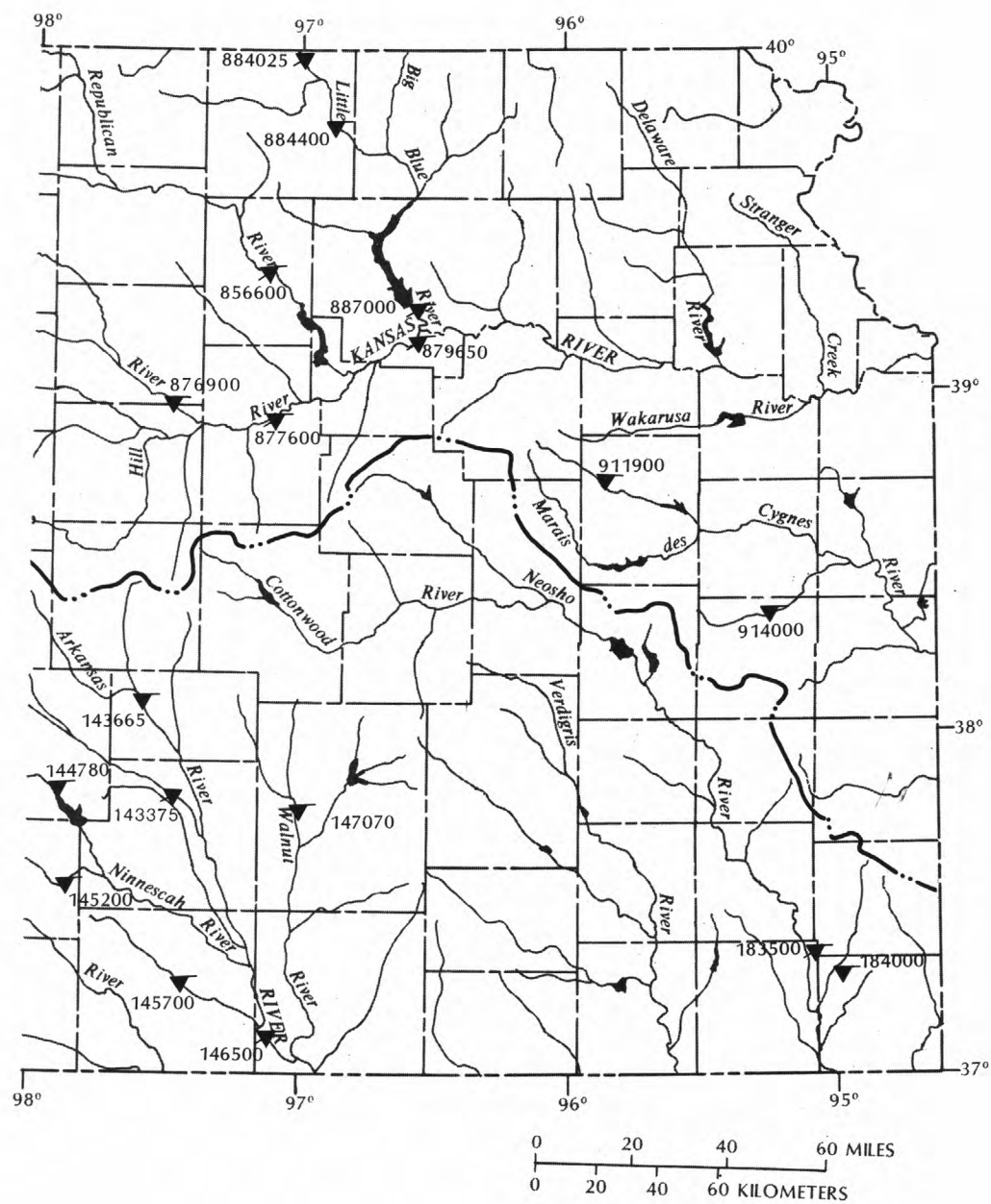
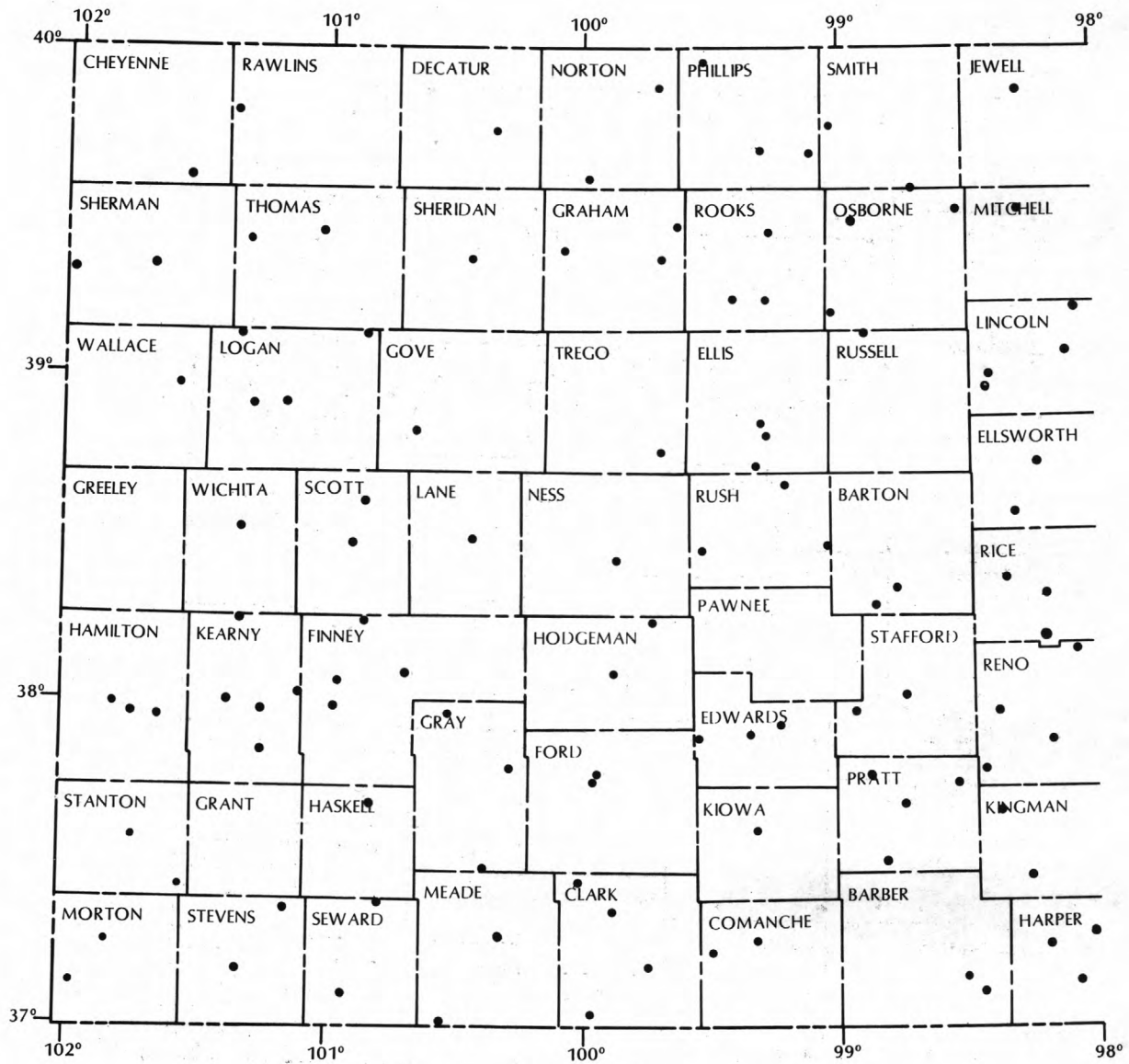


Figure 3.--Location of water-quality streamflow-gaging stations, 1987 water year.



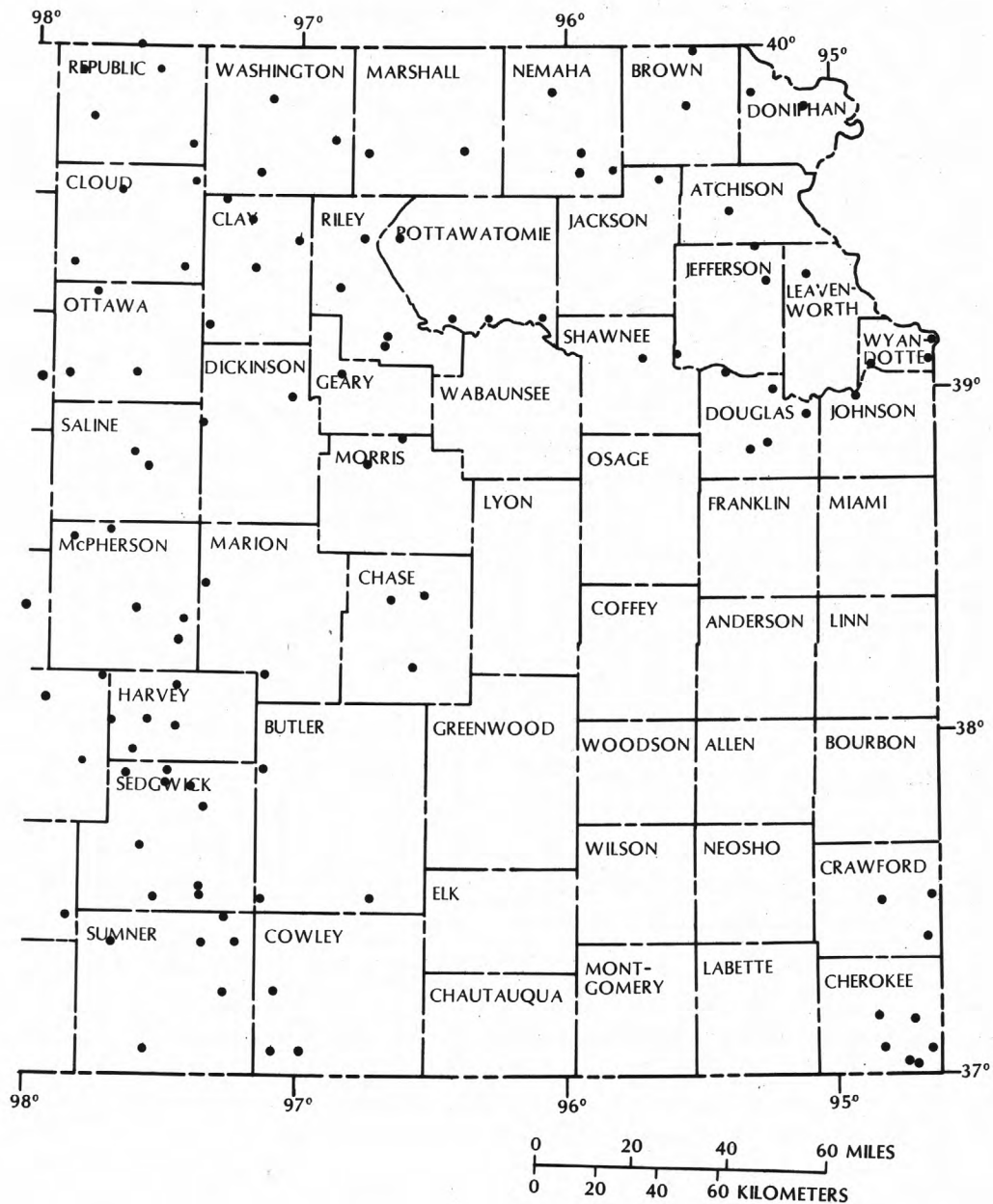
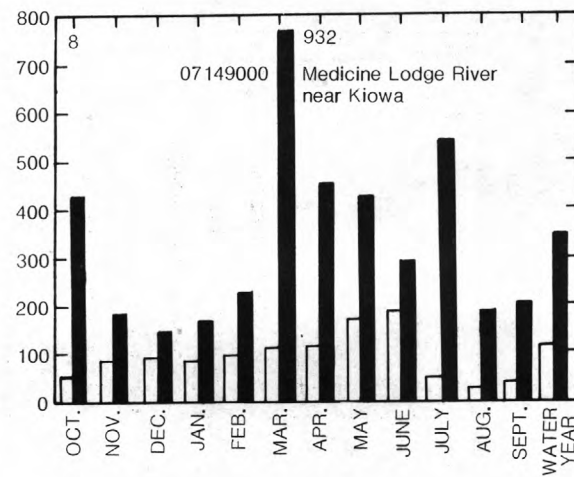
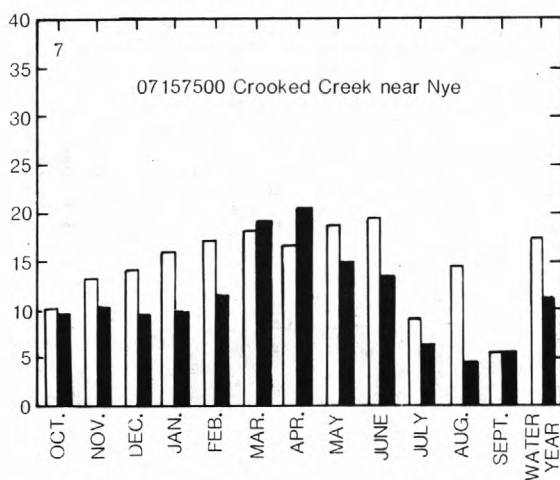
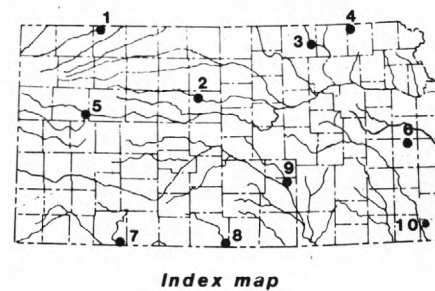
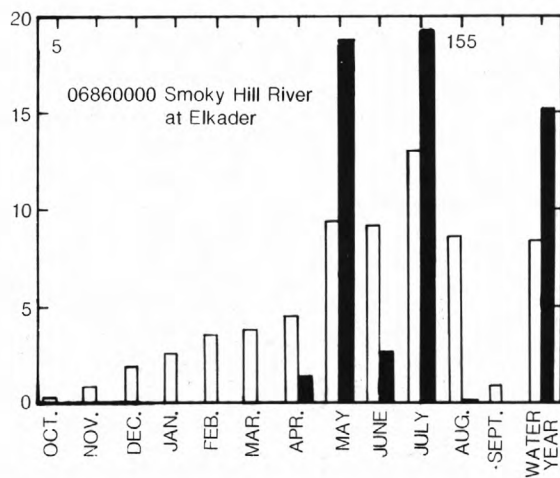
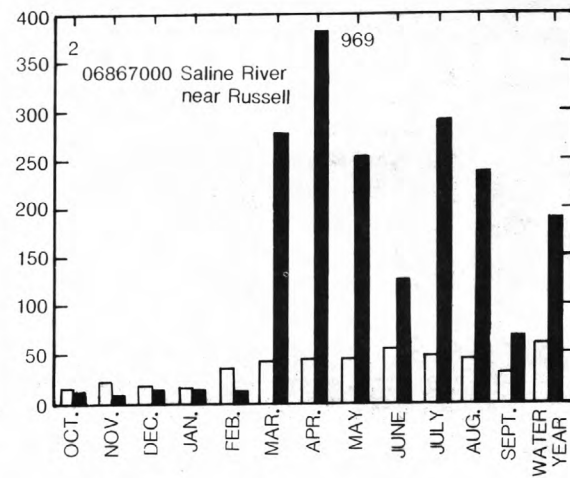
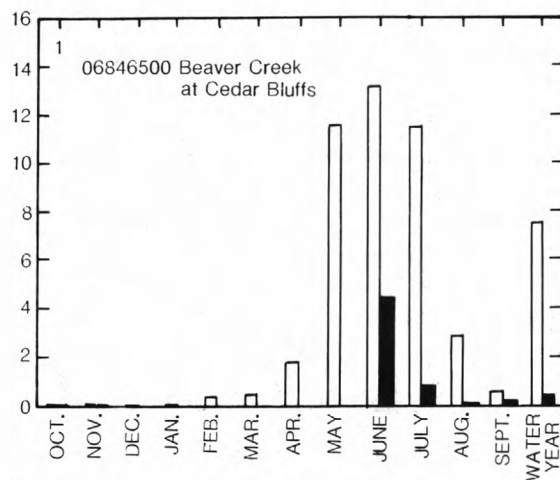


Figure 4.--Location of ground-water-quality stations, 1987 water year.

DISCHARGE, IN CUBIC FEET PER SECOND



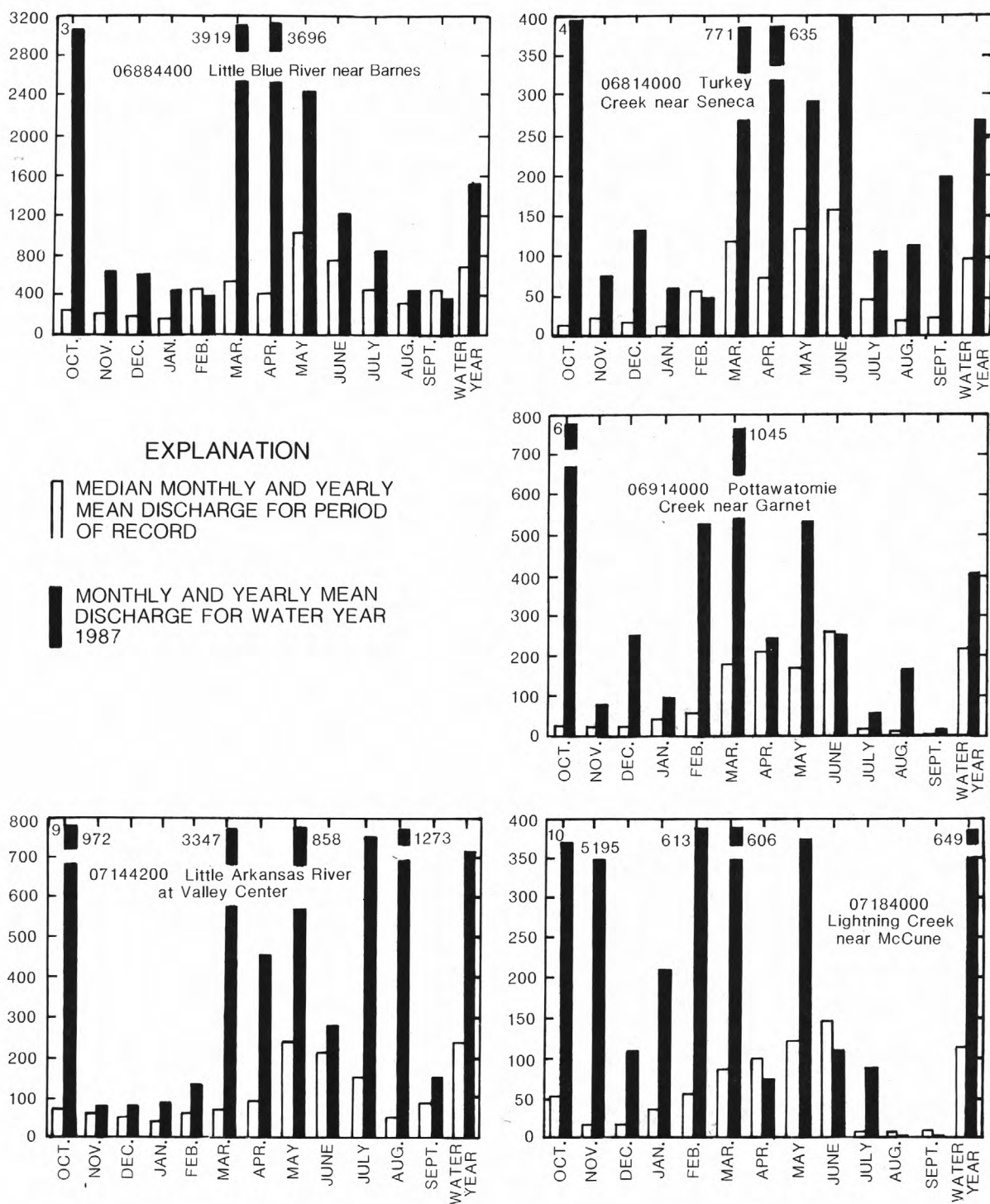
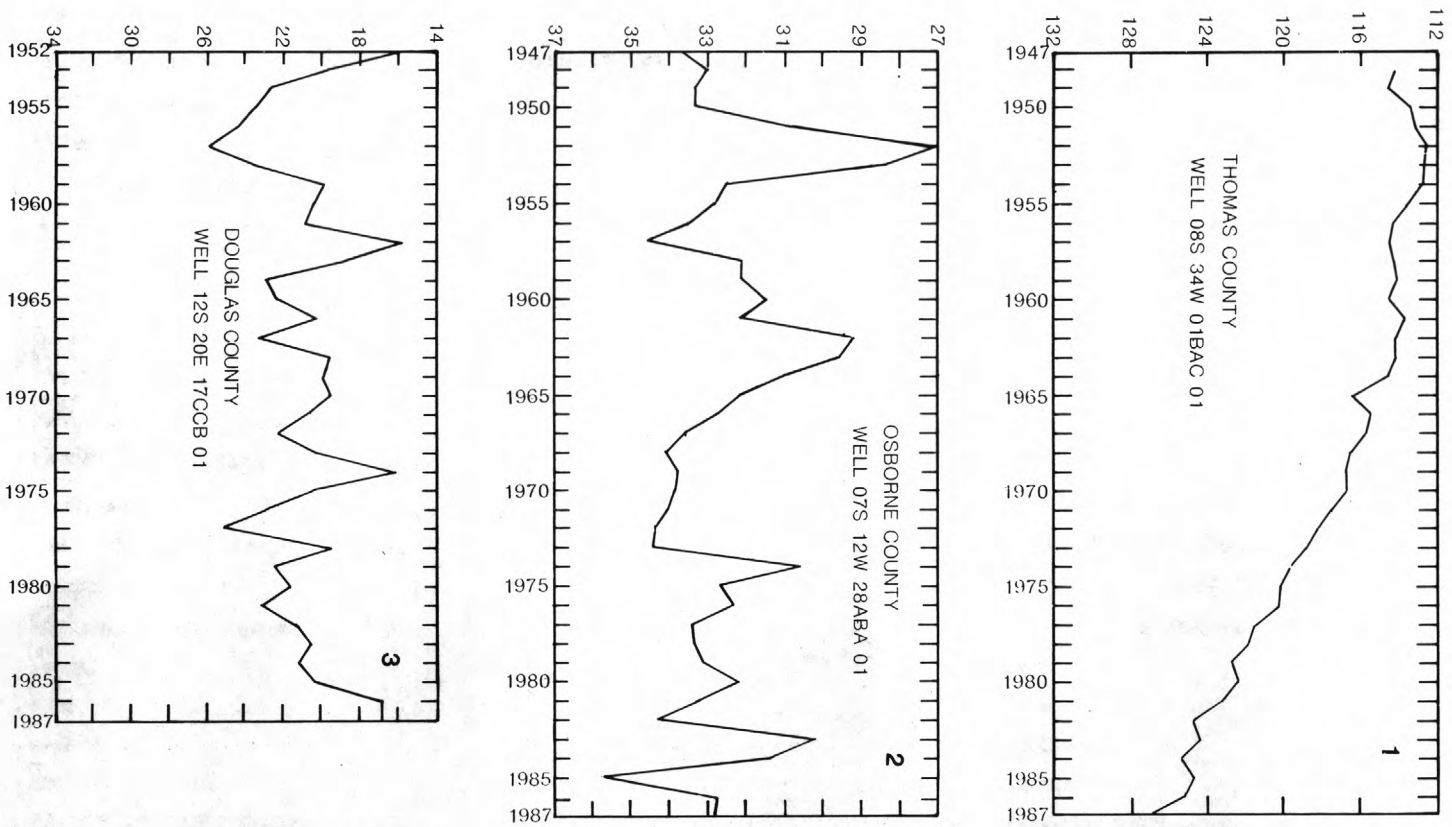


Figure 5.--Comparison of 1987 water year monthly and yearly mean discharges to long-term median of monthly and yearly mean discharges at selected streamflow-gaging stations.

DEPTH TO WATER, IN FEET BELOW LAND SURFACE



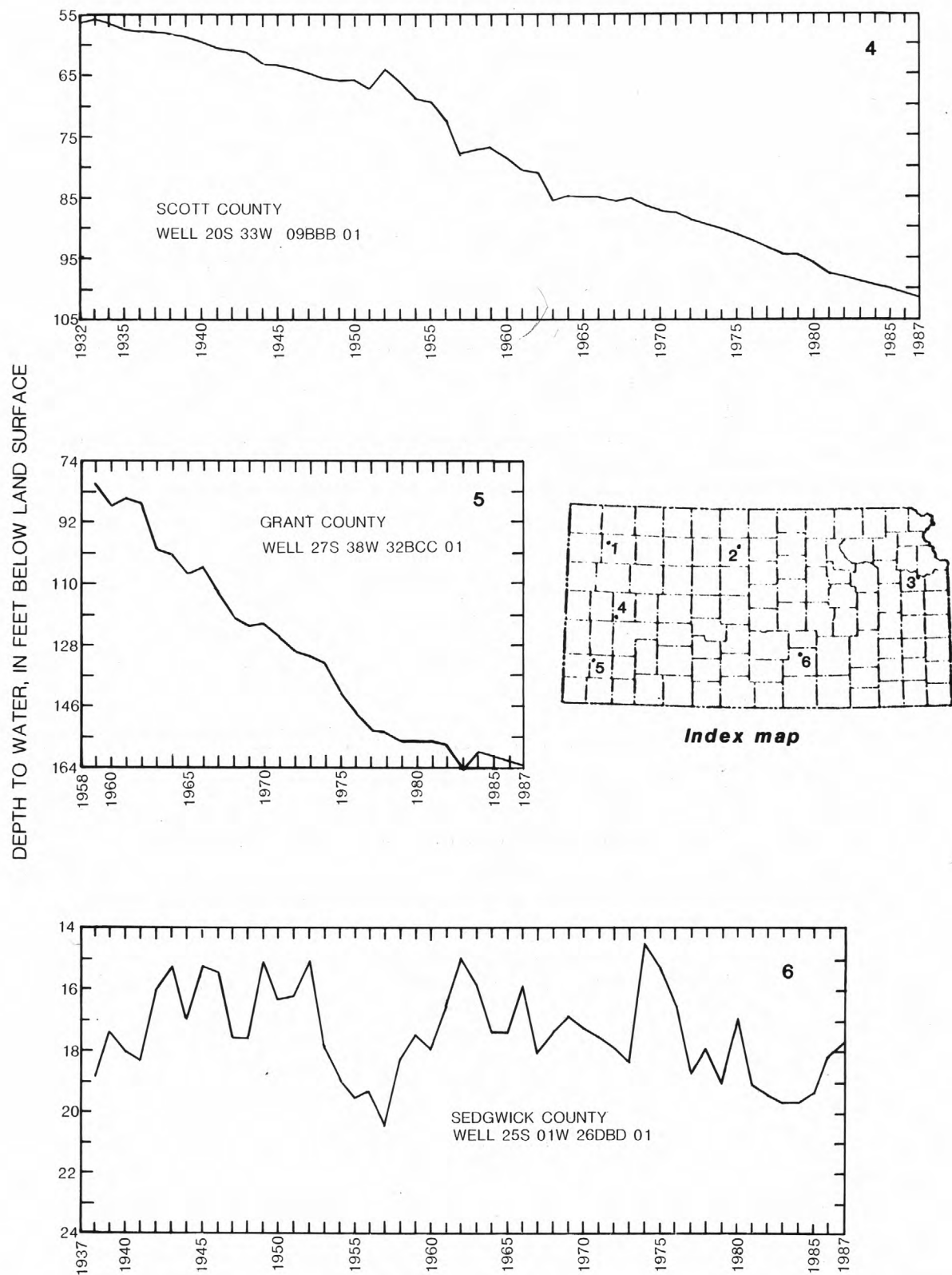


Figure 6.--Water-level trend at selected water-level monitoring stations.

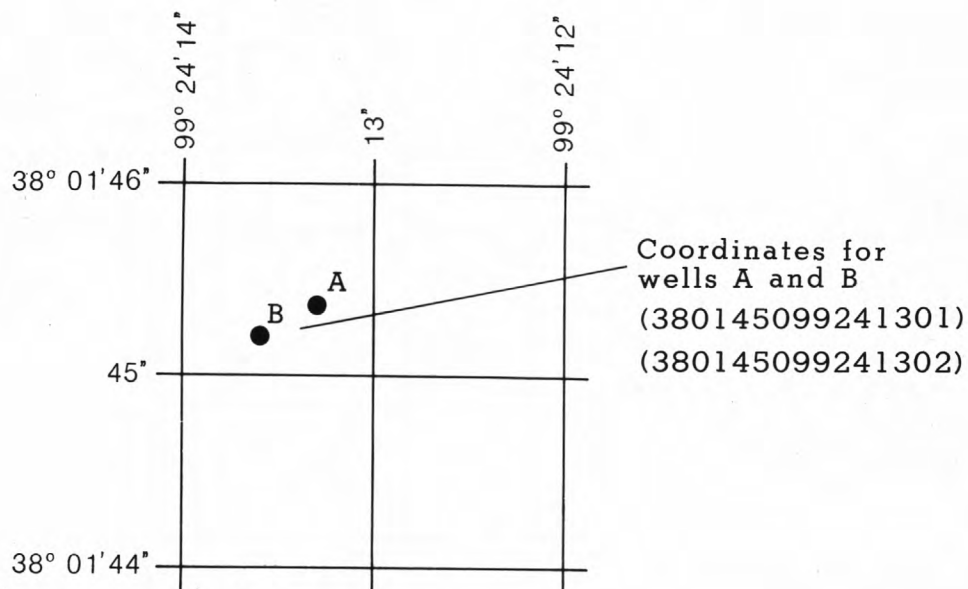


Figure 7.--System for numbering wells and miscellaneous sites.

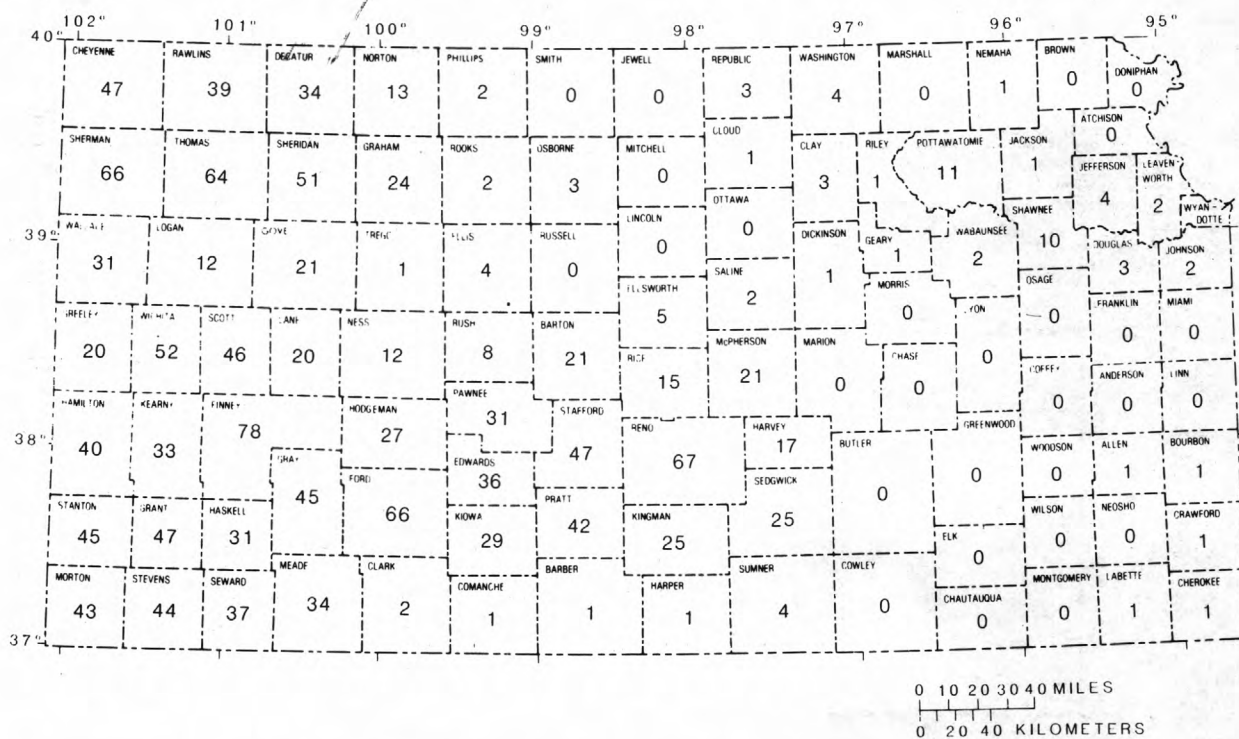


Figure 8.--Number of ground-water level observation wells per county, 1987 water year.

Table 1.--Precipitation during the 1987 water year and departure from normal
[Data from National Weather Service monthly reports. Values given in inches]

Area of State 1/	October-December		January-March		April-June		July-September		Water-year totals	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
Northwest	3.39	+1.11	5.79	+3.61	9.01	+0.75	5.99	-1.17	24.18	+4.30
North central	5.77	+2.31	8.90	+5.75	12.36	+2.16	8.35	-1.14	35.38	+9.08
Northeast	7.07	+1.51	6.68	+2.61	13.00	+0.58	11.79	-0.49	38.54	+4.21
West central	3.21	+0.83	5.94	+3.71	8.01	+0.23	8.29	+1.10	25.45	+5.87
Central	4.01	-0.18	9.08	+5.78	10.49	-0.04	9.73	+0.09	33.31	+5.65
East central	7.79	+1.70	8.14	+3.63	12.79	+0.09	12.69	+0.61	41.41	+6.03
Southwest	3.32	+1.07	4.59	+2.57	8.57	+1.15	7.00	+0.13	23.48	+4.92
South central	5.51	+1.34	8.13	+4.93	12.95	+2.94	11.04	+2.14	37.63	+11.35
Southeast	14.58	+7.74	8.97	+4.03	13.32	+0.14	14.03	+2.49	50.90	+14.40

1/ Areas of the State are shown in figure 9.

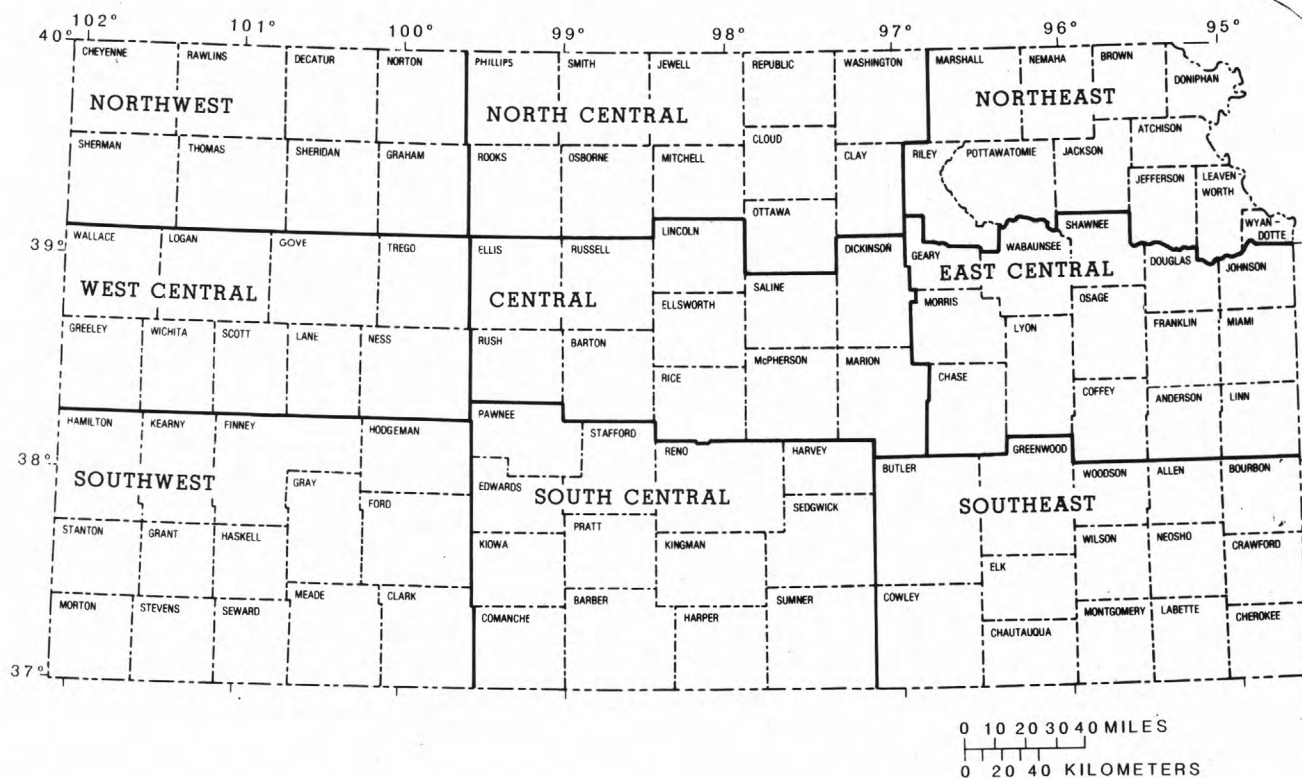


Figure 9.--Divisional areas of the National Weather Service.

Table 2.--Minimum daily discharges and low flows at selected streamflow-gaging stations
[Discharge and low-flow values are given in cubic feet per second]

Site number on index map (fig. _)	Station identification number and name	Period of record (water years)	Long-term		1987 water year	
			Minimum daily discharge (water year of most recent occurrence)	7-day, 2-year low flow	Minimum daily discharge	7-day low flow
1	06846500 Beaver Creek at Cedar Bluffs	1946-86	0 (1986)	0	0	0
2	06867000 Saline River near Russell	1946-53, 1960-86	.1 (1964)	9.6	5.6	7.2
3	06884400 Little Blue River near Barnes	1959-86	24 (1964)	110	220	231
4	06814000 Turkey Creek near Seneca	1949-86	0 (1977)	2.6	17	18
5	06860000 Smoky Hill River at Elkader	1940-86	0 (1986)	0	0	0
6	06914000 Pottawatomie Creek near Garnett	1940-86	0 (1985)	.2	1.3	2.3
7	07157500 Crooked Creek near Nye	1943-86	0 (1980)	0	1.9	2.4
8	07149000 Medicine Lodge River near Kiowa	1938-50, 1955, 1960-86	0 (1980)	.5	96	110
9	07144200 Little Arkansas River at Valley Center	1923-86	1.1 (1957)	25	63	68
10	07184000 Lightning Creek near McCune	1939-46, 1960-86	0 (1985)	.2	.49	.64

Table 3.--Conversion of degrees Celsius (°C) to degrees Fahrenheit (°F).* (Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
0.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

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

Table 4.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter.

<u>Ion</u>	<u>Multi- ply by</u>	<u>Ion</u>	<u>Multi- ply by</u>
Aluminum (Al^{+3})*.....	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia 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^{-2}).....	.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.

NOTE: Nitrate (N) \times 4.427 = Nitrate (NO_3).

Phosphorus (P) \times 3.066 = Phosphate (PO_4).

Table 5.--Factors for conversion of sediment concentration in milligrams per liter to parts per million.* (All values calculated to three significant figures.)

<u>Range of concentration in 1,000 mg/L</u>	<u>Di- vide by</u>	<u>Range of concentration in 1,000 mg/L</u>	<u>Di- vide by</u>	<u>Range of concentration in 1,000 mg/L</u>	<u>Di- vide by</u>	<u>Range of concentration in 1,000 mg/L</u>	<u>Di- vide by</u>
0 - 8	1.00	210-217	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.

Table 6.--Sites of rainfall gages (digital recorder).

Station number	Station name	Station number	Station name
Missouri River basin		Lower Mississippi River basin	
06879650	Kings Creek near Manhattan	07144220	Chisholm Creek at 69th Street, Wichita
96330800	Konza Prairie near Manhattan Lat 39°05'25", long 96°33'08"	07144494	Cowskin Creek tributary at Westfield Drive, Wichita
		97163600	East Branch Chisholm Creek at North 29th Street, Wichita Lat 37°44'15", long 97°16'36"
		97345900	Harvey County West Park, Rainfall, Wichita Lat 38°04'20", long 97°34'59"
		97395500	Mount Hope, Rainfall, Wichita Lat 37°53'53", long 97°39'55"

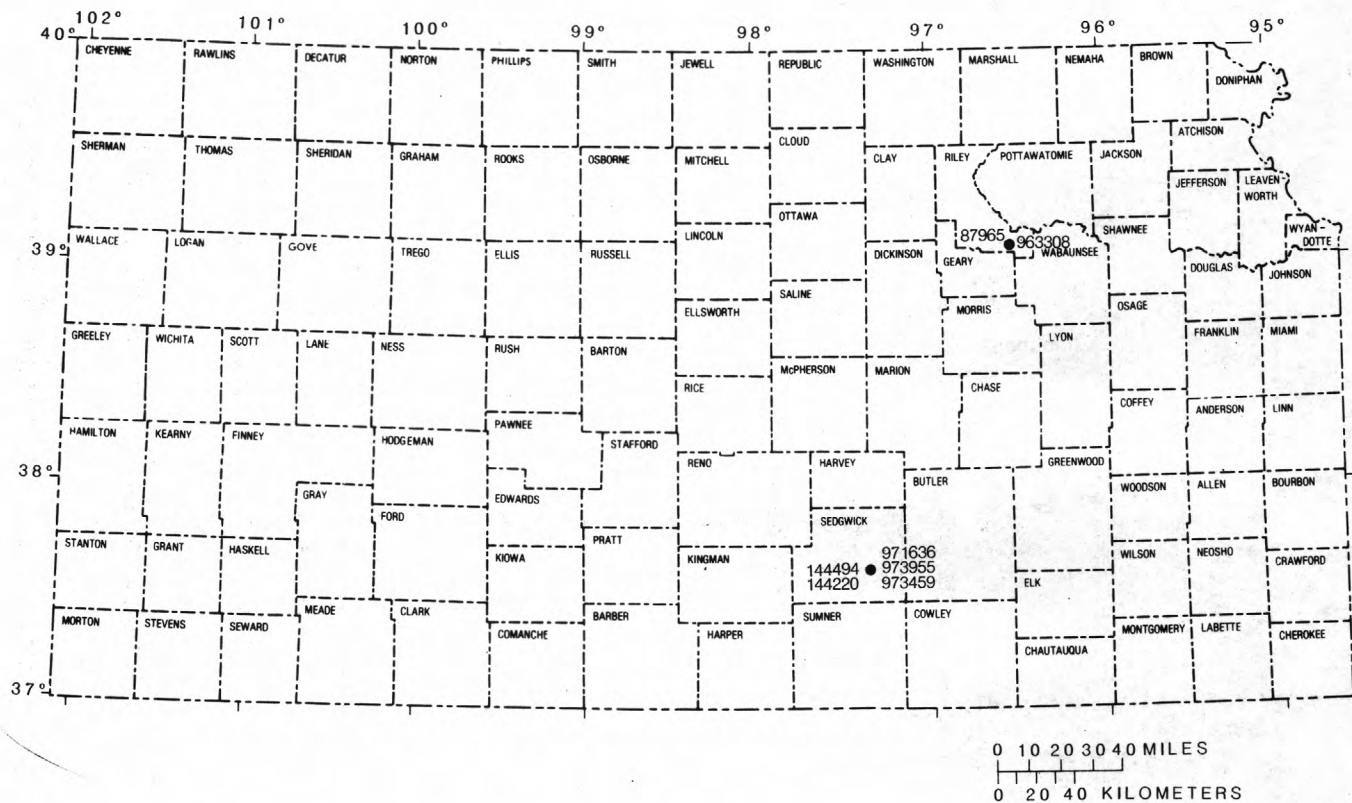


Figure 10.--Location of recording rainfall stations, 1987 water year.

MISSOURI RIVER BASIN

35

BIG NEMAHA RIVER BASIN

06814000 TURKEY CREEK NEAR SENECA, KS

LOCATION.--Lat 39 deg 56 min 52 sec, long 96 deg 06 min 30 sec, in SW1/4 NW1/4 SW1/4 sec.20, T.1 S., R.12 E., Nemaha County, Hydrologic Unit 10240007, on left bank at downstream side of highway bridge, 2.0 mi downstream from Clear Creek, 5.0 mi upstream from Big Nemaha River, and 8.0 mi northwest of Seneca.

DRAINAGE AREA.--276 sq mi.

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 1,037.53 ft above sea level. Prior to Oct. 19, 1956, water-stage recorder (occasional operation only) and nonrecording gage on former channel 400 ft south of present site at present datum. Oct. 19, 1956, to June 15, 1957, nonrecording gage at highway bridge 1.2 mi upstream at different datum. June 16, 1957, to Mar. 27, 1958, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 17-25 and July 17-28. Records good except those for estimated daily discharge, which are poor.

AVERAGE DISCHARGE.--39 years, 133 cu ft per sec, 96,360 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 cu ft per sec Oct. 11, 1973, gage height, 24.77 ft; no flow at times in 1956-57, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 12	0900	7,330	21.80	May 27	1400	3,250	18.03
Mar. 19	0500	5,050	20.81	June 29	2000	7,460	21.85
Mar. 25	0700	9,330	22.47	Sep. 16	1600	3,770	19.48
Apr. 14	2100	*10,500	*22.82				

Minimum discharge, 16 cu ft per sec Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	518	91	63	75	74	432	1390	103	170	329	20	40
2	314	116	86	63	64	180	815	101	575	211	19	35
3	249	112	77	78	58	115	465	958	481	150	18	31
4	305	103	60	60	51	99	380	223	188	150	18	30
5	217	94	51	67	53	89	335	385	148	131	18	26
6	131	89	73	69	56	80	298	188	125	101	17	25
7	108	87	170	65	59	74	266	146	109	98	19	28
8	99	109	836	53	61	66	240	125	97	270	32	27
9	85	103	394	69	52	57	218	114	115	339	35	26
10	78	83	171	62	51	55	201	105	467	378	25	185
11	2220	63	145	47	52	53	183	96	248	148	20	88
12	4580	73	179	85	50	53	169	86	150	128	18	50
13	593	48	111	79	49	52	191	79	113	104	29	46
14	370	32	138	82	49	52	5030	75	100	84	29	550
15	275	85	129	71	47	53	5000	68	90	74	596	660
16	225	81	126	37	45	56	804	65	77	66	173	2600
17	193	79	120	35	41	272	513	63	73	61	65	486
18	166	75	109	35	38	3630	396	61	322	55	100	207
19	144	71	102	36	43	3150	328	64	1520	50	121	139
20	129	72	100	38	45	705	268	89	358	46	59	105
21	117	70	89	40	42	625	226	209	349	43	53	84
22	116	67	85	39	40	429	205	135	193	39	207	73
23	131	66	82	37	38	372	194	83	143	36	142	64
24	112	59	82	39	41	2350	173	98	126	34	57	59
25	136	58	78	47	39	6430	156	515	100	32	43	55
26	159	58	71	56	38	1100	142	359	86	30	973	51
27	127	52	76	62	42	578	127	2340	73	28	391	48
28	107	55	76	68	110	883	116	1090	65	26	118	45
29	96	56	76	79	---	654	114	401	4280	25	77	42
30	89	56	66	84	---	515	109	273	1070	23	58	39
31	88	---	72	72	---	654	---	213	---	22	48	---
TOTAL	12277	2313	4093	1829	1428	23913	19052	8910	12011	3311	3598	5944
MEAN	396	77.1	132	59.0	51.0	771	635	287	400	107	116	198
MAX	4580	116	836	85	110	6430	5030	2340	4280	378	973	2600
MIN	78	48	51	35	38	52	109	61	65	22	17	25
AC-FT	24350	4590	8120	3630	2830	47430	37790	17670	23820	6570	7140	11790
CAL YR 1986	TOTAL	73676	MEAN 202	MAX 5090	MIN 17	AC-FT 146100						
WTR YR 1987	TOTAL	98679	MEAN 270	MAX 6430	MIN 17	AC-FT 195700						

KANSAS RIVER BASIN

06844700 SOUTH FORK SAPPA CREEK NEAR BREWSTER, KS

LOCATION.--Lat 39 deg 17 min 07 sec, long 101 deg 27 min 56 sec, in NW1/4 NW1/4 SW1/4 sec.9, T.9 S., R.37 W., Sherman County, Hydrologic Unit 10250010, on left bank at downstream side of highway bridge, 9.0 mi southwest of Brewster.

DRAINAGE AREA.--74.0 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to June 1987 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 3,440 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records poor.

AVERAGE DISCHARGE.--19 years (water years 1968-86), 0.224 cu ft per sec, 162 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 cu ft per sec May 2, 1979, gage height, 8.65 ft, from floodmark; no flow most days.

EXTREMES FOR CURRENT PERIOD.--October to June 1987: Peak discharges greater than base discharge of 75 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
June 24	0500	*237	*5.07	June 29	0200	153	4.58

No flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00			
2	.00	.00	.00	.00	.00	.00	.00	.00	.00			
3	.00	.00	.00	.00	.00	.00	.00	.00	.00			
4	.00	.00	.00	.00	.00	.00	.00	.00	.00			
5	.00	.00	.00	.00	.00	.00	.00	.00	.00			
6	.00	.00	.00	.00	.00	.00	.00	.00	.00			
7	.00	.00	.00	.00	.00	.00	.00	.00	.00			
8	.00	.00	.00	.00	.00	.00	.00	.00	.00			
9	.00	.00	.00	.00	.00	.00	.00	.00	.00			
10	.00	.00	.00	.00	.00	.00	.00	.00	.00			
11	.00	.00	.00	.00	.00	.00	.00	.00	.00			
12	.00	.00	.00	.00	.00	.00	.00	.00	.00			
13	.00	.00	.00	.00	.00	.00	.00	.00	.00			
14	.00	.00	.00	.00	.00	.00	.00	.00	.00			
15	.00	.00	.00	.00	.00	.00	.00	.00	.00			
16	.00	.00	.00	.00	.00	.00	.00	.00	.00			
17	.00	.00	.00	.00	.00	.00	.00	.00	.00			
18	.00	.00	.00	.00	.00	.00	.00	.00	.00			
19	.00	.00	.00	.00	.00	.00	.00	.00	.00			
20	.00	.00	.00	.00	.00	.00	.00	.00	.00			
21	.00	.00	.00	.00	.00	.00	.00	.00	.00			
22	.00	.00	.00	.00	.00	.00	.00	.00	.00			
23	.00	.00	.00	.00	.00	.00	.00	.00	.00			
24	.00	.00	.00	.00	.00	.00	.00	.00	.00			
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	66		
										1.3		
26	.00	.00	.00	.00	.00	.00	.00	.00	.00			
27	.00	.00	.00	.00	.00	.00	.00	.00	.00			
28	.00	.00	.00	.00	.00	.00	.00	.00	.00			
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	55		
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.81		
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	124.02			
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	4.13			
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.66		
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	246		

CAL YR 1986 TOTAL 144.57 MEAN .40 MAX 115 MIN .00 AC-FT 287

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to June 1987 (discontinued).

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

KANSAS RIVER BASIN

37

06844900 SOUTH FORK SAPPA CREEK NEAR ACHILLES, KS

LOCATION.--Lat 39 deg 40 min 37 sec, long 100 deg 43 min 18 sec, in SW1/4 SW1/4 NW1/4 sec.29, T.4 S., R.30 W., Decatur County, Hydrologic Unit 10250010, on right bank at downstream side of highway bridge, 5.5 mi southeast of Achilles, 14 mi southwest of Oberlin, and 18.5 mi upstream from confluence with North Fork.

DRAINAGE AREA.--446 sq mi, of which 68 sq mi is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 2,722.42 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 9-15, Jan. 1-12, Mar. 27-30, and Apr. 1-3. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--28 years, 4.00 cu ft per sec, 2,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,310 cu ft per sec June 19, 1975, gage height, 10.47 ft, from rating curve extended above 3,000 cu ft per sec; maximum gage height, 11.42 ft, July 2, 1982; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
July 8	0500	*464	*9.26				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.13	.10	.16	.00	.00	3.0	.59	.57	.10	.20	.03
2	.00	.17	.07	.17	.00	.00	4.0	.53	.41	5.2	.46	.02
3	.00	.18	.04	.18	.00	.00	4.8	.53	.31	.19	.49	.00
4	.00	.17	.00	.18	.00	.00	5.5	.70	.25	4.3	.72	.00
5	.00	.16	.00	.19	.00	.00	6.7	.53	.19	.30	.46	.00
6	.00	.15	.00	.17	.00	.00	11	.53	.18	.13	.65	.00
7	.00	.12	.13	.14	.00	.00	17	.53	.13	.11	.89	.16
8	.00	.10	.18	.12	.00	.00	14	.53	.13	189	.59	.08
9	.00	.08	.10	.10	.00	.00	12	.48	.23	42	.46	.02
10	.00	.07	.09	.13	.00	.00	11	.44	.26	26	.29	.02
11	1.1	.06	.05	.16	.00	.00	11	.31	.97	38	.21	.02
12	.05	.05	.00	.21	.00	.00	11	.31	.30	45	.22	.01
13	.52	.04	.06	.20	.00	.00	12	.81	.28	34	.41	.02
14	.30	.06	.07	.16	.00	.00	12	.52	.54	18	.33	.02
15	.06	.11	.09	.10	.00	.00	7.7	.43	.29	11	.25	.01
16	.01	.16	.02	.07	.00	.00	5.5	.32	.23	8.0	.21	.03
17	.00	.17	.00	.07	.00	.01	3.7	.35	.23	6.3	.16	.03
18	.00	.16	.00	.10	.00	.02	3.2	.34	.23	4.8	.40	.02
19	.00	.12	.03	.18	.00	.00	2.6	.95	.23	4.2	.20	.03
20	.00	.00	.04	.20	.00	.00	2.0	1.0	.21	4.0	.12	.03
21	.00	.00	.01	.12	.00	.00	1.8	.81	.23	2.8	.09	.03
22	.01	.00	.02	.08	.00	.00	1.6	1.1	.20	1.5	.05	.03
23	.02	.00	.08	.05	.00	.00	1.6	1.4	.17	1.0	.05	.02
24	.02	.00	.03	.06	.00	.05	1.6	1.3	.17	.65	.10	.02
25	.01	.00	.07	.17	.00	.11	1.5	1.4	.15	.44	.18	.01
26	.02	.00	.06	.02	.00	1.2	1.3	1.3	.12	.32	.17	.01
27	.03	.00	.04	.03	.00	1.5	1.2	1.1	.14	.30	.19	.01
28	.06	.00	.06	.02	.00	1.8	1.1	1.1	.20	.28	.15	.01
29	.05	.08	.10	.00	---	2.0	.97	.97	.26	.38	.08	.01
30	.07	.15	.11	.00	---	2.3	.70	.85	.12	.21	.06	.01
31	.07	---	.15	.00	---	2.6	---	.75	---	.14	.04	---
TOTAL	2.40	2.49	1.85	3.54	.00	11.59	173.07	22.81	7.93	448.65	8.88	.71
MEAN	.077	.083	.060	.11	.000	.37	5.77	.74	.26	14.5	.29	.024
MAX	1.1	.18	.18	.21	.00	2.6	17	1.4	.97	189	.89	.16
MIN	.00	.00	.00	.00	.00	.00	.70	.31	.12	.10	.04	.00
AC-FT	4.8	4.9	3.7	7.0	.00	23	343	45	16	890	18	1.4

CAL YR 1986 TOTAL 1144.42 MEAN 3.14 MAX 824 MIN .00 AC-FT 2270
WTR YR 1987 TOTAL 683.92 MEAN 1.87 MAX 189 MIN .00 AC-FT 1360

KANSAS RIVER BASIN

06846500 BEAVER CREEK AT CEDAR BLUFFS, KS

LOCATION.--Lat 39 deg 59 min 06 sec, long 100 deg 33 min 35 sec, in NW1/4 NE1/4 sec.10, T.1 S., R.29 W., Decatur County, Hydrologic Unit 10250014, on right bank at downstream side of bridge on U.S. Highway 83, 0.2 mi north of Cedar Bluffs, 1.0 mi south of Kansas-Nebraska State line, and at mile 107.4.

DRAINAGE AREA.--1,618 sq mi, of which 294 sq mi is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1510: 1947, 1950-51.

GAGE.--Water-stage recorder. Datum of gage is 2,520.33 ft above sea level. Prior to Aug. 19, 1971, at site 0.1 mi upstream at same datum. Aug. 19, 1971, to July 12, 1972, at site 0.8 mi downstream at datum 5.00 ft lower.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--42 years, 16.2 cu ft per sec, 11,740 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,940 cu ft per sec June 11, 1960, gage height, 18.71 ft at site 0.1 mi upstream at same datum; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1944 reached a stage of 18.16 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
June 16	2100	*116	*6.55	No peak greater than base discharge.			

No flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00
2	.03	.07	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00
3	.03	.03	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00
4	.02	.00	.00	.00	.00	.00	.00	.00	.00	.75	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.01
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.90	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.6	.02	.01
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.3	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00
10	.02	.00	.00	.00	.00	.00	.00	.00	.00	1.9	.00	.00
11	.13	.00	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.01
12	.01	.00	.00	.00	.00	.00	.00	.00	2.4	2.5	.02	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	12	2.0	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	3.6	1.6	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	24	1.4	.00	.05
16	.00	.00	.00	.00	.00	.00	.00	.00	36	1.1	.00	.02
17	.00	.00	.00	.00	.00	.00	.00	.00	27	.84	.04	.02
18	.00	.00	.00	.00	.00	.00	.00	.00	11	.53	.02	1.9
19	.00	.00	.00	.00	.00	.00	.00	.00	2.9	.12	.00	1.1
20	.00	.00	.00	.00	.00	.00	.00	.00	1.7	.00	.00	.21
21	.09	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00
22	.12	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.01	.00
23	.06	.00	.00	.00	.00	.00	.00	.00	.88	.00	.02	.00
24	.02	.00	.00	.00	.00	.00	.00	.00	.89	.00	.09	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.07	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.86	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.11	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.05	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.53	.14	.00	.00	.00	.00	.00	.00	127.49	23.60	.29	3.33
MEAN	.017	.005	.000	.000	.000	.000	.000	.000	4.25	.76	.009	.11
MAX	.13	.07	.00	.00	.00	.00	.00	.00	36	3.0	.09	1.9
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1.1	.3	.00	.00	.00	.00	.00	.00	253	47	.6	6.6

CAL YR 1986	TOTAL	6.19	MEAN	.017	MAX	.97	MIN	.00	AC-FT	12
WTR YR 1987	TOTAL	155.38	MEAN	.43	MAX	36	MIN	.00	AC-FT	308

06246500 BEAVER CREEK AT CEDAR BLUFFS, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1961 to September 1965, October 1967 to September 1969.

SUSPENDED-SEDIMENT DISCHARGE: October 1961 to September 1966, October 1967 to September 1969.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

KANSAS RIVER BASIN

06847900 PRAIRIE DOG CREEK ABOVE KEITH SEBELIUS LAKE, KS

LOCATION.--Lat 39 deg 46 min 13 sec, long 100 deg 06 min 00 sec, in SE1/4 SE1/4 sec.23, T.3 S., R.25 W., Norton County, Hydrologic Unit 10250015, on right bank, 50 ft downstream from bridge on county road, 4.0 mi east of Clayton, and at mile 90.4.

DRAINAGE AREA.--590 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1962 to current year. Prior to Dec. 28, 1980, published as Prairie Dog Creek above Norton Reservoir.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,334.94 ft above sea level. Prior to Sept. 30, 1974, at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Apr. 3-8. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--25 years, 8.54 cu ft per sec, 6,190 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 cu ft per sec Sept. 6, 1972, gage height, 14.81 ft, present datum, from rating curve extended above 3,500 cu ft per sec; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known flood since at least 1944, 65,500 cu ft per sec May 28, 1953, at site 9.4 mi downstream, based on contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
July 8	2200	*821	*12.10				

Minimum discharge, 0.02 cu ft per sec Oct. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.29	1.3	2.0	2.3	2.6	.10	9.2	6.0	19	3.8	1.6
2	.07	.36	1.3	1.7	2.6	2.4	.13	8.8	5.6	16	3.7	1.5
3	.09	.61	1.3	1.6	2.0	2.3	.45	9.9	5.0	14	3.6	1.4
4	.11	.82	1.1	1.8	2.3	2.3	1.0	11	4.8	56	3.3	1.1
5	.07	.69	1.5	2.0	2.2	2.2	2.5	16	4.6	66	3.1	.85
6	.06	.69	1.7	2.4	1.8	2.5	6.0	21	4.4	26	2.7	1.0
7	.06	.69	1.5	1.7	2.3	3.4	15	14	4.1	13	5.8	2.7
8	.06	.70	1.7	1.9	2.4	3.6	13	12	3.8	623	99	1.4
9	.06	.77	1.3	2.0	1.9	3.1	11	11	3.6	620	44	1.1
10	.04	.76	1.2	1.7	2.0	3.2	9.5	10	4.1	212	15	1.1
11	1.6	.72	1.1	1.7	2.3	3.3	8.8	10	5.4	67	7.6	1.1
12	2.4	.31	1.6	1.9	2.3	3.3	11	10	4.5	42	5.4	1.1
13	1.3	.58	2.0	2.4	3.2	2.2	13	9.8	3.8	31	8.0	1.1
14	.65	.64	1.9	2.2	2.4	2.3	22	9.5	3.8	25	5.6	1.1
15	.40	.81	1.8	1.8	2.2	2.5	17	8.7	3.5	22	4.9	1.1
16	.35	.99	1.9	1.4	2.3	2.8	20	8.2	3.7	18	3.8	2.2
17	.34	1.1	1.8	1.7	2.3	3.7	23	7.5	3.4	16	3.5	1.7
18	.30	1.1	1.6	2.4	1.9	4.1	19	5.8	3.9	15	3.5	1.4
19	.36	.88	1.6	2.2	2.3	3.6	17	5.7	4.1	14	3.0	1.4
20	.33	1.1	1.6	1.9	2.4	3.2	15	7.0	4.8	12	2.8	1.3
21	.20	1.1	1.6	1.9	2.2	3.3	14	7.8	3.3	12	2.6	1.9
22	.15	1.3	1.7	1.7	2.2	3.3	12	7.3	3.5	10	2.3	3.4
23	.20	1.2	2.0	1.4	2.3	4.0	12	7.3	2.9	9.7	2.3	3.3
24	.21	1.2	2.0	1.4	2.4	2.0	11	6.5	2.7	8.9	2.5	3.1
25	.18	1.3	2.0	1.5	2.3	1.5	11	6.3	2.5	8.0	2.6	3.0
26	.22	1.3	1.8	1.8	2.5	2.0	10	5.8	2.1	7.4	2.6	3.0
27	.22	1.1	2.0	2.0	3.0	2.2	10	6.2	2.2	6.5	2.6	2.9
28	.31	1.3	1.9	2.2	3.1	.33	10	6.1	2.6	5.9	2.5	2.3
29	.26	1.3	1.9	2.6	---	.11	11	8.5	294	5.4	2.3	1.5
30	.20	1.2	1.7	2.3	---	.09	11	6.7	75	4.9	1.9	.62
31	.22	---	1.9	2.4	---	.06	---	6.2	---	4.6	1.8	---
TOTAL	11.14	27.41	51.3	59.6	65.4	77.49	336.48	279.8	477.7	2010.3	258.1	52.27
MEAN	.36	.91	1.65	1.92	2.34	2.50	11.2	9.03	15.9	64.8	8.33	1.74
MAX	2.4	1.3	2.0	2.6	3.2	4.1	23	21	294	623	99	3.4
MIN	.04	.29	1.1	1.4	1.8	.06	.10	5.7	2.1	4.6	1.8	.62
AC-FT	22	54	102	118	130	154	667	555	948	3990	512	104

CAL YR 1936	TOTAL	1901.00	MEAN	5.21	MAX	323	MIN	.00	AC-FT	3770
WTR YR 1987	TOTAL	3706.99	MEAN	10.2	MAX	623	MIN	.04	AC-FT	7350

KANSAS RIVER BASIN

41

06847900 PRAIRIE DOG CREEK ABOVE KEITH SEBELIUS LAKE, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-70, 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 21...	1115	1.2	740	7.10	1.5	112	0.37
FEB 26...	1355	2.3	762	7.70	5.0	71	0.44
MAY 28...	1715	6.7	831	7.30	21.0	154	2.8
JUL 09...	1655	500	211	8.20	24.0	1730	2340
21...	1625	10	857	7.40	24.5	13	0.37
SEP 01...	1400	1.6	672	8.30	18.0	113	0.50

06847950 KEITH SEBELIUS LAKE NEAR NORTON, KS

LOCATION.--Lat 39 deg 48 min 27 sec, long 99 deg 56 min 04 sec, in SW1/4 NE1/4 sec.8, T.3 S., R.23 W., Norton County, Hydrologic Unit 10250015, in control tower near left end of Norton Dam on Prairie Dog Creek, 3.0 mi southwest of Norton, and at mile 74.9.

DRAINAGE AREA.--683 sq mi.

PERIOD OF RECORD.--October 1964 to current year. Prior to Dec. 28, 1980, published as "Norton Reservoir near Norton."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Oct. 6, 1964. Total capacity, 193,023 acre-ft, consisting of the following: Sedimentation, 2,920 acre-ft below elevation 2,275.5 ft; conservation pool, 33,010 acre-ft, between elevations 2,275.5 ft and 2,304.3 ft; flood control pool, 98,800 acre-ft, between elevations 2,304.3 ft and 2,331.4 ft; and surcharge pool, 58,280 acre-ft, between elevations 2,331.4 ft and 2,341.0 ft. Reservoir is used for flood control and irrigation in Almena Unit, Missouri River Basin project. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2,304.59 ft June 27, 1967, contents, 36,570 acre-ft; minimum elevation since conservation pool was first filled, 2,275.82 ft Nov. 27, 28, 1981, Jan. 24, 30, 31, 1982 contents, 3,050 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2,287.40 ft July 17, contents, 10,560 acre-ft; minimum elevation 2,278.99 ft Oct. 8, contents, 4,500 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on field survey of U.S. Bureau of Reclamation in 1955, revised in 1965)

2,278	4,010	2,284	7,720
2,279	4,510	2,285	8,500
2,280	5,050	2,286	9,320
2,281	5,640	2,287	10,190
2,282	6,280	2,288	11,120
2,283	6,980		

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2279.04	2279.32	2279.44	2279.70	2280.00	2280.34	2281.33	2282.62	2283.28	2283.42	2285.87	2285.17
2	2279.03	2279.34	2279.44	2279.71	2280.00	2280.34	2281.35	2282.64	2283.26	2283.44	2285.67	2285.15
3	2279.03	2279.35	2279.44	2279.71	2280.00	2280.36	2281.36	2282.63	2283.26	2283.55	2285.49	2285.12
4	2279.03	2279.35	2279.44	2279.72	2280.00	2280.38	2281.38	2282.68	2283.26	2283.65	2285.29	2285.10
5	2279.01	2279.35	2279.47	2279.75	2280.00	2280.38	2281.41	2282.72	2283.25	2283.80	2285.10	2285.11
6	2279.02	2279.35	2279.49	2279.74	2280.00	2280.40	2281.45	2282.76	2283.22	2283.75	2284.88	2285.11
7	2279.01	2279.37	2279.50	2279.74	2280.03	2280.41	2281.52	2282.79	2283.20	2283.56	2284.97	2285.12
8	2278.99	2279.36	2279.51	2279.77	2280.03	2280.39	2281.58	2282.82	2283.18	2284.72	2285.03	2285.11
9	2279.02	2279.35	2279.54	2279.77	2280.05	2280.40	2281.62	2282.84	2283.19	2286.32	2285.20	2285.11
10	2279.03	2279.34	2279.54	2279.78	2280.05	2280.40	2281.67	2282.85	2283.25	2287.00	2285.22	2285.08
11	2279.27	2279.34	2279.54	2279.79	2280.05	2280.42	2281.71	2282.87	2283.33	2287.13	2285.24	2285.07
12	2279.31	2279.33	2279.54	2279.80	2280.06	2280.44	2281.77	2282.90	2283.33	2287.20	2285.33	2285.07
13	2279.33	2279.34	2279.55	2279.81	2280.09	2280.45	2281.90	2282.92	2283.33	2287.22	2285.33	2285.04
14	2279.32	2279.34	2279.55	2279.81	2280.09	2280.48	2282.00	2282.90	2283.33	2287.26	2285.35	2285.04
15	2279.32	2279.35	2279.56	2279.81	2280.10	2280.48	2282.07	2282.91	2283.30	2287.26	2285.35	2285.04
16	2279.32	2279.36	2279.57	2279.82	2280.11	2280.62	2282.13	2282.91	2283.28	2287.26	2285.33	2285.03
17	2279.32	2279.37	2279.58	2279.83	2280.12	2280.71	2282.18	2282.91	2283.25	2287.36	2285.32	2285.00
18	2279.30	2279.37	2279.59	2279.84	2280.14	2280.72	2282.27	2282.91	2283.24	2287.38	2285.35	2285.00
19	2279.32	2279.38	2279.60	2279.84	2280.14	2280.74	2282.32	2282.93	2283.22	2287.37	2285.34	2285.00
20	2279.32	2279.38	2279.60	2279.86	2280.15	2280.78	2282.34	2283.08	2283.21	2287.36	2285.33	2284.97
21	2279.33	2279.38	2279.61	2279.86	2280.17	2280.77	2282.37	2283.05	2283.19	2287.35	2285.30	2284.95
22	2279.34	2279.39	2279.63	2279.86	2280.17	2280.80	2282.40	2283.05	2283.17	2287.33	2285.27	2284.91
23	2279.34	2279.39	2279.63	2279.87	2280.19	2280.94	2282.42	2283.07	2283.14	2287.30	2285.27	2284.90
24	2279.34	2279.40	2279.64	2279.88	2280.19	2281.09	2282.47	2283.09	2283.19	2287.20	2285.25	2284.88
25	2279.34	2279.39	2279.65	2279.89	2280.20	2281.09	2282.49	2283.13	2283.18	2287.22	2285.25	2284.86
26	2279.34	2279.39	2279.65	2279.90	2280.26	2281.10	2282.49	2283.17	2283.14	2287.05	2285.25	2284.84
27	2279.34	2279.39	2279.66	2279.90	2280.33	2281.08	2282.52	2283.18	2282.92	2286.87	2285.25	2284.83
28	2279.33	2279.40	2279.67	2279.91	2280.33	2281.29	2282.55	2283.20	2282.77	2286.67	2285.25	2284.81
29	2279.33	2279.40	2279.68	2279.94	---	2281.31	2282.58	2283.19	2282.87	2286.45	2285.22	2284.79
30	2279.32	2279.41	2279.69	2279.94	---	2281.31	2282.58	2283.28	2283.35	2286.25	2285.20	2284.77
31	2279.28	---	2279.69	2279.96	---	2281.33	---	2283.28	---	2286.05	2285.19	---
MEAN	2279.22	2279.37	2279.57	2279.82	2280.11	2280.70	2282.01	2282.94	2283.20	2286.19	2285.28	2285.00
MAX	2279.34	2279.41	2279.69	2279.96	2280.33	2281.33	2282.58	2283.28	2283.35	2287.38	2285.87	2285.17
MIN	2278.99	2279.32	2279.44	2279.70	2280.00	2280.34	2281.33	2282.62	2282.77	2283.42	2284.88	2284.77
(+)	4,660	4,730	4,880	5,020	5,240	5,850	6,690	7,180	7,240	9,360	8,650	8,320
(#)	+130	+70	+150	+140	+220	+610	+840	+490	+60	+2,120	-710	-330

CAL YR 1986 (#) -260
WTR YR 1987 (#) +3,790

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

43

06848000 PRAIRIE DOG CREEK AT NORTON, KS

LOCATION.--Lat 39 deg 43 min 36 sec, long 99 deg 55 min 18 sec, in NW1/4 NW1/4 sec.9, T.3 S., R.23 W., Norton County, Hydrologic Unit 10250015, on left bank 0.9 mi downstream from Norton Dam, 2.0 mi southwest of Norton, and at mile 74.0.

DRAINAGE AREA.--684 sq mi.

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1944(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,237.38 ft above sea level (levels by U.S. Bureau of Reclamation). Apr. 13 to May 7, 1944, nonrecording gage and May 8, 1944, to Sept. 30, 1961, water-stage recorder at site 3.2 mi downstream at datum 19.47 ft lower. Oct. 1, 1961, to Apr. 19, 1965, water-stage recorder at site 0.5 mi upstream at datum 3.82 ft lower. Apr. 20, 1965, to Sept. 30, 1974, water-stage recorder at same site at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 30, Jan. 1-4, 10, 11, 16-29, and Mar. 30. Records good except those for estimated daily discharges, which are poor. Flow completely regulated since 1964 by Keith Sebelius Lake (station 06847950).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,500 cu ft per sec May 28, 1953, gage height, 25.6 ft, site and datum then in use, from rating curve extended above 14,000 cu ft per sec on basis of main channel velocity-area study and computation of peak flow over road; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 cu ft per sec July 8, gage height, 5.93 ft; no flow Oct. 1, 2, Mar. 25, and June 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.08	.09	.04	.07	.05	.25	.14	.06	.59	64	.10
2	.00	.18	.08	.04	.05	.04	.63	.11	.04	.26	65	.09
3	.03	.20	.06	.04	.02	.02	.32	.11	.02	.17	64	.09
4	.04	.11	.04	.04	.02	.03	.29	.49	.02	.78	62	.07
5	.02	.08	.04	.04	.02	.04	.28	.31	.02	.25	59	.08
6	.01	.09	.05	.04	.02	.04	.23	.17	.01	23	57	.09
7	.01	.09	.09	.03	.02	.04	.26	.11	.01	67	37	.15
8	.01	.07	.07	.04	.02	.03	.27	.11	.01	26	1.4	.14
9	.09	.05	.06	.05	.02	.02	.47	.09	.02	.58	.57	.11
10	.08	.05	.03	.05	.02	.02	.41	.09	.06	.58	.57	.09
11	.93	.04	.03	.05	.02	.03	.76	.09	.20	.14	.44	.09
12	.30	.05	.04	.05	.03	.04	.37	.09	.09	.13	.61	.10
13	.11	.02	.04	.05	.04	.04	.62	.09	.04	.11	.75	.11
14	.07	.06	.04	.05	.03	.04	1.0	.07	.02	.09	.44	.11
15	.07	.08	.05	.03	.04	.04	.49	.07	.01	.09	.36	.13
16	.06	.07	.05	.02	.02	.28	.42	.06	.01	.07	.26	.14
17	.05	.06	.05	.01	.01	.44	.41	.06	.01	.21	.22	.11
18	.05	.07	.05	.01	.01	.21	.37	.05	.01	.31	.33	.09
19	.05	.07	.05	.01	.01	.10	.39	.05	.01	.08	.31	.07
20	.05	.09	.03	.02	.01	.10	.25	.23	.01	.05	.26	.07
21	.06	.08	.04	.02	.01	.07	.14	.32	.00	.03	.21	.07
22	.10	.09	.04	.03	.01	.06	.11	.09	.00	.01	.17	.07
23	.15	.07	.05	.03	.02	.25	.12	.07	.10	.01	.17	.07
24	.08	.07	.05	.02	.02	.02	.14	.07	.12	.01	.17	.05
25	.05	.08	.05	.02	.03	.00	.14	.07	.06	6.1	.21	.06
26	.03	.07	.05	.03	.05	.04	.12	.10	2.3	52	.21	.07
27	.03	.06	.04	.03	.22	.37	.11	.11	52	58	.17	.07
28	.05	.07	.06	.04	.12	.26	.09	.08	65	67	.14	.05
29	.60	.07	.04	.05	---	.11	.11	.06	40	73	.14	.05
30	.12	.07	.04	.06	---	.04	.20	.05	2.9	65	.11	.04
31	.09	---	.04	.07	---	.04	---	.11	---	64	.11	---
TOTAL	3.39	2.34	1.54	1.11	.98	2.91	9.77	3.72	163.16	505.64	416.33	2.63
MEAN	.11	.079	.050	.036	.035	.094	.33	.12	5.44	16.3	13.4	.088
MAX	.93	.20	.09	.07	.22	.44	1.0	.49	.65	.73	.65	.15
MIN	.00	.02	.03	.01	.01	.00	.09	.05	.00	.01	.11	.04
AC-FT	6.7	4.6	3.1	2.2	1.9	5.8	19	7.4	324	1000	826	5.2

CAL YR 1986 TOTAL 1406.05 MEAN 3.85 MAX 94 MIN .00 AC-FT 2790
WTR YR 1987 TOTAL 1113.52 MEAN 3.05 MAX 73 MIN .00 AC-FT 2210

KANSAS RIVER BASIN

06848500 PRAIRIE DOG CREEK NEAR WOODRUFF, KS

LOCATION.--Lat 39 deg 59 min 09 sec, long 99 deg 28 min 39 sec, in NW1/4 NW1/4 sec.9, T.1 S., R.19 W., Phillips County, Hydrologic Unit 10250015, on left bank at downstream side of bridge on U.S. Highway 383, 1.0 mi south of Kansas-Nebraska State line, 2.5 mi west of Woodruff, and at mile 26.5.

DRAINAGE AREA.--1,007 sq mi.

PERIOD OF RECORD.--October 1928 to September 1932, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,016.20 ft above sea level. See WSP 1919 for history of changes prior to Oct. 7, 1955.

REMARKS.--Estimated daily discharges: Nov. 11-21 and Mar. 27, 28. Records fair except those for estimated daily discharges, which are poor. Flow regulated to some extent since 1964 by Keith Sebelius Lake (station 06847950) 48.4 mi upstream and by irrigation development upstream from station.

AVERAGE DISCHARGE.--47 years, (water years 1929-32, 1945-87), 32.0 cu ft per sec, 23,180 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 cu ft per sec June 23, 1947, gage height, 21.04 ft, site and datum then in use, from rating curve extended above 6,500 cu ft per sec on basis of contracted-opening measurement of 11,300 cu ft per sec; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 849 cu ft per sec July 9, gage height, 14.25 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.82	.72	.28	6.0	.35	.00
2	.00	.00	.00	.00	.00	.00	.92	.66	.28	1.5	.42	.00
3	.00	.00	.00	.00	.00	.00	.97	.99	.23	.65	.36	.00
4	.00	.00	.00	.00	.00	.00	1.0	2.0	.17	.47	1.0	.00
5	.00	.00	.00	.00	.00	.00	11	2.0	.13	.29	.98	.00
6	.00	.00	.00	.00	.00	.00	7.7	.92	.09	.19	.97	.00
7	.00	.00	.00	.00	.00	.00	8.3	.95	.02	.15	.22	.00
8	.00	.00	.00	.00	.00	.00	16	1.2	.00	.98	102	.00
9	.00	.00	.00	.00	.00	.00	15	1.0	.00	654	50	.00
10	.00	.00	.00	.00	.00	.00	13	.87	.00	335	21	.00
11	.00	.00	.00	.00	.00	.00	14	.67	.00	36	9.0	.00
12	51	.00	.00	.00	.00	.00	11	.54	.00	15	2.5	.00
13	118	.00	.00	.00	.00	.00	12	.45	.00	8.9	5.1	.00
14	49	.00	.00	.00	.00	.00	44	.40	.00	2.6	4.9	.00
15	19	.00	.00	.00	.00	.00	42	.31	.00	.72	9.0	2.3
16	11	.00	.00	.00	.00	.00	48	.25	.00	.43	6.1	6.4
17	6.9	.00	.00	.00	.00	.00	38	.20	.00	.36	1.7	.29
18	4.4	.00	.00	.00	.00	.00	22	.15	.00	44	.61	.13
19	2.7	.00	.00	.00	.00	.00	14	.13	.00	82	.32	.08
20	1.6	.00	.00	.00	.00	.00	6.9	.37	.00	21	.22	.02
21	1.2	.00	.00	.00	.00	.00	3.6	1.9	.00	9.4	.17	.00
22	.98	.00	.00	.00	.00	.00	2.4	.36	.00	2.6	.13	.00
23	.79	.00	.00	.00	.00	3.7	1.9	.38	.00	.63	.09	.72
24	.61	.00	.00	.00	.00	7.0	1.7	.38	.00	.30	.05	.65
25	.45	.00	.00	.00	.00	3.1	1.5	.46	.00	.19	.02	.39
26	.30	.00	.00	.00	.00	1.2	1.3	.45	.00	.12	.00	.26
27	.22	.00	.00	.00	.00	1.0	1.1	.50	.00	.08	.00	.19
28	.16	.00	.00	.00	.00	.70	.93	.48	.00	.02	.00	.16
29	.11	.00	.00	.00	---	.59	.85	.37	9.2	.00	.00	.10
30	.08	.00	.00	.00	---	.40	.77	.31	10	3.2	.00	.05
31	.02	---	.00	.00	---	.77	---	.27	---	1.7	.00	---
TOTAL	268.52	.00	.00	.00	.00	18.46	342.66	20.64	20.40	1325.50	238.99	11.74
MEAN	8.66	.000	.000	.000	.000	.60	11.4	.67	.68	42.8	7.71	.39
MAX	118	.00	.00	.00	.00	7.0	48	2.0	10	654	102	6.4
MIN	.00	.00	.00	.00	.00	.00	.77	.13	.00	.00	.00	.00
AC-FT	533	.00	.00	.00	.00	37	680	41	40	2630	474	23

CAL YR 1986 TOTAL 786.52 MEAN 2.15 MAX 285 MIN .00 AC-FT 1560
WTR YR 1987 TOTAL 2246.91 MEAN 6.16 MAX 654 MIN .00 AC-FT 4460

06853500 REPUBLICAN RIVER NEAR HARDY, NE

LOCATION.--Lat 39 deg 59 min 33 sec, long 97 deg 55 min 53 sec, in NE1/4 NE1/4 SE1/4 sec.1, T.1 S., R.6 W., in Kansas, Republic County, Hydrologic Unit 10250016, on right bank at upstream side of highway bridge, 1.2 mi southwest of Hardy and at mile 141.2.

DRAINAGE AREA.--22,401 sq mi, of which about 7,500 sq mi does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1904 to September 1915 (no winter records), April 1931 to current year. Prior to May 1932, published as "at Postwick." Records for June 1896 to November 1903 published as "near Superior" in 18th to 22nd Ann. Repts., inclusive, Pt. 4, and WSP 75, 84, and 99, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1006: 1941. WSP 1340: 1905(M), 1907-09, 1912, 1914-15, 1931. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,501.46 ft above sea level. Prior to May 19, 1932, nonrecording gage at site at Postwick, 20 mi upstream at different datum.

REMARKS.--Estimated daily discharges: July 31 to Aug. 31. Records good except those for estimated daily discharges, which are poor. Natural flow affected by irrigation development upstream from station and by storage in reservoirs in Colorado, Kansas, and Nebraska. Considerable regulation since 1952 by Harlan County Lake (station 06849000).

AVERAGE DISCHARGE.--21 years (water years 1914, 1933-52), 882 cu ft per sec, 639,000 acre-ft per yr; 30 years (water years 1958-87, since conservation pool at Harlan County Lake was first filled), 377 cu ft per sec, 273,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 225,000 cu ft per sec June 2, 1935, gage height, 19.4 ft, based on records for stations upstream; no flow Aug. 9-19, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages since at least 1895, that of June 2, 1935, and 17.00 ft June 24, 1947, discharge, 100,000 cu ft per sec, based on records for upstream stations.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,940 cu ft per sec Apr. 14, gage height, 11.17 ft; minimum discharge, 80 cu ft per sec Jan. 18 and Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	188	178	176	203	189	886	334	270	757	170	152
2	185	207	185	173	191	183	1130	323	266	472	180	136
3	230	215	185	175	179	169	1080	1220	278	353	200	131
4	204	218	175	172	174	162	1040	1620	251	304	220	121
5	173	204	169	176	172	156	1020	3820	229	276	260	109
6	163	191	181	180	169	148	984	1300	215	243	330	101
7	160	194	211	181	167	144	922	852	202	243	450	98
8	149	208	226	173	166	140	905	669	189	236	600	89
9	151	191	226	172	161	133	865	547	188	257	940	82
10	155	166	198	172	157	126	818	474	178	297	900	95
11	2140	160	175	162	159	127	735	433	219	283	600	121
12	2180	144	185	162	158	129	645	377	301	301	450	183
13	838	110	263	179	155	133	685	325	241	267	430	195
14	469	119	258	193	155	134	5100	337	204	291	380	191
15	357	174	213	180	155	134	3720	324	158	289	360	188
16	313	211	217	168	152	185	1440	305	134	238	350	155
17	286	201	213	146	148	1080	1030	292	108	187	290	152
18	266	201	201	119	143	1470	876	343	106	180	290	149
19	256	172	196	143	146	853	781	538	166	1100	300	145
20	245	172	188	183	148	545	690	473	160	1260	240	151
21	234	172	185	193	149	430	597	408	175	490	210	138
22	253	172	183	183	148	374	544	568	178	361	200	129
23	264	169	189	170	147	4050	510	458	160	293	190	127
24	250	163	189	177	145	6080	443	377	139	243	185	124
25	244	160	186	169	144	2590	470	357	121	223	185	122
26	230	155	186	173	150	1290	444	344	201	215	190	120
27	218	155	187	195	164	995	425	330	191	201	240	120
28	203	155	183	212	182	900	408	354	219	181	290	137
29	200	160	183	221	---	594	377	319	595	179	300	131
30	191	169	177	239	---	444	358	296	863	168	280	119
31	188	---	175	217	---	614	---	284	---	170	200	---
TOTAL	11635	5276	6066	5534	4487	24701	29928	19001	6905	10558	10410	4011
MEAN	375	176	196	179	160	797	998	613	230	341	336	134
MAX	2180	218	263	239	203	6080	5100	3820	863	1260	940	195
MIN	149	110	169	119	143	126	358	284	106	168	170	82
AC-FT	23080	10460	12030	10980	8900	48990	59360	37690	13700	20940	20650	7960
CAL YR 1986	TOTAL	91061	MEAN	249	MAX	3030	MIN	56	AC-FT	180600		
WTR YR 1987	TOTAL	138512	MEAN	379	MAX	6080	MIN	82	AC-FT	274700		

KANSAS RIVER BASIN

06853800 WHITE ROCK CREEK NEAR BURR OAK, KS

LOCATION.--Lat 39 deg 53 min 55 sec, long 98 deg 15 min 05 sec, in SE1/4 NE1/4 NE1/4 sec.7, T.2 S., R.8 W., Jewell County, Hydrologic Unit 10250016, on right bank 500 ft upstream from highway bridge, 3.5 mi northeast of Burr Oak, and at mile 35.4.

DRAINAGE AREA.--227 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955-57, October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,601.5 ft above sea level (levels by U.S. Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Nov. 13, Jan. 16, and Feb. 15-17. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--30 years, 26.7 cu ft per sec, 19,340 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 cu ft per sec Sept. 3, 1973, gage height, 25.06 ft, from floodmark; no flow at times many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known stage since at least 1869, 32.6 ft July 9, 1950, from floodmark 300 ft downstream and information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 11	1300	1,980	16.11	May 3	0700	1,410	14.29
Mar. 23	2100	*2,420	*17.24	May 4	1400	1,340	14.01
Apr. 14	1700	2,320	17.02				

Minimum discharge, 5.9 cu ft per sec Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	15	18	18	19	25	205	66	43	72	20	12
2	12	19	20	17	20	24	317	62	85	49	19	12
3	12	21	20	18	20	22	262	579	60	43	20	12
4	15	21	19	18	20	20	187	702	47	39	19	12
5	11	19	18	18	19	19	184	536	45	37	19	11
6	7.5	18	19	19	19	18	168	229	43	35	19	11
7	6.8	18	26	18	18	18	143	105	41	33	42	10
8	6.3	17	28	18	18	18	135	79	37	36	52	10
9	8.1	17	27	18	18	17	122	68	39	40	25	12
10	7.4	16	24	17	13	16	101	61	39	38	19	17
11	1360	15	24	20	18	16	90	57	55	32	18	11
12	784	16	21	18	18	16	81	53	46	39	17	11
13	106	16	20	19	19	16	222	51	40	35	18	11
14	49	16	19	18	19	16	2070	49	37	29	18	11
15	34	17	20	18	17	18	1130	49	35	33	18	11
16	27	16	21	16	17	21	281	42	34	30	17	11
17	23	18	21	15	17	370	184	40	55	26	16	11
18	20	18	20	17	17	288	149	477	80	27	15	12
19	17	17	20	17	17	108	130	117	45	61	15	11
20	16	17	20	16	17	64	109	67	36	64	15	10
21	16	17	19	17	18	49	95	60	104	36	15	9.6
22	17	17	19	16	18	44	89	54	88	30	14	9.5
23	18	16	19	17	18	1700	86	50	42	27	14	9.5
24	18	16	19	17	18	1590	83	51	39	25	14	9.5
25	18	16	19	17	18	428	80	52	446	24	14	9.5
26	20	16	19	17	21	207	78	53	142	23	15	9.0
27	18	15	19	17	21	133	75	55	54	23	15	9.0
28	16	15	19	18	25	121	71	51	337	22	15	14
29	15	16	19	18	---	77	71	49	703	22	15	9.9
30	15	17	18	18	---	83	69	47	167	21	14	10
31	15	---	18	18	---	123	---	46	---	21	14	---
TOTAL	2725.1	508	632	543	522	5685	7067	4057	3064	1072	580	328.5
MEAN	87.9	16.9	20.4	17.5	18.6	183	236	131	102	34.6	18.7	11.0
MAX	1360	21	28	20	25	1700	2070	702	703	72	52	17
MIN	6.3	15	18	15	17	16	69	40	34	21	14	9.0
AC-FT	5410	1010	1250	1090	1040	11280	14020	8050	6080	2130	1150	652
CAL YR 1986	TOTAL	10652.4	MEAN	29.2	MAX	1360	MIN	2.5	AC-FT	21130		
WTR YR 1987	TOTAL	26783.6	MEAN	73.4	MAX	2070	MIN	6.3	AC-FT	53130		

KANSAS RIVER BASIN

47

06853800 WHITE ROCK CREEK NEAR BURR OAK, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 08...	1045	6.3	1220	8.20	19.0	288	4.9
NOV 06...	0855	19	1100	7.20	7.0	70	3.5
DEC 16...	0845	20	--	--	1.5	724	40
FEB 03...	0925	20	1110	7.30	3.0	95	5.2
APR 23...	1625	88	1590	7.60	17.0	36	8.6
JUN 09...	0935	38	1360	8.00	--	302	31
JUL 20...	1720	50	571	6.80	28.0	1090	148
SEP 02...	1420	12	1350	8.20	19.0	156	5.1

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
JUL 20...	1720	90	66	75	84

KANSAS RIVER BASIN

06853900 LOVEWELL RESERVOIR NEAR LOVEWELL, KS

LOCATION.--Lat 39 deg 53 min 04 sec, long 98 deg 01 min 41 sec, in NW1/4 NE1/4 NE1/4 sec.18, T.2 S., R.6 W., Jewell County, Hydrologic Unit 10250016, at south end of Lovewell Dam on White Rock Creek, 3 mi northwest of Lovewell, and 19.3 mi upstream from mouth.

DRAINAGE AREA.--345 sq mi.

PERIOD OF RECORD.--May 1957 to current year. Monthly records only, May to September 1957.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation). From June 15, 1960, to May 6, 1975, water-stage recorder at north end of dam at same datum.

REMARKS.--Reservoir is formed by earthfill dam. Closure was made May 29, 1957. Irrigation pool elevation was first reached on May 19, 1958. Total capacity of 186,290 acre-ft consists of the following: Dead storage, 5,050 acre-ft below elevation 1,562.07 ft; irrigation pool, 36,640 acre-ft between elevations 1,562.07 ft and 1,582.6 ft; flood control pool, 50,460 acre-ft between elevations 1,582.6 ft and 1,595.3 ft; and surcharge pool, 94,140 acre-ft between elevations 1,595.3 ft and 1,610.3 ft. Storage in reservoir is derived from White Rock Creek and diversion from the Republican River through upper Courtland Canal. Releases are made into White Rock Creek and for irrigation of 30,000 acres, through lower Courtland Canal. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,595.01 ft Oct. 13, 1973, contents, 90,700 acre-ft; minimum elevation since irrigation pool was first reached, 1,572.94 ft Sept. 16, 1959, contents 18,950 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,590.64 ft Apr. 16, 17, contents, 70,610 acre-ft; minimum elevation, 1,578.53 ft Aug. 7, contents, 30,750 acre-ft.

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

1,576	24,980	1,586	52,720
1,578	29,490	1,588	60,030
1,580	34,440	1,590	67,940
1,582	39,920	1,592	76,510
1,584	46,020		

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1583.11	1581.12	1581.56	1582.64	1581.07	1581.90	1589.72	1585.15	1584.66	1585.75	1580.05	1579.79
2	1582.93	1580.90	1581.61	1582.67	1581.09	1581.94	1589.73	1585.11	1584.75	1585.76	1579.75	1579.74
3	1582.75	1580.70	1581.62	1582.70	1581.14	1581.95	1589.68	1585.75	1584.79	1585.75	1579.42	1579.70
4	1582.55	1580.61	1581.65	1582.73	1581.18	1582.00	1589.50	1586.72	1584.80	1585.70	1579.11	1579.66
5	1582.35	1580.67	1581.65	1582.74	1581.21	1582.01	1589.33	1587.36	1584.81	1585.69	1578.79	1579.66
6	1582.13	1580.68	1581.70	1582.61	1581.24	1582.05	1589.09	1587.63	1584.84	1585.64	1578.57	1579.66
7	1581.92	1580.80	1581.81	1582.40	1581.28	1582.04	1588.81	1587.67	1584.87	1585.38	1578.67	1579.55
8	1581.70	1580.82	1581.85	1582.22	1581.28	1582.05	1588.49	1587.52	1584.92	1585.31	1578.91	1579.55
9	1581.52	1580.83	1581.88	1582.02	1581.31	1582.06	1588.13	1587.31	1584.99	1585.18	1579.10	1579.71
10	1581.34	1580.86	1581.87	1581.83	1581.34	1582.06	1587.69	1587.10	1585.07	1585.06	1579.25	1579.75
11	1583.87	1580.88	1581.96	1581.63	1581.37	1582.07	1587.29	1586.88	1585.16	1584.92	1579.30	1579.79
12	1584.86	1580.90	1582.00	1581.43	1581.38	1582.13	1586.88	1586.63	1585.20	1584.84	1579.38	1579.79
13	1584.86	1580.91	1582.00	1581.23	1581.42	1582.16	1586.84	1586.39	1585.24	1584.77	1579.47	1579.80
14	1584.72	1580.94	1582.06	1581.04	1581.43	1582.19	1589.24	1586.16	1585.26	1584.72	1579.60	1579.83
15	1584.54	1580.99	1582.09	1580.81	1581.46	1582.19	1590.44	1585.90	1585.23	1584.67	1579.70	1579.87
16	1584.36	1581.04	1582.11	1580.73	1581.49	1582.43	1590.64	1585.64	1585.16	1584.55	1579.82	1579.90
17	1584.16	1581.09	1582.15	1580.76	1581.50	1583.17	1590.50	1585.36	1585.11	1584.41	1579.95	1579.91
18	1583.96	1581.09	1582.18	1580.79	1581.52	1583.52	1590.18	1585.30	1585.12	1584.25	1580.03	1579.90
19	1583.77	1581.14	1582.20	1580.80	1581.55	1583.69	1589.87	1585.18	1585.09	1584.06	1580.09	1579.90
20	1583.61	1581.15	1582.25	1580.83	1581.57	1583.84	1589.52	1585.05	1585.05	1583.85	1580.12	1579.89
21	1583.45	1581.18	1582.29	1580.83	1581.60	1583.89	1589.11	1584.84	1585.00	1583.57	1580.16	1579.88
22	1583.33	1581.24	1582.33	1580.86	1581.62	1584.14	1588.69	1584.73	1584.97	1583.25	1580.18	1579.88
23	1583.14	1581.25	1582.36	1580.90	1581.63	1587.20	1588.24	1584.69	1584.92	1582.89	1580.17	1579.89
24	1582.88	1581.28	1582.39	1580.90	1581.64	1589.09	1587.71	1584.70	1584.87	1582.57	1580.16	1579.90
25	1582.68	1581.33	1582.43	1580.92	1581.67	1589.49	1587.19	1584.71	1584.89	1582.30	1580.16	1579.90
26	1582.46	1581.34	1582.45	1580.95	1581.74	1589.70	1586.65	1584.71	1584.96	1582.03	1580.11	1579.89
27	1582.25	1581.37	1582.48	1580.97	1581.84	1589.85	1586.13	1584.74	1584.97	1581.74	1580.06	1579.94
28	1582.04	1581.40	1582.53	1581.00	1581.90	1589.97	1585.71	1584.73	1585.06	1581.46	1580.00	1579.94
29	1581.81	1581.42	1582.55	1581.05	---	1589.91	1585.44	1584.73	1585.45	1581.10	1579.95	1579.92
30	1581.56	1581.45	1582.60	1581.05	---	1589.81	1585.25	1584.71	1585.69	1580.73	1579.90	1579.92
31	1581.33	---	1582.63	1581.06	---	1589.75	---	1584.68	---	1580.37	1579.83	---
MEAN	1582.97	1581.05	1582.10	1581.45	1581.45	1584.52	1588.39	1585.73	1585.03	1583.94	1579.67	1579.81
MAX	1584.86	1581.45	1582.63	1582.74	1581.90	1589.97	1590.64	1587.67	1585.69	1585.76	1580.18	1579.94
MIN	1581.33	1580.61	1581.56	1580.73	1581.07	1581.90	1585.25	1584.68	1584.66	1580.37	1578.57	1579.55
(+)	38,010	38,350	41,780	37,270	39,630	66,920	50,130	48,220	51,640	35,400	34,000	34,230
(#)	-5,470	+340	+3,430	-4,510	+2,360	+27,290	-16,790	-1,910	+3,420	-16,240	-1,400	+230

CAL YR 1986 (#) -690

WTR YR 1987 (#) -9,250

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.

CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

49

06854000 WHITE ROCK CREEK AT LOVEWELL, KS

LOCATION.--Lat 39 deg 53 min 10 sec, long 98 deg 01 min 20 sec, in NW1/4 NW1/4 NE1/4 sec.17, T.2 S., R.6 W., Jewell County, Hydrologic Unit 10250016, on right bank 1,400 ft east of Lovewell Dam, 2.5 mi northwest of Lovewell, and at mile 18.8.

DRAINAGE AREA.--345 sq mi.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1340: 1946-47, 1949-50(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,531.52 ft above sea level (U.S. Bureau of Reclamation bench mark). May 21, 1946, to Sept. 13, 1947, nonrecording gage, and Sept. 14, 1947, to Apr. 23, 1951, water-stage recorder, at site 3.0 mi downstream at datum 1,513.95 ft above sea level (levels by U.S. Army Corps of Engineers). Apr. 24, 1951, to Nov. 8, 1952, nonrecording gage, and Nov. 9, 1952, to June 14, 1960, water-stage recorder, at site 2.0 mi downstream at datum 1,519.53 ft above sea level.

REMARKS.--Estimated daily discharges: July 28 to Sept. 30. Records good except those for estimated daily discharges, which are poor. Flow completely regulated by Lovewell Reservoir (station 06853900) beginning May 29, 1957. Large flows from the Republican River enter Lovewell Reservoir from upper Courtland Canal. Figures of flow do not include diversion immediately upstream from station into lower Courtland Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 cu ft per sec July 10, 1950, gage height, 21.62 ft, site and datum then in use, from rating curve extended above 5,200 cu ft per sec on basis of a discharge measurement of 20,800 cu ft per sec made at site about 6.0 mi upstream; no flow at times in 1948, 1953-60, 1966-67, 1971, 1980, 1983. Maximum discharge since construction of Lovewell Dam in 1957, 2,650 cu ft per sec Sept. 4, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1870, that of July 10, 1950, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 cu ft per sec Apr. 24, gage height, 10.59 ft; minimum discharge, 0.12 cu ft per sec June 24 but could have been lower during the estimated period July 23 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	347	417	.89	.12	.26	.25	654	325	95	.17	.20	.20
2	338	406	1.1	.12	.25	3.5	679	210	51	.29	.20	.20
3	345	395	.70	.12	.21	.55	659	217	34	.43	.20	.20
4	353	148	.17	.12	.21	.42	818	250	.43	.31	.20	.20
5	344	.38	.12	45	.21	.39	820	126	.25	.25	.20	.20
6	338	.52	.12	261	.21	.43	873	58	.25	.59	.20	.20
7	338	1.5	.20	350	.24	.38	925	310	.21	.42	.50	.20
8	346	2.7	.21	347	.25	.31	969	513	.60	.55	.50	.20
9	323	2.9	.16	352	.21	.22	978	625	4.9	.40	.50	.50
10	306	3.3	.12	353	.21	.21	992	619	4.1	.40	.20	.40
11	381	3.7	.12	351	.26	.23	1000	613	5.3	.29	.20	.25
12	177	2.1	.12	354	.29	.25	996	630	6.2	.48	.20	.20
13	408	.21	.12	359	.29	.25	931	635	2.2	.37	.25	.20
14	428	.18	.12	357	.26	.25	260	627	2.3	.37	.20	.20
15	439	.18	.12	354	.29	.19	1.6	630	1.4	.25	.20	.20
16	417	.18	.12	139	.25	.44	253	643	10	.56	6.0	.20
17	418	.18	.12	.46	.22	4.0	815	632	2.9	.62	2.0	.20
18	415	.17	.12	.30	.21	1.3	1020	625	4.3	.27	2.0	.20
19	413	.12	.12	.29	.23	.63	1010	622	1.7	.21	1.0	.20
20	363	.12	.12	.26	.25	.43	1010	618	.80	.21	.20	.20
21	312	.12	.12	.25	.25	.38	1020	510	.30	.20	.20	.20
22	401	.17	.12	.22	.25	.47	1010	289	.34	.24	.20	.20
23	426	.33	.12	.21	.25	18	1080	164	.17	.25	.20	.20
24	442	.46	.12	.21	.25	2.7	1190	131	.19	.25	.20	.20
25	433	.57	.12	.21	.25	1.3	1180	131	.25	.39	.20	.20
26	423	.61	.12	.21	.28	.87	1170	124	.37	.46	.20	.20
27	413	.68	.12	.25	.35	148	1080	119	.27	.37	.20	.20
28	412	.78	.12	.25	.36	370	910	119	.59	.20	.20	.20
29	413	.45	.12	.27	---	370	669	119	.56	.20	.20	.20
30	406	.46	.12	.25	---	467	482	119	.19	.20	.20	.20
31	412	---	.12	.27	---	596	---	118	---	.20	.20	---
TOTAL	11735	1389.07	6.31	3626.39	7.05	1989.35	25454.6	11471	231.07	10.40	17.35	6.55
MEAN	379	46.3	.20	117	.25	64.2	848	370	7.70	.34	.56	.22
MAX	442	417	1.1	359	.36	596	1190	643	95	.62	6.0	.50
MIN	177	.12	.12	.12	.21	.19	1.6	58	.17	.17	.20	.20
AC-FT	23280	2760	13	7190	14	3950	50490	22750	458	21	34	13

CAL YR 1986 TOTAL 20352.30 MEAN 55.8 MAX 442 MIN .02 AC-FT 40370
WTR YR 1987 TOTAL 55944.14 MEAN 153 MAX 1190 MIN .12 AC-FT 111000

06855800 BUFFALO CREEK NEAR JAMESTOWN, KS

LOCATION.--Lat 39 deg 36 min 52 sec, long 97 deg 51 min 22 sec, in SE1/4 NE1/4 SE1/4 sec.15, T.5 S., R.5 W., Cloud County, Hydrologic Unit 10250017, on right bank at upstream side of highway bridge, 1.1 mi north of Jamestown, and 21 mi upstream from mouth.

DRAINAGE AREA.--330 sq mi, approximately.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1954-59. July 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,373.66 ft above sea level. Prior to June 7, 1966, water-stage recorder at present site and datum. June 7, 1966, to Feb. 3, 1967, nonrecording gage at site 5.4 mi downstream at different datum. Feb. 4, 1967, to May 3, 1967, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Oct. 3-8, Nov. 8-11, and Jan. 17. Records poor. Waste water from the Courtland West Irrigation Canal is occasionally diverted into the salt marsh upstream from gage and may cause a considerable increase in low flow during irrigation periods. Some diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--28 years, 75.0 cu ft per sec, 54,340 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,800 cu ft per sec Oct. 12, 1973, gage height, 19.65 ft; no flow at times in 1959, 1964-67, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1898, 18.5 ft in 1948, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 12	1600	*9,340	*18.66	May 5	2200	1,070	14.39
Mar. 19	0600	1,480	16.19	May 19	1700	1,280	15.63
Mar. 24	0300	4,600	18.13	June 30	0500	826	12.50
Apr. 2	2300	1,360	15.81	July 4	1700	870	12.84
Apr. 14	2300	4,600	18.12	July 13	0200	858	12.75

Minimum discharge, 2.0 cu ft per sec Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	829	99	73	63	46	143	1070	158	105	399	20	7.7
2	612	77	90	53	54	54	1280	147	270	291	16	7.4
3	424	71	50	57	50	41	1300	211	450	231	18	7.1
4	276	81	45	54	40	42	1110	381	203	690	13	6.0
5	185	80	47	44	47	41	961	816	110	483	17	5.5
6	131	68	48	75	52	41	814	1010	80	223	20	5.7
7	95	52	196	69	45	36	630	861	66	145	38	5.7
8	68	54	374	48	57	40	433	668	58	153	108	5.1
9	47	55	316	58	40	66	356	389	90	202	113	6.2
10	33	55	179	83	33	34	300	233	86	85	90	24
11	956	57	175	49	37	24	251	211	92	68	39	34
12	5720	60	125	43	39	22	209	273	113	568	23	17
13	3640	71	97	48	37	21	313	199	94	729	51	12
14	1650	58	97	58	39	22	2940	127	68	381	18	7.9
15	1160	54	97	66	47	44	3140	100	53	242	11	6.4
16	811	59	113	38	48	29	1920	90	44	135	8.5	6.6
17	595	61	118	40	47	530	1460	78	30	62	5.2	7.7
18	307	69	109	42	32	1160	1100	138	54	92	26	7.0
19	121	53	100	53	28	1400	837	826	69	79	20	5.4
20	101	64	94	62	30	1080	582	1120	269	43	8.4	3.7
21	90	56	84	57	35	859	343	1020	350	47	5.9	3.4
22	93	56	77	53	40	659	225	795	126	43	5.1	3.4
23	123	75	74	47	30	2080	193	540	72	37	5.4	3.2
24	170	45	75	46	26	3870	175	336	68	57	6.1	3.1
25	226	37	75	45	28	2290	157	269	69	52	7.8	3.1
26	167	69	73	45	37	1670	153	303	61	37	8.3	2.6
27	119	33	70	45	46	1320	144	297	43	36	9.4	2.8
28	106	29	68	42	98	1140	124	236	260	35	9.5	3.6
29	93	32	76	49	---	900	107	208	535	26	9.5	3.1
30	68	30	62	47	---	752	131	165	723	26	8.6	2.8
31	60	---	60	42	---	762	---	135	---	20	8.0	---
TOTAL	19076	1760	3337	1621	1188	21172	22758	12340	4711	5717	746.7	219.2
MEAN	615	58.7	108	52.3	42.4	683	759	398	157	184	24.1	7.31
MAX	5720	99	374	83	98	3870	3140	1120	723	729	113	34
MIN	33	29	45	38	26	21	107	78	30	20	5.1	2.6
AC-FT	37840	3490	6620	3220	2360	41990	45140	24480	9340	11340	1480	435
CAL YR 1986	TOTAL	43280.7	MEAN 119	MAX 5720	MIN 5.0	AC-FT 85850						
WTR YR 1987	TOTAL	94645.9	MEAN 259	MAX 5720	MIN 2.6	AC-FT 187700						

KANSAS RIVER BASIN

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06856000 REPUBLICAN RIVER AT CONCORDIA, KS

LOCATION.--Lat 39 deg 35 min 25 sec, long 97 deg 39 min 32 sec, in SW1/4 SW1/4 NE1/4 sec.28, T.5 S., R.3 W., Cloud County, Hydrologic Unit 10250017, on right bank at upstream side of bridge on U.S. Highway 81, 1.0 mi north of Concordia, 4.0 mi downstream from Buffalo Creek, and at mile 98.5.

DRAINAGE AREA.--23,560 sq mi, of which about 7,500 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310. Gage-height records collected at nearby sites since 1951 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1340: 1946-47.

GAGE.--Water-stage recorder. Datum of gage is 1,333.62 ft above sea level. Prior to Oct. 8, 1947, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 14-17. Records good except those for estimated daily discharges, which are poor. Natural flow affected by irrigation development upstream from station and by storage in seven reservoirs in Colorado, Nebraska, and Kansas. Considerable regulation since 1952 by Harlan County Reservoir (station 06849000). Satellite telemeter at station.

AVERAGE DISCHARGE.--42 years, 712 cu ft per sec, 515,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,000 cu ft per sec June 25, 1947, gage height, 14.90 ft; minimum discharge, 8.0 cu ft per sec Sept. 2, 3, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1895, about 18 ft June 2, 1935, present site and datum, from information by U.S. Weather Bureau, discharge, about 207,000 cu ft per sec, on basis of records for stations upstream. Flood of June 21, 1915, reached a stage of 14.1 ft, present site and datum, from information by U.S. Weather Bureau, discharge, about 60,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,600 cu ft per sec Mar. 24, gage height, 12.60 ft; minimum discharge, 163 cu ft per sec Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2530	804	347	377	364	422	3910	1180	823	1580	455	321
2	1460	839	390	374	354	429	5140	1030	945	1220	449	306
3	1150	844	394	374	350	373	4500	1350	1150	945	439	274
4	920	839	360	370	344	351	3990	2850	938	857	454	250
5	761	795	343	366	336	344	3880	5420	721	1140	431	239
6	658	577	342	363	333	332	3540	6670	595	815	436	227
7	612	516	432	441	334	326	3240	2960	528	652	488	220
8	593	542	723	632	325	316	3020	2250	490	747	894	212
9	594	627	734	646	323	313	2790	1950	509	821	914	208
10	596	553	631	659	311	326	2660	1680	527	742	910	223
11	3830	491	489	648	301	299	2510	1480	501	665	622	223
12	12300	444	522	643	299	287	2350	1430	527	1400	486	222
13	6510	340	476	646	295	282	2400	1360	595	1680	486	242
14	5050	343	483	650	293	285	10600	1260	520	1150	479	272
15	3270	402	501	650	297	290	17500	1210	463	856	406	275
16	2120	431	493	650	298	315	10900	1170	419	752	435	278
17	1680	437	507	640	296	917	5810	1160	388	635	366	256
18	1400	434	503	457	288	3890	4530	1300	366	568	424	236
19	1110	423	484	303	274	2900	3700	2750	470	560	360	228
20	998	399	467	331	268	2130	3110	3420	506	1260	322	215
21	953	390	450	353	269	1680	2630	2990	827	1430	293	213
22	856	382	434	328	273	1370	2270	2320	691	905	270	207
23	975	376	424	328	273	7250	2120	1900	631	777	268	195
24	1020	378	425	302	269	17600	2030	1400	489	702	311	187
25	1130	354	419	287	264	14700	2080	1130	460	650	393	179
26	1070	342	406	299	271	8240	2100	1450	437	602	473	175
27	984	355	400	349	294	5090	2010	1860	459	562	466	168
28	919	331	396	354	331	3660	1900	1260	806	529	487	181
29	879	323	390	383	---	3070	1660	1090	1400	501	442	188
30	852	328	390	394	---	2340	1390	973	2130	477	375	188
31	818	---	381	382	---	2460	---	897	---	462	340	---
TOTAL	58598	14639	14136	13979	8527	82587	120270	61150	20311	26642	14374	6808
MEAN	1890	488	456	451	305	2664	4009	1973	677	859	464	227
MAX	12300	844	734	659	364	17600	17500	6670	2130	1680	914	321
MIN	593	323	342	287	264	282	1390	897	366	462	268	168
AC-FT	116200	29040	28040	27730	16910	163800	238600	121300	40290	52840	28510	13500
CAL YR 1986	TOTAL	219832	MEAN	602	MAX	12300	MIN	199	AC-FT	436000		
WTR YR 1987	TOTAL	442021	MEAN	1211	MAX	17600	MIN	168	AC-FT	876700		

KANSAS RIVER BASIN

06856600 REPUBLICAN RIVER AT CLAY CENTER, KS
(National stream-quality accounting network station)

LOCATION.--Lat 39 deg 21 min 20 sec, long 97 deg 07 min 34 sec, in SW1/4 NW1/4 SW1/4 sec.17, T.8 S., R.3 E., Clay County, Hydrologic Unit 10250017, on right bank at downstream side of bridge on State Highway 15, 1.0 mi south of Clay Center, 4.0 mi downstream from Five Creeks, and at mile 38.2.

DRAINAGE AREA.--24,542 sq mi, of which about 7,500 sq mi is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1917 to current year. Monthly discharge only for some periods, published in WSP 1310. Prior to February 1934, published as "at Wakefield." Gage-height records collected in this vicinity August 1904 to October 1917 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1006: 1941. WSP 1310: 1922. WSP 1340: 1929, 1933-34.

GAGE.--Water-stage recorder. Datum of gage is 1,159.21 ft above sea level. See WSP 1919 for history of changes prior to Sept. 23, 1949. Sept. 23, 1949 to July 21, 1987, at site 200 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 11-15 and Jan. 23-28. Records good except those for estimated daily discharges, which are poor. Natural flow affected by irrigation development upstream from station and by reservoirs in Colorado, Nebraska, and Kansas. Flow moderately regulated since 1952 by Harlan County Reservoir (station 06849000). Satellite telemeter at station.

AVERAGE DISCHARGE.--70 years, 1,004 cu ft per sec, 727,400 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195,000 cu ft per sec June 3, 1935, gage height, 25.74 ft, from floodmarks; from rating curve extended above 61,000 cu ft per sec on basis of velocity-area studies; no flow for part of Aug. 10, 1934; minimum daily, 1 cu ft per sec Aug. 9-11, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1895, 26.2 ft June 21, 1915, site and datum then in use, from information by U.S. Weather Bureau. Flood of May 29, 1903, reached a stage of 24.8 ft, site and datum then in use, from information by U.S. Weather Bureau.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,200 cu ft per sec Mar. 26, gage height, 20.77 ft; minimum discharge, 241 cu ft per sec Sept. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6530	1250	645	642	577	532	5400	2070	1440	3300	514	389
2	4230	1240	687	624	555	576	6310	1850	1260	2290	497	362
3	3010	1280	719	619	535	578	6350	1720	1380	1870	479	347
4	2700	1270	733	615	519	527	5330	2060	1730	1530	477	340
5	2110	1240	692	610	513	481	4850	4310	1380	1340	472	324
6	1660	1200	665	599	499	456	4660	6730	1140	1490	495	317
7	1340	1080	771	591	491	441	4330	7340	1000	1350	909	331
8	1190	1130	1570	588	489	430	4050	4120	929	1140	863	336
9	1080	1190	1450	715	477	419	3790	3250	908	1120	667	322
10	1040	1060	1320	797	472	402	3470	2850	950	1190	1030	418
11	4610	986	1070	789	470	402	3260	2510	921	1120	966	412
12	12900	893	933	795	461	405	3030	2240	910	3660	827	337
13	8410	841	892	794	456	394	2950	2100	909	5270	852	314
14	8000	775	857	810	453	386	12400	2010	931	2510	716	307
15	6240	728	829	814	450	381	19100	1870	965	1760	635	326
16	4580	736	833	805	446	391	19600	1780	949	1300	589	402
17	3420	766	829	802	441	1200	18200	1710	954	1090	524	355
18	2720	768	828	638	437	7560	7910	1700	1580	945	534	346
19	2330	771	822	536	432	7030	5630	1820	1300	767	677	322
20	1950	760	793	475	427	4220	4670	3230	2870	674	562	303
21	1720	744	766	475	421	3020	3990	4140	2590	909	441	293
22	1640	727	743	503	418	2330	3440	3620	1340	1950	385	283
23	1640	710	726	510	420	6090	3050	2950	1260	1190	354	282
24	1630	696	713	500	426	24200	2820	2480	1090	953	334	275
25	1790	693	694	470	428	26800	2670	2160	1060	835	351	264
26	1890	682	689	450	423	25600	2670	1870	1030	756	424	252
27	1770	664	681	480	426	13100	2670	4790	910	702	493	245
28	1570	656	668	500	453	6790	2550	5290	1810	652	527	248
29	1430	655	659	549	---	5260	2460	3100	2400	603	500	244
30	1340	644	651	559	---	4220	2290	2150	3580	568	490	245
31	1300	---	648	613	---	4030	---	1710	---	540	436	---
TOTAL	97770	26835	25576	19267	13015	148651	173900	91530	41476	45374	18020	9541
MEAN	3154	895	825	622	465	4795	5797	2953	1383	1464	581	318
MAX	12900	1280	1570	814	577	26800	19600	7340	3580	5270	1030	418
MIN	1040	644	645	450	418	381	2290	1700	908	540	334	244
AC-FT	193900	53230	50730	38220	25820	294800	344900	181500	82270	90000	35740	18920

CAL YR 1986 TOTAL 475429 MEAN 1303 MAX 19700 MIN 296 AC-FT 943000
WTR YR 1987 TOTAL 710955 MEAN 1948 MAX 26800 MIN 244 AC-FT 1410000

KANSAS RIVER BASIN

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06856600 REPUBLICAN RIVER AT CLAY CENTER, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1973 to September 1981.

WATER TEMPERATURES: February 1973 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 19...	0820	776	1240	7.60	1.0	11.4	731	100	K1500
JAN 06...	1220	608	1200	7.70	2.0	13.6	734	K46	97
FEB 24...	1150	449	1110	8.40	5.5	13.0	742	K17	140
MAR 26...	0935	27600	303	6.70	6.0	--	--	--	--
APR 07...	1450	4440	832	8.20	9.0	11.5	737	520	3300
JUN 23...	1350	1260	842	8.30	27.0	7.5	731	700	1200
AUG 04...	1135	497	817	8.50	27.0	6.9	729	380	K270

DATE	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HC03	CAR- BONATE WH WAT TOTAL FIELD MG/L AS C03
NOV 19...	18	420	130	22	92	2	8.8	365	440	--
JAN 06...	6.8	410	130	21	89	2	8.5	320	390	--
FEB 24...	6.6	390	120	21	86	2	8.7	325	200	96
APR 07...	78	300	98	14	49	1	8.7	220	270	--
JUN 23...	240	260	82	14	64	2	9.5	205	200	25
AUG 04...	25	250	65	20	81	2	12	182	170	27

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)
NOV 19...	18	180	93	<0.10	27	677	0.92	1420	1.70	0.12
JAN 06...	12	180	84	0.30	23	698	0.95	1150	1.50	0.15
FEB 24...	1.3	180	88	0.40	19	701	0.95	850	1.30	0.06
APR 07...	2.7	110	35	0.30	17	509	0.69	6100	1.40	0.06
JUN 23...	1.6	150	66	0.40	18	551	0.75	1870	2.00	0.10
AUG 04...	0.8	160	70	0.40	15	522	0.71	700	<0.100	0.03

K Results based on colony count outside the acceptable range (non-ideal colony count).

KANSAS RIVER BASIN

06856600 REPUBLICAN RIVER AT CLAY CENTER, KS--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 19...	--	0.120	0.090	0.70	<0.010	0.58	0.49	0.230	0.170	0.160
JAN 06...	--	0.110	0.120	0.70	<0.010	0.59	0.37	0.110	0.110	0.120
FEB 24...	--	0.050	0.050	1.0	<0.010	0.95	0.28	0.120	0.090	0.090
APR 07...	0.03	0.080	0.050	1.0	0.010	0.92	0.34	0.160	0.150	0.110
JUN 23...	0.10	0.040	0.080	3.0	0.030	3.0	0.40	0.450	0.160	0.130
AUG 04...	--	0.020	0.020	2.4	<0.010	2.4	0.06	0.300	0.030	0.020

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 19...	<10	4	180	<0.5	--	1	<1	<3	3	5	<5
FEB 24...	10	3	140	<0.5	--	<1	<1	<3	4	7	<5
APR 07...	10	3	150	<0.5	50	<1	<1	<3	5	17	<5
AUG 04...	<10	4	130	<0.5	--	<1	<1	<3	5	8	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 19...	41	33	<0.1	<10	3	3	<1	840	<6	11
FEB 24...	36	27	<0.1	10	4	3	<1	800	<6	12
APR 07...	22	8	<0.1	<10	2	3	<1	550	<6	16
AUG 04...	33	4	0.2	10	3	2	<1	690	6	3

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
NOV 19...	0320	191	400	64	--	--	--	--	--	--	--
JAN 06...	1220	110	181	36	--	--	--	91	91	97	100
FEB 24...	1150	97	118	66	--	--	--	83	83	96	100
MAR 26...	0935	1910	142000	64	45	48	54	68	82	99	100
APR 07...	1450	586	7020	82	--	--	--	92	98	100	--
JUN 23...	1350	860	2930	66	45	48	57	66	79	96	100
AUG 04...	1135	253	340	59	--	--	--	63	63	99	100

KANSAS RIVER BASIN

55

06857050 MILFORD LAKE NEAR JUNCTION CITY, KS

LOCATION.--Lat 39 deg 04 min 40 sec, long 96 deg 53 min 30 sec, in SE1/4 sec.20, T.11 S., R.5 E., Geary County, Hydrologic Unit 10250017, in control tower of dam on Republican River, 5.0 mi northwest of Junction City and 7.7 mi above mouth.

DRAINAGE AREA.--24,880 sq mi, of which a large area is noncontributing.

PERIOD OF RECORD.--December 1966 to current year. Prior to October 1971, published as "Milford Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Jan. 16, 1967. Conservation pool elevation was reached July 15, 1967. Total capacity, 1,380,000 acre-ft below elevation 1,182.0 ft. Crest of uncontrolled spillway is at elevation 1,176.2 ft. Storage capacity of 673,600 acre-ft above elevation 1,144.4 ft is provided for flood control. Storage capacity of 415,400 acre-ft below elevation 1,144.4 ft is provided for conservation and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,170.03 ft Oct. 17, 1973, contents, 982,300 acre-ft; minimum elevation since conservation pool first filled, 1,141.17 ft Jan. 21, 1977, contents, 365,200 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,160.69 ft Apr. 18, contents, 710,500 acre-ft; minimum elevation, 1,142.36 ft Feb. 23, contents, 358,000 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Computed by U.S. Army Corps of Engineers in 1982 from topographic maps)

1,142	352,700	1,154	563,600
1,145	398,400	1,157	626,900
1,148	449,100	1,160	694,300
1,151	504,300	1,163	766,400

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1149.68	1147.45	1146.16	1143.48	1143.46	1142.61	1157.60	1156.96	1145.80	1145.00	1144.31	1144.78
2	1150.05	1147.04	1145.94	1143.45	1143.46	1142.63	1157.69	1156.47	1145.81	1145.05	1144.31	1144.68
3	1150.63	1146.88	1145.69	1143.43	1143.43	1142.65	1157.87	1155.94	1145.60	1145.03	1144.34	1144.56
4	1150.82	1146.77	1145.47	1143.38	1143.39	1142.65	1157.92	1155.44	1145.34	1144.98	1144.32	1144.49
5	1150.99	1146.63	1145.24	1143.32	1143.35	1142.66	1157.89	1155.11	1145.05	1144.90	1144.29	1144.49
6	1151.03	1146.47	1145.07	1143.44	1143.29	1142.66	1157.92	1155.24	1144.71	1144.80	1144.21	1144.48
7	1151.10	1146.35	1144.96	1143.45	1143.24	1142.65	1157.77	1155.87	1144.35	1144.72	1144.33	1144.47
8	1151.15	1146.35	1144.90	1143.48	1143.20	1142.69	1157.53	1156.16	1144.22	1144.64	1144.44	1144.49
9	1150.99	1146.30	1144.85	1143.55	1143.13	1142.64	1157.28	1156.05	1144.26	1144.50	1144.44	1144.57
10	1150.77	1146.30	1144.67	1143.57	1143.10	1142.61	1156.97	1155.39	1144.35	1144.41	1144.47	1144.56
11	1151.19	1146.26	1144.57	1143.63	1143.05	1142.58	1156.68	1154.73	1144.46	1144.42	1144.50	1144.57
12	1152.12	1146.30	1144.44	1143.67	1143.00	1142.56	1156.40	1154.02	1144.56	1144.59	1144.76	1144.49
13	1153.00	1146.18	1144.26	1143.74	1142.95	1142.54	1156.33	1153.34	1144.68	1144.99	1144.83	1144.45
14	1153.69	1146.20	1144.10	1143.81	1142.91	1142.60	1157.07	1152.62	1144.79	1145.03	1144.84	1144.44
15	1154.08	1146.22	1143.93	1143.89	1142.89	1142.54	1158.26	1151.87	1144.89	1144.94	1144.85	1144.40
16	1154.18	1146.23	1143.75	1144.00	1142.81	1142.57	1159.44	1151.08	1144.91	1144.75	1144.90	1144.43
17	1153.98	1146.24	1143.59	1144.00	1142.75	1142.97	1160.56	1150.30	1144.82	1144.60	1144.87	1144.41
18	1153.60	1146.24	1143.40	1144.03	1142.67	1143.73	1160.68	1149.56	1144.74	1144.55	1144.92	1144.35
19	1153.22	1146.26	1143.35	1144.07	1142.63	1144.65	1160.56	1148.71	1144.75	1144.46	1144.89	1144.31
20	1152.82	1146.25	1143.39	1144.01	1142.57	1145.26	1160.47	1148.10	1144.81	1144.37	1144.80	1144.27
21	1152.37	1146.25	1143.40	1144.00	1142.51	1145.63	1160.19	1147.57	1145.04	1144.27	1144.76	1144.24
22	1151.98	1146.30	1143.40	1143.91	1142.45	1145.89	1159.90	1146.96	1145.05	1144.29	1144.66	1144.08
23	1151.55	1146.26	1143.41	1143.85	1142.41	1146.66	1159.74	1146.30	1144.90	1144.33	1144.61	1144.07
24	1151.17	1146.25	1143.43	1143.76	1142.40	1148.92	1159.80	1145.63	1144.71	1144.34	1144.64	1143.95
25	1150.25	1146.32	1143.44	1143.70	1142.40	1151.67	1159.71	1144.85	1144.48	1144.33	1144.79	1143.79
26	1150.28	1146.26	1143.44	1143.63	1142.40	1154.28	1159.38	1144.18	1144.39	1144.31	1144.89	1143.57
27	1149.85	1146.25	1143.44	1143.58	1142.42	1155.91	1159.04	1144.91	1144.34	1144.31	1144.90	1143.47
28	1149.42	1146.24	1143.44	1143.54	1142.66	1156.72	1158.67	1145.48	1144.42	1144.32	1144.92	1143.30
29	1148.90	1146.22	1143.45	1143.57	---	1157.06	1158.27	1145.75	1144.60	1144.32	1144.89	1143.11
30	1148.32	1146.25	1143.45	1143.50	---	1157.25	1157.65	1145.81	1144.83	1144.32	1144.89	1142.94
31	1147.94	---	1143.47	1143.46	---	1157.40	---	1145.81	---	1144.31	1144.86	---
MEAN	1151.33	1146.38	1144.18	1143.67	1142.89	1146.32	1158.51	1150.85	1144.79	1144.59	1144.66	1144.21
MAX	1154.18	1147.45	1146.16	1144.07	1143.46	1157.40	1160.68	1156.96	1145.81	1145.05	1144.92	1144.78
MIN	1147.94	1146.18	1143.35	1143.32	1142.40	1142.54	1156.33	1144.18	1144.22	1144.27	1144.21	1142.94
(+)	448,100	413,900	374,500	374,300	362,400	635,600	641,100	411,600	395,600	387,400	396,100	366,500
(#)	-7,100	-29,200	-44,400	-200	-11,900	+273,200	+5,500	-229,500	-16,000	-8,200	+8,700	-29,600

CAL YR 1986 (#) +12,400
WTR YR 1987 (#) -88,700

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

06857100 REPUBLICAN RIVER BELOW MILFORD DAM, KS

LOCATION.--Lat 39 deg 04 min 15 sec, long 96 deg 52 min 00 sec, Geary County, Hydrologic Unit 10250017, Fort Riley Military Reservation, on right bank at downstream side of bridge on U.S. Highway 77, 1.7 mi below Milford Dam, 2.5 mi northwest of Junction City, and at mile 6.0.

DRAINAGE AREA.--24,890 sq mi, of which a large area is noncontributing.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,052.50 ft above sea level (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: June 10-16. Records good except for estimated daily discharges, which are fair. Flow completely regulated since 1967 by Milford Lake (station 06857050) 1.7 mi upstream.

AVERAGE DISCHARGE.--20 years (1968-87), 980 cu ft per sec, 710,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 cu ft per sec June 22, 1964, gage height, 22.10 ft; minimum discharge, 2.7 cu ft per sec Sept. 18, 19, 1985, when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,000 cu ft per sec Apr. 30, gage height, 12.76 ft; minimum daily discharge, 43 cu ft per sec June 12-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	865	5970	1660	762	926	613	3180	10700	2490	1740	528	1010
2	866	5030	2260	761	922	606	4660	8030	2430	2050	528	1010
3	899	3310	2240	766	916	606	4670	8130	3650	2040	528	1010
4	938	2420	2260	761	911	599	4700	8310	4560	2020	524	858
5	882	2370	2290	663	952	594	4710	8440	4540	2010	520	570
6	875	2330	2280	516	976	590	4700	5950	4540	2010	520	570
7	872	2290	2260	512	972	576	5840	1590	4530	2000	520	395
8	1260	1810	2240	508	966	560	6840	1470	2750	2000	520	132
9	2630	1480	2220	512	955	577	6780	4880	1120	1990	520	133
10	3600	1280	2200	510	953	612	6750	11300	535	1670	523	365
11	3520	1020	2180	508	947	614	6700	11400	265	1190	522	545
12	3450	1010	2180	507	943	616	6730	11400	43	1190	532	545
13	3390	1010	2160	510	937	615	6750	11400	43	1600	537	546
14	3350	893	2150	512	933	618	6840	11400	43	2450	534	550
15	3300	821	2140	486	931	616	6810	11300	43	2440	535	546
16	3690	821	2130	426	926	618	6870	11300	834	2430	528	545
17	5860	821	2110	384	926	634	6880	11200	1770	2080	524	543
18	7030	818	2100	374	921	642	6970	11200	1770	1460	521	545
19	6930	818	1350	372	921	637	7020	11000	1720	1460	743	545
20	6880	819	759	740	917	638	6950	10900	1690	1460	1020	542
21	6950	814	759	978	915	636	6870	10900	1670	1450	1020	538
22	6920	818	752	972	911	638	6800	10700	2210	1210	1020	539
23	6920	818	759	965	744	660	5030	10700	2670	1050	578	841
24	7090	813	759	962	612	676	1780	10600	2650	974	183	1420
25	6950	814	760	965	608	671	3390	10500	2640	855	186	1450
26	6940	812	762	964	610	681	6850	7790	1930	853	190	1470
27	6900	812	761	960	607	694	6770	3770	1280	689	185	1430
28	6820	812	757	951	613	702	6720	2720	1280	536	446	1420
29	6750	810	757	945	---	706	6700	2660	1280	536	630	1400
30	6710	811	761	937	---	1200	9860	2600	1270	534	622	1390
31	6540	---	763	924	---	2230	---	2540	---	528	773	---
TOTAL	136577	45275	49519	21613	24371	21675	182120	256780	58246	46505	17060	23403
MEAN	4406	1509	1597	697	870	699	6071	8283	1942	1500	550	780
MAX	7090	5970	2290	978	976	2230	9860	11400	4560	2450	1020	1470
MIN	865	810	752	372	607	560	1780	1470	43	528	183	132
AC-FT	270900	89800	98220	42870	48340	42990	361200	509300	115500	92240	33840	46420
CAL YR 1986	TOTAL	541695	MEAN	1484	MAX	7090	MIN	75	AC-FT	1074000		
WTR YR 1987	TOTAL	883144	MEAN	2420	MAX	11400	MIN	43	AC-FT	1752000		

KANSAS RIVER BASIN

57

06860000 SMOKY HILL RIVER AT ELKADER, KS

LOCATION.--Lat 38 deg 47 min 33 sec, long 100 deg 51 min 19 sec, in NE1/4 SE1/4 sec.34, T.14 S., R.32 W., Logan County, Hydrologic Unit 10260003, on right bank at downstream side of bridge on U.S. Highway 83, 22.3 mi south of Oakley, 0.1 mi downstream from Ladder Creek, and at mile 409.9.

DRAINAGE AREA.--3,555 sq mi.

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1310: 1941(M), 1947(M), 1949(M). WSP 1510: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,622.62 ft above sea level. Prior to Oct. 1, 1986, water-stage recorder at present site and at datum 2.00 ft higher.

REMARKS.--Estimated daily discharge: June 21. Records fair.

AVERAGE DISCHARGE.--48 years, 28.0 cu ft per sec, 20,290 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,300 cu ft per sec Aug. 23, 1969, gage height, 10.85 ft, present datum; maximum gage height, 11.02 ft June 17, 1955, present datum; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1937, 15.2 ft May 30, 1938, from floodmark, discharge, 71,000 cu ft per sec, on basis of slope-area measurement of peak flow, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
May 4	0500	1,270	5.76	July 8	0800	1,240	5.77
July 4	1100	2,360	6.48	July 9	1000	*7,310	*8.22

No flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	20	.20	.15	.03	.00
2	.00	.00	.00	.00	.00	.00	.00	21	.13	.19	.03	.00
3	.00	.00	.00	.00	.00	.00	.00	59	.08	2.3	.04	.00
4	.00	.00	.00	.00	.00	.00	.00	411	.05	832	.04	.00
5	.00	.00	.00	.00	.00	.00	.00	28	.02	102	.03	.00
6	.00	.00	.00	.00	.00	.00	.00	13	.00	20	.02	.00
7	.00	.00	.00	.00	.00	.00	.00	5.2	.00	12	.01	.00
8	.00	.00	.00	.00	.00	.00	.00	3.2	.00	345	.03	.00
9	.00	.00	.00	.00	.00	.00	.00	2.3	.00	2740	.02	.00
10	.00	.00	.00	.00	.00	.00	.00	1.8	.00	584	.02	.00
11	.00	.00	.00	.00	.00	.00	.00	1.4	.00	71	.01	.00
12	.00	.00	.00	.00	.00	.00	.00	2.5	.00	51	.05	.00
13	.00	.00	.00	.00	.00	.00	.00	2.6	.00	14	.19	.00
14	.00	.00	.00	.00	.00	.00	.00	1.7	.00	9.4	.18	.00
15	.00	.00	.00	.00	.00	.00	.00	1.1	.00	6.3	.07	.00
16	.00	.00	.00	.00	.00	.00	.00	.85	.00	4.0	.03	.00
17	.00	.00	.00	.00	.00	.00	.00	.65	.00	2.7	.01	.00
18	.00	.00	.00	.00	.00	.00	.00	.51	.00	2.0	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.42	.00	1.7	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.48	.00	1.2	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.55	.00	.91	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.46	.07	.63	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.42	.01	.46	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.45	59	.42	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.71	14	.32	.00	.00
26	.00	.00	.00	.00	.00	.00	2.0	.61	2.7	.25	.00	.00
27	.00	.00	.00	.00	.00	.00	11	.51	.89	.20	.00	.00
28	.00	.00	.00	.00	.00	.00	12	.39	.40	.14	.00	.00
29	.00	.00	.00	.00	---	.00	3.3	.36	.24	.10	.00	.00
30	.00	.00	.00	.00	---	.00	15	.35	.21	.07	.00	.00
31	.00	---	.00	.00	---	.00	---	.29	---	.05	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	43.30	581.81	78.00	4804.49	.81	.00
MEAN	.000	.000	.000	.000	.000	.000	1.44	18.8	2.60	155	.026	.000
MAX	.00	.00	.00	.00	.00	.00	15	411	59	2740	.19	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.29	.00	.05	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	86	1150	155	9530	1.6	.00

CAL YR 1986	TOTAL	0.04	MEAN	.000	MAX	.04	MIN	.00	AC-FT	0
WTR YR 1987	TOTAL	5508.41	MEAN	15.1	MAX	2740	MIN	.00	AC-FT	10930

KANSAS RIVER BASIN

06861000 SMOKY HILL RIVER NEAR ARNOLD, KS

LOCATION.--Lat 38 deg 48 min 31 sec, long 100 deg 01 min 13 sec, in SW1/4 NW1/4 sec.29, T.14 S., R.24 W., Trego County, Hydrologic Unit 10260003, on right bank near downstream side of highway bridge, 7.0 mi upstream from headwaters of Cedar Bluff Reservoir, 12 mi north of Arnold, and at mile 356.2.

DRAINAGE AREA.--5,220 sq mi, approximately.

PERIOD OF RECORD.--February 1950 to current year. Prior to October 1950, published as "near Ransom."

GAGE.--Water-stage recorder. Datum of gage is 2,196.13 ft above sea level. See WSP 1919 for history of changes prior to Sept. 30, 1961.

REMARKS.--Records poor except June 30 to Sept. 30, which are fair.

AVERAGE DISCHARGE.--37 years, 51.7 cu ft per sec, 37,460 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 cu ft per sec June 11, 1951, gage height, 12.57 ft, site and datum then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1938 reached a stage of about 19 ft, present site and datum, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
May 4	1400	*3,480	*6.84	July 10	1200	2,840	6.13

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.07	.08	.03	.04	.19	49	1.5	2.5	21	3.9	.84
2	.04	9.0	.06	.04	.06	.15	35	1.5	2.2	77	3.6	.71
3	.02	3.3	.04	.04	.06	.13	26	2.1	1.4	214	3.4	.67
4	.05	.13	.03	.04	.07	.10	12	1390	1.4	46	3.4	.49
5	.18	.00	.05	.04	.07	.12	15	1030	1.1	34	3.0	.40
6	.03	.00	.05	.03	.07	.11	2.5	417	.90	74	2.9	.38
7	.01	.00	.10	.02	.06	.09	1.6	187	.80	115	2.7	.38
8	.00	.00	.10	.02	.08	.09	2.3	97	.75	61	2.5	.38
9	.00	.00	.09	.05	.08	.07	.78	56	.64	869	2.3	.33
10	.01	.00	.06	.03	.08	.08	.15	35	.65	1640	2.0	.36
11	6.2	.00	.08	.04	.08	.02	.02	23	47	813	2.1	.31
12	8.0	.00	.09	.04	.08	.03	.00	17	169	666	13	.33
13	1.1	.00	.07	.03	.08	.03	.50	147	8.0	359	481	.31
14	.14	.00	.06	.03	.08	.03	83	115	1.8	181	297	.24
15	.08	.00	.06	.02	.11	.03	73	70	.95	165	63	.22
16	.03	.01	.05	.02	.09	.21	21	29	.69	72	34	.24
17	.01	.02	.05	.06	.08	.52	12	14	.60	48	19	.27
18	.00	.00	.06	.04	.08	.34	7.9	9.1	.49	194	13	.31
19	.00	.02	.05	.06	.09	.23	5.8	7.2	.51	59	10	.27
20	.00	.03	.05	.05	.11	.21	4.3	6.4	32	27	7.3	.27
21	.06	.01	.05	.05	.11	.21	6.0	53	6.8	18	5.6	.24
22	.04	.00	.06	.05	.09	.22	5.5	27	.63	14	3.6	.24
23	.02	.00	.06	.06	.07	8.2	2.3	17	.38	12	3.1	.22
24	.02	.01	.06	.05	.07	55	2.1	11	60	10	2.9	.20
25	.02	.01	.05	.09	.07	30	1.9	15	417	8.6	2.9	.19
26	.02	.01	.06	.10	.10	1.4	2.0	28	238	7.3	2.6	.16
27	.02	.01	.06	.10	.43	8.6	2.0	11	82	6.6	2.3	.16
28	.01	.02	.06	.11	.31	105	1.7	6.9	36	5.8	1.7	.15
29	.00	.04	.06	.15	---	74	1.7	4.5	207	5.2	1.4	.15
30	.01	.05	.04	.06	---	21	1.6	3.7	90	4.8	1.2	.14
31	.01	---	.05	.05	---	47	---	2.9	---	4.4	1.0	---
TOTAL	16.26	12.74	1.89	1.60	2.80	353.41	378.65	3834.8	1411.19	5831.7	997.4	9.56
MEAN	.52	.42	.061	.052	.10	11.4	12.6	124	47.0	188	32.2	.32
MAX	8.0	9.0	.10	.15	.43	105	83	1390	417	1640	481	.84
MIN	.00	.00	.03	.02	.04	.02	.00	1.5	.38	4.4	1.0	.14
AC-FT	32	25	3.7	3.2	5.6	701	751	7610	2800	11570	1980	19

CAL YR 1986	TOTAL	1713.27	MEAN	4.69	MAX	325	MIN	.00	AC-FT	3400
WTR YR 1987	TOTAL	12852.00	MEAN	35.2	MAX	1640	MIN	.00	AC-FT	25490

KANSAS RIVER BASIN

59.

06861500 CEDAR BLUFF RESERVOIR NEAR ELLIS, KS

LOCATION.--Lat 38 deg 47 min 24 sec, long 99 deg 43 min 13 sec, in NE1/4 SW1/4 sec.36, T.14 S., R.22 W., Trego County, Hydrologic Unit 10260003, in control house structure of outlet works conduit at dam on Smoky Hill River, 18 mi southwest of Ellis, and at mile 333.7.

DRAINAGE AREA.--5,530 sq mi, approximately.

PERIOD OF RECORD.--November 1950 to current year (monthly records only prior to August 1960).

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation). Prior to Aug. 20, 1960, nonrecording mercury-column gage at same site and datum.

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Nov. 13, 1950. Dam was completed in 1951. Total capacity, 870,400 acre-ft, consisting of the following: Dead storage, 8,260 acre-ft below elevation 2,090 ft, sill of trashrack structure; irrigation pool, 176,800 acre-ft between elevations 2,090 ft and 2,144 ft; flood control pool, 191,900 acre-ft between elevations 2,144 ft and 2,166 ft, crest of uncontrolled spillway and uncontrolled storage, 493,400 acre-ft between elevations 2,166 ft and 2,200 ft. Reservoir is used to store water for flood control, irrigation of 6,600 acres, and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2,154.90 ft July 2, 1951, July 4, 5, 1957, contents, 269,400 acre-ft; minimum elevation since irrigation pool was first filled, 2,095.78 ft Mar. 16, 1987, contents, 14,780 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2,106.93 ft Aug. 20, 21, contents, 33,530 acre-ft; minimum elevation, 2,095.78 ft Mar. 16, contents, 14,780 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(capacity table placed in use October, 1951)

2,095	13,770	2,102	24,270
2,096	15,070	2,103	26,030
2,097	16,430	2,104	27,850
2,098	17,860	2,105	29,730
2,099	19,360	2,106	31,670
2,100	20,930	2,107	33,670
2,101	22,570		

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2096.04	2095.96	2095.94	2095.97	2095.95	2095.96	2096.43	2098.73	2101.67	2101.48	2106.08	2106.68
2	2096.04	2096.01	2095.95	2095.97	2095.94	2095.96	2096.43	2098.73	2101.63	2101.55	2106.08	2106.66
3	2096.04	2096.01	2095.95	2095.97	2095.92	2095.96	2096.43	2098.72	2101.60	2101.56	2106.02	2106.67
4	2096.00	2096.01	2095.93	2095.97	2095.91	2095.92	2096.44	2098.72	2101.60	2101.70	2105.98	2106.64
5	2095.99	2096.01	2095.95	2095.98	2095.91	2095.92	2096.47	2100.38	2101.58	2101.78	2105.96	2106.60
6	2096.00	2096.01	2095.95	2095.97	2095.91	2095.91	2096.51	2101.02	2101.56	2101.82	2105.93	2106.58
7	2095.99	2096.01	2095.96	2095.93	2095.93	2095.90	2096.57	2101.26	2101.54	2101.79	2105.93	2106.56
8	2095.95	2095.97	2095.96	2095.93	2095.91	2095.87	2096.60	2101.38	2101.52	2101.88	2105.89	2106.54
9	2095.95	2095.96	2095.97	2095.95	2095.91	2095.87	2096.63	2101.43	2101.50	2101.94	2105.86	2106.53
10	2095.96	2095.97	2095.98	2095.92	2095.91	2095.86	2096.61	2101.46	2101.47	2102.32	2105.83	2106.50
11	2095.99	2095.97	2095.96	2095.93	2095.91	2095.87	2096.61	2101.49	2101.52	2103.62	2105.83	2106.51
12	2095.95	2095.95	2095.96	2095.95	2095.92	2095.86	2096.63	2101.51	2101.53	2104.24	2105.95	2106.48
13	2095.95	2095.94	2095.98	2095.96	2095.92	2095.84	2096.89	2101.51	2101.53	2104.79	2106.07	2106.49
14	2095.95	2095.95	2095.98	2095.94	2095.87	2095.83	2097.49	2101.54	2101.54	2105.15	2106.50	2106.48
15	2095.95	2095.96	2095.98	2095.90	2095.89	2095.80	2098.04	2101.57	2101.52	2105.41	2106.82	2106.46
16	2095.95	2095.96	2095.98	2095.90	2095.88	2096.00	2098.33	2101.58	2101.49	2105.60	2106.89	2106.43
17	2095.95	2095.97	2095.97	2095.92	2095.88	2096.04	2098.48	2101.58	2101.45	2105.80	2106.90	2106.41
18	2095.95	2095.96	2095.97	2095.92	2095.88	2096.05	2098.56	2101.58	2101.41	2105.92	2106.90	2106.39
19	2095.95	2095.96	2095.97	2095.92	2095.88	2096.04	2098.63	2101.58	2101.37	2106.19	2106.92	2106.36
20	2095.94	2095.99	2095.97	2095.92	2095.89	2096.07	2098.61	2101.61	2101.38	2106.27	2106.93	2106.35
21	2096.01	2096.00	2095.96	2095.93	2095.90	2096.02	2098.61	2101.56	2101.44	2106.29	2106.91	2106.31
22	2096.02	2095.99	2095.97	2095.92	2095.88	2096.11	2098.64	2101.55	2101.38	2106.29	2106.81	2106.29
23	2096.01	2095.96	2095.98	2095.91	2095.88	2096.21	2098.67	2101.55	2101.38	2106.30	2106.77	2106.30
24	2096.01	2095.96	2095.98	2095.91	2095.88	2096.34	2098.69	2101.60	2101.38	2106.30	2106.75	2106.29
25	2096.01	2095.95	2095.98	2095.91	2095.87	2096.28	2098.73	2101.63	2101.34	2106.28	2106.76	2106.27
26	2096.00	2095.95	2095.98	2095.92	2095.90	2096.32	2098.74	2101.64	2101.37	2106.29	2106.75	2106.27
27	2096.00	2095.95	2095.98	2095.92	2095.98	2096.33	2098.72	2101.65	2101.42	2106.22	2106.75	2106.28
28	2096.00	2095.95	2095.98	2095.93	2095.95	2096.39	2098.72	2101.66	2101.42	2106.19	2106.75	2106.25
29	2096.01	2095.96	2095.99	2095.95	---	2096.39	2098.74	2101.67	2101.43	2106.17	2106.73	2106.21
30	2096.01	2095.92	2096.00	2095.94	---	2096.40	2098.74	2101.67	2101.42	2106.14	2106.70	2106.18
31	2095.97	---	2095.97	2095.95	---	2096.43	---	2101.68	---	2106.11	2106.69	---
MEAN	2095.99	2095.97	2095.97	2095.94	2095.91	2096.06	2097.68	2101.14	2101.48	2104.50	2106.44	2106.43
MAX	2096.04	2096.01	2096.00	2095.98	2095.98	2096.43	2098.74	2101.68	2101.67	2106.30	2106.93	2106.88
MIN	2095.94	2095.92	2095.93	2095.90	2095.87	2095.80	2096.43	2098.72	2101.34	2101.48	2105.83	2106.18
(+)	15,030	14,960	15,030	15,000	15,000	15,640	18,960	23,720	23,270	31,890	33,040	32,030
(#)	-80	-70	+70	-30	0	+640	+3,320	+4,760	-450	+8,620	+1,150	-1,010

CAL YR 1986 (#) -3,830

WTR YR 1987 (#) +16,920

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

06862000 SMOKY HILL RIVER AT CEDAR BLUFF DAM, KS

LOCATION.--Lat 38 deg 47 min 30 sec, long 99 deg 43 min 20 sec, in NW1/4 NE1/4 sec.1, T.15 S., R.22 W., Trego County, Hydrologic Unit 10260003, on right bank 0.2 mi downstream from Cedar Bluff Dam, 14 mi southwest of Ellis, and at mile 333.4.

DRAINAGE AREA.--5,530 sq mi, approximately.

PERIOD OF RECORD.--February 1952 to current year.

REVISED RECORDS.--WSP 1510: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,059.14 ft above sea level (levels by U.S. Bureau of Reclamation).

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Cedar Bluff Reservoir (station 06861500). Prior to Nov. 21, 1962, fish hatchery effluent was included in gaged flow.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 cu ft per sec July 5, 1957, gage height, 4.89 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.9 cu ft per sec Apr. 14, gage height, 1.38 ft; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.26	.48	.22	.11	.00	.00
2	.00	.00	.00	.00	.00	.00	.22	.48	.22	.13	.00	.00
3	.00	.00	.00	.00	.00	.00	.19	.58	.22	.10	.00	.00
4	.00	.00	.00	.00	.00	.00	.19	.48	.19	.21	.00	.00
5	.00	.00	.00	.00	.00	.00	.22	.53	.19	.17	.00	.00
6	.00	.00	.00	.00	.00	.00	.26	.72	.16	.10	.00	.00
7	.00	.00	.00	.00	.00	.00	.26	.56	.14	.06	.00	.00
8	.00	.00	.00	.00	.00	.00	.29	.48	.13	.09	.00	.00
9	.00	.00	.00	.00	.00	.00	.42	.48	.11	.08	.00	.00
10	.00	.00	.00	.00	.00	.00	.32	.47	.19	.05	.00	.00
11	.00	.00	.00	.00	.00	.00	.29	.42	.38	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.29	.42	.24	.01	.00	.00
13	.00	.00	.00	.00	.00	.00	.85	.40	.16	.01	.00	.00
14	.00	.00	.00	.00	.00	.00	5.8	.36	.13	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	1.7	.35	.11	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	1.1	.32	.09	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.94	.32	.06	.01	.00	.00
18	.00	.00	.00	.00	.00	.00	.84	.29	.05	.03	.00	.00
19	.00	.00	.00	.00	.00	.00	.82	.29	.05	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.67	.33	.09	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.55	.32	.28	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.54	.29	.17	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.54	.26	.10	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.54	.28	.09	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.54	.39	.11	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.54	.38	.08	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.50	.39	.04	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.48	.32	.03	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.48	.32	.13	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.48	.29	.13	.00	.00	.00
31	.00	---	.00	.00	---	.02	---	.25	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.02	21.12	12.25	4.29	1.16	.00	.00
MEAN	.000	.000	.000	.000	.000	.001	.70	.40	.14	.037	.000	.000
MAX	.00	.00	.00	.00	.00	.02	5.8	.72	.38	.21	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.19	.25	.03	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.04	42	24	8.5	2.3	.00	.00

CAL YR 1986 TOTAL 26.48 MEAN .073 MAX .78 MIN .00 AC-FT 53
WTR YR 1987 TOTAL 38.84 MEAN .11 MAX 5.8 MIN .00 AC-FT 77

KANSAS RIVER BASIN

61

06862700 SMOKY HILL RIVER NEAR SCHOENCHEN, KS

LOCATION.--Lat 38 deg 42 min 40 sec, long 99 deg 22 min 47 sec, in SW1/4 SE1/4 sec.25, T.15 S., R.19 W., Ellis County, Hydrologic Unit 10260006, on right bank, 3.0 mi west of Schoenchen, and at mile 312.3.

DRAINAGE AREA.--5,750 sq mi.

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

GAGE.--Water-stage recorder. Elevation of gage is 1,920 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Jan. 7. Records good except those for estimated daily discharges, which are poor. Flow mostly regulated since 1950 by Cedar Bluff Reservoir (station 06861500) 21.4 mi upstream. Flow of stream also affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--23 years, 24.6 cu ft per sec, 17,820 acre ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,400 cu ft per sec June 14, 1970, gage height, 16.17 ft; no flow at times in 1983-85.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,530 cu ft per sec Apr. 14, gage height, 8.69 ft; minimum discharge, 0.01 cu ft per sec Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.38	.69	.88	2.2	2.9	240	24	172	11	.09	1.3
2	.02	.41	.79	.92	2.2	2.9	361	23	30	14	.09	.82
3	.03	.43	.74	.92	2.1	2.9	146	24	21	11	.11	.57
4	.04	.43	.70	.92	2.1	3.3	105	23	14	11	.11	.39
5	.03	.43	.66	.92	1.8	3.7	99	27	12	12	.13	.29
6	.03	.44	.64	.92	1.8	3.7	70	30	11	9.9	.13	.30
7	.03	.48	.62	1.1	1.8	3.5	57	31	9.5	8.6	.13	.24
8	.03	.48	.62	1.0	1.9	3.5	58	29	8.5	8.0	.13	.23
9	.03	.48	.68	1.0	1.8	3.3	47	25	8.1	7.5	.13	.37
10	.02	.48	.84	1.0	1.8	3.2	40	23	8.5	6.8	.13	.48
11	.37	.48	.96	1.0	1.6	3.2	32	22	11	6.1	.13	.57
12	3.5	.48	1.0	1.1	1.6	3.2	25	22	9.4	5.9	17	.69
13	1.5	.48	.96	1.3	1.6	3.2	38	21	8.4	6.0	62	.72
14	.96	.48	.92	1.5	1.7	3.4	1080	32	7.7	6.0	104	.73
15	.38	.50	.90	1.5	1.7	3.4	643	26	7.2	5.8	33	.69
16	.22	.53	.90	.97	1.7	6.3	285	20	6.6	5.3	16	.63
17	.20	.53	.90	.97	1.7	73	162	19	31	6.1	10	.64
18	.19	.53	.90	.97	1.7	23	111	17	26	6.7	7.6	.66
19	.18	.53	.90	1.0	1.7	9.3	83	17	12	4.9	6.3	.70
20	.19	.53	.86	1.0	1.8	5.1	65	17	11	3.3	5.5	.70
21	.20	.51	.86	.97	1.8	3.5	52	17	10	2.4	4.3	.64
22	.20	.51	.86	1.0	1.9	3.9	46	16	9.6	1.8	3.9	.67
23	.20	.51	.86	.98	1.9	394	42	16	9.2	1.4	4.0	.73
24	.21	.51	.88	1.0	2.0	162	39	17	14	.96	5.1	.70
25	.23	.51	.88	1.0	2.0	36	36	17	12	.70	4.8	.72
26	.23	.51	.88	1.1	2.1	56	32	18	18	.44	4.3	.76
27	.26	.51	.88	1.5	2.6	420	30	20	12	.25	3.9	.79
28	.34	.48	.88	1.9	2.9	220	27	19	9.5	.12	3.6	.85
29	.34	.53	.87	2.1	---	24	27	18	11	.09	3.2	.90
30	.35	.57	.86	2.1	---	27	25	16	15	.09	2.2	.90
31	.38	---	.87	2.2	---	29	---	31	---	.09	1.3	---
TOTAL	10.91	14.66	25.76	36.74	53.5	1541.4	4103	677	545.2	164.24	303.31	19.38
MEAN	.35	.49	.83	1.19	1.91	49.7	137	21.8	18.2	5.30	9.78	.65
MAX	3.5	.57	1.0	2.2	2.9	420	1080	32	172	14	104	1.3
MIN	.02	.38	.62	.88	1.6	2.9	25	16	6.6	.09	.09	.23
AC-FT	22	29	51	73	106	3060	8140	1340	1080	326	602	38

CAL YR 1986 TOTAL 453.75 MEAN 1.24 MAX 4.3 MIN .00 AC-FT 900
WTR YR 1987 TOTAL 7495.10 MEAN 20.5 MAX 1080 MIN .02 AC-FT 14870

KANSAS RIVER BASIN

06862850 SMOKY HILL RIVER BELOW SCHOENCHEN, KS

LOCATION.--Lat 38 deg 42 min 46 sec, long 99 deg 17 min 30 sec, in SW1/4 SW1/4 SE1/4 sec.26, T.15 S., R.18 W., Ellis County, Hydrologic Unit 10260006, on right bank, 1.5 mi upstream from Big Timber Creek, 2.1 mi east of Schoenchen, and at mile 304.9.

DRAINAGE AREA.--5,810 sq mi.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,900 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 30 to Apr. 2. Records fair except those for estimated daily discharges, which are poor. Flow mostly regulated since 1950 by Cedar Bluff Reservoir (station 06861500) 28.8 mi upstream. Flow of stream also affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--6 years, 9.44 cu ft per sec, 6,840 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,740 cu ft per sec Apr. 14, 1987, gage height, 13.57 ft; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,740 ft per sec Apr. 14, gage height, 13.57 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	350	26	198	13	1.2	2.4
2	.00	.00	.00	.00	.00	.00	700	26	46	17	1.2	2.2
3	.00	.00	.00	.00	.00	.00	256	28	28	16	1.2	1.9
4	.00	.00	.00	.00	.00	.00	169	26	41	14	1.2	1.4
5	.00	.00	.00	.00	.00	.00	142	30	24	76	1.1	1.4
6	.00	.00	.00	.00	.00	.00	106	36	18	36	.98	1.4
7	.00	.00	.00	.00	.00	.00	84	34	15	17	.98	1.4
8	.00	.00	.00	.00	.00	.00	82	30	13	13	.98	.89
9	.00	.00	.00	.00	.00	.00	72	27	13	11	.81	.89
10	.00	.00	.00	.00	.00	.00	62	25	13	9.3	.81	.81
11	.00	.00	.00	.00	.00	.00	53	24	15	8.4	.81	.98
12	.00	.00	.00	.00	.00	.00	44	22	14	8.2	28	1.1
13	.00	.00	.00	.00	.00	.00	66	22	12	7.9	62	.89
14	.00	.00	.00	.00	.00	.00	2560	24	12	7.9	49	.38
15	.00	.00	.00	.00	.00	.00	1000	28	12	7.7	23	.27
16	.00	.00	.00	.00	.00	.00	347	22	11	7.3	14	.22
17	.00	.00	.00	.00	.00	14	200	21	61	7.3	10	.17
18	.00	.00	.00	.00	.00	48	136	22	277	7.9	8.8	.09
19	.00	.00	.00	.00	.00	18	101	21	27	7.0	7.7	.09
20	.00	.00	.00	.00	.00	9.2	76	24	18	5.9	7.0	.09
21	.00	.00	.00	.00	.00	5.5	61	23	16	5.4	5.9	.09
22	.00	.00	.00	.00	.00	3.9	54	21	14	4.8	5.6	.06
23	.00	.00	.00	.00	.00	521	47	22	13	4.2	5.6	.06
24	.00	.00	.00	.00	.00	363	44	22	13	3.5	5.9	.06
25	.00	.00	.00	.00	.00	84	40	25	18	2.8	5.9	.03
26	.00	.00	.00	.00	.00	106	36	25	13	2.6	5.8	.01
27	.00	.00	.00	.00	.00	628	32	27	22	2.2	5.4	.03
28	.00	.00	.00	.00	.00	421	31	24	16	1.8	4.6	.09
29	.00	.00	.00	.00	---	78	28	24	13	1.5	4.0	.03
30	.00	.00	.00	.00	---	150	28	24	15	1.2	3.5	.03
31	.00	---	.00	.00	---	200	---	24	---	1.2	2.7	---
TOTAL	.00	.00	.00	.00	.00	2649.60	7007	779	1021	329.0	275.67	19.46
MEAN	.000	.000	.000	.000	.000	85.5	234	25.1	34.0	10.6	8.89	.65
MAX	.00	.00	.00	.00	.00	628	2560	36	277	76	62	2.4
MIN	.00	.00	.00	.00	.00	.00	28	21	11	1.2	.81	.01
AC-FT	.00	.00	.00	.00	.00	5260	13900	1550	2030	653	547	39
CAL YR 1986	TOTAL	228.19	MEAN	.63	MAX	4.1	MIN	.00	AC-FT	453		
WTR YR 1987	TOTAL	12080.73	MEAN	33.1	MAX	2560	MIN	.00	AC-FT	23960		

KANSAS RIVER BASIN

63

06863500 BIG CREEK NEAR HAYS, KS

LOCATION.--Lat 38 deg 48 min 45 sec, long 99 deg 15 min 14 sec, in NW1/4 NW1/4 NE1/4 sec.30, T.14 S., R.17 W., Ellis County, Hydrologic Unit 10260007, on left high bank near downstream side of county highway bridge, 0.6 mi east of Munjor, 6.0 mi southeast of Hays, and at mile 31.7.

DRAINAGE AREA.--594 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1946 to current year.

REVISED RECORDS.--WSP 1340: 1947-48(P).

GAGE.--Water-stage recorder. Elevation of gage is 1,915 ft above sea level, from topographic map. Prior to Nov. 20, 1947, nonrecording gage, and Nov. 20, 1947, to Aug. 22, 1965, water-stage recorder and concrete control at site 12.5 mi upstream at datum 1,955.13 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 12, Dec. 7-10, Jan. 16-19, and June 18 to July 13. Records fair except those for estimated daily discharges, which are poor. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--41 years, 33.9 cu ft per sec, 24,560 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 cu ft per sec June 17, 1957, gage height, 22.07 ft, site and datum then in use; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 23	1300	866	12.66	Aug. 12	2100	1,590	16.43
Apr. 14	0900	*2,830	*21.28				

Minimum discharge, 0.61 cu ft per sec Oct. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	2.4	3.4	4.0	4.7	35	203	41	21	40	4.0	16
2	3.1	7.3	5.3	4.2	4.5	19	253	38	46	30	3.0	15
3	3.3	7.0	3.7	4.1	4.6	14	226	52	60	40	3.0	15
4	3.3	2.6	7.1	4.3	4.4	11	145	145	32	60	16	14
5	3.2	2.2	8.0	3.8	4.5	8.8	163	161	23	120	7.2	13
6	3.0	2.3	4.1	3.7	4.7	8.0	146	113	19	90	5.6	12
7	2.8	2.5	4.0	3.5	4.8	7.4	115	86	18	50	4.6	12
8	2.9	2.6	3.9	3.5	4.8	6.8	101	66	17	35	4.7	12
9	2.8	2.4	3.7	3.7	4.7	6.1	87	53	16	27	5.2	11
10	3.0	2.4	3.9	4.0	4.9	6.1	73	46	17	20	4.7	17
11	57	2.4	4.1	3.8	5.1	5.9	63	41	27	17	18	13
12	47	2.4	4.1	4.2	5.1	5.7	53	38	18	14	674	12
13	4.6	2.7	3.9	3.8	5.1	5.6	75	35	16	12	1140	11
14	2.8	3.2	3.9	3.5	5.2	5.2	2340	35	17	10	571	11
15	1.5	3.4	3.6	3.3	5.4	4.7	2210	36	17	9.3	436	11
16	1.5	3.3	3.7	3.3	5.9	5.7	1180	33	15	9.5	142	9.9
17	1.4	2.9	3.7	3.2	5.8	270	360	30	40	9.8	65	9.1
18	1.4	2.8	3.7	3.1	5.7	28	233	27	82	36	128	9.6
19	1.3	2.6	3.8	4.0	5.8	11	165	26	60	239	146	9.5
20	1.2	2.8	3.9	5.0	6.2	9.0	123	25	30	53	78	9.2
21	1.6	2.7	3.6	4.6	6.7	8.3	97	29	25	27	49	8.8
22	6.8	2.9	3.4	4.4	6.8	7.7	83	26	22	18	37	8.5
23	4.8	3.0	3.6	4.6	6.6	481	77	25	19	14	36	8.5
24	1.7	3.0	3.8	4.8	6.9	203	69	27	30	11	28	8.7
25	1.5	3.0	3.9	4.7	6.8	63	62	25	90	11	30	8.6
26	1.6	3.0	3.2	5.1	7.5	200	56	26	72	9.1	30	8.3
27	1.6	3.1	3.6	5.2	22	288	51	35	80	8.4	27	8.5
28	1.7	2.9	3.9	5.1	56	154	48	30	92	10	24	8.9
29	1.8	2.9	3.6	4.7	---	44	45	27	50	7.3	21	8.3
30	1.9	3.2	3.8	4.8	---	30	43	25	60	6.3	20	8.1
31	2.0	---	4.3	4.5	---	22	---	23	---	5.9	18	---
TOTAL	180.7	91.9	126.2	128.5	221.2	1974.0	8945	1425	1131	1049.6	3776.0	327.5
MEAN	5.83	3.06	4.07	4.15	7.90	63.7	298	46.0	37.7	33.9	122	10.9
MAX	57	7.3	8.0	5.2	56	481	2340	161	92	239	1140	17
MIN	1.2	2.2	3.2	3.1	4.4	4.7	43	23	15	5.9	3.0	8.1
AC-FT	358	182	250	255	439	3920	17740	2830	2240	2080	7490	650

CAL YR 1986	TOTAL	2170.38	MEAN	5.95	MAX	165	MIN	.37	AC-FT	4300
WTR YR 1987	TOTAL	19376.60	MEAN	53.1	MAX	2340	MIN	1.2	AC-FT	38430

KANSAS RIVER BASIN

06863500 BIG CREEK NEAR HAYS, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-70, 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 09...	0900	2.5	1190	8.10	14.0	153	1.0
JAN 06...	1520	3.2	1500	8.10	3.5	8	0.07
MAR 06...	1000	7.8	1160	7.40	9.5	14	0.29
APR 14...	1240	2660	220	7.80	7.0	9470	68000
JUL 14...	0945	10	1110	7.80	18.5	49	1.4
AUG 25...	1010	30	800	7.50	20.0	93	7.6

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
APR 14...	1240	27	12	13	18	38	51	98	100

KANSAS RIVER BASIN

65

06863900 NORTH FORK BIG CREEK NEAR VICTORIA, KS

LOCATION.--Lat 38 deg 53 min 12 sec, long 99 deg 12 min 21 sec, in SW1/4 SW1/4 SW1/4 sec.27, T.13 S., R.17 W., Ellis County, Hydrologic Unit 10260007, on right bank at downstream side of highway bridge, 3.5 mi northwest of Victoria, and about 18 mi upstream from mouth.

DRAINAGE AREA.--54 sq mi, approximately.

PERIOD OF RECORD.--April 1962 to June 1987 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 1,940 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 27 to Mar. 5. Records fair.

AVERAGE DISCHARGE.--25 years, 3.11 cu ft per sec, 2,250 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 cu ft per sec Aug. 9, 1974, gage height, 21.34 ft; no flow at times in most years.

EXTREMES FOR CURRENT PERIOD.--October to June 1987: Peak discharges greater than base discharge of 100 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 16	2300	130	5.20	Apr. 14	1100	*5,000	*17.22
Mar. 24	0200	341	7.56	May 4	0600	1,570	13.38
Mar. 28	1400	260	6.74	June 27	2300	178	5.70
Apr. 2	1700	370	7.81				

No flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	89	10	11			
2	.00	.00	.00	.00	.00	.00	279	9.5	18			
3	.00	.00	.00	.00	.00	.00	101	12	53			
4	.00	.00	.00	.00	.00	.00	56	915	29			
5	.00	.00	.00	.00	.00	.00	44	205	15			
6	.00	.00	.00	.00	.00	.00	38	80	12			
7	.00	.00	.00	.00	.00	.00	32	47	10			
8	.00	.00	.00	.00	.00	.00	31	32	8.9			
9	.00	.00	.00	.00	.00	.00	29	27	7.6			
10	.00	.00	.00	.00	.00	.00	26	25	7.7			
11	.01	.00	.00	.00	.00	.00	23	22	8.5			
12	.00	.00	.00	.00	.00	.00	21	21	10			
13	.00	.00	.00	.00	.00	.00	46	20	12			
14	.00	.00	.00	.00	.00	.00	2010	19	11			
15	.00	.00	.00	.00	.00	.00	435	18	9.8			
16	.00	.00	.00	.00	.00	16	104	19	8.4			
17	.00	.00	.00	.00	.00	20	65	17	9.8			
18	.00	.00	.00	.00	.00	6.2	47	15	21			
19	.00	.00	.00	.00	.00	2.9	38	14	12			
20	.00	.00	.00	.00	.00	1.7	30	14	9.2			
21	.00	.00	.00	.00	.00	1.3	24	15	7.9			
22	.00	.00	.00	.00	.00	1.4	22	15	7.4			
23	.00	.00	.00	.00	.00	73	21	14	7.1			
24	.00	.00	.00	.00	.00	147	20	14	7.6			
25	.00	.00	.00	.00	.00	33	17	14	50			
26	.00	.00	.00	.00	.00	41	15	15	36			
27	.00	.00	.00	.00	.00	130	13	15	41			
28	.00	.00	.00	.00	.00	159	12	15	51			
29	.00	.00	.00	.00	---	35	11	14	11			
30	.00	.00	.00	.00	---	23	10	13	20			
31	.00	---	.00	.00	---	23	---	12	---			
TOTAL	.01	.00	.00	.00	.00	713.50	3709	1697.5	522.9			
MEAN	.000	.000	.000	.000	.000	23.0	124	54.8	17.4			
MAX	.01	.00	.00	.00	.00	159	2010	915	53			
MIN	.00	.00	.00	.00	.00	.00	10	9.5	7.1			
AC-FT	.02	.00	.00	.00	.00	1420	7360	3370	1040			

CAL YR 1986 TOTAL 9.02 MEAN .025 MAX 4.6 MIN .00 AC-FT 18

KANSAS RIVER BASIN

06864050 SMOKY HILL RIVER NEAR BUNKER HILL, KS

LOCATION.--Lat 38 deg 47 min 38 sec, long 98 deg 46 min 50 sec, in NW1/4 SW1/4 NW1/4 sec.33, T.14 S., R.13 W., Russell County, Hydrologic Unit 10260006, on left bank at downstream side of county highway bridge, 0.5 mi upstream from Sellens Creek, 6.5 mi southwest of Bunker Hill, and at mile 261.6.

DRAINAGE AREA.--7,075 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1974, published as "near Russell."

REVISED RECORDS.--WSP 1340: 1941-42(M), 1944-45(M), 1950(P).

GAGE.--Water-stage recorder. Elevation of gage is 1,690 ft above sea level, from topographic map. Prior to Sept. 11, 1940, nonrecording gage and Sept. 11, 1940, to Sept. 30, 1974, water-stage recorder at site 4.7 mi upstream at datum, 1,689.05 ft above sea level.

REMARKS.--Estimated daily discharges: Dec. 7-10, Jan. 17 to Feb. 5, and Mar. 18. Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1950 by Cedar Bluff Reservoir (station 06861500) 72.1 mi upstream. Natural flow of stream affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Satellite telemeter at station.

AVERAGE DISCHARGE.--48 years, 174 cu ft per sec, 126,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,500 cu ft per sec May 23, 1951, gage height, 23.86 ft, site and datum then in use; no flow at times in 1940, 1943, 1955-57.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1938, reached a stage of about 29.0 ft, from floodmarks, discharge, about 70,000 cu ft per sec, from rating curve extended above 37,500 cu ft per sec, site and datum of 1939-74.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,100 cu ft per sec Apr. 14, gage height, 21.79 ft; minimum discharge 2.6 cu ft per sec Jan. 16, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	14	12	13	15	22	1710	156	132	383	45	79
2	98	17	14	13	14	26	2900	150	142	245	42	74
3	67	17	13	14	13	35	2790	143	276	224	40	71
4	51	16	13	13	13	28	1640	642	189	179	44	66
5	40	14	12	13	12	23	1030	2140	165	271	42	62
6	32	17	12	14	11	21	776	907	129	307	42	60
7	26	17	12	13	11	19	666	577	103	253	43	56
8	23	17	11	13	11	17	543	430	89	2170	38	53
9	21	15	10	13	11	16	477	354	83	508	36	50
10	20	13	12	13	11	16	414	309	81	208	34	56
11	31	14	15	11	11	16	362	273	83	152	33	49
12	55	13	18	15	11	15	318	251	79	126	46	48
13	51	16	18	13	11	14	393	234	77	112	1610	48
14	61	17	16	13	11	14	12900	220	72	100	3200	45
15	38	15	16	13	12	13	15000	212	69	95	1350	42
16	29	13	15	11	12	16	7360	197	101	89	608	40
17	24	13	14	10	12	132	3380	185	73	87	381	39
18	21	13	15	9.0	12	500	1600	180	1250	89	413	38
19	19	13	14	12	11	300	1080	171	1680	80	466	37
20	16	13	14	14	11	166	779	167	523	133	472	35
21	15	13	13	16	11	108	591	164	322	133	301	34
22	16	12	13	18	11	82	468	156	210	100	196	33
23	16	12	13	18	11	6440	380	153	163	86	164	33
24	16	12	14	17	11	7130	317	153	144	77	141	32
25	15	12	14	18	11	3580	272	151	135	70	133	31
26	18	12	14	18	12	2450	238	155	144	64	122	30
27	17	12	14	17	18	2220	205	165	176	60	118	29
28	14	11	14	18	21	2620	185	157	137	56	109	32
29	13	11	13	19	---	1720	174	152	214	53	100	30
30	12	11	13	18	---	800	165	146	395	51	91	29
31	12	---	13	16	---	613	---	139	---	49	84	---
TOTAL	1078	415	424	446.0	342	29172	59113	9589	7436	6610	10544	1361
MEAN	34.8	13.8	13.7	14.4	12.2	941	1970	309	248	213	340	45.4
MAX	191	17	18	19	21	7130	15000	2140	1680	2170	3200	79
MIN	12	11	10	9.0	11	13	165	139	69	49	33	29
AC-FT	2140	823	841	885	678	57860	117300	19020	14750	13110	20910	2700

CAL YR 1986 TOTAL 11955.1 MEAN 32.8 MAX 2030 MIN 2.3 AC-FT 23710
WTR YR 1987 TOTAL 126530.0 MEAN 347 MAX 15000 MIN 9.0 AC-FT 251000

KANSAS RIVER BASIN

67

06864500 SMOKY HILL RIVER AT ELLSWORTH, KS

LOCATION.--Lat 38 deg 43 min 36 sec, long 98 deg 14 min 00 sec, in SW1/4 SW1/4 SE1/4 sec.20, T.15 S., R.8 W., Ellsworth County, Hydrologic Unit 10260006, on left bank at downstream side of bridge on State Highway 14 in Ellsworth, 2.0 mi downstream from Turkey Creek, and at mile 213.7.

DRAINAGE AREA.--7,580 sq mi, approximately.

PERIOD OF RECORD.--April 1895 to October 1905, July 1918 to July 1925, August 1928 to current year.

REVISED RECORDS.--WSP 796-B: 1903. WSP 806: Drainage area. WSP 1176: 1923. WSP 1440: 1895-1905, 1919, 1921, 1929-30(M), 1936-37(M).

GAGE.--Water-stage recorder. Datum of gage is 1,509.02 ft above sea level. Prior to Oct. 31, 1905, nonrecording gage at present site at datum 1.61 ft higher. July 23, 1918, to July 4, 1925, and Aug. 1, 1928, to Nov. 29, 1939, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 9, 10. Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1950 by Cedar Bluff Reservoir (station 06861500) 120 mi upstream. Flow also affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Satellite telemeter at station.

AVERAGE DISCHARGE.--75 years (water years 1896-1905, 1919-24, 1929-87), 241 cu ft per sec, 174,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,000 cu ft per sec June 1, 1938, gage height, 27.2 ft, from floodmarks; no flow for part of day Sept. 28, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1927 reached a stage of 25.7 ft, from floodmarks, discharge, 44,800 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,800 cu ft per sec Apr. 16, gage height, 22.35 ft; minimum discharge, 14 cu ft per sec Nov. 13, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382	39	29	32	37	54	2060	381	196	321	96	139
2	200	39	30	31	36	49	2880	363	188	347	93	132
3	130	40	30	33	35	46	2740	342	189	277	90	127
4	87	40	30	34	33	47	2100	337	263	261	89	121
5	72	41	31	34	33	47	1400	1140	263	243	89	116
6	68	39	31	34	32	45	1010	2010	237	259	88	117
7	70	38	31	34	32	42	846	1160	208	281	85	113
8	65	40	32	34	32	40	726	828	187	1250	84	108
9	69	39	30	36	32	37	635	632	176	2950	84	108
10	62	37	28	35	32	36	562	513	173	666	82	107
11	78	32	28	35	32	35	511	442	174	360	82	100
12	151	34	32	37	32	35	458	398	170	287	85	98
13	97	23	37	37	32	35	1070	365	165	230	95	96
14	80	29	37	36	32	35	13500	338	162	202	1300	94
15	81	34	37	33	35	34	15700	318	159	189	1940	90
16	80	38	36	24	34	39	15300	303	153	172	951	87
17	83	36	35	29	32	234	6680	290	174	161	613	84
18	72	33	34	31	32	267	3080	277	534	156	707	82
19	66	32	33	38	32	511	1940	269	1340	152	568	81
20	64	32	33	40	32	373	1480	255	1290	142	502	78
21	58	31	32	42	32	220	1170	246	693	150	483	75
22	56	31	32	42	31	156	936	234	379	186	360	72
23	54	31	32	40	30	7790	788	226	279	154	277	70
24	50	30	32	39	30	13900	697	224	229	139	236	70
25	49	30	32	41	30	7590	631	223	205	130	225	65
26	46	29	32	41	33	3290	561	235	193	123	264	63
27	44	29	32	39	40	2430	498	265	187	117	260	62
28	46	29	32	41	54	2510	459	254	219	112	196	64
29	44	29	33	44	---	2210	434	230	196	108	173	59
30	43	29	32	42	---	1520	404	216	227	103	158	58
31	41	---	32	39	---	1110	---	205	---	99	146	---
TOTAL	2588	1013	997	1127	939	44767	81256	13519	9208	10327	10501	2736
MEAN	83.5	33.8	32.2	36.4	33.5	1444	2709	436	307	333	339	91.2
MAX	382	41	37	44	54	13900	15700	2010	1340	2950	1940	139
MIN	41	23	28	24	30	34	404	205	153	99	82	58
AC-FT	5130	2010	1980	2240	1860	88800	161200	26810	18260	20480	20830	5430

CAL YR 1986 TOTAL 23193 MEAN 63.5 MAX 1720 MIN 23 AC-FT 46000
WTR YR 1987 TOTAL 178978 MEAN 490 MAX 15700 MIN 23 AC-FT 355000

06865000 KANOPOLIS LAKE NEAR KANOPOLIS, KS

LOCATION.--Lat 38 deg 36 min 25 sec, long 97 deg 58 min 02 sec, in SE1/4 NW1/4 NE1/4 sec.3, T.17 S., R.6 W., Ellsworth County, Hydrologic Unit 10260006, in control tower at dam on Smoky Hill River, 12 mi southeast of Kanopolis, 25 mi southwest of Salina, and 183.7 mi upstream from mouth.

DRAINAGE AREA.--7,857 sq mi.

PERIOD OF RECORD.--February 1948 to current year (monthly records only prior to October 1956). Prior to October 1971, published as "Kanopolis Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Feb. 17, 1948, and dam was completed in same year. Current conservation pool elevation first reached July 1948. Capacity, 425,700 acre-ft between elevations 1,415 ft, sill of outlet gage and 1,508 ft. Crest of uncontrolled spillway is at elevation 1,507 ft. Storage capacity of 356,700 acre-ft above elevation 1,463 ft is provided for flood control. Storage capacity of 55,200 acre-ft below elevation 1,463 ft is provided for conservation and recreation. Inflow partly regulated by Cedar Bluff Reservoir (station 06861500). Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,506.98 ft July 14, 1951, contents, 435,100 acre-ft; minimum elevation since conservation pool was first filled, 1,453.59 ft Jan. 5, 6, 1984, contents, 30,060 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,492.17 ft Apr. 20, contents, 242,700 acre-ft; minimum elevation, 1,461.30 ft Oct. 1, contents, 50,040 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1971 by U.S. Army Corps of Engineers and revised in 1982)

1,460	45,990	1,480	145,000
1,465	63,280	1,485	181,100
1,470	85,690	1,490	222,800
1,475	113,100	1,495	270,300

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1461.77	1463.24	1463.29	1463.34	1463.46	1463.86	1481.09	1488.31	1470.20	1469.02	1464.58	1467.62
2	1462.08	1463.23	1463.28	1463.35	1463.47	1463.90	1481.33	1487.64	1469.44	1468.93	1464.28	1467.56
3	1462.34	1463.25	1463.26	1463.36	1463.46	1463.91	1481.55	1486.96	1468.75	1468.78	1464.17	1467.50
4	1462.44	1463.26	1463.25	1463.34	1463.46	1463.92	1481.67	1485.53	1468.26	1468.63	1464.18	1467.43
5	1462.53	1463.26	1463.26	1463.33	1463.47	1463.93	1481.58	1486.57	1468.07	1468.58	1464.13	1467.39
6	1462.56	1463.24	1463.30	1463.37	1463.45	1463.93	1481.35	1486.82	1468.10	1468.38	1464.09	1467.38
7	1462.64	1463.28	1463.32	1463.37	1463.47	1463.93	1481.07	1486.73	1468.12	1468.20	1464.09	1467.33
8	1462.66	1463.29	1463.36	1463.39	1463.45	1463.94	1480.74	1486.25	1468.13	1468.72	1464.11	1467.27
9	1462.68	1463.26	1463.36	1463.43	1463.43	1463.89	1480.37	1485.71	1468.11	1469.68	1464.11	1467.24
10	1462.70	1463.25	1463.35	1463.42	1463.43	1463.89	1479.99	1485.12	1468.10	1469.73	1464.10	1467.21
11	1462.85	1463.22	1463.34	1463.40	1463.43	1463.87	1479.59	1484.56	1468.14	1469.58	1464.10	1467.15
12	1462.85	1463.20	1463.35	1463.40	1463.44	1463.87	1479.16	1483.89	1468.14	1469.84	1464.36	1467.09
13	1462.94	1463.15	1463.36	1463.42	1463.45	1463.86	1479.16	1483.26	1468.13	1469.63	1464.39	1467.03
14	1462.97	1463.16	1463.34	1463.46	1463.49	1463.93	1482.23	1482.65	1468.10	1469.38	1464.55	1467.00
15	1463.01	1463.18	1463.35	1463.44	1463.53	1463.86	1485.93	1482.00	1468.05	1469.11	1465.62	1466.95
16	1463.05	1463.19	1463.36	1463.43	1463.54	1464.10	1489.74	1481.33	1468.00	1468.82	1466.23	1466.91
17	1463.08	1463.21	1463.38	1463.43	1463.55	1464.98	1491.47	1480.62	1468.16	1468.51	1466.47	1466.85
18	1463.11	1463.20	1463.37	1463.42	1463.54	1465.43	1491.91	1479.94	1468.39	1468.31	1467.08	1466.79
19	1463.12	1463.22	1463.37	1463.42	1463.54	1465.72	1492.08	1479.17	1468.79	1468.04	1467.34	1466.74
20	1463.14	1463.22	1463.37	1463.42	1463.55	1465.88	1492.13	1478.42	1469.32	1467.76	1467.48	1466.69
21	1463.14	1463.22	1463.36	1463.43	1463.56	1465.95	1492.10	1477.65	1469.57	1467.46	1467.62	1466.62
22	1463.18	1463.24	1463.33	1463.41	1463.55	1466.04	1491.96	1476.89	1469.64	1467.23	1467.68	1466.55
23	1463.20	1463.23	1463.34	1463.38	1463.54	1469.52	1491.73	1476.12	1469.66	1467.01	1467.70	1466.50
24	1463.22	1463.25	1463.36	1463.38	1463.53	1475.33	1491.48	1475.38	1469.64	1466.76	1467.72	1466.45
25	1463.24	1463.26	1463.35	1463.38	1463.55	1478.35	1491.22	1474.62	1469.59	1466.49	1467.77	1466.42
26	1463.24	1463.26	1463.35	1463.39	1463.59	1479.11	1490.94	1473.98	1469.52	1466.24	1467.78	1466.35
27	1463.25	1463.25	1463.35	1463.40	1463.68	1479.62	1490.54	1473.49	1469.45	1465.94	1467.80	1466.31
28	1463.26	1463.25	1463.36	1463.41	1463.82	1480.21	1490.00	1472.88	1469.42	1465.66	1467.78	1466.28
29	1463.25	1463.24	1463.35	1463.43	---	1480.56	1489.47	1472.22	1469.33	1465.39	1467.75	1466.23
30	1463.23	1463.26	1463.35	1463.44	---	1480.67	1488.92	1471.54	1469.19	1465.13	1467.72	1466.16
31	1463.26	---	1463.35	1463.45	---	1480.83	---	1470.92	---	1464.85	1467.67	---
MEAN	1462.90	1463.23	1463.34	1463.40	1463.52	1468.41	1486.08	1480.55	1468.78	1467.93	1465.95	1466.90
MAX	1463.26	1463.29	1463.38	1463.46	1463.82	1480.83	1492.13	1488.31	1470.20	1469.84	1467.80	1467.62
MIN	1461.77	1463.15	1463.25	1463.33	1463.43	1463.86	1479.16	1470.92	1468.00	1464.85	1464.09	1466.16
(+)	56,710	56,710	57,040	57,400	58,760	150,700	213,300	90,360	81,720	62,690	74,620	68,030
(#)	+6,730	0	+330	+360	+1,360	+91,940	+62,600	-122,940	-8,640	-19,030	+11,930	-6,590

CAL YR 1986 (#) -100
WTR YR 1987 (#) +18,050

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

69

06865500 SMOKY HILL RIVER NEAR LANGLEY, KS

LOCATION.--Lat 38 deg 36 min 38 sec, long 97 deg 57 min 04 sec, in SW1/4 SW1/4 SE1/4 sec.35, T.16 S., R.6 W., Ellsworth County, Hydrologic Unit 10260008, on left bank at downstream side of county highway bridge, 0.8 mi downstream from Kanopolis Dam, 5.0 mi north of Langley, and at mile 182.9.

DRAINAGE AREA.--7,957 sq mi.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1310: 1942(M).

GAGE.--Water-stage recorder. Datum of gage is 1,395.66 ft above sea level (U.S. Army Corps of Engineers bench mark). Prior to Apr. 1, 1952, water-stage recorder at datum 7.00 ft higher. Apr. 1, 1952, to Oct. 1, 1973, water-stage recorder at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated since 1948 by Kanopolis Lake (station 06865000).

AVERAGE DISCHARGE.--7 years (water years 1941-1947 before closure of Kanopolis dam), 307 cu ft per sec, 222,400 acre-ft per yr; 38 years (water years 1949-1986, since conservation pool at Kanopolis Lake was first filled), 303 cu ft per sec, 219,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,800 cu ft per sec Oct. 20, 1941, gage height, 32.2 ft, present datum; minimum daily discharge, 0.40 cu ft per sec Jan. 23, 1948. Maximum discharge since closure of Kanopolis Dam in 1948, 5,570 cu ft per sec July 15, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1938 reached a stage of 33.9 ft, present datum, from information by U.S. Army Corps of Engineers, discharge, about 45,000 cu ft per sec by extension of subsequent rating curve above 16,000 cu ft per sec and correlation of peak flow at adjacent stations.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,910 cu ft per sec Sept. 12, gage height, 10.48 ft; minimum discharge, 6.1 cu ft per sec Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	35	34	38	40	66	1630	3230	2060	705	559	227
2	30	35	35	38	41	58	2060	3410	2090	764	546	225
3	30	35	35	38	41	56	2040	3380	1930	752	288	220
4	49	36	35	38	40	56	2040	2830	1490	737	114	215
5	30	36	35	38	40	55	2050	1200	844	737	112	212
6	28	34	35	39	40	55	2040	1190	267	779	111	210
7	28	35	35	39	40	55	2030	1860	258	801	83	209
8	27	38	36	38	40	55	2030	3000	256	860	60	205
9	26	37	38	40	40	55	2010	2980	251	879	61	202
10	26	37	41	41	40	55	2000	2980	247	912	61	201
11	29	37	41	41	40	55	1990	2960	250	902	61	197
12	32	37	42	42	40	55	1990	2920	248	961	64	192
13	29	35	41	43	40	55	2030	2900	245	937	82	189
14	29	34	42	42	41	55	2020	2880	241	905	73	187
15	29	33	41	42	49	55	1360	2860	237	883	97	184
16	29	33	42	41	47	60	1190	2840	233	858	135	182
17	29	33	40	41	45	321	1210	2830	232	832	151	178
18	30	33	39	41	44	141	1220	2890	268	812	177	176
19	31	33	39	40	44	132	1220	2920	284	784	199	172
20	33	33	39	39	44	134	1220	2900	323	759	209	169
21	33	33	38	39	44	141	1210	2860	355	741	218	166
22	32	31	38	39	44	144	1710	2810	365	721	224	161
23	32	33	38	38	44	966	1990	2740	367	704	229	159
24	32	33	38	39	45	817	1990	2650	367	686	231	157
25	32	34	38	37	45	1080	1990	2560	359	670	233	156
26	34	33	39	38	46	1120	1990	2490	353	652	235	153
27	35	33	39	39	48	1130	2510	2330	348	634	237	151
28	35	33	39	40	59	1180	3030	2220	345	618	237	150
29	36	33	39	40	---	1140	3000	2130	530	602	237	148
30	36	34	38	40	---	1140	2960	2060	650	587	233	145
31	36	---	38	40	---	1140	---	1990	---	572	231	---
TOTAL	979	1029	1187	1228	1211	11627	57760	81800	16293	23746	5788	5498
MEAN	31.6	34.3	38.3	39.6	43.3	375	1925	2639	543	766	187	183
MAX	49	38	42	43	59	1180	3030	3410	2090	961	559	227
MIN	26	31	34	37	40	55	1190	1190	232	572	60	145
AC-FT	1940	2040	2350	2440	2400	23060	114600	162300	32320	47100	11480	10910

CAL YR 1986 TOTAL 37918.6 MEAN 104 MAX 1870 MIN 6.5 AC-FT 75210
WTR YR 1987 TOTAL 208146.0 MEAN 570 MAX 3410 MIN 26 AC-FT 412900

KANSAS RIVER BASIN

06866500 SMOKY HILL RIVER NEAR MENTOR, KS

LOCATION.--Lat 38 deg 47 min 54 sec, long 97 deg 34 min 28 sec, in SW1/4 SW1/4 SW1/4 sec.29, T.14 S., R.2 W., Saline County, Hydrologic Unit 10260008, on right bank at downstream side of highway bridge, 4.0 mi north of Mentor, and at mile 101.7.

DRAINAGE AREA.--8,358 sq mi.

PERIOD OF RECORD.--December 1923 to October 1930, May 1931 to June 1932, October 1947 to current year. Published as "near Salina" 1948-49.

REVISED RECORDS.--WSP 1440: 1924, 1927-28, 1929(M), 1932(M). WSP 1919: 1960.

GAGE.--Water-stage recorder. Datum of gage is 1,211.40 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to June 30, 1932, nonrecording gage at site 10 mi upstream at datum 20.9 ft higher. Oct. 1, 1947, to Sept. 18, 1948, nonrecording gage, and Sept. 19, 1948, to June 26, 1959, water-stage recorder at site 0.3 mi west on former channel, at present datum. June 27, 1959, to Sept. 8, 1959, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 13, Dec. 11, and Jan. 11, 16, 19-27. Records fair except those for estimated daily discharges, which are poor. Considerable regulation since 1948 by Kanopolis Lake (station 06865000) 82.0 mi upstream. Diversions upstream from station for irrigation. Satellite telemeter at station.

AVERAGE DISCHARGE.--46 years (water years 1925-30, 1948-87), 393 cu ft per sec, 284,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,500 cu ft per sec Aug. 17, 1927, gage height, 26.2 ft, from floodmark, site and datum then in use, from rating curve extended above 5,700 cu ft per sec on basis of flood-routing study and slope-area measurement at gage height 25.8 ft; minimum discharge, 1.8 cu ft per sec July 10, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest known flood at Salina, 7.5 mi downstream occurred in 1844; second greatest known flood, May 29, 1903, reached a stage of 26.5 ft near Mentor, from floodmarks, site and datum of 1923-32.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,570 cu ft per sec Mar. 24, gage height, 19.14 ft; minimum discharge, 51 cu ft per sec Jan. 17, 18 (result of freezeup).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	72	73	78	100	450	1370	2980	2320	671	582	280
2	161	70	72	77	91	830	1390	3030	2290	713	579	274
3	194	71	72	80	87	366	2040	3260	2440	784	572	270
4	282	78	74	81	85	230	2100	3310	2370	826	560	263
5	187	81	72	78	86	182	2100	3370	2000	883	368	257
6	127	81	73	81	84	161	2120	2300	1550	1460	216	254
7	105	79	79	80	83	148	2130	1820	815	1020	188	254
8	89	79	83	79	83	139	2130	1620	609	948	177	254
9	84	77	84	84	80	134	2130	2720	553	934	159	251
10	80	75	83	86	79	129	2140	2920	509	1000	130	254
11	123	73	78	70	80	126	2130	2950	485	1010	115	252
12	357	74	80	72	79	124	2120	2970	489	1040	107	245
13	396	70	89	100	78	122	2130	2980	468	1030	126	238
14	171	72	85	103	80	120	2540	3030	444	1060	166	234
15	117	84	84	89	85	116	3200	3020	426	1000	175	228
16	98	98	85	75	99	114	2240	3010	410	958	140	226
17	89	82	84	65	169	501	1550	3000	396	932	128	226
18	84	79	80	69	141	3030	1450	2960	398	919	193	227
19	79	76	80	80	116	1530	1420	2980	503	893	757	226
20	77	76	80	90	104	634	1370	3050	586	854	593	223
21	76	75	79	100	98	428	1330	3060	468	808	323	223
22	76	75	79	100	94	353	1310	3040	476	770	274	220
23	79	75	79	95	89	1470	1450	3000	510	736	272	214
24	81	72	79	90	88	6880	2010	2970	539	717	523	211
25	80	72	79	85	86	5600	2060	2940	502	701	431	206
26	81	73	78	85	86	2180	2070	2860	493	694	370	201
27	77	72	78	86	91	1610	2080	2920	485	681	1190	196
28	76	72	79	89	108	1750	2160	3190	481	655	530	193
29	76	72	80	95	---	3010	2840	2890	468	638	357	196
30	75	71	78	103	---	1940	2990	2510	466	615	314	197
31	73	---	78	106	---	1450	---	2390	---	595	295	---
TOTAL	3850	2276	2456	2651	2629	35857	60100	89050	24949	26545	10910	6993
MEAN	124	75.9	79.2	85.5	93.9	1157	2003	2873	832	856	352	233
MAX	396	98	89	106	169	6880	3200	3370	2440	1460	1190	280
MIN	73	70	72	65	78	114	1310	1620	396	595	107	193
AC-FT	7640	4510	4870	5260	5210	71120	119200	176600	49490	52650	21640	13870

CAL YR 1986 TOTAL 53713 MEAN 147 MAX 1230 MIN 69 AC-FT 106500
WTR YR 1987 TOTAL 268266 MEAN 735 MAX 6880 MIN 65 AC-FT 532100

KANSAS RIVER BASIN

71

06866900 SALINE RIVER NEAR WAKEENEY, KS

LOCATION.--Lat 39 deg 06 min 22 sec, long 99 deg 52 min 10 sec, in NW1/4 SW1/4 SW1/4 sec.10, T.11 S., R.23 W., Trego County, Hydrologic Unit 10260009, on left bank at downstream side of bridge on U.S. Highway 283, 1 mi upstream from Trego Creek, and 5 mi north of Wakeeney.

DRAINAGE AREA.--696 sq mi.

PERIOD OF RECORD.--October 1955 to September 1966, October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,217.46 ft above sea level. Oct. 1, 1955, to May 22, 1958, wire-weight and crest-stage gages and May 23, 1958, to Sept. 30, 1966, water-stage recorder at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-5. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--17 years (water years 1956-1966, 1982-1987), 25.3 cu ft per sec, 18,330 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 cu ft per sec June 17, 1957, gage height, 19.40 ft, site and datum then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1879, about 27 ft in July 1950, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 cu ft per sec Aug. 13, gage height, 8.31 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.02	.01	.02	.02	.02	1.3	11	1.4	1.6	.05	1.3
2	.00	.02	.01	.02	.02	.02	.50	11	1.2	6.3	.04	1.0
3	.00	.02	.01	.02	.02	.02	.36	13	.92	2.8	.04	.79
4	.00	.02	.01	.03	.02	.02	.37	58	.70	6.2	.04	.65
5	.00	.02	.01	.02	.02	.02	1.6	23	.54	4.2	.04	.49
6	.00	.02	.01	.02	.02	.02	3.7	14	.49	23	.03	.47
7	.00	.02	.01	.02	.02	.02	4.3	8.7	.42	48	.04	.45
8	.00	.02	.01	.02	.02	.02	19	7.0	.31	237	.05	.40
9	.00	.02	.02	.02	.02	.02	20	6.0	.27	98	.05	.33
10	.00	.01	.02	.02	.02	.02	18	5.4	.28	34	.03	.38
11	.05	.01	.02	.02	.02	.02	19	4.6	.30	35	.03	.34
12	.03	.01	.02	.02	.02	.02	15	4.0	.24	110	.10	.32
13	.02	.01	.02	.02	.02	.02	16	3.9	.20	37	547	.30
14	.02	.01	.02	.02	.02	.02	127	3.6	.18	14	176	.26
15	.02	.01	.02	.02	.03	.02	77	3.1	.15	13	52	.18
16	.02	.00	.02	.02	.02	.04	50	2.5	.14	10	29	.21
17	.02	.00	.02	.02	.02	.10	32	2.2	.12	5.6	19	.18
18	.02	.00	.02	.02	.02	.07	28	1.8	3.4	4.1	14	.19
19	.02	.00	.02	.02	.02	.06	28	1.7	178	3.1	11	.20
20	.02	.00	.02	.03	.02	.05	25	1.7	80	2.3	8.7	.17
21	.03	.00	.02	.03	.02	.04	22	1.6	42	1.6	6.5	.14
22	.02	.00	.02	.03	.02	.05	20	1.6	25	1.1	5.2	.12
23	.02	.00	.02	.03	.02	43	18	1.6	15	.81	4.8	.11
24	.02	.00	.02	.03	.02	7.1	17	1.6	9.8	.59	4.5	.10
25	.02	.01	.02	.03	.02	12	16	1.8	6.4	.45	4.4	.08
26	.02	.00	.02	.03	.02	.56	15	2.1	4.1	.35	4.0	.06
27	.02	.00	.02	.03	.02	.66	14	2.2	3.2	.25	3.6	.05
28	.02	.00	.02	.03	.02	1.6	13	2.5	2.3	.21	3.0	.07
29	.02	.01	.02	.03	---	9.8	12	2.1	1.7	.15	2.5	.04
30	.02	.00	.02	.03	---	9.1	12	1.8	1.7	.11	2.0	.03
31	.02	---	.02	.03	---	2.8	---	1.7	---	.08	1.5	---
TOTAL	.47	.26	.54	.75	.57	87.33	645.13	206.8	380.46	700.90	899.24	9.41
MEAN	.015	.009	.017	.024	.020	2.82	21.5	6.67	12.7	22.6	29.0	.31
MAX	.05	.02	.02	.03	.03	43	127	58	178	237	547	1.3
MIN	.00	.00	.01	.02	.02	.02	.36	1.6	.12	.08	.03	.03
AC-FT	.9	.5	1.1	1.5	1.1	173	1280	410	755	1390	1780	19

CAL YR 1986 TOTAL 112.73 MEAN .31 MAX 25 MIN .00 AC-FT 224
WTR YR 1987 TOTAL 2931.86 MEAN 8.03 MAX 547 MIN .00 AC-FT 5820

KANSAS RIVER BASIN

06867000 SALINE RIVER NEAR RUSSELL, KS

LOCATION.--Lat 38 deg 58 min 00 sec, long 98 deg 51 min 20 sec, in SW1/4 SW1/4 NW1/4 sec.35, T.12 S., R.14 W., Russell County, Hydrologic Unit 10260009, on left bank at downstream side of bridge on U.S. Highway 281, 2.0 mi downstream from Salt Creek, 5.0 mi north of Russell, and at mile 190.6.

DRAINAGE AREA.--1,502 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to September 1953, June 1959 to current year.

REVISED RECORDS.--WSP 1919: 1960..

GAGE.--Water-stage recorder. Datum of gage is 1,551.59 ft above sea level. Prior to Jan. 22, 1946, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 11, 14, Dec. 10, 11, and Jan. 11, 16-27. Records good except those for estimated daily discharges, which are poor. Low flow partially regulated at times by irrigation. Satellite telemeter at station.

AVERAGE DISCHARGE.--36 years (water years 1946-53, 1960-87), 92.9 cu ft per sec, 67,310 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 cu ft per sec Sept. 1, 1964, gage height, 19.70 ft; no flow Aug. 11, 12, 1964, Sept. 27, 28, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 24	0100	3,760	14.62	July 19	2300	3,540	14.31
Apr. 14	2000	*6,880	*18.03	Aug. 13	0500	2,490	12.67

Minimum discharge, 5.0 cu ft per sec Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	7.6	9.2	11	14	57	879	249	327	166	109	93
2	18	9.8	9.4	9.5	14	37	1020	238	276	141	102	90
3	14	10	9.6	12	13	23	696	275	209	114	97	86
4	11	10	9.7	12	12	19	627	299	194	105	94	83
5	8.7	9.6	9.5	12	12	18	633	657	165	100	90	79
6	7.5	9.3	9.5	13	11	17	660	674	146	98	85	78
7	6.1	9.0	12	13	11	17	582	508	133	100	83	78
8	5.7	9.0	14	13	11	16	554	389	124	228	80	77
9	5.6	8.7	14	13	10	16	561	328	117	204	77	75
10	6.0	8.5	14	12	10	15	509	287	113	177	74	75
11	37	8.5	14	12	10	15	473	257	116	123	72	73
12	41	9.0	15	12	10	15	431	237	126	108	226	71
13	41	9.5	12	12	10	14	434	235	123	156	1700	70
14	21	10	11	12	10	14	5280	264	115	417	926	68
15	14	10	11	12	12	13	5220	235	107	254	469	66
16	10	9.6	11	12	13	15	2880	222	102	201	308	65
17	8.6	9.4	12	10	12	186	1410	201	96	177	292	64
18	7.6	10	11	11	12	360	1000	188	95	166	340	64
19	6.8	9.4	11	12	11	156	803	178	116	1900	382	63
20	6.0	9.4	11	13	12	100	664	170	105	1470	288	61
21	6.6	9.4	11	14	12	84	552	167	98	501	210	60
22	8.2	9.4	11	14	11	75	486	165	93	351	179	58
23	8.5	9.1	12	13	10	1330	446	158	88	277	159	57
24	8.2	9.0	11	14	10	2090	407	154	87	237	142	56
25	8.1	9.0	11	14	10	954	371	154	91	207	136	55
26	8.0	9.0	11	14	11	626	342	157	91	187	131	55
27	7.5	8.7	11	15	15	739	316	160	90	165	122	54
28	7.6	9.0	11	16	39	639	291	159	89	149	115	54
29	7.0	9.0	11	13	---	415	275	153	112	135	108	54
30	6.9	9.0	11	12	---	272	262	145	112	125	103	52
31	6.5	---	11	12	---	320	---	186	---	116	97	---
TOTAL	385.7	276.9	351.9	389.5	348	8667	29064	7849	3856	8855	7396	2034
MEAN	12.4	9.23	11.4	12.6	12.4	280	969	253	129	286	239	67.8
MAX	41	10	15	16	39	2090	5280	674	327	1900	1700	93
MIN	5.6	7.6	9.2	9.5	10	13	262	145	87	98	72	52
AC-FT	765	549	698	773	690	17190	57650	15570	7650	17560	14670	4030

CAL YR 1986	TOTAL	4945.28	MEAN	13.5	MAX	263	MIN	.16	AC-FT	9810
WTR YR 1987	TOTAL	69473.00	MEAN	190	MAX	5280	MIN	5.6	AC-FT	137800

KANSAS RIVER BASIN

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06867000 SALINE RIVER NEAR RUSSELL, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-51, 1962 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1946 to September 1949, October 1964 to July 1970.

WATER TEMPERATURES: January 1946 to September 1951, October 1964 to July 1970.

SUSPENDED-SEDIMENT DISCHARGE: May 1946 to September 1951.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 08...	1620	5.6	7110	8.20	24.0	62	0.94
JAN 06...	1300	13	5300	8.40	4.0	40	1.4
MAR 05...	1500	18	3620	7.80	17.0	64	3.1
APR 15...	1010	5250	600	7.40	11.0	1590	22500
JUN 02...	0950	255	1120	7.40	22.0	555	382
JUL 09...	1415	234	--	--	27.0	1180	746
AUG 28...	0955	118	2480	7.60	19.0	52	17

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
APR 15...	1010	75	49	59	69	76	77	80	92

KANSAS RIVER BASIN

06868100 WILSON LAKE NEAR WILSON, KS

LOCATION.--Lat 38 deg 58 min 00 sec, long 98 deg 29 min 35 sec, in NE1/4 NW1/4 SE1/4 sec.36, T.12 S., R.11 W., Russell County, Hydrologic Unit 10260009, in the control tower near right end of Wilson Dam on the Saline River, 10 mi north of Wilson, and at mile 153.9.

DRAINAGE AREA.--1,917 sq mi.

PERIOD OF RECORD.--December 1964 to current year. Prior to October 1971, published as "Wilson Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 29, 1964. Total capacity, 1,667,000 acre-ft below elevation 1,587.5 ft, consisting of 1,420 acre-ft of dead storage below elevation 1,450 ft; conservation pool, 241,100 acre-ft between elevation 1,450 ft and 1,516 ft; flood control pool, 1,245,000 acre-ft between 1,516 ft and 1,582 ft, crest of spillway; and surcharge capacity of 179,500 acre-ft between 1,582 ft and 1,587.5 ft. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,528.06 ft Apr. 26, 1987, contents, 368,400 acre-ft; minimum elevation since conservation pool first filled, 1,493.59 ft Dec. 26, 1966, contents, 91,500 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,528.06 ft Apr. 26, contents, 368,400 acre-ft; minimum elevation, 1,514.50 ft Nov. 30, contents, 229,200 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Army Corps of Engineers, during July 1984)

1,514	224,900	1,523	311,400
1,517	251,700	1,526	344,500
1,520	280,500	1,529	379,700

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1514.86	1514.80	1514.65	1514.64	1514.67	1514.83	1519.80	1527.79	1524.05	1518.18	1516.29	1516.04
2	1514.86	1514.81	1514.63	1514.65	1514.66	1514.83	1520.20	1527.68	1523.93	1517.98	1516.29	1516.05
3	1514.87	1514.80	1514.63	1514.64	1514.65	1514.84	1520.47	1527.57	1523.76	1517.75	1516.30	1516.08
4	1514.85	1514.80	1514.60	1514.63	1514.65	1514.85	1520.65	1527.56	1523.61	1517.56	1516.28	1516.07
5	1514.83	1514.80	1514.60	1514.70	1514.66	1514.83	1520.80	1527.58	1523.43	1517.34	1516.25	1516.10
6	1514.83	1514.76	1514.61	1514.70	1514.66	1514.85	1520.92	1527.57	1523.24	1517.11	1516.21	1516.14
7	1514.82	1514.80	1514.65	1514.63	1514.67	1514.84	1521.05	1527.53	1523.04	1516.94	1516.23	1516.14
8	1514.77	1514.80	1514.65	1514.64	1514.66	1514.84	1521.12	1527.44	1522.86	1516.97	1516.21	1516.14
9	1514.80	1514.75	1514.66	1514.70	1514.65	1514.82	1521.21	1527.34	1522.66	1517.32	1516.20	1516.16
10	1514.78	1514.75	1514.68	1514.69	1514.64	1514.81	1521.28	1527.25	1522.50	1517.60	1516.17	1516.19
11	1514.86	1514.74	1514.65	1514.68	1514.66	1514.81	1521.30	1527.16	1522.33	1517.58	1516.16	1516.20
12	1514.83	1514.70	1514.61	1514.68	1514.65	1514.80	1521.36	1527.05	1522.15	1517.53	1516.51	1516.21
13	1514.83	1514.70	1514.65	1514.69	1514.66	1514.79	1521.66	1526.90	1521.95	1517.41	1516.92	1516.20
14	1514.83	1514.67	1514.65	1514.68	1514.65	1514.84	1523.63	1526.78	1521.76	1517.37	1517.20	1516.17
15	1514.83	1514.65	1514.65	1514.65	1514.69	1514.78	1525.58	1526.61	1521.56	1517.34	1517.34	1516.20
16	1514.82	1514.67	1514.66	1514.67	1514.69	1514.88	1526.60	1526.44	1521.35	1517.28	1517.38	1516.21
17	1514.82	1514.68	1514.66	1514.67	1514.68	1514.95	1527.04	1526.27	1521.16	1517.20	1517.43	1516.20
18	1514.80	1514.64	1514.66	1514.67	1514.68	1515.07	1527.31	1526.11	1520.97	1517.14	1517.56	1516.20
19	1514.81	1514.69	1514.66	1514.66	1514.69	1515.12	1527.51	1525.94	1520.76	1517.17	1517.57	1516.19
20	1514.80	1514.65	1514.66	1514.68	1514.70	1515.25	1527.69	1525.78	1520.56	1517.44	1517.51	1516.20
21	1514.79	1514.67	1514.67	1514.68	1514.68	1515.19	1527.81	1525.59	1520.36	1517.45	1517.36	1516.18
22	1514.80	1514.65	1514.66	1514.65	1514.68	1515.32	1527.90	1525.39	1520.13	1517.34	1517.24	1516.18
23	1514.82	1514.64	1514.66	1514.63	1514.68	1516.30	1527.96	1525.24	1519.90	1517.20	1517.09	1516.18
24	1514.82	1514.65	1514.66	1514.64	1514.70	1517.43	1527.99	1525.08	1519.70	1517.05	1516.95	1516.20
25	1514.81	1514.64	1514.66	1514.63	1514.70	1517.93	1528.03	1524.90	1519.47	1516.89	1516.87	1516.20
26	1514.80	1514.63	1514.66	1514.65	1514.73	1518.24	1528.05	1524.90	1519.27	1516.73	1516.72	1516.20
27	1514.81	1514.63	1514.67	1514.65	1514.83	1518.47	1528.04	1524.83	1519.05	1516.57	1516.58	1516.19
28	1514.81	1514.62	1514.67	1514.65	1514.87	1518.92	1528.00	1524.67	1518.84	1516.46	1516.43	1516.22
29	1514.79	1514.60	1514.65	1514.66	---	1519.18	1527.95	1524.49	1518.64	1516.38	1516.27	1516.20
30	1514.78	1514.59	1514.67	1514.66	---	1519.30	1527.89	1524.30	1518.40	1516.33	1516.11	1516.20
31	1514.75	---	1514.65	1514.65	---	1519.47	---	1524.16	---	1516.32	1516.05	---
MEAN	1514.82	1514.70	1514.65	1514.66	1514.69	1515.92	1524.56	1526.25	1521.38	1517.19	1516.70	1516.17
MAX	1514.87	1514.81	1514.68	1514.70	1514.87	1519.47	1528.05	1527.79	1524.05	1518.18	1517.57	1516.22
MIN	1514.75	1514.59	1514.60	1514.63	1514.64	1514.78	1519.80	1524.16	1518.40	1516.32	1516.05	1516.04
(+)	231,400	230,000	230,500	230,500	232,400	275,200	366,400	323,900	264,800	245,400	243,000	244,300
(#)	-1,000	-1,400	+500	0	+1,900	+42,800	+91,200	-42,500	-59,100	-19,400	-2,400	+1,300

CAL YR 1986 (#) -3,000
WTR YR 1987 (#) +11,900

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

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06368200 SALINE RIVER AT WILSON DAM, KS

LOCATION.--Lat 38 deg 58 min 35 sec, long 98 deg 29 min 20 sec, in NE1/4 SW1/4 SE1/4 sec.25, T.12 S., R.11 W., Russell County, Hydrologic Unit 10260010, on right bank 0.5 mi downstream from outlet of Wilson Dam, 9.0 mi upstream from Wolf Creek, 10 mi north of Wilson, and at mile 153.4.

DRAINAGE AREA.--1,917 sq mi.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,437 ft above sea level, from topographic map. Prior to May 12, 1965, water-stage recorder at site 1.5 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated since 1964 by Wilson Lake (station 06368100).

AVERAGE DISCHARGE.--24 years, 53.1 cu ft per sec, 38,470 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 cu ft per sec Apr. 6, 1973, gage height, 18.84 ft; no flow Nov. 3, 1978, parts of Dec. 10, 11, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,240 cu ft per sec May 14, gage height, 12.97 ft; minimum discharge, 1.3 cu ft per sec Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	11	14	11	13	10	16	901	1180	1160	119	89
2	18	11	13	11	13	10	16	1030	1160	1160	116	26
3	18	11	12	11	13	10	317	1020	1160	1160	113	25
4	18	11	12	11	13	11	548	1020	1170	1140	111	24
5	18	11	12	11	13	11	548	1020	1170	1140	110	24
6	18	11	12	11	13	11	548	1020	1160	1140	108	23
7	18	11	13	11	13	11	549	1030	1160	1040	108	23
8	18	11	13	11	13	11	551	1040	1150	773	107	23
9	18	10	13	11	13	11	554	1030	1150	607	106	23
10	83	10	12	13	12	10	552	1030	1150	604	105	22
11	74	10	12	13	9.9	10	555	1030	1140	605	108	22
12	9.6	11	12	13	9.9	10	550	1030	1140	603	111	22
13	9.4	10	12	14	9.9	145	553	1110	1130	599	108	22
14	9.4	48	12	14	9.9	13	163	1240	1130	593	107	20
15	9.4	13	12	13	9.9	12	518	1240	1120	575	107	24
16	9.4	13	12	13	9.9	12	45	1230	1120	584	107	24
17	9.6	13	12	13	9.9	13	20	1230	1110	582	106	24
18	9.9	13	12	13	9.9	12	20	1240	1110	591	108	24
19	10	13	12	12	9.6	12	19	1240	1110	588	463	24
20	9.5	14	12	13	9.4	11	19	1230	1100	588	753	23
21	9.9	14	12	13	9.4	11	19	1230	1100	699	754	24
22	9.9	14	12	13	9.6	12	19	1220	1130	928	754	23
23	9.9	13	12	13	9.9	57	242	1210	1150	925	755	23
24	9.9	13	12	13	10	77	383	1200	1150	927	752	23
25	9.9	14	12	13	10	34	382	1200	1150	925	753	23
26	10	14	12	13	10	16	382	1070	1150	910	754	23
27	10	14	12	13	11	15	502	731	1150	844	751	23
28	10	13	11	13	11	16	581	938	1160	647	748	24
29	9.9	13	11	13	---	16	696	1190	1170	482	747	23
30	9.9	13	11	13	---	15	769	1190	1160	309	747	23
31	10	---	11	13	---	16	---	1190	---	164	449	---
TOTAL	514.5	401	374	386	308.1	641	10636	34330	34290	23592	11145	763
MEAN	16.6	13.4	12.1	12.5	11.0	20.7	355	1107	1143	761	360	25.4
MAX	83	48	14	14	13	145	769	1240	1180	1160	755	89
MIN	9.4	10	11	11	9.4	10	16	731	1100	164	105	20
AC-FT	1020	795	742	766	611	1270	21100	68090	68010	46790	22110	1510
CAL YR 1986 TOTAL	6276.0			MEAN 17.2	MAX 175	MIN 8.8	AC-FT 12450					
WTR YR 1987 TOTAL	117380.6			MEAN 322	MAX 1240	MIN 9.4	AC-FT 232800					

KANSAS RIVER BASIN

06869500 SALINE RIVER AT TESCOTT, KS

LOCATION.--Lat 39 deg 00 min 15 sec, long 97 deg 52 min 26 sec, in NE1/4 SE1/4 SE1/4 sec.16, T.12 S., R.5 W., Ottawa County, Hydrologic Unit 10260010, on right bank at downstream side of highway bridge, 0.5 mi south of Tescott, 0.5 mi upstream from Dry Creek, and at mile 68.5.

DRAINAGE AREA.--2,820 sq mi.

PERIOD OF RECORD.--September 1919 to current year.

REVISED RECORDS.--WSP 806: Drainage area. WSP 856: 1931. WSP 1310: 1926-28(M), 1935(M), 1945(M), 1947-48(M). WSP 1919: 1922, 1960.

GAGE.--Water-stage recorders. Datum of gage is 1,265.34 ft above sea level. Prior to Nov. 23, 1934, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 12, Jan. 11, 16, 17, May 2-13, July 15-19, and Sept. 6-14. Records fair except those for estimated daily discharges, which are poor. Some diurnal fluctuation caused by power plants upstream from station. Diversions upstream from station for irrigation. Flow moderately regulated since 1964 by Wilson Lake (station 06868100). Satellite telemeter at station.

AVERAGE DISCHARGE.--68 years, 212 cu ft per sec, 153,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,400 cu ft per sec July 13, 1951, gage height, 30.06 ft, from rating curve extended above 7,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in 1935, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 13, 1951, was greatest known since at least 1903 and exceeded the flood of May-June 1903 by about 1.0 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,110 cu ft per sec Apr. 16, gage height, 29.77 ft; minimum discharge, 25 cu ft per sec Jan. 18 (result of freezeup).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1000	33	39	41	52	65	1010	738	1230	1200	417	772
2	338	33	41	39	48	79	1480	825	1330	1210	297	647
3	134	37	42	41	44	77	1760	900	1360	1210	229	306
4	138	39	41	37	42	66	1660	980	1310	1210	210	167
5	94	40	40	42	42	58	1100	1050	1240	1190	202	125
6	55	40	40	40	42	53	912	1100	1220	1180	197	110
7	46	40	41	39	41	50	865	1130	1220	1180	198	105
8	43	41	44	37	41	48	807	1140	1210	2030	196	96
9	43	46	48	39	40	45	751	1140	1210	1570	193	92
10	41	49	50	41	40	44	713	1140	1210	1520	188	90
11	60	47	44	36	40	47	686	1130	1210	1570	186	89
12	303	40	45	39	40	45	662	1110	1220	1340	187	88
13	447	33	42	41	41	44	697	1090	1220	799	207	87
14	250	34	47	47	41	44	2730	1090	1210	694	574	86
15	157	38	51	49	41	45	5360	1080	1200	660	966	85
16	93	39	46	42	42	129	8230	1160	1190	645	856	83
17	69	59	43	37	44	238	8310	1240	1190	635	367	80
18	54	65	42	32	44	1040	7510	1270	1240	625	238	79
19	46	42	41	42	42	821	4770	1270	1260	625	214	79
20	40	40	40	44	42	453	1880	1270	1210	624	448	78
21	36	39	40	51	41	227	687	1270	1200	618	692	75
22	36	38	40	45	41	164	610	1260	1190	615	812	74
23	35	39	40	43	42	1130	553	1250	1170	645	789	73
24	36	38	39	42	42	4100	514	1250	1170	832	776	72
25	37	37	40	40	41	7230	489	1250	1190	907	782	71
26	37	37	40	41	42	7730	619	1270	1200	914	791	70
27	36	36	38	43	47	6780	657	1290	1200	914	794	70
28	35	37	40	45	54	4890	644	1290	1190	911	811	70
29	34	37	41	50	---	2520	634	1080	1190	892	791	70
30	32	38	42	50	---	577	698	896	1190	759	780	81
31	32	---	40	52	---	578	---	1090	---	565	774	---
TOTAL	3842	1211	1307	1307	1199	39417	57998	35049	36580	30289	15162	4070
MEAN	124	40.4	42.2	42.2	42.8	1272	1933	1131	1219	977	489	136
MAX	1000	65	51	52	54	7730	8310	1290	1360	2030	966	772
MIN	32	33	38	32	40	44	489	738	1170	565	186	70
AC-FT	7620	2400	2590	2590	2380	78180	115000	69520	72560	60080	30070	8070
CAL YR 1986	TOTAL	28399	MEAN	77.8	MAX	1120	MIN	24	AC-FT	56330		
WTR YR 1987	TOTAL	227431	MEAN	623	MAX	8310	MIN	32	AC-FT	451100		

KANSAS RIVER BASIN

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06870200 SMOKY HILL RIVER AT NEW CAMBRIA, KS

LOCATION.--Lat 38 deg 51 min 49 sec, long 97 deg 28 min 58 sec, in NE1/4 NE1/4 SE1/4 sec.1, T.14 S., R.2 W., Saline County, Hydrologic Unit 10260008, on left bank at downstream side of county highway bridge, 1.0 mi south-east of New Cambria, 10.1 mi upstream from Gypsum Creek, about 18.1 mi upstream from Solomon River, and at mile 86.6.

DRAINAGE AREA.--11,730 sq mi, approximately.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,160.19 ft above sea level. Prior to Mar. 27, 1963, nonrecording gage and Mar. 27, 1963, to July 5, 1977, water-stage recorder at site 2.7 mi downstream at datum 2.23 ft lower.

REMARKS.--Estimated daily discharges: Jan. 17-27. Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1948 by Kanopolis Lake (station 06865000) 97.7 mi upstream and slightly regulated since 1964 by Wilson Lake (station 06868100). Satellite telemeter at station.

AVERAGE DISCHARGE.--25 years, 594 cu ft per sec, 430,400 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 cu ft per sec Oct. 12, 1973, gage height, 30.91 ft, site and datum then in use; minimum discharge, 18 cu ft per sec July 16, 17, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,500 cu ft per sec Mar. 25, gage height, 30.29 ft; minimum discharge, 103 cu ft per sec Nov. 13 and Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	140	139	151	193	509	2990	3450	3170	1680	1260	1050
2	1350	140	141	149	179	1190	2580	3540	3240	1800	1090	1040
3	962	140	142	152	172	640	3260	3780	3440	1840	959	1010
4	642	143	143	159	165	409	3740	4050	3550	1900	860	817
5	481	155	144	157	159	325	3890	4310	3280	1950	720	585
6	342	160	145	157	155	280	3720	3990	2820	2300	532	486
7	250	164	157	155	153	254	3250	3240	2190	2200	484	453
8	188	168	166	158	150	233	3070	2820	1850	2370	459	429
9	162	161	165	164	150	217	2980	3450	1780	4780	440	416
10	145	153	167	168	148	210	2900	3980	1740	5420	410	424
11	216	152	148	136	147	204	2840	3970	1720	4250	392	411
12	622	152	157	136	147	200	2780	3950	1700	3110	383	394
13	684	132	166	168	147	198	2780	3910	1680	3100	490	384
14	616	136	165	190	149	193	4240	3880	1660	2440	464	376
15	518	147	166	175	161	186	6970	3850	1640	1870	501	368
16	351	164	164	155	167	190	6850	3820	1610	1700	909	360
17	270	160	165	105	247	707	5890	3820	1580	1620	1070	354
18	219	150	163	115	261	4130	6630	3890	1610	1580	854	347
19	140	152	159	140	220	3940	7640	3950	1770	1530	844	342
20	170	175	154	160	196	1920	7860	4040	2150	1500	911	335
21	157	165	153	170	184	1210	7250	4080	1960	1450	632	328
22	157	153	152	175	173	785	5420	4080	1750	1410	822	323
23	155	148	152	170	171	1390	2610	4040	1680	1370	1000	319
24	154	147	157	160	166	8370	2620	4000	1680	1350	1140	314
25	154	145	154	150	164	12800	2640	3970	1630	1410	1250	309
26	155	142	151	150	164	9780	2570	3910	1610	1540	1180	305
27	154	142	150	150	182	7090	2560	4030	1610	1570	1600	300
28	153	141	150	155	218	7290	2640	4410	1610	1560	1430	299
29	151	141	154	168	---	8720	3100	4460	1600	1540	1160	300
30	150	141	152	178	---	8500	3400	3780	1590	1510	1100	297
31	148	---	149	200	---	6260	---	3350	---	1430	1070	---
TOTAL	11186	4509	4790	4876	4888	88330	121670	119800	60900	65080	26416	13475
MEAN	361	150	155	157	175	2849	4056	3865	2030	2099	852	449
MAX	1350	175	167	200	261	12800	7860	4460	3550	5420	1600	1050
MIN	140	132	139	105	147	186	2560	2820	1580	1350	383	297
AC-FT	22190	8940	9500	9670	9700	175200	241300	237600	120800	129100	52400	26730

CAL YR 1986 TOTAL 99461 MEAN 272 MAX 1350 MIN 105 AC-FT 197300
WTR YR 1987 TOTAL 525920 MEAN 1441 MAX 12800 MIN 105 AC-FT 1043000

KANSAS RIVER BASIN

06871000 NORTH FORK SOLOMON RIVER AT GLADE, KS

LOCATION.--Lat 39 deg 40 min 40 sec, long 99 deg 18 min 30 sec, in NW1/4 SW1/4 sec.25, T.4 S., R.18 W., Phillips County, Hydrologic Unit 10260011, on left bank at downstream side of bridge on U.S. Highway 183, 0.5 mi south of Glade.

DRAINAGE AREA.--849 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,754.04 ft above sea level. Prior to Feb. 17, 1965, at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 2 to Nov. 20, Nov. 28, Dec. 4, 5, 8, Jan. 5, 21-23, 28-31, Mar. 9 to Apr. 8, Apr. 28 to May 28, and Sept. 20-30. Records fair except those for estimated daily discharges, which is poor.

AVERAGE DISCHARGE.--35 years, 26.4 cu ft per sec, 19,130 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 cu ft per sec June 16, 1957, gage height, 18.55 ft, present datum; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Apr. 14	1200	*323	*5.37	No peak greater than base discharge.			

No flow Oct. 1, 5-8.

DISCHARGE, IN CUSIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	9.0	6.2	8.1	15	16	80	40	42	11	3.6	2.7
2	.01	9.5	6.4	8.0	14	16	105	40	30	20	2.9	2.4
3	.10	9.0	6.5	7.8	12	15	110	40	24	17	3.7	2.0
4	.07	9.0	6.4	8.6	12	14	130	40	21	14	3.4	1.4
5	.00	8.5	6.2	11	11	13	140	40	19	13	2.9	1.4
6	.00	8.0	5.9	9.7	12	13	110	43	18	15	2.3	2.0
7	.00	8.0	5.6	10	12	13	100	43	17	14	6.2	1.9
8	.00	7.5	6.0	9.5	11	12	104	40	16	56	6.3	1.4
9	2.1	7.2	5.9	8.9	12	12	101	40	17	92	5.9	1.4
10	9.7	7.0	6.0	10	12	12	100	37	16	73	5.6	1.3
11	54	6.5	7.7	7.3	11	13	92	37	22	40	4.9	1.6
12	220	7.0	10	10	11	13	84	37	20	48	4.1	2.2
13	100	6.0	15	14	11	13	91	37	17	40	6.3	2.4
14	45	6.5	11	9.2	10	14	277	37	15	27	7.3	2.0
15	30	7.0	11	10	10	14	252	36	14	19	6.3	1.7
16	20	7.0	9.6	11	11	13	164	35	13	15	5.2	2.4
17	18	6.6	10	8.4	12	35	128	35	12	14	4.0	1.7
18	16	6.5	8.8	5.1	12	27	102	35	14	40	3.8	1.4
19	15	6.4	11	6.6	14	22	85	37	13	80	4.1	1.0
20	14	6.4	10	6.7	13	18	75	37	12	35	4.1	.71
21	14	6.6	12	7.5	13	15	67	37	11	20	3.7	.60
22	15	6.6	7.9	8.0	13	18	61	35	11	13	3.5	.50
23	14	6.1	11	8.5	13	160	58	34	10	11	3.5	.40
24	13	6.6	11	9.5	12	80	56	35	11	9.4	3.6	.80
25	11	6.7	9.7	8.6	12	40	56	35	12	8.5	3.7	.40
26	10	5.9	9.9	8.4	12	38	52	35	11	7.6	4.4	.30
27	9.0	6.1	12	9.3	15	50	49	32	13	6.9	4.4	.50
28	8.5	6.0	13	13	16	50	45	30	14	6.1	4.1	.40
29	8.0	5.6	9.9	16	---	30	45	28	12	5.5	3.6	.20
30	8.0	5.9	7.5	18	---	40	42	26	12	4.8	2.9	.10
31	8.0	---	8.4	17	---	50	---	33	---	4.0	2.7	---
TOTAL	662.48	210.7	277.5	302.7	344	889	2961	1126	489	779.8	133.0	39.21
MEAN	21.4	7.02	8.95	9.76	12.3	28.7	98.7	36.3	16.3	25.2	4.29	1.31
MAX	220	9.5	15	18	16	160	277	43	42	92	7.3	2.7
MIN	.00	5.6	5.6	5.1	10	12	42	26	10	4.0	2.3	.10
AC-FT	1310	418	550	600	682	1760	5870	2230	970	1550	264	78
CAL YR 1986	TOTAL	7678.73	MEAN	21.0	MAX	723	MIN	.00	AC-FT	15230		
WTR YR 1987	TOTAL	8214.39	MEAN	22.5	MAX	277	MIN	.00	AC-FT	16290		

KANSAS RIVER BASIN

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06871000 NORTH FORK SOLOMON RIVER AT GLADE, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 20...	1015	6.1	950	7.40	3.0	77	1.3
JAN 07...	1250	11	830	6.40	0.5	65	1.9
FEB 25...	1630	12	860	8.30	7.0	41	1.3
APR 08...	1215	102	1080	7.90	11.0	319	88
MAY 28...	1000	32	1060	7.80	20.0	351	30
JUL 20...	1730	32	568	7.60	31.0	10	0.85
AUG 31...	1545	2.7	1090	8.40	18.0	62	0.45

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
MAY 28...	1000	77	44	90	100

KANSAS RIVER BASIN

06871500 BOW CREEK NEAR STOCKTON, KS

LOCATION.--Lat 39 deg 33 min 46 sec, long 99 deg 17 min 04 sec, in SW1/4 NW1/4 sec.1, T.6 S., R.18 W., Rooks County, Hydrologic Unit 10260011, on right bank at downstream side of bridge on U.S. Highway 183, 8.5 mi north of Stockton.

DRAINAGE AREA.--341 sq mi.

PERIOD OF RECORD.--November 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,801.80 ft above sea level. Prior to June 28, 1951, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 14, 15 and Jan. 17-27. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--36 years, 13.3 cu ft per sec, 9,640 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 cu ft per sec July 12, 1951, gage height, 13.6 ft, from rating curve extended above 5,900 cu ft per sec on basis of contracted-opening measurement of peak flow; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 11	1100	*781	*7.60	July 8	1300	639	7.12

Minimum discharge, 1.9 cu ft per sec Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	8.0	7.2	7.0	9.6	12	73	22	49	14	12	8.1
2	2.0	8.4	7.0	6.3	9.2	11	100	22	31	25	12	7.9
3	2.3	7.9	6.4	7.9	8.5	10	103	22	24	20	13	7.4
4	2.3	7.9	6.1	7.5	8.1	9.4	126	23	22	13	13	6.7
5	2.3	7.6	6.1	8.3	7.8	9.1	150	24	21	14	12	7.0
6	2.1	7.3	6.2	7.1	7.8	9.5	107	24	21	15	12	7.4
7	2.1	7.2	7.6	6.5	7.9	9.3	100	23	20	12	21	6.9
8	2.2	6.6	7.2	6.4	7.8	9.3	114	22	20	211	21	6.7
9	138	6.5	6.8	6.8	7.8	9.3	86	22	20	41	16	6.6
10	24	6.3	4.3	5.6	8.2	9.4	67	21	21	22	14	6.7
11	367	5.7	6.4	4.9	8.3	9.9	51	21	23	18	13	6.7
12	121	6.5	8.1	8.2	8.0	9.8	43	21	25	26	16	7.0
13	28	4.6	7.8	7.2	8.2	9.8	61	21	25	19	20	6.9
14	20	5.0	7.5	6.3	8.4	10	327	21	21	18	28	6.4
15	18	7.0	7.7	5.5	8.7	9.7	110	20	19	18	16	9.6
16	17	7.9	6.9	4.3	8.5	14	55	20	18	17	16	8.1
17	17	7.3	7.1	4.0	8.8	30	48	19	18	23	19	7.6
18	15	6.9	6.9	4.5	7.7	22	39	19	17	121	22	8.3
19	14	6.4	7.6	4.5	8.9	16	33	20	17	29	22	7.6
20	12	6.3	7.1	5.0	10	13	29	21	17	19	19	7.3
21	12	6.1	7.1	5.0	9.8	11	26	21	16	16	14	6.8
22	12	5.9	7.7	5.0	8.8	13	26	20	14	15	14	6.1
23	11	5.9	7.3	5.0	8.5	160	26	19	14	15	13	5.1
24	9.9	6.1	7.3	5.5	8.4	69	25	20	17	15	12	6.1
25	9.5	5.9	7.1	5.5	8.4	34	24	20	15	15	12	6.0
26	8.8	6.2	6.9	5.5	9.3	33	23	20	14	14	11	6.0
27	8.3	6.2	7.8	6.0	12	43	23	19	36	14	11	6.0
28	8.0	6.0	7.5	11	13	43	23	19	17	13	9.6	6.3
29	7.2	5.9	7.0	12	---	25	23	19	31	13	8.7	5.6
30	7.2	6.0	7.1	11	---	31	22	33	22	12	8.2	5.3
31	7.1	---	7.5	9.4	---	41	---	112	---	12	8.2	---
TOTAL	909.3	197.5	218.3	204.7	246.4	745.5	2063	750	645	849	458.7	206.2
MEAN	29.3	6.58	7.04	6.60	8.80	24.0	68.8	24.2	21.5	27.4	14.8	6.87
MAX	367	8.4	8.1	12	13	160	327	112	49	211	28	9.6
MIN	2.0	4.6	4.3	4.0	7.7	9.1	22	19	14	12	8.2	5.1
AC-FT	1800	392	433	406	489	1480	4090	1490	1280	1680	910	409

CAL YR 1986 TOTAL 4658.92 MEAN 12.8 MAX 481 MIN .62 AC-FT 9240
WTR YR 1987 TOTAL 7493.60 MEAN 20.5 MAX 367 MIN 2.0 AC-FT 14860

KANSAS RIVER BASIN

81

06871700 KIRWIN RESERVOIR AT KIRWIN, KS

LOCATION.--Lat 39 deg 39 min 49 sec, long 99 deg 07 min 29 sec, in SE1/4 NE1/4 sec.33, T.4 S., R.16 W., Phillips County, Hydrologic Unit 10260011, in control-house structure at outlet works of Kirwin dam on North Fork Solomon River, 0.5 mi south of Kirwin, 1.6 mi upstream from Deer Creek, and at mile 67.8.

DRAINAGE AREA.--1,367 sq mi.

PERIOD OF RECORD.--September 1955 to current year. Monthly records only prior to October 1956.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation). Prior to Aug. 7, 1957, nonrecording-gages at same site and datum.

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Sept. 19, 1955. Total capacity, 512,000 acre-ft, consisting of the following: Dead storage, 6,400 acre-ft below elevation 1,693.0 ft, sill of trash-rack structure; irrigation pool, 93,300 acre-ft between elevations 1,693.0 ft and 1,729.3 ft; flood control pool, 214,900 acre-ft between elevations 1,729.3 ft and 1,757.3 ft, crest of uncontrolled spillway; and uncontrolled storage 198,400 acre-ft between elevations 1,757.3 ft and 1,773.0 ft. Reservoir is used to store water for flood control and irrigation in Kirwin Unit of 11,500 acres, Missouri River Basin project. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,732.15 ft June 10, 1961, contents, 114,900 acre-ft; minimum elevation since first filling of irrigation pool, 1,695.46 ft Feb. 10-14, 1981, contents, 8,330 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,715.28 ft July 19, 20, contents, 42,940 acre-ft; minimum elevation, 1,702.13 ft Oct. 8, contents, 16,060 acre-ft.

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

1,702	15,880	1,707	23,720	1,712	34,000
1,703	17,310	1,708	25,540	1,713	36,520
1,704	18,000	1,709	27,470	1,714	39,220
1,705	20,350	1,710	29,490	1,715	42,100
1,706	21,990	1,711	31,650	1,716	45,160

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1702.16	1703.79	1704.20	1704.75	1705.22	1705.91	1708.16	1712.89	1714.23	1714.47	1713.77	1711.39
2	1702.17	1703.83	1704.22	1704.75	1705.24	1705.93	1708.35	1712.92	1714.25	1714.50	1713.62	1711.39
3	1702.17	1703.84	1704.22	1704.77	1705.25	1705.95	1708.57	1712.99	1714.28	1714.50	1713.52	1711.39
4	1702.16	1703.85	1704.24	1704.79	1705.27	1706.00	1708.78	1713.06	1714.30	1714.54	1713.37	1711.37
5	1702.15	1703.86	1704.25	1704.82	1705.28	1706.00	1709.08	1713.11	1714.30	1714.53	1713.22	1711.37
6	1702.16	1703.89	1704.29	1704.83	1705.32	1706.04	1709.31	1713.16	1714.30	1714.53	1713.08	1711.36
7	1702.14	1703.92	1704.33	1704.83	1705.34	1706.05	1709.53	1713.20	1714.31	1714.45	1713.06	1711.34
8	1702.13	1703.91	1704.36	1704.84	1705.35	1706.04	1709.78	1713.27	1714.31	1714.59	1712.93	1711.33
9	1702.23	1703.91	1704.36	1704.87	1705.37	1706.04	1709.99	1713.30	1714.33	1714.66	1712.80	1711.32
10	1702.26	1703.90	1704.38	1704.89	1705.38	1706.04	1710.18	1713.33	1714.36	1714.64	1712.66	1711.30
11	1702.78	1703.91	1704.39	1704.90	1705.39	1706.06	1710.33	1713.36	1714.39	1714.58	1712.52	1711.30
12	1703.11	1703.90	1704.39	1704.92	1705.42	1706.08	1710.48	1713.41	1714.41	1714.55	1712.51	1711.29
13	1703.31	1703.90	1704.41	1704.95	1705.45	1706.11	1710.70	1713.44	1714.41	1714.48	1712.40	1711.28
14	1703.38	1703.91	1704.42	1704.97	1705.45	1706.12	1711.32	1713.47	1714.41	1714.40	1712.29	1711.28
15	1703.44	1703.93	1704.44	1704.97	1705.47	1706.11	1711.62	1713.50	1714.41	1714.32	1712.20	1711.31
16	1703.47	1703.95	1704.47	1704.97	1705.49	1706.33	1711.87	1713.52	1714.42	1714.20	1712.07	1711.31
17	1703.50	1703.97	1704.48	1704.98	1705.52	1706.46	1712.01	1713.55	1714.42	1714.69	1711.92	1711.29
18	1703.53	1703.97	1704.50	1705.00	1705.53	1706.54	1712.13	1713.56	1714.42	1715.26	1711.83	1711.29
19	1703.57	1704.00	1704.51	1705.01	1705.55	1706.60	1712.25	1713.60	1714.40	1715.28	1711.71	1711.28
20	1703.59	1704.01	1704.52	1705.02	1705.59	1706.67	1712.31	1713.72	1714.42	1715.24	1711.62	1711.26
21	1703.63	1704.03	1704.54	1705.03	1705.61	1706.68	1712.37	1713.72	1714.40	1715.14	1711.46	1711.24
22	1703.65	1704.04	1704.56	1705.04	1705.62	1706.83	1712.44	1713.74	1714.39	1715.04	1711.38	1711.24
23	1703.68	1704.05	1704.58	1705.04	1705.64	1707.19	1712.50	1713.76	1714.37	1714.94	1711.38	1711.23
24	1703.68	1704.07	1704.60	1705.04	1705.66	1707.47	1712.58	1713.80	1714.42	1714.83	1711.38	1711.22
25	1703.70	1704.08	1704.61	1705.07	1705.68	1707.53	1712.63	1713.86	1714.40	1714.72	1711.40	1711.22
26	1703.73	1704.08	1704.65	1705.08	1705.76	1707.64	1712.67	1713.89	1714.38	1714.60	1711.40	1711.20
27	1703.75	1704.10	1704.65	1705.09	1705.88	1707.74	1712.70	1713.90	1714.38	1714.47	1711.40	1711.19
28	1703.75	1704.10	1704.68	1705.12	1705.90	1707.96	1712.77	1713.92	1714.45	1714.33	1711.40	1711.18
29	1703.75	1704.12	1704.69	1705.15	---	1707.96	1712.83	1713.94	1714.46	1714.20	1711.40	1711.16
30	1703.77	1704.13	1704.72	1705.16	---	1708.01	1712.85	1714.04	1714.46	1714.06	1711.38	1711.16
31	1703.75	---	1704.72	1705.19	---	1708.08	---	1714.18	---	1713.91	1711.39	---
MEAN	1703.10	1703.97	1704.46	1704.96	1705.49	1706.65	1711.10	1713.52	1714.37	1714.60	1712.21	1711.28
MAX	1703.77	1704.13	1704.72	1705.19	1705.90	1708.08	1712.85	1714.18	1714.46	1715.28	1713.77	1711.39
MIN	1702.13	1703.79	1704.20	1704.75	1705.22	1705.91	1708.16	1712.89	1714.23	1713.91	1711.38	1711.16
(+)	18,420	19,000	19,910	20,650	21,820	25,690	36,130	39,720	40,520	38,970	32,550	32,020
(#)	+2,320	+580	+910	+740	+1,170	+3,870	+10,440	+3,590	+800	-1,550	-6,420	-530

CAL YR 1986 (#) -2,540
WTR YR 1987 (#) +15,920

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

LOCATION.--Lat 39 deg 39 min 36 sec, long 99 deg 06 min 55 sec, in two channels, in SE1/4 sec.33 (river outlet gage on right bank) and SW1/4 sec.34 (spillway gage on left bank), T.4 S., R.16 W., Phillips County, Hydrologic Unit 10260012, 200 ft and 600 ft, respectively, downstream from toe of Kirwin Dam, 0.5 mi and 0.8 mi, respectively, south of Kirwin, 1.3 mi upstream from Deer Creek, and at mile 67.2.

PERIOD OF RECORD.--August 1919 to June 1925, August 1928 to June 1932, December 1941 to current year.

GAGE.--Water-stage recorder and concrete control on river outlet channel. Datum of gage is 1,659.50 ft above sea level (U.S. Bureau of Reclamation bench mark). Water-stage recorder on spillway channel. Datum of spillway channel gage is 1,650.81 ft above sea level (U.S. Bureau of Reclamation bench mark). See WSP 1919 for history of changes prior to Jan. 30, 1957.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 cu ft per sec Sept. 18, 1919, gage height, 22.5 ft, site and datum then in use, from rating curve extended above 10,000 cu ft per sec on basis of slope-area and contracted-opening measurements at gage height, 22.3 ft; maximum discharge since construction of Kirwin Dam in 1955, 1,200 cu ft per sec Nov. 16, 1966; no flow at times in 1943, 1948, 1955-67, 1972-87.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.6 cu ft per sec Aug. 22, gage height, 2.54 ft. No flow at times.

CAL YR 1986	TOTAL 6.76	MEAN .019	MAX .10	MIN .00	AC-FT 13
WTR YR 1987	TOTAL 8.20	MEAN .022	MAX .30	MIN .00	AC-FT 16

KANSAS RIVER BASIN

83

06872500 NORTH FORK SOLOMON RIVER AT PORTIS, KS

LOCATION.--Lat 39 deg 33 min 15 sec, long 98 deg 41 min 31 sec, in SW1/4 SW1/4 SW1/4 sec.5, T.6 S., R.12 W., Osborne County, Hydrologic Unit 10260012, on left bank at downstream side of bridge on U.S. Highway 281, 0.5 mi south of Portis, and at mile 27.0.

DRAINAGE AREA.--2,315 sq mi, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1945 to current year. Prior to Oct. 1, 1964, published as "near Downs."

GAGE.--Water-stage recorder. Datum of gage is 1,490.71 ft above sea level. Prior to Dec. 5, 1946, nonrecording gage and Dec. 5, 1946, to Sept. 30, 1964, water-stage recorder at site 9.0 mi downstream at datum 30.39 ft lower

REMARKS.--Estimated daily discharges: Nov. 13, 14, Dec. 7-13, 19-22, Jan. 17-29, and Apr. 17-22. Records fair except those for estimated daily discharges, which are poor. Flow partially regulated since 1955 by Kirwin Reservoir (station 06871700) 40.8 mi upstream. Flow also affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--42 years, 118 cu ft per sec, 85,490 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,700 cu ft per sec July 12, 1951, gage height, 30.41 ft, site and datum then in use, from rating curve extended above 21,000 cu ft per sec; no flow at times in 1955-56.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 15, 1915, reached a stage about 1.0 ft higher than that of July 12, 1951, from information by Kansas Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,450 cu ft per sec Apr. 15, gage height, 17.88 ft; minimum discharge, 9.1 cu ft per sec Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	20	21	22	30	317	130	131	120	55	48
2	11	16	20	19	22	30	444	125	116	92	53	46
3	11	17	20	22	22	28	532	161	99	79	52	44
4	11	19	19	20	23	28	475	258	90	74	50	43
5	10	19	20	21	21	26	420	344	84	71	51	42
6	9.9	18	20	21	21	25	396	298	80	67	50	42
7	9.9	17	19	21	22	24	361	235	75	65	58	41
8	9.5	17	19	21	21	23	322	192	72	164	68	41
9	9.8	17	19	21	21	22	316	168	348	223	77	41
10	10	17	17	20	21	22	306	148	263	361	67	39
11	770	16	18	17	21	22	287	137	118	169	65	39
12	852	17	19	22	21	22	265	127	122	105	71	41
13	181	21	19	22	21	21	264	120	96	83	148	40
14	71	26	20	21	21	21	2460	120	81	75	193	41
15	63	18	21	21	22	21	3380	792	74	72	115	41
16	38	17	21	20	22	23	1140	283	96	65	88	40
17	29	18	20	17	22	60	448	169	176	62	75	40
18	25	18	21	14	22	505	460	138	235	513	68	39
19	22	18	20	15	21	371	302	130	95	2730	58	39
20	20	18	18	18	21	178	260	124	158	831	55	38
21	19	18	19	19	22	106	248	134	98	248	54	38
22	20	18	20	19	22	82	229	270	75	162	52	37
23	19	18	20	17	22	1480	214	170	66	125	49	38
24	19	18	19	17	22	2850	186	146	61	103	46	37
25	19	18	20	18	22	1220	177	137	238	88	48	36
26	18	18	20	19	23	586	166	129	273	75	55	36
27	17	18	21	20	26	344	155	121	116	71	57	36
28	17	18	20	20	29	387	145	115	106	67	54	36
29	16	18	20	21	---	205	139	110	271	62	52	34
30	16	18	19	24	---	145	135	105	145	58	51	33
31	15	---	20	21	---	197	---	110	---	55	49	---
TOTAL	2370.1	539	608	609	618	9104	14949	5746	4058	7135	2084	1186
MEAN	76.5	18.0	19.6	19.6	22.1	294	498	185	135	230	67.2	39.5
MAX	852	26	21	24	29	2850	3380	792	348	2730	193	48
MIN	9.5	15	17	14	21	21	135	105	61	55	46	33
AC-FT	4700	1070	1210	1210	1230	18060	29650	11400	8050	14150	4130	2350

CAL YR 1986 TOTAL 10017.5 MEAN 27.4 MAX 852 MIN 6.0 AC-FT 19870
WTR YR 1987 TOTAL 49006.1 MEAN 134 MAX 3380 MIN 9.5 AC-FT 97200

KANSAS RIVER BASIN

06372500 NORTH FORK SOLOMON RIVER AT PORTIS, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)				
NOV 19...	0920	18	1190	7.70	2.0	12.2	682				
FEB 24...	1700	23	1140	8.00	6.0	12.4	723				
APR 07...	1130	354	1070	7.80	9.0	--	--				
APR 16...	1005	1220	701	8.00	11.5	--	--				
MAY 27...	1420	122	1510	7.70	19.0	7.8	719				
AUG 25...	1105	52	1370	7.60	19.0	9.0	716				

DATE	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 19...	490	160	23	73	1	13	320	12	250	79	0.30
FEB 24...	460	150	21	68	1	12	268	5.2	240	70	0.30
MAY 27...	580	190	25	67	1	17	312	12	350	93	0.40
AUG 25...	530	170	25	77	2	12	286	14	280	74	0.30

DATE	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV 19...	24	836	1.1	41	1.60	0.080	0.70	2.3	0.62	0.160
FEB 24...	12	724	0.98	44	1.40	0.080	1.4	2.8	1.3	0.130
MAY 27...	26	1010	1.4	333	2.60	0.160	1.7	4.3	1.5	0.430
AUG 25...	33	888	1.2	124	3.20	0.060	0.40	3.6	0.34	0.260

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
APR 16...	1005	1480	4880	99	62	66	83

06873000 SOUTH FORK SOLOMON RIVER ABOVE WEBSTER RESERVOIR, KS

LOCATION.--Lat 39 deg 22 min 26 sec, long 99 deg 34 min 54 sec, in SW1/4 NW1/4 sec.8, T.8 S., R.20 W., Rooks County, Hydrologic Unit 10260013, on right bank 0.4 mi downstream from highway bridge, 4.0 mi north of Damar, 7 mi downstream from Wild Horse Creek, and 11 mi upstream from Webster Dam.

DRAINAGE AREA.--1,040 sq mi, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1945 to current year. Prior to October 1953, published as "at Webster."

REVISED RECORDS.--WSP 1440: 1945-48, 1950.

GAGE.--Water-stage recorders. Datum of gage is 1,936.51 ft above sea level (levels by U.S. Bureau of Reclamation). Prior to May 17, 1946, nonrecording gage, May 17, 1946, to May 20, 1951, water-stage recorder, and May 21 to Sept. 30, 1951, nonrecording gage, all at site 8.0 mi downstream at datum 94.52 ft lower. Oct. 1, 1951, to May 22, 1952, nonrecording gage at bridge near Stockton, 23 mi downstream, at different datum. May 23, 1952, to May 23, 1954, water-stage recorder at site 8.0 mi downstream at datum 94.52 ft lower. Since July 30, 1980, supplementary water-stage recorder at site 0.4 mi downstream at datum 3.00 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-6, Jan. 11-13, 15-25, and Mar. 29, 30. Records fair except those for estimated daily discharges, which are poor. Flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--42 years, 56.3 cu ft per sec, 40,790 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 cu ft per sec July 12, 1951, gage height, 14.9 ft, from floodmarks, site and datum then in use, from rating curve extended above 11,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1908, 13.4 ft June 1908, present site and datum, discharge not determined, from information obtained from Kansas Highway Commission.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Apr. 14	1515	*1,110	*5.62	No peak greater than base discharge.			

Minimum discharge, 0.05 cu ft per sec Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	1.6	2.3	3.0	5.2	19	85	71	39	8.1	1.5	.78
2	.14	1.7	2.3	2.9	5.7	17	154	68	33	9.1	1.4	.24
3	.17	1.7	2.2	2.9	5.8	16	183	66	27	11	1.3	.15
4	.20	1.6	2.2	2.8	5.7	16	177	73	26	10	1.4	.06
5	.14	1.6	2.3	3.3	5.7	15	192	104	23	11	1.2	.07
6	.14	1.6	2.3	3.1	6.0	15	179	94	20	13	1.6	.09
7	.17	1.6	2.8	2.7	6.0	16	170	83	18	11	1.8	.07
8	.14	1.5	2.7	2.9	5.9	15	182	75	29	11	4.9	.06
9	.16	1.5	2.6	3.0	6.3	14	174	69	26	11	2.6	.09
10	.30	1.5	2.4	2.8	6.6	14	160	63	18	12	2.2	.13
11	58	1.8	2.4	3.0	6.9	14	146	61	14	8.8	2.0	.28
12	23	1.8	2.5	3.2	7.0	14	132	58	11	12	2.1	.23
13	9.3	1.9	2.7	3.2	7.4	15	146	56	9.5	39	7.5	.14
14	4.0	2.0	2.7	3.2	7.8	15	712	52	9.4	28	8.8	.12
15	2.7	2.0	2.8	3.0	7.9	14	386	49	9.1	23	4.2	.11
16	2.2	2.1	2.8	2.6	7.9	19	232	46	8.9	20	2.9	.11
17	2.0	2.0	2.8	2.4	8.0	37	191	43	8.0	20	2.4	.10
18	1.9	1.8	2.8	2.8	8.6	48	166	41	8.2	56	20	.10
19	1.8	1.9	2.8	3.0	8.8	42	146	49	11	31	17	.09
20	1.7	1.8	2.8	3.0	8.6	38	127	58	9.5	19	4.8	.12
21	1.9	1.8	2.7	2.8	9.7	35	114	74	13	11	3.2	.12
22	1.9	1.8	2.8	2.7	9.8	35	108	68	14	7.5	2.5	.09
23	1.7	1.7	2.9	2.8	9.7	205	104	63	10	5.7	2.4	.10
24	1.7	1.8	3.0	2.9	9.7	121	99	62	9.1	4.4	2.3	.10
25	1.7	1.9	2.9	3.0	10	60	93	59	9.2	3.7	2.5	.21
26	1.6	1.9	2.8	3.4	11	55	87	56	11	2.9	2.3	.20
27	1.5	1.9	2.8	2.9	14	76	83	58	9.8	2.4	2.3	.13
28	1.5	1.9	2.9	3.1	18	82	79	53	9.0	2.0	2.0	.22
29	1.4	2.1	2.9	3.7	---	40	77	48	8.8	1.8	1.7	.16
30	1.4	2.2	2.8	4.0	---	38	74	46	8.5	1.6	1.5	.32
31	1.4	---	3.0	5.4	---	47	---	43	---	1.5	1.2	---
TOTAL	126.00	54.0	82.7	95.5	229.7	1207	4958	1909	460.0	408.5	131.7	4.79
MEAN	4.06	1.80	2.67	3.08	8.20	38.9	165	61.6	15.3	13.2	4.25	.16
MAX	58	2.2	3.0	5.4	18	205	712	104	39	56	20	.78
MIN	.14	1.5	2.2	2.4	5.2	14	74	41	8.0	1.5	1.2	.06
AC-FT	250	107	164	189	456	2390	9830	3790	912	810	261	9.5
CAL YR 1986	TOTAL	6924.25	MEAN	19.0	MAX	1250	MIN	.07	AC-FT	13730		
WTR YR 1987	TOTAL	9666.89	MEAN	26.5	MAX	712	MIN	.06	AC-FT	19170		

KANSAS RIVER BASIN

06873000 SOUTH FORK SOLOMON RIVER ABOVE WEBSTER RESERVOIR, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-70, 1972 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 17...	1635	2.0	1250	8.10	11.0	23	0.12
JAN 08...	1530	3.1	1190	6.90	3.0	23	0.19
FEB 23...	1550	10	1260	8.00	12.0	29	0.78
APR 06...	1520	165	1310	8.10	4.0	147	65
SEP 01...	1410	0.92	--	7.60	29.0	42	0.10

KANSAS RIVER BASIN

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06873100 WEBSTER RESERVOIR NEAR STOCKTON, KS

LOCATION.--Lat 39 deg 23 min 29 sec, long 99 deg 25 min 33 sec, in SW1/4 NW1/4 NE1/4 sec.3, T.8 S., R.19 W., Rooks County, Hydrologic Unit 10260013, on southeast shore near Webster Dam on South Fork Solomon River, 8.0 mi west of Stockton, and at mile 92.4.

DRAINAGE AREA.--1,150 sq mi.

PERIOD OF RECORD.--June 1956 to current year. Prior to October 1956, monthly records only.

GAGE.--Water-stage recorder. Prior to July 31, 1968, elevations below 1,873 ft from mercury-column gage near south end of dam read once daily. Datum of gage is sea level (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began May 3, 1956. Total capacity, 401,600 acre-ft, consisting of the following: Dead storage, 2,184 acre-ft below elevation 1,855.5 ft, sill of trash-rack; irrigation pool, 74,250 acre-ft between elevations 1,855.5 ft and 1,892.2 ft; flood control pool, 184,300 acre-ft between elevations 1,892.2 ft and 1,923.7 ft; and uncontrolled storage, 140,900 acre-ft between elevations 1,923.7 ft and 1,938.0 ft. Reservoir is used to store water for flood control and irrigation in Webster Unit of approximately 8,500 acres, Missouri River Basin project. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,899.66 ft June 10, 1961, contents, 107,600 acre-ft; minimum elevation since first filling of irrigation pool, 1,857.33 ft Oct. 23, 24, 1971, contents, 3,210 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,873.04 ft July 14, 15, contents, 23,560 acre-ft; minimum elevation, 1,866.05 ft Sept. 28, contents, 12,030 acre-ft.

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

1,866	12,020	1,872	21,610
1,868	14,900	1,874	25,410
1,870	18,100		

ELEVATION, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1867.43	1867.32	1867.19	1867.27	1867.66	1868.13	1868.58	1868.74	1871.64	1872.15	1869.52	1866.29
2	1867.41	1867.30	1867.18	1867.29	1867.68	1868.15	1868.60	1868.73	1871.68	1872.16	1869.33	1866.28
3	1867.43	1867.32	1867.18	1867.29	1867.71	1868.18	1868.62	1868.73	1871.71	1872.13	1869.13	1866.28
4	1867.40	1867.32	1867.18	1867.29	1867.72	1868.19	1868.63	1868.70	1871.81	1872.10	1868.93	1866.28
5	1867.38	1867.29	1867.19	1867.29	1867.74	1868.18	1868.65	1868.69	1871.90	1872.13	1868.23	1866.27
6	1867.40	1867.29	1867.18	1867.29	1867.76	1868.18	1868.66	1868.66	1872.00	1872.40	1868.56	1866.29
7	1867.40	1867.27	1867.19	1867.29	1867.79	1868.19	1868.65	1868.65	1872.04	1872.42	1868.36	1866.29
8	1867.36	1867.26	1867.19	1867.30	1867.79	1868.22	1868.70	1868.67	1872.07	1872.44	1868.17	1866.28
9	1867.33	1867.24	1867.18	1867.30	1867.80	1868.24	1868.69	1868.67	1872.15	1872.41	1868.03	1866.27
10	1867.35	1867.24	1867.19	1867.32	1867.82	1868.24	1868.70	1868.75	1872.20	1872.42	1867.86	1866.27
11	1867.37	1867.22	1867.19	1867.32	1867.82	1868.26	1868.74	1868.88	1872.19	1872.42	1867.67	1866.29
12	1867.40	1867.22	1867.19	1867.35	1867.82	1868.29	1868.73	1868.94	1872.20	1872.40	1867.51	1866.28
13	1867.36	1867.24	1867.19	1867.36	1867.83	1868.30	1868.73	1868.99	1872.20	1872.73	1867.37	1866.27
14	1867.37	1867.22	1867.19	1867.37	1867.85	1868.32	1868.71	1869.00	1872.20	1873.04	1867.26	1866.26
15	1867.36	1867.24	1867.19	1867.40	1867.86	1868.33	1868.69	1869.08	1872.23	1872.98	1867.12	1866.25
16	1867.35	1867.24	1867.21	1867.40	1867.90	1868.36	1868.69	1869.21	1872.22	1872.84	1866.96	1866.23
17	1867.40	1867.24	1867.21	1867.43	1867.93	1868.40	1868.69	1870.22	1872.22	1872.66	1866.80	1866.22
18	1867.40	1867.24	1867.19	1867.46	1867.94	1868.40	1868.69	1870.65	1872.21	1872.46	1866.63	1866.22
19	1867.40	1867.24	1867.21	1867.49	1867.96	1868.40	1868.71	1870.83	1872.19	1872.26	1866.52	1866.20
20	1867.43	1867.24	1867.21	1867.49	1867.96	1868.40	1868.70	1870.94	1872.17	1872.08	1866.43	1866.19
21	1867.40	1867.22	1867.21	1867.51	1867.99	1868.43	1868.71	1871.05	1872.17	1871.88	1866.43	1866.16
22	1867.41	1867.22	1867.21	1867.51	1868.01	1868.44	1868.72	1871.14	1872.18	1871.66	1866.42	1866.15
23	1867.41	1867.21	1867.22	1867.54	1868.04	1868.44	1868.71	1871.20	1872.23	1871.44	1866.39	1866.18
24	1867.41	1867.21	1867.22	1867.55	1868.05	1868.47	1868.71	1871.25	1872.24	1871.22	1866.38	1866.15
25	1867.40	1867.21	1867.22	1867.57	1868.08	1868.47	1868.70	1871.31	1872.24	1870.95	1866.36	1866.11
26	1867.40	1867.21	1867.24	1867.55	1868.10	1868.49	1868.72	1871.33	1872.22	1870.76	1866.36	1866.08
27	1867.38	1867.21	1867.24	1867.57	1868.08	1868.51	1868.73	1871.36	1872.21	1870.59	1866.36	1866.07
28	1867.38	1867.19	1867.24	1867.60	1868.11	1868.54	1868.75	1871.43	1872.20	1870.38	1866.36	1866.05
29	1867.35	1867.19	1867.26	1867.60	---	1868.54	1868.76	1871.52	1872.17	1870.15	1866.36	1866.08
30	1867.35	1867.19	1867.26	1867.61	---	1868.55	1868.76	1871.57	1872.15	1869.92	1866.33	1866.10
31	1867.35	---	1867.26	1867.63	---	1868.57	---	1871.61	---	1869.72	1866.31	---
MEAN	1867.39	1867.24	1867.21	1867.43	1867.89	1868.35	1868.69	1869.95	1872.11	1871.85	1867.30	1866.21
MAX	1867.43	1867.32	1867.26	1867.63	1868.11	1868.57	1868.76	1871.61	1872.24	1873.04	1869.52	1866.29
MIN	1867.33	1867.19	1867.18	1867.27	1867.66	1868.13	1868.58	1868.65	1871.64	1869.72	1866.31	1866.05
(+)	13,940	13,700	13,800	14,350	15,080	15,790	16,090	20,910	21,890	17,640	12,440	12,150
(#)	-110	-240	+100	+550	+730	+710	+300	+4,820	+980	-4,250	-5,200	-290

CAL YR 1985 (#) +1,120
WTR YR 1986 (#) -1,900

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

06873100 WEBSTER RESERVOIR NEAR STOCKTON, KS

LOCATION.--Lat 39 deg 23 min 29 sec, long 99 deg 25 min 33 sec, in SW1/4 NW1/4 NE1/4 sec.3, T.8 S., R.19 W., Rooks County, Hydrologic Unit 10260013, on southeast shore near Webster Dam on South Fork Solomon River, 8.0 mi west of Stockton, and at mile 92.4.

DRAINAGE AREA.--1,150 sq mi.

PERIOD OF RECORD.--June 1956 to current year. Prior to October 1956, monthly records only.

GAGE.--Water-stage recorder. Prior to July 31, 1968, elevations below 1,873 ft from mercury-column gage near south end of dam read once daily. Datum of gage is sea level (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began May 3, 1956. Total capacity, 401,600 acre-ft, consisting of the following: Dead storage, 2,184 acre-ft below elevation 1,855.5 ft, sill of trash-rack; irrigation pool, 74,250 acre-ft between elevations 1,855.5 ft and 1,892.2 ft; flood control pool, 184,300 acre-ft between elevations 1,892.2 ft and 1,923.7 ft; and uncontrolled storage, 140,900 acre-ft between elevations 1,923.7 ft and 1,938.0 ft. Reservoir is used to store water for flood control and irrigation in Webster Unit of approximately 8,500 acres, Missouri River Basin project. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,899.66 ft June 10, 1961, contents, 107,600 acre-ft; minimum elevation since first filling of irrigation pool, 1,857.33 ft Oct. 23, 24, 1971, contents, 3,210 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,880.03 ft July 21, contents, 38,860 acre-ft; minimum elevation, 1,866.00 ft Oct. 9, contents, 12,020 acre-ft.

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

1,866	12,020	1,874	25,410
1,868	14,900	1,876	29,530
1,870	18,100	1,878	33,990
1,872	21,610	1,880	38,790

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1866.09	1866.70	1866.72	1866.94	1867.06	1867.39	1870.01	1877.39	1879.31	1879.60	1879.60	1878.83
2	1866.09	1866.72	1866.73	1866.93	1867.07	1867.41	1870.23	1877.45	1879.29	1879.66	1879.50	1878.81
3	1866.09	1866.72	1866.74	1866.94	1867.07	1867.42	1870.55	1877.46	1879.29	1879.65	1879.43	1878.81
4	1866.07	1866.72	1866.75	1866.93	1867.07	1867.46	1870.88	1877.53	1879.31	1879.69	1879.38	1878.78
5	1866.06	1866.73	1866.75	1866.94	1867.07	1867.47	1871.25	1877.61	1879.31	1879.70	1879.28	1878.75
6	1866.05	1866.73	1866.76	1866.92	1867.09	1867.51	1871.59	1877.76	1879.31	1879.69	1879.17	1878.75
7	1866.05	1866.73	1866.79	1866.93	1867.09	1867.52	1871.90	1877.85	1879.31	1879.67	1879.05	1878.75
8	1866.02	1866.72	1866.81	1866.93	1867.08	1867.48	1872.22	1877.92	1879.29	1879.79	1878.97	1878.73
9	1866.00	1866.72	1866.82	1866.94	1867.09	1867.50	1872.48	1877.98	1879.31	1879.80	1878.92	1878.72
10	1866.04	1866.71	1866.83	1866.95	1867.10	1867.51	1872.74	1878.03	1879.41	1879.79	1878.90	1878.71
11	1866.43	1866.71	1866.83	1866.96	1867.11	1867.56	1872.94	1878.06	1879.52	1879.75	1878.94	1878.69
12	1866.55	1866.69	1866.82	1866.98	1867.11	1867.58	1873.15	1878.11	1879.54	1879.77	1878.87	1878.69
13	1866.60	1866.69	1866.82	1866.99	1867.12	1867.59	1873.52	1878.18	1879.56	1879.76	1878.89	1878.70
14	1866.62	1866.70	1866.84	1866.97	1867.12	1867.58	1874.50	1878.19	1879.56	1879.75	1878.95	1878.69
15	1866.63	1866.70	1866.84	1866.96	1867.12	1867.58	1875.27	1878.24	1879.55	1879.75	1878.97	1878.65
16	1866.64	1866.71	1866.84	1866.94	1867.13	1867.77	1875.62	1878.27	1879.54	1879.75	1879.00	1878.64
17	1866.65	1866.71	1866.84	1866.95	1867.16	1867.87	1875.88	1878.29	1879.54	1879.74	1878.96	1878.63
18	1866.64	1866.70	1866.85	1866.97	1867.16	1867.92	1876.11	1878.30	1879.50	1879.85	1878.96	1878.61
19	1866.65	1866.70	1866.86	1866.96	1867.18	1868.01	1876.30	1878.47	1879.50	1879.96	1878.95	1878.59
20	1866.66	1866.71	1866.86	1866.97	1867.19	1868.07	1876.39	1878.50	1879.52	1880.00	1878.94	1878.57
21	1866.68	1866.72	1866.86	1866.97	1867.22	1868.11	1876.51	1878.53	1879.50	1880.03	1878.92	1878.54
22	1866.70	1866.71	1866.87	1866.97	1867.23	1868.27	1876.66	1878.59	1879.49	1880.01	1878.93	1878.53
23	1866.70	1866.71	1866.87	1866.96	1867.24	1868.59	1876.79	1878.59	1879.47	1879.98	1878.91	1878.54
24	1866.71	1866.71	1866.88	1866.96	1867.24	1868.92	1876.88	1878.64	1879.51	1879.96	1878.91	1878.53
25	1866.71	1866.71	1866.89	1866.96	1867.23	1869.06	1876.99	1878.73	1879.50	1879.94	1878.90	1878.51
26	1866.71	1866.71	1866.90	1866.99	1867.26	1869.18	1877.06	1878.77	1879.55	1879.91	1878.89	1878.51
27	1866.72	1866.71	1866.90	1867.00	1867.35	1869.32	1877.12	1878.82	1879.57	1879.90	1878.88	1878.48
28	1866.71	1866.71	1866.91	1867.01	1867.34	1869.58	1877.21	1878.87	1879.58	1879.90	1878.87	1878.45
29	1866.71	1866.71	1866.92	1867.02	---	1869.66	1877.28	1878.90	1879.61	1879.88	1878.86	1878.43
30	1866.69	1866.68	1866.93	1867.03	---	1869.76	1877.32	1879.15	1879.60	1879.82	1878.86	1878.42
31	1866.66	---	1866.93	1867.05	---	1869.89	---	1879.29	---	1879.70	1878.86	---
MEAN	1866.46	1866.71	1866.84	1866.97	1867.73	1868.15	1874.45	1878.27	1879.46	1879.81	1879.01	1878.63
MAX	1866.72	1866.73	1866.93	1867.05	1867.35	1869.89	1877.32	1879.29	1879.61	1880.03	1879.60	1878.83
MIN	1866.00	1866.68	1866.72	1866.92	1867.09	1867.39	1870.01	1877.39	1879.29	1879.60	1878.86	1878.42
(+)	12,930	12,960	13,320	13,500	13,920	17,920	32,440	37,050	37,800	38,050	36,020	34,970
(#)	+780	+30	+360	+180	+420	+4,000	+14,520	+4,610	+750	+250	-2,030	-1,050

CAL YR 1986 (#) -480

WTR YR 1987 (#) +22,820

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.

CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

89

06873200 SOUTH FORK SOLOMON RIVER BELOW WEBSTER RESERVOIR, KS

LOCATION.--Lat 39 deg 24 min 34 sec, long 99 deg 24 min 53 sec, in SW1/4 SW1/4 SW1/4 sec.26, T.7 S., R.19 W.,
Rooks County, Hydrologic Unit 10260014, on right bank 0.4 mi downstream from Webster Dam, 1.1 mi upstream from
Sand Creek, 8 mi west of Stockton, and at mile 92.0.

DRAINAGE AREA.--1,150 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,828.50 ft above sea level (U.S. Bureau of Reclamation bench mark).
Prior to Apr. 9, 1963, water-stage recorders in two channels 0.2 mi upstream at different datums.

REMARKS.--No estimated daily discharges. Records poor. Flow completely regulated since 1956 by Webster Reservoir
(station 06873100).

AVERAGE DISCHARGE.--31 years, 35.1 cu ft per sec, 25,430 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,070 cu ft per sec July 10, 1962; no flow at times in most
years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 102 cu ft per sec Aug. 3-5, gage height 4.43 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.25	.07	.00	93	.20
2	.00	.00	.00	.00	.00	.00	.00	.39	.05	.00	93	.17
3	.00	.00	.00	.00	.00	.00	.00	.47	.08	.00	98	.19
4	.00	.00	.00	.00	.00	.00	.00	.44	.14	.00	101	.21
5	.00	.00	.00	.00	.00	.00	.00	.40	.20	.00	86	.18
6	.00	.00	.00	.00	.00	.00	.01	.37	.11	.00	73	.22
7	.00	.00	.00	.00	.00	.00	.07	.41	.03	.07	57	.25
8	.00	.00	.00	.00	.00	.00	.22	.44	.00	.29	46	.25
9	.00	.00	.00	.00	.00	.00	.40	.40	.00	.18	43	.23
10	.00	.00	.00	.00	.00	.00	.60	.44	.00	.02	30	.21
11	.00	.00	.00	.00	.00	.00	.59	.41	.60	.00	23	.14
12	.00	.00	.00	.00	.00	.00	.50	.38	.39	.05	19	.16
13	.00	.00	.00	.00	.00	.00	.62	.34	.14	.03	7.7	.14
14	.00	.00	.00	.00	.00	.00	1.0	.26	.08	.00	.11	.14
15	.00	.00	.00	.00	.00	.00	.87	.22	.01	.00	.00	.12
16	.00	.00	.00	.00	.00	.00	.86	.16	.00	.00	.00	.14
17	.00	.00	.00	.00	.00	.00	.88	.12	.00	.07	4.9	.11
18	.00	.00	.00	.00	.00	.00	.70	.05	.00	.37	5.4	.11
19	.00	.00	.00	.00	.00	.00	.46	.07	.00	.14	.00	.08
20	.00	.00	.00	.00	.00	.00	.58	.06	.00	.03	.00	.08
21	.00	.00	.00	.00	.00	.00	.65	.04	.00	.02	.00	.06
22	.00	.00	.00	.00	.00	.00	.68	.00	.00	.00	.03	.08
23	.00	.00	.00	.00	.00	.00	.80	.00	.00	.00	.07	.06
24	.00	.00	.00	.00	.00	.00	.59	.00	.00	.00	.14	.09
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	.13
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.28	.16
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	.30	.16
28	.00	.00	.00	.00	.00	.00	.06	.00	.00	58	.34	.18
29	.00	.00	.00	.00	---	.00	.12	.00	.00	90	.33	.16
30	.00	.00	.00	.00	---	.00	.14	.08	.00	92	.28	.14
31	.00	---	.00	.00	---	.00	---	.23	---	93	.21	---
TOTAL	.00	.00	.00	.00	.00	.00	11.40	6.43	1.90	349.27	782.32	4.55
MEAN	.000	.000	.000	.000	.000	.000	.38	.21	.063	11.3	25.2	.15
MAX	.00	.00	.00	.00	.00	.00	1.0	.47	.60	93	101	.25
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06
AC-FT	.00	.00	.00	.00	.00	.00	23	13	3.8	693	1550	9.0

CAL YR 1986 TOTAL 4969.73 MEAN 13.6 MAX 175 MIN .00 AC-FT 9860
WTR YR 1987 TOTAL 1155.87 MEAN 3.17 MAX 101 MIN .00 AC-FT 2290

KANSAS RIVER BASIN

06873460 SOUTH FORK SOLOMON RIVER AT WOODSTON, KS

LOCATION.--39 deg 26 min 23 sec, long 99 deg 06 min 05 sec, in NE1/4 SE1/4 SE1/4 sec.16, T.7 S., R.16 W., Rooks County, Hydrologic Unit 10260014, on left bank near upstream side of county highway bridge, 0.8 mi south of Woodston, and at mile 64.1.

DRAINAGE AREA.--1,502 sq mi.

PERIOD OF RECORD.--October 1978 to current year.

REVISED RECORDS.--WDR KS-32: 1979(M) (monthly runoff), 1980 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 1,660.78 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 1-7, July 24 to Aug. 7, and Aug. 18 to Sept. 1. Records fair except those for estimated daily discharges, which are poor. Flow moderately regulated since 1956 by Webster Reservoir (station 06873100) 28.3 mi upstream and Woodston diversion dam 1.9 mi upstream. Flow also affected by ground-water withdrawals and return flow from irrigation areas.

AVERAGE DISCHARGE.--9 years, 21.3 cu ft per sec, 15,430 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,380 cu ft per sec Apr. 14, 1987, gage height, 19.82 ft; no flow Oct. 1 to Nov. 24, 1979, Jan. 11-14 and May 16, 17, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,380 cu ft per sec Apr. 14, gage height, 19.82 ft, minimum discharge, 0.50 cu ft per sec Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	10	7.5	6.7	7.3	12	396	146	466	58	62	52
2	12	12	7.8	6.0	7.4	10	876	139	208	45	60	47
3	8.0	12	7.2	7.1	6.5	9.5	956	136	153	40	56	45
4	6.0	11	6.3	6.8	6.4	8.9	885	140	122	35	70	42
5	4.0	10	6.5	7.4	6.1	8.6	981	155	110	30	100	40
6	2.0	9.8	7.0	7.0	5.8	8.6	912	160	97	26	120	40
7	1.5	9.5	11	6.3	5.8	8.2	773	158	88	20	161	39
8	.59	9.0	11	6.1	5.7	7.4	812	146	81	689	192	38
9	2.7	8.1	9.6	6.3	5.7	7.4	738	132	46	978	180	36
10	2.7	7.4	8.1	6.1	5.8	7.3	613	120	34	249	150	36
11	235	7.0	7.3	4.9	5.8	7.0	516	111	52	120	142	35
12	414	7.1	8.2	6.7	5.8	7.7	436	108	81	408	146	35
13	186	6.1	8.7	6.5	6.0	8.7	431	110	60	605	418	35
14	80	7.3	8.0	6.6	6.1	8.7	2290	103	47	243	402	34
15	53	8.1	8.5	6.2	6.5	7.9	3040	103	38	129	220	35
16	41	8.5	8.1	4.1	6.3	19	1080	98	31	92	138	42
17	32	9.2	7.8	4.9	5.9	57	662	90	26	82	95	35
18	26	7.8	7.2	4.8	5.7	66	518	84	18	3100	110	32
19	21	7.9	7.6	5.3	5.5	76	434	85	12	2290	300	31
20	18	7.6	7.1	5.1	6.5	59	357	93	53	581	340	31
21	18	7.4	7.6	5.6	6.7	45	296	98	44	385	160	29
22	20	7.0	7.5	4.5	6.7	43	271	90	28	205	120	29
23	19	6.6	7.5	5.3	6.6	269	263	83	14	179	100	28
24	17	6.4	7.4	5.3	6.3	580	248	83	29	160	90	28
25	16	6.2	7.3	4.8	6.2	276	228	85	40	120	100	27
26	14	6.0	6.9	5.3	6.5	214	206	84	29	80	100	26
27	13	5.4	6.8	6.4	11	268	186	83	26	75	80	25
28	12	5.5	6.9	6.5	14	489	171	80	31	70	70	26
29	11	5.7	6.6	7.8	---	191	165	76	77	68	60	24
30	11	5.9	6.2	7.1	---	182	154	78	99	66	54	23
31	9.8	---	6.8	7.3	---	280	---	1670	---	64	54	---
TOTAL	1326.29	237.5	238.0	186.8	186.6	3241.9	19894	4927	2240	11292	4450	1025
MEAN	42.8	7.92	7.68	6.03	6.66	105	663	159	74.7	364	144	34.2
MAX	414	12	11	7.8	14	580	3040	1670	466	3100	418	52
MIN	.59	5.4	6.2	4.1	5.5	7.0	154	76	12	20	54	23
AC-FT	2630	471	472	371	370	6430	39460	9770	4440	22400	8830	2030
CAL YR 1986	TOTAL	3534.76	MEAN	9.68	MAX	414	MIN	.59	AC-FT	7010		
WTR YR 1987	TOTAL	49245.09	MEAN	135	MAX	3100	MIN	.59	AC-FT	97680		

KANSAS RIVER BASIN

91

06874000 SOUTH FORK SOLOMON RIVER AT OSBORNE, KS

LOCATION.--Lat 39 deg 25 min 43 sec, long 98 deg 41 min 40 sec, in SW1/4 NW1/4 SW1/4 sec.20, T.7 S., R.12 W., Osborne County, Hydrologic Unit 10260014, on right bank at downstream side of bridge on U.S. Highway 281, 0.5 mi south of Osborne, 0.6 mi downstream from Covert Creek, and at mile 27.6.

DRAINAGE AREA.--2,012 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,505.09 ft above sea level. Prior to Dec. 12, 1946, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 17-30. Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1956 by Webster Reservoir (station 06873100) 64.8 mi upstream. Diversion upstream from station for irrigation. Occasional low-water regulation by Osborne city reservoir 1.5 mi upstream.

AVERAGE DISCHARGE.--41 years, 109 cu ft per sec, 78,970 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,200 cu ft per sec July 13, 1951, gage height, 27.65 ft, from rating curve extended above 16,000 cu ft per sec on basis of slope-area and contracted-opening measurement of peak flow; no flow Aug. 21, 1946, Apr. 21, 1948, Aug. 8, 1968, July 12, 1977, Sept. 24, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,240 cu ft per sec Apr. 14, gage height, 20.98 ft; minimum discharge, 5.7 cu ft per sec Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	16	14	17	30	1340	313	1770	196	94	91
2	14	19	16	14	17	26	2030	297	851	152	90	89
3	9.1	19	16	15	16	22	1980	333	588	128	86	85
4	7.6	19	15	14	16	21	1550	357	468	117	82	81
5	6.9	19	17	15	16	20	1360	317	340	107	76	78
6	6.7	19	16	15	16	19	1400	332	287	97	86	76
7	6.2	18	31	15	16	19	1200	325	251	102	103	75
8	6.0	18	32	15	15	19	1060	303	225	2950	122	73
9	5.9	18	26	15	15	18	1060	278	206	3570	199	72
10	6.1	17	19	14	15	18	937	256	180	1380	162	71
11	475	15	17	13	15	18	802	238	182	572	125	68
12	422	17	17	15	15	18	693	223	238	519	117	68
13	373	16	19	15	15	18	650	214	244	864	172	67
14	211	17	17	15	15	18	4950	213	200	807	327	66
15	92	18	18	15	16	17	7600	207	163	484	323	64
16	57	17	17	13	16	20	4410	207	147	352	192	63
17	43	17	17	13	16	145	2050	200	144	285	138	68
18	35	17	15	12	16	286	1330	185	326	317	107	64
19	30	17	16	14	16	191	1050	178	187	1900	343	60
20	27	17	15	14	16	116	858	178	457	2830	414	58
21	25	16	15	14	16	82	699	192	177	832	217	57
22	25	16	15	14	16	67	608	220	147	478	148	56
23	24	16	15	15	16	2270	566	194	126	352	113	54
24	23	15	15	15	16	2770	525	180	114	275	98	54
25	23	15	15	15	16	1730	487	181	116	227	110	52
26	23	15	14	15	17	945	445	187	141	185	126	51
27	21	15	15	14	19	1120	406	181	176	158	124	50
28	21	15	15	15	31	1560	369	177	161	132	118	91
29	20	15	14	16	---	1230	349	169	175	110	111	88
30	19	15	14	17	---	628	334	155	174	95	102	53
31	19	---	14	18	---	832	---	254	---	93	95	---
TOTAL	2096.5	505	533	453	462	14293	43098	7244	8966	20666	4720	2043
MEAN	67.6	16.8	17.2	14.6	16.5	461	1437	234	299	667	152	68.1
MAX	475	19	32	18	31	2770	7600	357	1770	3570	414	91
MIN	5.9	15	14	12	15	17	334	155	114	93	76	50
AC-FT	4160	1000	1060	899	916	28350	85480	14370	17780	40990	9360	4050

CAL YR 1986 TOTAL 8589.27 MEAN 23.5 MAX 1760 MIN .22 AC-FT 17040
WTR YR 1987 TOTAL 105079.50 MEAN 288 MAX 7600 MIN 5.9 AC-FT 208400

KANSAS RIVER BASIN

06874000 SOUTH FORK SOLOMON RIVER AT OSBORNE, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 18...	1430	17	1350	8.20	5.0	11.2	692	K11	90
JAN 06...	0950	15	1520	7.70	2.5	--	--	20	--
FEB 24...	0940	16	1300	7.80	5.0	12.4	724	K8	K15
APR 03...	0810	1960	1020	8.00	6.0	--	--	--	--
07...	1525	1150	1490	7.70	11.0	--	--	--	--
15...	1905	5880	706	7.80	10.5	--	--	--	--
MAY 27...	0910	173	1900	7.70	17.0	8.1	719	200	--
JUL 08...	1205	1730	--	--	23.0	--	--	--	--
AUG 25...	1535	111	1680	7.70	19.0	8.5	716	K890	260

DATE	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
NOV 18...	2.8	500	160	24	84	2	11	273	330	3.6	280
JAN 06...	1.6	510	160	26	94	2	11	202	--	7.8	310
FEB 24...	6.6	480	150	26	92	2	11	214	270	6.7	300
MAY 27...	19	670	220	29	140	2	12	280	--	11	400
AUG 25...	39	580	190	26	99	2	12	272	340	11	320

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)
NOV 18...	120	0.30	22	898	1.2	40	1.00	0.980	0.10	--
JAN 06...	140	0.30	12	916	1.2	38	--	0.620	0.13	0.03
FEB 24...	140	0.30	6.3	856	1.2	37	0.400	0.330	0.14	0.03
MAY 27...	210	0.40	25	1260	1.7	589	2.70	2.80	0.21	0.10
AUG 25...	140	0.30	30	1020	1.4	306	3.60	3.60	0.10	0.07

K Results based on colony count outside the acceptable range (non-ideal colony count).

KANSAS RIVER BASIN

93

06874000 SOUTH FORK SOLOMON RIVER AT OSBORNE, KS--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 18...	0.100	0.080	0.40	1.4	<0.010	0.30	0.18	0.100	0.070	0.060
JAN 06...	0.090	0.100	0.70	--	0.010	0.61	0.03	0.040	0.020	0.010
FEB 24...	0.090	0.110	1.1	1.5	0.010	1.0	0.06	0.030	0.010	0.020
MAY 27...	0.160	0.160	1.2	3.9	0.030	1.0	0.25	0.230	0.090	0.080
AUG 25...	0.050	0.080	0.60	4.2	0.020	0.55	0.31	0.220	0.120	0.100

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 18...	<10	3	120	<0.5	<1	<1	<3	2	7	<5
FEB 24...	20	1	92	<0.5	<1	<1	<3	<1	10	<5
MAY 27...	<10	5	130	<0.5	<1	2	<3	2	<3	<5
AUG 25...	20	5	150	0.6	3	<1	<3	2	14	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 18...	52	43	<0.1	10	2	4	<1	1500	<6	7
FEB 24...	55	72	<0.1	<10	1	4	<1	1600	<6	20
MAY 27...	64	<1	0.2	10	3	9	<1	2000	<6	<3
AUG 25...	44	25	0.2	20	<1	8	<1	1700	<6	17

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, DIS- SOLVED (MG/L)	SEDI- MENT, DIS- SOLVED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
NOV 18...	1430	90	4.0	34	--	--	--	97	100	--	--
JAN 06...	0950	26	1.1	85	--	--	--	--	--	--	--
FEB 24...	0940	30	1.3	94	--	--	--	--	--	--	--
APR 03...	0810	661	3500	98	53	62	80	--	--	--	--
07...	1525	553	1720	78	36	48	62	79	79	86	100
15...	1905	722	11500	99	--	73	--	--	--	--	--
MAY 27...	0910	354	165	90	--	39	--	100	--	--	--
JUL 08...	1205	4550	21300	98	59	70	89	--	--	--	--

06874200 WACONDA LAKE AT GLEN ELDER, KS

LOCATION.--Lat 39 deg 29 min 46 sec, long 98 deg 18 min 48 sec, in SW1/4 SE1/4 SW1/4 sec.27, T.6 S., R.9 W., Mitchell County, Hydrologic Unit 10260015, in outlet structure of Glen Elder Dam on Solomon River, southwest edge of Glen Elder, and at mile 172.4.

DRAINAGE AREA.--5,076 sq mi.

PERIOD OF RECORD.--January 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation). Prior to June 4 1969, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by compacted earthfill dam. Date of closure was Oct. 18, 1967. Regulated storage began Jan. 1, 1969. Conservation pool elevation was first reached on May 17, 1973. Total capacity, 1,128,700 acre-ft, consisting of the following: Dead storage, 1,236 acre-ft below elevation 1,407.8 ft; conservation pool, 240,200 acre-ft between elevations 1,407.8 ft and 1,455.6 ft; flood control pool, 722,300 acre-ft between elevations 1,455.6 ft and 1,488.3 ft; and surcharge pool, 165,000 acre-ft between elevations 1,488.3 ft and 1,492.9 ft. Figures given herein represent total contents.

Inflow partially regulated by Webster Reservoir (station 06873100) and Kirwin Reservoir (station 06871700). Diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,471.32 ft Apr. 27, 1987, contents, 500,800 acre-ft; minimum elevation since conservation pool was first reached, 1,448.90 ft Dec. 5-7, 1984, contents, 65,440 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,471.32 ft Apr. 27, contents, 500,800 acre-ft; minimum elevation, 1,454.09 ft Mar. 16, contents, 222,900 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in June 1970 by U.S. Bureau of Reclamation)

1,454	221,800	1,464	362,900
1,456	246,500	1,466	397,300
1,458	272,800	1,468	434,100
1,460	300,800	1,470	473,300
1,462	330,800	1,472	515,300

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1454.24	1455.78	1455.82	1455.12	1454.25	1454.20	1463.27	1471.10	1467.60	1463.13	1457.84	1455.47
2	1454.25	1455.78	1455.84	1455.07	1454.24	1454.20	1463.65	1471.00	1467.76	1462.92	1457.56	1455.43
3	1454.25	1455.80	1455.84	1455.05	1454.23	1454.20	1463.97	1470.95	1467.63	1462.70	1457.26	1455.42
4	1454.25	1455.79	1455.83	1454.96	1454.23	1454.20	1464.22	1470.98	1467.45	1462.50	1456.98	1455.37
5	1454.22	1455.79	1455.82	1454.93	1454.23	1454.22	1464.42	1470.98	1467.29	1462.28	1456.65	1455.35
6	1454.22	1455.79	1455.82	1454.91	1454.24	1454.22	1464.59	1470.95	1467.10	1462.04	1456.35	1455.33
7	1454.22	1455.86	1455.86	1454.88	1454.23	1454.22	1464.75	1470.89	1466.94	1461.73	1456.20	1455.32
8	1454.19	1455.81	1455.90	1454.84	1454.21	1454.19	1464.86	1470.81	1466.75	1461.66	1456.03	1455.30
9	1454.19	1455.78	1455.91	1454.82	1454.21	1454.16	1464.92	1470.69	1466.60	1461.86	1455.87	1455.30
10	1454.24	1455.77	1455.92	1454.76	1454.21	1454.16	1464.96	1470.60	1466.46	1462.00	1455.72	1455.30
11	1455.05	1455.74	1455.90	1454.73	1454.21	1454.14	1464.97	1470.49	1466.33	1461.86	1455.61	1455.27
12	1455.52	1455.74	1455.85	1454.68	1454.20	1454.14	1465.00	1470.36	1466.16	1461.66	1455.58	1455.24
13	1455.65	1455.72	1455.83	1454.64	1454.20	1454.15	1465.36	1470.23	1465.98	1461.49	1455.60	1455.21
14	1455.71	1455.71	1455.79	1454.61	1454.17	1454.18	1467.62	1470.13	1465.80	1461.33	1455.66	1455.17
15	1455.73	1455.73	1455.73	1454.53	1454.19	1454.13	1469.18	1470.04	1465.58	1461.14	1455.72	1455.16
16	1455.75	1455.74	1455.69	1454.51	1454.19	1454.20	1469.96	1469.93	1465.37	1460.91	1455.74	1455.15
17	1455.75	1455.76	1455.69	1454.48	1454.19	1454.61	1470.36	1469.80	1465.18	1460.66	1455.70	1455.11
18	1455.75	1455.73	1455.64	1454.44	1454.19	1454.90	1470.59	1469.65	1464.99	1460.46	1455.72	1455.08
19	1455.78	1455.75	1455.61	1454.38	1454.15	1455.05	1470.76	1469.61	1464.88	1460.49	1455.67	1455.04
20	1455.79	1455.75	1455.57	1454.34	1454.17	1455.20	1470.87	1469.50	1464.82	1460.69	1455.73	1454.99
21	1455.79	1455.74	1455.54	1454.33	1454.15	1455.20	1470.96	1469.33	1464.73	1460.70	1455.70	1454.96
22	1455.80	1455.75	1455.49	1454.30	1454.14	1455.30	1471.02	1469.16	1464.61	1460.51	1455.67	1454.93
23	1455.80	1455.75	1455.48	1454.27	1454.12	1458.38	1471.10	1469.01	1464.45	1460.29	1455.64	1454.90
24	1455.80	1455.75	1455.45	1454.26	1454.14	1460.67	1471.19	1468.87	1464.30	1460.06	1455.62	1454.87
25	1455.80	1455.75	1455.41	1454.25	1454.12	1461.52	1471.24	1468.71	1464.08	1459.83	1455.63	1454.85
26	1455.80	1455.75	1455.36	1454.28	1454.12	1461.85	1471.30	1468.56	1463.90	1459.58	1455.61	1454.81
27	1455.80	1455.73	1455.33	1454.26	1454.22	1462.01	1471.30	1468.39	1463.67	1459.30	1455.60	1454.82
28	1455.82	1455.75	1455.29	1454.24	1454.24	1462.37	1471.28	1468.22	1463.54	1459.03	1455.57	1454.82
29	1455.82	1455.75	1455.24	1454.25	---	1462.59	1471.23	1468.05	1463.50	1458.75	1455.55	1454.78
30	1455.80	1455.72	1455.20	1454.25	---	1462.69	1471.17	1467.86	1463.33	1458.45	1455.51	1454.74
31	1455.78	---	1455.15	1454.25	---	1462.90	---	1467.69	---	1458.14	1455.50	---
MEAN	1455.24	1455.76	1455.64	1454.57	1454.19	1456.52	1468.00	1469.76	1465.56	1460.91	1455.96	1455.12
MAX	1455.82	1455.86	1455.92	1455.12	1454.25	1462.90	1471.30	1471.10	1467.76	1463.13	1457.84	1455.47
MIN	1454.19	1455.71	1455.15	1454.24	1454.12	1454.13	1463.27	1467.69	1463.33	1458.14	1455.50	1454.74
(+)	243,700	243,000	235,800	224,800	224,700	345,000	497,600	428,300	351,900	274,800	240,200	230,800
(#)	+19,400	-700	-7,200	-11,000	-100	+120,300	+152,600	-69,300	-76,400	-77,100	-34,600	-9,400

CAL YR 1986 (#) +32,000
WTR YR 1987 (#) +6,500

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

95

06875900 SOLOMON RIVER NEAR GLEN ELDER, KS

LOCATION.--Lat 39 deg 28 min 27 sec, long 98 deg 16 min 58 sec, in SE1/4 SE1/4 NE1/4 sec.2, T.7 S., R.9 W., Mitchell County, Hydrologic Unit 10260015, near right bank, 3.6 mi downstream from Glen Elder Dam, 2.0 mi south-east of Glen Elder, and at mile 168.8.

DRAINAGE AREA.--5,340 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since Mar. 4, 1970. Datum of gage is 1,374.13 ft above sea level (levels by U.S. Bureau of Reclamation).

REMARKS.--No estimated daily discharges. Records fair. Flow mostly regulated since 1967 by Waconda Lake (station 06874200) which in turn is moderately regulated since 1955 by Kirwin Reservoir (station 06871700) and since 1956 by Webster Reservoir (station 06873100). Large diversions downstream from Kirwin and Webster Reservoirs and many small diversions upstream from Waconda Lake for irrigation.

AVERAGE DISCHARGE.--14 years (water years 1974-87, since conservation pool at Waconda Lake was first filled), 206 cu ft per sec, 149,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,470 cu ft per sec Apr. 14, 1987, gage height, 28.31 ft; minimum discharge, 0.32 cu ft per sec Nov. 22, 23, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,470 cu ft per sec Apr. 14, gage height, 28.31 ft; minimum discharge, 21 cu ft per sec Oct. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	36	36	310	97	103	781	1440	2060	2290	1920	235
2	87	36	37	305	97	107	939	1430	2060	2010	1910	236
3	43	37	38	315	96	105	1010	1430	2140	1960	1920	236
4	30	40	39	305	96	102	902	1610	2220	1940	1940	236
5	26	45	37	313	98	100	861	1920	2070	1930	1920	234
6	25	45	39	314	98	99	845	1980	2020	1950	1790	234
7	23	42	41	310	98	98	811	1570	2000	2020	1550	234
8	22	41	57	307	98	97	889	1540	1990	2830	1320	234
9	21	39	66	309	96	95	1140	1770	2020	2680	1210	236
10	21	38	133	306	97	95	1190	1750	1980	2020	1120	236
11	855	37	181	302	98	95	1170	1740	1990	1970	942	236
12	2480	36	269	311	97	96	1150	1730	2030	2000	733	240
13	914	31	323	310	98	97	1190	1760	2040	2350	421	238
14	145	38	322	310	96	97	5100	1890	2000	2150	257	236
15	104	38	321	307	96	96	5840	1980	1980	1990	254	236
16	81	37	321	296	96	97	1370	1940	1970	1990	249	234
17	69	38	318	304	96	393	594	1880	1960	2030	244	232
18	60	38	313	307	94	1020	420	2000	1950	2030	242	231
19	53	38	317	306	94	530	312	2420	1970	2010	238	230
20	48	39	314	306	94	255	250	2730	1700	2010	238	229
21	46	39	319	236	93	196	208	2350	1180	2000	237	229
22	46	39	313	127	93	175	183	2240	1220	1990	232	228
23	45	38	308	96	93	3030	173	2150	1490	1980	230	228
24	47	38	309	93	94	6410	164	2120	1590	1980	227	229
25	49	38	314	93	93	3160	154	2120	1910	1970	234	227
26	46	37	309	94	94	632	146	2130	1950	1970	238	228
27	46	35	308	94	95	361	591	2130	1960	1960	240	229
28	45	35	311	94	96	293	1080	2110	1970	1950	242	228
29	43	35	312	97	---	197	1130	2100	2140	1950	241	226
30	40	35	310	97	---	121	1320	2080	2620	1940	239	227
31	39	---	309	97	---	253	---	2070	---	1930	236	---
TOTAL	5859	1138	6944	7371	2681	18605	31913	60110	58180	63780	23014	6972
MEAN	189	37.9	224	238	95.8	600	1064	1939	1939	2057	742	232
MAX	2480	45	323	315	98	6410	5840	2730	2620	2830	1940	240
MIN	21	31	36	93	93	95	146	1430	1180	1930	227	226
AC-FT	11620	2260	13770	14620	5320	36900	63300	119200	115400	126500	45650	13830
CAL YR 1986	TOTAL	26058	MEAN	71.4	MAX	2480	MIN	17	AC-FT	51690		
WTR YR 1987	TOTAL	286567	MEAN	785	MAX	6410	MIN	21	AC-FT	568400		

KANSAS RIVER BASIN

06876700 SALT CREEK NEAR ADA, KS

LOCATION.--Lat 39 deg 03 min 30 sec, long 97 deg 50 min 10 sec, in NW1/4 NW1/4 SW1/4 sec.36, T.10 S., R.5 W., Ottawa County, Hydrologic Unit 10260015, on left bank at downstream side of highway bridge, 3.0 mi southeast of Ada, and 19.4 mi upstream from mouth.

DRAINAGE AREA.--384 sq mi, approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 1,247.18 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 12-14, Dec. 10-14, 26-28, 30, 31, and Jan. 2, 4, 11-13, 16-19. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--28 years, 62.3 cu ft per sec, 45,140 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 cu ft per sec May 23, 1961, gage height, 23.25 ft; no flow at times in 1964, 1966, 1968, and 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1942 reached a stage of about 21 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 580 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Mar. 19	1000	658	13.89	June 21	0100	1,050	16.82
Mar. 24	1200	*8,340	*22.17	July 8	0900	1,180	17.80
Apr. 3	1600	1,120	17.34	July 10	1700	919	15.77
Apr. 15	0400	7,410	21.97				

Minimum discharge, 6.1 cu ft per sec Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	10	15	17	19	35	891	114	62	234	11	9.1
2	38	12	15	18	18	46	1020	106	59	99	11	8.7
3	32	12	16	18	17	53	1100	99	48	63	9.8	8.5
4	54	14	16	17	17	38	928	164	43	44	11	7.9
5	20	16	17	16	16	29	522	227	40	37	10	7.3
6	15	15	16	17	15	25	398	210	36	34	10	7.7
7	13	16	18	16	15	23	334	172	34	30	11	7.9
8	10	16	20	15	15	21	286	137	31	856	10	8.6
9	8.6	17	24	17	14	19	250	115	29	745	10	9.6
10	7.8	22	24	16	14	18	221	101	27	902	11	13
11	94	20	25	15	14	17	195	89	29	781	11	54
12	229	16	24	16	14	17	173	80	32	363	35	52
13	393	14	24	20	14	16	242	76	34	208	46	23
14	208	15	23	18	14	17	2380	71	29	160	109	14
15	80	16	22	18	15	16	5920	65	25	120	83	12
16	46	16	22	17	17	18	3450	60	24	89	35	9.7
17	30	17	21	15	19	121	2360	56	35	68	21	9.3
18	23	18	21	14	21	432	1580	56	68	56	16	8.5
19	19	18	20	15	17	640	1210	53	195	48	14	8.2
20	16	20	20	15	16	406	799	54	598	39	13	7.2
21	12	18	20	16	15	212	549	63	745	31	12	6.6
22	13	17	19	16	15	150	429	63	168	26	11	6.5
23	12	16	19	16	15	884	351	54	92	23	9.8	6.5
24	13	16	19	15	15	5550	296	50	64	21	9.6	6.6
25	14	17	18	15	15	4570	250	53	48	19	10	6.7
26	14	15	18	15	15	3130	212	61	38	17	12	6.8
27	13	14	18	15	18	2210	183	81	31	16	13	6.3
28	13	14	18	16	23	1600	156	111	30	15	12	6.9
29	12	14	18	17	---	1250	136	88	33	14	13	30
30	11	14	18	18	---	854	125	70	215	13	11	78
31	11	---	18	18	---	772	---	61	---	12	9.9	---
TOTAL	1572.4	475	606	507	452	23189	26946	2860	2942	5183	611.1	447.1
MEAN	50.7	15.8	19.5	16.4	16.1	748	898	92.3	98.1	167	19.7	14.9
MAX	393	22	25	20	23	5550	5920	227	745	902	109	78
MIN	7.8	10	15	14	14	16	125	50	24	12	9.6	6.3
AC-FT	3120	942	1200	1010	897	46000	53450	5670	5840	10280	1210	887
CAL YR 1986	TOTAL	10303.7	MEAN	29.6	MAX	409	MIN	3.7	AC-FT	21430		
WTR YR 1987	TOTAL	65790.6	MEAN	180	MAX	5920	MIN	6.3	AC-FT	130500		

KANSAS RIVER BASIN

97

06876900 SOLOMON RIVER AT NILES, KS

LOCATION.--Lat 38 deg 58 min 08 sec, long 97 deg 28 min 34 sec, in NW1/4 SE1/4 NW1/4 sec.31, T.12 S., R.1 W., Ottawa County, Hydrologic Unit 10260015, on right bank at downstream side of county highway bridge, 0.8 mi west of Niles, and at mile 21.6.

DRAINAGE AREA.--6,770 sq mi, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1897 to November 1903, October 1917 to current year. Published as "near Bennington" October 1917 to May 1919. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 806: Drainage area. WSP 926: 1935. WSP 1310: 1897-1903. WSP 1440: 1903, 1919, 1927.

GAGE.--Water-stage recorders. Datum of gage is 1,160.97 ft above sea level. Prior to Nov. 30, 1903, nonrecording gage at present site and at different datum. Oct. 1, 1917, to May 31, 1919, nonrecording gage near Bennington, 27 mi upstream at different datum. June 1, 1919, to Sept. 30, 1922, nonrecording gage at present site at datum 2.00 ft higher. Oct. 1, 1922, to Apr. 25, 1934, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 13-15, and Jan. 17-31. Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1967 by Waconda Lake (station 06874200) 150.8 mi upstream. Slight regulation since 1955 by Kirwin Reservoir (station 06871700) and since 1956 by Webster Reservoir (station 06873100). Many small diversions upstream from station for irrigation. Satellite telemeter at station.

AVERAGE DISCHARGE.--76 years, 553 cu ft per sec, 400,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 178,000 cu ft per sec July 14, 1951, gage height, 31.76 ft; minimum discharge observed, 1.0 cu ft per sec Sept. 4, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,800 cu ft per sec Apr. 17, gage height, 28.96 ft; minimum discharge, 141 cu ft per sec Nov. 30 and Dec. 1, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2890	175	142	435	255	235	1910	1270	2320	2310	1840	420
2	1860	166	144	431	254	272	2410	1440	2310	2680	1830	411
3	1190	170	145	436	243	283	3000	1590	2350	2580	1830	402
4	693	173	142	432	227	269	3210	1740	2270	2430	1840	396
5	548	191	146	435	213	253	2710	2050	2250	2240	1840	390
6	404	184	150	434	211	240	2080	2540	2260	2100	1830	389
7	282	179	163	435	209	226	1740	2880	2270	2050	1830	388
8	224	189	215	426	207	215	1530	2680	2230	3820	1830	388
9	188	197	291	439	203	206	1410	2520	2180	5580	1760	388
10	166	228	315	440	201	199	1310	2260	2140	5680	1600	575
11	401	227	305	428	199	194	1300	2030	2310	4700	1410	633
12	1920	198	268	451	198	189	1450	2030	2510	3890	1310	443
13	2910	140	260	431	197	191	1600	2070	2340	3010	1510	448
14	2920	130	257	440	197	189	4610	2050	2210	2650	1370	424
15	2970	140	355	438	205	187	7340	2020	2160	2630	947	394
16	2060	157	471	432	210	187	9230	2020	2160	2500	787	383
17	777	164	485	420	206	846	10700	2060	2130	2320	622	373
18	445	168	481	420	201	2190	10800	2130	2110	2160	557	366
19	355	172	479	430	199	2590	10300	2180	2110	2090	521	361
20	304	172	471	440	199	2210	8290	2180	2320	2070	501	357
21	270	167	464	450	197	1900	3960	2280	2950	2060	488	354
22	251	162	456	440	194	1190	1880	2790	4180	2020	470	352
23	246	159	457	420	192	1420	1590	3070	4000	1990	458	349
24	230	155	454	370	191	5090	1370	2950	2440	1970	447	348
25	234	152	452	330	189	7070	1210	2620	1670	1950	448	348
26	225	151	445	280	190	9000	1090	2420	1700	1940	571	346
27	213	149	440	270	198	9730	1030	2400	1780	1920	497	343
28	220	145	439	270	219	9550	950	2690	1940	1910	461	339
29	212	143	438	230	---	8890	384	2750	2040	1900	449	337
30	197	143	438	270	---	5420	883	2540	2080	1870	442	343
31	186	---	436	260	---	2200	---	2390	---	1850	433	---
TOTAL	25996	5051	10604	12313	5804	72831	101777	70640	69720	80870	32729	11783
MEAN	839	168	342	397	207	2351	3393	2279	2324	2609	1056	393
MAX	2970	228	485	451	255	9730	10800	3070	4180	5680	1840	633
MIN	166	130	142	260	189	187	883	1270	1670	1850	433	337
AC-FT	51560	10020	21030	24420	11510	144600	201900	140100	138300	160400	64920	23380
CAL YR 1986	TOTAL	102905	MEAN	282	MAX	2970	MIN	50	AC-FT	204100		
WTR YR 1987	TOTAL	500173	MEAN	1370	MAX	10800	MIN	130	AC-FT	992100		

KANSAS RIVER BASIN

06876900 SOLOMON RIVER AT NILES, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1961 to September 1982.

CHLORIDE: October 1976 to September 1982.

WATER TEMPERATURES: October 1961 to September 1982.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT							
06...	1200	395	632	7.90	22.5	1050	1120
NOV							
05...	1140	188	1600	7.70	8.0	124	63
DEC							
18...	1610	484	1120	7.70	2.5	246	321
FEB							
05...	1520	209	1580	7.70	3.5	65	37
MAR							
18...	1300	2220	795	7.00	10.0	1460	8750
26...	1025	9030	246	7.90	6.5	1150	28000
MAY							
01...	0920	1170	1940	7.40	20.0	653	2060
15...	1050	1990	863	7.30	20.0	519	2790
JUN							
12...	0920	2470	700	--	24.0	1230	8200
JUL							
22...	1310	2100	902	8.20	27.5	793	4500
SEP							
03...	1305	397	1510	8.30	24.0	295	316

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
OCT							
06...	1200	98	76	85	93	--	--
MAR							
18...	1300	93	37	42	57	99	100
26...	1025	98	76	84	90	--	--
MAY							
01...	0920	85	--	35	--	100	--
15...	1050	97	--	47	--	--	--
JUN							
12...	0920	52	--	36	--	--	--
JUL							
22...	1310	98	29	39	59	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. FALL DIAM. % FINER THAN 2.00 MM	BED MAT. FALL DIAM. % FINER THAN 4.00 MM	BED MAT. FALL DIAM. % FINER THAN 8.00 MM	BED MAT. FALL DIAM. % FINER THAN 16.0 MM
NOV											
05...	1140	124	0	3	8	47	82	91	96	99	100
JUN											
12...	0920	1230	1	4	22	49	82	93	98	99	100

KANSAS RIVER BASIN

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06877600 SMOKY HILL RIVER AT ENTERPRISE, KS
(National stream-quality accounting network station)

LOCATION.--Lat 38 deg 54 min 24 sec, long 97 deg 07 min 12 sec, in NW1/4 NW1/4 SE1/4 sec.20, T.13 S., R.3 E., Dickinson County, Hydrologic Unit 10260008, on right bank at upstream side of bridge on State Highway 43 in Enterprise, 18.6 mi upstream from Chapman Creek and at mile 43.3.

DRAINAGE AREA.--19,260 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1390: 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 1,103.25 ft above sea level. Nov. 1, 1934, to Jan. 28, 1935, non-recording gage and Jan. 29, 1935, to May 3, 1959, water-stage recorder at site 0.2 mi downstream at datum 5.40 ft lower.

REMARKS.--Estimated daily discharges: Oct. 12-15 and Jan. 15, 16, 20-28. Records good except those affected by periods of orifice covering, Aug. 19-28 and Sept. 3-10, which are fair and those for estimated daily discharges, which are poor. Natural flow of stream affected by six lakes and reservoirs, and by numerous diversions upstream from station. Satellite telemeter at station.

AVERAGE DISCHARGE.--53 years, 1,555 cu ft per sec, 1,127,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 cu ft per sec July 14, 1951, gage height, 33.96 ft, site and datum then in use, or 29.0 ft, present site and datum, from rating curve extended above 55,000 cu ft per sec on basis of slope-area measurement of peak flow; minimum, about 10 cu ft per sec Apr. 23, 1935, regulated by power plant then in operation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1903 reached stage of about 27 ft, present site and datum, from information by U.S. Army Corps of Engineers, discharge, 90,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,600 cu ft per sec Mar. 30, gage height, 22.22 ft; minimum discharge, 313 cu ft per sec Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3220	405	364	630	595	1140	10800	4450	6480	4170	3620	1940
2	4070	392	364	625	556	2160	6080	4830	6230	4560	3450	1900
3	3230	389	365	633	527	2140	6180	5070	6380	4870	3290	1910
4	2890	393	356	628	501	1300	7280	5480	6520	4830	3170	1810
5	1570	405	362	632	484	956	7700	5940	6420	4890	3080	1570
6	1170	431	365	641	460	806	7250	6670	6050	4840	2930	1290
7	833	436	389	636	450	714	6440	6650	5560	5110	2790	1180
8	639	434	408	635	444	648	5630	6130	4920	5090	2720	1190
9	508	431	480	647	436	592	5250	5620	4600	7270	2680	1070
10	443	434	539	651	433	557	5030	6100	4470	10100	2590	1420
11	747	433	553	629	440	535	4840	6190	4430	10800	2390	1370
12	3110	442	529	630	437	520	4780	6000	4600	9340	2260	1300
13	3710	404	499	638	439	510	4990	5950	4680	7400	2590	1080
14	3770	378	488	649	440	508	10100	5930	4490	6320	2570	1040
15	3780	372	494	650	456	499	11800	5870	4360	5340	2230	997
16	3480	383	567	650	465	492	14600	5790	4300	4820	1880	941
17	2150	398	671	521	497	2190	15700	5760	4250	4520	2080	909
18	1090	412	691	427	576	7010	16600	5820	4480	4290	2120	887
19	786	401	689	476	580	9140	18400	5950	4370	4110	1920	863
20	642	404	680	533	535	7270	19500	6080	4540	4000	2120	842
21	560	416	670	533	507	4790	19200	6180	4980	3940	1950	826
22	521	415	662	569	487	3540	14700	6340	5450	3870	1600	812
23	496	398	656	587	470	3150	7980	6760	6130	3790	1820	930
24	486	387	655	587	465	11200	4780	6910	5770	3720	1990	906
25	475	382	657	569	459	15500	4520	6790	4400	3680	2390	836
26	472	375	653	554	455	18500	4250	6480	3830	3760	2660	756
27	467	368	644	537	464	19400	4030	7820	3850	3850	2740	748
28	458	368	639	502	512	18700	3940	12300	3920	3850	3090	735
29	449	365	639	536	---	19800	3940	10200	4040	3810	2400	725
30	444	361	637	578	---	20000	4270	8600	4130	3780	2110	716
31	427	---	635	584	---	18000	---	7240	---	3730	2010	---
TOTAL	47143	12012	17000	18297	13570	192267	260560	201900	148630	158450	77240	33499
MEAN	1521	400	548	590	485	6202	8685	6513	4954	5111	2492	1117
MAX	4070	442	691	651	595	20000	19500	12300	6520	10800	3620	1940
MIN	427	361	356	427	433	492	3940	4450	3830	3680	1600	716
AC-FT	93510	23830	33720	36290	26920	381400	516800	400500	294800	314300	153200	66450
CAL YR 1986	TOTAL	265066	MEAN	726	MAX	4070	MIN	252	AC-FT	525800		
WTR YR 1987	TOTAL	1180568	MEAN	3234	MAX	20000	MIN	356	AC-FT	2342000		

KANSAS RIVER BASIN

06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1955 to September 1958, October 1961 to September 1982.

CHLORIDE: October 1976 to September 1982.

WATER TEMPERATURES: October 1955 to September 1982.

SUSPENDED-SEDIMENT DISCHARGE: October 1957 to September 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-HF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 19...	1440	399	2320	7.80	4.5	13.3	726	220	190
JAN 07...	0845	653	1650	7.20	1.0	14.6	745	130	78
FEB 23...	1430	448	2120	8.20	6.0	10.3	734	27	K50
MAR 26...	1620	18800	304	6.60	7.5	--	--	--	--
APR 07...	0940	6390	814	8.10	6.0	12.1	740	390	1800
JUN 24...	1140	5890	1220	8.20	22.5	9.1	730	K530	2000
AUG 03...	1430	3300	1460	8.10	27.0	6.8	725	220	620

DATE	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV 19...	4.6	570	170	35	270	5	7.8	300	370	9.3
JAN 07...	27	410	120	26	160	4	9.9	241	290	29
FEB 23...	10	490	140	33	220	5	8.1	244	300	3.0
APR 07...	290	270	85	13	54	2	7.6	164	200	2.5
JUN 24...	190	270	83	16	120	3	12	138	170	1.7
AUG 03...	190	330	100	20	150	4	12	176	210	2.7

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)
NOV 19...	310	390	0.40	17	1370	1.9	1480	0.780	0.05	0.03
JAN 07...	290	220	0.30	8.5	967	1.3	1700	0.670	0.18	0.03
FEB 23...	320	320	0.40	10	1230	1.7	1490	0.760	0.14	--
APR 07...	140	73	0.30	12	481	0.65	8300	1.10	0.15	0.07
JUN 24...	180	190	0.30	10	722	0.98	11500	1.30	0.05	0.13
AUG 03...	220	210	0.30	0.0	833	1.1	7420	0.490	0.06	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

KANSAS RIVER BASIN

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06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 19...	0.130	0.040	0.70	0.010	0.57	0.34	0.220	0.170	0.110
JAN 07...	0.160	0.140	0.80	0.010	0.64	0.31	0.090	0.100	0.100
FEB 23...	0.120	0.110	1.4	<0.020	1.3	0.37	0.160	0.120	0.120
APR 07...	--	0.120	--	0.020	--	0.15	--	0.070	0.050
JUN 24...	0.030	0.040	2.3	0.040	2.3	0.28	0.490	0.110	0.090
AUG 03...	0.030	0.050	1.2	<0.010	1.2	0.18	0.300	0.070	0.060

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 19...	<10	2	200	<10	1	<1	2	6	10	<5
FEB 23...	10	1	110	2	1	<1	<1	4	6	<6
APR 07...	20	2	110	<0.5	1	<1	<3	5	9	<5
AUG 03...	<10	3	150	<0.5	<1	<1	<3	3	11	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 19...	50	70	<0.1	7	5	2	<1	1700	<4	10
FEB 23...	58	62	<0.1	6	5	2	<1	1500	<15	14
APR 07...	22	7	<0.1	<10	3	<1	<1	620	<6	8
AUG 03...	39	2	0.1	10	2	3	<1	940	8	4

KANSAS RIVER BASIN

06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(National stream-quality accounting network station)

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
NOV 19...	1440	60	65	41	--	--	--	--	--	--	--	--
JAN 07...	0845	92	162	90	--	--	--	--	--	--	--	--
FEB 23...	1430	52	63	86	--	--	--	--	--	--	--	--
MAR 26...	1620	1890	95900	30	48	54	63	86	88	91	91	94
APR 07...	0940	1020	17600	88	38	46	53	95	96	100	--	--
JUN 24...	1140	1110	17600	91	--	46	--	94	100	--	--	--
AUG 03...	1430	988	8300	84	--	36	--	84	84	88	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
NOV 19...	1440	60	3	7	23	52	63	77	88	91	98	100
JUN 24...	1140	1110	--	0	2	34	85	98	100	--	--	--

KANSAS RIVER BASIN

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06878000 CHAPMAN CREEK NEAR CHAPMAN, KS

LOCATION.--Lat 39 deg 01 min 52 sec, long 97 deg 02 min 24 sec, in SW1/4 SE1/4 SE1/4 sec.1, T.12 S., R.3 E., Dickinson County, Hydrologic Unit 10260008, on right bank at downstream side of bridge on State Highway 18, 5.0 mi northwest of Chapman, and at mile 10.0.

DRAINAGE AREA.--300 sq mi.

PERIOD OF RECORD.--December 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,102.41 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to May 5, 1959, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 18-20, 24-26, and Apr. 15 to May 12. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--33 years (water years 1955-87), 87.7 cu ft per sec, 63,540 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 cu ft per sec Oct. 12, 1973, gage height, 24.08 ft; minimum discharge observed, 0.10 cu ft per sec Oct. 10, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1951 reached a stage of 25.5 ft, from floodmarks, discharge, 46,700 cu ft per sec, from rating curve extended above 12,000 cu ft per sec on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 cu ft per sec and maximum(*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 1	0200	3,350	20.74	Mar. 25	0100	*3,710	*20.89
Oct. 12	1700	2,240	18.79	Apr. 14	1400	3,440	20.66
Mar. 18	2200	2,800	19.83	May 27	1900	1,590	16.77

Minimum discharge, 16 cu ft per sec Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2820	65	50	53	56	278	441	86	90	103	18	27
2	374	63	51	52	55	202	403	82	92	57	18	26
3	379	67	54	51	54	107	255	80	104	46	19	26
4	790	88	57	55	51	77	198	155	108	42	20	25
5	329	88	53	54	49	65	176	193	78	41	21	24
6	150	82	49	55	47	59	161	108	64	41	22	25
7	105	75	61	54	46	55	152	89	58	39	22	28
8	88	71	106	55	46	53	145	81	54	123	33	30
9	79	153	235	54	44	49	135	77	53	150	25	30
10	74	100	131	55	44	47	129	74	51	36	21	287
11	683	71	79	52	43	45	123	74	53	47	21	147
12	2160	60	77	51	43	45	117	72	53	42	24	43
13	674	54	73	59	43	45	220	70	51	147	376	30
14	266	52	70	66	43	45	2900	67	46	82	231	26
15	210	56	70	77	44	44	877	65	43	46	60	25
16	143	59	69	69	46	45	286	61	45	37	37	25
17	120	65	68	48	50	915	212	58	44	34	30	24
18	105	64	65	50	48	2470	166	59	158	32	28	23
19	94	61	62	52	45	1290	145	66	96	30	27	22
20	86	59	60	54	43	324	132	87	61	30	27	21
21	81	57	59	55	42	225	119	100	274	27	27	20
22	83	58	57	52	42	172	113	87	165	26	25	19
23	106	54	56	52	42	786	108	74	198	25	23	18
24	130	52	56	48	41	3200	106	62	60	24	23	18
25	103	51	55	45	41	2660	105	67	46	23	34	18
26	99	49	55	42	41	551	100	73	67	24	126	18
27	99	48	55	41	43	338	96	689	64	23	93	18
28	90	48	55	43	113	520	93	943	49	22	53	17
29	78	47	54	49	---	795	90	236	56	20	36	17
30	72	47	54	53	---	345	88	154	97	19	31	16
31	69	---	53	56	---	346	---	112	---	18	28	---
TOTAL	10739	1964	2149	1652	1345	16198	8396	4351	2478	1506	1579	1093
MEAN	346	65.5	69.3	53.3	48.0	523	280	140	32.6	48.6	50.9	36.4
MAX	2820	153	235	77	113	3200	2900	943	274	150	376	287
MIN	69	47	49	41	41	44	88	53	43	18	18	16
AC-FT	21300	3900	4260	3280	2670	32130	16650	8630	4920	2990	3130	2170
CAL YR 1986	TOTAL	42044.3	MEAN	115	MAX	2820	MIN	8.5	AC-FT	83390		
WTR YR 1987	TOTAL	53450.0	MEAN	146	MAX	3200	MIN	16	AC-FT	106000		

KANSAS RIVER BASIN

06879100 KANSAS RIVER AT FORT RILEY, KS

LOCATION.--Lat 39 deg 03 min 09 sec, long 96 deg 46 min 33 sec, in NE1/4 SW1/4 NW1/4 sec.33, T.11 S., R.6 E., Geary County, Hydrologic Unit 10270101, on right bank at downstream side of military highway bridge 1.6 mi below the confluence of Republican and Smoky Hill Rivers, and at mile 168.9.

DRAINAGE AREA.--44,870 sq mi, of which a large area is noncontributing.

PERIOD OF RECORD.--December 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,034.69 ft above sea level.

REMARKS.--Estimated daily discharges: Jan. 22, 23. Records good except those for estimated daily discharges, which are fair. Natural flow of stream affected by reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions upstream from station. Satellite telemeter at station.

AVERAGE DISCHARGE.--23 years, 2,737 cu ft per sec, 1,983,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,400 cu ft per sec Oct. 14, 1973, gage height, 23.74 ft; minimum discharge, 100 cu ft per sec Dec. 24, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1951 reached a stage of 34.5 ft, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,900 cu ft per sec Apr. 16, gage height, 17.02 ft; minimum discharge, 923 cu ft per sec Jan. 18, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5680	7060	2290	1700	1950	3530	20000	16000	9590	5960	4480	3170
2	6650	6300	3470	1700	1950	3370	15000	13600	8940	6570	4340	3130
3	5730	5040	3470	1700	1900	3360	12300	13900	10100	7080	4170	3090
4	6640	3850	3460	1690	1850	3050	12700	14200	11100	7210	4050	2990
5	4800	3780	3500	1640	1840	2370	13600	14600	11000	7400	3910	2520
6	3490	3720	3510	1450	1360	2080	13600	13400	10800	7510	3820	2320
7	2870	3690	3570	1450	1840	1890	13800	9190	10400	7500	3650	2070
8	2670	3340	3570	1470	1810	1760	14100	8760	8530	7590	3510	1640
9	3760	2710	3610	1490	1770	1650	13400	10200	6040	8280	3460	1570
10	4890	2610	3740	1480	1760	1630	13100	16800	5380	10600	3400	1760
11	4810	2130	3720	1450	1750	1590	12800	17300	5110	11700	3270	2430
12	6550	2060	3670	1440	1750	1550	12600	17100	4880	11800	3240	2270
13	8090	2010	3620	1430	1740	1530	12700	16900	5000	10300	3480	2130
14	7580	1890	3580	1460	1740	1510	20100	16800	4950	10200	3630	1970
15	7660	1730	3540	1460	1730	1490	24400	16700	4750	9140	3360	1930
16	7910	1720	3520	1480	1720	1490	25700	16600	4960	8300	2880	1900
17	9000	1720	3560	1390	1720	2340	23200	16400	5930	7660	2650	1850
18	9320	1720	3640	1090	1730	9910	23300	16400	6020	6520	2820	1810
19	8400	1720	3050	1030	1780	12000	24200	16400	6350	6250	2830	1780
20	8040	1720	1930	1390	1800	10600	25300	16400	6150	6050	2980	1770
21	7900	1700	1890	1850	1770	7580	25700	16600	6550	5940	3100	1750
22	7830	1700	1840	1850	1740	5830	24900	16500	7420	5640	2940	1730
23	7710	1680	1820	1840	1600	4870	19000	16700	8860	5280	2490	1850
24	7970	1650	1810	1820	1380	11600	9840	17200	9200	5140	2080	2560
25	7800	1640	1790	1800	1370	18200	9020	17200	8300	4910	2230	2580
26	7710	1600	1790	1830	1370	19000	12700	15000	6570	4870	2720	2550
27	7690	1580	1770	2000	1370	19500	12300	13000	5340	4840	2810	2540
28	7630	1580	1760	2040	1480	19900	12000	17400	5350	4660	3050	2550
29	7550	1570	1740	1970	---	20600	11900	15200	5360	4640	3520	2540
30	7560	1570	1720	1940	---	20800	14200	12600	5490	4610	3010	2520
31	7420	---	1710	1930	---	21900	---	10800	---	4550	2900	---
TOTAL	209310	76790	87660	50260	48070	238480	497460	465850	214420	218700	100780	67270
MEAN	6752	2560	2828	1621	1717	7693	16580	15030	7147	7055	3251	2242
MAX	9320	7060	3740	2040	1950	21900	25700	17400	11100	11800	4480	3170
MIN	2670	1570	1710	1030	1370	1490	9020	8760	4750	4550	2080	1570
AC-FT	415200	152300	173900	99690	95350	473000	986700	924000	425300	433800	199900	133400
CAL YR 1986 TOTAL	981890	MEAN	2690	MAX	9320	MIN	656	AC-FT	1948000			
WTR YR 1987 TOTAL	2275050	MEAN	6233	MAX	25700	MIN	1030	AC-FT	4513000			

KANSAS RIVER BASIN

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06879650 KINGS CREEK NEAR MANHATTAN, KS
(Hydrologic bench-mark station)

LOCATION.--Lat 39 deg 06 min 07 sec, long 96 deg 35 min 42 sec, in NW1/4 NW1/4 NW1/4 sec.18, T.11 S., R.8 E.,
Riley County, Hydrologic Unit 10270101, on left bank, 2.9 mi upstream from mouth, 6.0 mi south of Manhattan.

DRAINAGE AREA.--4.09 sq mi.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 1,100 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--8 years, 2.87 cu ft per sec, 2,080 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,530 cu ft per sec July 1, 1982, gage height, 11.28 ft, from
rating curve extended above 70 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times
most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	2115	*290	*5.86	Mar. 23	2300	66	4.68
Oct. 24	1615	145	5.22	Apr. 13	2345	238	5.66
Mar. 18	0630	178	5.39	May 27	0930	140	5.19

No flow July 28 to Aug. 11 and Aug. 14 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	8.2	1.2	.98	.89	10	9.9	4.7	4.5	.40	.00	.00
2	4.6	7.6	1.1	.98	.95	7.1	9.0	4.4	4.1	.38	.00	.00
3	22	7.3	1.0	.97	.90	6.2	8.6	4.0	3.8	.34	.00	.00
4	20	6.8	.91	.89	.89	5.8	8.1	4.0	3.3	.31	.00	.00
5	12	6.2	.89	.89	.89	5.8	7.6	3.8	3.0	.28	.00	.00
6	10	5.9	.89	.85	.82	5.5	7.2	3.2	2.8	.28	.00	.00
7	9.1	5.6	1.1	.74	.80	5.4	6.7	3.0	2.4	.26	.00	.00
8	8.2	5.0	1.2	.67	.80	5.3	6.2	2.7	2.3	.23	.00	.00
9	7.3	4.6	1.1	.79	.80	4.8	6.0	2.4	2.1	.22	.00	.00
10	7.0	4.3	1.1	.69	.80	4.5	5.8	2.2	2.0	.19	.00	.00
11	11	3.9	1.1	.57	.80	4.4	5.5	2.0	1.9	.19	.00	.00
12	8.9	3.5	1.1	.57	.80	4.1	5.0	1.8	1.6	.19	1.1	.00
13	7.7	3.1	1.1	.57	.80	4.1	17	1.6	1.4	.19	.14	.00
14	6.9	3.1	1.2	.64	.80	4.1	48	1.5	1.2	.19	.00	.00
15	5.8	2.9	1.2	.58	.78	3.9	23	1.3	1.0	.19	.00	.00
16	5.4	2.7	1.2	.57	.79	3.9	16	1.2	.91	.17	.00	.00
17	5.0	2.6	1.2	.60	.72	7.1	14	1.0	.79	.16	.00	.00
18	4.6	2.3	1.2	.64	.72	48	12	1.0	.78	.16	.00	.00
19	4.1	2.2	1.2	.64	.67	22	11	.87	.89	.16	.00	.00
20	3.8	2.0	1.2	.64	.64	18	9.8	.82	1.3	.15	.00	.00
21	3.7	1.9	1.2	.64	.64	15	8.9	.82	.99	.10	.00	.00
22	3.7	2.0	1.3	.64	.64	14	8.4	.69	.71	.07	.00	.00
23	3.3	1.8	1.3	.64	.64	22	7.8	.64	.77	.05	.00	.00
24	40	1.7	1.3	.64	.64	26	7.1	.75	.98	.04	.00	.00
25	21	1.6	1.2	.64	.62	20	6.8	.75	1.1	.03	.00	.00
26	15	1.4	1.2	.66	.64	17	6.3	.54	.58	.02	.00	.00
27	12	1.4	1.1	.72	.72	16	5.7	33	.48	.01	.00	.00
28	11	1.3	1.1	.78	14	15	5.5	11	.62	.00	.00	.00
29	9.8	1.3	1.0	.89	---	13	5.4	7.5	.49	.00	.00	.00
30	9.2	1.3	.98	.89	---	12	5.0	6.1	.44	.00	.00	.00
31	9.0	---	1.0	.85	---	11	---	5.2	---	.00	.00	---
TOTAL	306.5	105.5	34.87	22.46	34.60	361.0	303.3	114.48	49.23	4.96	1.24	.00
MEAN	9.89	3.52	1.12	.72	1.24	11.6	10.1	3.69	1.64	.16	.040	.000
MAX	40	8.2	1.3	.98	14	48	48	33	4.5	.40	1.1	.00
MIN	3.3	1.3	.89	.57	.62	3.9	5.0	.54	.44	.00	.00	.00
AC-FT	608	209	69	45	69	716	602	227	98	9.8	2.5	.00

CAL YR 1986	TOTAL	1319.66	MEAN	3.62	MAX	78	MIN	.16	AC-FT	2620
WTR YR 1987	TOTAL	1338.14	MEAN	3.67	MAX	48	MIN	.00	AC-FT	2650

KANSAS RIVER BASIN

06879650 KINGS CREEK NEAR MANHATTAN, KS--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980 to current year.

REMARKS.-- No flow on many days during period of record.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 17...	1200	2.8	606	7.80	10.0	9.2	731	<3	K30
JAN 05...	1140	0.89	607	7.20	9.0	--	--	--	--
FEB 25...	1400	0.60	515	8.10	8.0	13.4	741	22	18
APR 08...	1205	6.0	609	8.20	10.0	9.6	722	<1	28

DATE	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	BICAR- BONATE WH WAT TOTAL FIELD (MG/L AS HCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
NOV 17...	0.30	310	92	18	5.4	0.1	1.1	285	350	8.8	28
JAN 05...	--	--	--	--	--	--	--	--	--	0	--
FEB 25...	0.50	300	93	17	5.3	0.1	1.0	289	350	4.5	36
APR 08...	1.0	300	91	17	4.9	0.1	0.80	280	340	3.4	24

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
NOV 17...	1.7	0.40	13	265	0.36	2.0	<0.100	0.04	0.030	0.030
JAN 05...	--	--	--	--	--	--	--	--	--	--
FEB 25...	2.4	0.40	13	315	0.43	0.51	<0.100	--	0.020	<0.010
APR 08...	1.5	0.40	11	285	0.39	4.6	<0.100	0.03	0.040	0.020

KANSAS RIVER BASIN

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06879650 KINGS CREEK NEAR MANHATTAN, KS--Continued
(Hydrologic bench-mark station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 17...	0.50	<0.010	0.47	0.03	0.010	<0.010	0.010	16	0.12	69
JAN 05...	--	--	--	--	--	--	--	38	0.09	51
FEB 25...	0.70	<0.010	0.68	0.03	0.010	<0.010	0.010	18	0.03	14
APR 08...	0.30	<0.010	0.26	--	0.010	<0.010	<0.010	5	0.08	95

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 17...	<10	<1	110	<0.5	<1	<1	<3	2	5	<5
FEB 25...	<10	<1	100	1	2	<1	<3	3	5	<5
APR 08...	<10	<1	96	<0.5	<1	3	<3	2	<3	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)
NOV 17...	17	<1	0.1	<10	2	<1	<1	940	<6
FEB 25...	15	<1	<0.1	<10	2	<1	<1	920	<6
APR 08...	14	<1	<0.1	<10	<1	<1	<1	890	<6

DATE	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)
NOV 17...	13	1.8	<0.4	0.08	1.1	2.5	<0.4	1.4	<0.4
FEB 25...	4	--	--	--	--	--	--	--	--
APR 08...	4	1.7	1.2	0.06	1.2	2.4	<0.4	1.3	1.2

06882510 BIG BLUE RIVER AT MARYSVILLE, KS

LOCATION.--Lat 39 deg 50 min 31 sec, long 96 deg 39 min 39 sec, in NE1/4 NW1/4 NE1/4 sec.32, T.2 S., R.7 E.,
Marshall County, Hydrologic Unit 10270205, on right bank at downstream side of bridge on State Highway 36,
0.3 mi west of Marysville, and at mile 84.6.

DRAINAGE AREA.--4,777 sq mi.

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,110.31 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 15, 16 and Apr. 15-21. Records fair except those for estimated daily discharges, which are poor. Power plant located 0.8 mi upstream. Some pump diversions for irrigation upstream from station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,700 cu ft per sec July 6, 1986, gage height, 38.90 ft, minimum discharge, 82 cu ft per sec Mar. 21, 1985, result of upstream regulation by power dams.

EXTREMES OUTSIDE CURRENT YEAR.--Flood of May 1903 reached a stage of 43.79 ft, from high-water marks. Flood of June 9, 1941 reached a stage of 45.39 ft, from high-water marks; no discharge determined. Flood of June 15, 1951 reached a stage of 40.22 ft, from U.S. Weather Bureau wire-weight gage reading; discharge 55,600 cu ft per sec, by contracted-opening measurement of peak flow. Flood of Oct. 13, 1973 reached a stage of 43.86 ft, from wire-weight gage readings.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 1	0200	12,200	26.94	Apr. 15	unknown	18,800	31.35
Oct. 12	0100	22,200	33.30	June 29	1800	11,300	26.26
Mar. 19	0200	10,400	25.46	Sep. 14	1900	13,900	28.21
Mar. 26	1000	*35,400	*38.12	Sep. 16	0500	15,000	28.97

Minimum discharge, 420 cu ft per sec Mar. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10600	1310	699	748	618	758	7810	1160	3000	4230	475	3060
2	5390	1210	774	718	616	802	7910	1140	4220	3070	475	1590
3	2910	1260	777	707	616	732	7400	1270	5400	2910	478	940
4	3200	1300	760	699	615	691	6490	1230	6230	2150	475	750
5	3000	1180	723	698	626	652	6080	1270	4140	1840	468	780
6	1930	1030	702	697	610	620	6170	1550	1990	1350	467	614
7	1550	957	1020	697	616	602	6220	1520	1420	1200	475	608
8	1240	1380	2310	682	629	592	5860	1630	1180	1150	685	591
9	1020	1960	2180	692	626	540	5030	1880	1090	1670	1000	564
10	889	1520	1500	695	600	543	4130	1740	3750	1970	859	955
11	9580	1170	1010	638	584	538	3350	1440	4390	1570	672	765
12	20400	1190	1050	656	584	532	2820	1200	4940	1300	811	656
13	20300	1010	848	654	578	528	2320	1080	2700	1500	945	705
14	20900	831	855	668	578	531	11100	1010	1880	1230	812	7150
15	13400	808	851	687	584	531	17100	950	1360	1000	3100	3220
16	7810	812	817	647	578	535	12800	896	1120	867	2770	9170
17	4810	845	861	635	572	575	7000	861	990	761	1500	3780
18	2850	817	889	571	553	5880	5000	840	2730	696	1710	1810
19	2110	783	900	546	550	9020	4000	852	6160	671	1860	1780
20	1740	779	822	583	544	6440	3000	905	6160	649	2800	1630
21	1500	770	794	663	549	5360	2280	900	3960	629	1650	1260
22	1380	768	754	693	545	4230	2250	883	1730	615	1730	889
23	1330	746	737	637	543	7080	1780	823	2030	678	1770	754
24	1380	720	728	583	550	18900	1640	872	1910	624	1120	682
25	1680	713	717	514	542	28000	1540	1000	1680	578	786	598
26	2600	695	702	506	552	34100	1460	1340	1740	543	1310	542
27	3820	676	694	580	552	32400	1070	7380	1580	521	1220	505
28	3020	670	692	619	595	26400	1290	8030	1070	503	2770	481
29	2350	667	685	608	---	20000	1250	6060	7110	494	4250	466
30	1820	663	671	629	---	11800	1200	3650	6320	498	4960	456
31	1510	---	949	605	---	7800	---	2480	---	486	4770	---
TOTAL	158519	29240	28471	19955	16305	227712	147350	57842	93980	37953	49173	47751
MEAN	5114	975	918	644	582	7346	4912	1866	3133	1224	1586	1592
MAX	20900	1960	2310	748	629	34100	17100	8030	7110	4230	4960	9170
MIN	889	663	671	506	542	528	1070	823	990	486	467	456
AC-FT	314400	58000	56470	39580	32340	451700	292300	114700	186400	75280	97530	94710
CAL YR 1986	TOTAL	793456	MEAN	2174	MAX	34400	MIN	283	AC-FT	1574000		
WTR YR 1987	TOTAL	914251	MEAN	2505	MAX	34100	MIN	456	AC-FT	1813000		

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS

LOCATION.--Lat 39 deg 58 min 48 sec, long 97 deg 00 min 16 sec, in NE1/4 SW1/4 sec.8, T.1 S., R.4 E., Washington County, Hydrologic Unit 10270207, on right bank, 2 ft downstream from bridge on county road, 0.6 mi west of Hollenberg, and 1.75 mi downstream from Nebraska-Kansas State line.

DRAINAGE AREA.--2,752 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1973 to February 1974 (discharge measurements only), March 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,216.10 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 10-15, Dec. 9-13, and Jan. 15-29. Records good except those for estimated daily discharges, which are poor. Discharge measurements made prior to 1974 water year are published in table of miscellaneous sites in WDR NE-73.

AVERAGE DISCHARGE.--13 years, 573 cu ft per sec, 415,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,600 cu ft per sec June 13, 1984, gage height, 21.00 ft; minimum daily discharge, 40 cu ft per sec Dec. 17, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 12, 1973, reached a stage of 23.07 ft, present datum, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 13	0300	20,100	17.13	Apr. 15	1800	15,000	(a) 15.42
Mar. 19	0200	4,470	8.88	May 6	1100	9,250	12.31
Mar. 25	0600	*28,300	*19.28	May 26	2400	4,900	9.24
Apr. 3	1600	3,080	7.56	June 30	unknown	5,600	(b) 9.80

(a) Observed.

(b) From floodmark.

Minimum daily discharge, 186 cu ft per sec Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4020	434	294	236	276	300	1960	579	627	2110	293	285
2	2060	455	319	279	262	290	2560	557	1140	1330	296	274
3	828	503	320	276	256	280	2950	630	2280	883	286	296
4	763	633	306	276	266	259	2740	1950	1200	654	296	299
5	748	566	289	276	252	247	2660	5240	689	567	272	259
6	550	493	283	276	252	257	2530	8260	589	486	276	262
7	422	457	364	276	246	245	2300	3860	494	434	314	266
8	349	584	565	272	240	248	2050	2140	455	490	595	263
9	308	653	550	272	240	247	1750	1500	480	553	772	267
10	295	600	330	272	236	230	1480	1100	663	762	521	1430
11	5970	270	360	252	236	227	1390	882	1020	558	455	885
12	16200	300	330	262	233	237	1210	762	872	548	366	485
13	14600	300	340	236	236	246	1070	696	728	468	382	374
14	5540	300	350	279	233	258	5690	637	643	398	336	322
15	2350	350	372	260	239	255	13300	603	596	386	553	322
16	1460	361	379	230	236	257	10000	563	526	355	614	410
17	1040	351	378	190	230	350	3510	525	472	347	572	347
18	824	347	378	170	230	2370	2060	495	422	366	934	250
19	729	346	372	175	227	3920	1500	517	460	390	624	232
20	640	335	359	195	230	2230	1200	515	755	374	398	241
21	585	328	340	200	233	1530	1030	512	601	730	347	227
22	565	322	325	210	227	996	917	510	455	735	502	220
23	856	317	296	215	227	8280	849	532	543	567	789	203
24	885	307	300	220	227	23200	789	515	375	468	656	202
25	750	305	300	230	229	26000	730	683	349	433	490	197
26	755	297	296	250	230	13500	684	1920	351	394	394	200
27	766	290	296	265	236	4860	649	2700	340	382	391	186
28	640	286	293	290	256	3280	619	1740	344	347	386	209
29	562	288	290	320	---	2070	605	1170	438	314	360	219
30	508	285	286	307	---	1380	595	826	3530	300	321	201
31	476	---	286	276	---	1310	---	700	---	300	299	---
TOTAL	67044	11683	10551	7843	6721	99359	71377	43819	22439	17439	14090	9833
MEAN	2163	339	340	253	240	3205	2379	1414	748	563	455	323
MAX	16200	653	565	320	276	26000	13300	8260	3530	2110	934	1430
MIN	295	270	286	170	227	227	595	495	340	300	272	186
AC-FT	133000	23170	20930	15560	13330	197100	141600	86910	44510	34590	27950	19500
CAL YR 1986	TOTAL 242385	MEAN 665	MAX 16200	MIN 155	AC-FT 481800							
WTR YR 1987	TOTAL 332198	MEAN 1047	MAX 26000	MIN 170	AC-FT 758100							

KANSAS RIVER BASIN

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT										
07...	1100	432	435	7.70	15.0	738	9.0	28	4500	3200
NOV										
05...	1020	575	475	8.06	7.0	745	10.3	44	3600	10000
DEC										
02...	1050	323	630	8.15	3.0	--	14.5	26	7300	2500
JAN										
27...	1030	261	663	8.09	0.0	730	15.6	8	K420	88
FEB										
24...	1030	226	578	8.26	5.0	740	13.2	10	K140	K20
MAR										
24...	1415	26500	131	7.65	4.5	768	13.7	160	--	K550000
APR										
29...	1000	613	637	8.25	17.0	737	9.9	17	2000	K97
MAY										
12...	1410	800	510	8.30	22.0	--	--	--	--	--
26...	1150	622	459	8.11	22.0	730	7.7	69	K14000	K30000
JUN										
23...	1030	628	372	8.23	25.5	737	7.0	200	E16000	--
30...	1700	4360	206	7.26	21.5	743	6.7	--	--	--
JUL										
01...	0730	2300	183	7.07	21.0	743	6.7	--	--	--
21...	1100	747	507	8.60	28.0	742	7.1	65	1100	2200
AUG										
18...	1120	1110	338	8.00	23.5	741	7.1	120	8000	42000
SEP										
15...	1030	301	414	7.80	22.0	737	7.9	70	14000	30000

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
07...	160	8	51	7.8	23	0.8	15	--	42	21
NOV										
05...	190	0	62	8.4	26	0.9	--	--	46	27
DEC										
02...	220	0	71	10	38	1	--	--	60	33
JAN										
27...	250	0	80	12	37	1	--	--	57	36
FEB										
24...	250	0	80	11	42	1	--	--	50	35
MAR										
24...	43	0	14	1.9	3.3	0.2	--	--	2.0	<5.0
APR										
29...	260	0	83	12	34	1	--	--	68	35
MAY										
12...	200	27	65	9.8	25	0.8	10	176	50	23
26...	180	43	57	8.3	24	0.8	7.4	134	40	21
JUN										
23...	120	6	38	6.4	18	0.7	7.3	116	30	16
30...	70	9	22	3.6	8.4	0.5	8.5	61	17	7.0
JUL										
01...	63	11	20	3.1	6.3	0.4	8.8	52	12	5.6
21...	180	9	56	9.3	28	1	15	170	39	22
AUG										
18...	120	0	37	5.9	20	0.8	9.3	207	26	14
SEP										
15...	140	4	44	7.6	26	1	9.6	138	31	29

E Estimated value.

K Results based on colony count outside the acceptable range (non-ideal colony count).

KANSAS RIVER BASIN

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06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
OCT 07...	0.30	22	--	270	0.37	318	196	--	--
NOV 05...	--	--	--	--	--	--	145	--	--
DEC 02...	--	--	--	--	--	--	49	--	--
JAN 27...	--	--	--	--	--	--	13	--	--
FEB 24...	--	--	--	--	--	--	12	--	--
MAR 24...	--	--	--	--	--	--	2340	--	--
APR 29...	--	--	--	--	--	--	81	--	--
MAY 12...	--	22	325	310	0.44	702	--	1.68	0.020
26...	--	19	288	260	0.39	484	623	1.38	0.020
JUN 23...	--	15	217	200	0.30	368	2160	1.47	0.030
30...	--	12	148	120	0.20	1740	--	2.81	0.090
JUL 01...	--	12	123	100	0.17	764	--	3.13	0.070
21...	0.40	22	298	300	0.41	601	679	0.520	0.010
AUG 18...	--	17	196	260	0.27	587	1630	0.590	0.010
SEP 15...	--	18	246	250	0.33	200	914	1.19	0.010

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 07...	1.20	1.20	0.070	1.6	1.7	2.9	0.340	0.370	--
NOV 05...	1.10	--	0.070	0.93	1.0	2.1	0.640	--	--
DEC 02...	1.30	--	0.110	1.3	1.4	2.7	0.220	--	--
JAN 27...	1.90	--	0.130	0.19	0.32	2.2	0.200	--	--
FEB 24...	1.10	--	0.100	0.20	0.30	1.4	0.150	--	--
MAR 24...	0.900	--	0.330	15	15	16	1.50	--	--
APR 29...	0.960	--	0.060	1.4	1.5	2.5	0.240	--	--
MAY 12...	--	1.70	--	--	1.8	--	0.630	--	0.290
26...	2.00	1.40	0.100	2.0	2.1	4.1	0.610	--	0.180
JUN 23...	--	1.50	0.150	0.25	0.40	--	0.850	--	0.140
30...	--	2.90	--	--	3.3	--	0.220	--	0.160
JUL 01...	--	3.20	--	--	3.4	--	0.910	--	0.160
21...	--	0.530	--	--	1.6	--	1.00	--	0.270
AUG 18...	--	0.600	0.090	3.2	3.3	--	0.800	--	0.210
SEP 15...	--	1.20	0.270	--	<0.20	--	0.370	--	0.230

KANSAS RIVER BASIN

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	BROMIDE DIS- SOLVED (MG/L AS BR)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)
OCT 07...	1100	--	--	--	--	--	40	--	--	--	--
NOV 05...	1020	--	7	--	--	--	--	--	<20	--	<10
FEB 24...	1030	--	7	--	--	--	--	--	<15	--	<10
MAY 12...	1410	20	--	3	190	0.6	40	--	--	<1	--
26...	1150	<10	20	3	150	<0.5	40	--	<15	<1	<10
JUN 23...	1030	<10	--	3	120	0.9	40	--	--	<1	--
30...	1700	--	--	3	84	<0.5	--	--	--	<1	--
JUL 01...	0730	220	--	3	77	<0.5	40	--	--	<1	--
21...	1100	40	--	6	150	<0.5	40	0.015	--	<1	--
AUG 18...	1120	390	41	4	110	<0.5	50	--	<15	3	50
SEP 15...	1030	20	--	4	150	<0.5	50	--	--	2	--

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)
OCT 07...	--	--	--	--	43	--	--	--	4	--	--
NOV 05...	--	--	30	--	--	<20	--	--	--	0.70	--
FEB 24...	--	--	<10	--	--	<20	--	--	--	<0.10	--
MAY 12...	<5	<3	--	<10	7	--	10	18	7	--	<0.1
26...	<5	<3	30	<10	6	40	<10	13	3	--	1.3
JUN 23...	<5	<3	--	8	7	--	<5	15	1	--	<0.1
30...	3	<3	--	5	110	--	<5	7	7	--	0.1
JUL 01...	<5	<3	--	<1	23	--	<5	7	<1	--	11
21...	<10	<3	--	10	18	--	<10	17	3	--	0.4
AUG 18...	<5	<3	50	6	280	70	<5	8	18	--	0.3
SEP 15...	<5	<3	--	35	93	--	<5	9	8	--	0.3

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)
OCT 07...	--	--	--	--	--	--	--	--	--	--	--
NOV 05...	--	--	<2	--	<1	--	--	--	<30	--	--
FEB 24...	--	--	4	--	<1	--	--	--	<30	--	--
MAY 12...	<10	<10	--	--	--	<1	310	8	--	13	--
26...	<10	<10	<2	--	<1	<1	270	6	60	4	--
JUN 23...	<10	<10	--	--	--	<1	200	6	--	10	--
30...	<10	--	--	--	--	--	110	7	--	13	--
JUL 01...	<10	<10	--	--	--	<1	97	<6	--	<3	--
21...	<10	<0	--	2	--	<0	280	11	--	5	1
AUG 18...	<10	<10	13	--	<1	<1	180	8	230	20	--
SEP 15...	<10	10	--	--	--	1	230	7	--	52	--

DATE	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	CYANIDE DIS- SOLVED (MG/L AS CN)
OCT 07...	--	--	--	--	--	--	14	--	--	--
NOV 05...	--	--	--	--	--	--	9.8	--	--	--
FEB 24...	--	--	--	--	--	--	3.4	--	--	--
MAY 12...	--	--	--	--	--	--	--	5.8	1.7	--
26...	--	--	--	--	--	--	--	5.2	>5.0	--
JUN 23...	--	--	--	--	--	--	--	8.3	>5.0	--
30...	--	--	--	--	--	--	--	7.5	>20	--
JUL 01...	--	--	--	--	--	--	--	9.3	>20	--
21...	4.7	3.9	13	3.6	9.6	3.2	--	5.4	>5.0	<0.01
AUG 18...	--	--	--	--	--	--	--	7.7	>10	--
SEP 15...	--	--	--	--	--	--	--	5.4	7.5	--

06884200 MILL CREEK AT WASHINGTON, KS

LOCATION.--Lat 39 deg 48 min 50 sec, long 97 deg 02 min 20 sec, in SW1/4 SW1/4 SE1/4 sec.1, T.3 S., R.3 E., Washington County, Hydrologic Unit 10270207, on left bank at downstream side of bridge on U.S. Highway 36, 0.5 mi east of Washington, and about 26 mi upstream from mouth.

DRAINAGE AREA.--344 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,261.56 ft above sea level.

REMARKS.--Estimated daily discharges: Dec. 12, 14, and Jan. 18-28. Records good except those for estimated daily discharges, which are fair. Low flow partially regulated at times by irrigation.

AVERAGE DISCHARGE.--23 years, 109 cu ft per sec, 78,970 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 cu ft per sec June 18, 1983, gage height, 29.13 ft; no flow at times in 1963-66, 1980, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known stages since at least 1903, about 36 ft June 8, 1941, about 34 ft in 1903 and 1908, from information by local residents and newspaper files.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 11	1700	3,870	19.39	May 6	0300	2,070	13.37
Mar. 18	2200	1,990	13.04	May 25	0300	1,330	10.51
Mar. 24	0700	*10,500	*27.49	May 27	0500	6,400	23.15
Apr. 2	2200	1,660	11.76	June 3	0900	3,870	19.39
Apr. 15	0300	6,020	22.67	June 20	0100	1,320	10.45
May 4	0900	1,620	11.60	June 30	1100	2,030	13.20

Minimum discharge, 15 cu ft per sec Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1450	102	81	85	66	110	1450	153	275	309	26	25
2	409	106	98	81	66	94	1590	148	1960	158	24	23
3	245	108	101	81	64	75	1020	330	3210	121	23	37
4	248	107	91	82	61	61	607	1300	593	103	22	24
5	177	101	81	79	61	55	524	1230	277	98	21	22
6	139	96	78	81	61	52	465	1270	225	94	24	21
7	112	96	256	80	62	51	395	374	188	88	32	21
8	101	222	472	75	64	50	357	234	227	87	35	21
9	93	240	336	76	59	48	317	200	235	108	39	24
10	88	128	181	81	56	47	273	182	160	95	35	51
11	2570	101	130	69	55	45	248	167	147	76	30	98
12	2930	94	120	81	55	44	226	153	146	87	27	46
13	1940	82	117	87	54	44	251	143	127	107	30	30
14	414	94	110	87	53	45	4260	137	113	90	37	31
15	295	99	118	33	54	46	4850	138	106	69	68	26
16	227	98	122	63	54	48	1230	132	98	62	102	43
17	193	98	144	71	52	465	586	122	93	58	57	87
18	167	96	134	66	48	1750	447	131	105	55	196	26
19	146	93	115	66	46	1430	361	387	585	54	58	20
20	131	90	108	68	47	400	300	484	651	53	41	20
21	120	89	103	64	48	302	258	255	148	48	34	19
22	120	87	98	63	49	223	239	205	114	45	30	17
23	178	85	97	61	48	3900	229	145	112	39	80	16
24	300	80	97	60	48	8710	216	248	104	37	56	16
25	210	78	97	57	47	4360	202	892	89	36	35	16
26	188	77	92	55	47	1990	190	1640	103	34	36	16
27	164	74	90	54	51	828	179	5170	81	33	44	16
28	132	72	90	59	71	654	168	2430	396	31	43	19
29	115	73	90	64	---	537	163	921	1220	30	33	16
30	106	75	88	69	---	470	159	391	1660	30	29	19
31	103	---	85	67	---	809	---	312	---	28	27	---
TOTAL	13811	3041	4020	2215	1547	27743	21760	20024	13548	2363	1374	866
MEAN	446	101	130	71.5	55.3	895	725	646	452	76.2	44.3	28.9
MAX	2930	240	472	87	71	8710	4850	5170	3210	309	196	98
MIN	88	72	78	54	46	44	159	122	81	28	21	16
AC-FT	27390	6030	7970	4390	3070	55030	43160	39720	26870	4690	2730	1720
CAL YR 1986	TOTAL	61576	MEAN 169	MAX 5470	MIN 12	AC-FT 122100						
WTR YR 1987	TOTAL	112312	MEAN 308	MAX 8710	MIN 16	AC-FT 222800						

06884400 LITTLE BLUE RIVER NEAR BARNES, KS

LOCATION.--Lat 39 deg 46 min 33 sec, long 96 deg 51 min 29 sec, in NW1/4 NW1/4 SW1/4 sec.22, T.3 S., R.5 E., Washington County, Hydrologic Unit 10270207, on right bank at downstream side of bridge on State Highway 15E., 0.4 mi downstream from Malone Creek, 4.5 mi north of Barnes, and at mile 19.2.

DRAINAGE AREA.--3,324 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1958 to current year. Published as "at Waterville" April 1958 to September 1960; those prior to April 1958 collected at site 11.5 mi downstream and are considered not equivalent.

GAGE.--Water-stage recorders. Datum of gage is 1,140.06 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Jan. 18-29, Mar. 25, Apr. 12, 13, 21, May 8-13, and July 3-8. Records good except those for estimated daily discharges, which are poor. Flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Satellite telemeter at station.

AVERAGE DISCHARGE.--29 years, 711 cu ft per sec, 515,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,700 cu ft per sec Oct. 12, 1973, gage height, 27.7 ft, from floodmark; minimum discharge, 22 cu ft per sec Aug. 6, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 13	1600	20,400	20.22	May 6	1800	11,600	15.88
Mar. 19	1200	6,040	11.76	May 28	0100	8,490	13.75
Mar. 25	unknown	*27,600	*22.33	June 4	0400	6,010	11.73
Apr. 3	1700	5,440	11.21	June 30	2400	5,750	11.50
Apr. 16	0900	18,500	19.57				

Minimum discharge, 215 cu ft per sec Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6410	722	480	487	437	492	4200	722	1260	4350	344	261
2	3880	711	550	479	434	458	4780	692	1240	2110	333	248
3	2060	715	523	481	425	433	5320	726	4670	1460	333	252
4	1470	826	499	473	414	405	4590	1940	4640	1040	327	269
5	1430	816	471	469	411	385	3950	4900	1680	814	328	246
6	1100	720	461	470	409	380	3720	10300	1120	715	318	226
7	856	675	663	469	407	372	3380	7100	925	688	318	225
8	705	853	1160	461	406	368	3040	3460	920	674	373	220
9	621	967	1270	461	396	363	2650	2380	808	695	626	220
10	569	1050	979	463	392	354	2290	1920	909	1040	567	574
11	5740	761	694	432	391	343	2030	1620	1130	846	467	1010
12	14400	631	607	435	387	345	1870	1430	1340	748	421	568
13	18700	540	599	460	384	349	1720	1210	1070	719	385	400
14	9860	507	554	465	384	350	8210	1090	895	656	385	540
15	4080	544	586	459	383	357	15500	997	799	602	382	437
16	2850	570	611	421	382	356	16500	954	745	560	547	659
17	2260	555	599	385	377	450	6480	905	669	525	516	447
18	1890	555	602	338	369	2030	3890	851	617	520	590	360
19	1570	548	598	351	365	5760	2920	942	591	528	892	295
20	1340	542	576	360	365	3960	2330	1250	1240	528	474	274
21	1180	524	561	372	365	2740	1940	1230	1350	536	375	262
22	1090	515	546	384	365	1880	1610	996	720	904	427	255
23	1140	505	536	392	361	8000	1390	979	701	745	611	240
24	1710	493	527	400	360	19100	1200	899	630	608	592	230
25	1560	486	521	414	360	25500	1070	1390	572	525	509	226
26	1350	476	514	432	361	20700	982	2160	530	479	411	226
27	1350	466	507	437	366	9150	904	7630	516	446	373	220
28	1150	463	502	450	394	6000	835	6920	542	429	355	231
29	956	461	501	463	---	4400	802	3960	847	396	355	243
30	836	460	495	475	---	3010	763	2160	3120	369	317	238
31	762	---	488	449	---	2700	---	1510	---	350	281	---
TOTAL	94875	18657	18780	13487	10850	121490	110866	75223	36696	25605	13532	10102
MEAN	3060	622	606	435	388	3919	3696	2427	1223	826	437	337
MAX	18700	1050	1270	487	437	25500	16500	10300	4670	4350	892	1010
MIN	569	460	461	338	360	343	763	692	516	350	281	220
AC-FT	188200	37010	37250	26750	21520	241000	219900	149200	72790	50790	26840	20040
CAL YR 1986	TOTAL	376021	MEAN	1030	MAX	18700	MIN	220	AC-FT	745800		
WTR YR 1987	TOTAL	550163	MEAN	1507	MAX	25500	MIN	220	AC-FT	1091000		

KANSAS RIVER BASIN

06834400 LITTLE BLUE RIVER NEAR BARNES, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 12...	1600	631	636	7.70	1.5	167	285
DEC 17...	1135	607	--	--	3.0	122	200
FEB 04...	1120	407	488	8.00	4.0	58	64
MAR 18...	1235	1660	539	6.80	8.5	2370	10600
APR 22...	1300	1490	685	7.00	15.5	390	1570
JUL 22...	1030	960	--	--	28.0	1930	5000
SEP 01...	0945	267	658	8.70	21.0	212	153

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
MAR 18...	1235	77	26	30	42	89	93	96	97	98
APR 22...	1300	97	--	52	--	--	--	--	--	--
JUL 22...	1030	99	59	69	85	--	--	--	--	--

KANSAS RIVER BASIN

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06885500 BLACK VERMILLION RIVER NEAR FRANKFORT, KS

LOCATION.--Lat 39 deg 41 min 03 sec, long 96 deg 26 min 15 sec, in NE1/4 NW1/4 NW1/4 sec.29, T.4 S., R.9 E., Marshall County, Hydrologic Unit 10270205, on right bank at downstream side of highway bridge, 0.2 mi downstream from Robidoux Creek, 2.2 mi southwest of Frankfort, and at mile 19.9.

DRAINAGE AREA.--410 sq mi.

PERIOD OF RECORD.--October 1953 to current year. Monthly discharge only for October to December 1953, published in WSP 1730.

GAGE.--Water-stage recorder. Datum of gage is 1,106.91 ft above sea level. Prior to May 13, 1954, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 9-13, 17-21, 23, 24. Records fair except those for estimated daily discharges, which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--34 years, 162 cu ft per sec, 117,400 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,300 cu ft per sec May 30, 1959, gage height, 29.40 ft, maximum gage height, 30.06 ft Oct. 11, 1973; no flow at times in 1955-57.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 3, 1948, reached a stage of 30.2 ft, present site and datum, from floodmarks. Flood in June 1951 reached a stage of 28.6 ft, present site and datum, from floodmarks, discharge, 30,400 cu ft per sec, based on contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 12	0700	6,800	26.07	May 27	2400	8,760	27.16
Mar. 18	1500	*9,470	*27.39	June 3	0200	3,160	20.81
Mar. 25	0800	7,990	26.82	Sep. 15	0700	4,670	23.62
Apr. 15	0300	6,070	25.52	Sep. 16	1900	4,800	23.82

Minimum discharge, 13 cu ft per sec Aug. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	830	109	115	88	88	1210	1180	114	243	105	17	27
2	350	182	215	74	87	315	573	107	628	84	17	24
3	870	174	131	93	81	163	330	787	1560	73	16	22
4	1130	131	99	81	74	123	281	267	246	68	16	22
5	350	118	80	85	77	108	249	287	174	67	14	20
6	207	113	94	88	81	100	226	327	147	67	13	19
7	166	111	266	84	81	95	210	182	131	61	15	35
8	145	124	1790	72	80	88	193	143	118	59	17	200
9	131	132	655	75	69	82	178	129	120	63	21	54
10	125	104	232	80	69	77	171	134	361	60	19	532
11	2390	89	198	70	70	74	159	130	161	52	15	134
12	4940	95	172	75	68	74	146	112	131	398	14	52
13	634	78	129	85	67	74	154	105	109	213	20	36
14	307	97	144	165	68	75	3150	100	100	82	24	866
15	227	100	136	163	68	75	4100	92	91	61	51	3230
16	188	101	138	71	66	76	801	85	110	52	29	3920
17	167	100	142	75	61	155	439	81	85	46	18	1230
18	150	98	128	75	56	6400	337	79	78	45	67	236
19	135	94	114	70	58	5450	275	86	617	45	59	139
20	128	95	113	75	61	1280	236	101	144	39	505	103
21	119	92	108	75	60	645	203	383	182	35	78	85
22	123	90	105	78	59	401	189	142	95	34	48	73
23	153	87	103	65	58	367	180	99	84	33	245	60
24	152	81	103	62	59	2690	168	152	75	30	40	55
25	209	80	101	62	59	5770	158	2350	77	29	27	51
26	274	81	94	61	58	1320	148	656	73	28	361	49
27	180	75	95	67	62	581	137	3740	62	26	777	41
28	138	78	94	73	106	784	125	5270	64	23	97	39
29	122	79	94	84	---	1190	124	1270	589	21	52	35
30	114	79	87	87	---	512	119	593	335	19	37	32
31	111	---	90	82	---	783	---	329	---	18	32	---
TOTAL	15265	3067	6165	2540	1951	31137	14939	18432	6990	2036	2761	11421
MEAN	492	102	199	81.9	69.7	1004	498	595	233	65.7	89.1	381
MAX	4940	182	1790	165	106	6400	4100	5270	1560	398	777	3920
MIN	111	75	80	61	56	74	119	79	62	18	13	19
AC-FT	30280	6080	12230	5040	3870	61760	29630	36560	13860	4040	5480	22650
CAL YR 1986	TOTAL	108730.3	MEAN	298	MAX	7090	MIN	9.3	AC-FT	215700		
WTR YR 1987	TOTAL	116704.0	MEAN	320	MAX	6400	MIN	13	AC-FT	231500		

06886900 TUTTLE CREEK LAKE NEAR MANHATTAN, KS

LOCATION.--Lat 39 deg 15 min 16 sec, long 96 deg 36 min 08 sec, in NW1/4 NE1/4 SW1/4 sec.24, T.9 S., R.7 E., Pottawatomie County, Hydrologic Unit 10270205, on Big Blue River, near right end of dam, 5.0 mi north of Manhattan, and 10.0 mi above mouth.

DRAINAGE AREA.--9,628 sq mi.

PERIOD OF RECORD.--March to April 1960, March 1962 to current year. Prior to October 1968, published as Tuttle Creek Reservoir near Randolph. October 1968 to September 1971 published as Tuttle Creek Reservoir near Manhattan.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers). Prior to July 1, 1968, at site 19.8 mi upstream at same datum.

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 15, 1962. Conservation pool elevation was first reached on Apr. 30, 1963. Total capacity, 3,186,000 acre-ft consisting of the following: Sedimentation, 211,500 acre-ft below elevation 1,061.0 ft; conservation pool, 177,100 acre-ft between elevations 1,061.0 ft and 1,075.0 ft; flood control pool, 1,937,000 acre-ft between elevations 1,075.0 ft and 1,136.0 ft; and surcharge pool, 860,100 acre-ft between elevations 1,136.0 ft and 1,150.0 ft. Reservoir is used to store water for flood control. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,127.90 ft Oct. 18-20, 1973, contents, 1,953,000 acre-ft; minimum elevation since conservation pool was first reached, 1,060.82 ft Jan. 4, 1967, contents, 231,000 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,111.94 ft Apr. 17, contents, 1,270,000 acre-ft; minimum elevation, 1,071.22 ft, June 9, contents, 336,200 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on field survey by U.S. Army Corps of Engineers in 1973)

1,069	306,900	1,097	828,300
1,072	346,600	1,100	906,600
1,077	419,500	1,103	989,700
1,082	505,100	1,106	1,078,200
1,087	601,300	1,109	1,172,100
1,092	708,100	1,112	1,272,000

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1089.15	1077.92	1078.58	1075.16	1075.32	1075.96	1109.04	1101.38	1081.65	1074.68	1073.20	1075.08
2	1090.23	1078.10	1078.62	1075.14	1075.33	1076.13	1109.21	1099.87	1080.69	1074.98	1073.04	1074.80
3	1091.07	1078.39	1078.69	1075.08	1075.33	1075.98	1109.38	1098.50	1079.77	1074.91	1072.85	1074.38
4	1091.24	1078.52	1078.76	1075.00	1075.35	1075.80	1109.52	1097.01	1078.70	1074.68	1072.66	1073.93
5	1091.47	1078.57	1078.66	1074.94	1075.36	1075.61	1109.52	1095.70	1076.79	1074.36	1072.42	1073.75
6	1091.45	1078.51	1078.51	1075.08	1075.34	1075.38	1109.48	1095.34	1074.04	1073.88	1072.18	1073.63
7	1091.37	1078.45	1078.51	1075.07	1075.37	1075.16	1109.35	1096.02	1072.02	1073.32	1072.11	1073.53
8	1091.19	1078.51	1079.01	1075.18	1075.35	1074.89	1109.00	1096.42	1071.23	1072.71	1072.08	1073.62
9	1090.68	1078.52	1079.32	1075.57	1075.31	1074.77	1108.39	1096.60	1071.35	1072.08	1072.06	1073.76
10	1089.99	1078.53	1079.09	1075.59	1075.31	1074.81	1107.50	1095.68	1071.84	1071.47	1072.16	1073.76
11	1090.66	1078.39	1078.76	1075.74	1075.31	1074.86	1106.81	1094.33	1072.85	1072.22	1072.25	1073.70
12	1092.96	1078.26	1078.33	1075.90	1075.29	1074.90	1106.91	1092.66	1073.86	1073.50	1072.34	1073.59
13	1095.57	1077.98	1077.84	1076.08	1075.27	1074.91	1107.46	1091.00	1074.49	1073.87	1072.45	1073.36
14	1098.27	1077.77	1077.24	1076.26	1075.28	1074.99	1108.43	1089.22	1074.41	1074.00	1072.54	1073.15
15	1099.47	1077.53	1076.71	1076.46	1075.26	1075.02	1110.02	1087.30	1074.61	1074.05	1072.56	1074.50
16	1099.41	1077.28	1076.14	1076.47	1075.23	1075.01	1111.71	1085.33	1074.34	1074.00	1073.06	1075.87
17	1098.56	1077.34	1075.08	1076.37	1075.21	1075.08	1111.87	1083.25	1073.79	1073.98	1073.38	1076.88
18	1097.47	1077.59	1075.09	1076.25	1075.17	1076.35	1111.47	1081.00	1073.21	1074.13	1073.71	1076.84
19	1096.25	1077.96	1075.04	1076.12	1075.13	1079.67	1110.99	1078.42	1073.22	1074.20	1073.89	1076.51
20	1094.93	1078.05	1075.17	1075.98	1075.15	1081.82	1111.28	1075.99	1073.62	1074.26	1073.98	1076.17
21	1093.51	1078.10	1075.27	1075.91	1075.18	1082.50	1110.98	1074.01	1073.89	1074.33	1074.13	1075.64
22	1092.08	1078.24	1075.32	1075.80	1075.19	1082.91	1110.31	1072.65	1073.79	1074.36	1074.03	1075.33
23	1090.62	1078.26	1075.33	1075.68	1075.20	1084.84	1109.60	1072.13	1073.44	1074.41	1074.02	1074.90
24	1089.09	1078.28	1075.34	1075.56	1075.24	1087.01	1109.29	1072.20	1073.10	1074.39	1074.18	1074.51
25	1087.60	1078.40	1075.33	1075.42	1075.26	1092.56	1109.28	1072.47	1072.73	1074.30	1074.26	1074.17
26	1086.01	1078.37	1075.29	1075.32	1075.32	1099.24	1108.51	1072.67	1072.36	1074.20	1074.35	1073.84
27	1084.51	1078.39	1075.27	1075.25	1075.37	1103.39	1107.14	1075.57	1072.15	1074.06	1074.54	1073.56
28	1082.95	1078.43	1075.25	1075.26	1075.67	1105.36	1107.79	1079.34	1072.30	1073.90	1074.58	1073.18
29	1081.07	1078.45	1075.22	1075.29	---	1107.31	1104.47	1081.39	1072.48	1073.75	1074.66	1072.83
30	1079.22	1078.51	1075.18	1075.29	---	1108.45	1102.94	1082.00	1073.84	1073.58	1074.87	1072.53
31	1078.15	---	1075.18	1075.31	---	1108.77	---	1081.96	---	1073.39	1075.06	---
MEAN	1090.85	1078.19	1076.81	1075.60	1075.29	1083.21	1108.92	1086.05	1074.22	1073.87	1073.34	1074.38
MAX	1099.47	1078.58	1079.32	1076.47	1075.67	1108.77	1111.87	1101.38	1081.65	1074.98	1075.06	1076.88
MIN	1078.15	1077.28	1075.04	1074.94	1075.13	1074.77	1102.94	1072.13	1071.23	1071.47	1072.06	1072.53
(+)	438,100	444,100	391,300	393,200	398,700	1,165,000	988,000	504,400	371,800	365,500	389,500	353,700
(#)	-161,800	+6,000	-52,800	+1,900	+5,500	+766,300	-177,000	-483,600	-132,600	-6,300	+24,000	-35,800

CAL YR 1986 (#) -32,000
WTR YR 1987 (#) -246,200

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

119

06887000 BIG BLUE RIVER NEAR MANHATTAN, KS

LOCATION.--Lat 39 deg 14 min 14 sec, long 96 deg 34 min 16 sec, in SW1/4 NW1/4 SE1/4 sec.30, T.9 S., R.8 E., Riley County, Hydrologic Unit 10270205, on right bank at downstream side of highway bridge, 2.5 mi downstream from Tuttle Creek Dam, 4.0 mi north of Manhattan, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--9,640 sq mi.

PERIOD OF RECORD.--May to July 1951 (published in WSP 1139), October 1954 to current year. Records for April 1895 to October 1905, published in previous Annual Reports and Water-Supply Papers, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorders. Datum of gage is 988.86 ft above sea level. May 1 to July 31, 1951, nonrecording gage above power dam 1.1 mi upstream at datum 8.34 ft higher. Oct. 1 to Nov. 17, 1954, nonrecording gage and Nov. 18, 1954, to Sept. 30, 1974, recording gage at present site and datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1962 by Tuttle Creek Lake (station 06886900). Discharge may, at times, be affected by backwater from the Kansas River.

AVERAGE DISCHARGE.--7 years (water years 1955-61), 1,768 cu ft per sec, 1,281,000 acre-ft per yr; 24 years (water years 1964-87, since conservation pool at Tuttle Creek Lake was first filled), 2,500 cu ft per sec, 1,811,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,400 cu ft per sec July 12, 1951, gage height, 36.04 ft, present site and datum, from floodmarks, from rating curve extended above 35,000 cu ft per sec on basis of slope-area measurement of peak flow; minimum discharge, 0.2 cu ft per sec Nov. 23, 1978. Maximum discharge since construction of Tuttle Creek Lake in 1962, 31,500 cu ft per sec June 19, 1967, gage height, 24.61 ft present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 31, 1903, reached a stage of 38.85 ft, and flood in June 1941 reached a stage of about 37.1 ft, from floodmarks and information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,800 cu ft per sec Apr. 17, gage height, 20.38 ft; minimum discharge, 1.6 cu ft per sec Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2030	5430	1440	1750	1360	1080	11500	25300	7580	4610	1880	4890
2	4690	1910	1440	1750	1350	1470	12100	24700	13100	5730	1880	4910
3	4820	1490	1440	1750	1340	2560	11500	24700	17200	5790	1870	4890
4	4940	1990	1440	1740	1340	2560	11500	24800	19400	5820	1860	4280
5	4540	2340	1980	1610	1340	2540	11700	24600	22600	5810	1850	2430
6	4380	2490	2590	1380	1340	2520	11700	20000	22600	5910	1840	2420
7	4340	2720	2630	1370	1340	2510	13600	4990	17900	5810	1580	1860
8	4890	2700	2630	780	1340	2490	16300	2230	8910	5770	1260	531
9	7340	2670	3170	164	1340	1960	17800	3370	2750	5730	1240	521
10	9940	3040	5120	154	1340	964	21300	13600	1030	4080	1230	1570
11	10100	3450	5490	151	1340	955	19900	23000	140	2300	1230	2880
12	10200	3440	5480	152	1340	959	5900	22800	373	2430	1240	2890
13	10400	3420	5450	153	1340	964	2220	22600	2160	2250	1250	2870
14	10400	3420	5430	152	1340	974	14800	22800	4430	2190	1240	2880
15	12100	3410	5400	325	1350	965	19900	22800	2180	2110	1230	2890
16	17000	3410	5370	1190	1330	1240	14100	22500	3790	2020	1230	2920
17	20000	2330	5340	1750	1330	1740	23100	22200	5660	1790	1220	3840
18	20000	204	4790	1740	1330	2610	21100	22700	5680	1370	1230	4760
19	19900	19	2460	1740	1330	3030	19900	23000	5680	1330	1740	4740
20	19900	99	1400	1740	1150	3510	7090	20900	5710	1310	2610	4720
21	20000	1450	1400	1740	954	4820	11000	17000	5740	1290	2610	4690
22	20000	1450	1590	1740	956	4610	18500	12700	5780	1280	2610	4670
23	20000	1450	1770	1740	959	4640	18700	7610	5940	1590	2330	4220
24	20200	1440	1760	1730	960	5500	11400	4610	6010	1960	1770	3810
25	20200	1440	1760	1730	956	6580	4200	4770	5910	1930	1780	3370
26	19900	1440	1760	1730	955	6970	13900	4630	5160	1930	1810	2870
27	20000	1440	1760	1550	954	6840	24500	4360	3600	1920	1780	2870
28	20200	1440	1750	1370	1030	6990	24300	5300	3640	1910	2080	2860
29	20300	1440	1750	1370	---	7190	24100	4930	3590	1910	2920	2840
30	18600	1450	1750	1360	---	8090	24400	5410	3590	1900	3670	2830
31	13300	---	1750	1350	---	11000	---	6480	---	1890	4030	---
TOTAL	414610	64422	89290	38951	34334	110831	462010	471390	217833	93670	58100	98722
MEAN	13370	2147	2880	1256	1226	3575	15400	15210	7261	3022	1874	3291
MAX	20300	5430	5490	1750	1360	11000	24500	25300	22600	5910	4030	4910
MIN	2030	19	1400	151	954	955	2220	2230	140	1280	1220	521
AC-FT	822400	127800	177100	77260	68100	219800	916400	935000	432100	185800	115200	195800
CAL YR 1986	TOTAL	1751696	MEAN	4799	MAX	23300	MIN	19	AC-FT	3474000		
WTR YR 1987	TOTAL	2154163	MEAN	5902	MAX	25300	MIN	19	AC-FT	4273000		

KANSAS RIVER BASIN

06887500 KANSAS RIVER AT WAMEGO, KS

LOCATION.--Lat 39 deg 11 min 52 sec, long 96 deg 18 min 16 sec, in NW1/4 SW1/4 NE1/4 sec.9, T.10 S., R.10 E., Pottawatomie County, Hydrologic Unit 10270102, on left bank at downstream side of bridge on State Highway 99 at Wamego, 3.0 mi downstream from Antelope Creek, and at mile 126.9.

DRAINAGE AREA.--55,280 sq mi, approximately, of which a large area is probably noncontributing.

PERIOD OF RECORD.--January 1919 to current year.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1310: 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 950.82 ft above sea level. Prior to Aug. 1 1934, nonrecording gage and Aug. 1, 1934, to Sept. 30, 1955, water-stage recorder at present site at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Jan. 22-27. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by reservoirs in Colorado, Nebraska, and Kansas, and by numerous small diversions for irrigation upstream from station. Satellite telemeter at station.

AVERAGE DISCHARGE.--68 years, 5,079 cu ft per sec, 3,680,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 400,000 cu ft per sec July 13, 1951, gage height, 30.56 ft, present datum, from rating curve extended above 170,000 cu ft per sec on basis of slope-area measurement of peak flow and flood routing studies; minimum discharge, 73 cu ft per sec Dec. 14, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1903 reached a stage of 29.3 ft, present datum, determined by U.S. Weather Bureau, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50,900 cu ft per sec Apr. 17, gage height, 16.48 ft; minimum discharge, 2,250 cu ft per sec Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6850	16700	3280	4100	3860	5680	32300	42800	16200	10500	6930	7380
2	11400	10300	3880	4100	3820	7450	30500	40800	18700	12600	6820	7880
3	13000	8130	4820	4130	3770	6490	25200	39700	25200	13100	6650	7900
4	16500	6830	4820	4130	3710	6790	24400	40700	28100	13400	6610	7810
5	12600	6800	4900	4130	3700	6340	25300	40700	33900	13600	6410	5990
6	10100	6720	6260	3710	3680	5830	25800	40100	33900	14400	6230	5050
7	8990	7010	6570	3400	3670	5540	26000	21200	32700	13900	6130	4850
8	8460	7010	6680	3340	3630	5330	31500	12300	21300	13900	5400	3460
9	10300	6530	6850	2690	3590	5150	31400	11700	13000	13700	5200	2710
10	14600	6160	8700	2490	3540	3710	34900	19600	8960	14500	5100	2730
11	16400	6740	9950	2410	3510	3210	38500	39600	7340	13300	5040	4460
12	17100	6410	9920	2350	3480	3120	21500	40000	6660	13900	4990	5330
13	19200	6310	9890	2300	3450	3050	14500	39500	7130	13400	5820	5230
14	19400	6250	9840	2280	3450	3000	27600	39400	10200	12500	5330	5080
15	19200	6130	9770	2360	3440	2950	48400	39800	9360	12100	5220	4960
16	25100	5980	9710	2670	3460	2960	42700	39400	8390	11300	4930	4960
17	30000	5820	9700	3670	3450	3810	45000	38900	11800	10600	4510	5010
18	32000	3390	9710	4010	3430	10100	45300	38900	12500	9090	4370	6470
19	31100	2550	8020	3710	3420	16700	45300	39900	12800	8120	4430	6630
20	30200	2330	4910	3560	3390	14400	34000	39000	12900	7790	5670	6620
21	30100	2820	3940	3780	3030	14600	29500	34700	13200	7580	6070	6570
22	29900	3480	3870	3900	2930	12300	43800	31600	13200	7420	6160	6570
23	30000	3440	4220	4000	2910	11200	42000	25500	14300	7100	5960	6500
24	31500	3420	4240	4000	2830	15400	31300	20000	15400	7640	4860	5970
25	32900	3380	4220	4000	2620	23400	14600	19400	15100	7540	4400	6470
26	30200	3330	4180	4000	2610	25600	18900	18800	14000	7350	4840	5690
27	29900	3310	4170	3900	2640	25200	38300	19700	11000	7340	5000	5590
28	30300	3300	4150	3880	3120	25700	37900	20800	10500	7250	4930	5570
29	30300	3300	4120	3880	---	26700	37500	20000	10500	7090	5920	5570
30	30000	3290	4100	3820	---	27200	37300	17400	10200	7040	6910	5550
31	25300	---	4100	3870	---	31500	---	16900	---	7000	6730	---
TOTAL	682900	167170	193490	108570	94140	360410	981200	948800	458440	326050	173570	170560
MEAN	22030	5572	6242	3502	3362	11630	32710	30610	15280	10520	5599	5685
MAX	32900	16700	9950	4130	3860	31500	48400	42800	33900	14500	6930	7900
MIN	6850	2330	3280	2280	2610	2950	14500	11700	6660	7000	4370	2710
AC-FT	1355000	331600	383800	215300	186700	714900	1946000	1882000	909300	646700	344300	338300
CAL YR 1986 TOTAL	2955710			MEAN 8098	MAX 32900	MIN 2270	AC-FT 5863000					
WTR YR 1987 TOTAL	4665300			MEAN 12780	MAX 48400	MIN 2280	AC-FT 9254000					

KANSAS RIVER BASIN

121

06888350 KANSAS RIVER NEAR BELVUE, KS

LOCATION.--Lat 39 deg 11 min 15 sec, long 96 deg 08 min 50 sec, in NW1/4 NW1/4 NW1/4 sec.13, T.10 S., R.11 E., Wabaunsee County, Hydrologic Unit 10270102, on left bank at downstream side of bridge on county road, 3.5 mi southeast of Belvue, 1.3 mi downstream from Wells Creek, 6.4 mi downstream from Vermillion Creek, and at mile 115.0.

DRAINAGE AREA.--55,870 sq mi, of which a large area is probably noncontributing.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 925.54 ft above sea level.

REMARKS.--Estimated daily discharges: Jan. 18, 19, 22-28 and May 15-17. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by lakes and reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions upstream from station.

AVERAGE DISCHARGE.--5 years, 8,415 cu ft per sec, 6,097,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,000 cu ft per sec June 11, 1984, gage height, 20.34 ft, from floodmark; minimum discharge, 688 cu ft per sec Sept. 9, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52,200 cu ft per sec Apr. 15, gage height, 17.87 ft, minimum discharge, 3,350 cu ft per sec Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8170	19400	3820	4320	4020	9240	31900	40800	16300	9990	6850	7860
2	10800	12700	4100	4320	3990	9270	30600	40900	18300	11800	6760	8520
3	15300	10100	5270	4300	3930	7570	25600	40700	24200	12500	6630	8550
4	24300	8710	5300	4280	3850	7580	24300	41400	26700	12800	6600	8500
5	14400	8280	5320	4260	3830	7130	24800	41900	32300	13100	6460	7340
6	11500	8230	6570	4210	3820	6510	25500	42100	34600	13700	6290	5930
7	9940	8400	7560	3860	3810	6140	25400	19800	34000	13400	6230	5730
8	9720	8590	8270	3740	3750	5900	30300	12800	22500	13300	5720	4730
9	10700	7830	8400	3350	3670	5700	30700	12000	14600	13100	5420	3570
10	14200	7310	8600	3010	3660	4840	33800	17100	9920	13900	5340	3650
11	19300	7740	10000	2950	3680	4040	37900	37400	8780	12700	5270	4850
12	21100	7230	10000	2930	3650	3880	23800	39900	8350	13200	5260	6110
13	19600	7070	10000	2920	3670	3780	15800	39400	8220	12900	6030	6060
14	20200	7560	10000	2930	3740	3710	27100	39800	10200	11700	5790	5920
15	20000	7440	10000	2950	3790	3660	49500	38200	10500	11500	5650	5810
16	24500	7130	10000	3040	3800	3640	44200	37800	8890	10800	5450	6150
17	29300	6990	9900	3680	3750	4160	41800	37000	11400	10100	5080	5900
18	31700	4910	9900	3800	3750	18700	45200	36800	12200	8970	4970	6810
19	31500	3760	9460	3900	3790	27600	44700	37900	12200	7820	5050	7230
20	30600	3340	6370	3930	3840	16600	36000	37500	12400	7670	5900	7170
21	30900	3440	4610	3960	3670	16000	27100	33500	12700	7560	6730	7110
22	30800	4310	4380	3980	3510	13800	41000	29700	12700	7410	6780	7060
23	31000	4060	4500	4000	3470	12400	41900	24400	13200	7200	6640	7050
24	32800	4050	4530	4000	3400	18000	33400	19400	14900	7410	5850	6510
25	35100	3920	4470	4000	3200	26800	15100	20100	14700	7470	5060	6960
26	32600	3810	4430	4000	3140	26000	15600	19300	13400	7280	5590	6420
27	30700	3790	4400	4000	3190	25300	35500	27500	10900	7230	5790	6200
28	31400	3790	4380	4000	4000	25600	37200	29000	10000	7180	5770	6170
29	30900	3800	4360	4030	---	26500	36800	21600	10200	7650	6370	6140
30	30900	3830	4390	4010	---	26800	36500	18000	9880	6930	7570	6130
31	27100	---	4340	4010	---	30200	---	17800	---	6880	7560	---
TOTAL	721030	201520	207630	116670	103370	407050	969000	951500	459140	315150	186460	192140
MEAN	23260	6717	6698	3744	3692	13130	32300	30690	15300	10170	6015	6405
MAX	35100	19400	10000	4320	4020	30200	49500	42100	34600	13900	7570	8550
MIN	8170	3340	3820	2920	3140	3640	15100	12000	8220	6880	4970	3570
AC-FT	1430000	399700	411800	231400	205000	807400	1922000	1887000	910700	625100	369800	381100
CAL YR 1986	TOTAL	3314880	MEAN	9082	MAX	35100	MIN	2460	AC-FT	6575000		
WTR YR 1987	TOTAL	4830660	MEAN	13230	MAX	49500	MIN	2920	AC-FT	9582000		

06888500 MILL CREEK NEAR PAXICO, KS

LOCATION.--Lat 39 deg 03 min 44 sec, long 96 deg 10 min 52 sec, in SW1/4 NE1/4 SW1/4 sec.27, T.11 S., R.11 E., Wabaunsee County, Hydrologic Unit 10270102, on right bank at upstream side of bridge on Interstate Highway 70, 1.0 mi southwest of Paxico, 2.0 mi downstream from Kuenzli Creek, and 16.0 mi upstream from mouth.

DRAINAGE AREA.--316 sq mi.

PERIOD OF RECORD.--December 1953 to current year.

REVISED RECORDS.--WSP 1560: 1954, 1957.

GAGE.--Water-stage recorder. Datum of gage is 964.92 ft above sea level. Prior to Apr. 15, 1958, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 17-27. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--33 years (water years 1955-87), 186 cu ft per sec, 134,800 acre ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,200 cu ft per sec Sept. 26, 1973, gage height, 32.21 ft; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known stage since at least 1935, 34.7 ft July 12, 1951, from flood-marks, discharge, 77,200 cu ft per sec, from contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 2	2000	3,170	10.15	Mar. 24	0500	3,910	11.43
Oct. 11	2400	9,320	19.15	Apr. 14	0600	9,700	19.62
Feb. 28	2300	8,220	17.72	May 27	2000	*10,500	*20.48
Mar. 18	1500	9,950	19.94	Aug. 26	1400	3,620	10.94

Minimum discharge, 15 cu ft per sec Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	584	220	124	109	201	3310	437	204	233	64	18	45
2	1930	209	122	106	190	959	390	220	211	60	18	40
3	1370	210	121	110	177	607	363	203	318	56	17	37
4	818	247	117	110	168	480	347	310	200	52	18	33
5	505	274	113	106	195	417	326	489	174	55	18	31
6	406	282	111	103	257	375	314	302	156	65	19	28
7	354	245	133	101	212	340	302	256	140	61	19	32
8	314	241	306	97	201	313	286	227	125	86	19	54
9	348	227	242	109	185	290	276	209	120	53	19	32
10	306	213	186	110	184	270	288	193	115	47	18	49
11	2540	211	166	102	181	255	268	180	113	43	18	58
12	2320	204	162	99	172	241	252	170	108	40	20	41
13	667	186	157	107	167	226	749	160	98	40	364	35
14	565	181	157	189	169	219	4940	152	90	39	85	31
15	461	182	156	167	173	211	1770	142	83	37	46	37
16	393	182	153	143	200	208	788	132	78	33	34	33
17	352	182	151	130	189	273	625	126	72	31	28	28
18	320	173	148	127	178	6050	520	121	76	31	28	26
19	294	160	142	120	175	2080	452	131	142	31	27	24
20	272	165	141	113	172	799	398	112	87	29	192	23
21	257	159	136	110	171	613	365	106	78	27	71	21
22	252	155	132	109	168	518	344	101	74	25	46	20
23	254	152	130	108	162	667	326	96	79	25	35	19
24	793	145	129	106	157	2530	304	99	79	24	30	19
25	488	141	127	105	154	1300	287	202	74	23	30	19
26	415	138	123	105	152	823	271	138	67	22	1040	18
27	324	135	119	108	158	672	255	4320	62	22	291	18
28	287	132	118	131	2340	628	236	1640	75	21	133	17
29	263	131	117	203	---	600	228	449	69	20	88	16
30	248	127	114	341	---	499	212	333	63	19	67	15
31	234	---	111	219	---	467	---	276	---	19	53	---
TOTAL	18934	5609	4464	4003	7208	27240	16919	11799	3459	1200	2909	899
MEAN	611	187	144	129	257	879	564	381	115	38.7	93.8	30.0
MAX	2540	282	306	341	2340	6050	4940	4320	318	86	1040	58
MIN	234	127	111	97	152	208	212	96	62	19	17	15
AC-FT	37560	11130	8850	7940	14300	54030	33560	23400	6860	2380	5770	1780
CAL YR 1986	TOTAL	103904	MEAN 285	MAX 7490	MIN 30	AC-FT 206100						
WTR YR 1987	TOTAL	104643	MEAN 287	MAX 6050	MIN 15	AC-FT 207600						

KANSAS RIVER BASIN

123

06889000 KANSAS RIVER AT TOPEKA, KS

LOCATION.--Lat 39 deg 34 min 00 sec, long 95 deg 38 min 58 sec, in SW1/4 SW1/4 NW1/4 sec.28, T.11 S., R.16 E., Shawnee County, Hydrologic Unit 10270102, near right bank at downstream side of Sardou Bridge in Topeka, 2.3 mi upstream from Soldier Creek (diversion channel) and at mile 33.1.

DRAINAGE AREA.--56,720 sq mi, approximately, of which a large area is probably noncontributing.

PERIOD OF RECORD.--April to August 1904 (gage heights only), June 1917 to current year. Gage-height records for this vicinity since August 1904 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1310: 1920(M), 1922(M).

GAGE.--Water-stage recorder. Datum of gage is 851.66 ft above sea level. Prior to Feb. 28, 1961, recording or nonrecording gages at several sites within 8,000 ft of present site at various datum.

REMARKS.--Estimated daily discharges: Oct. 4, 5, Nov. 11-14, Jan. 19-28, and June 18-22. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions upstream from station. Satellite telemeter at station.

AVERAGE DISCHARGE.--70 years, 5,657 cu ft per sec, 4,098,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 469,000 cu ft per sec July 13, 1951, gage height, 35.8 ft, from floodmark, present site and datum; minimum discharge, 112 cu ft per sec Dec. 16, 1940, result of freezeup. Maximum stage known since at least 1844, that of July 13, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1903 (second highest since 1844) reached a stage of about 33 ft, present site and datum, from floodmarks at site 5,900 ft upstream, discharge, about 300,000 cu ft per sec. A flood in the spring of 1844 is known to have been higher than that of 1903.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 57,800 cu ft per sec May 28, gage height, 18.56 ft; minimum discharge, 2,340 cu ft per sec Feb. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12100	21100	3620	4480	3810	16500	31900	37000	19400	9950	6390	6560
2	10400	14400	3650	4440	3790	11500	31200	40300	19100	10600	6340	7310
3	19300	10500	4220	4430	3730	8730	27800	38600	23800	12400	6220	7580
4	27200	9170	5020	4420	3690	7520	25000	41000	27400	12700	6140	7700
5	18900	8170	5120	4380	3810	7440	25100	41400	30800	13500	6110	7520
6	13700	8260	5550	4420	3970	6800	25900	41000	33400	13500	5880	5820
7	11100	8100	7120	4090	3830	6270	25900	34000	33200	14800	5770	5140
8	9970	8330	8190	3840	3780	5920	28000	16900	27500	15100	5610	4930
9	9670	8170	8630	3840	3620	5660	30800	13300	19000	13500	4980	3620
10	12100	7540	8000	3430	3600	5330	31900	14000	11500	13300	4780	3330
11	17700	7310	9490	3180	3570	4090	35000	30100	9210	13600	4670	3220
12	31700	7310	10200	3120	3560	3650	30600	38500	8060	12900	4680	4770
13	20400	7290	10100	3090	3530	3550	19600	37900	7580	13400	5860	5460
14	20600	7270	10000	3120	3520	3460	28600	37500	8210	12300	6040	5340
15	19700	7220	9900	3310	3600	3410	47500	37700	10600	11900	5110	5300
16	21200	7110	9860	3290	3680	3370	45600	37600	8830	11200	4910	5290
17	25600	6980	9800	3390	3670	4480	38400	37300	9200	10400	4580	5680
18	28500	6580	9760	3920	3590	28500	44900	37000	11000	9840	4520	5330
19	29100	4320	9510	4000	3550	45900	42700	37600	12400	8280	4430	6480
20	28100	3300	7750	3800	3530	21900	40500	37700	12500	7650	4830	6540
21	27900	2920	5250	3700	3550	17900	29100	35600	12600	7370	5770	6500
22	27900	3250	4540	3600	3330	16300	35000	32400	12800	7160	5870	6460
23	28400	3760	4460	3600	3190	13700	41600	27700	13500	6980	5860	6420
24	29200	3730	4630	3600	3140	19200	37700	23000	14900	6730	5640	6270
25	33500	3710	4610	3500	3030	31300	22300	25500	15300	7160	4580	5880
26	30100	3720	4560	3600	2870	28800	15100	22700	14500	6980	5800	6180
27	28700	3640	4490	3700	2880	26900	28300	27200	12900	6820	6490	5490
28	28300	3610	4460	3800	4090	26200	37000	50800	10400	6800	5260	5420
29	28300	3570	4540	3790	---	27200	36100	28700	10300	6640	5030	5370
30	28100	3540	4510	4030	---	27500	35800	23300	10100	6530	5990	5310
31	26100	---	4500	3890	---	28400	---	20600	---	6460	6760	---
TOTAL	703540	203880	206040	116800	99510	467380	974900	1003900	469990	316450	170900	172220
MEAN	22690	6796	6646	3768	3554	15080	32500	32380	15670	10210	5513	5741
MAX	33500	21100	10200	4480	4090	45900	47500	50800	33400	15100	6760	7700
MIN	9670	2920	3620	3090	2870	3370	15100	13300	7580	6460	4430	3220
AC-FT	1395000	404400	408700	231700	197400	927000	1934000	1991000	932200	627700	339000	341600
CAL YR 1986	TOTAL	3260620	MEAN	8933	MAX	33500	MIN	2450	AC-FT	6467000		
WTR YR 1987	TOTAL	4905510	MEAN	13440	MAX	50800	MIN	2870	AC-FT	9730000		

KANSAS RIVER BASIN

06889100 SOLDIER CREEK NEAR GOFF, KS

LOCATION.--Lat 39 deg 37 min 27 sec, long 95 deg 57 min 57 sec, in NW1/4 NW1/4 NE1/4 sec.16, T.5 S., R.13 E., Nemaha County, Hydrologic Unit 10270102, on left bank at downstream side of highway bridge, 3.3 mi southwest of Goff, and at mile 71.9.

DRAINAGE AREA.--2.06 sq mi.

PERIOD OF RECORD.--March 1964 to June 1987 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,297.10 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 13, 14, Dec. 10, 12, 13, 30, Jan. 2, 9, 10, 15-30, and Feb. 17-19. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--22 years, 1.38 cu ft per sec, 1,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,080 cu ft per sec May 10, 1970, gage height, 15.18 ft, from rating curve extended above 250 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 100 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	1115	232	8.01	Apr. 14	1030	146	6.88
Mar. 17	2315	294	8.71	May 27	0830	260	8.34
Mar. 24	1715	114	6.40	May 27	1645	*350	*9.28

Minimum discharge, 0.06 cu ft per sec June 15, 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.73	.48	1.1	.36	.54	6.9	.86	.68	.57			
2	2.0	.48	1.0	.30	.54	1.6	.60	.67	.61			
3	47	.58	.65	.26	.42	.73	.54	7.1	.55			
4	2.9	.66	.51	.26	.36	.54	.54	3.6	.40			
5	1.2	.62	.43	.26	.37	.42	.54	3.3	.49			
6	.73	.61	.42	.29	.42	.37	.48	2.6	.45			
7	.44	.57	3.7	.29	.42	.35	.48	.91	.33			
8	.32	.98	3.3	.26	.40	.31	.48	.67	.26			
9	.37	.55	1.4	.40	.31	.28	.42	.59	.52			
10	.42	.50	.70	.35	.31	.22	.47	.52	.56			
11	27	.45	.57	.34	.31	.18	.46	.48	.30			
12	3.0	.41	.52	.31	.31	.18	.42	.41	.20			
13	1.1	.39	.52	1.2	.31	.18	1.4	.36	.14			
14	.82	.38	.55	1.4	.31	.18	31	.36	.10			
15	.68	.37	.61	.70	.31	.18	3.4	.36	.09			
16	.61	.36	.62	.60	.30	.37	1.5	.36	.14			
17	.55	.31	.68	.50	.30	39	1.0	.36	.14			
18	.54	.31	.47	.40	.27	66	.78	.36	.14			
19	.54	.32	.47	.30	.27	5.3	.71	.36	.15			
20	.56	.51	.44	.30	.26	2.1	.66	.36	.20			
21	.66	.37	.42	.30	.26	1.5	.61	.52	.20			
22	1.2	.36	.42	.30	.26	1.3	.65	.35	.14			
23	1.4	.34	.42	.25	.28	1.8	.70	.31	.14			
24	1.0	.22	.38	.25	.26	27	.75	1.1	.11			
25	5.5	.23	.36	.25	.26	7.2	.75	13	.08			
26	2.1	.36	.37	.25	.26	1.9	.72	1.0	.08			
27	.81	.22	.36	.30	.32	1.4	.69	83	.06			
28	.54	.22	.36	.40	10	2.0	.68	4.8	.09			
29	.44	.22	.36	.50	---	1.9	.68	8.0	.08			
30	.43	.22	.36	.60	---	1.4	.68	1.4	.08			
31	.48	---	.36	.55	---	1.0	---	.78	---			
TOTAL	106.07	12.60	22.83	13.03	18.94	173.79	53.65	138.67	7.40			
MEAN	3.42	.42	.74	.42	.68	5.61	1.79	4.47	.25			
MAX	47	.98	3.7	1.4	10	66	31	83	.61			
MIN	.32	.22	.36	.25	.26	.18	.42	.31	.06			
AC-FT	210	25	45	26	38	345	106	275	15			

CAL YR 1986 TOTAL 667.46 MEAN 1.33 MAX 125 MIN .00 AC-FT 1320

KANSAS RIVER BASIN

125

06989120 SOLDIER CREEK NEAR BANCROFT, KS

LOCATION.--Lat 39 deg 35 min 42 sec, long 95 deg 58 min 17 sec, in NE1/4 NW1/4 NW1/4 sec.28, T.5 S., R.13 E., Nemaha County, Hydrologic Unit 10270102, on right bank at downstream side of highway bridge, 4.0 mi west of Bancroft, and at mile 68.7.

DRAINAGE AREA.--10.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,239.50 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 29 to Dec. 10, Dec. 13, 15, 18-21, 24-26, 29, 30, Jan. 3-5, 9-11, 15-30, Feb. 5-9, Feb. 12 to Mar. 1, Mar. 8 to Apr. 1, Apr. 3 to May 12, and June 4-16. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--23 years, 6.94 cu ft per sec, 5,030 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 cu ft per sec May 10, 1970, gage height, 16.09 ft, from rating curve extended above 1,500 cu ft per sec on basis of contracted-opening and flow-over-road measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	1145	993	10.25	May 27	0915	993	10.25
Oct. 11	1645	469	7.42	May 27	1745	1,020	10.40
Mar. 18	0015	*1,260	*11.43				

Minimum daily discharge, 0.03 cu ft per sec Aug. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	2.1	6.0	1.9	2.7	70	5.0	1.6	2.9	.68	.10	.06
2	9.0	2.0	6.5	1.9	2.5	9.4	3.7	1.6	3.3	.65	.07	.06
3	246	2.1	3.0	1.9	2.5	5.1	3.3	140	2.1	.52	.07	.06
4	16	2.1	2.2	1.9	2.2	4.1	3.1	40	1.5	.44	.07	.07
5	4.8	2.0	1.8	2.0	2.5	3.4	3.0	30	1.3	.45	.07	.06
6	3.1	2.0	2.2	2.2	2.8	3.0	2.8	35	1.2	.42	.04	.07
7	2.6	1.9	30	1.7	2.6	2.8	2.7	5.0	1.1	.47	.05	.13
8	2.3	2.6	35	1.8	2.1	2.7	2.6	4.0	.95	.51	.10	.23
9	2.2	1.9	6.0	1.6	1.8	2.5	2.5	3.2	.90	.61	.12	.26
10	2.1	1.7	4.5	1.5	2.1	2.3	3.0	2.5	4.0	.67	.12	2.5
11	177	1.7	3.2	1.5	2.0	2.2	2.5	2.0	2.0	.69	.12	.41
12	21	1.8	2.8	1.6	2.0	2.2	2.3	1.7	1.4	.61	.12	.18
13	6.8	1.8	2.5	7.1	2.0	2.2	6.5	1.7	1.0	.38	.26	.17
14	5.1	1.7	2.2	14	2.0	2.2	145	1.4	.80	.31	.14	11
15	4.2	1.8	2.4	4.0	1.8	2.2	20	1.2	.72	.30	.12	27
16	3.7	1.9	2.8	2.5	1.7	2.7	9.2	1.1	.67	.29	.06	2.1
17	3.5	1.9	2.6	2.3	1.6	190	7.6	1.0	.78	.41	.04	.73
18	3.3	1.9	2.1	2.1	1.5	350	6.0	.96	.77	.81	.68	.44
19	3.2	1.9	2.0	2.0	1.7	40	5.0	.99	.86	.58	.35	.30
20	2.9	2.6	1.9	2.0	1.8	15	4.0	.90	.99	.47	.42	.26
21	2.7	2.2	2.0	2.0	1.8	10	3.6	1.2	1.1	.41	.13	.20
22	3.4	2.5	2.1	2.0	2.2	7.0	3.2	.92	1.0	.31	.05	.20
23	3.8	2.2	2.2	1.8	1.7	15	2.9	.79	.95	.33	.03	.20
24	3.2	2.0	2.2	1.5	1.7	180	2.6	3.2	.73	.22	.03	.19
25	42	2.1	2.2	1.2	1.7	60	2.4	84	.57	.20	.04	.17
26	9.8	2.2	2.0	1.2	1.6	15	2.2	3.3	.54	.23	.74	.15
27	3.3	2.1	1.8	1.3	2.0	10	2.0	373	.51	.13	.37	.14
28	2.7	2.2	2.1	1.6	80	13	1.9	25	.72	.10	.19	.13
29	2.4	2.1	2.2	2.1	---	15	1.8	38	.64	.11	.10	.12
30	2.5	2.0	2.2	2.7	---	8.0	1.7	7.0	.62	.11	.10	.11
31	2.4	---	1.9	2.5	---	6.0	---	3.9	---	.10	.07	---
TOTAL	601.3	61.0	144.6	77.4	134.6	1053.0	264.1	816.16	36.62	12.52	4.97	47.70
MEAN	19.4	2.03	4.66	2.50	4.81	34.0	8.80	26.3	1.22	.40	.16	1.59
MAX	246	2.6	35	14	80	350	145	373	4.0	.81	.74	.27
MIN	2.1	1.7	1.8	1.2	1.5	2.2	1.7	.79	.51	.10	.03	.06
AC-FT	1190	121	287	154	267	2090	524	1620	73	25	9.9	95
CAL YR 1986	TOTAL	4060.76	MEAN	11.1	MAX	551	MIN	.12	AC-FT	8050		
WTR YR 1987	TOTAL	3253.97	MEAN	8.91	MAX	373	MIN	.03	AC-FT	6450		

KANSAS RIVER BASIN

06889140 SOLDIER CREEK NEAR SOLDIER, KS

LOCATION.--Lat 39 deg 33 min 57 sec, long 95 deg 57 min 45 sec, in NW1/4 NE1/4 NE1/4 sec.4, T.6 S., R.13 E., Jackson County, Hydrologic Unit 10270102, on left bank at downstream side of highway bridge, 2.0 mi north of Soldier, and at mile 65.7.

DRAINAGE AREA.--16.9 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,206.02 ft above sea level.

REMARKS.--Estimated daily discharge: Dec. 10, 13, Jan. 9-11, 15, 16, 18-20, 22, 23, July 21 to Sept. 8, and Sept. 23-30. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--23 years, 10.9 cu ft per sec, 7,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 cu ft per sec May 10, 1970, gage height, 16.46 ft, from rating curve extended above 1,200 cu ft per sec on basis of contracted-opening measurement of peak flow; no flow at times in 1966-62, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	1115	1,220	6.35	May 3	0530	1,180	6.25
Mar. 18	0015	1,320	6.58	May 27	1630	*1,710	*7.37
Apr. 14	1100	613	4.71				

Minimum daily discharge, 0.23 cu ft per sec Aug. 6, but may have been less during periods of no stage-discharge relationship July 21 to Sept. 8 and Sept. 23-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	3.9	9.3	3.2	3.9	84	7.9	3.1	4.8	1.3	.35	.25
2	27	3.9	9.4	2.9	3.7	21	5.9	2.9	4.4	1.3	.30	.25
3	284	4.1	4.5	3.2	3.5	10	5.4	202	4.3	1.2	.27	.25
4	45	4.4	3.3	3.1	2.9	7.1	5.2	50	3.3	1.2	.26	.25
5	15	3.8	2.8	3.3	3.7	5.8	4.8	37	2.9	1.3	.25	.25
6	7.9	3.7	3.2	3.5	4.2	4.9	4.5	46	2.8	1.3	.23	.35
7	5.8	3.8	40	2.7	4.0	4.5	4.5	8.0	2.4	1.3	.25	.40
8	4.8	4.9	49	2.3	3.6	4.2	4.2	5.0	2.2	1.3	.35	.50
9	3.6	3.7	16	2.8	3.0	3.7	4.2	4.1	2.4	1.2	.30	.75
10	3.6	3.2	7.9	2.9	3.3	3.2	4.8	3.5	4.5	1.2	.30	6.1
11	174	3.1	5.5	2.7	2.9	3.2	4.2	3.1	2.8	1.1	.30	.74
12	41	3.1	4.6	2.8	2.9	3.3	3.9	2.8	2.1	1.6	.30	.41
13	13	2.8	4.4	8.6	2.9	3.3	9.7	2.6	2.0	1.3	.50	.36
14	8.4	2.9	4.3	18	2.9	3.3	201	2.6	1.8	1.0	.35	21
15	6.3	3.3	4.7	7.4	2.7	3.3	35	2.2	1.7	.96	.30	40
16	5.1	3.9	6.1	4.4	2.6	4.1	15	2.2	1.8	.96	.30	5.5
17	4.6	3.9	5.7	3.2	2.4	211	10	2.2	1.6	.96	.30	1.2
18	4.2	3.6	3.7	3.1	2.3	463	7.8	2.2	1.4	1.0	1.4	.70
19	4.0	3.4	3.5	3.1	2.5	53	6.7	2.4	1.6	1.2	.70	.45
20	3.6	3.9	3.4	3.0	2.6	22	5.7	2.2	1.6	1.1	.90	.41
21	3.6	3.5	3.3	3.0	2.6	14	5.1	2.4	1.6	1.0	.50	.36
22	4.6	3.5	3.2	3.0	3.0	10	4.8	2.1	1.6	.94	.30	.36
23	7.6	3.2	3.2	2.8	2.4	25	4.7	2.1	1.6	.90	.25	.35
24	4.9	2.9	3.1	2.1	2.4	190	4.2	4.6	1.3	.78	.25	.34
25	58	2.9	3.2	1.9	2.4	72	4.2	101	1.4	.70	.25	.33
26	29	2.9	2.9	1.9	2.3	22	4.1	5.9	1.3	.65	1.5	.32
27	8.9	2.9	3.1	2.1	2.9	14	3.6	490	1.3	.59	.75	.31
28	6.0	3.0	3.1	2.5	96	17	3.6	43	1.4	.53	.50	.30
29	5.0	2.9	3.3	3.2	---	20	3.6	51	1.4	.50	.40	.29
30	4.6	2.8	3.2	3.8	---	9.9	3.3	11	1.3	.45	.35	.28
31	5.1	---	3.2	3.2	---	9.5	---	6.7	---	.40	.30	---
TOTAL	813.2	103.8	226.1	115.7	176.5	1321.3	391.6	1105.9	66.6	31.22	13.56	83.36
MEAN	26.2	3.46	7.29	3.73	6.30	42.6	13.1	35.7	2.22	1.01	.44	2.78
MAX	284	4.9	49	18	96	463	201	490	4.8	1.6	1.5	.40
MIN	3.6	2.8	2.8	1.9	2.3	3.2	3.3	2.1	1.3	.40	.23	.25
AC-FT	1610	206	448	229	350	2620	777	2190	132	62	27	165
CAL YR 1986	TOTAL	6023.28	MEAN	16.5	MAX	640	MIN	.35	AC-FT	11950		
WTR YR 1987	TOTAL	4448.84	MEAN	12.2	MAX	490	MIN	.23	AC-FT	8820		

KANSAS RIVER BASIN

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06889160 SOLDIER CREEK NEAR CIRCLEVILLE, KS

LOCATION.--Lat 39 deg 27 min 47 sec, long 95 deg 57 min 00 sec, in NW1/4 NW1/4 NE1/4 sec.10, T.7 S., R.13 E., Jackson County, Hydrologic Unit 10270102, on right bank at downstream side of bridge on State Highway 16, 5.8 mi southwest of Circleville, and at mile 55.2.

DRAINAGE AREA.--49.3 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,094.58 ft above sea level.

REMARKS.--Estimated daily discharges: Jan. 2, 11, 16, 18-24, and Aug. 5. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--23 years, 34.7 cu ft per sec, 25,140 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,300 cu ft per sec June 9, 1984, gage height, 21.52 ft from rating curve extended above 4,000 cu ft per sec on basis of contracted-opening measurement of peak flow; minimum discharge, 0.06 cu ft per sec Oct. 1, 1980 and Sept. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	1345	2,450	11.86	Apr. 14	1200	2,000	10.48
Oct. 4	0015	1,330	8.63	May 3	0715	2,560	12.20
Oct. 11	1800	1,550	9.22	May 25	0115	2,350	11.56
Mar. 18	0045	3,690	15.37	May 27	1200	*5,120	*18.32
Mar. 18	1600	2,370	11.64	May 27	1800	5,040	18.24
Mar. 24	1845	1,970	10.38				

Minimum discharge, 0.82 cu ft per sec Aug. 4 and Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	13	21	10	11	297	34	12	39	5.2	1.2	1.2
2	21	12	22	10	11	58	29	11	33	4.7	1.2	1.2
3	723	12	14	10	9.4	35	26	619	30	4.7	1.1	1.2
4	221	13	11	9.9	8.6	27	24	94	24	4.7	1.1	1.3
5	37	12	9.8	9.9	10	24	23	116	21	4.7	1.1	1.4
6	24	11	10	10	11	21	22	135	19	4.7	1.1	1.6
7	19	11	56	9.4	10	20	21	39	16	4.7	1.1	1.6
8	16	12	95	8.3	9.7	18	20	27	15	5.8	1.1	1.6
9	15	12	32	10	8.2	17	18	22	15	5.0	1.2	1.6
10	14	10	24	9.9	8.1	16	20	19	13	4.9	1.3	5.8
11	497	9.6	22	9.5	8.5	15	18	17	17	4.5	1.2	6.2
12	122	9.2	17	9.4	8.0	15	16	15	13	8.6	1.1	2.9
13	31	8.2	16	12	7.8	15	22	13	11	5.7	1.7	1.7
14	23	8.3	16	24	8.0	15	684	12	11	4.4	1.8	39
15	20	9.2	15	16	8.0	15	117	11	9.5	4.7	1.5	108
16	17	10	16	13	7.9	16	58	10	8.6	4.8	1.2	26
17	16	10	16	11	7.1	617	42	9.8	7.8	4.2	1.0	7.0
18	15	9.5	14	10	6.6	1950	34	9.6	7.1	4.4	1.3	3.5
19	14	8.8	13	9.6	6.8	206	29	9.5	33	3.3	1.9	2.5
20	13	9.5	13	9.0	7.0	90	25	8.8	15	3.4	2.5	2.0
21	12	8.9	12	8.3	7.1	66	23	8.5	9.5	3.2	1.9	1.7
22	13	8.7	12	7.8	7.5	52	21	8.5	11	3.3	1.4	1.5
23	16	8.2	12	7.1	6.8	72	20	7.9	14	3.1	1.1	1.5
24	14	7.6	12	6.8	6.7	663	18	36	8.5	3.0	1.0	1.5
25	69	7.6	11	6.3	6.7	260	17	608	6.6	2.7	1.5	1.3
26	44	7.9	11	6.8	6.7	84	16	47	6.1	3.0	3.4	1.3
27	21	7.5	11	7.7	8.0	60	14	2580	5.7	2.4	3.2	1.1
28	17	7.5	11	8.4	298	50	14	261	5.5	1.9	2.7	.95
29	15	7.7	11	10	---	54	14	158	5.8	1.5	1.9	1.1
30	13	7.3	10	11	---	41	12	75	5.8	1.5	1.5	.86
31	13	---	10	9.8	---	38	---	50	---	1.3	1.4	---
TOTAL	2144	289.7	575.8	310.9	520.2	4937	1451	5049.6	441.5	124.5	47.7	230.11
MEAN	69.2	9.66	18.6	10.0	18.6	159	48.4	163	14.7	4.02	1.54	7.67
MAX	723	13	95	24	298	1950	684	2580	39	8.6	3.4	108
MIN	12	7.5	9.8	6.3	6.6	15	12	7.9	5.5	1.3	1.0	.86
AC-FT	4250	575	1140	617	1030	9790	2880	10020	376	247	95	456

CAL YR 1986 TOTAL 15004.90 MEAN 41.1 MAX 1560 MIN 2.4 AC-FT 29760
WTR YR 1987 TOTAL 16122.01 MEAN 44.2 MAX 2580 MIN .86 AC-FT 31980

KANSAS RIVER BASIN

06889200 SCLDIER CREEK NEAR DELIA, KS

LOCATION.--Lat 39 deg 12 min 08 sec, long 95 deg 52 min 25 sec, in NE1/4 NW1/4 NE1/4 sec.8, T.10 S., R.14 E., Shawnee County, Hydrologic Unit 10270102, on right bank at downstream side of highway bridge, 5.1 mi upstream from Walnut Creek, 5.5 mi southeast of Delia, and at mile 21.9.

DRAINAGE AREA.--157 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 931.34 ft above sea level.

REMARKS.--Estimated daily discharges: Jan. 18-25. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--29 years, 102 cu ft per sec, 73,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 cu ft per sec June 9, 1982, gage height, 23.95 ft; no flow Sept. 10-12, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1909, about 24 ft June 21, 1951, from flood-marks and information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 4	1700	4,620	19.25	Apr. 14	2400	2,250	14.28
Oct. 12	0500	3,380	17.66	May 3	1300	2,190	14.08
Mar. 18	1800	9,290	21.46	May 28	0300	*9,950	*21.60
Mar. 24	2300	3,170	17.09				

Minimum discharge, 5.3 cu ft per sec Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	297	74	54	44	51	1290	147	56	151	25	7.8	8.4
2	506	72	91	39	49	305	130	54	154	24	7.1	7.8
3	886	72	85	45	44	155	119	1280	265	22	6.4	7.5
4	3040	101	57	46	40	117	114	441	114	21	6.7	7.0
5	353	88	44	43	48	101	108	405	96	210	6.3	6.9
6	174	77	47	43	58	90	104	533	86	57	6.0	7.4
7	130	71	190	41	50	93	100	227	77	579	6.5	8.6
8	107	74	429	38	46	76	95	126	69	112	6.5	12
9	93	68	236	41	41	71	90	102	64	39	5.7	12
10	86	62	126	46	40	67	94	88	75	30	6.5	47
11	970	61	86	35	40	65	91	79	73	25	6.6	27
12	2000	57	93	45	40	63	82	71	65	24	6.5	15
13	267	46	77	48	38	62	102	64	54	27	12	12
14	191	55	73	63	39	61	1140	59	48	29	11	9.5
15	148	57	73	76	39	60	944	55	45	23	11	125
16	123	60	72	44	43	62	238	50	45	20	8.5	149
17	108	59	72	38	40	484	164	48	39	19	7.0	42
18	97	56	65	35	36	6010	136	45	37	20	14	21
19	88	51	60	33	36	3410	119	43	34	25	136	15
20	81	52	57	32	36	416	105	41	73	19	205	12
21	76	51	56	33	36	271	95	38	52	16	27	10
22	85	48	56	31	36	208	89	36	50	15	13	8.7
23	467	46	54	30	34	192	86	35	48	14	8.4	8.3
24	151	42	53	30	34	1440	81	38	43	13	6.9	8.1
25	190	41	52	30	34	2000	76	1350	32	12	7.1	7.8
26	306	41	49	32	33	438	72	249	28	11	70	7.4
27	173	39	48	35	36	264	68	2530	25	11	52	6.9
28	117	39	49	40	275	212	62	6220	25	9.4	20	6.3
29	96	39	49	52	---	200	61	466	26	8.6	14	5.9
30	86	39	46	56	---	178	59	321	25	8.2	11	5.5
31	80	---	45	48	---	156	---	193	---	8.3	9.6	---
TOTAL	11572	1738	2644	1292	1372	18607	4971	15343	2018	1476.5	722.1	627.0
MEAN	373	57.9	85.3	41.7	49.0	600	166	495	67.3	47.6	23.3	20.9
MAX	3040	101	429	76	275	6010	1140	6220	265	579	205	149
MIN	76	39	44	30	33	60	59	35	25	8.2	5.7	5.5
AC-FT	22950	3450	5240	2560	2720	36910	9860	30430	4000	2930	1430	1240
CAL YR 1986	TOTAL	53518.3	MEAN	147	MAX	4160	MIN	9.3	AC-FT	106200		
WTR YR 1987	TOTAL	62382.6	MEAN	171	MAX	6220	MIN	5.5	AC-FT	123700		

06889500 SOLDIER CREEK NEAR TOPEKA, KS

LOCATION.--Lat 39 deg 06 min 00 sec, long 95 deg 43 min 27 sec, in SW1/4 NW1/4 NW1/4 sec.14, T.11 S., R.15 E., Shawnee County, Hydrologic Unit 10270102, on right bank at downstream side of highway bridge, 1.5 mi upstream from Halfday Creek, 4.0 mi northwest of Topeka, and at mile 6.0.

DRAINAGE AREA.--290 sq mi.

PERIOD OF RECORD.--May 1929 to September 1932, August 1935 to current year. Prior to October 1935, published as "at Topeka." Records for October 1932 to July 1935, published in WSP 746, 761, and 786, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1440: 1929-30(M), 1941-42, 1948(P), 1950. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 862.95 ft above sea level. Prior to July 27, 1935, chain gage at site 2.0 mi downstream at different datum. Aug. 1, 1935, to June 16, 1958, nonrecording gage and June 17, 1958, to May 24, 1960, water-stage recorder, at present site and datum 4.0 ft higher. May 25, 1960, to June 8, 1961, nonrecording gage at site 1.1 mi downstream at datum 1.79 ft lower.

REMARKS.--Estimated daily discharges: Oct. 11 to Nov. 19, Jan. 18-26, and Aug. 5-11. Records good except those for Aug. 13 to Sept. 4, which are fair, and estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--55 years, (water years 1930-32, 1936-37), 153 cu ft per sec, 110,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 cu ft per sec June 9, 1982, gage height, 27.44 ft, maximum gage height, 33.06 ft July 12, 1951, present datum, from floodmark, backwater from Kansas River; no flow at times in 1931, 1935-40, 1953-57, and 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 4	1400	5,800	12.52	Apr. 14	2300	3,380	9.31
Mar. 1	0300	3,930	10.10	May 3	1600	4,290	10.60
Mar. 18	1100	*14,300	*20.68	May 25	1100	4,270	10.58
Mar. 24	2200	6,740	13.61	May 28	0900	11,000	17.86

Minimum daily discharge, 12 cu ft per sec Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	797	140	81	91	100	2960	267	87	270	41	18	19
2	938	130	136	85	94	762	229	82	307	36	18	19
3	1780	130	138	87	86	371	196	1820	535	33	18	18
4	4450	140	103	92	79	277	184	1170	209	31	17	18
5	1280	170	82	90	101	230	170	765	158	973	17	18
6	374	150	81	88	139	196	161	901	136	367	17	18
7	276	135	450	85	110	171	154	504	119	730	17	19
8	207	130	883	79	97	152	145	273	108	524	16	19
9	164	130	520	82	85	139	136	205	100	93	16	19
10	150	120	281	92	80	126	136	166	102	60	16	77
11	980	110	181	77	78	119	136	142	118	47	15	61
12	3500	110	195	83	75	113	120	121	107	41	14	31
13	900	100	166	93	74	107	217	106	91	40	26	26
14	380	84	151	113	74	104	1700	97	82	39	26	23
15	300	100	148	119	82	103	1980	91	77	35	21	160
16	240	105	141	98	90	108	542	83	87	31	19	172
17	205	105	135	90	85	684	357	77	74	30	17	81
18	180	105	128	80	78	12700	292	73	71	29	27	38
19	160	98	120	72	75	7600	249	69	66	29	100	29
20	150	90	115	68	74	1100	209	66	72	29	513	25
21	140	88	114	72	73	628	179	61	229	26	55	23
22	140	94	110	70	72	428	162	58	297	24	21	21
23	800	82	108	66	70	352	154	57	517	23	14	18
24	450	79	108	63	69	2670	142	120	87	23	13	18
25	290	78	106	60	68	4190	131	3350	54	23	12	17
26	530	78	102	65	67	995	121	808	42	22	619	17
27	450	76	99	69	71	548	112	3930	37	21	159	17
28	270	72	99	73	994	420	102	8840	36	21	51	17
29	200	72	98	100	---	376	97	1170	36	19	31	16
30	170	72	95	125	---	328	94	582	40	19	24	15
31	150	---	91	100	---	286	---	361	---	18	21	---
TOTAL	21001	3163	5365	2627	3240	39343	8874	26235	4264	3477	1968	1069
MEAN	677	105	173	84.7	116	1269	296	846	142	112	63.5	35.6
MAX	4450	170	883	125	994	12700	1980	8840	535	973	619	172
MIN	140	72	81	60	67	103	94	57	36	18	12	15
AC-FT	41660	6270	10640	5210	6430	78040	17600	52040	8460	6900	3900	2120
CAL YR 1986 TOTAL	95903			MEAN 263	MAX 6330	MIN 16	AC-FT 190200					
WTR YR 1987 TOTAL	120626			MEAN 330	MAX 12700	MIN 12	AC-FT 239300					

KANSAS RIVER BASIN

06890100 DELAWARE RIVER NEAR MUSCOTAH, KS

LOCATION.--Lat 39 deg 31 min 17 sec, long 95 deg 31 min 57 sec, in SW1/4 SW1/4 SW1/4 sec.16, T.6 S., R.17 E., Atchison County, Hydrologic Unit 10270103, on right bank at downstream side of bridge 2.0 mi south of Muscotah, and at mile 45.5.

DRAINAGE AREA.--431 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1964-67. July 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 920.88 ft above sea level (Kansas Geological Survey bench mark).

REMARKS.--Estimated daily discharges: Jan. 17-28. Records good except those for estimated daily discharges, which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--18 years, 301 cu ft per sec, 218,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 cu ft per sec Sept. 13, 1977, gage height, 30.83 ft; minimum discharge, 0.38 cu ft per sec Sept. 7, 8, 11, 12, 1976, May 12, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1925 reached a stage of 36.5 ft, from information by local residents (discharge not determined). Floods in 1951 and 1967 were lower than the flood of 1925.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 4	0200	10,800	24.58	May 3	0700	11,000	24.86
Oct. 11	2400	9,640	23.17	May 25	1200	7,950	20.96
Mar. 18	1800	11,000	24.18	May 28	0200	*13,400	*26.75
Mar. 25	0400	8,010	21.04	June 10	0600	7,690	20.61
Apr. 14	1600	10,200	23.80				

Minimum discharge, 10 cu ft per sec Aug. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	996	194	133	116	127	2550	353	138	349	74	18	15
2	983	187	202	107	117	718	309	135	810	66	18	14
3	4700	201	163	119	105	391	280	4980	1530	60	17	12
4	4970	202	127	115	94	292	267	843	386	56	16	12
5	834	188	107	113	105	246	255	1330	251	66	16	11
6	456	174	127	122	119	219	245	1040	203	65	15	27
7	337	167	320	109	111	200	239	382	169	558	17	26
8	279	177	1080	92	106	187	226	261	148	224	20	129
9	239	191	536	103	87	175	217	208	247	102	24	54
10	217	157	262	115	83	162	218	172	3820	72	21	370
11	2640	141	194	103	86	157	210	147	692	57	18	188
12	4100	139	211	143	84	154	196	129	371	520	17	69
13	686	114	165	144	81	152	268	114	237	232	25	49
14	408	153	184	239	82	151	5710	105	182	87	29	109
15	311	160	171	192	82	150	2290	95	148	60	24	420
16	260	155	167	97	80	148	802	88	128	50	18	734
17	233	146	168	84	74	288	476	83	115	44	16	210
18	208	140	154	80	68	7310	369	80	121	45	27	91
19	191	130	139	76	74	3630	312	79	756	46	27	51
20	179	145	135	74	73	795	267	86	230	41	19	36
21	170	140	130	76	74	503	243	109	137	36	16	29
22	183	131	127	78	73	389	219	108	143	32	13	26
23	1150	126	121	75	71	344	211	66	209	30	11	23
24	353	113	124	74	71	1560	197	76	104	29	10	22
25	1600	110	121	78	71	4670	185	4720	356	27	11	21
26	1030	116	111	84	70	920	177	827	101	26	159	19
27	462	106	116	90	76	561	168	6430	80	25	78	17
28	315	105	115	98	588	461	156	7740	73	23	39	17
29	251	107	115	107	---	629	151	1520	74	22	24	15
30	220	107	112	136	---	405	146	785	77	20	19	15
31	203	---	112	122	---	375	---	444	---	19	17	---
TOTAL	29164	4422	6049	3361	2932	28892	15362	33320	12247	2814	799	2831
MEAN	941	147	195	108	105	932	512	1075	408	90.8	25.8	94.4
MAX	4970	202	1080	239	588	7310	5710	7740	3820	558	159	734
MIN	170	105	107	74	68	148	146	66	73	19	10	11
AC-FT	57850	8770	12000	6670	5820	57310	30470	66090	24290	5580	1580	5620
CAL YR 1986	TOTAL	158286	MEAN	434	MAX	12300	MIN	26	AC-FT	314000		
WTR YR 1987	TOTAL	142193	MEAN	390	MAX	7740	MIN	10	AC-FT	282000		

KANSAS RIVER BASIN

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06890898 PERRY LAKE NEAR PERRY, KS

LOCATION.--Lat 39 deg 06 min 52 sec, long 95 deg 25 min 33 sec, in NE1/4 NW1/4 NW1/4 sec.9, T.11 S., R.18 E., Jefferson County, Hydrologic Unit 10270103, in control tower near center of dam on Delaware River, 4.5 mi north-west of Perry, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--1,117 sq mi.

PERIOD OF RECORD.--March 1969 to current year. Prior to October 1971, published as "Perry Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Some temporary storage occurred in Feb. 1969; dam was closed Mar. 21, 1969. Conservation pool elevation was first reached on June 3, 1970. Total capacity, 778,700 acre-ft, consisting of the following: Conservation pool, 225,000 acre-ft below elevation 891.5 ft; flood control pool, 517,500 acre-ft between elevations 891.5 ft and 920.6 ft; and uncontrolled storage, 36,160 acre-ft between elevations 920.6 ft and 922.0 ft. Reservoir is used to store water for flood control, irrigation, and recreation. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 917.07 ft Oct. 19, 1973, contents, 679,700 acre-ft; minimum elevation since conservation pool was first reached, 887.68 ft Mar. 2, 1977, contents, 199,100 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 902.74 ft Oct. 5, contents, 379,700 acre-ft; minimum elevation, 891.05 ft Aug. 25, contents, 219,900 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Computed by U.S. Army Corps of Engineers on basis of resurvey made in 1979)

890	208,100	905	417,100
900	337,400		

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	900.52	893.55	892.24	891.50	891.64	893.72	901.32	893.35	899.02	891.84	891.27	891.19
2	900.60	893.54	892.24	891.48	891.66	894.14	900.89	893.30	899.23	891.78	891.25	891.18
3	901.08	893.63	892.24	891.48	891.64	894.00	900.47	894.39	899.56	891.74	891.28	891.15
4	902.61	893.65	892.23	891.42	891.62	893.74	900.02	894.41	899.19	891.69	891.26	891.14
5	902.54	893.57	892.17	891.43	891.67	893.45	899.57	894.41	898.14	891.74	891.22	891.15
6	902.04	893.48	892.19	891.51	891.68	893.14	899.10	894.44	897.08	891.70	891.19	891.16
7	901.51	893.46	892.42	891.50	891.69	892.83	898.60	893.91	896.00	891.83	891.16	891.17
8	900.98	893.38	892.76	891.52	891.71	892.52	898.11	893.58	894.90	891.94	891.18	891.18
9	900.43	893.28	892.84	891.63	891.67	892.10	897.61	893.69	893.78	891.90	891.17	891.20
10	899.83	893.22	892.68	891.58	891.67	891.71	897.15	893.78	893.20	891.85	891.14	891.30
11	899.82	893.06	892.54	891.58	891.66	891.61	896.64	893.48	892.25	891.81	891.10	891.38
12	901.11	892.97	892.41	891.60	891.65	891.61	896.11	892.70	891.88	892.01	891.14	891.39
13	901.34	892.80	892.22	891.63	891.63	891.60	895.64	892.32	891.96	892.00	891.21	891.38
14	901.43	892.69	892.08	891.71	891.63	891.61	896.30	892.25	892.01	891.94	891.20	891.50
15	901.16	892.64	891.92	891.80	891.65	891.64	897.63	892.17	892.00	891.88	891.19	891.77
16	900.59	892.55	891.75	891.80	891.63	891.64	897.94	892.15	892.00	891.80	891.20	891.97
17	900.02	892.45	891.59	891.81	891.60	891.87	898.10	892.12	891.97	891.72	891.17	892.07
18	899.42	892.36	891.54	891.83	891.57	895.10	898.18	892.11	891.94	891.69	891.20	892.07
19	898.77	892.32	891.55	891.85	891.56	898.06	898.25	892.08	892.02	891.64	891.18	892.08
20	898.15	892.32	891.56	891.84	891.54	898.53	898.38	892.02	892.10	891.59	891.15	892.07
21	897.48	892.30	891.56	891.85	891.55	898.61	898.37	892.04	892.08	891.54	891.15	892.07
22	896.85	892.34	891.55	891.84	891.56	898.48	898.01	892.00	892.09	891.48	891.15	892.06
23	896.64	892.31	891.56	891.81	891.56	898.45	897.37	891.94	892.12	891.46	891.11	892.05
24	896.09	892.28	891.56	891.78	891.57	898.93	896.68	891.92	892.10	891.45	891.09	892.04
25	896.12	892.34	891.56	891.73	891.58	900.50	896.00	892.93	892.09	891.42	891.10	892.03
26	895.83	892.27	891.55	891.68	891.60	900.86	895.80	893.42	892.05	891.40	891.22	892.02
27	895.25	892.23	891.54	891.66	891.62	901.07	895.85	894.56	891.96	891.39	891.23	892.02
28	894.60	892.23	891.53	891.63	892.28	901.29	895.37	897.28	891.91	891.37	891.24	892.04
29	893.89	892.22	891.55	891.63	---	901.44	894.63	898.63	891.90	891.35	891.22	892.01
30	893.50	892.21	891.52	891.64	---	901.51	893.88	898.87	891.89	891.33	891.23	892.00
31	893.54	---	891.51	891.64	---	901.61	---	898.96	---	891.31	891.21	---
MEAN	898.83	892.79	891.94	891.66	891.65	895.72	897.60	893.72	893.68	891.66	891.19	891.66
MAX	902.61	893.65	892.84	891.85	892.28	901.61	901.32	898.96	899.56	892.01	891.28	892.08
MIN	893.50	892.21	891.51	891.42	891.54	891.60	893.88	891.92	891.88	891.31	891.09	891.14
(+)	249,000	233,200	225,100	226,600	234,000	361,900	253,200	322,000	229,500	222,900	221,700	230,800
(#)	-99,400	-15,800	-8,100	+1,500	+7,400	+127,900	-108,700	+68,800	-92,500	-6,600	-1,200	+9,100

CAL YR 1986 (#) -88,200
WTR YR 1987 (#) -117,600

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

06890900 DELAWARE RIVER BELOW PERRY DAM, KS

LOCATION.--Lat 39 deg 06 min 51 sec, long 95 deg 25 min 33 sec, in NE1/4 NW1/4 NW1/4 sec.9, T.11 S., R.18 E., Jefferson County, Hydrologic Unit 10270103, at outlet structure of Perry Dam, 4.5 mi northwest of Perry, and 5.8 mi above mouth.

DRAINAGE AREA.--1,117 sq mi.

PERIOD OF RECORD.--March 1969 to current year.

REVISED RECORDS.--WDR KS-83-1: 1982.

GAGE.--Water-stage recorders for reservoir elevations and gated outflow structure.

REMARKS.--No estimated daily discharges. Records fair. Flow completely regulated since 1969 by Perry Lake (station 06890898). Discharge computed from relation between discharge, head, and gate openings.

COOPERATION.--Reservoir elevation-discharge ratings for reservoir outflow gates and gate operation logs furnished by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--18 years, 772 cu ft per sec, 559,300 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 cu ft per sec July 9, 11, 1984; no flow at times in 1970-78, 1982-85, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,470 cu ft per sec June 7; no flow Sept. 16-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4990	410	404	402	402	204	1630	3660	386	364	35	35
2	4970	410	404	402	402	206	3940	812	386	364	35	35
3	4950	410	404	402	402	1590	3900	4310	387	348	35	35
4	4940	673	404	402	402	2480	3930	4930	3530	356	35	35
5	5000	950	404	310	402	2490	3990	4970	7320	373	35	35
6	4940	950	404	201	402	2500	4000	4960	7380	363	35	35
7	4970	948	406	201	402	2500	3980	4960	7410	363	35	35
8	4930	948	887	201	402	2480	3980	3020	7300	364	35	35
9	4980	948	1460	201	402	2480	3960	27	7190	359	35	35
10	4870	948	1450	201	402	2480	3940	27	7140	359	35	35
11	4840	946	1450	201	402	1440	3940	2230	7000	359	35	35
12	2720	946	1440	201	402	402	3970	4900	3130	354	35	35
13	112	944	1410	201	402	402	3980	2720	29	354	35	35
14	390	942	1410	201	402	402	3990	888	29	354	35	35
15	2610	942	1460	202	402	402	1920	690	246	374	35	35
16	4930	942	1460	202	402	402	426	404	364	385	35	20
17	4960	942	1440	202	402	402	428	404	343	385	35	.00
18	4940	940	816	202	402	410	428	404	348	380	35	.00
19	4930	628	402	202	402	422	428	404	348	373	35	.00
20	4960	406	402	202	281	428	428	404	355	368	35	.00
21	5000	406	402	328	201	1160	430	404	365	363	35	.00
22	5000	406	402	404	201	1980	2820	404	360	201	35	.00
23	5000	406	402	404	201	1980	5010	404	367	104	35	.00
24	4970	406	402	404	201	775	4930	404	401	104	35	.00
25	4880	406	402	404	201	29	4920	404	391	104	35	.00
26	4840	406	402	402	201	29	1950	410	386	61	35	.00
27	4960	404	402	402	201	29	52	412	380	35	35	.00
28	4990	404	402	402	202	29	3240	336	364	35	35	.00
29	4990	404	402	402	---	29	4970	361	354	35	35	.00
30	3130	404	402	402	---	29	4970	363	347	35	35	.00
31	694	---	402	402	---	29	---	386	---	35	35	---
TOTAL	133386	20225	22739	9295	9528	30620	90480	49412	64336	8411	1105	545.00
MEAN	4303	674	734	300	340	988	3016	1594	2145	271	35.6	18.2
MAX	5000	950	1460	404	402	2500	5010	4970	7410	385	55	35
MIN	112	404	402	201	201	29	52	27	29	35	35	.00
AC-FT	264600	40120	45100	18440	18900	60730	179500	98010	127600	16680	2190	1080
CAL YR 1986	TOTAL	433270.00	MEAN	1187	MAX	8250	MIN	28	AC-FT	859400		
WTR YR 1987	TOTAL	440082.00	MEAN	1206	MAX	7410	MIN	.00	AC-FT	872900		

KANSAS RIVER BASIN

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06891000 KANSAS RIVER AT LECOMPTON, KS

LOCATION.--Lat 39 deg 03 min 07 sec, long 95 deg 23 min 15 sec, in SE1/4 SW1/4 NW1/4 sec.35, T.11 S., R.18 E., Jefferson County, Hydrologic Unit 10270104, on left bank at upstream side of highway bridge at Lecompton, 0.8 mi downstream from Delaware River, and at mile 63.8.

DRAINAGE AREA.--58,460 sq mi, approximately, of which a large area is noncontributing.

PERIOD OF RECORD.--January to November 1896 and April to July 1906 (gage heights only), March 1936 to current year. Records for April 1899 to December 1905 published in WSP 37, 39, 50, 52, 66, 75, 84, 99, 131, 172, and 796-8 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 876: 1937. WSP 1176: 1903(M). WSP 1440: 1948-49(P). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 821.84 ft above sea level. Prior to July 30, 1952, nonrecording gage, and July 30, 1952, to Apr. 29, 1970, recording gage, at site 0.15 mi upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 22-30. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by lakes and reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions upstream from station. Satellite telemeter at station.

AVERAGE DISCHARGE.--51 years (water years 1937-87), 7,281 cu ft per sec, 5,275,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 483,000 cu ft per sec July 13, 1951, gage height, 30.23 ft, from rating curve extended above 120,000 cu ft per sec on basis of slope-area measurement of peak flow; minimum daily discharge, 185 cu ft per sec Oct. 13, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1844, 30.23 ft July 13, 1951. Flood of May 31, 1903 (second highest since 1844), reached a stage of 27.9 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72,100 cu ft per sec Mar. 19, gage height, 15.89; minimum daily discharge, 3,300 cu ft per sec Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20500	25800	4380	4950	5220	21800	36100	45900	21400	10400	7070	7560
2	15000	17600	4410	4920	5140	16200	38400	46600	20000	10600	7040	7860
3	28200	12000	4610	4930	5060	12200	35100	49400	24300	12600	6950	8510
4	34300	10600	5590	4940	4960	11200	30600	53600	32300	13200	6870	8620
5	31900	9860	5650	4930	5150	10900	30500	53500	40800	14300	6820	8550
6	20400	9520	5700	4790	5440	10400	31500	52900	44700	15300	6660	7430
7	16800	9290	7120	4630	5290	9730	31900	48200	45700	15200	6480	6100
8	15000	9360	9540	4200	5080	9240	33300	24400	42100	17500	6380	5760
9	14300	9220	10700	4170	4920	8910	37900	13800	30700	15200	5890	5020
10	15900	8740	9780	3900	4830	3650	38500	13200	21500	14700	5560	4440
11	20700	8280	10300	3390	4810	6730	42300	28600	17200	15300	5450	4170
12	43200	8680	11600	3300	4750	4610	41300	48000	12400	14300	5390	4760
13	24400	8300	11700	3310	4710	4430	27400	44900	7740	15100	6170	5830
14	22600	8160	11700	3370	4640	4330	33800	42500	7560	14100	6910	5880
15	24300	8160	11700	3530	4650	4190	56000	43000	9940	13200	6080	6340
16	27600	8090	11700	3610	4760	4210	54500	43100	9690	12800	5720	5990
17	33500	7910	11700	3540	4720	5020	44700	43100	8530	12000	5470	6200
18	38000	7760	11200	4110	4610	46500	51200	42500	11600	11300	5580	5940
19	39400	5900	10600	5330	4530	63400	48600	42800	12500	10000	5140	6590
20	38500	4550	9390	5370	4360	29000	46500	43600	12900	8920	6320	7080
21	37700	4180	6930	5000	4280	21300	32500	41000	13500	8520	6190	7030
22	37800	4080	5500	5000	4080	20900	37200	36500	13700	8140	6630	7030
23	38700	4760	5230	5010	3930	17500	51500	31300	14900	7830	6580	7000
24	39400	4760	5300	5020	3880	21400	48500	25900	15100	7530	6550	6970
25	46300	4690	5320	5080	3980	37900	33100	28800	16100	7770	5970	6420
26	42300	4620	5230	5100	3680	32400	17700	26200	15600	7780	6430	6760
27	39700	4520	5150	5200	3730	29300	23600	27500	14300	7530	8170	6220
28	39000	4480	5090	5220	5430	27800	44200	63100	11600	7460	6420	5890
29	38900	4420	5080	5300	---	28300	47100	35700	10300	7400	5970	5830
30	36600	4400	5040	5400	---	29100	46500	26400	10800	7220	6330	5760
31	32000	---	5000	5470	---	29700	---	22300	---	7140	7510	---
TOTAL	952900	242690	237940	142020	130620	587250	1172000	1188300	569960	350340	196700	193540
MEAN	30740	8090	7675	4581	4665	18940	39070	38330	19000	11300	6345	6451
MAX	46300	25800	11700	5470	5440	63400	56000	63100	45700	17500	8170	8620
MIN	14300	4080	4380	3300	3680	4190	17700	13200	7560	7140	5140	4170
AC-FT	1890000	421400	472000	281700	259100	1165000	2325000	2357000	1131000	694900	390200	383900
CAL YR 1936	TOTAL	4048710	MEAN	11090	MAX	46300	MIN	3300	AC-FT	8031000		
WTR YR 1987	TOTAL	5964260	MEAN	16340	MAX	63400	MIN	3300	AC-FT	11830000		

KANSAS RIVER BASIN

06891478 CLINTON LAKE NEAR LAWRENCE, KS

LOCATION.--Lat 38 deg 55 min 51 sec, long 95 deg 20 min 02 sec, in NW1/4 SW1/4 SW1/4 sec.8, T.13 S., R.19 E., Douglas County, Hydrologic Unit 10270104, in control tower of Clinton Dam on Wakarusa River, 4.0 mi west of Lawrence, and 22.3 mi above mouth.

DRAINAGE AREA.--367 sq mi.

PERIOD OF RECORD.--December 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Nov. 30, 1977. Conservation pool elevation was first reached Apr. 3, 1980. Total capacity, 683,400 acre-ft, consisting of the following: Dead storage, 90 acre-ft below elevation 825.0 ft; conservation pool, 129,100 acre-ft between elevations 825.0 ft and 875.5 ft; flood control pool, 268,400 acre-ft between elevations 875.5 ft and 903.4 ft; and surcharge pool, 285,800 acre-ft between elevations 903.4 ft and 921.4 ft. Reservoir is used for flood control, conservation, and recreation. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 886.72 ft June 4, 1982, contents, 219,200 acre-ft; minimum elevation since conservation pool first reached, 872.48 ft Oct. 18, 19, 1983, contents, 108,900 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 883.74 ft Apr. 22, contents, 193,100 acre-ft; minimum elevation, 875.36 ft Nov. 18, 19, contents, 128,200 acre-ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)
(Computed by U.S. Army Corps of Engineers in 1965)

875	125,700	885	203,900
880	162,500		

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	878.36	878.50	875.53	876.55	876.85	878.02	882.75	880.55	878.08	878.26	877.09	876.80
2	879.00	878.30	875.56	876.56	876.78	878.33	882.57	880.00	878.17	878.26	877.05	876.78
3	879.87	878.11	875.57	876.59	876.67	878.27	882.40	879.52	878.18	878.23	877.04	876.72
4	880.11	877.90	875.57	876.60	876.56	878.05	882.24	879.19	878.18	878.22	877.02	876.71
5	880.21	877.78	875.58	876.62	876.55	877.78	882.07	879.41	878.18	878.33	877.00	876.69
6	880.28	877.61	875.61	876.63	876.55	877.51	881.84	879.32	878.18	878.36	877.02	876.67
7	880.34	877.46	875.72	876.64	876.51	877.22	881.68	878.94	878.17	878.35	876.98	876.73
8	880.35	877.23	875.84	876.65	876.43	876.90	881.50	878.46	878.16	878.36	876.96	876.71
9	880.37	877.02	875.91	876.70	876.34	876.68	881.33	878.31	878.14	878.31	876.90	876.73
10	880.40	876.78	875.97	876.70	876.25	876.61	881.14	878.35	878.14	878.19	876.88	876.74
11	880.65	876.57	876.01	876.72	876.18	876.52	880.95	878.21	878.19	878.05	876.86	876.73
12	880.90	876.33	876.03	876.75	876.08	876.39	880.79	877.88	878.18	878.03	876.92	876.71
13	880.98	876.12	876.10	876.77	876.00	876.35	881.23	877.69	878.16	877.90	876.92	876.68
14	881.15	875.88	876.14	876.81	875.85	876.26	882.54	877.71	878.16	877.79	876.98	876.66
15	881.24	875.66	876.17	876.82	875.84	876.14	883.12	877.62	878.15	877.66	876.96	876.79
16	881.31	875.46	876.21	876.87	875.81	876.06	883.35	877.62	878.12	877.53	876.93	876.80
17	881.27	875.38	876.25	876.93	875.73	876.66	883.44	877.63	878.10	877.47	876.89	876.78
18	881.08	875.37	876.28	876.95	875.67	879.70	883.58	877.63	878.13	877.44	876.98	876.76
19	880.89	875.40	876.29	876.99	875.62	881.05	883.66	877.64	878.12	877.43	877.03	876.74
20	880.70	875.39	876.33	877.00	875.61	881.44	883.71	877.62	878.13	877.41	877.02	876.70
21	880.48	875.42	876.34	877.04	875.63	881.52	883.70	877.60	878.13	877.40	877.02	876.69
22	880.31	875.45	876.37	877.03	875.63	881.32	883.59	877.56	878.10	877.37	876.96	876.66
23	880.13	875.45	876.38	877.04	875.61	881.16	883.32	877.54	878.19	877.35	876.91	876.65
24	879.72	875.46	876.40	877.05	875.61	881.82	883.02	877.56	878.17	877.33	876.91	876.63
25	879.80	875.47	876.42	877.06	875.60	882.24	882.74	877.63	878.15	877.30	876.91	876.61
26	879.70	875.48	876.43	877.09	875.58	882.40	882.45	877.67	878.13	877.30	876.91	876.61
27	879.54	875.49	876.45	877.11	875.56	882.51	882.17	877.86	878.10	877.29	876.89	876.59
28	879.36	874.51	876.49	877.07	876.79	882.64	881.82	878.01	878.14	877.26	876.87	876.56
29	879.16	875.52	876.51	877.02	---	882.66	881.51	878.05	878.14	877.19	876.95	876.54
30	878.94	875.45	876.51	876.98	---	882.72	881.07	878.06	878.26	877.16	876.84	876.50
31	878.75	---	876.54	876.92	---	882.79	---	878.08	---	877.13	876.82	---
MEAN	880.17	876.27	876.11	876.85	876.07	879.22	882.38	878.22	878.15	877.73	876.95	876.69
MAX	881.31	878.50	876.54	877.11	876.85	882.79	883.71	880.55	878.26	878.36	877.09	876.80
MIN	878.36	874.51	875.53	876.55	875.56	876.06	880.79	877.54	878.08	877.13	876.82	876.50
(+)	153,100	128,800	136,600	139,300	138,400	185,100	171,000	147,800	149,200	140,800	138,600	136,300
(#)	+5,300	-24,300	+7,800	+2,700	-900	+46,700	-14,100	-23,200	+1,400	-8,400	-2,200	-2,300

CAL YR 1986 (#) +5,900
WTR YR 1987 (#) -11,500

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

KANSAS RIVER BASIN

135

06891500 WAKARUSA RIVER NEAR LAWRENCE, KS

LOCATION.--Lat 38 deg 54 min 40 sec, long 95. deg 15 min 37 sec, in NE1/4 NE1/4 NE1/4 sec.23, T.13 S., R.19 E., Douglas County, Hydrologic Unit 10270104, on left bank at upstream side of bridge on U.S. Highway 59, 4 mi south of Lawrence, and at mile 16.3.

DRAINAGE AREA.--425 sq mi. Dec. 1, 1972 to Sept. 30, 1980, 412 sq mi.

PERIOD OF RECORD.--April 1929 to current year. Published as "below Clinton Dam" December 1972 to September 1980.

REVISED RECORDS.--WSP 976: 1935. WSP 1310: 1929(M), 1933(M), 1938(M), 1945-47(M), 1949-50(M). WSP 1919: 1958, 1959.

GAGE.--Water-stage recorder. Datum of gage is 799.26 ft above sea level. Prior to May 7, 1959, nonrecording gage, and May 8, 1959, to Nov. 30, 1972, water-stage recorder at present site and datum. Dec. 1, 1972, to Sept. 30, 1980, water-stage recorder at site 2.3 mi upstream at datum 3.95 ft higher.

REMARKS.--No estimated daily discharges. Records good. Nearly total regulation by Clinton Dam (station 06891478) since Nov. 30, 1977. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,200 cu ft per sec July 12, 1951, gage height, 31.59 ft, from floodmarks, from rating curve extended above 15,000 cu ft per sec; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1880, that of July 12, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,240 cu ft per sec Mar. 18, gage height, 19.43 ft; minimum discharge, 10 cu ft per sec Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	653	1040	47	13	550	1390	338	2340	30	60	21	23
2	472	1030	27	13	547	508	1030	2320	175	39	21	22
3	720	1030	14	13	543	864	1030	2330	261	33	21	261
4	269	1030	12	15	541	1580	1020	2390	63	29	35	34
5	154	1100	11	14	564	1560	999	2700	42	165	22	24
6	126	1100	12	13	585	1540	1000	2540	34	78	21	24
7	111	1090	277	13	564	1500	996	2370	29	58	21	25
8	102	1090	122	12	556	1470	993	2300	27	51	20	26
9	101	1040	127	15	547	1160	988	1400	26	150	20	24
10	62	1010	69	17	545	546	995	72	24	472	20	42
11	175	1010	81	13	543	543	990	459	64	475	20	25
12	306	1010	152	15	541	541	986	1520	122	552	20	25
13	95	937	129	35	539	543	1360	1130	95	515	46	24
14	114	1010	96	76	542	541	1720	43	41	477	68	24
15	81	1000	106	51	552	539	1160	364	26	472	31	42
16	61	1000	114	19	578	511	264	41	25	467	22	37
17	251	643	26	17	577	645	157	30	24	280	20	25
18	1060	100	23	18	592	2620	131	29	24	45	52	16
19	1060	76	22	18	602	1150	119	28	42	41	33	19
20	1060	34	20	15	494	783	105	27	41	24	30	19
21	1050	23	22	23	335	957	67	27	96	23	27	19
22	1070	23	16	50	330	1550	498	26	37	22	25	19
23	1120	22	16	48	321	1550	1560	26	86	22	24	19
24	1120	22	16	26	297	1320	1540	27	39	22	27	19
25	1110	22	16	12	283	502	1530	82	31	22	27	19
26	1130	23	16	12	279	178	1520	31	27	21	41	19
27	1070	22	15	12	285	126	1510	256	25	21	30	19
28	1060	22	15	247	992	112	1500	115	27	21	25	19
29	1050	22	15	594	---	97	1500	50	46	21	24	20
30	1050	26	14	564	---	84	1840	40	122	21	23	21
31	1040	---	13	555	---	81	---	34	---	21	23	---
TOTAL	18903	17607	1661	2558	14224	27091	29446	25147	1751	4720	860	954
MEAN	610	567	53.6	82.5	508	874	982	811	58.4	152	27.7	31.8
MAX	1130	1100	277	594	992	2620	1840	2700	261	552	68	261
MIN	61	22	11	12	279	81	67	26	24	21	20	16
AC-FT	37490	34920	3290	5070	28210	53730	58410	49880	3470	9360	1710	1890

CAL YR 1986 TOTAL 127322.9 MEAN 349 MAX 1970 MIN 8.4 AC-FT 252500
WTR YR 1987 TOTAL 144922.0 MEAN 397 MAX 2700 MIN 11 AC-FT 287500

KANSAS RIVER BASIN

06892000 STRANGER CREEK NEAR TONGANOXIE, KS

LOCATION.--Lat 39 deg 06 min 59 sec, long 95 deg 00 min 39 sec, in NE1/4 NE1/4 NW1/4 sec.7, T.11 S., R.22 E., Leavenworth County, Hydrologic Unit 10270104, on left bank at downstream side of bridge on U.S. Highway 40, 2.0 mi upstream from Tonganoxie Creek, 4.0 mi east of Tonganoxie, and at mile 18.1.

DRAINAGE AREA.--406 sq mi.

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WSP 1440: 1929, 1936(M), 1940, 1942(M), 1949. WSP 1710: 1951.

GAGE.--Water-stage recorder. Datum of gage is 801.95 ft above sea level (levels by U.S. Army Corps of Engineers). Apr. 30, 1929, to June 1, 1939, nonrecording gage and June 2, 1939, to June 1, 1960, water-stage recorder, both at site 1.3 mi downstream at datum 5.00 ft lower.

REMARKS.--Estimated daily discharges: Jan. 1, 10, 19-25. Records good except those for estimated daily discharges, which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--58 years, 241 cu ft per sec, 174,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,100 cu ft per sec July 12, 1951, gage height, 28.94 ft, site and datum then in use, from rating curve extended above 16,000 cu ft per sec on basis of contracted-opening measurement of peak flow; maximum stage, 28.88 ft Sept. 13, 1977; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 1	2400	4,900	22.21	May 3	1300	3,310	18.54
Oct. 6	1800	4,020	20.59	May 5	0600	3,780	19.92
Oct. 27	1300	3,600	19.40	May 29	2300	3,540	19.23
Mar. 1	0400	3,600	19.40	June 23	1400	2,880	17.24
Mar. 20	1800	*5,400	*22.84	July 12	1800	3,210	18.25
Apr. 16	0200	2,620	16.37				

Minimum discharge, 3.7 cu ft per sec Sept. 5-7, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4710	265	108	135	183	3320	309	117	226	64	11	7.3
2	4470	234	111	130	163	2840	280	110	225	51	11	5.2
3	3200	219	122	128	143	1090	249	2170	600	46	9.6	4.9
4	3170	280	123	131	124	486	231	3000	381	78	10	4.8
5	3520	329	102	132	136	375	216	3200	178	104	8.8	4.1
6	3850	335	96	132	230	319	207	1560	132	118	8.4	4.1
7	1430	279	390	129	232	280	198	888	111	251	7.6	4.6
8	457	241	1040	116	223	253	190	464	95	495	6.7	16
9	368	233	1680	115	168	228	182	317	34	871	6.4	30
10	315	223	841	115	147	205	175	254	85	156	6.8	17
11	428	198	416	118	141	189	173	212	137	80	7.8	23
12	1360	182	339	119	137	180	165	182	122	1920	7.6	76
13	2100	141	293	143	128	175	831	157	264	876	12	29
14	861	136	253	161	128	172	1510	142	127	169	17	120
15	428	175	258	164	128	169	2410	128	87	103	22	418
16	342	175	249	148	137	160	2110	114	73	72	19	364
17	296	170	249	112	140	200	914	104	61	56	13	169
18	263	169	233	114	131	2870	497	98	55	54	20	63
19	238	156	210	105	135	4270	373	285	60	50	25	32
20	218	154	196	95	154	5070	307	111	263	46	25	22
21	202	149	188	90	141	2310	270	91	206	39	25	16
22	198	144	181	100	132	639	239	80	159	33	13	12
23	226	139	175	95	120	495	218	71	1530	29	7.3	10
24	1080	125	173	85	114	1010	201	69	476	26	5.5	9.5
25	1750	117	170	30	110	1880	186	530	169	21	5.0	8.5
26	2910	117	162	87	108	1620	172	1050	86	19	6.6	8.6
27	3340	114	154	83	110	753	158	963	66	17	48	8.2
28	1010	109	150	93	892	511	141	2040	54	16	112	6.7
29	464	108	149	134	---	496	133	3120	49	15	35	6.3
30	352	109	145	173	---	373	125	1670	137	13	17	5.6
31	299	---	140	181	---	329	---	326	---	12	10	---
TOTAL	43855	5525	9096	3743	4835	33267	13370	23623	6301	5900	539.1	1505.4
MEAN	1415	184	293	121	173	1073	446	762	210	190	17.4	50.2
MAX	4710	335	1680	181	892	5070	2410	3200	1530	1920	112	418
MIN	198	109	96	80	108	160	125	69	49	12	5.0	4.1
AC-FT	86990	10960	18040	7420	9590	65990	26520	46860	12500	11700	1070	2990
CAL YR 1986	TOTAL	215357.0	MEAN	590	MAX	9880	MIN	23	AC-FT	427200		
WTR YR 1987	TOTAL	151559.5	MEAN	415	MAX	5070	MIN	4.1	AC-FT	300600		

06892350 KANSAS RIVER AT DESOTO, KS

LOCATION.--Lat 38 deg 59 min 00 sec, long 94 deg 57 min 52 sec, in SE1/4 NE1/4 NE1/4 sec.27, T.12 S., R.22 E., Leavenworth County, Hydrologic Unit 10270104, on left bank at downstream side of bridge on county road, north edge of DeSoto, 0.4 mi upstream from Kill Creek and at mile 31.0.

DRAINAGE AREA.--59,756 sq mi, of which a large area is noncontributing.

PERIOD OF RECORD.--July 1917 to current year. Monthly discharge only for some periods published in WSP 1310. Prior to October 1973, published as "at Bonner Springs."

REVISED RECORDS.--WSP 806: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 758.87 ft above sea level. July 9, 1917, to Apr. 23, 1934, non-recording gage; Apr. 24, 1934 to Nov. 25, 1960, water-stage recorder at site 9.7 mi downstream at datum 11.81 ft lower; Nov. 26, 1960 to Feb. 9, 1961, nonrecording gage; Feb. 10, 1961 to Sept. 30, 1971, water-stage recorder at site 10.2 mi downstream at datum 17.81 ft lower; and Oct. 1, 1971 to Sept. 30, 1973, at site 10.2 mi downstream at datum 22.81 ft lower.

REMARKS.--Estimated daily discharges: Jan. 20-25. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by lakes and reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions upstream from station. Diurnal fluctuations caused by hydroelectric plant 20.8 mi upstream; since storage capacity is small, daily flows are not affected appreciably. Satellite telemeter at station.

AVERAGE DISCHARGE.--70 years, 7,288 cu ft per sec, 5,280,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 510,000 cu ft per sec July 13, 1951, gage height, 37.3 ft, from floodmarks, present site and datum, from rating curve extended above 128,000 cu ft per sec on basis of slope-area measurement of peak flow at mile 19.52 and at mile 18.60; minimum discharge observed, 160 cu ft per sec Oct. 11, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1844, that of July 13, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76,300 cu ft per sec Mar. 19, gage height, 18.09 ft; minimum discharge, 3,600 cu ft per sec Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33100	26900	4440	5620	6250	23100	32600	45100	21700	10700	6800	7250
2	25900	21300	4460	5570	6000	24300	39000	44800	20300	10500	6680	7090
3	34200	15600	4470	5560	5920	16000	38100	49300	22400	11500	6650	7810
4	33400	12900	4880	5530	5810	14900	33200	55300	27500	12900	6650	8370
5	41500	12400	5520	5540	5790	13800	31800	58000	35600	13600	6530	8280
6	27700	11400	5490	5400	6370	13400	32000	56100	41400	15700	6390	8120
7	22700	11200	6730	5300	6470	12600	32800	53400	42300	14800	6200	6470
8	18600	10900	10300	4970	6180	11900	32800	35100	41700	16800	6090	5620
9	17300	10900	13200	4730	5380	11500	36800	19300	31600	16600	5900	5200
10	17300	10600	12400	4680	5700	10400	37900	14700	24200	14600	5350	4210
11	19900	9960	10900	4310	5610	9870	40300	18500	18200	14700	5110	3680
12	35900	9870	12000	4020	5550	7230	43700	43200	16100	15900	5060	3420
13	32100	9830	12400	3990	5500	6090	36700	45800	10000	16300	5380	4740
14	23400	9480	12200	4070	5520	5840	31500	40500	8550	14600	6630	5720
15	23400	9410	12200	4100	5550	5660	52600	40200	9200	13400	6640	6390
16	25400	9410	12200	4140	5790	5570	59300	40200	11000	13100	5650	6840
17	28800	9230	12100	4090	5830	5780	49200	39600	9190	12400	5350	6230
18	33500	8380	12000	3930	5760	30300	45200	39200	10200	11300	5180	6370
19	35800	7610	11100	4330	5720	69600	48700	38800	12600	10600	5330	5970
20	35400	5470	10700	4800	5850	49800	47100	39500	13100	9120	5270	6990
21	34600	4680	8930	4600	5470	30000	38200	38700	13900	8560	6020	7170
22	34900	4380	6870	4500	5300	25800	31300	35100	13600	8250	6300	7130
23	34800	4480	6070	4500	4980	23200	48800	31400	15700	7790	6350	7100
24	36600	4820	5900	4500	4740	22800	50200	26500	15300	7580	6400	7090
25	40700	4740	5980	4300	4640	37600	41400	25300	15700	7400	6200	6920
26	42100	4710	5930	4270	4520	38500	24900	28500	15500	7690	5280	6540
27	39600	4680	5860	4560	4420	32100	19600	25900	14600	7410	7100	6780
28	37000	4600	5760	5660	6730	30000	38500	50900	12800	7240	7430	6200
29	35700	4540	5720	6720	---	29500	45100	50000	10800	7200	5890	6070
30	35100	4480	5690	7650	---	30100	44300	30700	11300	7040	5540	6000
31	31000	---	5620	7230	---	30000	---	23500	---	6910	6400	---
TOTAL	967400	278860	258020	153170	157850	677240	1183600	1183100	566040	352190	187750	191770
MEAN	31210	9295	8323	4941	5638	21850	39450	38160	18870	11360	6056	6392
MAX	42100	26900	13200	7650	6730	69600	59300	58000	42300	16800	7430	8370
MIN	17300	4380	4440	3930	4420	5570	19600	14700	8550	6910	5060	3420
AC-FT	1919000	553100	511800	303800	313100	1343000	2348000	2347000	1123000	698600	372400	380400
CAL YR 1986	TOTAL	4491120	MEAN	12300	MAX	53600	MIN	3650	AC-FT	8908000		
WTR YR 1987	TOTAL	6156990	MEAN	16870	MAX	69600	MIN	3420	AC-FT	12210000		

BLUE RIVER BASIN

06893080 BLUE RIVER NEAR STANLEY, KS

LOCATION.--Lat 38 deg 48 min 45 sec, long 94 deg 40 min 31 sec, in SW1/4 SW1/4 SE1/4 sec.19, T.14 S., R.25 E., Johnson County, Hydrologic Unit 10300001, on left bank at downstream side of northbound bridge on U.S. Highway 69, 0.5 mi downstream from confluence of Wolf and Coffee Creeks, and 3.0 mi south of Stanley.

DRAINAGE AREA.--46 sq mi, approximately.

PERIOD OF RECORD.--Annual maximum, water years 1970-74. October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 886.05 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1974, crest-stage gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 5-11. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--13 years, 33.7 cu ft per sec, 24,420 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 cu ft per sec June 9, 1984, gage height, 18.98 ft, from rating curve extended above 5,000 cu ft per sec on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Oct. 2	1130	2,170	9.95	Feb. 28	1930	3,340	12.95
Oct. 2	2315	*4,430	*13.84	Mar. 18	0900	3,710	12.72
Oct. 25	0045	1,330	8.15				

Minimum discharge, 0.03 cu ft per sec Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	27	18	14	18	566	28	8.4	5.0	54	.08	.64
2	1480	24	21	13	16	131	25	9.3	7.7	24	.07	.59
3	1970	22	18	12	14	85	21	18	14	14	.04	.50
4	331	28	15	12	12	64	19	24	5.0	10	.09	.47
5	126	55	14	11	40	51	18	276	3.2	56	.12	.44
6	84	36	14	11	62	42	17	107	2.1	29	.11	.41
7	64	28	263	10	36	36	17	49	1.5	16	.10	.38
8	52	25	154	10	28	31	15	29	1.2	13	.08	.37
9	45	20	122	10	21	28	14	22	1.0	9.1	.08	.36
10	40	17	66	10	20	24	14	18	.98	6.3	.08	.35
11	120	18	49	11	19	21	13	14	2.9	4.4	.06	.33
12	216	17	42	11	18	20	14	12	6.5	38	.05	.37
13	80	14	37	14	17	19	138	11	237	52	.22	.37
14	66	12	35	30	18	18	156	9.8	37	14	4.7	.29
15	50	13	34	23	24	17	122	8.3	15	6.0	2.3	.27
16	40	14	33	17	43	85	78	6.8	9.1	3.5	.54	.30
17	34	15	31	14	39	236	42	5.9	5.9	2.2	.27	.30
18	28	15	27	14	35	1520	29	5.5	3.9	1.7	2.6	.27
19	25	13	24	14	49	186	24	5.8	26	1.4	3.2	.26
20	23	16	23	13	97	96	20	5.0	160	1.1	28	.24
21	21	14	22	12	100	66	33	3.9	64	.75	7.3	.18
22	31	13	21	11	77	50	24	3.1	74	.55	2.3	.13
23	38	14	20	10	50	55	19	2.4	267	.43	1.0	.11
24	194	12	19	9.1	40	230	15	2.3	56	.32	1.0	.09
25	488	10	18	7.8	34	138	14	3.1	26	.24	4.0	.08
26	130	54	17	7.6	30	78	13	3.0	15	.19	2.5	.08
27	71	29	16	8.4	30	59	12	29	11	.14	1.7	.06
28	52	22	16	9.7	1480	58	12	45	8.8	.13	2.8	.05
29	42	20	16	26	---	49	11	20	13	.11	1.1	.04
30	35	18	15	30	---	34	9.4	12	80	.10	.88	.03
31	31	---	13	19	---	30	---	6.8	---	.08	.72	---
TOTAL	6185	635	1233	424.6	2467	4123	986.4	775.4	1159.78	358.74	68.09	8.36
MEAN	200	21.2	39.8	13.7	88.1	133	32.9	25.0	38.7	11.6	2.20	.28
MAX	1970	55	263	30	1480	1520	156	276	267	56	28	.64
MIN	21	10	13	7.6	12	17	9.4	2.3	.98	.08	.04	.03
AC-FT	12270	1260	2450	842	4890	8180	1960	1540	2300	712	135	17
CAL YR 1986	TOTAL	23118.61	MEAN	63.3	MAX	2700	MIN	.19	AC-FT	45860		
WTR YR 1987	TOTAL	18424.37	MEAN	50.5	MAX	1970	MIN	.03	AC-FT	36540		

BLUE RIVER BASIN

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06893300 INDIAN CREEK AT OVERLAND PARK, KS

LOCATION.--Lat 38 deg 56 min 30 sec, long 94 deg 40 min 10 sec, in NW1/4 NE1/4 NE1/4 sec.7, T.13 S., R.25 E., Johnson County, Hydrologic Unit 10300001, on right bank at downstream side of highway bridge on Marty Street in Overland Park.

DRAINAGE AREA.--26.6 sq mi.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 856.88 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to May 17, 1977, water-stage recorder at site 700 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 30 to Dec. 3 and Mar. 17, 18. Records good except those for estimated daily discharges, which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--24 years, 29.4 cu ft per sec, 21,300 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 cu ft per sec June 9, 1984, gage height, 17.78 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 2	1015	1,330	9.37	Apr. 13	0345	*2,990	*11.43
Oct. 2	2230	1,810	10.09	June 13	0400	1,030	8.85
Oct. 3	0745	1,180	9.12	June 22	2130	1,090	8.96
Feb. 28	1815	2,230	10.61	Aug. 14	0530	1,100	8.97
Mar. 18	0730	1,690	9.92				

Minimum discharge, 2.9 cu ft per sec Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	26	17	14	16	234	24	11	15	35	15	13
2	761	28	16	14	15	71	21	11	131	21	14	13
3	694	30	15	15	15	49	20	37	42	18	13	13
4	135	35	15	15	14	41	20	88	21	17	27	13
5	70	61	14	14	66	37	19	286	17	129	16	13
6	58	31	16	14	42	33	19	146	15	30	14	50
7	49	27	209	13	26	30	18	43	15	21	12	16
8	47	25	78	13	21	29	18	34	15	18	12	11
9	41	22	86	17	18	24	17	27	15	16	14	11
10	39	26	39	17	18	27	20	25	19	16	14	30
11	140	31	32	15	17	22	17	19	23	17	14	11
12	92	22	28	19	17	22	32	18	25	90	14	10
13	43	18	26	23	17	22	909	17	305	64	67	10
14	36	17	23	23	19	21	238	16	25	22	192	13
15	28	18	25	20	23	20	122	17	18	16	21	19
16	25	17	22	16	28	87	72	17	17	15	14	30
17	26	18	21	16	32	322	50	16	16	15	13	11
18	21	20	19	16	32	880	39	31	15	16	64	9.7
19	20	21	19	16	42	82	33	29	47	15	37	9.8
20	20	28	19	16	60	49	29	16	97	14	74	9.8
21	18	21	18	16	62	39	79	15	30	14	18	9.9
22	45	20	16	15	62	32	30	16	157	12	16	9.6
23	102	20	15	14	59	73	27	14	253	13	15	9.4
24	233	18	15	14	59	157	25	20	33	14	26	9.5
25	306	21	15	14	60	66	23	21	25	13	33	9.4
26	86	69	14	14	61	41	23	17	22	14	22	9.4
27	55	24	14	14	61	34	21	165	20	14	14	9.6
28	43	18	14	15	494	46	21	51	19	13	15	9.2
29	35	18	15	22	---	31	11	37	35	13	15	8.9
30	32	18	14	20	---	26	12	20	76	13	14	8.8
31	28	---	14	16	---	25	---	17	---	14	14	---
TOTAL	3461	768	903	500	1456	2672	2009	1297	1563	752	868	410.0
MEAN	112	25.6	29.1	16.1	52.0	86.2	67.0	41.8	52.1	24.3	28.0	13.7
MAX	761	69	209	23	494	880	909	286	305	129	192	50
MIN	18	17	14	13	14	20	11	11	15	12	12	8.8
AC-FT	6860	1520	1790	992	2890	5300	3980	2570	3100	1490	1720	813
CAL YR 1986	TOTAL	19189.8	MEAN	52.6	MAX	1650	MIN	9.8	AC-FT	38060		
WTR YR 1987	TOTAL	16659.0	MEAN	45.6	MAX	909	MIN	8.8	AC-FT	33040		

OSAGE RIVER BASIN

06910800 MARAIS DES CYGNES RIVER NEAR READING, KS

LOCATION.--Lat 38 deg 34 min 00 sec, long 95 deg 57 min 50 sec, in SE1/4 SW1/4 sec.15, T.17 S., R.13 E., Lyon County, Hydrologic Unit 10290101, on left bank at downstream side of highway bridge, 1.9 mi downstream from confluence of One Hundred and Fortytwo Mile Creek and Elm Creek, 4.3 mi upstream from Duck Creek, 3.0 mi north of Reading, and at mile 467.0.

DRAINAGE AREA.--177 sq mi.

PERIOD OF RECORD.--May 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,048.32 ft above sea level (U.S. Army Corps of Engineers bench mark). Satellite telemeter at station.

REMARKS.--Estimated daily discharges: Jan. 9-11, 17-24, Feb. 28, and Mar. 1. Records good except those for estimated daily discharges, which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--18 years, 123 cu ft per sec, 89,110 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 67,400 cu ft per sec May 29, 1932, gage height, 27.47 ft; no flow at times in 1976-78, 1980, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	0700	*4,780	*19.36	Mar. 19	0100	4,270	18.34
Mar. 1	unknown	3,770	(a)17.09	Apr. 14	0600	3,810	17.20

(a) From floodmarks.

Minimum discharge, 2.4 cu ft per sec Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	411	51	35	41	99	2280	114	43	48	12	3.3	9.8
2	2250	47	38	39	92	527	99	69	52	13	3.3	7.9
3	3630	48	44	42	85	266	88	69	368	9.7	3.4	6.2
4	1300	52	40	57	72	194	83	131	69	9.6	5.1	5.1
5	308	406	35	59	597	159	79	392	44	956	4.0	4.5
6	198	237	34	54	400	134	78	190	35	273	3.8	3.6
7	136	111	104	48	174	117	75	101	29	83	3.6	3.7
8	103	88	497	42	130	104	70	72	26	153	3.3	4.0
9	98	76	236	40	105	91	65	57	23	51	3.2	3.8
10	84	65	161	40	91	85	74	50	22	31	2.9	18
11	357	62	100	40	87	81	82	43	21	23	2.6	31
12	1380	60	88	44	79	77	68	38	20	27	3.2	23
13	247	53	96	79	74	72	1250	35	19	20	68	16
14	626	47	110	154	75	71	2580	32	17	15	192	14
15	269	47	99	130	258	68	1050	28	15	13	35	176
16	154	49	93	103	732	65	308	26	14	11	16	55
17	111	51	82	80	236	460	202	25	12	10	9.1	30
18	89	51	71	70	240	3260	157	23	11	9.6	6.5	17
19	77	48	63	60	232	1850	121	22	10	9.0	13	11
20	70	47	59	52	197	342	103	21	11	8.4	155	8.0
21	64	44	58	48	150	236	88	21	13	7.8	58	6.0
22	68	43	56	45	124	183	81	18	13	7.0	22	4.1
23	81	41	52	41	107	257	75	17	35	6.6	12	3.5
24	75	39	51	38	97	1540	70	17	17	6.5	18	3.4
25	80	38	51	36	89	667	66	517	13	6.0	30	3.3
26	104	38	49	37	84	283	61	144	9.4	5.3	140	3.0
27	115	37	47	38	111	201	56	892	7.5	4.6	181	2.9
28	76	36	45	54	1210	199	50	431	6.6	4.2	47	3.0
29	61	35	46	114	---	224	47	143	8.9	3.7	27	24
30	56	34	44	105	---	145	45	80	12	3.5	20	18
31	53	---	42	105	---	121	---	61	---	3.5	15	---
TOTAL	12731	2081	2626	1935	6027	14359	7385	3808	1001.4	1796.0	1106.3	518.8
MEAN	411	69.4	84.7	62.4	215	463	246	123	33.4	57.9	35.7	17.3
MAX	3630	406	497	154	1210	3260	2580	892	368	956	192	176
MIN	53	34	34	36	72	65	45	17	6.6	3.5	2.6	2.9
AC-FT	25250	4130	5210	3840	11950	28480	14650	7550	1990	3560	2190	1030
CAL YR 1986	TOTAL	53127.3	MEAN	146	MAX	3630	MIN	4.6	AC-FT	105400		
WTR YR 1987	TOTAL	55374.5	MEAN	152	MAX	3630	MIN	2.6	AC-FT	109800		

OSAGE RIVER BASIN

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06910997 MELVERN LAKE NEAR MELVERN, KS

LOCATION.--Lat 38 deg 30 min 34 sec, long 95 deg 42 min 36 sec, in NW1/4 SW1/4 SW1/4 sec.1, T.18 S., R.15 E., Osage County, Hydrologic Unit 10290101, in control tower of Melvern Dam on Marais des Cygnes River, 4.0 mi west of Melvern, and at mile 447.7.

DRAINAGE AREA.--349 sq mi.

PERIOD OF RECORD.--November 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began in July 1972. Conservation pool elevation first reached Apr. 4, 1975. Total capacity, 920,600 acre-ft, consisting of the following: Dead storage, 26 acre-ft below elevation 962.0 ft; conservation pool, 154,400 acre-ft between elevations 962.0 ft and 1,036.0 ft; flood control pool, 258,600 acre-ft between elevations 1,036.0 ft and 1,057.0 ft; and surcharge pool, 507,600 acre-ft between elevations 1,057.0 ft and 1,073.0 ft. Reservoir is used to store water for flood control, irrigation and recreation. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,049.07 ft June 2, 1982, contents, 266,600 acre-ft; minimum elevation since conservation pool first reached, 1,030.40 ft May 6, 1977, contents, 118,900 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,045.95 ft Oct. 24, contents, 235,500 acre-ft; minimum elevation, 1,032.92 ft Jan. 29, 30, contents, 134,100 acre-ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)
(Computed by U.S. Army Corps of Engineers in 1963)

1,030	116,600	1,045	226,700
1,035	147,600	1,050	276,600
1,040	184,000		

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040.41	1043.60	1036.35	1033.29	1033.10	1036.77	1037.40	1035.04	1035.81	1035.15	1034.72	1035.40
2	1041.85	1043.18	1036.24	1033.27	1033.13	1037.11	1037.30	1035.04	1035.78	1035.15	1034.69	1035.39
3	1043.96	1042.77	1036.11	1033.28	1033.15	1037.19	1037.18	1035.05	1035.76	1035.14	1034.69	1035.36
4	1044.57	1042.39	1035.97	1033.26	1033.17	1037.04	1037.07	1035.16	1035.67	1035.19	1034.76	1035.34
5	1044.66	1042.10	1035.85	1033.26	1033.34	1036.57	1036.96	1035.39	1035.55	1035.80	1034.73	1035.31
6	1044.72	1041.76	1035.74	1033.26	1033.63	1036.11	1036.85	1035.52	1035.40	1036.10	1034.70	1035.32
7	1044.74	1041.45	1035.84	1033.25	1033.76	1035.65	1036.72	1035.53	1035.26	1036.16	1034.67	1035.31
8	1044.77	1041.04	1035.93	1033.24	1033.82	1035.18	1036.60	1035.41	1035.11	1036.12	1034.65	1035.30
9	1044.78	1040.64	1035.80	1033.28	1033.87	1034.67	1036.48	1035.28	1035.06	1035.95	1034.62	1035.31
10	1044.80	1040.26	1035.43	1033.26	1033.90	1034.18	1036.38	1035.14	1035.06	1035.76	1034.60	1035.34
11	1045.10	1039.84	1034.99	1033.25	1033.94	1033.69	1036.25	1035.03	1035.07	1035.55	1034.57	1035.36
12	1045.50	1039.43	1034.54	1033.24	1033.97	1033.19	1036.13	1034.98	1035.06	1035.43	1034.78	1035.37
13	1045.53	1038.99	1034.11	1033.26	1034.02	1032.98	1037.33	1034.99	1035.06	1035.23	1034.88	1035.36
14	1045.69	1038.57	1033.65	1033.36	1034.04	1033.01	1038.83	1034.99	1035.05	1035.07	1035.11	1035.35
15	1045.76	1038.15	1033.28	1033.43	1034.25	1033.02	1039.37	1034.98	1035.02	1035.00	1035.15	1035.57
16	1045.80	1037.95	1033.14	1033.48	1034.68	1033.05	1039.42	1034.98	1035.00	1035.03	1035.14	1035.62
17	1045.80	1037.98	1033.08	1033.51	1034.84	1033.59	1039.18	1034.96	1034.98	1035.04	1035.11	1035.61
18	1045.83	1037.89	1033.11	1033.53	1034.75	1035.64	1038.73	1034.94	1034.99	1035.04	1035.09	1035.61
19	1045.85	1037.82	1033.13	1033.55	1034.70	1036.24	1038.27	1034.96	1034.97	1035.03	1035.14	1035.60
20	1045.86	1037.66	1033.16	1033.50	1034.65	1036.45	1037.79	1034.94	1034.98	1035.01	1035.15	1035.57
21	1045.87	1037.56	1033.17	1033.45	1034.53	1036.55	1037.29	1034.92	1034.96	1034.99	1035.16	1035.55
22	1045.92	1037.43	1033.20	1033.35	1034.38	1036.63	1036.79	1034.94	1035.06	1034.97	1035.15	1035.53
23	1045.94	1037.32	1033.21	1033.29	1034.20	1036.75	1036.29	1034.89	1035.09	1034.95	1035.14	1035.51
24	1045.77	1037.18	1033.24	1033.21	1034.04	1037.52	1035.77	1034.93	1035.10	1034.93	1035.30	1035.49
25	1045.63	1037.06	1033.25	1033.15	1033.85	1037.78	1035.24	1035.04	1035.06	1034.91	1035.33	1035.47
26	1045.56	1036.94	1033.27	1033.09	1033.67	1037.85	1035.03	1035.17	1035.04	1034.89	1035.37	1035.45
27	1045.47	1036.81	1033.29	1033.00	1033.51	1037.79	1035.03	1035.84	1035.02	1034.87	1035.43	1035.43
28	1045.23	1036.68	1033.32	1032.94	1034.78	1037.80	1035.04	1036.12	1035.01	1034.85	1035.45	1035.45
29	1044.83	1036.56	1033.32	1032.93	---	1037.70	1035.03	1036.13	1035.13	1034.81	1035.45	1035.42
30	1044.41	1036.37	1033.31	1032.97	---	1037.60	1035.03	1036.04	1035.16	1034.79	1035.45	1035.40
31	1044.03	---	1033.30	1033.07	---	1037.51	---	1035.93	---	1034.75	1035.42	---
MEAN	1044.99	1039.11	1034.24	1033.26	1033.99	1035.90	1036.89	1035.23	1035.18	1035.21	1035.02	1035.44
MAX	1045.94	1043.60	1036.35	1033.55	1034.84	1037.85	1039.42	1036.13	1035.81	1036.16	1035.45	1035.62
MIN	1040.41	1036.37	1033.08	1032.93	1033.10	1032.98	1035.03	1034.89	1034.96	1034.75	1034.57	1035.30
(+)	217,900	156,900	136,500	135,000	146,100	165,100	147,800	153,900	148,600	145,900	150,400	150,300
(#)	+33,500	-61,000	-20,400	-1,500	+11,100	+19,000	-17,300	+6,100	-5,300	-2,700	+4,500	-100

CAL YR 1986 (#) +5,400
WTR YR 1987 (#) -34,100

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

06911500 SALT CREEK NEAR LYNDON, KS

LOCATION.--Lat 38 deg 36 min 32 sec, long 95 deg 38 min 17 sec, in SW1/4 SW1/4 SW1/4 sec.34, T.16 S., R.16 E., Osage County, Hydrologic Unit 10290101, on right bank at downstream side of highway bridge, 2.5 mi east of Lyndon, and at mile 12.6.

DRAINAGE AREA.--111 sq mi.

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WSP 1176: 1944-45(M). WSP 1340: 1943(M), 1946-47, 1948(P), 1949-50.

GAGE.--Water-stage recorder. Datum of gage is 955.78 ft above sea level. Prior to Nov. 25, 1957, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--46 years, 64.3 cu ft per sec, 46,580 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,400 cu ft per sec July 11, 1951, gage height, 17.0 ft, from floodmark, from rating curve extended above 6,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1935 reached a stage a few feet higher than that of July 11, 1951, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 2	2100	3,570	9.94	Feb. 28	2100	*4,230	*10.66

Minimum discharge, 0.82 cu ft per sec Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	640	28	19	24	56	2080	56	18	18	25	1.1	3.2
2	1650	26	36	23	45	272	47	16	15	12	1.1	2.7
3	2200	25	38	24	38	149	42	20	24	6.7	1.1	2.4
4	945	33	28	31	32	104	38	167	36	4.8	2.4	2.0
5	226	177	22	37	280	84	35	322	13	369	1.8	1.7
6	120	158	20	35	278	70	34	233	12	325	1.1	1.6
7	79	69	304	30	107	62	33	96	9.8	47	1.1	1.7
8	59	60	395	25	71	55	32	53	7.4	30	.91	2.0
9	50	50	229	26	51	49	30	37	5.9	21	.89	1.9
10	44	41	152	29	45	43	35	28	5.3	12	.89	4.2
11	209	40	79	27	42	40	35	25	5.0	7.9	.89	5.2
12	462	36	64	26	38	38	33	23	4.9	41	1.3	3.8
13	129	30	56	46	36	36	1510	18	4.3	53	7.7	4.7
14	426	26	55	188	41	35	2160	16	3.9	17	127	4.0
15	178	28	53	109	116	34	643	14	3.4	8.1	88	381
16	88	29	50	63	366	37	203	12	3.1	5.3	22	102
17	64	29	47	44	154	915	123	11	3.1	4.0	9.4	30
18	52	28	42	42	136	1590	89	9.7	3.0	3.9	5.8	15
19	43	26	38	43	182	916	70	8.7	2.9	3.7	4.1	8.4
20	38	25	35	38	242	199	55	8.0	3.1	3.3	51	5.0
21	34	24	33	34	167	128	45	7.3	25	2.8	51	3.4
22	44	22	31	33	109	99	39	6.4	8.1	2.3	16	2.2
23	61	22	30	30	76	123	37	5.3	40	2.0	8.2	1.7
24	51	20	30	26	62	956	32	5.6	45	1.7	8.4	1.5
25	73	19	29	22	55	485	29	20	14	1.6	15	1.2
26	152	19	27	21	50	164	27	12	8.2	1.4	23	1.1
27	88	19	27	21	56	112	25	313	5.2	1.3	19	1.2
28	56	18	27	27	1550	101	22	278	4.0	1.3	17	1.6
29	42	17	26	62	---	94	21	71	3.7	1.1	9.4	2.1
30	35	17	26	186	---	71	19	36	44	1.1	6.3	1.4
31	32	---	24	32	---	61	---	24	---	1.1	4.1	---
TOTAL	8375	1161	2072	1454	4481	9202	5599	1914.0	385.3	1017.4	506.98	599.9
MEAN	270	38.7	66.8	46.9	160	297	187	61.7	12.8	32.8	16.4	20.0
MAX	2200	177	395	188	1550	2080	2160	322	45	369	127	381
MIN	32	17	19	21	32	34	19	5.3	2.9	1.1	.89	1.1
AC-FT	16610	2300	4110	2880	8890	18250	11110	3800	764	2020	1010	1190

CAL YR 1986	TOTAL	35548.87	MEAN	97.4	MAX	2310	MIN	.87	AC-FT	70510
WTR YR 1987	TOTAL	36767.58	MEAN	101	MAX	2200	MIN	.89	AC-FT	72930

06911900 DRAGON CREEK NEAR BURLINGAME, KS

LOCATION.--Lat 38 deg 42 min 30 sec, long 95 deg 50 min 20 sec, in SE1/4 SE1/4 sec.27, T.15 S., R.14 E., Osage County, Hydrologic Unit 10290101, on left bank, 110 ft downstream from city of Burlingame pumping station and dam, 0.2 mi downstream from bridge on U.S. Highway 56, 2.0 mi downstream from Plum Creek, and 3.0 mi south of Burlingame.

DRAINAGE AREA.--114 sq mi.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,016.06 ft above sea level. Prior to June 8, 1960, nonrecording gage at bridge 180 ft upstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Diversions 110 ft upstream from station for municipal supply of Burlingame.

AVERAGE DISCHARGE.--27 years, 71.6 cu ft per sec, 51,870 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,400 cu ft per sec May 29, 1982, gage height, 22.64 ft from rating curve extended above 11,000 cu ft per sec; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900, 23.4 ft June 26, 1946, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	0700	3,000	13.66	Mar. 19	0200	4,350	16.90
Oct. 4	0100	1,550	8.23	Apr. 14	0800	4,050	16.30
Oct. 12	0500	1,570	8.35	July 5	1600	1,620	8.62
Mar. 1	0500	*4,500	*17.20				

No flow Aug. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	49	28	26	83	2670	75	31	27	19	.58	3.0
2	1050	46	43	25	68	255	63	29	105	8.9	.21	2.4
3	1970	46	37	26	57	141	55	34	358	6.7	.22	2.1
4	668	55	30	33	49	102	53	110	56	4.8	1.9	1.8
5	199	256	26	36	258	83	50	396	32	598	.45	1.7
6	124	177	25	34	238	69	49	230	25	101	.30	1.7
7	91	97	62	30	121	59	47	109	20	31	.30	1.8
8	74	84	224	25	87	53	44	57	19	20	.14	2.1
9	77	76	143	26	66	48	43	43	15	12	.00	1.7
10	82	61	104	32	59	43	51	35	13	8.0	.00	6.0
11	190	57	59	29	56	40	59	30	13	6.5	.00	13
12	756	55	50	26	54	39	44	26	13	6.2	.59	8.7
13	178	49	69	43	49	39	696	24	11	7.3	13	3.6
14	298	44	67	213	52	36	3010	22	10	7.4	52	2.8
15	208	43	61	108	115	36	777	19	9.5	1.1	12	23
16	124	46	55	60	284	34	221	17	7.7	2.4	3.9	17
17	95	46	50	50	137	281	153	16	7.3	3.6	1.8	6.1
18	81	45	43	50	156	1980	119	15	5.1	6.0	.92	3.1
19	71	42	38	51	135	1800	95	15	4.8	4.6	2.1	2.1
20	62	39	36	44	122	234	77	13	6.7	.20	128	1.7
21	59	39	34	40	101	168	63	12	6.0	.90	27	1.2
22	62	36	33	41	84	132	57	10	6.9	.26	7.0	.74
23	85	34	32	37	70	132	54	9.5	5.1	.46	3.0	.50
24	72	32	31	32	62	851	49	9.6	7.3	1.1	2.6	.50
25	68	28	31	28	59	394	47	238	6.6	1.4	2.6	.50
26	118	28	31	28	57	188	43	79	7.3	1.4	102	.50
27	113	28	29	30	67	136	41	455	1.8	1.4	103	.41
28	75	27	29	36	1040	128	36	248	3.4	1.1	21	.40
29	60	25	29	157	---	137	36	79	3.5	1.1	10	11
30	55	25	29	312	---	89	33	46	22	.52	6.6	9.3
31	52	---	27	116	---	80	---	35	---	.87	3.6	---
TOTAL	7396	1715	1585	1824	3786	10477	6240	2492.1	828.0	865.21	506.81	130.45
MEAN	239	57.2	51.1	58.8	135	338	208	80.4	27.6	27.9	16.3	4.35
MAX	1970	256	224	312	1040	2670	3010	455	358	598	128	23
MIN	52	25	25	25	49	34	33	9.5	1.8	.20	.00	.40
AC-FT	14670	3400	3140	3620	7510	20780	12380	4940	1640	1720	1010	259
CAL YR 1986	TOTAL	28052.40	MEAN	76.9	MAX	1970	MIN	1.3	AC-FT	55640		
WTR YR 1987	TOTAL	37845.57	MEAN	104	MAX	3010	MIN	.00	AC-FT	75070		

OSAGE RIVER BASIN

06911900 DRAGON CREEK NEAR BURLINGAME, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 05...	1145	334	689	7.90	6.5	124	112	86
DEC 15...	1550	61	758	7.40	3.0	44	7.3	--
JAN 27...	1500	29	943	8.00	1.5	19	1.5	--
MAR 17...	1320	86	--	--	10.5	36	8.4	--
APR 24...	1315	50	787	8.20	18.0	278	37	--
JUN 11...	1300	--	--	--	--	41	--	99
AUG 31...	1115	3.9	--	--	21.0	152	1.6	--

OSAGE RIVER BASIN

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06912490 POMONA LAKE NEAR QUENEMO, KS

LOCATION.--Lat 38 deg 38 min 51 sec, long 95 deg 33 min 50 sec, in NE1/4 SE1/4 NE1/4 sec.19, T.16 S., R.17 E., Osage County, Hydrologic Unit 10290101, in control tower at dam on Hundred and Ten Mile Creek, 5.0 mi north-west of Quenemo, and 7.9 mi above mouth.

DRAINAGE AREA.--322 sq mi.

PERIOD OF RECORD.--April 1964 to current year. Prior to October 1971, published as "Pomona Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (U.S. Army Corps of Engineers bench mark).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Oct. 18, 1963. Conservation pool elevation was first reached on June 4, 1965. Total capacity, 498,500 acre-ft, consisting of the following: Sedimentation, 25,610 acre-ft below elevation 960.5 ft; conservation pool, 41,030 acre-ft between elevations 960.5 ft and 974.0 ft; flood control pool, 176,500 acre-ft between elevations 974.0 ft and 1,003.0 ft; and surcharge pool, 255,400 acre-ft between elevations 1,003.0 ft and 1,025.4 ft. Reservoir is used for flood control, conservation, and recreation. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 990.24 ft June 2, 1982, contents, 149,500 acre-ft; minimum elevation since conservation pool was first filled, 969.60 ft Mar. 29, 30, 1967, contents, 54,260 acre-ft, from capacity table then in use.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 985.61 ft Oct. 24, contents, 122,000 acre-ft; minimum elevation, 973.59 Aug. 12, contents, 65,060 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Army Corps of Engineers in 1975)

970	52,130	985	118,600
975	70,630	990	148,000
980	92,870		

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1937
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	979.38	981.82	974.22	974.26	974.06	979.05	977.24	974.03	974.79	973.97	973.81	974.20
2	981.17	981.05	974.24	974.27	974.07	979.32	975.85	974.05	974.71	973.96	973.78	974.18
3	982.94	980.43	974.25	974.32	974.11	979.50	975.90	974.17	974.78	973.95	973.78	974.16
4	983.55	980.02	974.27	974.34	974.16	979.62	974.74	976.04	974.59	973.95	973.81	974.14
5	983.67	979.74	974.27	974.37	974.51	979.72	974.54	978.09	974.37	974.64	973.78	974.13
6	983.75	979.38	974.32	974.40	974.83	979.47	974.36	978.59	974.14	974.89	973.74	974.12
7	983.77	979.01	974.57	974.41	974.95	978.90	974.18	978.54	974.03	974.95	973.71	974.16
8	983.81	978.54	974.87	974.43	975.04	978.31	973.99	978.12	974.04	974.90	973.70	974.14
9	983.84	978.07	975.05	974.52	975.09	977.66	973.97	977.66	974.03	974.83	973.66	974.16
10	983.86	977.64	975.07	974.52	975.15	977.00	974.01	977.18	974.04	974.71	973.63	974.17
11	984.23	977.11	975.07	974.53	975.20	976.33	974.05	976.71	974.08	974.60	973.60	974.16
12	984.21	976.61	975.04	974.56	975.25	975.64	974.13	976.22	974.06	974.66	973.70	974.14
13	984.83	976.10	975.02	974.60	975.32	975.11	975.67	975.67	974.08	974.56	973.74	974.12
14	985.15	975.56	975.02	974.76	975.37	974.90	979.14	975.13	974.07	974.44	973.94	974.10
15	985.23	975.05	974.88	974.83	975.65	974.72	980.03	974.75	974.05	974.33	973.95	974.43
16	985.35	974.47	974.72	974.82	976.02	974.58	980.18	974.46	974.05	974.21	976.95	974.43
17	985.39	974.02	974.53	974.82	976.11	977.05	980.02	974.19	974.01	974.15	973.91	974.39
18	985.42	973.92	974.34	974.82	976.02	980.31	980.69	974.06	974.00	974.15	973.90	974.34
19	985.45	973.97	974.20	974.80	975.96	982.04	979.33	974.08	973.98	974.14	974.07	974.28
20	985.46	973.98	974.13	974.74	975.91	982.35	978.99	974.05	974.00	974.13	974.09	974.21
21	985.49	973.99	974.06	974.67	975.82	982.50	978.41	974.06	973.98	974.11	974.10	974.15
22	985.05	974.05	974.02	974.55	975.68	982.61	977.66	974.06	973.97	974.10	974.10	974.10
23	985.60	974.05	974.05	974.45	975.50	982.55	976.93	974.04	974.02	974.07	974.10	974.07
24	985.37	974.07	974.03	974.36	975.32	983.47	976.15	974.13	974.01	974.05	974.15	974.06
25	985.18	974.12	974.10	974.24	975.14	983.88	975.32	974.27	973.99	974.03	974.16	974.03
26	985.13	974.12	974.12	974.13	974.96	983.89	974.49	974.36	973.96	974.00	974.19	974.01
27	985.04	974.13	974.15	974.04	974.78	983.26	974.01	975.08	973.94	973.96	974.26	973.98
28	984.62	974.15	974.18	973.94	976.67	982.21	974.03	975.42	973.93	973.94	974.27	974.03
29	983.94	974.16	974.21	973.90	---	981.02	974.03	975.39	973.91	973.90	974.26	974.00
30	983.21	974.16	974.22	974.10	---	979.78	974.03	975.20	973.97	973.88	974.25	973.98
31	982.53	---	974.25	974.10	---	978.51	---	975.00	---	973.85	974.23	---
MEAN	984.25	976.25	974.44	974.44	975.24	979.52	976.20	975.38	974.12	974.26	974.04	974.15
MAX	985.60	981.82	975.07	974.83	976.67	983.89	980.69	978.59	974.79	974.95	976.95	974.43
MIN	979.38	973.92	974.02	973.90	974.06	974.58	973.97	974.03	973.91	973.85	973.60	973.98
(+)	105,500	67,270	67,620	67,030	77,650	85,870	66,760	70,630	66,530	66,060	67,540	66,560
(#)	+17,270	-38,230	+350	-590	+10,620	+8,220	-19,110	+3,870	-4,100	-470	+1,480	-980

CAL YR 1986 (#) +5,700
WTR YR 1987 (#) -21,670

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

OSAGE RIVER BASIN

06912500 HUNDRED AND TEN MILE CREEK NEAR QUENEMO, KS

LOCATION.--Lat 38 deg 38 min 41 sec, long 95 deg 33 min 34 sec, in NE1/4 NW1/4 SW1/4 sec.20, T.16 S., R.17 E., Osage County, Hydrologic Unit 10290101, on left bank 800 ft downstream from outlet works of Pomona Dam, 4.5 mi northwest of Quenemo, and 7.7 mi upstream from mouth.

DRAINAGE AREA.--322 sq mi.

PERIOD OF RECORD.--September 1939 to current year. Prior to October 1941, published as "Dragoon Creek."

REVISED RECORDS.--WSP 1116: 1942.

GAGE.--Water-stage recorder. Datum of gage is 919.05 ft above sea level (U.S. Army Corps of Engineers bench mark). See WSP 1919 for history of changes prior to Apr. 11, 1963.

REMARKS.--Estimated daily discharges: Oct. 1-5, Feb. 28 to Mar. 2, Mar. 17-19, and Mar. 28 to Apr. 3. Records good except those for estimated daily discharges, which are poor. Flow completely regulated since 1964 by Pomona Lake (station 06912490).

AVERAGE DISCHARGE.--48 years, 184 cu ft per sec, 133,300 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,600 cu ft per sec July 11, 1951, gage height, 28.47 ft, site and datum then in use, from rating curve extended above 20,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1919, that of July 11, 1951, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,000 cu ft per sec Mar. 27, gage height, 14.00 ft; minimum discharge, 0.16 cu ft per sec Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	2120	24	34	280	550	3000	20	481	16	15	15
2	14	2100	24	34	139	221	3000	20	479	16	15	15
3	14	1870	24	34	30	27	2080	22	484	16	15	15
4	14	1310	24	35	27	27	507	88	486	16	16	15
5	14	1300	24	35	29	26	507	57	481	19	16	15
6	14	1290	24	35	29	896	513	32	482	12	16	15
7	14	1290	42	35	28	1660	509	590	220	15	16	15
8	14	1290	36	34	28	1650	509	1270	17	132	16	15
9	14	1280	88	34	28	1640	178	1260	17	189	16	15
10	14	1270	182	34	28	1630	20	1260	16	201	16	17
11	14	1270	182	34	28	1620	20	1290	16	201	16	16
12	15	1260	183	24	28	1600	20	1260	17	204	16	16
13	7.8	1250	184	25	28	1270	53	1250	17	202	17	15
14	.80	1250	184	99	28	510	52	1230	17	202	17	15
15	.24	1240	388	157	37	505	34	856	17	201	16	23
16	.21	1220	516	157	35	507	304	593	17	202	16	64
17	2.9	1090	512	157	213	498	857	590	17	91	16	108
18	11	290	503	157	553	215	1170	252	17	15	16	108
19	11	26	400	157	554	32	1170	19	16	15	21	108
20	11	25	237	214	556	32	1160	19	17	15	17	109
21	11	25	236	281	555	31	1440	19	16	15	16	110
22	11	25	158	279	553	29	1890	19	16	15	16	80
23	11	24	32	278	552	843	1870	19	16	15	16	35
24	680	24	32	278	550	107	1860	20	16	15	17	17
25	968	24	31	278	551	37	1850	29	16	15	16	17
26	444	24	30	279	546	450	1830	19	16	15	16	17
27	447	24	31	279	546	1880	1130	65	16	15	15	17
28	1100	24	31	278	550	3000	21	26	16	15	15	18
29	2070	24	32	280	---	3000	20	266	16	15	15	17
30	2150	24	33	281	---	3000	20	486	16	15	15	17
31	2140	---	34	279	---	3000	---	482	---	15	15	---
TOTAL	10245.95	24283	4461	4595	7109	30493	27594	13428	3491	2145	497	1079
MEAN	331	809	144	148	254	984	920	433	116	69.2	16.0	36.0
MAX	2150	2120	516	281	556	3000	3000	1290	486	204	21	110
MIN	.21	24	24	24	27	26	20	19	16	12	15	15
AC-FT	20320	48170	8850	9110	14100	60480	54730	26630	6920	4250	986	2140
CAL YR 1986	TOTAL	82249.85	MEAN	225	MAX	2150	MIN	.21	AC-FT	163100		
WTR YR 1987	TOTAL	129420.95	MEAN	355	MAX	3000	MIN	.21	AC-FT	256700		

OSAGE RIVER BASIN

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06913000 MARAIS DES CYGNES RIVER NEAR POMONA, KS

LOCATION.--Lat 38 deg 35 min 03 sec, long 95 deg 27 min 12 sec, in SE1/4 NE1/4 SE1/4 sec.7, T.17 S., R.18 E., Franklin County, Hydrologic Unit 10290101, on right bank at downstream side of county highway bridge, 1.5 mi south of Pomona, 4.7 mi upstream from Miller Dam, 5.7 mi downstream from Hundred and Ten Mile Creek, and at mile 418.1.

DRAINAGE AREA.--1,040 sq mi.

PERIOD OF RECORD.--July 1922 to February 1938, October 1968 to current year. Prior to October 1968, published as "near Quenemo."

REVISED RECORDS.--WSP 1310: 1924(M), 1929, 1931(M), 1934, 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 893.74 ft above sea level. July 1922 to February 1938, nonrecording gage 1.7 mi upstream at datum 891.36 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Nov. 11-13, Jan. 22-28, and May 27. Records fair except those for estimated daily discharges, which are poor. Flow regulated since 1973 by Melvern Lake (station 06910997) and since 1964 by Pomona Lake (station 06912490). Diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--34 years (water years 1923-37, 1969-87) 582 cu ft per sec, 421,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,400 cu ft per sec Nov. 17, 1928, gage height, 38.38 ft, from floodmark, site and datum then in use, from rating curve extended above 20,000 cu ft per sec by logarithmic plotting and unit-runoff study at gage height 40.35 ft for flood of July 11, 1951; no flow at times in 1926, 1931, 1933, 1934, 1936-38.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,000 cu ft per sec Mar. 18, gage height, 25.74 ft; minimum discharge, 26 cu ft per sec Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5680	4660	636	245	683	9170	4620	120	1400	462	43	68
2	2570	4610	717	241	605	6980	4520	117	1350	211	43	58
3	7450	4560	836	242	251	1420	4290	125	1470	133	42	54
4	7930	3830	835	254	169	1160	1790	1480	1450	101	51	61
5	2810	3640	762	262	170	2150	1400	5510	1350	136	50	55
6	907	3870	735	266	793	2750	1380	2940	1300	1210	44	47
7	568	3720	1370	256	516	4130	1380	1270	1190	376	45	54
8	404	3620	3030	242	332	4210	1360	2290	724	250	44	40
9	320	3580	2010	241	257	4140	1230	2390	674	904	45	38
10	288	3530	2710	254	217	4080	824	2300	286	1110	43	54
11	268	3500	2640	250	202	4030	815	2260	95	1090	42	66
12	1110	3490	2470	244	191	3990	800	2680	95	1160	41	55
13	754	3470	2400	252	179	3870	2620	1950	87	1200	289	147
14	750	3450	2370	467	184	1420	5590	1660	81	1170	658	98
15	844	3430	2420	756	324	788	5870	1440	74	865	791	102
16	409	3390	2170	575	1700	847	1820	896	69	494	261	628
17	287	2020	1460	493	1130	2380	2330	858	65	268	139	275
18	241	948	1040	459	1730	9750	3620	734	64	75	109	256
19	217	579	814	472	2170	6920	3960	146	63	56	104	163
20	191	722	508	458	2500	1860	3890	96	65	54	313	141
21	174	715	457	752	2660	820	3900	94	83	52	227	130
22	171	711	443	800	2370	597	4470	91	87	48	176	123
23	230	704	226	750	2070	694	4530	86	296	47	113	73
24	420	695	184	700	1920	3090	4490	99	398	48	133	36
25	3310	691	180	690	1850	4180	4450	1370	176	46	592	28
26	2600	698	170	700	1810	1470	4370	618	107	45	416	27
27	1820	698	162	700	1790	2470	2710	4130	82	44	230	28
28	1760	694	159	710	2990	4660	410	4530	71	40	148	29
29	4170	691	157	839	---	4920	143	1380	66	40	113	31
30	4710	687	153	975	---	4800	130	1540	371	41	92	33
31	4710	---	202	909	---	4690	---	1510	---	42	75	---
TOTAL	58073	71603	34476	15454	31763	108436	83712	46710	13689	11818	5512	2998
MEAN	1873	2387	1112	499	1134	3498	2790	1507	456	381	178	99.9
MAX	7930	4660	3030	975	2990	9750	5870	5510	1470	1210	791	628
MIN	171	579	153	241	169	597	130	86	63	40	41	27
AC-FT	115200	142000	68380	30650	63000	215100	166000	92650	27150	23440	10930	5950
CAL YR 1986	TOTAL	352625	MEAN	966	MAX	7930	MIN	38	AC-FT	699400		
WTR YR 1987	TOTAL	484244	MEAN	1327	MAX	9750	MIN	27	AC-FT	960500		

OSAGE RIVER BASIN

06913500 MARAIS DES CYGNES RIVER NEAR OTTAWA, KS

LOCATION.--Lat 38 deg 37 min 07 sec, long 95 deg 16 min 04 sec, in NW1/4 SW1/4 NW1/4 sec.36, T.16 S., R.19 E., Franklin County, Hydrologic Unit 10290101, on right bank at Main Street bridge, 1.0 mi downstream of Eightmile Creek, and at mile 398.0.

DRAINAGE AREA.--1,250 sq mi, approximately.

PERIOD OF RECORD.--August 1902 to October 1905, October 1918 to current year. Published as Osage River at Ottawa 1902-05, and as Osage River near Ottawa 1918-47.

REVISED RECORDS.--WSP 1006: 1923, 1927, 1929. WSP 1440: 1904-05, 1922, 1929(M), 1935, 1941-43, 1944-45(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 857.68 ft above sea level. Aug. 26, 1902, to Oct. 31, 1905, nonrecording gages at Main Street Bridge in Ottawa at different datums. Oct. 27, 1918, to Sept. 4, 1962, water-stage recorder at Seventh Street Bridge, 0.9 mi downstream at datum 0.47 ft higher. Sept. 5, 1962, to Aug. 8, 1971, water-stage recorder at sewage disposal plant at datum 857.68 ft. Aug. 9, 1971, to July 23, 1987, water-stage recorder outside sewage disposal plant at same datum.

REMARKS.--Estimated daily discharges: Jan. 22-28, Mar. 1, 2, July 23, and Sept. 13, 14. Records good except those for estimated daily discharges, which are poor. Flow regulated since 1973 by Melvern Lake (station 06910997) and since 1964 by Pomona Lake (station 06912490). Diversions upstream from station for irrigation. Satellite telemeter at station.

AVERAGE DISCHARGE.--71 years (water years 1903-05, 1920-87), 687 cu ft per sec, 497,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 142,000 cu ft per sec July 11, 1951, gage height, 42.50 ft, site and datum then in use, from rating curve extended above 44,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in 1920, 1930-34, 1936, 1937, 1939-41.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of 1951 is the highest known since Ottawa was settled (about 1864) according to information reported in "Climate of Kansas - 1948." Flood of June 13 or 14, 1944, reached a stage of about 1.5 ft lower than that in 1951 according to same information.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	2400	11,500	29.33	Apr. 15	0500	8,720	24.09
Mar. 1	unknown	12,300	(a)30.14	May 5	2000	8,380	23.37
Mar. 18	1900	*13,700	*31.48				

(a) From high-water mark.

Minimum discharge, 26 cu ft per sec Aug. 3.

OSAGE RIVER BASIN

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06913500 MARAIS DES CYGNES RIVER NEAR OTTAWA, KS--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8770	4390	611	249	619	11600	4590	163	1360	512	36	70
2	6360	4330	638	248	542	10400	4480	153	1300	276	31	63
3	10400	4280	720	250	272	3580	4380	168	1400	156	34	59
4	10800	3710	765	261	191	1170	2580	1650	1420	118	61	56
5	6300	3440	692	269	203	1800	1400	7460	1300	142	54	53
6	1370	3690	657	271	697	2550	1360	5960	1200	863	47	50
7	745	3550	1640	263	652	3700	1340	1950	1150	584	44	58
8	510	3360	3830	241	388	4080	1330	2020	733	245	44	48
9	414	3280	2760	241	302	4030	1280	2420	583	577	43	46
10	373	3210	2620	251	254	3950	843	2300	414	974	41	54
11	360	3190	2730	247	233	3910	761	2210	130	977	40	56
12	1380	3180	2480	247	220	3860	741	2610	116	1070	45	63
13	1160	3130	2370	254	211	3860	3340	2120	105	1150	95	123
14	1000	3100	2320	431	213	2190	6490	1620	91	1080	662	101
15	1230	3090	2310	730	429	751	8180	1500	86	852	672	134
16	585	3080	2280	580	1930	829	3580	782	79	537	327	557
17	394	2320	1620	469	1640	1890	2160	761	71	292	137	284
18	327	1150	1220	426	1480	11900	3340	731	68	147	104	253
19	287	505	777	443	2140	11800	3970	297	75	67	249	162
20	251	652	562	426	2690	4910	3920	132	77	59	1180	136
21	232	651	447	564	2970	1210	3870	119	113	51	302	123
22	228	644	434	750	2580	806	4240	110	114	45	186	118
23	279	632	315	720	2110	664	4440	101	210	46	114	93
24	333	622	221	670	1870	3800	4400	102	461	47	153	62
25	2570	620	217	700	1770	6120	4350	1000	251	45	478	46
26	3160	626	206	700	1710	2650	4300	976	141	42	542	45
27	1980	625	195	700	1680	2140	3380	2940	103	42	252	43
28	1560	620	190	690	3510	4250	977	6010	89	41	168	46
29	3280	616	187	716	---	4880	203	2250	80	37	124	45
30	4380	608	184	819	---	4770	176	1380	187	37	98	43
31	4460	---	193	891	---	4660	---	1520	---	35	81	---
TOTAL	75478	66901	36391	14717	33506	128709	90401	53515	13507	11146	6444	3090
MEAN	2435	2230	1174	475	1197	4152	3013	1726	450	360	208	103
MAX	10800	4390	3830	891	3510	11900	8180	7460	1420	1150	1180	557
MIN	228	505	184	241	191	664	176	101	68	35	31	43
AC-FT	149700	132700	72180	29190	66460	255300	179300	106100	26790	22110	12780	6130
CAL YR 1986	TOTAL	403775	MEAN	1106	MAX	10800	MIN	40	AC-FT	800900		
WTR YR 1987	TOTAL	533805	MEAN	1462	MAX	11900	MIN	31	AC-FT	1059000		

OSAGE RIVER BASIN

06914000 POTTAWATOMIE CREEK NEAR GARNETT, KS

LOCATION.--Lat 38 deg 20 min 01 sec, long 95 deg 14 min 55 sec, in SW1/4 SW1/4 SW1/4 sec.6, T.20 S., R.20 E., Anderson County, Hydrologic Unit 10290101, at upstream side of bridge on right bank on U.S. Highway 59, 0.6 mi downstream from confluence of North Pottawatomie and Cedar Creeks, 0.2 mi upstream from Atchison, Topeka and Santa Fe Railway Co. bridge, 4.0 mi north of Garnett, and at mile 40.7.

DRAINAGE AREA.--334 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1390: 1940, 1941(M), 1945, 1947(M), 1949-50.

GAGE.--Water-stage recorder. Datum of gage is 873.23 ft above sea level. See WSP 1919 for history of changes prior to May 16, 1952.

REMARKS.--Estimated daily discharges: Jan. 21-24 and July 12 to Aug. 6. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--48 years, 231 cu ft per sec, 167,400 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 cu ft per sec Sept. 13, 1961, gage height, 35.38 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1858, that of Sept. 13, 1961, from information by local newspaper.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Oct. 4	0400	*18,600	*30.25	Mar. 18	0800	11,300	28.33
Mar. 1	0900	8,760	27.41				

Minimum discharge, 1.1 cu ft per sec Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1510	99	60	40	180	7150	108	34	143	115	5.1	44
2	2260	84	102	38	127	2800	99	31	104	109	5.0	32
3	14200	76	263	38	100	874	92	29	657	67	5.0	23
4	14300	74	170	39	81	465	80	279	240	52	20	17
5	3630	82	114	39	96	323	72	2830	134	73	15	13
6	1610	166	90	40	429	254	67	3230	89	643	10	10
7	1260	175	720	36	432	210	65	1030	65	216	7.9	8.8
8	1060	125	2210	32	311	179	62	393	51	119	6.1	7.4
9	505	100	1210	34	202	155	59	242	42	79	4.2	6.4
10	259	90	747	35	135	137	58	157	34	56	2.9	6.6
11	178	78	345	36	107	122	59	109	32	41	2.1	5.4
12	518	70	223	36	96	114	57	92	31	34	1.9	4.7
13	504	57	169	42	84	106	82	94	31	50	106	4.8
14	298	53	142	248	75	101	1390	78	37	35	775	5.1
15	242	51	125	328	815	95	2420	61	30	30	711	7.2
16	181	49	115	235	3450	106	743	49	22	25	259	12
17	130	49	107	155	1180	1260	361	42	17	20	110	11
18	103	48	98	111	586	9050	234	35	14	17	70	8.8
19	87	45	110	99	539	3270	166	32	14	15	82	7.1
20	73	46	88	87	843	1040	123	75	47	13	794	5.9
21	62	43	77	86	1140	473	108	52	67	11	179	4.7
22	58	40	70	80	653	294	192	34	184	10	88	3.5
23	66	40	64	74	398	224	130	26	3370	9.5	53	3.1
24	78	40	61	68	282	957	94	25	1170	8.5	142	2.5
25	1180	38	58	48	230	1200	77	505	354	8.0	656	1.8
26	1840	45	55	40	197	484	66	504	196	7.5	340	1.3
27	728	65	50	38	176	296	58	1740	115	7.0	220	1.4
28	356	98	47	40	1770	225	51	3280	81	6.5	212	2.3
29	228	80	46	137	---	179	45	954	69	6.0	132	7.4
30	158	66	42	501	---	147	39	386	64	5.8	88	56
31	120	---	40	279	---	120	---	233	---	5.4	63	---
TOTAL	47782	2172	7818	3139	14714	32410	7257	16661	7504	1894.2	5165.2	324.2
MEAN	1541	72.4	252	101	526	1045	242	537	250	61.1	167	10.8
MAX	14300	175	2210	501	3450	9050	2420	3280	3370	643	794	56
MIN	58	38	40	32	75	95	39	25	14	5.4	1.9	1.3
AC-FT	94780	4310	15510	6230	29190	64290	14390	33050	14880	3760	10250	643
CAL YR 1986	TOTAL	110911.17	MEAN	304	MAX	14300	MIN	.28	AC-FT	220000		
WTR YR 1987	TOTAL	146840.60	MEAN	402	MAX	14300	MIN	1.3	AC-FT	291300		

OSAGE RIVER BASIN

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06914000 POTTAWATOMIE CREEK NEAR GARNETT, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-70, 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
OCT 20...	1255	74	354	7.90	15.5	37	7.4	--	--
DEC 01...	1035	58	400	7.70	5.5	72	11	--	--
JAN 13...	1000	39	528	8.80	0.5	16	1.7	--	--
FEB 23...	1015	403	352	8.00	4.5	84	91	--	--
APR 10...	1130	56	377	8.00	13.5	37	5.6	99	--
MAY 22...	1110	33	383	7.50	21.5	79	7.0	--	--
JUN 29...	1130	202	203	7.00	24.0	196	107	99	72
AUG 07...	1045	3.8	284	7.80	26.0	81	0.82	--	--
SEP 18...	1110	3.8	292	8.70	20.0	43	0.44	--	--

06914995 HILLSDALE LAKE NEAR HILLSDALE, KS

LOCATION.--Lat 38 deg 39 min 36 sec, long 94 deg 53 min 50 sec, in NE1/4 SW1/4 NW1/4 sec.17, T.16 S., R.23 E., Miami County, Hydrologic Unit 10290102, in control tower at dam on Big Bull Creek, 2.5 mi west of Hillsdale, and 18.2 mi above mouth.

DRAINAGE AREA.--144 sq mi.

PERIOD OF RECORD.--May 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (U.S. Army Corps of Engineers bench mark).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Sept. 19, 1981. Conservation pool elevation was first reached on Feb. 23, 1985. Total capacity, 315,600 acre-ft, consisting of the following: Conservation pool, 76,270 acre-ft between elevations 860.0 ft and 917.0 ft; flood control pool, 83,570 acre-ft between elevations 917.0 ft and 931.0 ft; and surcharge pool, 155,800 acre-ft between elevations 931.0 ft and 948.0 ft. Reservoir is used for flood control, water supply, water quality control, fish and wildlife, and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 928.49 ft Oct. 20, 1986, contents, 141,900 acre-ft; minimum elevation since conservation pool first filled, 905.40 ft Sept. 30, 1987, contents, 35,010 acre-ft.

EXTREMES FOR CURRENT OF RECORD.--Maximum elevation, 928.49 ft Oct. 20, contents, 141,900 acre-ft; minimum elevation, 905.40 ft Sept. 30, contents, 35,010 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1969 by U.S. Army Corps of Engineers)

895	14,340	915	67,500
900	22,780	920	90,870
905	33,970	925	119,100
910	48,700	930	152,500

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	924.62	922.18	918.08	910.20	906.30	910.39	909.56	906.02	906.16	906.95	906.44	906.15
2	926.37	921.60	917.89	909.77	906.32	910.58	909.00	906.00	906.18	906.95	906.40	906.12
3	927.70	921.07	917.70	909.35	906.35	910.65	908.44	906.01	906.17	906.95	906.38	906.09
4	927.88	920.64	917.50	908.92	906.40	910.74	907.86	906.11	906.15	906.94	906.39	906.06
5	927.93	920.44	917.30	908.46	906.50	910.79	907.27	906.24	906.13	906.95	906.36	906.04
6	928.01	920.20	917.13	908.00	906.60	910.65	907.01	906.32	906.10	906.95	906.32	906.02
7	928.04	919.99	917.42	907.52	906.67	910.26	907.00	906.35	906.07	906.95	906.27	905.99
8	928.05	919.72	917.43	907.06	906.67	909.85	906.97	906.35	906.04	906.96	906.24	905.95
9	928.06	919.46	917.37	906.79	906.73	909.39	906.95	906.35	906.02	906.96	906.21	905.95
10	928.07	919.27	917.21	906.76	906.80	908.94	906.94	906.34	905.98	906.97	906.16	905.93
11	928.26	919.13	917.05	906.73	906.80	908.50	906.92	906.34	906.03	906.98	906.13	905.91
12	928.30	919.00	916.90	906.70	906.85	908.06	906.93	906.34	906.04	906.99	906.17	905.89
13	928.30	918.91	916.71	906.68	906.90	907.70	907.63	906.32	906.17	907.00	906.18	905.86
14	928.39	918.90	916.56	906.65	906.93	907.49	907.96	906.31	906.19	907.00	906.21	905.83
15	928.41	918.93	916.38	906.65	907.11	907.27	908.35	906.28	906.16	906.98	906.16	905.83
16	928.43	918.95	916.13	906.63	907.26	907.20	908.50	906.25	906.13	906.95	906.13	905.80
17	928.45	918.98	915.79	906.60	907.36	907.50	908.56	906.24	906.11	906.93	906.10	905.76
18	928.46	919.00	915.44	906.55	907.41	910.18	908.32	906.21	906.13	906.90	906.21	905.75
19	928.47	919.00	915.12	906.52	907.43	910.22	907.75	906.20	906.21	906.88	906.39	905.71
20	928.49	919.00	914.78	906.50	907.51	910.32	907.16	906.15	906.27	906.86	906.46	905.66
21	928.12	919.00	914.42	906.50	907.55	910.37	906.73	906.14	906.28	906.84	906.43	905.64
22	927.47	919.04	914.06	906.50	907.46	910.41	906.44	906.10	906.37	906.80	906.39	905.61
23	926.84	919.03	913.76	906.48	907.30	910.50	906.32	906.06	906.61	906.76	906.36	905.58
24	926.32	919.02	913.35	906.45	907.14	910.96	906.30	906.08	906.63	906.74	906.37	905.56
25	926.12	919.04	912.99	906.40	907.00	911.20	906.27	906.08	906.61	906.71	906.35	905.53
26	925.91	919.00	912.60	906.40	907.01	911.28	906.25	906.08	906.57	906.67	906.34	905.50
27	925.40	918.79	912.22	906.40	907.03	911.26	906.20	906.19	906.53	906.64	906.31	905.47
28	924.56	918.62	911.81	906.34	909.30	911.05	906.15	906.22	906.51	906.60	906.28	905.46
29	923.80	918.44	911.43	906.25	---	910.79	906.10	906.22	906.62	906.55	906.25	905.42
30	923.28	918.26	911.01	906.25	---	910.54	906.05	906.21	906.90	906.52	906.22	905.40
31	922.76	---	910.61	906.27	---	910.10	---	906.18	---	906.47	906.17	---
MEAN	927.07	919.42	915.30	907.07	907.02	909.84	907.26	906.20	906.27	906.85	906.28	905.78
MAX	928.49	922.18	918.08	910.20	909.30	911.28	909.56	906.35	906.90	907.00	906.46	906.15
MIN	922.76	918.26	910.61	906.25	906.30	907.20	906.05	906.00	905.98	906.47	906.10	905.40
(+)	105,900	82,190	50,770	37,360	46,410	49,040	36,750	37,110	39,120	37,910	37,080	35,010
(#)	-10,200	-23,710	-31,420	-13,410	+9,050	+2,630	-12,290	+360	+2,010	-1,210	-830	-2,070

CAL YR 1986 (#) -14,930

WTR YR 1987 (#) -81,090

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.

CHANGE IN CONTENTS, IN ACRE-FEET.

OSAGE RIVER BASIN

153

06915000 BIG BULL CREEK NEAR HILLSDALE, KS

LOCATION.--Lat 38 deg 33 min 12 sec, long 94 deg 53 min 29 sec, in SW1/4 SW1/4 SE1/4 sec.20, T.16 S., R.23 E., Miami County, Hydrologic Unit 10290102, on right bank 1.0 mi upstream from Tenmile Creek, 3.0 mi southwest of Hillsdale, and 16.2 mi upstream from mouth.

DRAINAGE AREA.--147 sq mi.

PERIOD OF RECORD.--July 1958 to current year. Records for 1949 to 1953 published in WSP 1146, 1176, 1210, 1240, and 1280 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1919: 1958. See also PERIOD OF RECORD.

GAGE.--water-stage recorder. Datum of gage is 854.49 ft above sea level. Prior to July 29, 1958, water-stage recorder and nonrecording gage operated 1,850 ft downstream at datum 6.00 ft lower. All records from this site were later discredited.

REMARKS.--Estimated daily discharges: Oct. 2-5, 26, 27, Nov. 13-18, Jan. 10-13, Jan. 16 to Feb. 12, and Feb. 15-18. Records good except those for estimated daily discharges, which are poor. Flow completely regulated since 1981 by Hillsdale Lake (station 06914995). Satellite telemeter at station.

AVERAGE DISCHARGE.--29 years, 105 cu ft per sec, 76,070 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,600 cu ft per sec Sept. 13, 1961, gage height, 20.85 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1910, 21.2 ft July 11, 1951, present site and datum, discharge, 45,200 cu ft per sec, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,890 cu ft per sec Oct. 28, gage height, 10.15 ft; maximum gage height, 11.42 ft Oct. 3, backwater from Tenmile Creek; minimum discharge, 0.52 cu ft per sec Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	1720	526	819	12	16	1070	56	27	27	26	26
2	4.4	1710	527	813	12	12	1060	35	27	26	26	26
3	11	1710	524	811	12	19	1050	36	27	26	26	26
4	2.3	1350	522	811	12	16	1040	37	27	26	26	26
5	1.9	751	524	806	14	13	1040	37	27	26	26	26
6	2.0	753	522	800	15	371	480	36	27	26	26	26
7	1.4	752	563	791	13	856	71	34	27	26	26	26
8	1.3	752	533	788	13	842	71	33	27	27	26	26
9	.77	749	529	545	9.4	833	71	31	27	27	26	26
10	.73	587	524	81	7.5	828	52	31	27	27	26	26
11	6.1	314	520	80	7.5	823	39	31	27	27	26	26
12	6.4	314	515	78	7.5	819	39	29	26	28	26	26
13	2.6	147	515	80	6.2	689	48	29	27	27	27	26
14	2.9	6.2	514	79	6.2	405	42	29	27	26	27	26
15	2.5	6.2	512	78	8.6	403	44	29	27	27	26	26
16	1.4	6.2	706	75	6.9	404	42	28	27	27	26	26
17	1.0	6.2	886	73	6.9	410	42	28	27	27	26	26
18	.56	5.6	882	75	48	173	493	28	27	28	27	26
19	.52	5.1	879	75	151	50	1060	28	26	28	37	25
20	.57	5.1	872	75	298	45	1040	28	26	28	29	24
21	1290	5.1	865	76	411	45	864	27	27	28	25	24
22	2440	5.1	863	78	407	45	509	27	29	28	24	24
23	2420	5.1	807	78	406	158	262	26	30	27	24	24
24	2390	5.1	854	78	405	22	70	26	27	27	25	24
25	1700	5.1	849	78	322	8.4	68	27	26	26	26	24
26	1320	226	844	78	80	4.4	68	26	26	26	26	24
27	1890	529	840	78	77	196	69	27	26	26	26	24
28	2870	528	836	78	50	551	71	27	26	26	26	24
29	2490	528	833	78	---	547	75	27	25	26	26	25
30	1680	526	831	47	---	545	76	27	27	26	26	26
31	1710	---	824	13	---	842	---	27	---	26	26	---
TOTAL	22256.05	14012.1	21341	8593	2824.7	10990.8	11026	947	806	829	817	760
MEAN	718	467	688	277	101	355	368	30.5	26.9	26.7	26.4	25.3
MAX	2870	1720	886	819	411	856	1070	56	30	28	37	26
MIN	.52	5.1	512	13	6.2	4.4	39	26	25	26	24	24
AC-FT	44140	27790	42330	17040	5600	21800	21870	1880	1600	1640	1620	1510

CAL YR 1986 TOTAL 74109.47 MEAN 203 MAX 2870 MIN .00 AC-FT 147000
WTR YR 1987 TOTAL 95202.65 MEAN 261 MAX 2870 MIN .52 AC-FT 188800

06915800 MARAIS DES CYGNES RIVER AT LA CYGNE, KS

LOCATION.--Lat 38 deg 20 min 43 sec, long 94 deg 46 min 19 sec, in SE1/4 SE1/4 SE1/4 sec.32, T.19 S., R.24 E., Linn County, Hydrologic Unit 10290102, on right bank at upstream side of bridge on State Highway 152, at west edge of LaCygne, and at mile 331.9.

DRAINAGE AREA.--2,669 sq mi.

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is 776.21 ft above sea level (levels by National Weather Service).

REMARKS.--Estimated daily discharges: Jan. 22-27. Records good except those for estimated daily discharges, which are poor. Natural flow of stream slightly affected by Pomona Lake (station 06912490) since 1964, Melvern Lake (station 06910997) since 1973, and by numerous small diversions upstream from station. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,100 cu ft per sec Feb. 24, 1985, gage height, 32.20 ft; minimum discharge, 60 cu ft per sec Aug. 3, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 13, 1951 reached a stage of 36.19 ft, present datum, discharge not determined; information supplied by National Weather Service.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Oct. 7	0600	*45,800	*31.81	Apr. 16	2000	12,000	22.56
Mar. 4	1300	22,300	28.84	May 7	1400	12,600	23.33
Mar. 21	2000	22,900	28.97	May 29	1800	10,200	19.70
Mar. 26	1200	10,600	20.35				

Minimum discharge, 60 cu ft per sec Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25400	7140	1630	1360	1920	16200	6720	577	2180	887	65	330
2	26300	7050	1640	1400	1510	19600	6670	509	1890	1000	63	256
3	33100	6940	1680	1400	1320	20900	6480	441	2160	784	61	205
4	36700	6890	1850	1410	1070	21700	6280	458	2440	518	100	174
5	38700	6190	1890	1420	786	15000	4930	2760	2270	383	160	152
6	43700	5430	1750	1430	1160	6030	3140	10100	1790	372	297	135
7	39800	5600	3190	1400	1910	4590	2240	12400	1580	1490	190	121
8	29300	5470	7520	1370	2060	5640	1920	9510	1460	1510	126	111
9	12600	5140	9620	1350	1520	6080	1860	3930	1160	777	107	108
10	5060	4930	8660	1050	1200	5950	1820	3280	876	699	88	109
11	2000	4550	6310	709	1020	5780	1520	2940	778	1180	81	106
12	3730	4260	5150	691	909	5650	1300	2810	672	1200	78	156
13	4360	4180	4390	708	823	5540	1990	3090	637	1530	96	339
14	4210	3850	4040	1060	788	5220	5460	2700	1350	1700	212	262
15	3980	3660	3840	1470	1400	3640	8880	2050	462	1390	1830	222
16	3010	3630	3730	1880	5300	1950	11400	1830	340	1190	2040	196
17	1950	3610	3950	1590	7920	3190	10300	1350	272	838	1210	482
18	1460	2930	3340	1330	6740	9920	4870	1040	237	532	617	588
19	1210	1700	2740	1180	4270	16800	4920	2410	553	369	412	378
20	1060	1030	2290	1130	5020	19800	5900	1020	304	211	1330	308
21	950	1030	2070	1090	6190	22000	6000	448	1030	146	4040	230
22	2630	1040	1840	1230	6920	18600	5830	356	1250	125	1720	204
23	3700	1020	1780	1460	5810	7330	5650	312	1000	112	734	188
24	4490	999	1650	1420	4420	5220	5580	322	4180	102	484	175
25	7130	978	1540	1350	3660	8480	5290	414	3700	97	542	142
26	8060	1610	1500	1400	3160	10400	5160	1010	1340	92	1490	106
27	8890	1860	1470	1410	2830	7300	5040	2380	761	88	1590	75
28	7460	1820	1430	1350	5520	4400	4240	5380	506	83	1010	73
29	6520	1730	1410	1530	---	5890	2040	9710	375	79	798	71
30	6570	1690	1390	2000	---	6710	792	7330	431	75	616	67
31	7010	---	1370	2100	---	6620	---	2690	---	70	446	---
TOTAL	381040	107957	96660	41678	87156	302130	144222	95557	37984	19629	22633	6069
MEAN	12290	3599	3118	1344	3113	9746	4807	3082	1266	633	730	202
MAX	43700	7140	9620	2100	7920	22000	11400	12400	4180	1700	4040	588
MIN	950	978	1370	691	786	1950	792	312	237	70	61	67
AC-FT	755800	214100	191700	82670	172900	599300	286100	189500	75340	38930	44890	12040
CAL YR 1986	TOTAL	1095677	MEAN	3002	MAX	43700	MIN	68	AC-FT	2173000		
WTR YR 1987	TOTAL	1342715	MEAN	3679	MAX	43700	MIN	61	AC-FT	2663000		

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

LOCATION.--Lat 38 deg 13 min 21 sec, long 94 deg 40 min 04 sec, in NE1/4 SE1/4 NW1/4 sec.16, T.21 S., R.25 E., Linn County, Hydrologic Unit 10290102, on right bank, 1.7 mi downstream from Big Sugar Creek, 6.8 mi upstream from Kansas-Missouri State line, and at mile 313.5.

AREA.--3,230 sq mi, approximately.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 757.06 ft above sea level. Prior to Jan. 15, 1959, nonrecording gage 6.8 mi downstream at datum 15.62 ft lower.

REMARKS.--Estimated daily discharges: Jan. 20-28. Records good except those for estimated daily discharges, which are poor. Natural flow of stream slightly affected by Pomona Lake (station 06912490) since 1964, Melvern Lake (station 06910997) since 1973, retention of overbank flow in wildlife refuge ponds, capacity, 5,500 acre-ft, power developments, and by numerous small diversions upstream from station. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--29 years, 2,208 cu ft per sec, 1,600,000 acre ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,100 cu ft per sec Oct. 4, 1986, gage height, 34.31 ft; no flow at times in 1963-64.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 14, 1951, reached a stage of 41.2 ft, from floodmark, discharge, 148,000 cu ft per sec, from rating curve extended above 110,000 cu ft per sec on basis of velocity-area study. Flood of Nov. 18, 1928, reached a stage about 3.7 ft lower, discharge, 106,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 4	0700	*64,100	*34.31	Mar. 22	1600	18,500	25.60
Oct. 26	0400	10,200	16.66	Mar. 26	1700	10,900	17.54
Dec. 10	0100	11,400	18.17	Apr. 17	0400	12,100	19.04
Feb. 17	0500	10,400	16.92	May 7	0500	14,500	21.80
Mar. 2	1800	21,700	27.83	May 30	0100	10,700	17.28

Minimum discharge, 67 cu ft per sec Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27900	6950	2000	1440	2480	17200	6410	748	2430	843	76	433
2	29700	6900	2000	1460	1970	21000	6440	680	2100	978	71	319
3	44300	6770	2120	1480	1630	21300	6260	608	2450	916	68	250
4	61400	6680	2110	1480	1410	20400	6040	1450	2680	809	115	209
5	48000	6550	2200	1500	1100	19500	5270	5170	2610	1100	153	181
6	38700	5780	2040	1510	1270	12500	3470	12300	1990	1100	341	160
7	36700	5510	3280	1490	2100	5150	2630	14300	1680	1220	280	143
8	33000	5390	9250	1440	2620	5340	2030	11600	1520	1820	175	130
9	26500	5090	10800	1430	1950	5940	1960	5100	1320	1020	145	121
10	17300	4830	10700	1320	1500	5860	1910	3470	994	737	116	127
11	5010	4570	7770	903	1280	5630	1730	3120	900	1060	103	122
12	4040	4210	5790	857	1150	5440	1420	2960	819	1180	95	264
13	5070	4100	4670	866	1100	5310	2380	2970	741	1310	107	269
14	4680	3880	4210	1310	1270	5110	6310	2930	1650	1660	166	370
15	4560	3640	3980	1850	2990	4230	8670	2200	792	1410	1220	301
16	3710	3600	3840	2160	9220	2360	11200	1880	520	1220	2070	606
17	2650	3590	3920	1920	10200	2920	11600	1550	390	949	1400	397
18	1910	3320	3670	1570	8620	10400	6410	1170	314	689	788	749
19	1560	2130	3080	1380	5530	16700	4360	5610	553	481	497	465
20	1360	1320	2640	1200	5490	17300	5390	2520	557	307	990	373
21	1190	1090	2350	1000	6360	17800	5570	981	1190	192	3670	265
22	2040	1140	2050	900	7190	18300	5950	682	1900	156	2450	225
23	3570	1120	1950	850	6380	14600	5340	600	2210	136	968	202
24	4910	1100	1840	800	4890	7520	5280	673	4140	126	740	190
25	8250	1090	1700	800	3970	9360	4950	1060	4450	115	806	235
26	9920	3630	1620	800	3460	10600	4790	862	1910	109	1310	237
27	9680	4330	1590	900	3030	9120	4670	2750	1010	101	1800	200
28	8290	2710	1540	1200	6290	4940	4230	5670	733	94	1320	192
29	6920	2270	1510	2160	---	5320	2520	9600	567	89	984	249
30	6380	2120	1490	3720	---	6400	1060	9420	458	86	805	242
31	6720	---	1460	2790	---	6460	---	4040	---	83	613	---
TOTAL	465920	115410	109170	44486	106450	320010	146250	118674	45578	22096	24442	8226
MEAN	15030	3847	3522	1435	3802	10320	4875	3828	1519	713	788	274
MAX	61400	6950	10800	3720	10200	21300	11600	14300	4450	1820	3670	749
MIN	1190	1090	1460	800	1100	2360	1060	600	314	83	68	121
AC-FT	924200	228900	216500	88240	211100	634700	290100	235400	90400	43830	48480	16320
CAL YR 1986	TOTAL	1291544	MEAN	3538	MAX	61400	MIN	100	AC-FT	2562000		
WTR YR 1987	TOTAL	1526712	MEAN	4183	MAX	61400	MIN	68	AC-FT	3028000		

06917000 LITTLE OSAGE RIVER AT FULTON, KS

LOCATION.--Lat 38 deg 01 min 09 sec, long 94 deg 42 min 48 sec, in SE1/4 NE1/4 NE1/4 sec.25, T.23 S., R.24 E., Bourbon County, Hydrologic Unit 10290103, on right bank at downstream side of bridge on old U.S. Highway 69, 0.3 mi north of Fulton.

DRAINAGE AREA.--295 sq mi.

PERIOD OF RECORD.--November 1948 to current year.

REVISED RECORDS.--WSP 1440: 1949(P), 1950(M). WDR KS-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 776.37 ft above sea level. Prior to May 28, 1952, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Oct. 3-8. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--38 years (water years 1950-87), 222 cu ft per sec, 160,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,800 cu ft per sec Oct. 3, 1986, gage height, 35.21 ft, from floodmarks, on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	unknown	*62,800	*35.21	Mar. 18	2200	5,140	19.95
Nov. 26	0600	5,000	19.53	May 5	1600	3,640	15.47
Feb. 16	0600	5,660	21.33	May 6	2000	4,770	18.84
Mar. 1	0400	7,770	24.59	June 23	1900	3,480	15.06

Minimum discharge, 0.87 cu ft per sec Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7620	149	345	81	292	7620	153	43	111	51	1.8	23
2	10500	131	554	79	236	3310	137	40	98	51	1.3	16
3	51800	121	414	77	196	588	121	38	645	51	1.3	11
4	21900	225	263	76	166	421	111	38	327	91	3.6	7.8
5	2680	739	204	73	148	347	105	2590	140	965	5.4	6.0
6	570	625	182	72	246	289	99	3970	91	1110	15	4.8
7	410	339	1270	69	342	240	97	2000	69	308	14	3.7
8	320	257	1760	65	265	209	92	488	58	152	6.7	2.6
9	240	206	1040	67	188	188	87	307	54	102	3.8	2.4
10	197	167	656	76	160	165	83	209	45	75	2.5	2.4
11	174	166	394	80	150	148	83	158	41	57	1.8	3.7
12	272	155	321	76	138	138	82	210	44	45	1.3	16
13	252	130	270	99	127	128	114	267	41	77	3.6	2.8
14	212	112	243	294	172	120	416	148	37	78	7.8	2.4
15	175	108	222	323	3470	114	283	115	33	66	3.5	15
16	145	108	206	202	5260	108	194	117	27	44	3.4	179
17	126	108	191	147	1460	531	147	84	22	31	4.9	35
18	111	103	171	132	612	3890	120	72	21	25	4.2	18
19	99	93	154	129	682	2330	101	62	576	20	9.7	17
20	89	89	142	140	786	508	90	58	717	17	40	8.9
21	82	86	132	141	746	367	82	54	1200	14	21	4.8
22	80	81	122	129	496	280	233	48	459	12	12	3.3
23	100	77	117	121	374	282	140	43	2160	10	10	2.4
24	232	74	115	101	303	1210	101	42	790	7.8	6.2	2.2
25	1490	266	111	99	257	796	83	54	275	5.7	5.7	2.0
26	1700	4520	104	90	227	411	74	81	146	5.0	4.2	1.5
27	557	2010	97	87	220	317	66	129	102	4.1	18	1.1
28	363	530	94	99	3840	260	57	1280	81	3.3	35	8.2
29	260	390	91	994	---	234	52	869	66	3.8	55	90
30	204	320	88	996	---	191	47	342	54	4.0	45	31
31	172	---	84	400	---	165	---	169	---	2.7	32	---
TOTAL	103132	12485	10157	5614	21559	25905	3650	14125	8530	3488.4	379.7	524.0
MEAN	3327	416	328	181	770	836	122	456	284	113	12.2	17.5
MAX	51800	4520	1760	996	5260	7620	416	3970	2160	1110	55	179
MIN	80	74	84	65	127	108	47	38	21	2.7	1.3	1.1
AC-FT	204600	24760	20150	11140	42760	51380	7240	28020	16920	6920	753	1040

CAL YR 1986	TOTAL	189592.68	MEAN 519	MAX 51800	MIN .00	AC-FT 376100
WTR YR 1987	TOTAL	209549.10	MEAN 574	MAX 51800	MIN 1.1	AC-FT 415600

06917380 MARMATON RIVER NEAR MARMATON, KS

LOCATION.--Lat 37 deg 49 min 03 sec, long 94 deg 47 min 30 sec, in SW1/4 NE1/4 NW1/4 sec. 4, T.26 S., R.24 E., Bourbon County, Hydrologic Unit 10290104, on left bank 150 ft downstream from Cedar Creek, 2.0 mi southeast of Marmaton, and at mile 55.7.

DRAINAGE AREA.--292 sq mi.

PERIOD OF RECORD.--May 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 780.66 ft above sea level.

REMARKS.--Estimated daily discharge: Feb. 16. Records fair except those for estimated daily discharge, which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--16 years, 310 cu ft per sec, 224,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,600 ft per sec Oct. 3, 1986, gage height, 42.87 ft, on basis of contracted-openings and flow-over-road measurement of peak flow; no flow several days during August to November 1978, September 1980 and Sept. 14, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1915 about 40,000 cu ft per sec on Sept. 7, 1915 and May 1935, from information by State of Kansas and Missouri-Kansas-Texas Railroad.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	1200	*105,600	*42.87	Mar. 18	0800	8,150	23.37
Oct. 25	1300	5,490	18.31	May 6	1500	5,290	17.90
Nov. 26	0900	11,700	29.21	May 28	1000	3,680	14.34
Jan. 29	1700	3,520	13.96	June 22	1700	3,380	13.63
Feb. 15	1100	9,270	25.30	June 23	1600	3,360	13.58
Feb. 28	2400	12,900	30.78				

Minimum discharge, 0.78 cu ft per sec Aug. 12, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9300	169	295	58	335	8830	128	22	148	23	1.4	8.0
2	8830	151	379	57	273	1290	112	20	124	19	1.2	6.8
3	67900	139	295	55	225	609	97	19	356	17	1.1	4.8
4	19300	654	205	54	188	430	89	23	212	49	2.3	3.6
5	2720	1870	155	54	166	329	83	1710	108	1100	2.2	2.7
6	605	781	145	52	260	265	78	4290	74	1260	1.9	2.4
7	367	432	1610	50	341	221	75	1470	56	278	1.6	2.0
8	270	373	1610	47	240	191	70	404	45	132	1.4	1.6
9	221	287	1100	53	184	168	65	228	36	80	1.3	1.4
10	189	222	630	67	158	145	63	159	29	55	1.1	1.4
11	178	256	370	68	124	130	63	119	31	40	.99	1.3
12	466	240	299	64	111	120	59	215	44	28	.91	1.7
13	392	187	260	121	108	111	85	219	40	149	2.9	1.4
14	346	161	238	782	417	103	199	110	129	94	4.3	1.3
15	225	161	217	475	4710	97	181	103	97	59	2.7	1.4
16	175	163	203	220	900	90	128	100	38	37	1.6	2.1
17	149	155	192	161	884	1300	100	69	21	24	1.2	23
18	131	138	174	156	678	6080	82	55	16	21	.92	59
19	116	119	158	165	812	1240	70	47	222	15	.99	49
20	105	115	147	169	1010	542	60	44	136	12	1.9	44
21	97	110	138	168	922	353	54	38	302	9.5	14	41
22	118	103	131	159	533	265	54	30	1550	7.8	4.7	39
23	286	99	125	145	365	341	68	26	1960	6.3	3.1	38
24	871	95	121	128	293	1520	55	26	635	4.9	9.8	38
25	3700	918	113	100	241	693	47	26	184	4.2	9.8	37
26	1570	9580	102	86	193	370	41	31	91	3.5	6.9	36
27	672	1890	90	37	199	281	36	60	56	2.8	5.4	22
28	401	625	79	117	7000	234	31	2240	44	2.5	4.6	39
29	285	440	69	2180	---	197	28	1270	31	2.2	3.4	93
30	226	334	63	1240	---	159	24	494	24	1.8	2.7	98
31	192	---	60	474	---	140	---	232	---	1.5	2.5	---
TOTAL	120403	20972	9763	7812	21870	26844	2325	13899	6839	3539.0	100.81	699.9
MEAN	3884	699	315	252	781	866	77.5	443	228	114	3.25	23.3
MAX	67900	9580	1610	2180	7000	8830	199	4290	1960	1260	14	98
MIN	97	95	60	47	108	90	24	19	16	1.5	.91	1.3
AC-FT	238800	41600	19360	15500	43380	53250	4610	27570	13570	7020	200	1390

CAL YR 1986 TOTAL 205082.85 MEAN 562 MAX 67900 MIN .25 AC-FT 406800
WTR YR 1987 TOTAL 235066.71 MEAN 644 MAX 67900 MIN .91 AC-FT 466300

LOWER MISSISSIPPI RIVER BASIN

ARKANSAS RIVER BASIN

07137000 FRONTIER DITCH NEAR COOLIDGE, KS

LOCATION.--Lat 38 deg 02 min 18 sec, long 102 deg 02 min 19 sec, in SW1/4 SE1/4 NE1/4 sec.21, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on left bank 0.3 mi east of Colorado-Kansas State line, 0.5 mi downstream from Holly drain diversion, 1.5 mi west of Coolidge, and 2.3 mi downstream from diversion of the Arkansas River.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1731: 1951.

GAGE.--Water-stage recorders and Parshall flume. Datum of gage is 3,353.14 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 4 to Dec. 2. Records good except those for estimated daily discharges, which are poor. This ditch diverts water from the Arkansas River in Colorado for use in Kansas. These records and records for the Arkansas River near Coolidge represent total flow of the Arkansas River at the Colorado-Kansas State line. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 84 cu ft per sec Aug. 1, 1975; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	.00	.00	.00	.00	.00	.00	39	8.1	6.6	49	30
2	19	.00	.00	.00	.00	.00	.00	42	10	16	49	32
3	.00	.00	.00	.00	.00	.00	.00	48	9.5	22	49	27
4	.00	.00	.00	.00	.00	.00	.00	50	8.6	8.3	48	24
5	.00	.00	.00	.00	.00	.00	.00	42	7.9	9.5	46	27
6	.00	.00	.00	.00	.00	.00	.00	31	18	19	44	29
7	.00	.00	.00	.00	.00	.00	.00	42	30	26	42	34
8	3.2	.00	.00	.00	.00	.00	.00	42	29	29	40	15
9	17	.00	.00	.00	.00	.00	.00	40	18	19	36	20
10	15	.00	.00	.00	.00	.00	.00	40	34	17	35	7.2
11	16	.00	.00	.00	.00	.00	.00	41	44	17	33	.00
12	23	.00	.00	.00	.00	.00	.00	35	38	15	34	.00
13	11	.00	.00	.00	.00	.00	.00	37	36	16	35	.00
14	7.2	.00	.00	.00	.00	.00	.00	38	39	33	36	.00
15	6.4	.00	.00	.00	.00	.00	.00	40	41	32	37	11
16	8.5	.00	.00	.00	.00	.00	.00	41	39	27	30	33
17	8.3	.00	.00	.00	.00	.00	.00	39	41	12	11	28
18	9.4	.00	.00	.00	.00	.00	.00	39	38	6.9	19	25
19	10	.00	.00	.00	.00	.00	.00	39	33	8.9	32	27
20	10	.00	.00	.00	.00	.00	.00	41	20	11	35	32
21	15	.00	.00	.00	.00	.00	.00	42	19	5.5	34	36
22	17	.00	.00	.00	.00	.00	.00	44	20	4.9	34	35
23	14	.00	.00	.00	.00	.00	.00	44	19	25	30	20
24	10	.00	.00	.00	.00	.00	.00	42	24	37	32	.00
25	4.0	.00	.00	.00	.00	.00	.00	41	23	49	30	.00
26	.00	.00	.00	.00	.00	.00	.00	23	23	47	36	.00
27	.00	.00	.00	.00	.00	.00	.00	27	7.9	46	36	.00
28	.00	.00	.00	.00	.00	.00	15	19	2.1	45	32	.00
29	.00	.00	.00	.00	---	.00	37	17	20	46	41	.00
30	.00	.00	.00	.00	---	.00	38	4.2	17	51	15	.00
31	.00	---	.00	.00	---	.00	---	4.1	---	52	11	---
TOTAL	247.00	.00	.00	.00	.00	.00	90.00	1113.3	717.1	759.6	1071	492.20
MEAN	7.97	.000	.000	.000	.000	.000	3.00	35.9	23.9	24.5	34.5	16.4
MAX	23	.00	.00	.00	.00	.00	38	50	44	52	49	36
MIN	.00	.00	.00	.00	.00	.00	.00	4.1	2.1	4.9	11	.00
AC-FT	490	.00	.00	.00	.00	.00	179	2210	1420	1510	2120	976
CAL YR 1986	TOTAL	3492.65	MEAN	9.57	MAX	63	MIN	.00	AC-FT	6930		
WTR YR 1987	TOTAL	4490.20	MEAN	12.3	MAX	52	MIN	.00	AC-FT	8910		

ARKANSAS RIVER BASIN

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07137500 ARKANSAS RIVER NEAR COOLIDGE, KS
(National stream-quality accounting network station)

LOCATION.--Lat 38 deg 01 min 34 sec, long 102 deg 00 min 41 sec, in NW1/4 NE1/4 NW1/4 sec.26, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on right bank at downstream side of bridge, 1.0 mi south of Coolidge, 1.9 mi downstream from Colorado-Kansas State line, and at mile 1,101.1.

DRAINAGE AREA.--25,410 sq mi, of which 1,708 sq mi is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to October 1903, March to May 1921, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1341: 1903, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,330.84 ft above sea level. May 5 to Oct. 31, 1903, nonrecording gage, and Mar. 1 to May 31, 1921, water-stage recorder at present site at different datum. Oct. 1, 1950, to Mar. 31, 1966, water-stage recorder at site 0.3 mi upstream at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Jan. 1-4, Mar. 16, 17, and July 3-5. Records good except those for estimated daily discharges, which are poor. Combined flow of river and Frontier Ditch (station 07137000) represents entire flow that enters Kansas. Flow regulated since 1943 by John Martin Reservoir (station 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres, and return flow from irrigated areas. Satellite telemeter at station.

AVERAGE DISCHARGE.--37 years, 201 cu ft per sec, 145,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 158,000 cu ft per sec June 17, 1965, gage height, 14.8 ft, present site and datum, from floodmarks, from rating curve extended above 13,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow for many days in 1903, 1954, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,720 cu ft per sec June 30, gage height, 8.44 ft; minimum discharge, 158 cu ft per sec Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	255	203	174	181	198	1230	319	2400	1870	760	253
2	214	268	201	179	179	190	1320	265	2760	1680	745	239
3	234	281	215	191	178	188	1090	386	2830	1590	754	220
4	231	288	210	183	183	185	1030	597	2820	1400	777	204
5	227	291	201	185	182	191	1040	812	2840	1140	739	203
6	223	295	207	173	180	190	1050	634	2840	908	675	234
7	221	291	211	162	179	185	1090	997	2770	814	550	298
8	204	279	213	166	178	179	1270	1460	2740	821	524	235
9	176	267	210	172	181	171	1330	1950	1400	715	523	242
10	171	268	203	175	180	166	1240	2200	1040	536	547	284
11	163	244	193	177	177	170	955	2250	1880	471	542	494
12	196	276	196	180	177	170	981	2270	2310	481	559	509
13	231	235	204	188	179	164	1000	2460	2420	458	572	368
14	239	246	204	193	183	167	1080	2480	2430	383	568	338
15	242	249	198	178	198	175	1260	2570	2530	354	529	305
16	251	251	198	168	198	189	1320	2650	2510	330	421	283
17	242	249	195	173	192	196	1510	2660	2480	314	382	259
18	235	244	192	159	185	200	1600	2600	2450	296	308	252
19	229	254	188	168	187	188	1400	2500	2620	290	279	225
20	259	235	190	172	188	180	1310	2560	2720	287	259	217
21	426	231	195	177	183	176	1300	2660	2690	268	243	235
22	386	233	183	176	179	165	1590	2750	2660	273	227	262
23	389	229	181	178	182	168	1860	2850	2630	450	231	285
24	362	227	181	182	180	170	2140	2900	2740	548	252	270
25	331	229	186	184	178	167	1930	3090	2720	543	241	248
26	311	218	184	187	178	217	1160	3290	2700	526	230	262
27	287	212	181	187	200	581	843	3230	2270	534	243	255
28	273	211	178	186	208	566	689	3090	1990	513	248	237
29	242	209	175	183	---	604	573	3050	2070	551	242	222
30	228	208	175	176	---	840	440	1880	2500	735	292	209
31	237	---	172	186	---	1010	---	1880	---	766	287	---
TOTAL	7864	7473	6023	5508	5153	8306	36631	65290	73760	20845	13749	8147
MEAN	254	249	194	178	184	268	1221	2106	2459	672	444	272
MAX	426	295	215	193	208	1010	2140	3290	2840	1870	777	509
MIN	163	208	172	159	177	164	440	265	1040	268	227	203
AC-FT	15600	14820	11950	10930	10220	16470	72660	129500	146300	41350	27270	16160

CAL YR 1986 TOTAL 115805 MEAN 317 MAX 2000 MIN 102 AC-FT 229700
WTR YR 1987 TOTAL 253749 MEAN 709 MAX 3290 MIN 159 AC-FT 513200

ARKANSAS RIVER BASIN

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1970-73, 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1963 to September 1968, January 1976 to September 1981.

WATER TEMPERATURES: November 1963 to September 1968, January 1976 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)
OCT 15...	1045	241	3630	8.30	8.0	9.8	684	K29	1500
MAR 04...	1100	192	4640	8.20	8.0	9.8	685	<3	1000
31...	1200	938	--	--	10.0	--	--	--	--
APR 29...	1230	558	2880	8.50	15.0	8.4	677	--	--
MAY 11...	1155	2410	2390	8.10	23.0	--	--	--	--
28...	1100	3100	2220	7.90	18.0	--	--	--	--
JUL 28...	1030	557	2240	8.20	22.0	8.4	680	--	--

DATE	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HC03	CAR- BONATE WH WAT TOTAL FIELD MG/L AS C03
OCT 15...	750	1300	280	150	450	6	12	269	330	--
MAR 04...	17	1800	330	200	550	6	11	294	360	--
APR 29...	83	1000	220	110	330	5	9.3	--	190	48
JUL 28...	25	720	150	84	230	4	7.0	19	230	--

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)
OCT 15...	2.6	2000	140	1.0	17	3410	4.6	2220	2.40	0.18
MAR 04...	3.6	2500	180	1.0	17	4190	5.7	2170	--	--
APR 29...	0.9	1500	92	0.90	7.2	2560	3.5	3360	1.10	0.21
JUL 28...	2.3	1000	67	0.90	9.7	1840	2.5	2770	1.10	0.09

K Results based on colony count outside the acceptable range (non-ideal colony count).

ARKANSAS RIVER BASIN

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07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 15...	0.03	0.130	0.140	1.6	0.010	1.5	0.06	0.180	0.030	0.020
MAR 04...	--	--	--	--	--	--	--	--	--	--
APR 29...	0.07	0.120	0.160	2.0	0.020	1.9	--	0.280	0.020	<0.010
JUL 28...	--	0.050	0.070	1.0	<0.010	0.95	0.09	0.180	0.060	0.030

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 15...	20	1	100	<10	<1	<1	<1	4	30	<5
MAR 04...	<10	<1	<100	<10	1	<1	2	4	40	<5
APR 29...	20	<1	100	<10	<1	<1	<1	5	20	<5
JUL 28...	<10	1	<100	<10	<1	<1	<1	2	20	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 15...	150	20	0.2	11	3	19	<1	6000	2	90
MAR 04...	190	30	1.4	6	4	28	<1	7200	<100	20
APR 29...	110	40	<0.1	5	2	4	<1	4400	<70	20
JUL 28...	90	<10	1.2	7	2	10	<1	3000	3	<10

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, DIS- SOLVED (MG/L)	SEDI- MENT, DIS- SOLVED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
OCT 15...	1045	494	321	94	--	45	--	--	--	--	--
MAR 04...	1100	115	60	68	--	--	--	73	85	100	--
MAR 31...	1200	556	1410	65	--	34	--	70	77	95	100
APR 29...	1230	349	526	85	--	34	--	91	96	100	--
MAY 11...	1155	588	3830	46	--	28	--	46	49	65	100
MAY 28...	1100	340	2850	89	44	57	76	89	92	99	100
JUL 28...	1030	389	585	50	--	--	--	--	--	--	--

ARKANSAS RIVER BASIN

07138000 ARKANSAS RIVER AT SYRACUSE, KS

LOCATION.--Lat 37 deg 57 min 52 sec, long 101 deg 45 min 23 sec, in NW1/4 SE1/4 NW1/4 sec.18, T.24 S., R.40 W., Hamilton County, Hydrologic Unit 11030001, on left bank at downstream side of northbound bridge on U.S. Highway 270, 0.5 mi south of Syracuse, and at mile 1,080.9.

DRAINAGE AREA.--25,763 sq mi, of which 1,257 sq mi is probably noncontributing.

PERIOD OF RECORD.--August 1902 to September 1906 (published as "near Syracuse"), October 1920 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 3,209.32 ft above sea level. See WSP 1921 for history of changes prior to Nov. 15, 1956.

REMARKS.--Estimated daily discharges: Nov. 17-27, Apr. 12-16, and June 24 to July 1. Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1943 by John Martin Reservoir (station 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--71 years, 314 cu ft per sec, 227,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 174,000 cu ft per sec June 17, 1965, gage height, 19.75 ft from rating curve extended above 62,000 cu ft per sec on basis of indirect measurements; maximum gage height, 21.80 ft June 17, 1965; no flow Aug. 17, 1946, and part of each day Sept. 26, 27, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1908 reached a stage of about 11.7 ft from information by local newspaper, discharge, about 87,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 3,330 cu ft per sec May 27, gage height, 8.36 ft, but may have been greater during period of no gage-height record June 24 to July 1; minimum discharge, 178 cu ft per sec Oct. 11, 12, but may have been less during period of no gage-height record Nov. 17-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	260	222	193	198	223	994	479	1800	2400	701	264
2	223	281	218	193	196	220	1270	397	2250	1600	700	248
3	236	281	220	194	194	216	1210	425	2540	1480	721	223
4	225	279	221	193	192	212	1030	552	2600	1170	749	205
5	225	270	221	197	190	210	1000	804	2620	941	753	197
6	227	268	221	197	188	210	1030	716	2760	858	715	197
7	223	263	221	192	188	208	1060	821	2960	771	626	236
8	223	255	220	193	188	205	1210	1210	2780	807	576	272
9	204	242	218	195	189	201	1260	1700	2160	729	551	232
10	190	246	215	192	190	200	1280	2040	990	618	566	237
11	185	239	207	188	189	197	1070	2170	1260	503	552	283
12	191	253	206	187	188	196	920	2170	1810	438	570	440
13	222	235	206	191	191	196	940	2160	2090	479	592	429
14	242	235	215	196	193	196	950	2220	2140	422	587	359
15	245	244	215	194	204	192	1040	2210	2200	394	571	337
16	253	245	214	195	207	204	1250	2270	2270	359	477	317
17	259	240	211	190	210	217	1250	2210	2280	337	412	293
18	249	237	209	202	207	228	1440	2200	2290	323	359	287
19	248	244	209	199	202	231	1440	2240	2380	307	314	270
20	256	230	207	194	200	225	1260	2230	2600	302	287	253
21	354	229	204	193	201	213	1220	2370	2570	286	264	252
22	402	229	201	189	202	203	1310	2490	2480	264	245	275
23	386	227	203	185	202	197	1640	2610	2400	380	231	293
24	376	223	202	190	202	191	1950	2720	2350	485	243	284
25	347	228	201	192	200	187	2090	2810	2300	484	251	252
26	331	232	200	193	201	188	1370	3020	2500	489	238	243
27	306	223	196	198	215	383	908	3230	2500	494	248	250
28	293	223	196	203	225	537	723	3060	2320	472	253	237
29	276	221	196	204	---	553	685	2960	2070	560	251	224
30	255	223	195	198	---	667	591	2530	2300	580	269	214
31	253	---	196	197	---	826	---	1420	---	679	291	---
TOTAL	8118	7305	6486	6017	5552	8332	35391	60444	68570	20411	14163	8103
MEAN	262	244	209	194	198	269	1180	1950	2286	658	457	270
MAX	402	281	222	204	225	826	2090	3230	2960	2400	753	440
MIN	185	221	195	185	188	187	591	397	990	264	231	197
AC-FT	16100	14490	12860	11930	11010	16530	70200	119900	136000	40490	28090	16070

CAL YR 1986 TOTAL 119982 MEAN 329 MAX 1620 MIN 131 AC-FT 238000
WTR YR 1987 TOTAL 248892 MEAN 682 MAX 3230 MIN 185 AC-FT 493700

07139000 ARKANSAS RIVER AT GARDEN CITY, KS

LOCATION.--Lat 37 deg 57 min 21 sec, long 100 deg 52 min 37 sec, in NW1/4 SE1/4 NW1/4 sec.19, T.24 S., R.32 W., Finney County, Hydrologic Unit 11030001, on left bank at downstream side of bridge on U.S. Highway 82, 0.5 mi south of Garden City, and at mile 1,1024.2.

DRAINAGE AREA.--27,071 sq mi, of which 2,368 sq mi is probably noncontributing.

PERIOD OF RECORD.--June 1922 to June 1970, continuous record. July 1970 to September 1986, flood hydrograph record. October, 1986 to September, 1987, continuous record.

GAGE.--Water-stage recorder. Datum of gage is 2,815.43 ft above sea level. Prior to May 9, 1957, water-stage recorder at site 60 ft downstream at datum 9.0 ft higher. May 9, 1957, to July 9, 1964, water-stage recorder at present site at datum 9.0 ft higher. July 9, 1964, to Apr. 8, 1976, water-stage recorder at present site at datum 6.0 ft higher. Apr. 8, 1976, to Sept. 30, 1986, water-stage recorder at present site at datum 3.0 ft higher.

REMARKS.--Estimated daily discharges: Nov. 10-15, 21-23, Jan. 16 to Feb. 1, Mar. 29, Apr. 4-7, May 4-6, and Aug. 24-27. Records fair except those for estimated daily discharges, which are poor. Flow moderately regulated since 1943 by John Martin Reservoir (station 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years (1923-69, 1987), 205 cu ft per sec, 148,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 cu ft per sec June 19, 1965, gage height, 16.30 ft, from rating curve extended above 40,000 cu ft per sec on basis of indirect measurement; maximum gage height, 16.58 ft June 18, 1965; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Apr. 4	0200	1,040	8.48	May 29	1200	*2,810	*9.40
Apr. 12	1200	889	8.25	June 5	1900	2,120	8.57
Apr. 21	0600	1,010	8.37	June 22	1500	2,340	8.13
Apr. 27	1200	1,700	8.92				

No flow Aug. 14-20, 23-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	204	164	121	91	103	404	249	1850	1600	1.1	67
2	53	222	160	121	90	106	510	116	1380	1790	1.1	72
3	58	229	155	115	89	103	679	37	1580	1380	6.7	85
4	58	227	153	116	88	102	1050	21	1920	1280	19	121
5	58	227	157	118	88	102	966	17	2080	1290	89	119
6	59	229	159	121	87	102	880	17	2100	1030	72	92
7	60	222	157	115	87	103	800	37	2040	809	47	59
8	60	218	159	113	83	103	783	64	1940	656	40	37
9	65	206	157	113	86	98	694	116	1750	592	21	24
10	80	198	155	115	94	91	800	287	1740	505	11	11
11	88	192	155	132	90	66	853	609	1030	439	10	55
12	83	190	153	113	88	63	853	1050	633	464	11	64
13	91	189	143	110	88	60	694	1750	361	497	2.5	82
14	92	187	148	110	91	54	573	1800	1100	498	.00	147
15	100	182	144	104	94	54	541	1800	1220	502	.00	74
16	110	182	144	100	91	64	492	1820	1260	404	.00	66
17	122	178	149	95	91	64	547	1860	1310	306	.00	50
18	132	178	148	92	92	63	628	1970	1370	252	.00	46
19	139	184	146	90	94	62	718	1950	1650	212	.00	59
20	141	184	142	88	94	82	871	1950	1950	187	.00	78
21	153	182	139	86	96	82	946	1910	2130	157	1.3	82
22	164	178	137	95	95	94	791	2160	2400	101	1.3	68
23	191	173	137	83	92	95	718	2170	2290	68	.00	61
24	211	168	137	81	88	99	791	2290	2300	36	.00	63
25	227	168	134	80	86	88	1040	2440	2250	26	.00	63
26	239	162	132	79	90	88	1340	2540	2300	22	.00	76
27	242	159	132	80	96	90	1580	2590	2280	35	2.4	100
28	244	159	132	82	99	94	937	2680	2210	29	31	111
29	229	162	132	84	---	47	541	2740	1890	15	52	102
30	227	168	132	86	---	40	366	2620	1610	13	59	91
31	215	---	121	90	---	365	---	2530	---	4.0	65	---
TOTAL	4059	5707	4518	3118	2538	2827	23386	44190	52424	15199.0	543.40	2225
MEAN	131	190	146	101	90.6	91.2	780	1425	1747	490	17.5	74.2
MAX	244	229	164	132	99	365	1580	2740	2400	1790	89	147
MIN	53	159	121	79	83	40	366	17	633	4.0	.00	11
AC-FT	8050	11320	8960	6180	5030	5610	46390	87650	104000	30150	1080	4410
WTR YR 1987	TOTAL	160734.40	MEAN	440	MAX	2740	MIN	.00	AC-FT	318800		

07139500 ARKANSAS RIVER AT DODGE CITY, KS

LOCATION.--Lat 37 deg 44 min 41 sec, long 100 deg 01 min 57 sec, in SW1/4 SW1/4 NW1/4 sec.35, T.26 S., R.25 W., Ford County, Hydrologic Unit 11030003, on left bank at downstream side of bridge on Fourteenth Avenue in Dodge City, and at mile 970.9.

DRAINAGE AREA.--30,600 sq mi, of which 5,583 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1902 to September 1906 (published as "near Dodge"), September 1944 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected at same site at different datum 1909-32 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: 1903(M), 1904, 1905(M), 1947(M).

GAGE.--Water-stage recorder. Datum of gage is 2,468.71 ft above sea level. Nov. 28, 1902, to Aug. 10, 1906, non-recording gage at site 0.7 mi downstream at datum about 4.00 ft higher. Sept. 1 to Nov. 5, 1944, nonrecording gage and Nov. 6, 1944, to Sept 30, 1975, recording gage at site 0.7 mi downstream and datum 1.00 ft lower. Oct. 1, 1975, to March 16, 1981 recording gage at site 0.7 mi downstream at datum 4.00 ft lower.

REMARKS.--Estimated daily discharges: Jan. 10-27 and Mar. 24, 25, 28-30. Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1943 by John Martin Reservoir (station 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years, 161 cu ft per sec, 116,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 82,000 cu ft per sec June 19, 1965, gage height, 14.68 ft; no flow at times in 1903, 1946, 1954, 1956, 1974-87.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Apr. 29	1400	1,040	7.13	June 29	2300	2,150	*8.28
May 31	1700	*2,370	8.04				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	31	43	59	63	622	2250	1570	153	32
2	.00	.00	.00	35	47	61	59	536	2210	1350	144	30
3	.00	.00	.00	30	50	61	112	446	1730	1580	130	29
4	.00	.00	.00	31	50	61	182	382	1580	1480	146	26
5	.00	.00	.00	36	49	63	204	347	1730	1680	154	24
6	.00	.00	.00	31	49	64	249	316	1860	1520	127	24
7	.00	.00	.00	27	49	64	308	296	1960	1210	116	25
8	.00	.00	.00	26	50	65	366	278	1980	951	104	25
9	.00	.00	.00	26	51	68	396	265	1980	818	100	26
10	.00	.00	.00	26	52	66	420	261	1880	748	96	27
11	.00	.00	.00	26	52	61	441	258	1800	646	90	31
12	.00	.00	.00	27	53	59	466	285	1620	596	85	27
13	.00	.00	.00	27	56	59	498	370	1080	589	81	25
14	.00	.00	.00	26	57	58	543	505	969	548	81	23
15	.00	.00	.00	25	60	53	565	660	1080	587	73	24
16	.00	.00	.00	25	62	54	543	787	1180	545	64	22
17	.00	.00	.00	24	60	55	547	893	1240	529	58	21
18	.00	.00	.00	23	60	50	548	977	1260	480	54	24
19	.00	.00	.00	21	59	48	561	1030	1410	431	54	23
20	.00	.00	.00	20	58	43	578	1120	1570	426	50	22
21	.00	.00	.00	19	58	39	597	1220	1650	384	58	20
22	.00	.00	.00	18	56	40	630	1310	1730	333	60	19
23	.00	.00	.00	17	56	53	663	1330	1830	301	57	19
24	.00	.00	.12	16	56	52	661	1450	1860	269	58	20
25	.00	.00	4.4	16	58	55	661	1590	1980	235	55	20
26	.00	.00	8.0	17	60	64	674	1850	1990	205	52	20
27	.00	.00	14	17	62	59	752	1970	2010	190	48	19
28	.00	.00	17	18	61	53	840	2010	2050	172	45	17
29	.00	.00	21	19	---	46	955	2080	1960	165	41	20
30	.00	.00	24	23	---	53	779	2190	2030	163	38	19
31	.00	---	25	34	---	64	---	2270	---	158	35	---
TOTAL	.00	.00	113.52	757	1534	1750	14861	29904	51459	20859	2507	703
MEAN	.000	.000	3.66	24.4	54.8	56.5	495	965	1715	673	80.9	23.4
MAX	.00	.00	25	36	62	68	955	2270	2250	1680	154	32
MIN	.00	.00	.00	16	43	39	59	258	969	158	35	17
AC-FT	.00	.00	225	1500	3040	3470	29480	59310	102100	41370	4970	1390
CAL YR 1986	TOTAL	1951.39	MEAN	5.35	MAX	61	MIN	.00	AC-FT	3870		
WTR YR 1987	TOTAL	124447.52	MEAN	341	MAX	2270	MIN	.00	AC-FT	246800		

ARKANSAS RIVER BASIN

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07139800 MULBERRY CREEK NEAR DODGE CITY, KS

LOCATION.--Lat 37 deg 35 min 53 sec, long 100 deg 00 min 52 sec, in NW1/4 sec.24, T.28 S., R.25 W., Ford County, Hydrologic Unit 11030004, on right bank 75 ft downstream from bridge on U.S. Highway 283, 9 mi south of Dodge City, and 24 mi above mouth.

DRAINAGE AREA.--73.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 2,509.96 ft above sea level.

REMARKS.--Estimated daily discharges: Mar. 28 to May 9. Records good. Low flow frequently augmented by irrigation runoff.

AVERAGE DISCHARGE.--19 years, 0.73 cu ft per sec, 529 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,330 cu ft per sec Apr. 30, 1978, gage height, 12.07 ft; no flow most days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
July 4	0700	*0.66	*4.01	No peak greater than base discharge.			

No flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.2	.00	.00

CAL YR 1986 TOTAL 11.77 MEAN .032 MAX 4.7 MIN .00 AC-FT 23
WTR YR 1987 TOTAL 0.10 MEAN .000 MAX .07 MIN .00 AC-FT .2

ARKANSAS RIVER BASIN

07140000 ARKANSAS RIVER NEAR KINSLEY, KS

LOCATION.--Lat 37 deg 55 min 33 sec, long 99 deg 22 min 31 sec, in SW1/4 SE1/4 sec.26, T.24 S., R.19 W., Edwards County, Hydrologic Unit 11030004, on right bank at downstream side of bridge on U.S. Highway 50, 2.0 mi east of Kinsley, and at mile 920.3.

DRAINAGE AREA.--31,066 sq mi, of which 5,660 sq mi is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 2,141.64 ft above sea level. Prior to Nov. 10, 1944, nonrecording gage, and Nov. 10, 1944, to Dec. 31, 1975, water-stage recorder, both at present site and datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1 to Apr. 8. Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1943 by John Martin Reservoir (station 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--43 years, 150 cu ft per sec, 108,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,800 cu ft per sec June 21, 1965, gage height, 17.60 ft, present datum; minimum discharge, no flow July 28, Aug. 9, 11, 1977, Sept. 1-4, 6-8, 23-25, 1979, result of sand pit operation 0.5 mile upstream, and many days in 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
May 1	1200	1,030	8.88	June 29	1300	*2,170	*10.72
June 2	0100	1,980	10.47				

Minimum daily discharge, 0.17 cu ft per sec Dec. 4, but could have been less during the estimated period Oct. 1 to Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	2.7	1.2	1.0	2.4	32	134	1010	1950	1970	168	69
2	5.8	2.0	.81	1.0	2.6	33	126	819	1980	1710	156	66
3	5.7	2.3	.59	1.2	1.5	33	117	614	1940	1370	163	64
4	5.3	2.3	.17	.85	.56	33	109	503	1660	1540	206	62
5	4.1	1.9	.73	.89	.83	34	113	436	1320	1620	198	62
6	4.4	2.0	.98	.95	2.3	33	152	398	1360	1550	185	63
7	3.7	2.0	1.2	1.0	4.2	33	199	342	1490	1420	169	62
8	3.3	1.8	1.0	1.0	6.8	33	300	296	1590	1200	159	59
9	3.3	1.7	1.0	1.2	7.3	35	297	263	1640	995	152	58
10	2.9	1.9	.89	1.0	8.5	35	349	234	1680	857	147	57
11	4.3	1.9	.89	1.0	10	35	383	209	1680	772	140	62
12	3.6	1.9	.83	.91	11	36	407	194	1580	715	138	65
13	3.1	2.0	.73	.85	12	35	439	183	1500	692	138	64
14	2.8	2.0	.78	1.0	14	36	480	192	1090	644	132	60
15	2.9	1.9	.78	.92	16	35	521	232	825	618	124	58
16	2.8	1.9	.78	.89	16	41	572	320	853	605	116	57
17	3.0	1.9	.86	.89	18	49	592	463	986	574	111	55
18	3.5	2.0	.86	.89	18	50	557	606	1130	556	106	56
19	3.5	1.9	.81	.89	18	54	542	731	1150	520	102	55
20	3.1	1.7	.89	.89	20	51	529	830	1270	479	98	55
21	4.2	1.5	.89	.95	20	45	534	943	1410	458	93	54
22	4.2	1.5	.89	1.0	20	44	566	1070	1540	435	89	52
23	3.1	1.5	.89	1.0	19	78	596	1150	1610	404	85	52
24	3.3	1.1	.85	1.0	20	191	655	1230	1720	372	85	51
25	2.8	.86	.89	1.2	21	217	718	1320	1860	339	85	50
26	3.2	.67	.89	1.4	23	114	723	1400	1890	303	85	49
27	3.3	.59	1.0	1.4	27	247	702	1570	1840	270	82	48
28	3.3	.48	.97	1.5	30	354	714	1760	1800	243	78	48
29	2.8	.67	.86	2.5	---	324	809	1790	1960	219	75	47
30	2.8	.91	.89	2.3	---	220	923	1830	1950	198	72	47
31	2.9	---	1.1	2.3	---	135	---	1390	---	181	70	---
TOTAL	112.5	49.48	26.90	35.77	369.99	2725	13858	24828	46254	23829	3807	1707
MEAN	3.63	1.65	.87	1.15	13.2	87.9	462	801	1542	769	123	56.9
MAX	5.8	2.7	1.2	2.5	30	354	923	1890	1980	1970	206	69
MIN	2.8	.48	.17	.85	.56	32	109	183	325	181	70	47
AC-FT	223	98	53	71	734	5410	27490	49250	91740	47260	7550	3390

CAL YR 1986 TOTAL 494.77 MEAN 1.36 MAX 27 MIN .00 AC-FT 981
WTR YR 1987 TOTAL 117602.64 MEAN 322 MAX 1980 MIN .17 AC-FT 233300

ARKANSAS RIVER BASIN

167

07140850 PAWNEE RIVER NEAR BURDETT, KS

LOCATION.--Lat 38 deg 12 min 24 sec, long 99 deg 38 min 35 sec, in NW1/4 SW1/4 SW1/4 sec.21, T.21 S., R.21 W., Hodgeman County, Hydrologic Unit 11030006, on right bank at downstream side of highway bridge, 3.2 mi north of Gray, 6.5 mi west, and 1.2 mi north of Burdett.

DRAINAGE AREA.--1,091 sq mi.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,102.55 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 10, 20, 21, Oct. 31 to Nov. 2, Apr. 28, 29, June 27, 28, July 30, and Aug. 22. Records fair except those for estimated daily discharges, which are poor. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--6 years, 4.59 cu ft per sec, 3,320 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 cu ft per sec July 6, 1987, gage height, 14.50 ft; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,550 cu ft per sec July 6, gage height, 14.50 ft; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	.07	.00	.00	.00	.00	51	.00	.00	.00	.00	.00
2	47	.02	.00	.00	.00	.00	508	.00	.00	1.1	.00	.00
3	14	.00	.00	.00	.00	.00	166	.00	.00	118	.00	.00
4	7.8	.00	.00	.00	.00	.00	140	.00	.00	78	.00	.00
5	3.2	.00	.00	.00	.00	.00	74	.00	.00	259	.00	.00
6	1.2	.00	.00	.00	.00	.00	25	.00	.00	1240	.00	.00
7	.73	.00	.00	.00	.00	.00	13	.00	.00	518	.00	.00
8	.46	.00	.00	.00	.00	.00	13	.00	.00	261	.00	.00
9	.23	.00	.00	.00	.00	.00	10	.00	.00	106	.00	.00
10	.05	.00	.00	.00	.00	.00	7.4	.00	.00	63	.00	.00
11	.00	.00	.00	.00	.00	.00	5.6	.00	.00	43	.00	.00
12	.00	.00	.00	.00	.00	.00	3.2	.00	.00	26	.00	.00
13	.00	.00	.00	.00	.00	.00	2.3	.00	.00	16	.00	.00
14	.63	.00	.00	.00	.00	.00	471	.00	.00	18	30	.00
15	5.9	.00	.00	.00	.00	.00	1140	.00	.00	14	20	.00
16	1.9	.00	.00	.00	.00	.00	307	.00	.00	6.8	7.5	.00
17	.78	.00	.00	.00	.00	.00	130	.00	.00	3.6	3.3	.00
18	.49	.00	.00	.00	.00	.00	62	.00	.00	131	1.7	.00
19	.31	.00	.00	.00	.00	.00	25	.00	.00	160	1.1	.00
20	.15	.00	.00	.00	.00	.00	13	.00	.00	42	.86	.00
21	.02	.00	.00	.00	.00	.00	8.6	.00	.00	13	.50	.00
22	.00	.00	.00	.00	.00	.00	4.7	.00	.00	8.6	.07	.00
23	.00	.00	.00	.00	.00	.46	2.8	.00	.00	4.3	.00	.00
24	.00	.00	.00	.00	.00	9.1	1.7	.00	.00	2.3	.00	.00
25	1.2	.00	.00	.00	.00	27	1.0	.00	3.9	1.5	.00	.00
26	3.3	.00	.00	.00	.00	24	.68	.00	.53	1.4	.00	.00
27	1.3	.00	.00	.00	.00	18	.45	.00	.20	1.0	.00	.00
28	.56	.00	.00	.00	.00	397	.21	.00	.01	.81	.00	.00
29	.33	.00	.00	.00	.00	83	.03	.00	.05	.55	.00	.00
30	.23	.00	.00	.00	.00	46	.00	.00	.02	.10	.00	.00
31	.14	---	.00	.00	---	14	---	.00	---	.00	.00	---
TOTAL	335.91	.09	.00	.00	.00	618.56	3186.67	.00	4.71	3143.06	65.03	.00
MEAN	10.8	.003	.000	.000	.000	20.0	106	.000	.16	101	2.10	.000
MAX	244	.07	.00	.00	.00	397	1140	.00	3.9	1240	30	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	666	.2	.00	.00	.00	1230	6320	.00	9.3	6230	129	.00
CAL YR 1986	TOTAL	1532.54	MEAN	4.20	MAX	640	MIN	.00	AC-FT	3040		
WTR YR 1987	TOTAL	7354.03	MEAN	20.1	MAX	1240	MIN	.00	AC-FT	14590		

07141200. PAWNEE RIVER NEAR LARNED, KS

LOCATION.--Lat 38 deg 12 min 00 sec, long 99 deg 20 min 50 sec, in NW1/4 NW1/4 sec.30, T.21 S., R.18 W., Pawnee County, Hydrologic Unit 11030005, on right bank, 0.8 mi north of U.S. Highway 156, 14 mi west of Larned, and at mile 24.3.

DRAINAGE AREA.--2,148 sq mi, of which 138 sq mi is probably noncontributing.

PERIOD OF RECORD.--April to September 1924 (gage heights and discharge measurements only), October 1924 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1177: 1949. WSP 1241: 1927-28(M), 1935, 1940, 1943. WSP 1341: Drainage area.

GAGE.--Water-stage recorders. Concrete control since June 2, 1959. Datum of gage is 2,040.90 ft above sea level. See WSP 1921 for history of changes prior to June 2, 1959.

REMARKS.--Estimated daily discharges: Jan. 10-17. Records good except those for estimated daily discharges, which are poor. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--63 years, 67.9 cu ft per sec, 49,190 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 cu ft per sec July 28, 1958, gage height, 28.22 ft, site and datum then in use, or 22.9 ft, present site and datum; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Apr. 3	1400	1,240	6.79	July 7	1800	*4,450	*15.78
Apr. 15	0900	1,910	8.99				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	433	.00	.00	.00	.00	.00	551	16	16	8.6	7.9	2.8
2	166	.00	.00	.00	.00	.00	688	14	14	9.1	5.4	2.5
3	67	.00	.00	.00	.00	.00	1180	14	13	40	4.7	2.2
4	35	.00	.00	.00	.00	.00	933	17	13	178	6.1	2.0
5	21	.00	.00	.00	.00	.00	663	27	12	1000	8.4	1.7
6	11	.00	.00	.00	.00	.00	443	22	9.4	2000	5.3	1.5
7	2.7	.00	.00	.00	.00	.00	287	16	7.3	4120	5.9	1.3
8	1.2	.00	.00	.00	.00	.00	229	14	5.4	3810	46	1.1
9	.70	.00	.00	.00	.00	.00	161	12	3.6	2190	50	.85
10	.43	.00	.00	.00	.00	.00	125	11	2.4	456	41	.84
11	.44	.00	.00	.00	.00	.00	90	12	1.7	212	31	2.0
12	.28	.00	.00	.00	.00	.00	67	12	1.2	170	43	1.6
13	.18	.00	.00	.00	.00	.00	61	11	.76	109	32	1.1
14	.13	.00	.00	.00	.00	.00	1130	10	.47	72	16	1.1
15	.09	.00	.00	.00	.00	.00	1830	9.7	.27	55	81	23
16	.06	.00	.00	.00	.00	.00	1530	8.3	.16	52	62	17
17	.04	.00	.00	.00	.00	.00	909	6.8	.12	90	36	8.6
18	.03	.00	.00	.00	.00	.00	441	5.9	.18	169	24	5.6
19	.01	.00	.00	.00	.00	.00	303	4.8	.78	248	15	3.9
20	.00	.00	.00	.00	.00	.00	155	3.4	5.2	252	9.3	3.3
21	.00	.00	.00	.00	.00	.00	89	2.7	5.6	109	6.1	2.7
22	.00	.00	.00	.00	.00	.00	58	2.4	75	59	3.6	2.1
23	.00	.00	.00	.00	.00	156	41	2.2	106	38	2.8	1.6
24	.00	.00	.00	.00	.00	28	31	2.1	69	42	2.8	1.5
25	.00	.00	.00	.00	.00	17	25	2.0	51	43	9.6	1.3
26	.00	.00	.00	.00	.00	157	21	2.1	43	34	22	1.1
27	.00	.00	.00	.00	.00	366	19	7.3	35	29	6.8	.96
28	.00	.00	.00	.00	.00	471	17	10	24	25	4.0	1.0
29	.00	.00	.00	.00	---	752	16	10	15	18	2.9	.86
30	.00	.00	.00	.00	---	702	16	19	13	14	2.8	.67
31	.00	---	.00	.00	---	649	---	27	---	11	3.2	---
TOTAL	739.29	.00	.00	.00	.00	3298.00	12109	333.7	543.54	15662.7	596.6	97.78
MEAN	23.8	.000	.000	.000	.000	106	404	10.8	18.1	505	19.2	3.26
MAX	433	.00	.00	.00	.00	752	1830	27	106	4120	81	23
MIN	.00	.00	.00	.00	.00	.00	16	2.0	.12	8.6	2.8	.67
AC-FT	1470	.00	.00	.00	.00	6540	24020	662	1080	31070	1180	194

CAL YR 1986	TOTAL	7067.15	MEAN	19.4	MAX	954	MIN	.00	AC-FT	14020
WTR YR 1987	TOTAL	33380.61	MEAN	91.5	MAX	4120	MIN	.00	AC-FT	66210

ARKANSAS RIVER BASIN

169

07141300 ARKANSAS RIVER AT GREAT BEND, KS

LOCATION.--Lat 38 deg 21 min 11 sec, long 98 deg 45 min 50 sec, in SW1/4 NW1/4 SE1/4 sec.33, T.19 S., R.13 W., Barton County, Hydrologic Unit 11030004, on left bank at downstream side of bridge on U.S. Highway 281, 0.5 mi south of Great Bend, 4.5 mi upstream from Walnut Creek, and at mile 873.2.

DRAINAGE AREA.--34,356 sq mi, of which 6,002 sq mi is probably noncontributing.

PERIOD OF RECORD.--September 1940 to current year. Fragmentary gage-height records collected at same site, at datum 3.0 ft higher, 1906, 1908-12, are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,835.19 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1975 at datum 4.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Flow moderately regulated since 1943 by John Martin Reservoir (station 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Satellite telemeter at station.

AVERAGE DISCHARGE.--47 years, 301 cu ft per sec, 218,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,800 cu ft per sec June 23, 1965, gage height, 17.10 ft, present datum; maximum gage height, 17.70 ft June 15, 1931; no flow at times in 1940, 1946, 1956, 1980-81, 1984-85.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 24	2400	3,750	11.25	June 4	1500	1,810	8.70
Apr. 16	1400	3,390	10.84	July 10	0400	*5,740	*13.20

Minimum discharge, 0.64 cu ft per sec Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	5.6	5.0	4.8	5.0	5.8	1750	819	1660	2470	352	140
2	21	7.3	5.0	3.9	5.0	5.1	1740	879	1730	2460	326	139
3	108	5.7	5.0	4.5	5.0	5.2	1710	886	1790	2240	307	138
4	69	4.8	5.0	4.9	5.0	6.7	1700	799	1800	2040	310	137
5	44	4.4	5.0	3.6	5.0	6.2	1550	733	1770	2240	307	127
6	25	3.2	5.0	3.4	5.0	5.2	1220	708	1480	3410	330	127
7	13	3.9	5.0	4.5	5.0	7.9	1020	706	1360	3980	352	123
8	12	8.3	5.0	5.0	5.0	15	865	625	1410	4710	318	121
9	10	8.3	5.0	5.0	5.0	19	774	548	1490	5310	236	114
10	10	6.2	5.0	5.0	5.0	19	720	500	1570	5560	266	115
11	13	5.3	5.0	5.0	5.0	9.4	671	460	1630	3090	258	110
12	9.4	5.3	5.0	4.4	5.0	6.2	637	426	1660	1710	249	110
13	7.4	5.6	5.0	3.9	5.8	7.1	636	388	1590	1520	359	109
14	6.9	5.7	5.0	4.2	5.5	7.0	752	363	1530	1360	842	107
15	6.9	5.3	5.0	5.0	6.1	5.8	2250	348	1400	1220	718	107
16	5.3	4.3	5.0	5.0	5.3	6.2	3300	350	1160	1110	449	104
17	5.2	3.1	5.0	5.0	5.3	8.8	2460	365	1070	1030	319	103
18	5.6	2.7	5.0	5.0	5.0	7.0	1790	410	1090	989	266	103
19	5.3	3.6	5.0	5.0	5.0	5.3	1300	487	1170	966	233	102
20	4.0	2.8	5.0	5.0	5.0	5.0	1070	581	1300	931	219	101
21	3.1	2.7	5.0	5.0	5.5	5.0	954	672	1310	919	202	100
22	3.4	3.5	5.0	5.0	5.0	5.3	874	750	1330	790	183	92
23	3.2	4.9	5.0	5.0	6.1	46	820	828	1440	713	173	91
24	4.1	4.7	5.0	5.0	5.6	2300	788	914	1590	665	165	88
25	4.9	5.0	5.0	5.0	5.1	3250	771	995	1680	624	160	84
26	9.0	3.8	5.0	5.0	6.0	2350	775	1070	1760	591	161	87
27	7.6	4.7	5.0	5.0	7.3	1620	781	1170	1820	512	154	87
28	4.1	5.0	4.3	5.0	6.5	1790	778	1240	1810	474	149	88
29	3.3	5.0	3.3	5.0	---	2070	775	1400	1760	440	147	85
30	3.6	5.0	2.0	5.0	---	1620	788	1550	1930	410	148	83
31	4.5	---	3.1	5.0	---	1650	---	1590	---	379	144	---
TOTAL	440.1	145.7	147.7	147.1	150.1	16869.2	36019	23560	46090	54863	8857	3222
MEAN	14.2	4.86	4.76	4.75	5.36	544	1201	760	1536	1770	286	107
MAX	108	8.3	5.0	5.0	7.3	3250	3300	1590	1930	5560	842	140
MIN	3.1	2.7	2.0	3.4	5.0	5.0	636	348	1070	379	144	83
AC-FT	873	289	293	292	298	33460	71440	46730	91420	108800	17570	6390

CAL YR 1986	TOTAL	11314.7	MEAN	31.0	MAX	1920	MIN	2.0	AC-FT	22440
WTR YR 1987	TOTAL	190510.9	MEAN	522	MAX	5560	MIN	2.0	AC-FT	377900

ARKANSAS RIVER BASIN

07141780 WALNUT CREEK NEAR RUSH CENTER, KS

LOCATION.--Lat 38 deg 28 min 07 sec, long 99 deg 22 min 07 sec, in NE1/4 SW1/4 SE1/4 sec.24, T.18 S., R.19 W., Rush County, Hydrologic Unit 11030008, on left bank at downstream side of bridge on State Highway 96, 3.0 mi west of Rush Center.

DRAINAGE AREA.--1,256 sq mi, of which 104 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,983.99 ft above sea level.

REMARKS.--Estimated daily discharge: Jan. 15 to Mar. 2 and Mar. 14 to Apr. 1. Records fair except those for estimated daily discharges, which are poor. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--18 years, 21.2 cu ft per sec, 15,360 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,020 cu ft per sec June 14, 1970, gage height, 24.89 ft; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 23	unknown	unknown	unknown	Apr. 14	1300	*3,380	*22.07
Mar. 27	unknown	unknown	unknown	July 11	0300	2,060	19.23
Apr. 3	1100	1,420	17.42				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	2.5	.00	.00	.00	.01	920	14	8.9	23	11	5.5
2	32	2.4	.00	.00	.00	.00	1200	17	7.8	19	9.5	5.3
3	14	2.1	.00	.00	.00	.00	1350	15	6.8	14	6.7	5.2
4	9.2	1.7	.00	.00	.00	.00	894	13	6.2	151	8.8	4.6
5	6.1	1.4	.00	.00	.00	.00	397	14	6.1	267	25	4.6
6	4.6	1.1	.00	.00	.00	.00	238	86	5.4	339	20	4.4
7	3.5	.82	.00	.00	.00	.00	162	157	5.5	457	15	4.1
8	2.6	.00	.00	.00	.00	.00	111	73	5.1	149	10	4.0
9	5.6	.00	.00	.00	.00	.00	103	48	4.5	180	7.9	4.0
10	5.0	.00	.00	.00	.00	.00	88	35	2.6	1310	7.2	4.2
11	5.5	.00	.00	.00	.00	.00	68	26	2.1	1660	6.7	4.2
12	4.7	.00	.00	.00	.00	.00	56	20	2.0	308	32	4.4
13	3.6	.00	.00	.00	.00	.00	94	18	2.7	150	242	4.4
14	20	.00	.00	.00	.00	.00	2600	16	3.7	119	173	4.3
15	10	.00	.00	.00	.00	1.0	3020	23	3.7	141	62	4.1
16	5.7	.00	.00	.00	.00	10	2600	20	3.8	91	25	3.9
17	3.5	.00	.00	.00	.00	110	1270	16	5.8	86	14	3.6
18	2.5	.00	.00	.00	.00	45	426	12	12	89	9.5	3.6
19	2.0	.00	.00	.00	.00	22	294	11	7.1	393	8.1	3.4
20	2.0	.00	.00	.00	.00	14	191	10	8.3	685	7.2	3.2
21	1.8	.00	.00	.00	.00	9.6	132	9.5	7.5	173	6.3	3.2
22	1.6	.00	.00	.00	.00	1200	105	8.5	4.1	100	5.5	3.1
23	1.3	.00	.00	.00	.00	1800	76	7.8	3.1	76	5.4	2.4
24	1.3	.00	.00	.00	.00	1050	52	7.9	6.8	56	5.5	2.4
25	1.2	.00	.00	.00	.00	520	36	8.2	9.0	42	6.0	2.4
26	.89	.00	.00	.00	.01	1040	29	8.7	7.4	33	6.6	2.6
27	.83	.00	.00	.00	.02	1140	23	11	7.4	27	6.7	4.4
28	1.5	.00	.00	.00	.01	980	19	10	6.7	23	6.9	3.7
29	2.4	.00	.00	.00	---	360	17	10	6.5	19	7.0	3.0
30	2.5	.00	.00	.00	---	460	15	10	7.3	16	6.5	2.6
31	2.5	---	.00	.00	---	600	---	10	---	11	5.5	---
TOTAL	278.92	12.02	.00	.00	.04	9861.61	16586	745.6	175.9	7207	768.5	114.8
MEAN	9.00	.40	.000	.000	.001	318	553	24.1	5.86	232	24.8	3.83
MAX	119	2.5	.00	.00	.02	1800	3020	157	12	1660	242	5.5
MIN	.83	.00	.00	.00	.00	.00	15	7.8	2.0	11	5.4	2.4
AC-FT	553	24	.00	.00	.08	19560	32900	1480	349	14300	1520	228

CAL YR 1986 TOTAL 3487.45 MEAN 9.55 MAX 924 MIN .00 AC-FT 6920
WTR YR 1987 TOTAL 35750.39 MEAN 97.9 MAX 3020 MIN .00 AC-FT 70910

07141900 WALNUT CREEK AT ALBERT, KS

LOCATION.--Lat 38 deg 27 min 40 sec, long 99 deg 00 min 50 sec, in SW1/4 NW1/4 NW1/4 sec.29, T.18 S., R.15 W., Barton County, Hydrologic Unit 11030008, on left bank at downstream side of highway bridge, 0.2 mi north of Albert, 14 mi northwest of Great Bend, and at mile 43.0.

DRAINAGE AREA.--1,410 sq mi, approximately, of which 104 sq mi is probably noncontributing.

PERIOD OF RECORD.--May 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,897.37 ft above sea level (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Mar. 25, 26 and May 23 to June 1. Records good except Feb. 27 to Mar. 17, which are fair and estimated daily discharges, which are poor. Flow of stream affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--29 years, 48.1 cu ft per sec, 34,850 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 cu ft per sec Sept. 22, 1959, gage height, 25.75 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1927 reached a stage of 21.3 ft, from floodmark and information by local residents (discharge not determined, but due to levees built in 1934 is substantially greater than indicated by current rating).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 23	2100	2,040	20.87	Apr. 16	1300	*2,850	*24.47
Mar. 28	0500	1,150	16.00	July 13	0400	1,170	16.06
Apr. 5	0600	1,310	16.95				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	325	.01	.00	.00	.00	.02	548	22	8.0	8.4	25	1.4
2	114	1.0	.00	.00	.00	.02	1010	18	6.6	29	19	1.6
3	45	.16	.00	.00	.00	.00	1240	15	6.1	15	18	1.2
4	24	.41	.00	.00	.00	.00	1280	15	4.3	27	19	.86
5	16	.16	.00	.00	.00	.00	1260	15	3.5	90	14	.47
6	10	.11	.00	.00	.00	.00	673	16	2.8	276	15	1.0
7	6.2	.10	.00	.00	.00	.00	308	21	2.1	307	39	1.0
8	3.2	.08	.00	.00	.00	.00	220	164	1.6	429	31	.55
9	.78	.07	.00	.00	.00	.00	152	82	1.1	192	24	.32
10	.13	.06	.00	.00	.00	.00	120	53	.86	151	19	.45
11	2.1	.03	.00	.00	.00	.00	98	40	.59	611	15	.36
12	.16	.03	.00	.00	.00	.00	74	33	.20	992	12	.05
13	.11	.02	.00	.00	.00	.00	64	25	.03	834	27	.00
14	.06	.01	.00	.00	.00	.00	1600	20	.04	165	235	.00
15	.04	.00	.00	.00	.00	.00	2590	17	.00	122	193	.00
16	1.2	.00	.00	.00	.00	.99	2830	13	.00	144	80	.01
17	13	.00	.00	.00	.00	50	2820	18	.02	96	46	.00
18	8.5	.00	.00	.00	.00	105	2710	16	31	82	31	.00
19	4.6	.00	.00	.00	.00	43	2060	14	41	92	19	.00
20	1.6	.00	.00	.00	.00	21	629	8.6	36	338	14	.00
21	.38	.00	.00	.00	.00	13	284	6.5	17	636	10	.00
22	.16	.00	.00	.00	.00	9.3	205	5.3	5.3	230	6.7	.00
23	.08	.00	.00	.00	.00	1190	163	5.0	3.0	122	6.7	.00
24	.06	.00	.00	.00	.00	1730	122	5.0	4.4	92	5.2	.00
25	.04	.00	.00	.00	.00	980	88	5.0	13	73	4.8	.00
26	.03	.00	.00	.00	.00	500	65	5.2	4.3	59	4.0	.00
27	.03	.00	.00	.00	.02	1020	50	6.0	2.4	49	3.0	.00
28	.02	.00	.00	.00	.03	1100	40	8.0	2.3	44	2.1	.00
29	.01	.00	.00	.00	---	955	34	10	3.0	40	1.9	.00
30	.00	.00	.00	.00	---	854	28	8.5	16	35	2.0	.00
31	.00	---	.00	.00	---	459	---	8.5	---	31	1.6	---
TOTAL	576.49	2.25	.00	.00	.05	9030.33	23365	698.6	216.54	6411.4	943.0	9.27
MEAN	18.6	.075	.000	.000	.002	291	779	22.5	7.22	207	30.4	.31
MAX	325	1.0	.00	.00	.03	1730	2830	164	41	992	235	1.6
MIN	.00	.00	.00	.00	.00	.00	28	5.0	.00	8.4	1.6	.00
AC-FT	1140	4.5	.00	.00	.10	17910	46340	1390	430	12720	1870	18

CAL YR 1986	TOTAL	3534.98	MEAN	9.68	MAX	697	MIN	.00	AC-FT	7010
WTR YR 1987	TOTAL	41252.93	MEAN	113	MAX	2830	MIN	.00	AC-FT	81830

ARKANSAS RIVER BASIN

07142300 RATTLESNAKE CREEK NEAR MACKSVILLE, KS

LOCATION.--Lat 37 deg 52 min 20 sec, long 98 deg 52 min 30 sec, in SW1/4 SW1/4 sec.16, T.25 S., R.14 W., Stafford County, Hydrologic Unit 11030009, on left bank at downstream side of highway bridge, 8 mi southeast of Macksville, and 87.5 mi upstream from mouth.

DRAINAGE AREA.--784 sq mi, of which about 428 sq mi is probably noncontributing.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,963.46 ft above sea level (Stafford County bench mark). Prior to July 14, 1960, nonrecording gage and crest-stage gages at same site and datum.

REMARKS.--Estimated daily discharge: Jan. 21-24. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--28 years, 29.5 cu ft per sec, 21,370 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 cu ft per sec Sept. 26, 1973, gage height, 11.02 ft; no flow Sept. 5, 9, 10, 12, 13, 25-29, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 24	2300	*1,450	*9.23	July 5	0900	462	7.49
June 30	2400	155	5.84	Aug. 5	0500	113	5.17

Minimum discharge, 3.5 cu ft per sec Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	4.2	6.2	5.3	5.8	9.6	121	20	25	117	24	23
2	4.4	4.7	6.3	5.6	6.0	8.9	91	22	24	59	22	21
3	5.8	5.3	5.6	5.9	5.5	8.4	73	22	23	55	21	20
4	5.5	6.2	5.3	5.5	5.6	10	70	22	23	133	58	19
5	5.0	7.1	5.3	6.6	5.6	8.9	64	35	22	357	92	20
6	4.4	8.5	5.3	8.0	5.7	8.1	60	65	21	139	45	21
7	4.1	6.2	7.0	7.1	5.5	8.1	57	70	20	121	34	23
8	3.9	5.6	7.6	6.7	7.4	8.2	53	41	19	178	31	23
9	4.4	5.4	7.3	8.2	6.1	8.5	51	32	18	158	29	22
10	4.7	5.5	6.7	8.0	5.8	8.0	49	29	19	35	28	21
11	7.9	4.8	6.1	6.7	6.0	7.7	47	26	19	67	26	21
12	6.8	5.1	6.2	6.8	6.7	7.7	45	25	18	58	31	27
13	6.1	4.4	6.0	7.2	6.0	7.7	47	24	17	51	39	26
14	5.8	4.8	5.9	7.2	6.1	8.2	60	23	16	47	32	25
15	5.2	5.2	5.9	6.9	8.0	7.9	52	23	14	44	28	23
16	4.4	5.6	6.0	6.8	8.0	8.9	45	22	13	42	26	23
17	4.4	5.6	6.2	6.4	7.7	13	42	21	12	41	25	22
18	4.3	5.6	6.1	5.3	6.7	16	40	21	16	42	24	21
19	4.1	5.0	5.6	6.1	6.5	35	37	20	14	39	24	21
20	3.6	5.0	5.6	6.2	7.2	35	35	21	14	37	23	21
21	4.1	4.3	5.8	5.8	5.9	21	33	21	13	36	21	20
22	6.2	5.0	5.3	6.0	5.9	16	31	21	12	33	19	19
23	5.5	4.9	5.4	5.7	5.9	49	30	22	11	32	20	20
24	5.0	4.7	5.5	5.8	6.1	336	28	25	10	31	21	20
25	5.3	4.9	5.5	6.0	7.0	942	27	26	15	30	23	19
26	4.9	5.3	5.3	6.0	7.9	491	25	29	16	29	25	18
27	8.0	4.7	5.3	6.3	9.7	382	24	39	12	28	25	17
28	5.0	4.7	5.3	5.4	11	301	22	36	11	26	25	17
29	3.9	4.9	5.4	6.4	---	253	21	32	19	25	24	17
30	4.1	5.1	5.0	5.7	---	256	20	29	100	25	28	17
31	4.4	---	5.4	5.7	---	191	---	26	---	24	25	---
TOTAL	155.6	153.8	181.9	199.3	187.3	3471.8	1405	890	586	2239	918	627
MEAN	5.02	5.29	5.87	6.43	6.69	112	46.8	28.7	19.5	72.2	29.6	20.9
MAX	8.0	8.5	7.1	8.2	11	942	121	70	100	357	92	27
MIN	3.6	4.2	5.0	5.3	5.5	7.7	20	20	10	24	19	17
AC-FT	309	315	361	395	372	6890	2790	1770	1160	4440	1820	1240
CAL YR 1936	TOTAL	2857.28	MEAN	7.83	MAX	220	MIN	.25	AC-FT	5670		
WTR YR 1987	TOTAL	11019.70	MEAN	30.2	MAX	942	MIN	3.6	AC-FT	21360		

07142300 RATTLESNAKE CREEK NEAR MACKSVILLE, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT							
06...	1655	4.1	543	8.00	20.5	33	0.36
NOV							
18...	1450	5.9	610	7.80	9.5	14	0.22
JAN							
12...	1540	7.1	660	8.30	7.0	170	3.3
MAR							
09...	1550	8.6	574	8.60	5.0	103	2.4
26...	1410	452	150	7.00	9.5	473	585
31...	1650	161	220	7.10	9.0	926	403
APR							
28...	1430	23	550	7.40	20.5	57	3.5
JUN							
01...	1445	25	481	8.40	25.5	146	10
JUL							
07...	1025	119	311	7.60	26.0	197	63
AUG							
24...	1635	22	542	7.60	17.5	1	0.06

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
MAR							
26...	1410	88	80	80	81	98	100
31...	1650	49	--	--	--	95	100
JUL							
07...	1025	100	--	94	--	--	--

ARKANSAS RIVER BASIN

07142575 RATTLESNAKE CREEK NEAR ZENITH, KS

LOCATION.--Lat 38 deg 06 min 01 sec, long 98 deg 30 min 32 sec, in SW1/4 SW1/4 SW1/4 sec.26, T.22 S., R.11 W., Stafford County, Hydrologic Unit 11030009, on right bank at downstream side of highway bridge, 1.1 mi upstream from Little Salt Marsh, 10.0 mi north of Zenith, and at mile 19.3.

DRAINAGE AREA.--1,052 sq mi, of which 519 sq mi is noncontributing.

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

GAGE.--Water-stage recorder. Elevation of gage is 1,785 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 11-15, Dec. 10-12, and Jan. 1, 2, 9-12, 16-29. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--14 years, 54.3 cu ft per sec, 39,340 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 cu ft per sec Sept. 26, 1973, gage height, 9.95 ft; minimum discharge, no flow Sept. 14-18, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 27	1800	*1,080	*8.21				

Minimum recorded discharge, 12 cu ft per sec Oct. 21, 22, but may have been less during period of ice effect Nov. 11-15, Dec. 10-12, and Jan. 1, 2, 9-12, 16-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	21	20	23	31	42	414	47	60	88	23	34
2	20	21	21	23	30	39	351	51	53	79	21	34
3	24	21	21	24	29	37	283	49	51	87	20	32
4	22	23	11	25	29	36	227	48	47	123	30	29
5	21	23	21	31	29	34	186	61	45	270	31	26
6	20	24	21	25	29	32	158	99	42	277	30	27
7	19	23	23	24	28	31	145	104	39	186	41	29
8	18	24	25	23	28	31	127	93	37	201	55	31
9	21	23	27	17	28	30	118	87	35	258	52	31
10	24	24	18	15	28	31	105	91	36	227	38	30
11	27	15	14	14	28	31	97	83	40	167	33	28
12	31	15	17	18	27	30	90	66	40	175	37	27
13	22	13	28	31	28	30	91	58	37	170	82	28
14	26	15	28	31	28	29	156	53	35	142	200	29
15	26	18	28	30	30	28	173	49	32	106	182	32
16	24	22	27	15	31	30	182	46	31	87	133	32
17	23	22	26	15	32	48	175	44	29	78	73	31
18	22	21	26	16	30	59	132	41	40	73	56	30
19	22	20	26	21	30	54	97	39	45	67	47	29
20	21	20	26	23	30	48	82	38	43	61	42	29
21	17	20	26	21	30	44	74	38	40	56	36	28
22	13	20	26	25	29	44	67	38	37	53	34	29
23	18	19	25	24	29	205	64	38	35	47	35	28
24	22	19	25	18	28	534	61	40	32	44	39	29
25	22	19	25	19	28	616	58	46	32	39	38	27
26	21	19	24	18	30	563	54	52	30	38	43	25
27	21	20	24	18	37	937	52	74	29	35	45	24
28	21	20	24	20	42	938	50	93	30	32	45	26
29	21	20	24	28	---	725	47	91	40	30	42	23
30	21	20	24	33	---	599	47	80	87	27	39	23
31	21	---	23	32	---	495	---	71	---	25	36	---
TOTAL	669	604	724	700	836	6430	3963	1908	1209	3348	1658	860
MEAN	21.6	20.1	23.4	22.6	29.9	207	132	61.5	40.3	109	53.5	28.7
MAX	31	24	28	33	42	938	414	104	87	277	200	34
MIN	13	13	11	14	27	28	47	38	29	25	20	23
AC-FT	1330	1200	1440	1390	1660	12750	7860	3780	2400	6640	3290	1710

CAL YR 1986 TOTAL 8506.2 MEAN 23.3 MAX 390 MIN 4.6 AC-FT 16870
WTR YR 1987 TOTAL 22909.0 MEAN 62.8 MAX 938 MIN 11 AC-FT 45440

ARKANSAS RIVER BASIN

175

07142620 RATTLESNAKE CREEK NEAR RAYMOND, KS

LOCATION.--Lat 38 deg 13 min 50 sec, long 98 deg 25 min 00 sec, in SW1/4 NW1/4 NW1/4 sec.15, T.21 S., R.10 W., Rice County, Hydrologic Unit 11030009, on left bank at downstream side of highway bridge, 3.5 mi south of Raymond, and 5.4 mi upstream from mouth.

DRAINAGE AREA.--1,167 sq mi, of which 569 sq mi is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 1,701.64 ft above sea level. Prior to July 27, 1960, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 11, 13-15, Dec. 11, Jan. 11, 16-26, June 10-23, and Sept. 23-30. Records good except those for estimated daily discharges, which are poor. Flow regulated at times by Quivera National Wildlife Refuge.

AVERAGE DISCHARGE.--27 years, 52.6 cu ft per sec, 38,110 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,140 cu ft per sec Sept. 29, 1973, gage height, 8.74 ft; no flow at times in 1964, 1968-69, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1973 was the maximum known since at least 1891, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 956 cu ft per sec Mar. 28, gage height, 7.08 ft; minimum recorded discharge, 5.3 cu ft per sec Sept. 21 but may have been less during periods of ice effect Nov. 11, 13-15, Dec. 11, Jan. 11, 16-26 or periods of no gage-height record June 10-23 and Sept. 23-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	20	8.1	22	39	76	842	43	126	49	11	9.7
2	6.5	19	8.0	21	38	74	683	54	109	71	8.0	9.0
3	7.9	21	8.5	19	36	79	630	54	70	62	8.2	8.2
4	12	22	8.6	19	35	107	612	54	29	98	11	7.3
5	13	22	8.6	19	33	156	579	73	22	162	9.8	7.9
6	13	24	8.4	19	33	135	539	100	27	182	10	11
7	12	31	6.4	20	32	101	498	154	26	236	11	8.3
8	12	30	6.2	22	32	56	463	203	25	231	11	7.3
9	14	28	6.8	24	31	48	422	193	25	212	12	8.6
10	21	27	7.2	22	32	46	380	168	30	198	13	9.0
11	26	25	5.3	11	31	47	249	149	32	196	14	8.3
12	31	25	9.8	21	20	47	143	138	27	189	22	9.4
13	29	7.1	11	21	16	45	136	126	25	173	38	8.3
14	31	9.7	13	23	16	46	190	113	23	158	38	7.7
15	29	17	14	24	18	53	210	79	20	147	63	7.6
16	26	16	15	13	21	42	279	41	19	128	101	8.5
17	24	16	16	6.7	24	78	339	37	18	121	104	8.3
18	22	15	16	7.2	39	92	371	37	15	87	100	9.0
19	20	14	16	13	41	96	351	35	17	51	90	7.7
20	17	14	15	9.6	42	96	302	35	16	45	54	6.1
21	16	13	15	8.5	40	95	248	35	15	42	41	5.4
22	21	13	24	13	38	91	221	33	14	28	38	5.5
23	23	6.9	22	12	37	375	167	34	12	16	34	5.0
24	23	5.8	22	14	38	716	131	39	10	15	35	4.7
25	23	6.3	24	12	38	795	99	42	9.5	15	24	4.7
26	22	6.9	24	16	45	737	68	51	8.2	14	18	4.4
27	22	7.6	22	37	68	781	60	76	8.7	15	16	4.8
28	22	8.3	22	42	79	899	50	121	7.4	14	15	4.3
29	25	8.4	24	41	---	912	45	153	1.1	13	13	4.3
30	23	8.5	23	39	---	901	51	150	25	13	11	4.3
31	21	---	22	39	---	866	---	139	---	13	10	---
TOTAL	613.6	487.5	451.9	630.0	992	8688	9358	2759	821.8	2994	984.0	214.6
MEAN	19.8	16.3	14.6	20.3	35.4	280	312	89.0	27.4	96.6	31.7	7.15
MAX	31	31	24	42	79	912	842	203	126	236	104	11
MIN	6.2	5.8	5.3	6.7	16	42	45	33	7.4	13	8.0	4.3
AC-FT	1220	967	896	1250	1970	17230	18560	5470	1630	5940	1950	426
CAL YR 1986	TOTAL	6728.4	MEAN	18.4	MAX	214	MIN	1.2	AC-FT	13350		
WTR YR 1987	TOTAL	28994.4	MEAN	79.4	MAX	912	MIN	4.3	AC-FT	57510		

ARKANSAS RIVER BASIN

07143300 COW CREEK NEAR LYONS, KS

LOCATION.--38 deg 18 min 30 sec, long 98 deg 11 min 30 sec, in SW1/4 SE1/4 sec.15, T.20 S., R.8 W., Rice County, Hydrologic Unit 11030011, on left bank near downstream side of Missouri Pacific Railroad bridge, 500 ft downstream from Little Cow Creek, 3.0 mi south of Lyons, and 33 mi upstream from mouth.

DRAINAGE AREA.--728 sq mi, includes 229 sq mi in Cheyenne Bottoms, closed basin.

PERIOD OF RECORD.--October 1937 to September 1951. Occasional low-flow measurements, water years 1954-60. Annual maximum, water years 1960-61. October 1961 to current year. Prior to April 1938, monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 277: 1938(M). WSP 1117: Drainage area. WSP 1177: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 1,628.16 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to July 3, 1938, nonrecording gage at present site and datum. July 3, 1938, to Sept. 30, 1951, water-stage recorder at site 60 ft upstream at same datum. October 1959 to Mar. 12, 1962, crest-stage gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by releases from Cheyenne Bottoms, which in turn is affected by diversions from Arkansas River and Walnut Creek, and by periodic discharges from salt plant immediately upstream. Satellite telemeter at station.

AVERAGE DISCHARGE.--40 years, 77.6 cu ft per sec, 56,220 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,100 cu ft per sec Sept. 26, 1973, gage height, 20.38 ft, from rating curve extended above 7,200 cu ft per sec; no flow at times during 1938, 1946.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1928, 22.75 ft July 11, 1929, from information by Missouri Pacific Railroad Co.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 25	0300	*1,760	*18.25	July 6	1300	1,210	14.90
Apr. 15	1300	1,490	16.68	July 11	0100	1,310	15.52
June 20	0800	1,240	15.07	Aug. 20	0500	1,420	16.20

Minimum discharge, 4.7 cu ft per sec Nov 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	4.9	6.5	7.5	9.2	24	401	123	140	50	18	39
2	38	4.7	6.5	7.1	8.8	20	758	103	125	40	16	31
3	51	5.2	6.9	7.8	8.4	18	782	161	113	113	15	25
4	34	5.8	7.1	6.9	8.4	19	416	156	111	136	20	21
5	18	6.3	6.9	7.6	8.7	20	269	157	113	585	18	19
6	13	7.4	6.9	7.8	8.4	19	233	173	122	1190	18	18
7	11	7.4	7.4	7.8	8.2	16	220	196	114	741	18	19
8	15	7.1	8.4	7.8	8.7	14	206	235	104	342	16	20
9	12	6.9	9.4	8.2	7.9	13	196	203	98	1080	15	19
10	10	6.7	9.3	8.0	7.8	12	189	178	93	1250	15	21
11	13	7.8	9.0	7.8	7.8	11	182	160	90	966	17	22
12	22	7.3	9.0	8.2	7.8	11	176	148	90	189	20	22
13	20	6.2	8.7	8.6	7.8	11	183	143	87	263	25	17
14	13	6.5	8.7	9.2	8.0	10	941	138	82	600	37	16
15	21	6.7	8.4	10	11	9.7	1450	135	76	162	45	15
16	19	6.9	8.2	7.6	9.8	11	1450	133	78	87	21	15
17	14	6.9	8.2	8.7	10	126	1190	128	67	67	15	14
18	11	7.2	8.2	7.8	10	219	337	124	417	53	16	12
19	8.9	7.3	7.9	7.8	10	284	204	119	1130	45	904	12
20	7.6	7.6	7.8	7.8	9.3	201	159	117	1170	39	1380	12
21	6.8	8.1	7.8	7.8	9.2	89	140	117	370	33	616	12
22	8.6	7.6	7.8	7.8	9.2	46	230	112	142	30	107	11
23	9.0	7.8	7.8	7.8	9.2	910	236	113	105	28	136	11
24	11	7.8	7.8	7.5	9.2	1710	223	101	81	27	86	11
25	9.2	6.8	7.8	7.1	8.7	1720	212	117	66	24	57	12
26	8.2	5.8	7.8	6.9	10	1540	203	123	60	22	69	11
27	7.5	5.9	7.8	6.9	13	1080	195	151	58	21	265	11
28	7.2	6.5	7.8	7.1	19	800	186	344	71	20	654	12
29	6.8	6.8	7.8	8.0	---	930	178	259	56	19	192	10
30	6.4	6.5	7.8	8.8	---	415	175	200	51	18	83	9.9
31	6.2	---	7.8	9.2	---	345	---	172	---	18	54	---
TOTAL	524.4	202.9	245.2	244.9	263.5	10653.7	11920	4839	5480	8258	4968	499.9
MEAN	16.9	6.76	7.91	7.90	9.41	344	397	156	183	266	160	16.7
MAX	86	8.1	9.4	10	19	1720	1450	344	1170	1250	1380	39
MIN	6.2	4.7	6.5	6.9	7.8	9.7	140	101	51	18	15	9.9
AC-FT	1040	402	486	486	523	21130	23640	9600	10870	16380	9850	992

CAL YR 1986 TOTAL 11382.0 MEAN 31.2 MAX 1560 MIN 2.7 AC-FT 22580
WTR YR 1987 TOTAL 48099.5 MEAN 132 MAX 1720 MIN 4.7 AC-FT 95410

ARKANSAS RIVER BASIN

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07143300 COW CREEK NEAR LYONS, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
OCT 08...	0955	17	610	7.30	16.5	275	12	--	--
NOV 19...	1540	6.7	1550	7.80	5.0	19	0.35	--	--
JAN 13...	1205	9.2	2200	8.20	1.0	25	0.62	--	--
MAR 11...	1020	11	2050	8.30	3.5	19	0.57	--	--
APR 30...	1100	167	1420	7.60	19.0	334	151	--	--
JUN 03...	1040	110	1170	8.00	21.0	286	85	--	--
JUL 03...	1410	222	2030	8.00	25.0	670	402	97	78

ARKANSAS RIVER BASIN

07143330 ARKANSAS RIVER NEAR HUTCHINSON, KS

LOCATION.--Lat 37 deg 56 min 47 sec, long 97 deg 46 min 29 sec, in SW1/4 NW1/4 SW1/4 sec.21, T.24 S., R.4 W., Reno County, Hydrologic Unit 11030010, on right bank at downstream side of highway bridge, 3.0 mi north of Haven, 4.5 mi downstream from Cow Creek, 11 mi southeast of Hutchinson, and at mile 800.3.

DRAINAGE AREA.--38,910 sq mi, of which 7,186 sq mi is probably noncontributing.

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

REVISED RECORDS.--WDR KS-74-1: 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 1,454.10 ft above sea level. Prior to June 22, 1960, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated since 1943 by John Martin Reservoir (station 07130000). Extensive diversions upstream from station for irrigation. Satellite telemeter at station.

AVERAGE DISCHARGE.--28 years, 566 cu ft per sec, 410,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,700 cu ft per sec Sept. 28, 1973, gage height, 12.95 ft; minimum discharge, 27 cu ft per sec Oct 13, 14, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	0300	6,160	8.53	June 18	2100	3,100	6.73
Mar. 24	1200	8,600	9.47	July 4	2000	5,500	8.19
Mar. 27	0300	*11,300	*10.28	July 12	1500	6,520	8.71
Apr. 18	2300	7,490	9.09	Aug. 26	1400	2,100	5.97

Minimum discharge, 136 cu ft per sec Dec. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	175	161	143	178	501	4230	1590	1740	2320	980	660
2	1760	172	159	141	176	364	3810	1530	1790	2470	951	621
3	4530	169	154	143	163	296	3560	1520	1840	3040	910	583
4	1850	175	151	142	164	275	3790	1500	1850	3930	932	555
5	825	175	150	140	171	260	3810	1540	1840	4910	864	538
6	506	173	150	143	167	255	3510	1700	1820	4720	819	524
7	406	175	159	143	159	261	3250	1680	1800	4320	781	511
8	358	175	163	144	157	266	2950	1530	1650	4910	754	493
9	321	175	160	153	154	259	2530	1540	1560	5450	750	472
10	299	175	155	153	155	249	2110	1470	1600	5590	719	477
11	322	172	148	146	157	240	1870	1400	1690	6070	692	465
12	553	175	146	145	160	229	1680	1310	1730	6430	782	457
13	495	171	146	149	160	217	1530	1260	1760	4750	1150	449
14	377	167	147	152	156	209	1530	1220	1760	3440	1150	445
15	327	167	153	150	169	205	1810	1170	1690	3240	886	431
16	289	167	153	151	186	207	2300	1030	1700	3010	1010	427
17	262	167	153	158	175	1150	4350	966	1610	2400	1030	423
18	240	165	153	154	164	1170	6810	928	2410	2130	938	426
19	230	156	153	150	164	1010	6700	889	2520	1960	854	419
20	217	153	152	153	167	709	4870	889	2110	1800	843	408
21	207	153	147	155	172	601	3970	896	2110	1690	1140	398
22	205	156	146	157	167	510	3690	892	2340	1630	1290	390
23	205	157	146	157	160	1770	3380	934	2170	1660	1200	375
24	205	157	146	158	159	7170	2700	1010	1780	1700	839	375
25	203	158	144	153	157	6320	2250	1060	1740	1550	842	369
26	201	158	138	155	163	9130	2040	1100	1780	1400	1610	358
27	192	156	140	161	215	10800	1870	1330	1830	1280	1280	348
28	187	153	146	164	330	9220	1760	1510	1870	1190	992	415
29	182	153	146	168	---	6930	1720	1570	1930	1130	967	388
30	178	153	145	176	---	5550	1660	1660	2230	1080	996	370
31	178	---	143	178	---	5280	---	1680	---	1030	742	---
TOTAL	16546	4953	4653	4735	4825	71613	92040	40304	56250	92230	29693	13570
MEAN	534	165	150	153	172	2310	3068	1300	1875	2975	958	452
MAX	4530	175	163	178	330	10800	6810	1700	2520	6430	1610	660
MIN	178	153	138	140	154	205	1530	889	1560	1030	692	348
AC-FT	32820	9820	9230	9390	9570	142000	182600	79940	111600	182900	58900	26920
CAL YR 1986	TOTAL	96498	MEAN	264	MAX	4530	MIN	138	AC-FT	191400		
WTR YR 1987	TOTAL	431412	MEAN	1182	MAX	10800	MIN	138	AC-FT	855700		

ARKANSAS RIVER BASIN

179

07143375 ARKANSAS RIVER NEAR MAIZE, KS

LOCATION.--Lat 37 deg 46 min 53 sec, long 97 deg 23 min 33 sec, in NW1/4 NE1/4 NE1/4 sec.23, T.26 S., R.1 W., Sedgwick County, Hydrologic Unit 11030010, on right bank at downstream side of highway bridge, 4.0 mi east of Maize, 3.5 mi south-southwest of Valley Center, 2.8 mi downstream from Little Arkansas River Floodway Diversion channel, and at mile 772.2.

DRAINAGE AREA.--39,110 sq mi, of which 7,186 sq mi is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to September 1987.

GAGE.--Water-stage recorder. Datum of gage is 1317.08 ft above sea level (Wichita-Valley Center Flood Control Project).

REMARKS.--Estimated daily discharges: Mar. 1-3. Records good except those for estimated daily discharges, which are fair. Flow slightly regulated since 1943 by John Martin Reservoir (station 07130000). Extensive diversions upstream from station for irrigation.

EXTREMES FOR CURRENT PERIOD.--March to September 1987: Peak discharges greater than base discharge of 3,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Mar. 18	0100	9,500	12.75	May 28	1100	7,950	12.15
Mar. 24	1200	*16,700	*15.01	July 6	0500	8,890	12.52
Mar. 27	0900	14,300	14.32	Aug. 27	1600	6,680	11.61
Apr. 19	1500	6,130	11.36				

Minimum discharge, 286 cu ft per sec Mar. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						680	4210	1440	1690	2580	916	747
2						500	3590	1400	1820	2480	890	665
3						430	3410	1410	1980	2760	860	603
4						408	3380	1490	2050	3370	866	560
5						368	3570	1940	2090	7900	845	526
6						344	3400	2060	2070	7690	818	510
7						340	3220	2150	2030	5200	795	505
8						348	3020	1860	1920	4870	767	487
9						341	2780	1720	1850	5330	773	476
10						324	2450	1650	2030	5450	778	475
11						309	2150	1560	2210	5570	768	472
12						304	1920	1480	2220	5780	793	443
13						306	1750	1370	2170	5580	960	438
14						296	1710	1270	2110	4070	1200	428
15						288	1820	1190	2050	3210	1010	422
16						294	2240	1120	2000	3100	908	410
17						3390	3150	1050	1940	2490	1010	401
18						7730	4960	1010	2050	2110	984	401
19						4640	5940	980	2880	1840	944	396
20						3310	4860	1040	2400	1700	888	388
21						2200	3660	1120	2260	1580	963	380
22						872	3260	1120	2390	1500	1170	371
23						1850	3060	1160	2570	1470	1310	364
24						14300	2720	1250	2180	1520	1050	362
25						10600	2230	1310	1980	1480	909	357
26						11800	2000	1350	1980	1300	1380	350
27						13900	1830	2230	2020	1190	6020	342
28						11500	1740	6960	2060	1090	4580	383
29						7780	1590	3430	2150	1000	3000	394
30						5490	1490	1620	2410	959	2080	364
31						4980	---	1570	---	937	1020	---
TOTAL						110222	87110	52310	63560	97106	41255	13420
MEAN						3556	2904	1687	2119	3132	1331	447
MAX						14300	5940	6960	2880	7900	6020	747
MIN						288	1490	980	1690	937	767	342
AC-FT						218600	172800	103800	126100	192600	81830	26620

ARKANSAS RIVER BASIN

07143375 ARKANSAS RIVER NEAR MAIZE, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March to September 1987 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)					
MAR										
06...	1100	348	--	--	14.0					
18...	1350	7330	235	7.60	10.0					
19...	1710	4110	--	7.60	14.0					
APR										
13...	1650	1730	1540	7.70	11.0					
JUN										
03...	0835	1980	2290	8.30	21.0					
JUL										
10...	0855	5470	749	7.90	26.5					
16...	1430	3150	1290	8.00	28.0					
AUG										
26...	1000	954	1480	7.60	--					
DATE	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
MAR										
06...	340	96	24	500	12	7.2	--	150	820	1750
18...	64	19	3.9	26	1	6.5	2.3	11	45	162
19...	75	22	4.8	53	3	7.2	2.9	22	85	251
APR										
13...	290	83	21	190	5	8.7	5.8	230	260	909
JUN										
03...	690	160	70	260	4	9.7	1.8	800	120	1730
JUL										
10...	200	54	17	75	2	13	2.7	160	65	440
16...	360	94	31	130	3	11	3.1	370	120	904
AUG										
26...	310	83	26	190	5	7.3	7.0	250	220	907

ARKANSAS RIVER BASIN

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07143665 LITTLE ARKANSAS RIVER AT ALTA MILLS, KS

LOCATION.--Lat 38 deg 06 min 44 sec, long 97 deg 35 min 30 sec, in SW1/4 NW1/4 NW1/4 sec.30, T.22 S., R.2 W., Harvey County, Hydrologic Unit 11030012, on right bank at downstream side of county highway bridge, 0.4 mi south of Alta Mills, 0.8 mi downstream from Sand Creek, and at mile 50.1.

DRAINAGE AREA.--736 sq mi, of which 55 sq mi is noncontributing.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 1,395 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 17-26 and Mar. 21-24, 27-31. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--14 years, 233 cu ft per sec, 168,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,100 cu ft per sec, revised, Oct. 12, 1973, gage height, 27.42 ft from rating curve extended above 14,200 cu ft per sec; minimum, 0.58 cu ft per sec Oct. 4, 5, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	2000	4,300	19.40	June 24	0600	1,280	10.35
Mar. 2	1400	2,850	15.24	July 5	1600	1,260	10.27
Mar. 20	0100	4,410	19.69	July 7	1600	1,350	10.63
Mar. 25	1600	*16,500	*25.78	Aug. 20	1700	2,770	15.03
Apr. 16	1000	1,920	12.56	Aug. 26	2400	8,040	23.92
May 28	1900	2,090	13.10				

Minimum discharge, 7.6 cu ft per sec Aug. 12.

REVISIONS.--The maximum discharges for some water years have been revised, as shown in the following table. They supersede figures published in the reports for 1974, 1980, and 1986.

Water year	Date	Discharge (cu ft per sec)	Gage height (ft)
1974	Oct. 12, 1973	30,100	27.42
1980	Oct. 31, 1979	29,300	27.34
1986	Oct. 11, 1985	14,900	25.52

ARKANSAS RIVER BASIN

07143665 LITTLE ARKANSAS RIVER AT ALTA MILLS, KS--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	21	22	21	116	1820	779	52	113	50	9.7	329
2	2000	20	22	21	80	2760	527	50	75	64	8.8	209
3	4100	21	22	21	57	1110	400	51	62	64	8.5	139
4	3670	22	22	21	45	256	294	52	56	398	12	105
5	1530	24	22	21	38	138	239	55	47	967	16	78
6	463	25	22	22	34	96	208	149	42	909	13	61
7	192	26	24	23	32	75	188	470	37	1250	10	54
8	114	29	25	22	29	64	172	310	35	630	9.2	49
9	75	26	31	26	27	54	160	152	33	184	8.9	45
10	56	23	34	25	26	48	149	92	32	100	8.5	42
11	85	22	34	22	25	47	142	65	31	105	8.3	41
12	478	22	32	26	24	44	138	53	30	68	15	39
13	632	20	30	26	23	41	136	103	30	48	259	38
14	219	22	30	33	24	39	150	63	28	39	316	36
15	101	22	29	43	25	40	799	116	26	33	112	33
16	63	22	30	41	33	43	1750	115	122	29	67	30
17	43	23	29	30	71	2150	687	50	108	25	37	28
18	41	23	28	22	109	4530	309	40	193	26	361	27
19	35	23	27	22	78	4720	209	36	412	24	1690	26
20	31	23	26	23	58	3870	158	37	735	22	2670	25
21	28	23	25	25	46	1480	123	80	199	20	1940	23
22	27	23	24	25	39	750	103	93	79	17	266	22
23	27	23	24	25	35	1200	92	58	828	17	125	21
24	26	22	24	23	32	6170	82	48	939	16	823	20
25	27	23	23	23	31	14900	78	77	228	14	2090	20
26	27	22	23	24	30	10200	73	64	89	15	4950	19
27	28	22	23	24	37	5540	67	714	50	14	6110	18
28	27	22	22	24	222	4750	62	1890	37	13	4940	19
29	26	22	22	35	---	4400	57	1520	34	12	3330	19
30	24	22	21	99	---	3700	52	507	71	11	1180	17
31	23	---	21	172	---	2120	---	205	---	10	603	---
TOTAL	14299	683	793	1010	1426	77155	8383	7367	4801	5194	31996.9	1632
MEAN	461	22.8	25.6	32.6	50.9	2489	279	238	160	168	1032	54.4
MAX	4100	29	34	172	222	14900	1750	1890	939	1250	6110	329
MIN	23	20	21	21	23	39	52	36	26	10	8.3	17
AC-FT	28360	1350	1570	2000	2830	153000	16630	14610	9520	10300	63470	3240
CAL YR 1986	TOTAL	58894.0	MEAN	161	MAX	4610	MIN	11	AC-FT	116800		
WTR YR 1987	TOTAL	154739.9	MEAN	424	MAX	14900	MIN	8.3	AC-FT	306900		

ARKANSAS RIVER BASIN

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07143665 LITTLE ARKANSAS RIVER AT ALTA MILLS, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to June 1987 (discontinued).

REMARKS.--Sediment samples collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
DEC 10...	1100	34	1980	8.70	1.5	94	8.7
JAN 14...	1240	34	2070	--	2.0	128	12
MAR 02...	1545	2840	446	8.10	6.5	908	6960
31...	1255	1880	371	7.50	6.5	471	2390
APR 15...	1635	995	1380	8.20	12.0	549	1470
JUN 04...	1155	57	1180	7.90	20.0	104	16

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
DEC 10...	1100	35	--	--	--	72	100	--	--	--
JAN 14...	1240	23	--	--	--	76	100	--	--	--
MAR 02...	1545	98	84	86	86	--	--	--	--	--
31...	1255	89	--	--	--	93	95	97	97	99
APR 15...	1635	91	51	56	67	96	99	100	--	--

07144200 LITTLE ARKANSAS RIVER AT VALLEY CENTER, KS

LOCATION.--Lat 37 deg 49 min 56 sec, long 97 deg 23 min 16 sec, river gage is in NE1/4 NW1/4 SW1/4 sec.36, T.25 S., R.1 W., Sedgwick County, Hydrologic Unit 11030012, on right bank at downstream side of highway bridge, 0.5 mi west of Valley Center, and 17.5 mi upstream from mouth. Little Arkansas River Floodway gage is in NE1/4 NE1/4 sec.34, T.25 S., R.1 W., on right bank at downstream side of highway bridge, and 1.2 mi northwest of river gage.

DRAINAGE AREA.--1,327 sq mi, of which about 77 sq mi is probably noncontributing.

PERIOD OF RECORD.--June 1922 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1037: 1944. WSP 1117: Drainage area. WSP 1241: 1923, 1924-26(M), 1928-29(M), 1930(M, m), 1931(M), 1932(M, m), 1933(M), 1934, 1937(M), 1949(M). WSP 1711: 1958.

GAGE.--River gage is water-stage recorder. Datum of gage is 1,325.66 ft above sea level. Prior to Feb. 12, 1935, nonrecording gage at site 2.0 mi downstream at different datum. Feb. 12, 1935, to July 1, 1951, water-stage recorder, July 2, 1951, to Feb. 16, 1952, nonrecording gage, and Feb. 17, 1952, to Sept. 30, 1974, water-stage recorder at present site and at datum 2.00 ft higher. Floodway gage is water-stage recorder. Datum of floodway gage is 1,340.00 ft above sea level (levels by Wichita-Valley Center Flood Control Project).

REMARKS.--Estimated daily discharges: Jan. 16-26 and Apr. 12-17. Combined records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by diversions and ground-water withdrawal for irrigation and municipal supply. Satellite telemeter at station. Since May 1957, part of high-water flow bypasses river gage through floodway channel for which separate records are computed; figures representing combined discharge are given herein. Discharge through floodway occurred only on the days given in the following table:

Date	Discharge (cu ft per sec)	Date	Discharge (cu ft per sec)	Date	Discharge (cu ft per sec)	Date	Discharge (cu ft per sec)
Oct. 3	5,640	Mar. 19	3,260	Mar. 29	1,570	July 5	4,570
Oct. 4	5,050	Mar. 20	2,000	Mar. 30	985	July 6	3,720
Oct. 5	2,130	Mar. 21	1,270	Mar. 31	687	July 7	238
Oct. 6	267	Mar. 23	1,210	Apr. 1	6.2	Aug. 26	691
Mar. 1	2,760	Mar. 24	9,770	May 27	827	Aug. 27	6,840
Mar. 2	1,910	Mar. 25	5,180	May 28	6,480	Aug. 28	4,430
Mar. 3	347	Mar. 26	6,270	May 29	2,040	Aug. 29	2,090
Mar. 17	2,250	Mar. 27	7,170	May 30	0.5	Aug. 30	1,080
Mar. 18	5,330	Mar. 28	4,020	July 4	384		

AVERAGE DISCHARGE.--65 years, 295 cu ft per sec, 213,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 cu ft per sec Apr. 16, 1945, gage height, 24.05 ft, present datum, from rating curve extended above 12,000 cu ft per sec on basis of slope-area measurement of peak flow; minimum discharge, 1.0 cu ft per sec Oct. 6, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	1900	10,800	---	Mar. 27	0200	11,200	---
Mar. 1	1800	6,320	---	May 28	1000	10,800	---
Mar. 18	0200	9,130	---	July 6	0200	8,530	---
Mar. 24	1100	*14,500	---	Aug. 27	1600	11,100	---

Minimum discharge, 60 cu ft per sec Jan. 17, Aug. 3, 4, 11.

ARKANSAS RIVER BASIN

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07144200 LITTLE ARKANSAS RIVER AT VALLEY CENTER, KS--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

JAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	78	71	64	271	5090	1820	114	413	234	69	641
2	347	75	78	64	193	4280	920	110	393	186	67	432
3	8260	74	71	65	146	2560	710	113	607	173	63	322
4	7950	79	63	66	118	1100	589	112	331	1160	64	252
5	4770	83	66	67	101	465	495	602	252	7240	100	215
6	2320	84	65	67	92	334	440	1440	207	6450	85	181
7	768	82	71	67	85	259	401	579	179	2380	77	164
8	416	82	92	68	83	215	369	561	164	1660	70	152
9	277	79	91	71	78	192	345	365	153	826	73	144
10	215	79	91	73	74	169	327	236	150	415	67	134
11	201	70	87	72	73	154	306	182	164	283	64	127
12	638	68	84	68	70	143	300	157	152	244	81	120
13	844	66	80	71	69	136	280	158	144	203	245	113
14	716	68	77	73	70	130	270	170	137	167	535	104
15	353	68	77	82	73	126	315	349	131	154	389	98
16	233	69	78	30	84	124	1100	317	123	143	205	96
17	181	70	77	65	92	3990	1390	222	168	132	151	92
18	152	71	76	65	120	8030	633	157	209	130	125	89
19	133	71	74	68	151	5850	408	136	344	124	794	86
20	121	70	73	74	131	4570	320	128	459	114	1630	84
21	111	69	70	74	113	3710	266	136	563	108	1790	83
22	104	70	69	74	100	1280	230	159	264	102	1300	80
23	102	71	68	72	92	2730	205	167	210	99	343	83
24	98	68	69	70	86	13000	187	169	796	92	282	84
25	94	67	68	70	82	8090	172	647	683	86	949	82
26	94	67	68	70	82	9260	160	341	299	80	2670	81
27	91	64	66	70	124	10300	150	2090	196	78	9870	78
28	89	63	67	68	603	6860	138	9440	150	78	7450	99
29	87	64	67	74	---	4120	128	4660	136	74	4900	122
30	86	65	66	130	---	3420	120	1850	175	73	3610	98
31	83	---	65	260	---	3080	---	740	---	69	1350	---
TOTAL	30120	2154	2290	2422	3456	103767	13494	26607	8352	23357	39468	4536
MEAN	972	71.8	73.9	78.1	123	3347	450	858	278	753	1273	151
MAX	8260	84	92	260	603	13000	1820	9440	796	7240	9870	641
MIN	83	63	65	64	69	124	120	110	123	69	63	78
AC-FT	59740	4270	4540	4800	6850	205800	26770	52770	16570	46330	78280	9000
CAL YR 1986	TOTAL	107751	MEAN	295	MAX	8260	MIN	33	AC-FT	213700		
WTR YR 1987	TOTAL	260023	MEAN	712	MAX	13000	MIN	63	AC-FT	515800		

07144300 ARKANSAS RIVER AT WICHITA, KS

LOCATION.--Lat 37 deg 38 min 41 sec, long 97 deg 20 min 06 sec, river gage is in SE1/4 SE1/4 NE1/4 sec.5, T.28 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, on right bank at downstream side of bridge on Broadway Street in Wichita, 3.7 mi downstream from mouth of Little Arkansas River and at mile 759.7. Big Slough-Cowskin Floodway gage is in sec.11, T.27 S., R.1 W., Sedgwick County, on right bank at downstream side of Zoo Boulevard Bridge in Wichita, 1.0 mi downstream from control structure and 6.5 mi northwest of Broadway Street gage.

DRAINAGE AREA.--40,490 sq mi, of which 7,263 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1934 to current year. Gage-height records collected at site 3.2 mi upstream since 1897 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1241: 1940, 1944. WSP 1341: Drainage area.

GAGE.--River gage is water-stage recorder. Datum of gage is 1,262.42 ft above sea level. Prior to Oct. 1, 1985, at datum 5.00 ft higher than present datum. See WSP 1921 for history of changes prior to Oct. 1, 1968. Floodway gage is water-stage recorder. Datum of floodway gage is 1,300.00 ft above sea level (levels by Wichita Valley Center Flood Control Project).

REMARKS.--Estimated daily discharges: Jan. 1-29, Feb. 1-12, Mar. 30 to July 4, July 28 to Aug. 7, Aug. 11, 17-28, and Sept. 3, 4, 8-19. Records poor. Flow slightly regulated since 1943 by John Martin Reservoir (station 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, City of Wichita weir 2.2 mi upstream, and return flow from irrigated areas. Since May 1957, part of high-water flow bypasses river gage through floodway channel for which separate records are computed; figures representing floodway discharge and combined discharge are given herein. Discharge through floodway occurred only on the days given in the following table:

Date	Discharge (cu ft per sec)	Date	Discharge (cu ft per sec)	Date	Discharge (cu ft per sec)
Oct. 2	13	Mar. 28	3,830	May 28	823
Oct. 3	1,150	Mar. 29	1,780	May 29	78
Oct. 4	1,590	Mar. 30	870	July 4	4.0
Oct. 5	103	Mar. 31	496	July 5	1,070
Oct. 6	1.0	Apr. 1	50	July 6	1,070
Mar. 16	1.0	Apr. 2	1.0	July 7	43
Mar. 17	72	Apr. 18	12	July 8	1.0
Mar. 18	1,230	Apr. 19	491	July 11	4.0
Mar. 19	187	Apr. 20	157	July 12	78
Mar. 20	2.0	Apr. 21	3.0	July 13	106
Mar. 23	315	May 4	7.0	July 14	2.0
Mar. 24	6,050	May 5	15	Aug. 12	2.0
Mar. 25	4,100	May 6	14	Aug. 27	316
Mar. 26	4,130	May 26	1.0	Aug. 28	146
Mar. 27	5,510	May 27	10	Aug. 29	2.0

AVERAGE DISCHARGE.--53 years, 1,059 cu ft per sec, 767,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,400 cu ft per sec Oct. 31, 1979; minimum discharge, 3.0 cu ft per sec Sept. 3, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 18, 1877, and July 8, 1904, reached stages of 21 ft and 20.3 ft respectively, river gage site and datum then in use (from reports of U.S. Weather Bureau).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 4	0100	11,700	14.20	Apr. 19	2400	8,820	11.61
Mar. 1	2400	6,790	11.76	May 6	unknown	unknown	unknown
Mar. 18	0700	8,940	12.90	May 28	unknown	unknown	unknown
Mar. 24	1700	11,600	14.15	July 6	unknown	unknown	unknown
Mar. 27	1900	*14,000	*14.33				

Minimum discharge, 202 cu ft per sec Dec. 5.

ARKANSAS RIVER BASIN

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07144300 ARKANSAS RIVER AT WICHITA, KS--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	587	394	298	232	420	4570	8090	1620	3860	3580	1050	2020
2	904	385	271	233	390	5690	7100	1590	3000	3180	1020	1810
3	7060	370	254	250	329	3800	6020	1600	3220	3500	980	1200
4	11700	370	235	247	310	2530	5160	1700	3100	4780	990	1100
5	7010	378	223	236	292	1150	4660	2750	2860	12200	970	1030
6	4180	369	230	240	320	706	4520	4000	2580	12900	940	876
7	2160	363	356	235	301	580	4280	3330	2440	9130	920	837
8	1340	360	291	231	272	549	4000	2810	2400	7400	904	800
9	1020	348	326	290	243	539	3700	2500	2400	7100	891	750
10	895	341	299	281	249	520	3350	2210	2500	6630	839	760
11	928	328	298	231	247	503	3110	1950	2490	6630	820	720
12	1070	320	290	237	243	497	2850	1730	2410	6760	1670	690
13	1570	262	277	250	260	474	2620	1620	2300	6720	1920	675
14	1590	307	284	235	230	465	2500	1550	2200	4940	2160	660
15	1040	347	281	240	334	450	2660	1600	2060	3840	1950	700
16	800	315	286	245	315	529	3100	1530	2050	3320	1350	655
17	697	314	291	240	341	2690	3750	1370	2100	2450	1200	630
18	638	319	286	233	332	9720	5100	1250	2410	2050	1360	645
19	599	315	282	224	365	7700	6380	1210	3300	1870	1300	615
20	578	315	282	231	365	6540	5520	1220	3110	1780	2300	594
21	562	301	277	242	337	5660	4700	1250	2900	1630	2500	611
22	538	301	269	237	323	3860	3800	1310	2830	1560	2750	545
23	521	293	264	249	286	4880	3390	1450	2970	1550	1950	561
24	522	282	264	241	286	18100	3050	1780	3050	1650	2600	528
25	523	284	264	240	273	15900	2610	2090	2800	1730	2050	545
26	524	258	260	232	324	15700	2230	2000	2590	1520	2800	536
27	521	257	252	238	405	18900	2050	5900	2410	1460	6720	520
28	520	249	252	290	1070	16900	1890	10200	2400	1320	10100	793
29	568	240	273	346	---	13100	1780	7400	2490	1230	7400	646
30	455	235	291	341	---	10600	1690	5610	2850	1180	5960	512
31	416	---	295	312	---	9280	---	4520	---	1140	3600	---
TOTAL	52036	9520	8601	7809	9462	183082	115660	82650	80080	126730	73964	23564
MEAN	1679	317	277	252	338	5906	3855	2666	2669	4088	2386	785
MAX	11700	394	356	346	1070	18900	8090	10200	3860	12900	10100	2020
MIN	416	235	223	224	230	450	1690	1210	2050	1140	820	512
AC-FT	103200	18880	17060	15490	18770	363100	229400	163900	158800	251400	146700	46740
CAL YR 1986	TOTAL	227429	MEAN	623	MAX	11700	MIN	192	AC-FT	451100		
WTR YR 1987	TOTAL	773158	MEAN	2118	MAX	18900	MIN	223	AC-FT	1534000		

ARKANSAS RIVER BASIN

07144550 ARKANSAS RIVER AT DERBY, KS

LOCATION.--Lat 37 deg 32 min 34 sec, long 97 deg 16 min 31 sec, in SE1/4 SW1/4 NW1/4 sec.12, T.29 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, on left bank at downstream side of highway bridge on the west edge of Derby, 0.9 mi below mouth of bypass channel, and at mile 749.5.

DRAINAGE AREA.--40,830 sq mi, of which 7,263 sq mi is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 1,229.95 ft above sea level (City of Wichita bench mark).

REMARKS.--No estimated daily discharges. Records fair. Flow moderately regulated since 1943 by John Martin Reservoir (station 07130000). Low flow regulated by City of Wichita low-water dam. Diversions upstream from station for irrigation. Satellite telemeter at station.

AVERAGE DISCHARGE.--19 years, 1,187 cu ft per sec, 260,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,700 cu ft per sec Nov. 1, 1979, gage height, 15.87 ft; minimum discharge, 78 cu ft per sec Dec. 8, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 2	0500	4,340	6.15	May 24	1900	4,560	5.81
Oct. 4	0400	15,800	10.74	May 28	2000	14,400	9.74
Mar. 2	0200	6,730	7.50	June 29	2400	8,280	7.38
Mar. 18	1300	12,000	9.56	July 5	1700	16,400	10.41
Mar. 24	2000	*20,600	*12.07	Aug. 13	0100	16,200	10.33
Mar. 27	1300	18,600	11.08	Aug. 24	1400	7,120	6.94
Apr. 19	1700	7,090	6.93	Aug. 28	0100	11,500	8.66
May 6	0900	7,400	7.05				

Minimum daily discharge, 337 cu ft per sec Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	755	446	461	374	647	5030	7710	1690	2720	3800	1150	2180
2	3250	431	470	374	622	5740	5380	1640	2470	3610	1090	1620
3	6840	434	422	405	550	3770	4550	1620	2810	3400	1050	1390
4	13300	547	403	399	499	2740	4140	1730	2600	4780	1080	1250
5	7780	516	387	375	476	1370	4190	3000	2310	12100	1050	1130
6	4650	473	386	380	502	944	4070	6000	2200	14800	1010	1060
7	2610	464	716	374	454	766	3830	4270	2130	10300	953	1040
8	1520	460	533	366	428	704	3560	2820	2060	7510	914	1030
9	1100	442	534	445	412	658	3270	2380	1920	6900	944	994
10	895	432	463	433	414	629	3020	2050	2010	6370	886	1090
11	956	428	440	382	412	596	2620	1870	2060	6210	858	1000
12	941	428	439	396	407	579	2310	1720	2000	6530	3310	984
13	1490	379	416	408	466	557	2200	1630	1980	6960	6090	949
14	1580	393	406	395	427	555	2110	1540	2040	4970	2210	947
15	1170	450	404	400	615	544	2070	1480	2000	3770	1960	990
16	852	425	403	402	660	546	2590	1660	1950	3460	1450	897
17	722	423	402	392	593	4370	3900	1470	1940	3200	1360	860
18	651	423	399	386	552	10600	5360	1340	2340	2630	1540	885
19	603	413	403	375	560	7740	6680	1270	2840	2340	1360	841
20	573	419	399	405	567	5790	6460	1300	3020	2150	2420	816
21	561	409	387	441	529	4810	4870	1290	2900	1970	2750	800
22	579	408	385	438	498	3320	3990	1370	2810	1850	3120	742
23	538	400	385	455	466	5580	3690	1580	2840	1780	2530	714
24	528	398	385	429	454	16500	3340	2280	2860	1790	3670	706
25	525	401	375	428	451	16900	2730	2200	2970	1780	2240	703
26	501	402	375	413	485	14400	2320	2230	2380	1630	2920	685
27	495	383	376	424	1110	17900	2110	5720	2200	1500	8130	675
28	487	380	369	472	2470	16700	1940	11700	2150	1410	10500	1440
29	476	380	376	556	---	12800	1820	10300	2980	1330	7580	891
30	465	374	383	514	---	9910	1760	5540	4410	1260	5980	840
31	458	---	378	548	---	8710	---	3750	---	1210	3890	---
TOTAL	57851	12761	13060	12984	16726	181758	108590	90440	73900	133300	85995	30149
MEAN	1866	425	421	419	597	5863	3620	2917	2463	4300	2774	1005
MAX	13300	547	716	556	2470	17900	7710	11700	4410	14800	10500	2180
MIN	458	374	369	366	407	544	1760	1270	1920	1210	858	675
AC-FT	114700	25310	25900	25750	33180	360500	215400	179400	146600	264400	170600	59800

CAL YR 1986 TOTAL 278820 MEAN 764 MAX 13300 MIN 289 AC-FT 553000
WTR YR 1987 TOTAL 817514 MEAN 2240 MAX 17900 MIN 366 AC-FT 1622000

ARKANSAS RIVER BASIN

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07144780 NORTH FORK NINNESCAH RIVER ABOVE CHENEY RESERVOIR, KS

LOCATION.--Lat 37 deg 50 min 41 sec, long 97 deg 56 min 09 sec, in SW1/4 NE1/4 SW1/4 sec.25, T.25 S., R.6 W., Reno County, Hydrologic Unit 11030014, on right bank at downstream side bridge on State Highway 17, 12 mi south of Hutchinson, 12.5 mi upstream from Cheney Dam, and at mile 28.2.

DRAINAGE AREA.--787 sq mi, of which 237 sq mi is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,431.75 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 13-15 and Jan. 16-28. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--22 years, 151 cu ft per sec, 109,400 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,000 cu ft per sec Oct. 30, 1979, gage height, 11.65 ft, from rating curve extended above 43,000 cu ft per sec; no flow July 14, 1966, part of Aug. 23, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	0400	6,640	8.71	May 6	2200	1,740	6.14
Oct. 12	0400	1,610	6.02	June 18	0800	4,520	7.94
Mar. 17	1300	2,340	6.63	July 2	1200	3,230	7.25
Mar. 24	0300	9,280	9.39	July 5	0700	*17,700	*10.60
Mar. 28	1700	1,500	5.91	Aug. 26	1300	1,550	6.10

Minimum discharge, 54 cu ft per sec Aug. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234	154	162	152	153	547	469	130	196	1950	83	136
2	1740	149	213	146	148	332	392	136	163	2940	74	130
3	5150	151	195	147	142	264	331	149	152	2440	70	129
4	1790	179	177	152	139	223	296	134	140	4890	85	126
5	862	225	167	153	139	196	269	179	124	12900	89	120
6	600	215	158	155	143	180	256	989	110	6920	83	119
7	423	196	179	158	145	167	240	1180	101	3500	72	122
8	304	187	233	153	141	155	224	540	92	1790	66	123
9	420	176	229	163	131	150	213	356	85	882	63	113
10	654	170	211	164	129	139	212	281	88	606	61	117
11	675	165	195	166	128	136	204	222	100	469	58	112
12	1230	164	188	171	130	136	188	176	100	390	80	109
13	552	150	188	185	128	136	196	150	91	339	451	106
14	358	155	188	226	132	140	579	132	81	303	437	102
15	287	160	188	217	151	137	650	119	73	275	306	96
16	249	168	184	215	197	155	430	106	68	251	241	95
17	223	161	181	212	200	1790	324	96	70	234	200	91
18	200	158	177	190	180	1130	272	83	2430	227	151	92
19	182	152	177	180	166	625	244	74	637	209	118	92
20	159	150	176	170	161	430	217	74	391	192	98	90
21	158	142	175	170	161	338	196	78	327	179	148	86
22	173	139	175	170	157	282	181	88	236	168	164	82
23	206	141	175	170	150	3280	171	97	195	157	113	81
24	213	137	175	170	149	6530	161	155	153	147	109	79
25	205	140	172	175	152	3100	154	196	139	137	123	77
26	199	141	168	175	165	1610	146	166	127	126	1060	74
27	188	139	163	180	316	991	142	634	116	117	618	71
28	179	136	161	200	550	1190	135	593	104	111	281	171
29	171	137	160	191	---	1160	129	416	149	104	195	271
30	163	139	157	183	---	681	127	302	613	97	164	156
31	156	---	153	162	---	515	---	244	---	90	148	---
TOTAL	18303	4776	5600	5421	4783	26845	7748	8275	7451	43140	6009	3368
MEAN	590	159	181	175	171	866	258	267	248	1392	194	112
MAX	5150	225	233	226	550	6530	650	1180	2430	12900	1060	271
MIN	156	136	153	146	128	136	127	74	68	90	58	71
AC-FT	36300	9470	11110	10750	9490	53250	15370	16410	14780	85570	11920	6680

CAL YR 1986	TOTAL	72930	MEAN 200	MAX	5150	MIN 35	AC-FT	144700
WTR YR 1987	TOTAL	141719	MEAN 388	MAX	12900	MIN 58	AC-FT	281100

07144780 NORTH FORK MINNESCAH RIVER ABOVE CHENEY RESERVOIR, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

REMARKS.--Sediment samples collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 08...	1420	291	722	7.60	22.5	144	113
NOV 20...	1055	146	1040	7.80	8.0	26	10
JAN 13...	1530	190	1480	8.20	6.0	62	32
MAR 12...	1000	139	1140	8.40	8.5	30	11
APR 30...	1545	129	1050	8.50	27.0	66	23
JUN 03...	1450	156	961	8.60	23.0	153	67
JUL 09...	1105	854	--	8.10	30.0	908	2090
AUG 26...	1525	1350	291	--	19.0	10	36

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
JUL 09...	1105	15	17	29	98	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	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
NOV 20...	1055	26	0	13	52	89	97	100

ARKANSAS RIVER BASIN

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07144790 CHENEY RESERVOIR NEAR CHENEY, KS

LOCATION.--Lat 37 deg 43 min 34 sec, long 97 deg 47 min 38 sec, in NW1/4 NE1/4 SE1/4 sec.6, T.27 S., R.4 W., Sedgwick County, Hydrologic Unit 11030014, in control-house structure at outlet works of Cheney Dam on North Fork Minnescah River, 6.0 mi north of Cheney, and at mile 15.9.

DRAINAGE AREA.--901 sq mi, of which 237 sq mi is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Nov. 17, 1964. Conservation pool elevation was first reached on Nov. 2, 1969. Total capacity, 566,300 acre-ft, consisting of the following: Dead storage, 979 acre-ft below elevation 1,378.5 ft; fish and wildlife storage, 14,310 acre-ft between elevations 1,378.5 ft and 1,392.9 ft; conservation pool, 151,800 acre-ft between elevations 1,392.9 ft and 1,421.6 ft; flood control pool, 80,860 acre-ft between elevations 1,421.6 ft and 1,429.0 ft, crest of uncontrolled spillway; and uncontrolled storage, 318,300 acre-ft between elevations 1,429.0 ft and 1,447.8 ft. Reservoir is used for supplemental water supply for municipal and industrial uses in the city of Wichita, fish and wildlife conservation, flood control, and recreational purposes in Cheney Division Wichita project. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,429.19 ft Nov. 2, 1979, contents, 250,300 acre-ft; minimum elevation since conservation pool was first reached, 1,412.33 ft Dec. 2-4, 1971, contents, 93,300 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,426.96 ft July 8, contents, 223,500 acre-ft; minimum elevation, 1,421.57 ft Sept. 26, contents, 166,800 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Bureau of Reclamation computed in 1965)

1,419	143,400	1,425	201,600
1,421	161,400	1,427	223,900
1,423	180,700		

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1422.35	1422.11	1421.89	1421.86	1422.02	1422.13	1424.24	1421.63	1421.79	1422.39	1421.90	1422.03
2	1422.97	1422.09	1421.87	1421.87	1422.06	1422.14	1423.89	1421.69	1421.68	1422.75	1421.86	1421.92
3	1424.02	1422.15	1421.87	1421.90	1422.05	1422.09	1423.74	1421.71	1421.64	1422.98	1421.89	1421.84
4	1424.21	1422.23	1421.88	1421.88	1422.04	1422.07	1423.50	1421.71	1421.64	1423.94	1421.86	1421.81
5	1424.37	1422.25	1421.88	1421.87	1422.04	1421.94	1423.30	1421.78	1421.64	1425.72	1421.83	1421.83
6	1424.34	1422.25	1421.93	1421.97	1421.98	1421.83	1423.01	1421.91	1421.63	1426.59	1421.81	1421.81
7	1424.26	1422.34	1422.04	1421.97	1421.94	1421.76	1422.84	1422.02	1421.63	1426.91	1421.77	1421.82
8	1424.16	1422.41	1422.01	1422.02	1421.86	1421.74	1422.62	1421.95	1421.62	1426.92	1421.78	1421.83
9	1424.09	1422.35	1421.94	1422.07	1421.76	1421.64	1422.40	1421.81	1421.61	1426.80	1421.78	1421.83
10	1424.06	1422.38	1421.84	1422.07	1421.72	1421.62	1422.18	1421.70	1421.64	1426.58	1421.75	1421.84
11	1424.15	1422.35	1421.78	1422.08	1421.67	1421.62	1422.07	1421.68	1421.69	1426.37	1421.74	1421.84
12	1424.08	1422.30	1421.76	1422.07	1421.66	1421.65	1421.93	1421.67	1421.71	1426.18	1421.80	1421.81
13	1424.07	1422.14	1421.73	1422.01	1421.66	1421.67	1421.93	1421.68	1421.71	1425.92	1421.85	1421.81
14	1423.95	1422.09	1421.71	1421.98	1421.70	1421.79	1421.91	1421.70	1421.70	1425.67	1421.93	1421.83
15	1423.85	1422.02	1421.71	1421.95	1421.81	1421.74	1421.90	1421.69	1421.70	1425.44	1421.97	1421.81
16	1423.77	1421.95	1421.68	1421.85	1421.82	1421.90	1421.92	1421.69	1421.67	1425.16	1422.01	1421.79
17	1423.63	1421.91	1421.66	1421.78	1421.85	1422.49	1421.90	1421.70	1421.70	1424.92	1422.01	1421.77
18	1423.47	1421.81	1421.62	1421.74	1421.85	1422.68	1421.86	1421.72	1422.04	1424.70	1421.99	1421.73
19	1423.32	1421.78	1421.61	1421.66	1421.84	1422.68	1421.79	1421.69	1422.11	1424.45	1421.93	1421.71
20	1423.17	1421.64	1421.66	1421.62	1421.83	1422.64	1421.79	1421.72	1422.12	1424.19	1421.86	1421.69
21	1422.96	1421.62	1421.65	1421.69	1421.81	1422.45	1421.66	1421.74	1422.11	1423.94	1421.80	1421.65
22	1422.84	1421.68	1421.67	1421.66	1421.78	1422.29	1421.63	1421.72	1422.07	1423.66	1421.78	1421.61
23	1422.67	1421.67	1421.69	1421.68	1421.75	1423.11	1421.65	1421.80	1422.04	1423.39	1421.77	1421.59
24	1422.56	1421.67	1421.72	1421.71	1421.74	1424.63	1421.68	1421.87	1422.01	1423.12	1421.78	1421.59
25	1422.38	1421.77	1421.74	1421.74	1421.73	1424.90	1421.70	1421.89	1421.93	1422.84	1421.83	1421.61
26	1422.22	1421.70	1421.75	1421.75	1421.74	1424.93	1421.73	1422.00	1421.91	1422.54	1422.32	1421.58
27	1422.05	1421.70	1421.77	1421.80	1421.87	1424.85	1421.72	1422.18	1421.89	1422.24	1422.38	1421.58
28	1422.04	1421.72	1421.80	1421.84	1422.13	1424.86	1421.69	1422.27	1421.87	1422.09	1422.34	1421.68
29	1422.05	1421.73	1421.83	1421.90	---	1424.70	1421.65	1422.20	1422.07	1422.02	1422.27	1421.70
30	1422.04	1421.75	1421.83	1421.93	---	1424.54	1421.63	1422.08	1422.18	1421.96	1422.20	1421.70
31	1422.13	---	1421.86	1421.98	---	1424.34	---	1421.89	---	1421.92	1422.10	---
MEAN	1423.30	1421.99	1421.79	1421.87	1421.85	1422.76	1422.25	1421.82	1421.83	1424.33	1421.93	1421.75
MAX	1424.37	1422.41	1422.04	1422.08	1422.13	1424.93	1424.24	1422.27	1422.18	1426.92	1422.38	1422.03
MIN	1422.04	1421.62	1421.61	1421.62	1421.66	1421.62	1421.63	1421.63	1421.61	1421.92	1421.74	1421.58
(+)	172,200	168,500	169,500	170,700	172,200	194,600	167,400	169,800	172,600	170,100	171,900	168,000
(#)	-1,600	-3,700	+1,000	+1,200	+1,500	+22,400	-27,200	+2,400	+2,800	-2,500	+1,800	-3,900

CAL YR 1986 (#) -1,000
WTR YR 1987 (#) -5,800

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

ARKANSAS RIVER BASIN

07144795 NORTH FORK NINNESCAH RIVER AT CHENEY DAM, KS

LOCATION.--Lat 37 deg 43 min 17 sec, long 97 deg 47 min 39 sec, in NE1/4 SW1/4 SE1/4 sec.6, T.27 S., R.4 W., Sedgwick County, Hydrologic Unit 11030014, 1,400 ft downstream from Cheney Dam on right bank, 6.0 mi north of Cheney, and at mile 15.5.

DRAINAGE AREA.--901 sq mi, of which 237 sq mi is probably noncontributing.

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

GAGE.--Water-stage recorder and concrete Parshall flume. Datum of gage is 1,366.022 ft above sea level (U.S. Bureau of Reclamation bench mark). Prior to Oct. 1, 1973, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Mar. 3-5. Records good except those for estimated daily discharges, which are fair. Flow completely regulated since 1964 by Cheney Reservoir (station 07144790) 1,400 ft upstream.

AVERAGE DISCHARGE.--23 years, 123 cu ft per sec, 89,110 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,070 cu ft per sec Nov. 13, 1979, gage height, 4.80 ft; maximum observed gage height, 5.92 ft Oct. 23, 1973; no flow at times in 1966, 1968, 1980, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 cu ft per sec July 13, gage height, 5.51 ft; minimum daily discharge, 0.24 cu ft per sec Nov. 27-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.77	.36	.83	.99	231	1570	.90	887	1.3	1.3	557
2	1.5	.76	.26	.88	1.0	387	1560	1.2	719	326	1.3	557
3	.99	.82	.29	.92	.78	485	1550	.85	236	582	1.3	458
4	.79	.83	.28	.90	112	310	1550	205	.83	571	1.5	126
5	.77	.71	.28	.90	110	815	1550	240	.76	451	1.4	1.5
6	406	.70	.28	.90	251	865	1550	310	.76	1.3	1.3	1.4
7	838	.70	.40	.86	336	582	1550	557	.76	446	1.3	1.4
8	831	.68	318	.92	352	582	1550	838	.76	1140	1.3	1.4
9	818	.66	564	.94	363	419	1560	1030	.76	1560	1.3	1.5
10	818	.76	564	.83	364	125	1250	749	.94	1670	1.3	1.8
11	824	.81	553	.55	235	.78	1030	418	.93	1670	1.3	1.7
12	821	248	400	295	151	.76	1020	125	.84	1660	1.4	1.7
13	823	456	314	505	57	.76	717	.76	.83	1740	1.3	1.7
14	817	455	309	489	1.0	.76	549	.76	.83	1640	1.2	2.4
15	817	449	309	485	1.1	.76	548	.76	.83	1640	1.2	3.0
16	817	449	309	485	1.0	.99	555	.76	.82	1640	1.2	136
17	963	437	309	491	1.3	1.5	565	.76	.85	1630	1.2	223
18	1070	461	309	497	137	208	565	.76	1.1	1630	195	223
19	1060	466	114	496	201	711	565	.77	202	1630	323	223
20	1060	460	.88	343	187	900	565	.83	335	1630	332	223
21	1060	178	.83	97	185	1030	565	.83	337	1620	224	223
22	1050	.33	.83	1.1	187	1030	248	.83	337	1620	1.4	223
23	1050	.26	.83	.77	192	624	.66	.88	337	1620	1.3	87
24	1050	.26	.83	.61	197	1.2	.58	.86	337	1610	1.3	1.3
25	1050	.28	.83	.67	210	537	.58	.84	337	1610	1.3	1.3
26	1040	.27	.83	.75	214	1300	.53	204	128	1610	101	1.3
27	1030	.24	.83	.90	211	1560	132	269	1.4	1610	404	1.3
28	449	.24	.84	.93	223	1560	204	205	1.3	979	557	1.5
29	.90	.24	.84	.95	---	1550	342	658	2.7	343	557	1.3
30	.83	.26	.84	.97	---	1560	130	1060	1.5	128	557	1.3
31	.81	---	.86	.98	---	1560	---	1050	---	1.4	557	---
TOTAL	20569.36	4069.58	4384.22	4201.06	4559.39	18938.51	23542.40	7931.35	4211.50	36010.0	3834.4	3287.8
MEAN	664	136	141	136	163	611	785	256	140	1162	124	110
MAX	1070	466	564	505	364	1560	1570	1060	887	1740	557	557
MIN	.77	.24	.26	.55	.99	.76	.58	.76	.76	1.3	1.2	1.3
AC-FT	40800	8070	8700	8330	9040	37560	46700	15730	8350	71430	7610	6520
CAL YR 1986	TOTAL	69420.58	MEAN	190	MAX	1070	MIN	.24	AC-FT	137700		
WTR YR 1987	TOTAL	135539.57	MEAN	371	MAX	1740	MIN	.24	AC-FT	268800		

ARKANSAS RIVER BASIN

193

07144910 SOUTH FORK NINNESCAH RIVER NEAR PRATT, KS

LOCATION.--Lat 37 deg 38 min 16 sec, long 98 deg 43 min 14 sec, in NW1/4 NW1/4 SW1/4 sec.2, T.28 S., R.13 W., Pratt County, Hydrologic Unit 11030015, on left bank at downstream side of county highway bridge, 500 ft south-west of sewage disposal facility at Pratt, 3.3 mi downstream from major left bank tributary, and at elevation 135.2.

DRAINAGE AREA.--117 sq mi, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,820.83 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 24 to Nov. 1, Apr. 1, 17-27, and July 21-28. Records good except those for estimated daily discharges, which are poor. Flow regulated at times by State Fish Hatchery diversion 0.5 mi upstream.

AVERAGE DISCHARGE.--7 years, 16.0 cu ft per sec, 11,590 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,240 cu ft per sec July 4, 1987, gage height, 11.54 ft; minimum discharge, 1.9 cu ft per sec Aug. 28, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,240 cu ft per sec July 4, gage height, 11.54 ft; minimum discharge, 8.9 cu ft per sec Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	13	14	13	15	18	30	13	15	21	12	11
2	112	13	14	13	15	17	27	14	15	22	11	11
3	193	15	13	13	15	17	26	13	15	20	12	11
4	83	15	13	13	15	16	26	16	14	1480	12	10
5	28	15	13	14	15	16	26	20	14	597	11	11
6	20	14	14	13	15	17	25	17	14	206	11	11
7	17	14	14	13	15	17	25	16	14	79	11	11
8	16	14	14	13	15	17	25	15	15	46	11	11
9	95	14	14	14	16	19	25	15	15	35	11	11
10	62	14	14	14	16	19	25	14	16	30	11	11
11	50	14	14	14	16	17	25	14	15	26	11	11
12	52	13	14	13	16	17	25	14	15	25	15	22
13	27	13	14	13	16	17	30	14	15	23	12	26
14	18	14	14	14	16	17	28	15	15	22	11	21
15	17	14	14	14	17	16	23	14	15	22	11	16
16	16	14	14	14	16	24	22	14	15	21	11	14
17	16	14	14	14	16	21	21	14	17	22	11	14
18	16	14	14	14	16	19	20	14	16	20	11	15
19	15	14	14	14	16	19	20	14	15	19	11	14
20	15	14	13	14	16	19	19	16	15	18	11	14
21	15	14	14	14	16	18	18	15	15	17	12	14
22	20	14	14	14	16	19	18	15	15	17	11	13
23	16	14	14	14	16	737	17	16	15	16	12	13
24	15	14	13	14	16	536	17	15	18	16	12	13
25	15	13	13	14	16	128	16	15	38	15	12	12
26	14	13	14	14	19	52	16	21	21	14	14	13
27	14	13	14	14	19	38	15	18	17	14	11	14
28	14	13	14	14	18	110	15	20	16	13	12	14
29	13	13	13	14	---	95	14	19	36	12	12	13
30	13	13	13	14	---	41	14	16	26	12	11	13
31	13	---	14	15	---	37	---	15	---	13	11	---
TOTAL	1039.8	413	426	426	449	2170	653	481	517	2913	358	408
MEAN	33.5	13.8	13.7	13.7	16.0	70.0	21.8	15.5	17.2	94.0	11.5	13.6
MAX	193	15	14	15	19	737	30	21	38	1480	15	26
MIN	9.8	13	13	13	15	16	14	13	14	12	11	10
AC-FT	2060	819	845	845	891	4300	1300	954	1030	5780	710	809
CAL YR 1986	TOTAL	5315.4	MEAN	14.6	MAX	193	MIN	6.9	AC-FT	10540		
WTR YR 1987	TOTAL	10253.8	MEAN	28.1	MAX	1480	MIN	9.8	AC-FT	20340		

ARKANSAS RIVER BASIN

07144910 SOUTH FORK NINNESCAH RIVER NEAR PRATT, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 07...	0945	17	301	7.20	19.0	255	12
NOV 18...	1705	13	568	7.60	8.0	16	0.58
JAN 12...	1730	14	700	8.00	7.0	14	0.53
MAR 10...	0910	17	574	8.10	7.0	42	1.9
APR 29...	0820	14	397	7.90	16.0	47	1.8
JUN 02...	0920	15	497	8.10	20.5	74	3.1
AUG 25...	0920	11	545	7.90	19.5	5	0.14

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDE (MG/L)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
NOV 18...	1705	16	0	2	18	47	49	61	78	91	100	--
JUN 02...	0920	74	9	10	15	24	32	40	52	65	86	100

ARKANSAS RIVER BASIN

195

07145200 SOUTH FORK NINNESCAH RIVER NEAR MURDOCK, KS

LOCATION.--Lat 37 deg 33 min 51 sec, long 97 deg 51 min 10 sec, in SW1/4 SW1/4 SE1/4 sec.34, T.28 S., R.5 W., Kingman County, Hydrologic Unit 11030015, on right bank on upstream side of county highway bridge, 4.0 mi southeast of Murdock, and at mile 68.0.

DRAINAGE AREA.--650 sq mi, of which 107 sq mi is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1950 to September 1959. Annual maximums, water years 1960-64. June 1964 to current year.

REVISED RECORDS.--WSP 1561: 1957(P).

GAGE.--Water-stage recorder. Datum of gage is 1,357.81 ft above sea level (U.S. Army Corps of Engineers bench mark). Prior to Mar. 30, 1951, nonrecording gage, Mar. 30, 1951, to Sept. 30, 1959, water-stage recorder, and Oct. 1, 1959, to June 3, 1964, crest-stage gage, at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 12-14 and Jan. 16-29. Records good except those for estimated daily discharges, which are poor. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Satellite telemeter at station.

AVERAGE DISCHARGE.--32 years (water years 1951-59, 1965-87), 211 cu ft per sec, 152,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,700 cu ft per sec Oct. 31, 1979, gage height, 12.84 ft; minimum discharge, 5.0 cu ft per sec Aug. 5, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Mar. 17	1800	2,110	6.33	May 27	1800	3,340	6.90
Mar. 23	1800	7,450	8.57	June 30	1000	7,300	8.52
May 6	1100	5,110	7.71	July 5	1600	*12,700	*10.07

Minimum discharge, 69 cu ft per sec Aug. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	170	188	179	214	681	382	186	286	1880	86	166
2	287	162	212	174	208	391	320	188	259	1140	83	159
3	1180	164	221	176	200	321	290	188	227	1060	79	146
4	1290	201	216	184	192	287	276	188	224	2730	79	134
5	603	282	202	186	196	274	259	675	198	8560	80	126
6	342	278	193	189	214	272	238	3150	198	4580	79	128
7	257	240	202	131	227	270	232	1010	185	2210	70	140
8	230	226	212	178	231	254	237	467	180	990	69	145
9	208	217	219	203	213	246	239	346	178	615	93	144
10	1130	200	214	216	209	243	251	277	178	426	82	154
11	571	184	202	194	208	239	244	231	193	331	79	160
12	778	180	208	203	208	239	225	197	214	278	112	148
13	504	182	212	207	209	243	231	182	204	261	459	145
14	366	193	212	220	218	243	402	180	186	227	488	141
15	298	204	212	225	251	232	535	180	173	203	205	143
16	270	204	212	210	309	234	407	179	162	193	155	145
17	248	208	208	200	309	1610	297	163	151	187	130	141
18	231	200	200	190	281	1070	249	151	473	189	120	141
19	210	192	196	200	265	517	222	153	311	161	105	147
20	200	196	198	200	252	351	215	158	223	138	96	148
21	200	192	200	190	234	308	208	165	196	134	85	145
22	209	189	200	190	231	265	200	173	175	131	77	138
23	225	187	196	180	226	2630	200	168	156	116	72	138
24	226	180	196	180	218	5280	197	219	151	106	97	135
25	219	181	198	185	218	2740	196	228	148	106	108	132
26	204	187	200	190	232	1270	196	236	161	106	523	124
27	192	177	196	205	399	739	191	1460	230	106	814	115
28	184	178	196	220	778	615	188	735	168	107	308	542
29	184	180	195	230	---	913	182	473	273	103	246	617
30	184	180	187	235	---	646	178	392	4350	98	204	347
31	179	---	183	223	---	455	---	328	---	91	181	---
TOTAL	11557	5914	6286	6143	7150	24078	7687	13026	10411	27563	5464	5334
MEAN	373	197	203	198	255	777	256	420	347	889	176	178
MAX	1290	282	221	235	778	5280	535	3150	4350	8560	814	617
MIN	148	162	183	174	192	232	178	151	148	91	69	115
AC-FT	22920	11730	12470	12180	14180	47760	15250	25840	20650	54670	10840	10580

CAL YR 1986 TOTAL 81077 MEAN 222 MAX 3430 MIN 82 AC-FT 160800
WTR YR 1987 TOTAL 130613 MEAN 358 MAX 8560 MIN 69 AC-FT 259100

ARKANSAS RIVER BASIN

07145200 SOUTH FORK NINNESCAH RIVER NEAR MURDOCK, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

REMARKS.--Sediment samples collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. -SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 08...	1715	230	983	7.80	22.0	138	86	--
NOV 20...	1530	191	1520	7.80	10.0	58	30	--
JAN 13...	1710	210	1390	8.30	9.0	63	36	--
MAR 12...	1730	250	1170	8.50	14.0	58	39	--
MAR 19...	0945	514	630	7.60	10.0	244	339	95
MAY 01...	0855	184	986	8.90	19.0	111	55	--
JUN 04...	1000	225	920	8.90	21.0	9	5.5	--
JUL 09...	1520	607	647	8.10	30.0	263	431	93
AUG 27...	1130	861	427	--	19.0	12	28	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. FALL DIAM. % FINER THAN 2.00 MM	BED MAT. FALL DIAM. % FINER THAN 4.00 MM	BED MAT. FALL DIAM. % FINER THAN 8.00 MM
NOV 20...	1530	58	3	3	11	70	90	98	100	--
JUN 04...	1000	9	--	0	4	46	89	95	98	100

ARKANSAS RIVER BASIN

197

07145500 NINNESCAH RIVER NEAR PECK, KS

LOCATION.--Lat 37 deg 27 min 26 sec, long 97 deg 25 min 20 sec, in NW1/4 SW1/4 NW1/4 sec.10, T.30 S., R.1 W., Sumner County, Hydrologic Unit 11030016, on right bank at downstream side of highway bridge, 3.0 mi southwest of Peck, and at mile 31.6.

DRAINAGE AREA.--2,129 sq mi, of which 344 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1937 to current year. Prior to April 1938 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1211: 1944(M). WSP 1241: 1944, 1945(M), 1947-48(M).

GAGE.--Water-stage recorder. Datum of gage is 1,222.38 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Feb. 4, 1939, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 2-4, 14-29. Records fair except those for estimated daily discharges, which are poor. Flow partially regulated by Cheney Reservoir (station 07144790) since 1964. Satellite telemeter at station.

AVERAGE DISCHARGE.--50 years, 524 cu ft per sec, 379,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,200 cu ft per sec May 17, 1957, gage height, 21.85 ft; minimum daily discharge, 0.20 cu ft per sec Sept. 3, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 9, 1923, reached a stage of 26.4 ft from floodmark, discharge, about 70,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,500 cu ft per sec Mar. 24, gage height, 15.32 ft; minimum discharge, 144 cu ft per sec Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	733	362	321	323	491	4610	2350	442	1530	5080	268	861
2	1710	345	341	326	447	1720	2240	323	1320	2090	220	824
3	6840	334	380	327	419	1180	2170	307	1770	2190	195	817
4	4270	385	370	327	478	1070	2130	310	876	1940	182	716
5	1690	498	348	340	609	865	2110	1780	510	7490	179	492
6	1060	642	338	338	632	1210	2060	2290	424	9630	174	386
7	1030	528	373	335	782	1170	2060	3060	380	3740	166	361
8	1230	450	422	326	884	915	2050	1680	346	2400	161	340
9	1170	403	630	337	868	893	2040	1540	322	2330	164	333
10	1240	372	873	356	860	727	2050	1540	317	2380	177	361
11	1840	351	867	339	865	538	1720	1140	332	2280	161	358
12	2060	339	855	340	723	424	1500	785	336	2280	2090	340
13	1780	507	722	536	648	397	1470	537	336	3060	4210	323
14	1410	789	641	700	569	386	1220	399	312	2230	1210	310
15	1270	848	630	700	587	368	1310	362	280	2030	773	310
16	1200	856	625	700	803	392	1310	334	259	1910	503	310
17	1160	857	619	700	738	5480	1140	314	245	1870	410	320
18	1280	851	609	700	664	4510	1040	297	286	1890	358	379
19	1330	872	601	700	692	1860	995	279	966	1830	368	394
20	1330	872	499	700	725	1620	937	280	654	1790	484	386
21	1330	870	387	500	706	1580	904	273	585	1770	480	376
22	1330	598	368	380	698	1580	904	398	534	1750	445	354
23	1360	404	360	355	688	4210	657	376	496	1730	310	323
24	1370	373	354	355	685	9900	459	461	462	1710	360	296
25	1370	359	351	355	689	4910	408	578	457	1680	484	225
26	1360	349	346	355	723	3010	372	466	449	1680	475	207
27	1340	337	340	355	1710	2880	354	4230	381	1640	1860	201
28	1330	328	336	355	3510	2740	398	5350	309	1620	1460	221
29	833	322	332	475	---	2780	432	1770	445	1070	1150	568
30	435	319	327	873	---	2730	543	1500	6080	545	1040	648
31	383	---	323	603	---	2500	---	1630	---	399	948	---
TOTAL	48074	15720	14888	14411	22893	69155	39333	35031	21999	76034	21465	12340
MEAN	1551	524	480	465	818	2231	1311	1130	733	2453	692	411
MAX	6840	872	873	873	3510	9900	2350	5350	6080	9630	4210	861
MIN	383	319	321	323	419	368	354	273	245	399	161	201
AC-FT	95350	31180	29530	28580	45410	137200	78020	69480	43640	150300	42580	24480
CAL YR 1986	TOTAL	216883	MEAN	594	MAX	6840	MIN	102	AC-FT	430200		
WTR YR 1987	TOTAL	391343	MEAN	1072	MAX	9900	MIN	161	AC-FT	776200		

07145700 SLATE CREEK AT WELLINGTON, KS

LOCATION.--Lat 37 deg 15 min 00 sec, long 97 deg 24 min 12 sec, in SE1/4 NE1/4 SE1/4 sec.22, T.32 S., R.1 W., Sumner County, Hydrologic Unit 11030013, on right bank at upstream side of U.S. Highway 81 bridge, at southern edge of Wellington.

DRAINAGE AREA.--154 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1954-60. Annual maximum, water years 1960-69. April 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,157.24 ft above sea level. Prior to Apr. 1, 1969, crest-stage gage at present site and at datum 3.0 ft higher.

REMARKS.--Estimated daily discharges: Jan. 9-12, 18-26. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years (water years 1970-87), 68.4 cu ft per sec, 49,560 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,500 cu ft per sec June 17, 1975, gage height, 25.32 ft, from rating curve extended above 18,000 cu ft per sec; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	2200	3,040	20.51	Mar. 24	0200	3,460	20.78
Jan. 30	0800	1,590	16.08	May 28	0600	3,730	20.94
Feb. 16	0400	1,230	14.24	July 1	0100	2,140	18.57
Feb. 27	2100	1,830	17.18	July 13	1900	1,590	16.05
Mar. 1	0600	2,980	20.42	Aug. 13	1700	3,560	20.84
Mar. 17	2100	*3,810	*20.99				

Minimum discharge, 10 cu ft per sec Sept. 23, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	882	12	15	14	78	2440	37	13	66	1180	20	19
2	1170	12	16	14	54	350	32	12	54	304	19	17
3	2820	13	18	15	38	122	29	12	311	245	19	16
4	1780	36	17	15	29	81	27	13	139	117	18	15
5	148	242	15	16	27	64	26	173	58	372	18	14
6	69	179	15	16	30	55	25	390	42	330	18	14
7	46	46	34	15	41	48	25	91	36	107	18	14
8	36	29	114	15	33	43	23	35	32	61	17	14
9	31	22	74	13	24	39	22	24	30	152	18	14
10	27	19	57	12	21	35	22	20	40	48	192	17
11	28	16	31	13	20	33	21	18	39	38	53	15
12	160	15	24	15	19	32	20	17	34	38	193	14
13	60	14	21	18	168	31	23	16	29	978	2610	14
14	31	15	20	23	267	30	28	14	27	424	894	13
15	24	15	20	29	493	29	31	13	25	86	106	14
16	21	16	19	28	826	49	31	13	23	55	55	13
17	20	17	19	20	167	2560	24	13	23	48	38	13
18	19	16	18	15	180	1560	21	12	143	43	32	14
19	18	16	17	13	420	174	19	12	44	39	27	13
20	17	15	17	15	136	98	17	13	26	36	24	13
21	17	15	16	18	72	226	15	12	23	32	21	11
22	18	15	16	14	48	66	15	12	23	30	19	12
23	18	14	16	12	37	1530	15	15	22	28	17	11
24	18	14	16	11	32	2320	14	29	21	27	25	12
25	17	14	16	11	32	188	14	39	391	26	108	12
26	16	14	15	13	59	81	14	51	82	25	95	12
27	15	14	15	18	1190	69	13	1490	28	24	127	11
28	15	14	15	20	1980	61	13	3000	22	23	75	62
29	14	14	15	407	---	48	13	575	21	22	34	24
30	14	14	15	1120	---	40	13	157	1130	21	25	17
31	13	---	14	159	---	39	---	93	---	20	21	---
TOTAL	7582	907	750	2137	6521	12541	642	6397	2984	4979	4956	474
MEAN	245	30.2	24.2	68.9	233	405	21.4	206	99.5	161	160	15.8
MAX	2820	242	114	1120	1980	2560	37	3000	1130	1180	2610	62
MIN	13	12	14	11	19	29	13	12	21	20	17	11
AC-FT	15040	1800	1490	4240	12930	24880	1270	12690	5920	9880	9830	940
CAL YR 1986	TOTAL	29217.2	MEAN	80.0	MAX	2820	MIN	2.5	AC-FT	57950		
WTR YR 1987	TOTAL	50870.0	MEAN	139	MAX	3000	MIN	11	AC-FT	100900		

ARKANSAS RIVER BASIN

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07145700 SLATE CREEK AT WELLINGTON, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 12...	1635	14	1310	7.80	4.0	17	0.66
DEC 16...	1715	19	1370	7.90	7.0	66	3.4
JAN 29...	0830	96	1390	8.00	2.5	143	37
MAR 10...	1800	35	1610	7.60	6.5	38	3.5
25...	1000	168	440	7.80	7.5	483	219
APR 14...	1730	27	1490	7.90	11.0	43	3.1
JUN 03...	1015	407	1060	7.10	22.0	5200	5710
JUL 14...	1635	187	234	7.60	23.0	1080	545
AUG 27...	1715	177	405	8.00	21.5	1060	507

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
JUN 03...	1015	8	--	4	--	11	11	36	72	95
JUL 14...	1635	99	89	94	97	--	--	--	--	--
AUG 27...	1715	20	--	--	--	20	21	59	77	--

ARKANSAS RIVER BASIN

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS

LOCATION.--Lat 37 deg 03 min 23 sec, long 97 deg 03 min 32 sec, in NE1/4 NE1/4 NE1/4 sec.35, T.34 S., R.3 E., Cowley County, Hydrologic Unit 11030013, on left bank near downstream side of bridge on U.S. Highway 166, 0.1 mi downstream from railway bridge, 0.5 mi west of Arkansas City, 5.4 mi upstream from Walnut River, and at mile 701.4.

DRAINAGE AREA.--43,713 sq mi, of which 7,607 sq mi is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1902 to September 1906, September 1921 to current year. Published as "near Arkansas City" 1903-04. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: 1905. WSP 1341: 1922-23, 1927, 1929, 1931, 1933, 1940, 1945-46(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,050.04 ft above sea level (levels by U.S. Army Corps of Engineers). Sept. 23, 1902, to July 31, 1906, nonrecording gage at site 0.5 mi upstream at datum 9.5 ft higher. Sept. 10, 1921, to Sept 27, 1929, nonrecording gage and Sept. 28, 1929, to Aug. 28, 1956, water-stage recorder at site 0.5 mi upstream at datum 2.97 ft higher than present datum.

REMARKS.--No estimated daily discharges. Records good. Flow moderately regulated since 1943 by John Martin Reservoir (station 07130000) and since 1964 by Cheney Reservoir (station 07144790). Diversions above station for irrigation. Satellite telemeter at station.

AVERAGE DISCHARGE.--70 years (water years 1903-06, 1922-87), 1,851 cu ft per sec, 1,341,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 cu ft per sec June 10, 1923, gage height, 25.46 ft, from floodmarks, site and datum then in use, from rating curve extended above 8,000 cu ft per sec on basis of field estimate, maximum gage height, 26.10 ft Oct. 12, 1935; minimum discharge, 1.0 cu ft per sec Oct. 9, 1921, result of diversion by local power canal.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 4	1700	34,900	20.31	May 28	1100	35,000	20.33
Mar. 1	1500	17,100	17.29	July 2	0100	14,100	15.77
Mar. 19	0100	23,100	18.54	July 7	1000	26,800	18.82
Mar. 25	1900	*35,500	*20.52				

Minimum discharge, 861 cu ft per sec Jan. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11600	1340	1020	1020	1900	15700	10500	2650	6160	11600	2360	4780
2	10100	1270	1050	997	1620	14200	9250	2600	5200	13000	2140	3640
3	31400	1210	1160	991	1500	8900	7790	2420	5260	8850	2030	3120
4	33800	1410	1110	988	1370	5600	7230	2330	5370	8520	1940	2790
5	23600	1910	1100	992	1330	4330	6890	2400	4340	9800	1910	2590
6	12100	1720	1080	976	1560	3100	6870	6140	3620	22700	1850	2320
7	7060	1670	1170	960	1630	2860	6640	8730	3290	25300	1810	2090
8	4880	1470	1520	962	1490	2710	6390	7020	3120	14400	1760	1950
9	4040	1330	1640	960	1520	2290	6130	4840	2960	10900	1670	1860
10	3500	1250	1630	960	1480	2150	5890	4280	2890	10100	1700	1800
11	3460	1200	1790	960	1460	2010	5550	3970	2930	9320	1670	1820
12	4190	1150	1790	960	1430	1780	4860	3470	2870	9090	1710	1700
13	3970	1100	1770	1000	1520	1590	4580	3060	2750	10000	10600	1640
14	4020	1070	1700	1070	1790	1490	4420	2750	2690	10600	11400	1590
15	3610	1340	1550	1360	2480	1430	4040	2490	2650	8100	6320	1560
16	3110	1490	1520	1580	3440	1380	3880	2370	2570	6600	3990	1540
17	2770	1530	1480	1680	2940	5190	4270	2390	2490	6230	3000	1490
18	2570	1540	1450	1600	2210	16700	5390	2250	3740	5890	2640	1450
19	2470	1540	1440	1200	2330	17500	6790	2100	3460	5260	2590	1470
20	2450	1560	1430	1300	2270	9970	7900	2010	3950	4910	2390	1480
21	2370	1570	1380	1400	2010	7960	7240	2010	3910	4660	3110	1450
22	2360	1560	1240	1300	1830	6710	5860	1970	3610	4430	3370	1410
23	2330	1500	1160	1200	1700	6550	5260	2070	3460	4240	3640	1390
24	2280	1250	1120	1000	1620	19800	4800	2380	3410	4110	3100	1360
25	2260	1150	1120	950	1570	32000	4270	4120	3460	4070	4040	1290
26	2240	1130	1100	922	1560	21200	3620	3640	3740	4000	3180	1200
27	2200	1100	1090	927	3050	17800	3200	16300	3260	3770	3760	1140
28	2170	1070	1080	885	8090	18700	2960	33000	3040	3640	10600	1210
29	2120	1050	1070	1700	---	16000	2780	28100	2870	3530	10300	1690
30	1920	1030	1050	3180	---	13200	2690	14500	4360	3160	7790	1400
31	1490	---	1040	3060	---	11300	---	8220	---	2570	6530	---
TOTAL	198440	40510	40850	39040	58700	292100	167940	186580	107430	253350	124900	56220
MEAN	6401	1350	1318	1259	2096	9423	5598	6019	3581	8173	4029	1874
MAX	33800	1910	1790	3180	8090	32000	10500	33000	6160	25300	11400	4780
MIN	1490	1030	1020	885	1330	1380	2690	1970	2490	2570	1670	1140
AC-FT	393600	80350	81030	77440	116400	579400	333100	370100	213100	502500	247700	111500
CAL YR 1986	TOTAL	744987	MEAN	2041	MAX	33800	MIN	559	AC-FT	1478000		
WTR YR 1987	TOTAL	1566060	MEAN	4291	MAX	33800	MIN	885	AC-FT	3106000		

ARKANSAS RIVER BASIN

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07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to present.

INORGANIC CHEMICAL DATA: Water years 1952 to September 1986.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1951 to September 1981.

WATER TEMPERATURES: October 1951 to September 1981.

SUSPENDED-SEDIMENT DISCHARGE: September 1961 to September 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 06...	1700	1770	1570	8.30	13.0	101	483
DEC 16...	1305	1510	1500	8.00	9.0	122	497
JAN 27...	1615	912	1890	7.80	1.0	51	126
MAR 11...	1605	1970	1600	8.00	10.0	69	367
26...	1310	18100	285	8.00	7.5	1180	57700
APR 15...	1740	3950	1260	8.10	11.0	149	1590
JUN 02...	1455	4910	1470	7.20	27.5	508	6730
JUL 14...	0845	10800	739	7.90	24.0	--	--
AUG 27...	1100	3700	871	8.10	22.5	423	4230

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
DEC 16...	1305	56	--	--	--	58	62	96	100	--
MAR 26...	1310	64	42	46	53	71	90	99	100	--
APR 15...	1740	90	51	55	61	--	--	--	--	--
JUN 02...	1455	41	--	28	--	42	54	74	86	95
AUG 27...	1100	91	--	72	--	93	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	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
NOV 06...	1700	101	0	13	62	82	91	98	100
JUN 02...	1455	508	0	11	47	68	82	96	100

07146622 EL DORADO LAKE AT EL DORADO, KS

LOCATION.--Lat 37 deg 50 min 43 sec, long 96 deg 49 min 18 sec, in SW1/4 NW1/4 sec.30, T.25 S., R.6 E., Butler County, Hydrologic Unit 11030017, in control tower of dam on Walnut River, approximately 4.0 mi northeast of El Dorado, and at mile 114.7.

DRAINAGE AREA.--247 sq mi.

PERIOD OF RECORD.--July 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. The limited service, uncontrolled, concrete spillway is set in firm rock and has a width of 350 ft. Storage began June 29, 1981. Conservation pool elevation was first reached on Feb. 26, 1985. Total capacity, 301,000 acre-ft. Other capacities are: Minimum pool, 2,900 acre-ft at elevation 1,296.0 ft; conservation pool, 76,300 acre-ft between elevations 1,296.0 ft and 1,339.0 ft; flood control pool, 79,200 acre-ft between elevations 1,339.0 ft and 1,347.5 ft; crest of uncontrolled spillway 1,353.0 ft and top of dam is 1,370.5 ft. Reservoir is used for supplemental water supply for municipal and industrial uses in the city of El Dorado, flood control, water supply and water quality control, and recreational purposes. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,344.00 ft Oct. 15, 1985, contents, 200,700 acre-ft; minimum elevation since conservation pool was first reached, 1,336.95 ft Feb. 9, 1986, contents, 141,200 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,343.55 ft Oct. 10, contents, 196,500 acre-ft; minimum elevation, 1,336.95 ft Feb. 9, contents, 141,200 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by U.S. Army Corps of Engineers in 1981)

1,334	120,400	1,342	182,300
1,338	149,100	1,346	220,500

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1339.34	1338.94	1338.97	1337.02	1337.17	1339.47	1338.95	1338.91	1339.45	1339.12	1338.62	1339.10
2	1340.43	1338.93	1339.06	1337.03	1337.13	1339.82	1338.94	1338.91	1339.47	1339.12	1338.60	1339.07
3	1342.31	1338.94	1339.08	1337.04	1337.09	1339.90	1338.95	1338.93	1339.53	1339.09	1338.59	1339.03
4	1342.87	1338.95	1339.09	1337.04	1337.03	1339.83	1338.96	1338.93	1339.50	1339.05	1338.66	1339.02
5	1343.13	1338.96	1339.10	1337.01	1337.00	1339.76	1338.97	1338.95	1339.44	1339.13	1338.65	1339.01
6	1343.30	1338.95	1339.10	1337.06	1337.00	1339.68	1338.98	1338.95	1339.36	1339.12	1338.62	1339.00
7	1343.43	1338.97	1339.48	1337.05	1336.98	1339.58	1339.00	1338.95	1339.29	1339.12	1338.57	1338.99
8	1343.51	1338.97	1339.64	1337.08	1336.96	1339.46	1339.00	1338.95	1339.23	1339.13	1338.55	1338.98
9	1343.53	1338.95	1339.51	1337.13	1336.95	1339.33	1339.01	1338.94	1339.20	1339.10	1338.57	1338.99
10	1343.47	1338.93	1339.34	1337.11	1336.96	1339.22	1339.05	1338.93	1339.23	1339.05	1338.54	1338.98
11	1343.37	1338.92	1339.18	1337.11	1336.97	1339.11	1339.05	1338.92	1339.24	1339.04	1338.52	1338.97
12	1343.14	1338.88	1339.09	1337.12	1336.99	1339.01	1339.05	1338.94	1339.24	1339.09	1338.99	1338.98
13	1342.60	1338.87	1338.47	1337.14	1337.02	1338.88	1339.47	1338.93	1339.24	1339.07	1339.13	1338.98
14	1341.99	1338.86	1338.37	1337.24	1337.04	1338.77	1339.72	1338.93	1339.23	1339.05	1339.26	1338.96
15	1341.37	1338.86	1338.77	1337.30	1337.11	1338.68	1339.80	1338.91	1339.21	1339.02	1339.27	1338.97
16	1340.66	1338.87	1338.67	1337.33	1337.21	1338.64	1339.68	1338.90	1339.20	1339.00	1339.26	1338.96
17	1340.21	1338.37	1338.56	1337.32	1337.24	1339.85	1339.64	1338.89	1339.17	1338.98	1339.25	1338.95
18	1340.04	1338.86	1338.45	1337.29	1337.21	1340.10	1339.38	1338.88	1339.18	1338.96	1339.25	1338.95
19	1339.82	1338.87	1338.37	1337.25	1337.14	1340.09	1339.21	1338.87	1339.15	1338.95	1339.24	1338.93
20	1339.61	1338.87	1338.22	1337.22	1337.14	1339.98	1339.10	1338.87	1339.15	1338.92	1339.20	1338.91
21	1339.39	1338.87	1338.11	1337.19	1337.19	1339.77	1339.03	1338.87	1339.15	1338.91	1339.17	1338.88
22	1339.17	1338.87	1337.99	1337.15	1337.21	1339.58	1338.99	1338.86	1339.12	1338.88	1339.14	1338.86
23	1339.03	1338.86	1337.88	1337.10	1337.15	1339.41	1338.98	1338.86	1339.10	1338.86	1339.18	1338.83
24	1338.98	1338.85	1337.77	1337.06	1337.05	1339.38	1338.97	1338.90	1339.19	1338.85	1339.42	1338.82
25	1338.98	1338.87	1337.65	1337.03	1336.98	1339.24	1338.96	1338.89	1339.12	1338.83	1339.50	1338.80
26	1338.98	1338.86	1337.54	1336.99	1336.97	1339.03	1338.95	1339.02	1339.11	1338.81	1339.46	1338.78
27	1338.98	1338.85	1337.42	1336.97	1337.06	1338.94	1338.94	1339.35	1339.10	1338.78	1339.40	1338.76
28	1338.98	1338.85	1337.28	1337.00	1338.44	1338.95	1338.93	1339.58	1339.05	1338.75	1339.38	1338.82
29	1338.98	1338.85	1337.19	1337.18	---	1338.91	1338.92	1339.62	1339.12	1338.72	1339.30	1338.78
30	1338.97	1338.85	1337.07	1337.24	---	1338.92	1338.93	1339.58	1339.13	1338.68	1339.22	1338.76
31	1338.97	---	1337.02	1337.21	---	1338.94	---	1339.51	---	1338.66	1339.15	---
MEAN	1340.89	1338.89	1338.43	1337.13	1337.12	1339.36	1339.12	1339.01	1339.23	1338.96	1339.02	1338.93
MAX	1343.53	1338.97	1339.64	1337.33	1338.44	1340.10	1339.80	1339.62	1339.53	1339.13	1339.50	1339.10
MIN	1338.97	1338.85	1337.02	1336.97	1336.95	1338.64	1338.92	1338.86	1339.05	1338.66	1338.52	1338.76
(+)	156,800	155,800	141,700	143,100	152,500	156,500	156,400	161,100	158,000	154,300	158,200	155,100
(#)	-2,000	-1,000	-14,100	+1,400	+9,400	+4,000	-100	+4,700	-3,100	-3,700	+3,900	-3,100

CAL YR 1986 (#) -17,000

WTR YR 1987 (#) -3,700

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.

CHANGE IN CONTENTS, IN ACRE-FEET.

ARKANSAS RIVER BASIN

203

07146623 WALNUT RIVER BELOW EL DORADO LAKE, KS

LOCATION.--Lat 37 deg 50 min 43 sec, long 96 deg 49 min 25 sec, in NE1/4 SE1/4 sec.25, T.25 S., R.5 E., Butler County, Hydrologic Unit 11030017, on left bank 400 ft below El Dorado Dam, and at mile 114.6.

DRAINAGE AREA.--247 sq mi.

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,270.00 ft above sea level (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Oct. 2, 3, Mar. 17, and Aug. 12-14, 24. Records good except those for estimated daily discharges, which are fair. Flow completely regulated since June 29, 1981 by El Dorado Lake (station 07146622).

AVERAGE DISCHARGE.--7 years, 81.9 cu ft per sec, 59,340 acre ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,470 cu ft per sec Oct. 21, 1985, gage height, 18.56 ft; no flow at times in 1981-84.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,060 cu ft per sec Oct. 13, gage height, 15.83 ft; minimum discharge, 1.6 cu ft per sec Mar. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	12	12	10	267	12	10	14	301	20	14	200
2	10	12	12	10	267	11	11	15	299	21	14	200
3	10	13	12	10	267	332	11	15	299	34	14	88
4	10	12	12	10	267	529	11	15	299	245	15	13
5	10	13	12	10	170	528	11	14	301	233	14	13
6	9.9	12	12	10	108	527	11	13	301	18	15	13
7	10	12	14	9.9	108	526	11	13	303	18	15	13
8	10	12	467	9.9	107	524	11	13	210	18	14	13
9	10	12	934	10	82	522	11	13	67	18	14	13
10	583	12	929	10	29	523	11	13	44	18	14	14
11	1140	12	779	10	21	523	12	13	20	19	14	14
12	1630	12	505	10	21	524	12	13	20	20	14	14
13	2440	12	504	10	21	526	13	13	20	21	14	14
14	3020	12	505	11	21	526	13	13	20	21	14	14
15	2960	12	504	10	20	524	479	13	20	21	14	14
16	2920	12	505	118	20	496	823	13	20	21	14	14
17	1970	12	503	189	20	5.3	819	13	20	21	14	14
18	867	12	505	187	321	242	817	13	20	21	14	14
19	973	12	505	188	518	533	815	13	20	21	14	14
20	958	12	505	186	387	840	567	14	20	19	14	14
21	949	12	505	183	267	994	187	12	20	14	14	14
22	994	12	505	182	266	989	115	13	20	14	14	14
23	705	12	503	181	427	965	82	13	20	14	14	14
24	191	12	503	180	517	519	46	14	20	14	14	14
25	11	12	503	180	357	776	31	14	20	14	136	14
26	11	12	503	140	266	986	31	14	20	14	344	14
27	11	12	503	109	267	462	31	18	20	14	216	14
28	11	12	500	109	226	11	20	15	20	14	156	15
29	11	12	500	111	---	11	14	104	21	14	342	14
30	11	12	498	211	---	11	14	299	20	14	341	13
31	11	---	218	270	---	11	---	299	---	14	258	---
TOTAL	22466.9	362	12977	2874.8	5635	14508.3	5050	1084	2825	1052	2132	860
MEAN	725	12.1	419	92.7	201	468	168	35.0	94.2	33.9	68.8	28.7
MAX	3020	13	934	270	518	994	823	299	303	245	344	200
MIN	9.9	12	12	9.9	20	5.3	10	12	20	14	14	13
AC-FT	44560	718	25740	5700	11180	28780	10020	2150	5600	2090	4230	1710
CAL YR 1986	TOTAL	54290.9	MEAN	149	MAX	3020	MIN	9.9	AC-FT	107700		
WTR YR 1987	TOTAL	71827.0	MEAN	197	MAX	3020	MIN	5.3	AC-FT	142500		

ARKANSAS RIVER BASIN

07146830 WALNUT RIVER AT HIGHWAY 54 EAST OF EL DORADO, KS

LOCATION.--Lat 37 deg 49 min 01 sec, long 96 deg 50 min 21 sec, in NE1/4 NW1/4 SW1/4 sec.1, T.26 S., R.5 E., Butler County, Hydrologic Unit 11030017, on right bank at downstream side of bridge on U.S. Highway 54 on east edge of El Dorado, at mouth of West Branch, and at mile 109.6.

DRAINAGE AREA.--350 sq mi.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,258.46 ft above sea level. Sept. 12, 1953, to July 7, 1959, non-recording gage at U.S. Highway 77 bridge 1.0 mi downstream at datum 10.86 ft lower. July 8, 1959, to Sept. 17, 1981, nonrecording gage at present site at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow partially regulated since October 1981 by El Dorado Lake (station 07146622) 5.1 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE.--6 years, 167 cu ft per sec, 121,000 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,350 cu ft per sec Oct. 10, 1985, gage height, 14.52 ft; minimum discharge, 0.87 cu ft per sec Oct. 5-12, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 5, 1965, reached a stage of 23.95 ft, datum then in use, and flood of June 8, 1979, reached a stage of 25.65 ft, datum then in use, from information by National Weather Service and U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,100 cu ft per sec Oct. 3, gage height, 10.95 ft; minimum discharge, 6.7 cu ft per sec Aug. 2, result of construction work upstream of gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	30	53	43	339	2150	64	39	294	111	15	201
2	2120	28	136	40	328	691	59	37	315	68	10	201
3	3770	29	68	41	320	573	56	36	498	78	21	131
4	1060	35	50	40	314	746	54	36	358	237	30	45
5	390	40	42	40	232	688	53	39	322	453	18	42
6	169	39	40	39	151	662	53	39	309	155	16	42
7	101	37	302	39	153	644	54	37	302	72	15	40
8	78	35	365	38	150	635	54	34	240	50	15	41
9	67	32	1280	43	131	621	53	31	83	43	20	40
10	515	30	1160	41	76	612	57	30	71	40	16	41
11	1420	28	977	38	63	605	56	29	47	36	15	40
12	1860	26	575	37	62	604	53	28	45	40	340	61
13	2730	25	567	42	64	601	310	35	42	48	1330	67
14	3230	24	560	110	72	606	176	27	41	37	467	51
15	3180	25	557	112	98	597	717	24	40	34	123	44
16	3130	26	558	155	129	598	1020	23	39	32	73	105
17	2450	27	553	228	87	2310	915	22	38	31	58	48
18	962	26	548	224	346	1170	886	22	38	31	57	40
19	1150	24	544	223	651	956	876	21	38	30	56	37
20	1130	24	542	219	608	1120	663	22	38	28	53	34
21	1100	23	541	215	434	1330	223	27	38	21	47	33
22	1150	24	536	215	376	1270	133	25	38	20	40	32
23	847	23	534	212	493	1390	112	24	55	19	56	31
24	297	22	531	210	608	1140	79	31	52	18	439	27
25	42	22	532	209	461	1020	61	34	55	18	393	28
26	40	22	525	175	329	1310	60	29	50	17	454	27
27	39	21	526	140	585	758	59	472	38	17	322	27
28	38	21	526	144	2380	87	51	589	34	16	168	65
29	34	20	529	423	---	77	41	190	35	16	368	47
30	33	20	529	353	---	67	41	339	313	16	358	37
31	33	---	311	358	---	65	---	317	---	15	282	---
TOTAL	33341	808	15597	4446	10040	25703	7089	2688	3906	1847	5675	1705
MEAN	1076	26.9	503	143	359	829	236	86.7	130	59.6	183	56.8
MAX	3770	40	1280	423	2380	2310	1020	589	498	453	1330	201
MIN	33	20	40	37	62	65	41	21	34	15	10	27
AC-FT	66130	1600	30940	8820	19910	50980	14060	5330	7750	3660	11260	3380
CAL YR 1986	TOTAL	84340	MEAN	231	MAX	3770	MIN	17	AC-FT	167300		
WTR YR 1987	TOTAL	112845	MEAN	309	MAX	3770	MIN	10	AC-FT	223800		

ARKANSAS RIVER BASIN

205

07147070. WHITEWATER RIVER AT TOWANDA, KS

LOCATION.--Lat 37 deg 47 min 45 sec, long 97 deg 00 min 45 sec, in SE1/4 SW1/4 SE1/4 sec.8, T.26 S., R.4 E., Butler County, Hydrologic Unit 11030017, on left bank at downstream side of bridge on State Highway 254, 0.5 mi west of Towanda, 2.4 mi downstream from West Branch, and at mile 17.5.

DRAINAGE AREA.--426 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1960-61. October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,231.47 ft above sea level (levels by Kansas State Highway Commission). Prior to Oct. 1, 1961, crest-stage gage at same site at datum 5.22 ft higher.

REMARKS.--Estimated daily discharges: Jan. 18, 24, 25. Records good except those for estimated daily discharges, which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--26 years, 188 cu ft per sec, 136,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,400 cu ft per sec June 8, 1979, gage height, 29.73 ft from rating curve extended above 39,000 cu ft per sec; minimum discharge, 0.20 cu ft per sec July 14, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 1944 reached a stage of 28.6 ft from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 4	1000	9,180	22.76	Mar. 24	1500	5,870	20.84
Mar. 1	1600	*11,000	*23.39	May 28	0700	4,480	17.82
Mar. 18	0800	7,950	22.18	Aug. 13	0300	4,290	17.36

Minimum discharge, 23 cu ft per sec Aug. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	524	51	57	67	135	9680	179	72	186	109	30	49
2	757	51	155	66	109	5040	161	69	152	88	28	45
3	5530	51	104	66	97	788	146	68	520	74	27	42
4	8030	57	74	68	88	428	136	67	340	71	28	40
5	1490	66	64	67	82	321	127	425	179	683	29	38
6	403	72	60	67	79	268	122	1190	131	1200	28	36
7	249	65	187	66	79	227	119	326	111	537	27	35
8	176	60	587	64	79	200	115	161	123	266	25	35
9	142	57	302	69	75	176	111	113	107	223	26	36
10	121	56	177	71	73	158	112	92	91	127	25	39
11	115	54	122	65	71	147	115	80	100	88	24	38
12	271	51	100	71	71	138	109	81	105	74	285	134
13	234	49	92	71	71	132	145	76	94	114	2640	101
14	131	49	97	99	72	126	136	66	87	113	354	46
15	106	52	84	113	104	119	191	144	81	70	120	39
16	93	54	82	108	273	115	205	190	76	58	73	37
17	86	55	80	85	196	3390	139	105	71	54	56	35
18	77	57	77	80	169	6630	121	81	73	52	52	32
19	72	56	76	87	249	1580	109	70	68	50	50	31
20	66	57	74	81	342	551	100	67	63	48	47	29
21	62	56	73	73	301	370	93	71	98	51	44	29
22	63	55	71	69	205	291	90	65	88	44	40	28
23	66	55	69	66	148	964	88	62	69	41	53	27
24	66	55	69	65	124	5230	87	72	93	39	748	26
25	63	54	69	62	114	2290	84	166	73	36	706	25
26	62	54	69	60	110	650	83	164	63	35	179	25
27	63	53	68	59	473	378	81	1780	57	34	222	25
28	63	52	67	62	2750	299	81	3960	54	33	132	77
29	59	52	67	164	---	260	78	972	82	32	83	122
30	55	52	67	320	---	220	75	383	254	32	65	52
31	54	---	67	217	---	194	---	253	---	33	56	---
TOTAL	19349	1658	3397	2748	6739	41360	3538	11491	3689	4509	6302	1353
MEAN	624	55.3	110	88.6	241	1334	118	371	123	145	203	45.1
MAX	8030	72	587	320	2750	9680	205	3960	520	1200	2640	134
MIN	54	49	57	59	71	115	75	62	54	32	24	25
AC-FT	38380	3290	6740	5450	13370	82040	7020	22790	7320	8940	12500	2680
CAL YR 1986	TOTAL	68803	MEAN	189	MAX	8030	MIN	22	AC-FT	136500		
WTR YR 1987	TOTAL	106133	MEAN	291	MAX	9680	MIN	24	AC-FT	210500		

ARKANSAS RIVER BASIN

07147070 WHITEWATER RIVER AT TOWANDA, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to September 1987 (discontinued).

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
NOV 06...	1045	63	1680	8.10	12.0	85	14	--	--
DEC 12...	1310	100	1030	7.80	5.0	31	8.4	--	--
JAN 26...	1150	56	1670	7.80	2.0	35	5.3	--	--
MAR 09...	1115	170	1430	7.70	6.0	75	34	--	--
APR 13...	1225	152	1360	7.20	12.0	108	44	99	--
JUN 05...	1030	180	864	7.10	21.0	264	128	97	78
JUL 17...	0910	54	975	8.00	24.5	66	9.6	--	--
SEP 03...	1250	42	1140	7.70	24.0	48	5.4	--	--

07147800 WALNUT RIVER AT WINFIELD, KS

LOCATION.--Lat 37 deg 13 min 27 sec, long 96 deg 59 min 40 sec, in SW1/4 SW1/4 NE1/4 sec.33, T.32 S., R.4 E., Cowley County, Hydrologic Unit 11030018, on left bank at upstream side of bridge on U.S. Highway 77, 1.0 mi south of Winfield, 1.0 mi upstream from Black Crook Creek, and at mile 25.4.

DRAINAGE AREA.--1,880 sq mi.

PERIOD OF RECORD.--October 1921 to current year. October to November 1921 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 607: 1923(M). WDR KS-82-1: Drainage area. WSP 1241: 1922(M), 1923, 1926-27, 1928-29(M), 1934, 1940-41.

GAGE.--Water-stage recorder. Datum of gage is 1,082.86 ft above sea level (U.S. Army Corps of Engineers bench mark). Prior to Oct. 1, 1934, nonrecording gage on upstream side of former bridge just upstream from present gage at same datum.

REMARKS.--No estimated daily discharges. Records fair. Some regulation at low flow by City Water Works Dam and Timber Creek Reservoir upstream from station. Flow moderately regulated by El Dorado Lake (station 07146622) since July 1981. Satellite telemeter at station.

AVERAGE DISCHARGE.--66 years, 321 cu ft per sec, 594,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 cu ft per sec Apr. 23, 1944, gage height, 38.30 ft; no flow at times in 1929, 1936, 1954-56, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,600 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 4	1800	*39,100	*32.83	May 29	0700	19,600	22.38
Mar. 2	1300	22,000	24.42	Aug. 14	1900	12,900	16.50
Mar. 19	0100	13,300	16.85				

Minimum discharge, 100 cu ft per sec Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15500	452	397	922	1910	18200	1170	538	3470	952	158	592
2	11000	438	406	598	1520	21500	1080	527	3060	1060	154	468
3	26600	419	476	443	1310	17600	994	533	2440	611	150	400
4	35600	565	656	429	1170	7580	929	515	2270	554	143	379
5	33100	818	554	418	1120	4200	883	557	2010	738	137	310
6	19800	788	499	413	1210	3400	850	778	1430	1660	158	224
7	6590	767	691	401	1180	2870	836	2060	1190	2370	164	196
8	4960	709	2090	392	1130	2470	816	988	1060	1350	151	187
9	4090	646	3470	407	1050	2110	796	593	970	787	138	179
10	3380	596	3160	420	944	1910	781	465	830	692	133	184
11	3460	538	2560	429	851	1800	771	403	726	567	150	179
12	5700	511	2160	417	760	1730	740	374	669	439	254	169
13	5030	467	1570	404	718	1680	893	362	621	736	4710	158
14	4810	450	1340	468	1530	1650	1360	439	569	515	12000	315
15	4930	447	1240	829	2350	1580	1480	411	516	505	6280	255
16	4620	452	1190	1020	3130	1570	1560	365	464	435	1830	184
17	4400	453	1150	904	3310	4610	2090	452	429	362	1040	177
18	3970	451	1110	864	2280	11500	1910	410	539	334	738	247
19	2080	442	1090	823	2190	12900	1800	338	425	316	572	195
20	1940	421	1070	819	2760	7590	1680	297	447	291	494	171
21	1830	416	1040	782	2980	3720	1520	306	576	265	420	142
22	1770	432	1020	781	2560	3250	1050	278	398	242	363	119
23	1730	424	1010	757	2090	3180	817	300	411	231	305	125
24	1620	407	1000	711	1770	6190	750	322	381	215	867	146
25	1180	386	1000	656	1770	8640	701	409	370	204	2420	142
26	765	412	995	670	1650	6260	649	542	380	194	3390	136
27	605	411	978	699	2850	3490	609	11400	353	183	1390	134
28	593	405	968	643	9500	2670	577	18600	346	177	1060	174
29	546	405	959	2110	---	1590	579	18600	301	171	759	214
30	508	397	951	4190	---	1330	562	9490	383	168	659	446
31	476	---	955	2650	---	1220	---	4480	---	160	672	---
TOTAL	213183	14925	37755	26469	57593	169990	31233	76132	28034	17484	41859	6947
MEAN	6877	498	1218	854	2057	5484	1041	2456	934	564	1350	232
MAX	35600	818	3470	4190	9500	21500	2090	18600	3470	2370	12000	592
MIN	476	386	397	392	718	1220	562	278	301	160	133	119
AC-FT	422800	29600	74890	52500	114200	337200	61950	151000	55610	34680	83030	13780
CAL YR 1986	TOTAL	560691	MEAN	1536	MAX	35600	MIN	154	AC-FT	1112000		
WTR YR 1987	TOTAL	721604	MEAN	1977	MAX	35600	MIN	119	AC-FT	1431000		

ARKANSAS RIVER BASIN

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS

LOCATION.--Lat 37 deg 02 min 17 sec, long 98 deg 28 min 04 sec, in SE1/4 SW1/4 sec.36, T.34 S., R.11 W., Barber County, Hydrologic Unit 11060003, on right bank at downstream side of bridge on State Highway 14, 200 ft downstream from the Atchison, Topeka and Santa Fe Railway Co. bridge, 1.5 mi northeast of Kiowa, and at mile 22.2.

DRAINAGE AREA.--903 sq mi.

PERIOD OF RECORD.--May 1895 to October 1896, October 1937 to September 1950, October 1954 to September 1955, June 1959 to current year. Published as Medicine River near Kiowa 1895-96. All figures of discharge above 2,000 cu ft per sec for June and July 1896, published in Eighteenth Annual Report of the Geological Survey (Part 4), have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1391: 1938(M), 1942(M). WSP 1921: Drainage area. See also "PERIOD OF RECORD."

GAGE.--Water-stage recorder. Datum of gage is 1,286.99 ft above sea level (levels by U.S. Army Corps of Engineers). May 1895 to October 1896, nonrecording gage at site 2.0 mi upstream at different datum. Feb. 11 to Mar. 2, 1938, nonrecording gage and Mar. 3, 1938, to Sept. 30, 1944, water-stage recorder at present site and datum 3.00 ft higher. Oct. 1, 1944, to Sept. 30, 1950, and Oct. 1, 1954, to Sept. 30, 1955, water-stage recorder at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 17, 20-29. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--42 years (water years 1938-50, 1955, 1960-87), 143 cu ft per sec, 103,600 acre-ft per yr. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 cu ft per sec Oct. 22, 1941, gage height, 11.75 ft, present datum; maximum gage height, 12.10 ft Oct. 12, 1973; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 8, 1922, and June 1957 reached stages of about 16 ft and 15.5 ft, respectively, present site and datum, from the Atchison, Topeka and Santa Fe Railway Co. records and information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 24	2000	*6,480	*10.22				

Minimum discharge, 90 cu ft per sec Aug. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	149	144	141	180	417	970	203	372	2150	122	168
2	947	146	154	139	175	299	815	189	332	1170	118	159
3	1970	147	156	146	172	262	697	197	398	1200	112	152
4	1310	201	148	150	169	244	677	203	267	756	111	146
5	561	336	144	148	169	233	622	750	235	1890	120	139
6	289	457	142	149	176	226	592	1220	215	2240	123	136
7	226	340	153	144	174	218	544	634	199	1340	119	144
8	197	251	175	140	179	208	516	423	187	605	110	152
9	240	210	186	153	171	200	491	281	177	435	125	154
10	1270	193	182	159	165	190	475	227	187	389	130	157
11	799	185	166	156	163	185	449	202	299	339	130	151
12	1250	179	158	159	158	191	432	185	516	302	156	288
13	487	170	156	171	164	195	427	170	372	305	242	380
14	304	164	157	185	175	195	583	158	256	282	193	250
15	235	169	162	180	339	189	564	146	206	268	168	196
16	202	166	162	173	304	188	504	138	179	261	150	170
17	189	160	158	182	241	445	424	131	162	254	131	158
18	180	168	158	173	210	1450	400	128	171	276	117	158
19	174	166	157	225	193	833	372	124	344	287	114	164
20	167	166	155	210	183	448	351	122	271	256	112	179
21	163	163	149	210	179	344	323	133	243	227	104	179
22	180	158	145	220	177	290	308	166	206	209	99	177
23	217	153	145	205	172	1570	299	161	176	193	96	165
24	221	146	146	191	168	5290	289	204	163	186	214	158
25	189	143	149	180	184	5360	276	289	159	181	140	153
26	174	142	148	190	240	2020	270	519	175	176	676	148
27	173	138	146	200	628	1630	262	1950	173	166	775	144
28	168	138	143	180	630	1520	247	1570	148	155	350	811
29	165	139	145	190	---	1700	239	874	149	146	252	406
30	161	143	144	205	---	1270	230	769	1800	136	208	246
31	157	---	142	187	---	1080	---	482	---	129	185	---
TOTAL	13143	5586	4775	5441	6238	28890	13648	12948	8737	16909	5802	6188
MEAN	424	186	154	176	223	932	455	418	291	545	187	206
MAX	1970	457	186	225	630	5360	970	1950	1800	2240	775	811
MIN	157	138	142	139	158	185	230	122	148	129	96	136
AC-FT	26070	11080	9470	10790	12370	57300	27070	25680	17330	33540	11510	12270

CAL YR 1986 TOTAL 66187 MEAN 181 MAX 1970 MIN 27 AC-FT 131300
WTR YR 1987 TOTAL 128305 MEAN 352 MAX 5360 MIN 96 AC-FT 254500

ARKANSAS RIVER BASIN

209

07151500 CHIKASKIA RIVER NEAR CORBIN, KS

LOCATION.--Lat 37 deg 07 min 44 sec, long 97 deg 36 min 04 sec, in NW1/4 SW1/4 SW1/4 sec.36, T.33 S., R.3 W., Sumner County, Hydrologic Unit 11060005, on right bank at downstream side of bridge on State Highway 49, 1 mi upstream from Prairie Creek, 3 mi west of Corbin, and at mile 67.5.

DRAINAGE AREA.--794 sq mi.

PERIOD OF RECORD.--August 1950 to September 1965, October 1975 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,108.00 ft above sea level (U.S. Army Corps of Engineers bench mark). Prior to Mar. 23, 1951, wire-weight gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 13, 14 and Jan. 13-28. Records good except those for estimated daily discharges, which are poor. Telephone telemark at station.

AVERAGE DISCHARGE.--27 years (water years 1951-65, 1976-87), 232 cu ft per sec, 168,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,300 cu ft per sec Oct. 11, 1985, gage height, 22.75 ft; no flow at times in 1953-54, 1956, 1963, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	1000	8,240	13.00	May 28	0700	8,240	13.00
Feb. 27	1900	2,610	7.46	June 30	1500	3,710	8.63
Mar. 1	0200	6,320	11.78	July 2	2100	3,130	7.84
Mar. 17	1400	8,400	13.09	July 6	1300	3,370	8.17
Mar. 23	2200	9,180	13.52	July 13	1100	3,360	8.16
May 5	2400	*13,900	*15.77	Sep. 28	1700	6,170	11.64

Minimum discharge, 59 cu ft per sec Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572	151	132	130	201	3560	512	120	609	2520	86	205
2	1970	148	141	130	190	782	451	116	630	2020	80	191
3	6360	147	149	138	172	520	403	113	1200	1730	76	180
4	1540	213	145	138	153	440	368	111	600	1010	72	172
5	608	935	137	138	141	379	345	5310	477	2480	72	161
6	521	567	135	140	141	342	331	9810	417	2880	68	159
7	407	319	176	136	153	313	317	3110	374	1400	65	162
8	323	225	284	129	163	288	296	1330	354	929	63	164
9	282	192	228	139	149	270	284	989	338	607	123	162
10	599	175	193	146	138	252	277	831	335	441	302	168
11	715	166	169	137	132	241	257	726	370	364	110	170
12	911	156	158	145	128	234	242	650	392	353	375	195
13	727	120	155	141	301	226	241	583	363	2150	912	185
14	516	140	155	136	260	218	259	524	319	532	375	166
15	411	151	154	131	553	210	339	475	290	297	263	160
16	344	153	156	123	877	242	311	440	267	264	218	152
17	301	156	153	126	334	6010	258	407	248	253	195	146
18	276	153	148	136	374	1930	230	383	325	259	184	142
19	250	148	145	145	322	854	210	362	466	246	169	143
20	236	146	143	148	206	633	194	353	332	212	160	144
21	221	142	142	146	189	536	181	347	276	189	151	153
22	228	144	138	173	179	427	170	342	246	170	146	147
23	225	145	139	152	168	4400	164	417	227	157	140	143
24	220	138	140	156	160	5150	158	487	210	146	152	141
25	206	134	142	150	157	3670	153	547	751	134	325	137
26	196	135	140	180	181	1890	148	518	537	126	263	135
27	187	130	134	210	1720	1100	142	3710	311	119	665	141
28	182	126	133	198	3120	823	135	5330	243	113	626	3820
29	175	129	134	594	---	762	123	1330	212	105	380	1130
30	165	130	133	1010	---	746	123	903	2360	98	281	416
31	155	---	132	272	---	619	---	724	---	92	233	---
TOTAL	20029	5914	4763	5973	10962	38067	7627	41398	14079	22396	7330	9690
MEAN	646	197	154	193	392	1228	254	1335	469	722	236	323
MAX	6360	935	284	1010	3120	6010	512	9810	2360	2880	912	3820
MIN	155	120	132	123	128	210	123	111	210	92	63	135
AC-FT	39730	11730	9450	11850	21740	75510	15130	82110	27930	44420	14540	19220

CAL YR 1986	TOTAL	95234	MEAN	261	MAX	6360	MIN	37	AC-FT	188900
WTR YR 1987	TOTAL	188228	MEAN	516	MAX	9810	MIN	63	AC-FT	373400

ARKANSAS RIVER BASIN

07155590 CIMARRON RIVER NEAR ELKHART, KS

LOCATION.--Lat 37 deg 07 min 30 sec, long 101 deg 53 min 50 sec, in NW1/4 NW1/4 NW1/4 sec.4, T.34 S., R.42 W.,
Morton County, Hydrologic Unit 11040002, Cimarron National Grasslands, on left bank at downstream side of bridge
near left end on State Highway 27, 8.0 mi north of Elkhart, and at mile 499.4.

DRAINAGE AREA.--2,899 sq mi, of which 483 sq mi do not contribute directly to surface runoff.

PERIOD OF RECORD.--April 1971 to current year.

REVISED RECORDS.--WDR KS-84-1: 1983.

GAGE.--Water-stage recorder. Datum of gage is 3,381.89 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 1 to Jan. 25. Records fair.

AVERAGE DISCHARGE.--16 years, 15.4 cu ft per sec, 11,160 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 cu ft per sec May 26, 1977, gage height, 9.17 ft; no
flow most days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
May 24	1200	*1,770	*4.93				

No flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.01	.03	.00	.00	.00	.00	2.0	29	.00	.00
2	.00	.00	.01	.04	.00	.00	.00	.00	2.1	12	.00	.00
3	.00	.00	.01	.04	.00	.00	.00	.01	1.9	5.3	.00	.00
4	.00	.00	.01	.04	.00	.00	.00	2.5	2.3	2.2	.00	.00
5	.00	.00	.01	.04	.00	.00	.00	7.7	2.9	.43	.00	.00
6	.00	.00	.01	.04	.00	.00	.00	2.2	2.5	.00	.00	.00
7	.00	.00	.02	.04	.00	.00	.00	3.9	2.5	.00	.00	.00
8	.00	.00	.02	.04	.00	.00	.00	435	2.1	.00	.00	.00
9	.00	.00	.02	.04	.00	.00	.00	311	2.0	.00	.00	.00
10	.00	.00	.02	.04	.00	.00	.21	53	1.9	.00	.00	.00
11	.00	.00	.02	.04	.00	.00	3.7	16	2.0	1.4	.00	.31
12	.00	.00	.02	.04	.00	.00	3.7	12	.94	.72	.00	1.9
13	.00	.00	.02	.04	.00	.00	3.8	3.6	.33	.00	.00	.00
14	.00	.00	.02	.04	.16	.00	3.1	.86	.00	.00	.00	.00
15	.00	.00	.02	.03	.36	.00	2.3	.01	.00	.00	.00	.00
16	.00	.00	.02	.02	.00	.00	1.2	.00	.00	.00	.00	.00
17	.00	.00	.02	.01	.00	.03	.01	2.2	.00	.00	.00	.00
18	.00	.00	.02	.01	.00	1.1	.00	2.1	.00	.00	.00	.00
19	.00	.00	.02	.02	.00	.40	.00	.04	1.0	.00	.00	.00
20	.00	.00	.03	.03	.00	.00	.00	.77	.05	.00	.00	.00
21	.00	.00	.03	.04	.00	.00	.00	3.1	.41	.00	.00	.00
22	.00	.00	.03	.05	.00	.00	.00	.77	.20	.00	.00	.00
23	.00	.00	.03	.04	.00	.67	.00	1.4	.00	.00	.00	.00
24	.00	.01	.03	.04	.00	.91	.00	980	.00	.00	.00	.00
25	.00	.01	.03	.06	.00	.54	.00	70	.00	.00	.00	.00
26	.00	.01	.03	.06	.28	.35	.00	2.6	.00	.00	.00	.00
27	.00	.01	.03	.02	.44	.04	.00	2.9	.00	.00	.00	.00
28	.00	.01	.03	.00	.01	.16	.00	3.0	.00	.00	.00	.00
29	.00	.01	.03	.00	---	.16	.00	2.7	.84	.00	.00	.00
30	.00	.01	.03	.00	---	.09	.00	2.3	24	.00	.00	.00
31	.00	---	.03	.00	---	.04	---	2.1	---	.00	.00	---
TOTAL	.00	.07	.68	.98	1.25	4.49	18.02	1923.76	51.97	51.05	.00	2.21
MEAN	.000	.002	.022	.032	.045	.14	.60	62.1	1.73	1.65	.000	.074
MAX	.00	.01	.03	.06	.44	1.1	3.8	980	24	29	.00	1.9
MIN	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.1	1.3	1.9	2.5	8.9	36	3820	103	101	.00	4.4
CAL YR 1986	TOTAL	5467.25	MEAN 15.0	MAX 1060	MIN .00	AC-FT 10840						
WTR YR 1987	TOTAL	2054.48	MEAN 5.63	MAX 980	MIN .00	AC-FT 4080						

ARKANSAS RIVER BASIN

211

07156220 BEAR CREEK NEAR JOHNSON, KS

LOCATION.--Lat 37 deg 37 min 35 sec, long 101 deg 45 min 40 sec, in NW1/4 SW1/4 sec.12, T.28 S., R.41 W., Stanton County, Hydrologic Unit 11040005, on right bank at bridge on U.S. Highway 270, 3.5 mi north of Johnson, and at mile 42.0.

DRAINAGE AREA.--835 sq mi.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,292.44 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 1-15. Records good.

AVERAGE DISCHARGE.--21 years, 4.17 cu ft per sec, 3,021 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 cu ft per sec July 8, 1982, gage height, 15.00 ft, from floodmark; no flow most days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Oct. 22	1000	*1,320	*6.43				

No flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	9.5	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	3.5	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.32	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	497	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	38	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	564.82	.00	.00	.00	.00	.00	.00	13.00	.00	.00	.00	.00
MEAN	18.2	.000	.000	.000	.000	.000	.000	.42	.000	.000	.000	.000
MAX	497	.00	.00	.00	.00	.00	.00	9.5	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1120	.00	.00	.00	.00	.00	.00	26	.00	.00	.00	.00

CAL YR 1986	TOTAL	1951.85	MEAN	5.35	MAX	686	MIN	.00	AC-FT	3870
WTR YR 1987	TOTAL	577.82	MEAN	1.53	MAX	497	MIN	.00	AC-FT	1150

ARKANSAS RIVER BASIN

07157500 CROOKED CREEK NEAR NYE, KS

LOCATION.--Lat 37 deg 02 min 02 sec, long 100 deg 11 min 55 sec, in SE1/4 NW1/4 sec.1, T.35 S., R.27 W., Meade County, Hydrologic Unit 11040007, on right bank at downstream side of county road bridge, 11.5 mi west of Englewood, and at mile 14.0.

DRAINAGE AREA.--1,157 sq mi, of which 344 sq mi is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1942 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1211: 1950. WSP 1311: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 2,163.79 ft above sea level. Prior to Sept. 12, 1942, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 16-26 and Aug. 23 to Sept. 1. Records good except those for estimated daily discharges, which are poor. Extensive diversion for irrigation upstream from station.

AVERAGE DISCHARGE.--45 years, 36.0 cu ft per sec, 26,080 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 cu ft per sec May 20, 1955, gage height, 8.01 ft; right-bank gage, from rating curve extended above 2,400 cu ft per sec on basis of contracted-opening measurement of peak flow at site 10 mi upstream and a mean of slope-area measurement at gage site and discharge measurement at site 10 mi upstream at gage height, 7.59 ft; maximum stage, 9.00 ft Aug. 31, 1963, at left-bank gage, 8.2 ft, floodmark, at right-bank gage; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Mar. 25	2300	*62	*2.69	No peak greater than base discharge.			

Minimum recorded discharge, 1.5 cu ft per sec Aug. 7, 8, but may have been less during period of no gage-height record Aug. 23 to Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.3	9.3	10	11	14	32	14	12	12	2.3	5.0
2	11	9.3	9.1	11	11	14	29	14	12	11	2.3	4.6
3	12	9.8	9.1	11	11	14	27	13	12	11	2.1	3.7
4	10	13	9.4	10	11	14	24	14	11	10	3.1	2.4
5	9.4	18	9.4	10	11	14	24	23	11	9.4	4.2	2.4
6	9.4	15	9.4	10	11	13	23	22	11	9.4	3.1	2.8
7	9.4	15	9.9	10	11	12	23	20	9.7	9.0	1.9	3.2
8	9.4	14	10	10	11	11	24	20	9.4	8.7	1.9	4.7
9	9.1	13	10	11	12	11	24	19	9.4	8.9	5.5	4.2
10	8.9	11	10	11	11	12	22	17	9.6	8.7	5.7	3.7
11	10	13	10	11	11	12	20	16	9.6	8.0	4.8	4.2
12	11	13	9.9	11	11	11	19	15	29	7.6	8.4	8.4
13	12	12	9.0	11	11	11	20	15	28	7.9	12	7.5
14	11	12	9.0	11	12	11	22	15	18	7.5	8.8	7.0
15	9.5	9.8	8.9	11	14	11	22	15	15	7.4	7.8	6.6
16	9.2	9.4	8.9	9.2	13	12	21	14	13	6.7	5.7	5.9
17	8.9	9.4	8.9	8.6	12	16	19	13	12	6.6	5.1	5.3
18	8.9	8.9	8.9	8.5	12	16	19	12	10	5.9	4.5	9.9
19	8.9	9.2	9.0	8.5	12	15	19	11	12	4.0	3.9	9.3
20	8.9	8.9	9.6	9.0	13	15	19	12	11	3.9	3.4	7.9
21	11	9.1	9.4	9.0	12	15	18	12	11	3.7	2.6	7.5
22	11	9.2	9.4	8.6	12	14	17	12	12	3.4	2.4	6.6
23	11	8.9	9.5	8.2	12	27	17	12	9.9	2.9	4.4	6.6
24	9.6	9.1	9.4	7.6	12	24	16	13	12	2.7	3.5	6.6
25	10	8.7	9.4	8.6	12	30	16	13	17	2.7	3.0	6.6
26	10	8.4	9.7	9.0	12	36	16	14	13	2.3	3.0	6.6
27	10	9.1	9.8	11	15	29	15	16	11	2.0	3.0	5.3
28	9.5	8.6	9.7	11	15	29	14	14	9.5	1.9	3.5	5.3
29	8.9	7.9	10	11	---	43	14	15	13	2.4	3.5	4.7
30	8.5	7.9	10	11	---	35	14	15	15	3.5	4.5	4.2
31	7.9	---	10	11	---	33	---	14	---	2.9	5.0	---
TOTAL	304.3	318.9	294.0	308.8	334	574	609	464	388.1	194.0	134.9	168.7
MEAN	9.82	10.6	9.48	9.96	11.9	18.5	20.3	15.0	12.9	6.26	4.35	5.62
MAX	12	18	10	11	15	43	32	23	29	12	12	9.9
MIN	7.9	7.9	8.9	7.6	11	11	14	11	9.4	1.9	1.9	2.4
AC-FT	604	633	583	613	662	1140	1210	920	770	385	268	335
CAL YR 1986	TOTAL	3347.9	MEAN	9.17	MAX	45	MIN	1.8	AC-FT	6640		
WTR YR 1987	TOTAL	4092.7	MEAN	11.2	MAX	43	MIN	1.9	AC-FT	8120		

ARKANSAS RIVER BASIN

213

07157500 CROOKED CREEK NEAR NYE, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditons.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 21...	1155	13	3370	7.80	14.5	94	3.2
NOV 24...	1320	11	4600	8.20	10.0	50	1.4
JAN 14...	1515	11	--	8.40	9.0	76	2.2
APR 02...	1140	29	2940	8.50	11.0	234	18
MAY 11...	1215	17	3890	8.40	26.0	193	8.6
JUN 08...	1310	9.4	4550	8.60	31.0	220	5.6
JUL 29...	1440	2.4	5080	8.60	33.0	179	1.1
SEP 02...	1045	4.6	5040	8.50	23.5	93	1.2

ARKANSAS RIVER BASIN

07165900 TORONTO LAKE NEAR TORONTO, KS

LOCATION.--Lat 37 deg 44 min 30 sec, long 95 deg 56 min 00 sec, in NW1/4 SE1/4 sec.36, T.26 S., R.13 E., Woodson County, Hydrologic Unit 11070101, in control tower of dam on Verdigris River, 4.0 mi southeast of town of Toronto, and at mile 271.5.

DRAINAGE AREA.--730 sq mi.

PERIOD OF RECORD.--March 1960 to current year. Prior to October 1971 published as "Toronto Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 15, 1960. Conservation pool elevation was first reached Mar. 21, 1960. Spillway is a concrete, gravity, ogee-weir type. Elevation of the top of dam, 946.0 ft. Elevation of the crest of spillway 906.0 ft. Maximum pool is 316,900 acre-ft at elevation 940.0 ft consisting of the following: Minimum pool, 9,170 acre-ft at elevation 896.0 ft; conservation pool, 11,840 acre-ft between elevations 896.0 ft and 901.5 ft; flood control pool, 179,800 acre-ft between elevations 901.5 ft and 931.0 ft; uncontrolled storage, 116,100 acre-ft between elevations 931.0 ft and 940.0 ft. Reservoir is used for flood control, conservation, pollution abatement and supplemental water supply storage. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 931.41 ft Oct. 4, 1986, contents, 205,700 acre-ft; minimum elevation since conservation pool was first reached, 897.25 ft Mar. 30, 1967, contents, 13,480 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 931.41 ft Oct. 4, contents, 205,700 acre-ft; minimum elevation, 901.28 ft Aug. 3, contents, 20,430 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by U.S. Army Corps of Engineers in 1977)

895	7,580	920	105,600
900	17,220	925	144,100
905	31,170	930	190,000
910	50,570	935	250,200
915	75,200		

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	910.85	907.56	902.51	902.11	902.13	916.84	901.69	901.44	912.94	901.78	901.35	901.98
2	918.45	906.25	903.06	902.09	901.98	918.03	901.57	901.42	912.12	901.88	901.33	901.88
3	930.23	904.87	903.25	902.12	901.85	918.02	901.58	901.45	912.26	901.88	901.33	901.78
4	931.29	903.74	903.14	902.11	901.76	917.29	901.57	901.46	912.64	902.06	901.39	901.73
5	931.02	903.18	902.88	902.09	902.31	916.27	901.56	904.92	911.61	902.61	901.37	901.72
6	930.79	902.86	902.63	902.12	903.20	915.48	901.55	905.83	910.42	902.77	901.35	901.71
7	930.10	902.77	905.11	902.10	903.47	915.72	901.53	905.70	909.12	902.64	901.33	901.70
8	929.13	902.59	906.56	902.10	903.44	915.92	901.49	905.13	907.73	902.36	901.32	901.68
9	927.97	902.38	905.97	902.17	903.28	916.06	901.49	904.48	906.26	902.11	901.36	901.75
10	926.19	902.21	904.83	902.17	903.03	916.18	901.50	903.79	904.77	901.89	901.35	901.73
11	925.71	901.92	903.42	902.18	902.85	916.29	901.54	903.07	903.61	901.74	901.34	901.75
12	925.39	901.70	902.38	902.19	902.60	916.38	901.57	904.47	902.86	901.79	901.47	901.74
13	924.68	901.51	902.08	902.30	902.61	916.47	902.11	904.64	902.39	901.70	902.35	901.73
14	923.97	901.56	901.79	902.77	902.76	916.57	903.29	904.09	901.88	901.60	902.94	901.76
15	923.26	901.61	901.65	902.91	904.22	916.65	904.13	903.51	901.63	901.55	903.15	901.78
16	922.52	901.65	901.69	902.78	906.18	916.37	904.24	903.05	901.58	901.51	903.10	901.82
17	921.77	901.69	901.70	902.68	906.60	917.81	903.97	902.56	901.56	901.52	902.93	901.80
18	920.97	901.74	901.68	902.37	906.38	918.42	903.48	902.04	901.55	901.55	902.75	901.76
19	920.16	901.78	901.71	902.17	906.35	917.67	902.92	904.22	901.57	901.55	902.47	901.73
20	919.30	901.80	901.80	901.86	906.59	916.39	902.36	903.98	901.60	901.55	902.24	901.67
21	918.44	901.82	901.85	901.72	906.72	914.92	901.91	903.59	901.61	901.55	902.04	901.61
22	917.74	901.86	901.90	901.66	906.57	913.36	901.84	903.14	901.84	901.54	901.94	901.57
23	917.03	901.87	901.94	901.60	906.23	911.81	901.74	902.79	901.95	901.53	901.89	901.56
24	916.12	901.88	901.98	901.53	905.78	910.42	901.66	902.61	901.93	901.52	901.84	901.55
25	915.25	902.03	902.02	901.41	905.26	908.91	901.66	903.14	901.78	901.50	902.28	901.54
26	914.30	902.34	902.04	901.39	904.72	907.43	901.64	903.48	901.65	901.48	902.51	901.53
27	913.26	902.41	902.05	901.48	904.72	906.31	901.62	910.64	901.63	901.45	902.34	901.53
28	912.22	902.40	902.07	901.68	910.77	905.27	901.58	913.59	901.58	901.44	902.21	902.04
29	911.13	902.33	902.10	902.17	---	904.02	901.53	914.34	901.59	901.42	902.18	902.03
30	909.97	902.24	902.10	902.31	---	902.85	901.48	914.23	901.72	901.39	902.14	901.91
31	908.73	---	902.11	902.24	---	901.99	---	913.67	---	901.37	902.06	---
MEAN	920.90	902.55	902.65	902.08	904.44	913.62	902.06	905.05	904.58	901.75	901.99	901.74
MAX	931.29	907.56	906.56	902.91	910.77	918.42	904.24	914.34	912.94	902.77	903.15	902.04
MIN	908.78	901.51	901.65	901.39	901.76	901.99	901.48	901.42	901.55	901.37	901.32	901.53
(+)	45,370	23,020	22,660	23,020	54,040	22,330	20,960	68,210	21,600	20,670	22,520	22,110
(#)	+1,230	-22,350	-360	+360	+31,020	-31,710	-1,370	+47,250	-46,610	-930	+1,850	-410

CAL YR 1986 (#) +980
WTR YR 1987 (#) -22,030

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

ARKANSAS RIVER BASIN

215

07166000 VERDIGRIS RIVER NEAR COYVILLE, KS

LOCATION.--Lat 37 deg 42 min 20 sec, long 95 deg 54 min 20 sec, in SW1/4 SW1/4 sec.8, T.27 S., R.14 E., Wilson County, Hydrologic Unit 11070101, on right bank at downstream side of county highway bridge, 1.2 mi upstream from Meadow Creek, 1.5 mi northwest of Coyville, 2.5 mi downstream from Pig Creek, and at mile 268.0.

DRAINAGE AREA.--747 sq mi.

PERIOD OF RECORD.--August 1939 to current year.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1211: 1945(M), 1948(M). WSP 1241: 1941-42, 1943(M).

GAGE.--Water-stage recorder. Datum of gage is 845.28 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Jan. 25, 1952, nonrecording gage and Jan. 26, 1952, to July 17, 1961, water-stage recorder, both 100 ft upstream at same datum. July 18, 1961, to Jan. 28, 1962, nonrecording gage at present site and datum. Jan. 26, 1961, to Mar. 9, 1985, auxiliary gage 3.2 mi downstream.

REMARKS.--Estimated daily discharges: Oct. 1-3, Nov. 25-28, Dec. 7, 8, Feb. 13-16, 28, Mar. 1, 2, 17, 18, May 5-7, 12, 27-30, and July 12-14. Records good except those for estimated daily discharges, which are poor. Flow regulated since Mar. 15, 1960 by Toronto Lake (station 07165900), 3.5 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE.--20 years (water years 1940-59), 465 cu ft per sec, 336,900 acre-ft per yr; 27 years (water years 1961-87, since conservation pool at Toronto Lake was first filled), 546 cu ft per sec, 395,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 cu ft per sec July 12, 1951, gage height, 41.25 ft, from graph based on gage readings, from rating curve extended above 46,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in 1939-41, 1953-58, 1977, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,740 cu ft per sec Oct. 4, gage height, 31.85 ft; minimum discharge, 1.5 cu ft per sec Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	2600	349	166	540	168	846	163	2230	97	10	198
2	8.2	2550	541	166	538	679	480	102	2660	95	10	198
3	707	2500	629	166	496	2660	260	102	2670	92	10	198
4	7780	2410	727	167	348	4140	260	103	2790	162	13	135
5	7350	1790	716	166	423	4340	260	98	3200	241	9.0	32
6	4740	1010	714	165	530	3670	260	98	3170	257	4.4	32
7	5650	529	713	165	759	147	261	540	3120	643	2.0	32
8	6080	530	1440	165	734	84	260	1290	3070	631	2.0	32
9	6130	523	3000	171	723	74	216	1270	3010	629	2.2	33
10	6120	519	2900	175	722	67	181	1250	2840	536	5.3	38
11	5620	523	2830	173	718	65	181	1230	2280	295	2.4	36
12	4010	521	2230	173	715	67	182	749	1520	296	3.0	36
13	3670	440	875	283	669	67	228	482	908	296	41	36
14	3510	96	366	658	573	66	224	1250	898	256	228	35
15	3130	97	635	789	358	65	557	1150	578	115	414	35
16	3100	97	347	732	89	920	906	876	171	96	419	37
17	3080	97	345	721	475	2160	1050	867	106	15	420	50
18	3060	97	344	719	1690	2380	1240	859	84	15	425	116
19	3040	96	276	720	1630	3570	1230	870	16	14	498	117
20	3020	96	170	709	1650	4540	1210	881	16	13	412	118
21	2990	96	170	557	1600	4530	1000	875	14	13	363	120
22	2620	96	168	345	1570	4450	352	828	13	13	203	107
23	2400	96	168	345	1550	4350	351	694	30	13	209	10
24	2890	95	168	342	1540	4290	312	697	72	13	208	9.2
25	2880	95	168	340	1530	4210	178	644	275	13	209	7.9
26	2850	95	167	234	1520	3770	178	20	231	13	311	7.5
27	2790	95	167	94	1590	2720	177	13	82	12	636	7.5
28	2760	179	167	114	1200	2390	176	13	82	7.3	502	9.4
29	2720	268	166	235	---	2350	176	13	82	6.8	198	57
30	2680	266	166	438	---	2210	177	937	94	9.2	198	244
31	2650	---	166	542	---	1660	---	2130	---	10	198	---
TOTAL	110043.4	18502	22488	10935	26480	66859	13369	21094	36312	4917.3	6165.3	2123.5
MEAN	3550	617	725	353	946	2157	446	680	1210	159	199	70.8
MAX	7780	2600	3000	789	1690	4540	1240	2130	3200	643	636	244
MIN	8.2	95	166	94	89	65	176	13	13	6.8	2.0	7.5
AC-FT	218300	36700	44600	21690	52520	132600	26520	41840	72020	9750	12230	4210
CAL YR 1986	TOTAL	249503.0	MEAN	684	MAX	7780	MIN	4.8	AC-FT	494900		
WTR YR 1987	TOTAL	339288.5	MEAN	930	MAX	7780	MIN	2.0	AC-FT	673000		

ARKANSAS RIVER BASIN

07166500 VERDIGRIS RIVER NEAR ALTOONA, KS

LOCATION.--Lat 37 deg 29 min 26 sec, long 95 deg 40 min 49 sec, in SE1/4 NE1/4 SW1/4 sec.29, T.29 S., R.16 E., Wilson County, Hydrologic Unit 11070101, on left bank at downstream side of highway bridge, 2.5 mi southwest of Altoona, 2.5 mi downstream from Big Cedar Creek, and at mile 227.9.

DRAINAGE AREA.--1,138 sq mi.

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

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780.18 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Sept. 9, 1944, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 9-12, 19-27. Records good except those for estimated daily discharges, which are fair. Considerable regulation since 1960 by Toronto Lake (station 07165900), 43.6 mi upstream. Diversion from Altoona Reservoir upstream from station for municipal supply of Altoona and considerable diversion for irrigation upstream from station. Satellite telemeter at station.

AVERAGE DISCHARGE.--21 years (water years 1939-59), 660 cu ft per sec, 478,200 acre-ft per yr; 27 years (water years 1961-87, since conservation pool at Toronto Lake was first filled), 806 cu ft per sec, 583,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,000 cu ft per sec July 12, 1951, gage height, 31.09; no flow at times in 1939-41, 1952-57, 1978, 1980-81, 1983-84.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48,900 cu ft per sec Oct. 3, gage height, 28.81 ft; minimum daily discharge, 2.1 cu ft per sec Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8700	2880	518	241	801	8800	1680	210	2490	86	9.5	167
2	3690	2820	805	240	767	4340	884	200	2710	97	7.3	163
3	32800	2780	1030	243	739	1760	581	151	3100	91	6.1	162
4	31100	3150	967	250	638	3640	339	140	3010	281	17	161
5	16100	3830	991	251	518	4620	329	903	3200	932	14	143
6	11100	2470	969	245	1520	4780	324	6670	3460	562	16	58
7	8180	1270	2150	237	1650	3170	321	5470	3420	329	17	34
8	6110	893	3770	229	1230	412	318	1450	3360	598	13	30
9	6150	832	3270	220	1060	267	315	1590	3300	582	9.1	30
10	6230	780	3810	220	1010	231	272	1490	3230	569	6.4	60
11	6240	761	3400	220	990	212	239	1440	2950	445	3.4	67
12	6010	748	3250	240	961	194	235	2800	2620	273	4.0	65
13	4630	713	2170	333	1390	168	666	2320	1390	659	578	65
14	4010	541	1200	1240	2700	161	923	1120	1010	526	318	64
15	3690	205	1170	1740	4010	154	1360	1480	987	257	249	64
16	3400	192	833	1240	4070	148	1190	1260	524	135	354	68
17	3350	192	600	1030	1150	2230	1220	1070	191	111	341	64
18	3300	192	573	988	1560	6080	1370	1040	125	86	338	63
19	3260	202	548	900	2530	3830	1450	2080	112	126	334	109
20	3230	201	435	750	2880	4300	1410	1140	74	70	419	118
21	3190	196	293	600	2740	4900	2110	1060	74	40	334	101
22	3220	189	271	500	2210	4900	1310	1020	44	30	287	97
23	2690	186	267	400	1960	4820	585	958	36	25	180	96
24	2830	182	267	350	1850	4910	500	1060	31	23	177	66
25	3930	314	264	300	1800	4910	406	4700	39	21	179	29
26	4010	4540	257	250	1780	4680	260	1460	216	20	177	19
27	3310	1810	250	220	1990	3970	242	5720	213	18	560	17
28	3130	649	246	226	4820	2960	230	10400	97	17	655	23
29	3050	523	245	1380	---	2700	225	5970	74	16	427	26
30	2980	565	242	1180	---	2620	215	1040	77	14	183	63
31	2930	---	239	827	---	2310	---	1950	---	12	171	---
TOTAL	206550	34806	35300	17290	51324	93177	21509	69362	42164	7051	6383.8	2292
MEAN	6663	1160	1139	558	1833	3006	717	2237	1405	227	206	76.4
MAX	32800	4540	3810	1740	4820	8800	2110	10400	3460	932	655	167
MIN	2690	182	239	220	518	148	215	140	31	12	3.4	17
AC-FT	409700	69040	70020	34290	101800	184800	42660	137600	83630	13990	12660	4550
CAL YR 1986	TOTAL	421776.09	MEAN	1156	MAX	32800	MIN	.09	AC-FT	836600		
WTR YR 1987	TOTAL	587208.80	MEAN	1609	MAX	32800	MIN	3.4	AC-FT	1165000		

ARKANSAS RIVER BASIN

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07167500 OTTER CREEK AT CLIMAX, KS

LOCATION.--Lat 37 deg 42 min 30 sec, long 96 deg 13 min 30 sec, in SW1/4 SE1/4 sec.8, T.27 S., R.11 E., Greenwood County, Hydrologic Unit 11070102, on right bank at downstream side of bridge on State Highway 99, 0.5 mi south of Climax, 5.2 mi upstream from mouth, and 5.5 mi downstream from confluence of North and South Branches.

DRAINAGE AREA.--129 sq mi.

PERIOD OF RECORD.--August 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 977.76 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 8 to Jan. 5, and Jan. 9-11, 18-26. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--41 years, 80.0 cu ft per sec, 57,960 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107,000 cu ft per sec July 3, 1976, gage height, 31.47 ft; no flow at times in 1953-57, 1963-63, 1971-73, 1976-77, 1979-82.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	1800	*16,000	*23.96	May 27	0900	9,050	20.35

Minimum discharge, 1.6 cu ft per sec Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	29	165	30	85	1550	62	36	146	19	2.9	2.4
2	2180	27	473	29	75	465	58	33	129	13	2.7	2.3
3	11800	27	229	28	64	301	50	30	105	11	2.6	2.0
4	1220	43	144	27	56	226	48	24	82	13	4.3	2.0
5	452	190	116	27	266	176	47	39	67	26	4.0	2.1
6	310	114	104	26	382	144	46	103	57	16	3.7	2.0
7	206	77	762	25	267	127	45	68	47	11	3.2	1.9
8	159	67	600	23	153	115	47	39	40	9.7	2.9	1.9
9	142	58	400	21	112	101	46	29	35	8.7	4.1	2.3
10	132	49	200	20	98	88	48	24	31	7.9	3.3	3.6
11	337	47	120	20	88	82	52	21	33	6.8	2.9	2.9
12	562	45	90	27	77	76	47	1430	35	24	4.9	3.1
13	209	42	80	89	340	69	1070	236	28	113	256	3.0
14	166	40	70	288	553	66	316	105	24	14	32	3.0
15	134	39	66	124	930	62	401	68	20	9.0	13	3.1
16	107	39	62	82	689	58	209	49	18	7.5	7.7	3.0
17	94	39	58	68	299	1180	159	40	15	7.7	5.3	2.7
18	84	36	56	60	263	504	139	34	14	7.9	4.2	2.5
19	73	33	52	50	355	239	124	29	13	6.4	3.6	2.4
20	63	31	50	45	416	165	109	25	13	5.5	3.2	2.3
21	56	30	48	42	317	138	96	22	12	5.0	2.8	2.0
22	57	28	45	40	212	120	86	20	12	5.0	2.5	1.8
23	67	28	43	37	159	127	79	26	28	4.4	2.8	1.8
24	57	27	41	35	136	248	73	32	13	4.1	3.1	1.8
25	49	26	39	35	128	144	69	139	11	4.0	3.7	1.9
26	47	106	38	35	120	112	63	60	9.2	3.8	5.6	1.7
27	44	93	37	37	780	102	57	3520	8.4	3.6	5.2	1.8
28	40	57	35	89	2580	93	50	1720	8.3	3.4	7.3	2.6
29	36	47	34	425	---	82	45	492	7.2	3.2	4.9	2.1
30	33	43	32	174	---	72	40	313	15	3.1	3.5	2.0
31	31	---	31	102	---	67	---	191	---	3.2	2.7	---
TOTAL	19967	1557	4320	2160	10000	7099	3781	8997	1076.1	379.9	410.6	70.0
MEAN	644	51.9	139	69.7	357	229	126	290	35.9	12.3	13.2	2.33
MAX	11800	190	762	425	2580	1550	1070	3520	146	113	256	3.6
MIN	31	26	31	20	56	58	40	20	7.2	3.1	2.5	1.7
AC-FT	39600	3090	8570	4280	19830	14080	7500	17850	2130	754	814	139
CAL YR 1986	TOTAL	47965.0	MEAN	131	MAX	11800	MIN	1.8	AC-FT	95140		
WTR YR 1987	TOTAL	59817.6	MEAN	164	MAX	11800	MIN	1.7	AC-FT	118600		

ARKANSAS RIVER BASIN

07168000 FALL RIVER LAKE NEAR FALL RIVER, KS

LOCATION.--Lat 37 deg 38 min 48 sec, long 96 deg 04 min 39 sec, in NW1/4 NE1/4 sec.3, T.28 S., R.12 E., Greenwood County, Hydrologic Unit 11070102, on right bank at dam on Fall River, 4.0 mi northwest of town of Fall River, and at mile 54.2.

DRAINAGE AREA.--585 sq mi.

PERIOD OF RECORD.--April 1949 to current year (monthly records only prior to October 1957). Prior to October 1971 published as "Fall River Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam. Spillway is a concrete, gravity, ogee-weir type. Regulated storage began Apr. 20, 1949. Conservation pool, elevation was first reached June 5, 1949. Elevation of top of dam, 996.5 ft; maximum design pool elevation, 990.0 ft; flood-control pool elevation, 987.5 ft, capacity, 259,000 acre-ft; and conservation pool elevation, 948.5 ft, capacity, 23,940 acre-ft, of which 17,000 acre-ft is for pollution abatement. Reservoir was designed for flood control and conservation. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 987.18 ft July 13, 1951, contents, 260,200 acre-ft; minimum elevation, since conservation pool first reached, 933.08 ft Feb. 3, 1955, contents, 3,110 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 981.10 ft Oct. 10, contents, 195,500 acre-ft; minimum elevation, 948.40 ft May 2, contents, 21,660 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by U.S. Army Corps of Engineers, revised in 1977)

945	14,620	970	115,400
950	25,660	975	148,100
955	41,640	980	186,200
960	62,380	985	231,300
965	86,980		

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	958.36	958.33	949.12	948.88	949.08	961.95	948.65	948.41	960.10	949.10	948.60	948.65
2	963.65	956.80	949.94	948.85	948.93	963.13	948.62	948.42	959.02	949.13	948.57	948.64
3	975.70	955.79	950.19	948.86	948.89	963.07	948.64	948.45	958.25	949.13	948.56	948.66
4	977.70	955.43	950.11	948.86	948.83	962.24	948.63	948.46	957.30	949.12	948.62	948.66
5	978.82	954.76	949.97	948.86	949.19	961.21	948.64	949.84	956.14	949.30	948.63	948.67
6	979.56	953.76	949.80	948.88	949.57	960.48	948.61	950.11	954.89	949.20	948.62	948.67
7	980.17	952.65	951.14	948.85	949.63	960.74	948.59	949.98	953.58	948.97	948.57	948.67
8	980.63	951.37	952.14	948.87	949.46	960.97	948.57	949.57	952.15	948.70	948.56	948.68
9	980.95	950.00	952.09	948.94	949.23	961.14	948.53	949.11	950.62	948.61	948.56	948.68
10	980.97	949.07	951.68	948.94	948.97	961.29	948.52	948.63	949.42	948.59	948.56	948.74
11	980.53	948.78	951.14	948.97	948.68	961.45	948.54	948.47	948.85	948.59	948.55	948.78
12	979.89	948.65	950.61	948.97	948.58	961.61	948.55	950.76	948.71	948.90	948.68	948.80
13	979.05	948.62	950.13	949.08	949.29	961.76	949.34	951.08	948.70	949.57	949.62	948.84
14	978.14	948.66	949.65	949.37	950.00	961.90	950.07	950.60	948.68	949.46	949.87	948.86
15	977.32	948.74	949.11	949.21	951.53	961.98	950.45	950.09	948.63	949.24	949.98	948.86
16	976.44	948.81	948.77	949.12	953.01	961.78	950.41	949.54	948.62	948.97	949.74	948.92
17	975.50	948.87	948.63	949.14	953.29	963.01	950.16	948.88	948.62	948.80	949.52	948.95
18	974.50	948.94	948.64	949.13	952.88	963.02	949.84	948.55	948.63	948.81	949.24	948.92
19	973.50	948.93	948.70	949.11	952.63	962.06	949.44	948.51	948.66	948.76	948.95	948.90
20	972.50	948.82	948.83	949.08	952.55	960.93	949.00	948.51	948.70	948.72	948.82	948.87
21	971.36	948.73	948.91	949.07	952.40	959.78	948.65	948.51	948.75	948.70	948.82	948.82
22	970.50	948.64	949.00	948.99	952.02	958.53	948.55	948.54	948.97	948.70	948.81	948.76
23	969.62	948.54	949.07	948.92	951.51	957.23	948.54	948.55	949.07	948.71	948.82	948.72
24	968.51	948.50	949.14	948.83	950.93	955.98	948.56	948.62	949.06	948.71	948.84	948.70
25	967.37	948.68	949.20	948.71	950.27	954.58	948.58	948.46	948.94	948.70	949.05	948.71
26	966.14	948.94	949.24	948.68	949.61	953.03	948.57	949.27	948.88	948.69	949.10	948.69
27	964.99	949.08	949.28	948.73	950.29	951.72	948.55	956.79	948.89	948.67	948.93	948.67
28	963.80	949.10	949.31	948.91	957.57	950.72	948.53	959.99	948.88	948.66	948.84	948.73
29	962.50	949.04	949.27	949.51	---	949.67	948.48	961.02	948.85	948.65	948.82	948.73
30	961.15	948.96	949.15	949.56	---	948.99	948.45	961.33	949.02	948.62	948.80	948.76
31	959.78	---	949.04	949.35	---	948.86	---	960.73	---	948.61	948.73	---
MEAN	972.57	950.47	949.71	949.01	950.67	958.86	948.91	950.90	950.92	948.87	948.91	948.76
MAX	980.97	958.33	952.14	949.56	957.57	963.13	950.45	961.33	960.10	949.57	949.88	948.95
MIN	958.36	948.50	948.64	948.68	948.58	948.86	948.45	948.41	948.62	948.59	948.55	948.64
(+)	61,380	23,000	23,200	23,970	51,790	22,760	21,780	65,730	23,150	22,160	22,440	22,520
(#)	+11,940	-38,380	+200	+770	+27,820	-29,030	-980	+43,950	-42,580	-990	+280	+80

CAL YR 1986 (#) +370
WTR YR 1987 (#) -26,920

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

ARKANSAS RIVER BASIN

219

07168500 FALL RIVER NEAR FALL RIVER, KS

LOCATION.--Lat 37 deg 38 min 34 sec, long 96 deg 03 min 33 sec, in SW1/4 NE1/4 sec.2, T.28 S., R.12 E., Greenwood County, Hydrologic Unit 11070102, near left bank on downstream side of highway bridge, 0.3 mi downstream from Fall River Dam, 2.5 mi upstream from Salt Creek, 3.0 mi northwest of town of Fall River, and at mile 53.9.

DRAINAGE AREA.--585 sq mi.

PERIOD OF RECORD.--April 1904 to September 1905 (gage heights only) published as "at Fall River," May 1939 to current year. Monthly discharge only for May 1939, published in WSP 1311.

REVISED RECORDS.--WSP 1147: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 898.44 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Sept. 30, 1905, nonrecording gage at site 4.7 mi downstream at datum 21.6 ft lower. May 5, 1939, to June 12, 1946, nonrecording gage at present site and datum. June 13 to Aug. 26, 1946, nonrecording gage and Aug. 27, 1946, to Sept. 30, 1957, water-stage recorder, at site 3.1 mi downstream at datum 12.79 ft lower.

REMARKS.--Estimated daily discharges: June 19-22 and July 22 to Aug. 3. Records good except those for estimated daily discharges, which are fair. Flow regulated since 1949 by Fall River Lake (station 07168000), 0.3 mi upstream from station. Satellite telemeter at station.

AVERAGE DISCHARGE.--9 years (water years 1940-48), 364 cu ft per sec, 263,700 acre-ft per yr; 38 years (water years 1950-87, since conservation pool at Fall River Lake was first filled), 342 cu ft per sec, 247,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,600 cu ft per sec Apr. 16, 1945, gage height, 31.15 ft, present site and datum; no flow at times in 1939-40, 1946, 1955, 1967, 1976, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,790 cu ft per sec Oct. 11, gage height, 11.64 ft; minimum discharge, 4.9 cu ft per sec Aug. 12-14 and Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	3250	232	318	712	11	504	155	2250	72	6.0	100
2	8.7	3180	232	212	522	682	367	76	2600	71	6.0	46
3	11	2140	457	141	337	2600	220	77	2560	71	6.0	5.6
4	13	1110	606	141	337	3350	220	77	2530	72	5.9	5.6
5	12	1650	604	141	337	3290	220	80	2500	73	5.9	5.6
6	12	2000	603	141	548	2360	220	79	2450	179	5.9	5.5
7	12	2110	606	141	719	12	220	472	2410	345	5.9	5.6
8	13	2070	1080	141	717	12	220	734	2360	345	5.9	5.6
9	13	2020	1510	141	714	12	220	725	2310	176	5.9	5.6
10	1070	1430	1510	141	710	12	181	718	1780	48	5.9	6.0
11	3550	522	1490	141	706	12	151	368	913	25	5.9	5.9
12	4710	323	1330	141	475	12	151	47	404	30	6.4	5.9
13	4650	170	1170	242	297	12	154	449	176	32	5.3	5.9
14	4370	111	1160	554	239	12	155	905	176	211	173	6.1
15	3930	61	1150	707	123	12	498	899	176	352	347	6.0
16	3900	61	846	562	45	777	723	892	110	352	345	5.9
17	3860	61	508	338	626	1680	826	884	67	250	342	44
18	3830	62	385	337	1530	2230	890	553	47	74	463	67
19	3790	172	220	337	1520	3260	885	167	12	73	341	67
20	3610	234	144	337	1520	3210	879	67	12	74	209	67
21	3710	232	144	337	1520	3170	669	67	12	41	5.6	67
22	3070	232	144	337	1510	3120	345	67	12	13	5.2	67
23	3060	232	143	337	1500	3070	251	67	12	13	5.5	67
24	3610	137	141	337	1480	3020	190	67	96	13	5.6	51
25	3570	62	141	337	1470	2970	191	68	182	13	5.6	19
26	3530	62	141	244	1450	2910	191	69	114	13	128	18
27	3480	61	141	170	1030	2380	194	75	69	13	347	18
28	3440	157	141	170	352	1740	194	77	69	13	239	18
29	3400	232	230	245	---	1720	196	79	69	10	100	17
30	3340	232	322	555	---	1240	195	1010	71	5.6	100	17
31	3300	---	318	718	---	508	---	2030	---	6.0	100	---
TOTAL	78883.4	24376	17849	9141	23046	49406	10520	12100	26549	3078.6	3338.4	830.8
MEAN	2545	813	576	295	823	1594	351	390	885	99.3	108	27.7
MAX	4710	3250	1510	718	1530	3350	890	2030	2600	352	463	100
MIN	8.7	61	141	141	45	11	151	47	12	5.6	5.2	5.5
AC-FT	156500	48350	35400	19130	45710	98000	20870	24000	52660	6110	6620	1650
CAL YR 1986	TOTAL	187047.8	MEAN	512	MAX	4710	MIN	3.7	AC-FT	371000		
WTR YR 1987	TOTAL	259118.2	MEAN	710	MAX	4710	MIN	5.2	AC-FT	514000		

ARKANSAS RIVER BASIN

07169500 FALL RIVER AT FREDONIA, KS

LOCATION.--Lat 37 deg 30 min 30 sec, long 95 deg 50 min 00 sec, in SW1/4 NW1/4 sec.24, T.29 S., R.14 E., Wilson County, Hydrologic Unit 11070102, on right bank at downstream side of bridge on State Highway 96, 0.8 mi upstream from Clear Creek, 1.0 mi downstream from Salt Creek, 1.0 mi south of Fredonia, and at mile 25.3.

DRAINAGE AREA.--827 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for October and November 1938, published in WSP 1311. Published as "near Fredonia" 1952-57.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1341: 1939-40.

GAGE.--Water-stage recorder. Datum of gage is 819.09 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Dec. 21, 1949, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 23-27 and Jan. 9-12, 19-26. Records good except those for estimated daily discharges, which are poor. Considerable regulation since 1949 by Fall River Lake (station 07168000) 28.9 mi upstream and during low flow by Fredonia City Water Reservoir 1.0 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE.--10 years (water years 1939-48), 506 cu ft per sec, 366,600 acre-ft per yr; 38 years (water years 1950-87, since conservation pool at Fall River Lake was first filled), 489 cu ft per sec, 354,300 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,000 cu ft per sec Apr. 16, 1945, gage height, 36.17 ft; no flow at times in 1939-40, 1980-81.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1904, that of Apr. 16, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,800 cu ft per sec Oct. 3, gage height, 32.26 ft; minimum discharge, 8.3 cu ft per sec Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4540	3460	398	398	912	7370	633	191	2200	140	13	90
2	2580	3400	1010	392	876	991	610	147	2620	96	11	91
3	26300	3300	859	261	522	1960	368	93	2710	84	12	62
4	18100	1640	906	229	450	3390	310	88	2660	138	21	21
5	1390	2740	835	226	512	3520	305	748	2620	157	25	12
6	632	2320	800	220	1390	3440	305	3510	2570	127	23	12
7	448	2460	2210	213	1460	1320	299	1040	2530	265	17	12
8	370	2430	2270	209	1060	221	291	934	2480	353	15	12
9	332	2350	2420	200	930	178	287	856	2430	331	13	12
10	294	2270	2050	200	888	157	286	813	2340	108	11	22
11	2020	1010	1950	200	868	143	231	744	1390	57	9.6	17
12	4260	670	1780	200	824	134	214	706	755	59	24	14
13	4780	323	1460	348	1050	128	364	803	280	761	254	12
14	4640	261	1400	1190	1930	124	336	960	203	149	76	12
15	4250	196	1370	1310	2480	116	417	1000	204	304	230	13
16	4010	161	1340	989	2180	113	843	971	194	343	330	16
17	3960	156	769	614	657	2760	840	953	125	339	326	13
18	3930	151	653	519	1800	3340	979	901	75	288	340	24
19	3950	144	460	500	2290	3280	968	460	60	259	423	62
20	3910	263	303	450	2340	3510	950	175	36	125	322	63
21	3810	300	259	450	2160	3430	1150	105	33	91	173	62
22	3810	298	250	450	1950	3350	527	95	32	66	29	60
23	2920	294	246	450	1830	3310	389	95	35	38	19	60
24	3420	289	243	450	1770	3380	245	147	59	27	17	62
25	3830	281	241	450	1730	3300	212	592	99	21	16	57
26	3780	2440	235	400	1710	3180	207	171	166	21	17	28
27	3730	664	230	283	2160	3070	203	3320	112	25	224	20
28	3670	320	230	333	5320	2220	197	4510	71	23	341	24
29	3600	375	229	1510	---	1980	195	1090	75	20	193	22
30	3540	387	350	1020	---	1910	193	486	83	19	98	19
31	3500	---	397	958	---	876	---	2050	---	17	92	---
TOTAL	134306	35353	28053	15622	44049	66201	13354	28754	29247	4851	3714.6	1006
MEAN	4332	1178	905	504	1573	2136	445	928	975	156	120	33.5
MAX	26300	3460	2420	1510	5320	7370	1150	4510	2710	761	423	91
MIN	294	144	229	200	450	113	193	88	32	17	9.6	12
AC-FT	266400	70120	55640	30990	87370	131300	26490	57030	58010	9620	7370	2000

CAL YR 1986 TOTAL 313270.8 MEAN 858 MAX 26300 MIN 7.4 AC-FT 621400
WTR YR 1987 TOTAL 404510.6 MEAN 1108 MAX 26300 MIN 9.6 AC-FT 802300

ARKANSAS RIVER BASIN

221

07169800 ELK RIVER AT ELK FALLS, KS

LOCATION.--Lat 37 deg 22 min 32 sec, long 96 deg 11 min 07 sec, in SW1/4 SE1/4 SE1/4 sec.3, T.31 S., R.11 E., Elk County, Hydrologic Unit 11070104, on left bank at downstream side of bridge on U.S. Highway 160 in Elk Falls, 2.0 mi upstream from Wildcat Creek, and at mile 57.5.

DRAINAGE AREA.--220 sq mi.

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 897.300 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Jan. 19-27. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 163 cu ft per sec, 118,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 200,000 cu ft per sec July 3, 1976, gage height, 34.85 ft; no flow at times in 1967, 1970-72, and 1980-83.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	0900	*21,100	*23.31	Feb. 28	2200	6,930	14.80

Minimum discharge, 2.4 cu ft per sec Sept. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3200	53	149	67	211	3500	101	29	273	19	5.1	7.5
2	4070	47	713	64	172	1720	92	27	224	20	5.2	7.0
3	16500	44	523	61	145	862	82	26	195	19	5.2	6.6
4	4480	263	306	61	126	498	75	25	160	18	6.8	6.3
5	3000	873	211	59	191	360	71	402	136	22	8.6	5.7
6	2710	507	163	58	671	292	69	1020	118	31	8.0	4.6
7	2350	280	860	55	584	247	68	530	100	25	6.6	4.1
8	1780	216	1100	51	343	214	65	229	84	20	6.0	3.9
9	1160	165	816	65	230	186	61	137	71	18	5.4	3.3
10	840	134	485	35	186	159	59	98	63	16	5.2	3.5
11	505	118	309	78	162	141	59	74	60	15	4.9	3.5
12	576	106	244	68	144	131	56	574	60	14	6.3	3.7
13	366	90	210	97	260	122	68	462	52	119	274	4.2
14	271	79	187	362	932	115	152	219	46	92	162	4.0
15	213	78	170	362	1210	106	144	124	40	42	68	3.5
16	174	78	158	229	1360	100	136	85	35	28	34	3.4
17	150	77	147	175	723	2170	113	63	31	21	23	3.2
18	131	74	135	156	506	1750	96	51	28	176	17	2.8
19	116	67	124	145	614	806	83	42	26	117	15	2.8
20	103	62	118	135	649	432	73	36	26	51	14	2.8
21	91	58	111	125	543	307	67	31	26	31	13	2.8
22	104	55	101	115	393	241	58	27	25	22	10	2.8
23	134	53	95	108	292	214	52	26	26	16	9.7	2.8
24	119	52	92	100	239	290	48	32	25	12	9.2	2.7
25	105	56	89	90	218	242	44	44	22	10	8.9	2.4
26	105	545	84	85	202	187	42	38	20	8.9	8.6	2.6
27	95	390	80	85	818	162	38	1140	18	7.3	11	2.6
28	82	209	77	143	3390	148	36	2360	17	6.5	13	3.2
29	71	147	75	831	---	130	34	1170	14	6.0	10	3.3
30	62	122	71	632	---	115	32	607	15	5.5	8.9	3.1
31	57	---	67	304	---	106	---	364	---	4.9	8.0	---
TOTAL	43720	5098	8075	5051	15514	16053	2174	10092	2036	1013.1	790.6	114.7
MEAN	1410	170	260	163	554	518	72.5	326	67.9	32.7	25.5	3.82
MAX	16500	873	1100	831	3390	3500	152	2360	273	176	274	7.5
MIN	57	44	67	51	126	100	32	25	14	4.9	4.9	2.4
AC-FT	86720	10110	16020	10020	30770	31840	4310	20020	4040	2010	1570	228

CAL YR 1986	TOTAL	100030.1	MEAN	274	MAX	16500	MIN	5.5	AC-FT	198400
WTR YR 1987	TOTAL	109731.4	MEAN	301	MAX	16500	MIN	2.4	AC-FT	217700

07170050 ELK CITY LAKE NEAR INDEPENDENCE, KS

LOCATION.--Lat 37 deg 16 min 39 sec, long 95 deg 46 min 37 sec, in SW1/4 SW1/4 NW1/4 sec.9, T.32 S., R.15 E., Montgomery County, Hydrologic Unit 11070104, in gate tower of Elk City Dam, on Elk River, 5.0 mi northwest of Independence, and at mile 8.7.

DRAINAGE AREA.--634 sq mi.

PERIOD OF RECORD.--March 1966 to current year. Prior to October 1971 published as "Elk City Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 17, 1966. Conservation pool elevation was first reached June 12, 1967. Total capacity, 514,300 acre-ft, consisting of the following: Sedimentation pool, 348 acre-ft below elevation 764.0 ft; conservation pool, 28,660 acre-ft between elevations 764.0 ft and 792.0 ft; flood control pool, 255,300 acre-ft between elevations 792.0 ft and 825.0 ft; uncontrolled storage, 230,000 acre-ft between elevations 825.0 ft and 838.0 ft. Reservoir is designed for flood control, pollution control, conservation and recreation. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 830.37 ft Oct. 4, 1936, contents, 364,000 acre-ft; minimum elevation since conservation pool first reached, 781.25 ft Apr. 12, 1967, contents, 8,090 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 830.37 ft Oct. 4, contents, 364,000 acre-ft; minimum elevation, 793.83 ft Apr. 27, 28, contents, 35,730 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1977 by U.S. Army Corps of Engineers)

790	22,570	815	175,000
795	40,460	820	224,800
800	64,500	825	284,300
805	94,820	830	357,900
810	131,500	835	449,500

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1937
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	815.00	799.25	797.06	796.22	795.25	803.60	794.15	793.92	804.63	794.01	794.15	794.19
2	818.72	798.08	796.67	796.16	794.55	805.77	794.00	793.93	804.13	794.01	794.12	794.16
3	829.63	797.22	796.71	796.15	794.20	806.01	793.94	793.90	803.55	794.01	794.09	794.16
4	829.93	797.56	796.58	796.10	794.27	805.23	793.97	793.95	802.71	794.16	794.11	794.14
5	828.49	798.26	796.39	796.07	794.36	804.23	794.02	794.30	801.55	794.31	794.10	794.13
6	827.71	798.43	796.35	795.95	795.09	803.63	794.05	796.58	800.29	794.36	794.09	794.11
7	827.14	798.26	797.35	795.76	795.67	803.80	794.09	796.93	798.94	794.26	794.06	794.17
8	826.50	797.98	798.87	795.59	795.85	803.93	794.14	796.38	797.54	794.17	794.02	794.17
9	825.49	797.68	798.97	795.45	795.72	804.01	794.15	795.68	796.26	794.06	794.01	794.15
10	824.15	797.32	798.62	795.30	795.38	804.10	794.20	794.80	795.28	794.00	793.98	794.15
11	822.60	796.95	798.03	795.16	795.00	804.20	794.20	794.46	794.73	793.97	793.96	794.14
12	821.00	796.51	797.54	794.99	794.59	804.30	794.22	794.80	794.48	793.98	794.13	794.11
13	819.30	796.29	797.14	794.93	794.80	804.40	794.73	795.15	794.36	794.93	794.58	794.11
14	817.87	796.37	796.70	795.30	796.18	804.46	794.94	795.02	794.24	795.05	794.67	794.09
15	816.88	796.43	796.53	795.49	798.55	804.51	795.03	794.74	794.14	794.91	794.50	794.14
16	815.85	796.49	796.51	795.60	800.34	804.08	795.00	794.43	794.13	794.71	794.26	794.16
17	814.77	796.53	796.50	795.60	800.73	803.92	794.83	794.09	794.13	794.59	794.10	794.14
18	813.68	796.43	796.47	795.58	800.21	804.70	794.52	793.91	794.12	794.59	794.13	794.12
19	812.57	796.32	796.44	795.54	799.65	804.16	794.22	793.99	794.13	794.62	794.12	794.12
20	811.41	796.28	796.44	795.32	798.98	803.05	794.06	794.00	794.12	794.63	794.11	794.11
21	810.21	796.34	796.43	794.88	798.15	801.80	794.43	794.00	794.12	794.61	794.09	794.07
22	809.51	796.36	796.43	794.51	797.16	800.42	794.54	794.00	794.11	794.58	794.05	794.06
23	808.85	796.37	796.44	794.35	796.02	798.95	794.48	794.06	794.11	794.53	794.18	794.06
24	807.91	794.40	796.44	794.42	795.00	797.42	794.30	794.27	794.11	794.47	794.19	794.05
25	806.96	797.25	796.43	794.47	794.49	795.75	794.12	794.61	794.07	794.41	794.20	794.05
26	805.97	800.88	796.41	794.52	794.22	794.47	793.90	794.67	794.06	794.36	794.19	794.03
27	804.91	801.12	796.39	794.47	794.84	794.14	793.83	799.58	794.05	794.31	794.20	794.02
28	803.86	800.62	796.37	794.55	799.09	794.24	793.85	803.85	794.01	794.26	794.20	794.08
29	802.70	799.50	796.32	795.84	---	794.22	793.89	805.43	794.00	794.23	794.20	794.07
30	801.53	798.22	796.30	796.24	---	794.25	793.91	805.57	794.01	794.20	794.20	794.05
31	800.39	---	796.27	795.83	---	794.27	---	805.12	---	794.18	794.19	---
MEAN	815.53	797.52	796.84	801.17	796.37	801.48	794.26	796.13	796.27	794.37	794.17	794.11
MAX	829.93	801.12	798.97	975.45	800.73	806.01	795.03	805.57	804.63	795.05	794.67	794.19
MIN	800.39	794.40	796.27	794.35	794.20	794.14	793.83	793.90	794.00	793.97	793.96	794.02
(+)	66,640	55,220	45,970	44,000	59,660	37,480	36,040	95,630	36,440	37,120	37,160	36,600
(#)	-60,160	-11,420	-9,250	-1,970	+15,660	-22,180	-1,440	+59,590	-59,190	+680	+40	-560

CAL YR 1986 (#) +590
WTR YR 1987 (#) -90,200

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

ARKANSAS RIVER BASIN

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07170060 ELK RIVER BELOW ELK CITY LAKE, KS

LOCATION.--Lat 37 deg 16 min 46 sec, long 95 deg 46 min 53 sec, in NW1/4 SW1/4 NW1/4 sec.9, T.32 S., R.15 E., Montgomery County, Hydrologic Unit 11070104, near left bank, 600 ft below Elk City Dam, and at mile 8.7.

DRAINAGE AREA.--634 sq mi.

PERIOD OF RECORD.--October 1965 to current year. Prior to October 1971, published as "below Elk City Reservoir."

GAGE.--Water-stage recorder. Datum of gage is 740.00 ft above sea level (levels by U.S. Army Corps of Engineers). Aug. 17, 1978 to Apr. 3, 1979 at site 600 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 1-3, Nov. 25, 26, Dec. 7, Feb. 13-17, Feb. 28 to Mar. 2, Mar. 17, 18, May 24, 25, 27-30, July 13, and Sept. 23-25. Records good except those for estimated daily discharges, which are fair. Flow completely regulated since 1966 by Elk City Lake (station 07170050) 600 ft upstream.

AVERAGE DISCHARGE.--22 years, 452 cu ft per sec, 327,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 cu ft per sec Oct. 4, 1986, gage height, 33.36 ft; no flow at times in 1966-67, 1971, 1979-80, 1982, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,900 cu ft per sec Oct. 4, gage height, 33.36 ft; no flow due to maintenance and construction in channel for parts of Sept. 23 and 25 and all of Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	2890	3140	239	1790	4.0	362	12	2180	21	14	14
2	11	2850	1730	239	1780	4.0	514	11	2170	21	14	14
3	1560	2060	1150	238	980	1450	276	12	2160	21	15	14
4	11600	875	1150	239	237	3660	85	12	2750	22	15	14
5	11500	1300	831	237	238	4200	84	12	3490	22	15	14
6	10500	1140	519	362	423	2600	84	11	3440	105	14	15
7	9310	1180	552	518	543	6.1	83	714	3390	215	14	15
8	8740	1180	1020	516	545	5.9	84	1760	3340	214	14	14
9	8410	1170	2210	518	859	5.4	84	1750	2800	214	14	15
10	9350	1160	2170	517	1150	4.2	86	1740	2000	87	14	16
11	9690	1170	2150	517	1140	4.0	85	919	1320	12	14	14
12	9610	1160	1830	519	1140	4.0	85	188	593	11	14	14
13	9580	707	1390	525	621	3.7	86	525	293	11	15	14
14	8420	92	1390	529	195	3.0	84	752	292	281	276	15
15	5440	92	784	526	195	2.9	333	749	181	446	490	15
16	5280	93	371	524	195	1420	500	748	52	446	490	15
17	5220	195	382	522	948	3570	666	747	27	307	317	14
18	5170	357	372	523	2900	3640	779	328	26	88	16	11
19	5120	360	295	523	3250	3880	776	34	25	88	15	11
20	5060	218	292	834	3220	4390	439	32	24	88	14	10
21	5010	84	293	1170	3170	4340	169	31	24	89	13	10
22	3920	87	180	1160	3140	4280	166	28	24	89	14	9.3
23	3030	87	189	631	3100	4220	353	28	24	90	14	2.2
24	3730	88	240	171	2590	4160	480	29	24	90	13	.00
25	3710	88	240	170	1570	4080	478	30	24	89	12	.47
26	3700	686	239	170	1070	3080	477	30	24	88	11	2.0
27	3650	1400	239	170	763	1010	216	32	24	88	11	2.0
28	3600	2530	239	550	309	216	18	33	24	62	15	2.2
29	3560	3600	240	888	---	216	13	34	23	25	14	2.3
30	3510	3530	240	1380	---	216	12	1160	23	14	15	2.5
31	3190	---	239	1800	---	216	---	2200	---	14	14	---
TOTAL	180192	32429	26306	17425	38066	54891.2	7957	14691	30791	3458	1950	310.97
MEAN	5813	1081	849	562	1360	1771	265	474	1026	112	62.9	10.4
MAX	11600	3600	3140	1800	3250	4390	779	2200	3490	446	490	16
MIN	11	84	180	170	195	2.9	12	11	23	11	11	.00
AC-FT	357400	64320	52180	34560	75500	108900	15780	29140	61070	6860	3870	617
CAL YR 1986	TOTAL	361225.40	MEAN	990	MAX	11600	MIN	4.2	AC-FT	716500		
WTR YR 1987	TOTAL	408467.17	MEAN	1119	MAX	11600	MIN	.00	AC-FT	810200		

07170500 VERDIGRIS RIVER AT INDEPENDENCE, KS

LOCATION.--Lat 37 deg 13 min 26 sec, long 95 deg 40 min 43 sec, in NW1/4 NE1/4 NE1/4 sec.32, T.32 S., R.16 E., Montgomery County, Hydrologic Unit 11070103, on right bank at downstream side of bridge on old U.S. Highway 160, 1.0 mi east of Independence, 3.6 mi downstream from Elk River, and at mile 194.3.

DRAINAGE AREA.--2,892 sq mi.

PERIOD OF RECORD.--August 1895 to September 1904 (monthly figures only, published in WSP 1311), October 1921 to current year.

REVISED RECORDS.--WSP 977: 1922, 1927-29. WSP 1117: Drainage area. WSP 1341: 1923-25(M), 1939.

GAGE.--Water-stage recorder. Datum of gage is 716.63 ft above sea level. Aug. 2, 1895, to Nov. 30, 1903, non-recording gage at former mill dam 5.0 mi downstream and 2.5 mi northwest of Liberty, at datum about 4.00 ft lower. Apr. 20 to Sept. 25, 1904, nonrecording gage at Myrtle Street highway bridge 0.8 mi upstream at different datum. Nov. 14, 1921, to Sept. 30, 1929, nonrecording gage at Myrtle Street bridge at datum 0.87 ft higher than present datum. Oct. 1, 1929, to Dec. 25, 1933, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Apr. 28 to May 1. Records good except those for estimated daily discharges, which are poor. Flow regulated since 1949 by Fall River Lake (station 07168000) and since 1960 by Toronto Lake (station 07165900). Since 1966, some regulation by Elk City Lake (station 07170050). Satellite telemeter at station.

AVERAGE DISCHARGE.--45 years (water years 1922-66), 1,580 cu ft per sec, 1,145,000 acre-ft per yr; 20 years (water years 1968-87, since conservation pool at Elk City Lake was first filled), 2,271 cu ft per sec, 1,645,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 cu ft per sec Apr. 17, 1945, gage height, 47.28 ft; maximum gage height, 47.60 ft May 19, 1943; no flow at times in 1932, 1934, 1936, 1939-40, 1953-55.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 109,000 cu ft per sec, Oct. 4, gage height, 46.79 ft, minimum discharge, 34 cu ft per sec Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28400	9210	4420	970	3650	17600	2980	537	6770	232	53	296
2	26800	9030	3320	972	3520	17000	2420	522	7000	279	49	286
3	49200	8520	3310	962	2890	5340	1680	434	8330	254	43	285
4	103000	7280	2960	865	1540	8660	976	318	8350	454	68	261
5	79100	8490	2850	839	1400	11900	864	624	9300	1540	94	216
6	42700	7510	2330	873	3170	12000	847	6670	9570	2000	76	178
7	27500	5370	4580	1060	4260	8170	841	11000	9550	832	68	142
8	21900	4550	8570	1040	3390	2220	825	5630	9390	1020	66	100
9	16800	4330	8120	1090	2920	789	812	4210	8940	1150	59	81
10	16000	4180	8780	1160	3110	672	795	4010	7770	1030	48	81
11	16500	3980	7830	1170	3030	609	737	3400	6610	664	40	115
12	18400	2760	7130	1150	2960	570	669	3170	4610	446	50	125
13	19600	2290	5950	1350	2690	519	868	4970	2870	2800	1000	118
14	18700	1170	4140	2300	6190	479	1490	2480	1610	1640	1690	115
15	15000	877	3490	3520	10600	448	1880	3150	1410	1030	917	125
16	12900	672	2800	3250	11600	1130	2330	3070	1140	1040	1080	209
17	12400	630	2250	2510	5270	6530	2690	2720	598	932	1120	125
18	12200	859	1730	2130	5070	13400	2870	2400	384	652	744	106
19	12000	850	1590	2070	8300	13100	3150	2380	276	586	778	94
20	11900	830	1330	2260	9000	12000	2920	1890	265	494	765	180
21	11700	694	1060	2700	8890	12800	5180	1220	198	322	735	203
22	12000	719	894	2670	7860	13000	3610	1100	202	262	527	187
23	10100	707	849	2050	7090	12800	1750	1090	160	227	425	179
24	9400	690	889	1280	6430	12900	1580	1210	145	191	282	174
25	10500	1770	885	1250	5360	12900	1380	7540	152	173	242	149
26	12100	15900	867	1200	4560	12100	1230	4270	211	159	232	114
27	11200	8800	851	1180	4790	9520	985	7590	460	151	350	85
28	10500	3800	839	1170	10500	6680	576	19800	354	145	921	76
29	10200	4650	832	4550	---	4970	561	18900	210	93	920	73
30	10000	4640	829	5250	---	4730	550	7080	217	70	517	67
31	9720	---	950	3810	---	4310	---	4440	---	59	314	---
TOTAL	678420	125757	97225	58651	150040	239846	50046	137825	107052	20927	14273	4545
MEAN	21880	4192	3136	1892	5359	7737	1668	4446	3568	675	460	152
MAX	103000	15900	8780	5250	11600	17600	5180	19800	9570	2800	1690	296
MIN	9400	630	829	839	1400	448	550	318	145	59	40	67
AC-FT	1346000	249400	192800	116300	297600	475700	99270	273400	212300	41510	28310	9020
CAL YR 1986	TOTAL	1356605	MEAN	3717	MAX	103000	MIN	49	AC-FT	2691000		
WTR YR 1987	TOTAL	1684607	MEAN	4615	MAX	103000	MIN	40	AC-FT	3341000		

ARKANSAS RIVER BASIN

225

07170695 BIG HILL LAKE NEAR CHERRYVALE, KS

LOCATION.--Lat 37 deg 16 min 12 sec, long 95 deg 28 min 12 sec, in NW1/4 SE1/4 sec.7, T.32 S., R.18 E., Labette County, Hydrologic Unit 11070103, inside the north end of landing of overlook bridge at Big Hill Dam on Big Hill Creek, 4.5 mi east of Cherryvale, and at mile 33.3.

DRAINAGE AREA.--36.9 sq mi.

PERIOD OF RECORD.--April 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 30, 1981. Conservation pool elevation was first reached on May 14, 1983. Total capacity, 40,590 acre-ft, consisting of the following: Dead storage, 226 acre-ft below elevation 814.0 ft; conservation pool, 27,240 acre-ft between elevations 814.0 ft and 858.0 ft; flood control pool, 13,060 acre-ft between elevations 858.0 ft and 867.5 ft; and uncontrolled storage, 3,090 acre-ft between elevations 867.5 ft and 869.5 ft. Reservoir was designed for flood control, water quality control, recreation, fish and wildlife, and future water supply. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 869.14 ft Oct. 3, 1986, contents, 43,110 acre-ft; minimum elevation since conservation pool was first filled, 856.36 ft Oct. 15, 16, 1983, contents, 25,540 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 869.14 ft Oct. 3, contents, 43,110 acre-ft; minimum elevation, 857.46 ft Sept. 26, 27, contents, 26,870 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by U.S. Army Corps of Engineers)

854	22,790	869	42,900
859	28,780	874	51,150
864	35,470		

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	862.97	857.96	858.34	857.81	858.37	859.52	857.91	857.83	858.34	857.58	857.62	857.60
2	864.25	857.93	858.23	857.80	858.30	859.07	857.87	857.80	858.27	857.58	857.60	857.58
3	869.14	857.91	858.17	857.82	858.22	858.78	857.85	857.79	858.29	857.58	857.58	857.57
4	867.81	858.28	858.12	857.81	858.15	858.58	857.85	857.78	858.20	857.74	857.64	857.57
5	866.28	858.44	858.07	857.79	858.14	858.43	857.84	857.79	858.13	857.85	857.61	857.56
6	864.69	858.36	858.04	857.81	858.23	858.33	857.83	857.79	858.07	857.89	857.60	857.55
7	863.07	858.29	858.60	857.81	858.24	858.25	857.83	857.79	858.01	857.88	857.58	857.63
8	861.41	858.21	858.58	857.83	858.19	858.19	857.83	857.78	857.97	857.86	857.56	857.62
9	860.10	858.14	858.53	857.86	858.13	858.09	857.79	857.77	857.94	857.85	857.54	857.64
10	859.32	858.12	858.39	857.36	858.10	858.03	857.78	857.75	857.90	857.80	857.51	857.64
11	859.01	858.08	858.30	857.85	858.09	858.01	857.77	857.75	857.90	857.76	857.50	857.63
12	858.77	858.03	858.23	857.88	858.06	857.98	857.75	857.91	857.89	857.87	857.57	857.60
13	858.58	857.98	858.16	858.03	858.05	857.96	857.84	857.92	857.89	858.20	857.88	857.58
14	858.41	857.96	858.12	858.15	858.24	857.94	857.85	857.90	857.87	858.13	857.87	857.58
15	858.30	857.94	858.08	858.12	859.58	857.94	857.88	857.87	857.85	858.07	857.85	857.63
16	858.21	858.94	858.06	858.10	859.30	857.91	857.89	857.85	857.83	858.00	857.82	857.61
17	858.15	858.94	858.03	858.10	858.94	858.70	857.90	857.83	857.80	857.95	857.80	857.61
18	858.11	858.92	857.99	858.08	858.73	858.75	857.89	857.82	857.77	857.92	857.78	857.59
19	858.06	857.89	857.97	858.05	858.64	858.60	857.88	857.80	857.74	857.92	857.75	857.58
20	858.02	857.89	857.95	858.04	858.58	858.46	857.86	857.77	857.71	857.89	857.73	857.57
21	857.99	857.89	857.92	858.02	858.48	858.35	858.07	857.77	857.69	857.85	857.71	857.54
22	858.31	857.88	857.90	858.01	858.38	858.26	858.06	857.73	857.68	857.83	857.70	857.51
23	858.31	857.86	857.88	857.99	858.29	858.21	858.02	857.77	857.67	857.80	857.67	857.51
24	858.25	857.84	857.87	857.95	858.21	858.16	857.99	857.94	857.67	857.80	857.65	857.50
25	858.28	859.13	857.86	857.93	858.15	858.12	857.95	858.18	857.65	857.76	857.65	857.48
26	858.29	859.55	857.85	857.90	858.13	858.07	857.95	858.14	857.63	857.75	857.69	857.46
27	858.22	859.09	857.84	857.93	858.18	858.05	857.90	858.76	857.61	857.72	857.66	857.49
28	858.17	858.77	857.82	857.93	859.97	858.01	857.88	859.23	857.59	857.70	857.64	857.51
29	858.11	858.58	857.83	858.69	---	857.95	857.85	858.93	857.57	857.69	857.64	857.50
30	858.05	858.42	857.82	858.60	---	857.92	857.85	858.67	857.60	857.66	857.64	857.49
31	858.01	---	857.81	858.46	---	857.90	---	858.47	---	857.65	857.63	---
MEAN	860.09	858.31	858.03	858.00	858.43	858.27	857.88	858.00	857.86	857.82	857.67	857.56
MAX	869.14	859.55	858.60	858.69	859.97	859.52	858.07	859.23	858.34	858.20	857.88	857.64
MIN	857.99	857.84	857.81	857.79	858.05	857.90	857.75	857.73	857.57	857.58	857.50	857.46
(+)	27,540	28,050	27,300	28,100	30,030	27,410	27,350	28,120	27,040	27,100	27,080	26,900
(#)	-6,120	+510	-750	+800	+1,930	-2,620	-60	+770	-1,080	+60	-20	-180

CAL YR 1986 (#) -60
WTR YR 1987 (#) -6,760

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

ARKANSAS RIVER BASIN

07170700 BIG HILL CREEK NEAR CHERRYVALE, KS

LOCATION.--Lat 37 deg 16 min 00 sec, long 95 deg 28 min 05 sec, in SE1/4 SE1/4 sec.7, T.32 S., R.18 E., Labette County, Hydrologic Unit 11070103, on right bank upstream of bridge on county road, 4.3 mi east of Cherryvale, and at mile 32.5.

DRAINAGE AREA.--37 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 795.93 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to May 6, 1958, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Flow completely regulated by Big Hill Lake (station 07170695) 1,200 ft upstream since Apr. 1, 1981. Satellite telemeter at station.

AVERAGE DISCHARGE.--30 years, 26.4 cu ft per sec, 19,130 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 cu ft per sec July 3, 1976, gage height, 23.02 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1951 reached a stage of 18.92 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 cu ft per sec Oct. 2, gage height, 15.32 ft; no flow Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	27	85	6.3	92	539	11	3.4	80	.10	.11	.05
2	1120	22	65	5.7	73	352	8.7	2.8	60	.14	.11	.06
3	1210	18	50	6.5	59	221	6.5	2.4	63	.35	.09	.05
4	1130	46	40	6.5	49	147	5.7	2.4	53	2.1	.20	.04
5	1100	118	33	6.1	42	104	4.9	2.9	39	2.0	.14	.03
6	1090	114	28	5.8	59	77	4.3	3.5	30	6.0	.10	.03
7	1070	91	82	5.9	63	59	3.7	2.9	23	5.2	.09	.08
8	1050	75	141	5.5	56	47	3.2	2.5	17	3.8	.07	.06
9	859	59	136	10	45	39	2.7	2.0	12	2.5	.08	.06
10	488	49	110	13	38	31	2.9	1.5	7.9	1.5	.08	.08
11	296	50	84	12	34	26	2.7	1.1	6.2	.90	.07	.05
12	225	45	65	12	30	23	3.6	6.1	7.1	.91	.09	.07
13	158	35	52	19	29	19	7.0	11	5.4	35	2.3	.05
14	111	28	43	40	48	16	8.9	9.6	4.1	33	4.7	.04
15	77	24	37	46	356	15	12	7.6	2.9	24	3.4	.04
16	56	23	33	43	433	13	12	5.2	1.8	17	2.1	.07
17	42	21	30	41	297	66	11	3.7	1.3	11	1.6	.03
18	34	19	26	40	198	178	9.3	2.6	.78	8.6	1.3	.04
19	28	16	23	38	158	149	7.4	2.0	.53	6.1	1.1	.05
20	23	15	21	34	140	109	6.1	1.4	.36	4.5	.50	.04
21	18	13	19	32	120	84	24	.94	.32	3.2	.20	.03
22	45	12	16	31	95	63	31	1.0	.21	2.2	.19	.03
23	90	12	14	30	73	52	27	1.3	.32	1.6	.42	.02
24	79	9.5	12	28	57	47	23	6.4	.89	1.1	.15	.02
25	65	42	11	23	47	40	19	39	2.2	.71	.06	.02
26	76	529	9.9	21	42	34	15	41	3.0	.49	.06	.01
27	66	395	8.7	19	43	29	12	95	.42	.24	.13	.00
28	53	246	7.6	20	301	25	8.6	318	.10	.12	.07	.05
29	43	162	7.3	100	---	22	5.4	273	.09	.08	.08	.04
30	35	113	6.8	154	---	17	4.4	180	.13	.19	.08	.03
31	30	---	6.3	119	---	13	---	119	---	.15	.08	---
TOTAL	11907	2428.5	1302.6	973.3	3077	2656	303.0	1151.24	423.05	174.78	19.75	1.27
MEAN	384	81.0	42.0	31.4	110	85.7	10.1	37.1	14.1	5.64	.64	.042
MAX	1210	529	141	154	433	539	31	318	80	35	4.7	.08
MIN	18	9.5	6.3	5.5	29	13	2.7	.94	.09	.08	.06	.00
AC-FT	23620	4820	2580	1930	6100	5270	601	2280	839	347	39	2.5
CAL YR 1986	TOTAL	21721.61	MEAN	59.5	MAX	1210	MIN	.01	AC-FT	43080		
WTR YR 1987	TOTAL	24417.49	MEAN	66.9	MAX	1210	MIN	.00	AC-FT	48430		

ARKANSAS RIVER BASIN

227

07172000 CANEY RIVER NEAR ELGIN, KS

LOCATION.--Lat 37 deg 00 min 13 sec, long 96 deg 18 min 54 sec, in NW1/4 NW1/4 SE1/4 sec.16, T.35 S., R.10 E., Chautauqua County, Hydrologic Unit 11070106, on left bank at upstream side of county highway bridge, 2 mi west of Elgin, and at mile 117.8.

DRAINAGE AREA.--445 sq mi.

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

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 763.32 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Sept. 13, 1961, at site 300 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 4-14 and Jan. 17-27. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--49 years, 257 cu ft per sec, 186,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 104,000 cu ft per sec Oct. 3, 1936, gage height, 42.35 ft, from floodmarks and on basis of contracted-opening and flow-over-road measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage Height (ft)	Date	Time	Discharge (cu ft per sec)	Gage Height (ft)
Oct. 1	0900	18,800	20.47	Mar. 17	1100	8,450	11.82
Oct. 3	unknown	*104,000	*42.35	May 27	0800	9,330	12.63
Nov. 25	2300	5,110	9.56	May 28	0400	11,400	14.44
Feb. 28	2100	14,900	17.40				

Minimum discharge, 5.3 cu ft per sec Sept. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13100	183	294	131	456	6180	293	114	606	266	67	16
2	8650	172	337	124	401	3540	267	110	698	455	62	14
3	79200	167	326	121	351	2390	226	106	1940	347	56	13
4	30000	1220	293	120	313	1620	202	102	763	1290	54	12
5	13000	2050	271	115	351	1280	190	321	474	907	49	11
6	6800	987	260	113	1360	1030	181	791	357	566	45	9.9
7	4000	694	2120	107	891	791	175	303	285	347	41	9.9
8	2600	624	1620	102	600	619	167	214	236	252	36	10
9	1890	474	1470	134	460	489	153	173	199	200	29	9.9
10	1400	396	891	165	407	402	156	148	180	164	16	9.6
11	1100	368	643	143	370	358	156	118	200	134	10	9.3
12	1500	332	527	154	340	360	143	95	186	113	9.3	9.0
13	960	291	444	276	456	322	398	88	154	302	401	8.5
14	640	274	391	336	1510	301	228	81	131	214	469	8.4
15	400	271	361	311	3430	286	218	71	111	143	313	9.9
16	347	264	338	265	2350	272	195	63	94	113	251	47
17	314	253	316	240	1460	4890	174	57	80	96	174	13
18	284	237	290	220	1310	3150	161	52	70	88	127	9.0
19	257	218	270	200	1530	1670	150	46	62	88	105	8.1
20	236	209	256	230	1410	1160	138	41	571	74	84	7.8
21	221	193	241	230	1130	898	189	37	358	61	50	7.7
22	558	185	227	210	872	687	143	33	177	52	33	7.3
23	437	172	220	200	688	669	127	36	129	45	27	6.8
24	332	160	212	190	583	1090	119	71	106	41	23	6.4
25	298	1060	204	160	533	690	113	68	195	37	21	6.1
26	290	2560	194	150	549	529	106	47	187	32	19	5.6
27	262	773	184	150	2870	465	105	4020	123	37	19	5.4
28	242	475	175	394	8830	412	131	6520	93	68	29	7.6
29	221	373	168	1590	---	360	126	3240	74	75	25	8.9
30	207	326	153	931	---	326	120	1580	135	78	20	9.1
31	195	---	135	557	---	307	---	886	---	74	18	---
TOTAL	169941	15961	13831	8359	35811	37543	5255	19632	8974	6759	2632.3	316.2
MEAN	5482	532	446	270	1279	1211	175	633	299	218	86.5	10.5
MAX	79200	2560	2120	1590	8830	6180	398	6520	1940	1290	469	47
MIN	195	160	135	102	313	272	105	33	62	32	9.3	5.4
AC-FT	337100	31660	27430	16580	71030	74470	10420	38940	17800	13410	5320	627

CAL YR 1986	TOTAL	318681.0	MEAN	873	MAX	79200	MIN	6.5	AC-FT	632100
WTR YR 1987	TOTAL	325064.5	MEAN	891	MAX	79200	MIN	5.4	AC-FT	644800

07179400 COUNCIL GROVE LAKE NEAR COUNCIL GROVE, KS

LOCATION.--Lat 38 deg 40 min 45 sec, long 96 deg 30 min 25 sec, in NE1/4 NE1/4 sec.10, T.16 S., R.8 E., Morris County, Hydrologic Unit 11070201, in control tower near right end of Council Grove Dam on Neosho River, 1.0 mi northwest of Council Grove, and at mile 449.7.

DRAINAGE AREA.--246 sq mi.

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1971 published as "Council Grove Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. The spillway is a limited service, uncontrolled, emergency type having a width of 500 ft. The outlet works consist of a cut and cover conduit 17 ft in diameter. Regulated storage began October 9, 1964. Conservation pool elevation was first reached on June 9, 1965. Maximum pool, 265,400 acre-ft at elevation 1,310.0 ft; top of flood control pool, 112,300 acre-ft at elevation 1,289.0 ft and top of conservation pool, 36,310 acre-ft at elevation 1,270.0 ft. The reservoir is used for flood control, conservation, and related beneficial water uses. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,284.68 ft Oct. 12, 1985, contents, 90,710 acre-ft; minimum elevation since conservation pool first reached, 1,265.79 ft Mar. 30, 1967, contents, 27,300 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,280.19 ft Oct. 13, contents, 71,110 acre-ft; minimum elevation, 1,273.37 ft Aug. 11, 12, contents, 46,480 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1977 by Corps of Engineers)

1,265	23,380	1,280	70,340
1,270	36,310	1,285	92,210
1,275	51,820		

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1276.25	1274.24	1274.19	1274.32	1274.60	1277.74	1274.83	1274.18	1274.02	1274.10	1273.63	1274.07
2	1277.90	1274.19	1274.20	1274.31	1274.61	1277.95	1274.55	1274.12	1274.47	1274.04	1273.60	1274.06
3	1278.53	1274.21	1274.22	1274.32	1274.57	1277.47	1274.34	1274.06	1274.55	1274.04	1273.58	1274.01
4	1278.71	1274.22	1274.23	1274.27	1274.37	1276.59	1274.34	1274.05	1274.55	1274.06	1273.58	1273.99
5	1278.80	1274.23	1274.23	1274.24	1274.23	1275.69	1274.37	1274.11	1274.48	1274.30	1273.55	1273.99
6	1278.85	1274.23	1274.26	1274.24	1274.11	1275.00	1274.38	1274.12	1274.35	1274.40	1273.50	1273.99
7	1278.91	1274.27	1274.48	1274.20	1274.14	1274.58	1274.36	1274.15	1274.23	1274.34	1273.47	1273.99
8	1278.96	1274.24	1274.73	1274.19	1274.14	1274.13	1274.18	1274.17	1274.18	1274.27	1273.46	1273.99
9	1279.01	1274.22	1274.70	1274.20	1274.13	1273.95	1274.07	1274.19	1274.19	1274.17	1273.43	1274.04
10	1278.92	1274.20	1274.47	1274.18	1274.14	1274.00	1274.08	1274.21	1274.20	1274.10	1273.40	1274.06
11	1279.85	1274.15	1274.25	1274.13	1274.14	1274.07	1274.08	1274.23	1274.22	1274.06	1273.37	1274.08
12	1280.13	1274.12	1274.14	1274.11	1274.14	1274.13	1274.07	1274.25	1274.23	1274.05	1273.56	1274.06
13	1280.15	1274.07	1274.11	1274.11	1274.12	1274.18	1274.70	1274.26	1274.22	1274.02	1273.58	1274.04
14	1280.08	1274.06	1274.11	1274.24	1274.16	1274.27	1276.36	1274.23	1274.14	1273.98	1273.58	1274.04
15	1279.94	1274.09	1274.11	1274.29	1274.24	1274.29	1276.78	1274.21	1274.10	1273.96	1273.55	1274.07
16	1279.54	1274.13	1274.12	1274.30	1274.31	1274.33	1276.20	1274.18	1274.08	1273.95	1273.53	1274.07
17	1278.99	1274.17	1274.10	1274.29	1274.34	1275.02	1275.46	1274.16	1274.05	1273.95	1273.51	1274.06
18	1278.41	1274.18	1274.09	1274.29	1274.34	1278.01	1274.66	1274.15	1274.09	1273.95	1273.53	1274.01
19	1277.83	1274.14	1274.07	1274.25	1274.34	1278.16	1274.08	1274.14	1274.11	1273.94	1273.49	1273.98
20	1277.24	1274.12	1274.04	1274.24	1274.33	1277.50	1274.18	1274.11	1274.14	1273.91	1273.45	1273.95
21	1276.62	1274.08	1274.03	1274.21	1274.75	1276.57	1274.21	1274.12	1274.12	1273.89	1273.42	1273.91
22	1276.01	1274.08	1274.01	1274.20	1274.17	1275.64	1274.25	1274.09	1274.21	1273.90	1273.44	1273.89
23	1275.41	1274.04	1274.04	1274.18	1274.06	1275.20	1274.29	1274.09	1275.14	1273.86	1273.43	1273.87
24	1275.01	1274.02	1274.09	1274.15	1273.99	1276.02	1274.34	1274.17	1274.91	1273.86	1273.46	1273.87
25	1274.78	1274.07	1274.12	1274.11	1273.99	1276.02	1274.37	1274.19	1274.65	1273.84	1273.52	1273.85
26	1274.55	1274.07	1274.14	1274.09	1274.02	1275.87	1274.40	1274.24	1274.49	1273.82	1274.29	1273.83
27	1274.35	1274.08	1274.18	1274.06	1274.08	1275.67	1274.42	1275.49	1274.39	1273.80	1274.33	1273.81
28	1274.35	1274.11	1274.22	1274.04	1275.98	1275.66	1274.40	1275.72	1274.31	1273.77	1274.32	1273.97
29	1274.33	1274.13	1274.24	1274.29	---	1275.52	1274.34	1275.57	1274.25	1273.74	1274.25	1273.94
30	1274.29	1274.16	1274.26	1274.52	---	1275.28	1274.27	1274.94	1274.18	1273.69	1274.19	1273.94
31	1274.28	---	1274.29	1274.57	---	1275.05	---	1274.26	---	1273.67	1274.14	---
MEAN	1277.45	1274.14	1274.21	1274.23	1274.31	1275.60	1274.58	1274.33	1274.31	1273.98	1273.65	1273.98
MAX	1280.15	1274.27	1274.73	1274.57	1275.98	1278.16	1276.78	1275.72	1275.14	1274.40	1274.33	1274.08
MIN	1274.28	1274.02	1274.01	1274.04	1273.99	1273.95	1274.07	1274.05	1274.02	1273.67	1273.37	1273.81
(+)	49,420	49,020	49,450	50,370	55,190	51,990	49,380	49,350	49,090	47,440	48,960	48,210
(#)	-6,150	-400	+430	+920	+4,820	-3,200	-2,610	-30	-260	-1,650	+1,520	-750

CAL YR 1986 (#) -590
WTR YR 1987 (#) -7,360

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

ARKANSAS RIVER BASIN

229

07179500 NEOSHO RIVER AT COUNCIL GROVE, KS

LOCATION.--Lat 38 deg 39 min 54 sec, long 96 deg 29 min 38 sec, in NE1/4 NW1/4 sec.14, T.16 S., R.8 E., Morris County, Hydrologic Unit 11070201, at right bank on downstream side of highway bridge at city water plant in north part of Council Grove, 300 ft downstream from Mozler Creek, 1.0 mi upstream from Elm Creek, 1.7 mi downstream from Council Grove Lake, and at mile 448.0.

DRAINAGE AREA.--250 sq mi.

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1341: 1939-40(M), 1942.

GAGE.--Water-stage recorder. Datum of gage is 1,205.63 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to June 7, 1940, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: June 14, 22, 23. Records good except those for estimated daily discharges, which are poor. Flow completely regulated since 1964 by Council Grove Lake (station 07179400). Satellite telemeter at station.

AVERAGE DISCHARGE.--49 years, 126 cu ft per sec, 91,290 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 cu ft per sec July 11, 1951, gage height, 35.5 ft; 36.29 ft, top of surge in gage house; 37.97 ft, floodmark at water plant and in wire-weight gage box at upstream side of bridge, from rating curve extended above 36,000 cu ft per sec, on basis of slope-area measurement of peak flow; maximum discharge since closure of Council Grove Dam in 1964, 6,600 cu ft per sec June 26, 1969; no flow at times in 1938-41, 1947-48, 1954-57, 1963-64, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1903 reached a stage of 37.3 ft at water plant, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,860 cu ft per sec Mar. 20, gage height, 11.72 ft; minimum discharge, 4.8 cu ft per sec Dec. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	96	5.3	5.4	98	34	530	190	468	141	13	68
2	18	94	5.1	47	99	184	527	190	14	90	13	36
3	14	94	5.1	94	154	1110	435	187	13	11	13	26
4	11	96	5.1	95	412	1720	91	113	47	11	13	13
5	10	95	5.0	95	527	1710	91	9.9	160	12	13	13
6	10	94	5.1	95	336	1220	91	9.5	214	51	13	13
7	9.6	94	6.2	95	94	806	162	9.4	216	137	13	13
8	9.5	95	6.2	95	94	798	382	9.5	103	138	13	13
9	9.5	94	214	95	94	353	286	9.5	13	138	13	13
10	218	92	442	98	94	7.4	96	9.5	12	91	13	13
11	483	92	440	101	95	6.6	95	9.5	13	39	13	13
12	16	92	274	98	95	7.4	95	9.5	13	39	14	13
13	226	93	91	99	95	7.6	105	28	55	26	14	12
14	453	59	91	99	95	7.6	105	75	92	13	14	12
15	450	6.6	93	98	100	7.6	629	67	60	13	13	12
16	791	6.5	90	99	98	45	1300	51	28	13	13	12
17	1100	6.5	94	101	97	98	1420	51	23	13	13	12
18	1100	42	94	104	96	102	1430	51	16	13	13	23
19	1090	96	92	105	96	606	990	51	15	13	13	51
20	1080	96	92	102	161	1540	35	33	15	13	13	36
21	1070	97	92	99	225	1800	22	13	15	13	13	12
22	1070	98	45	99	225	1800	21	13	18	13	13	12
23	1060	98	6.3	99	225	1350	21	13	213	13	14	12
24	747	60	5.7	101	172	546	31	13	442	13	13	12
25	465	6.4	5.7	99	96	542	41	13	442	13	13	12
26	462	6.3	5.4	99	60	539	41	13	289	13	20	12
27	343	5.7	5.4	98	22	538	61	16	143	13	13	12
28	94	5.7	5.4	98	55	538	81	14	143	13	48	13
29	95	5.7	5.4	99	---	534	135	324	143	13	88	12
30	95	5.4	5.4	99	---	530	190	1050	142	13	88	12
31	97	---	5.4	99	---	530	---	1050	---	13	88	---
TOTAL	12706.6	1921.8	2337.2	2909.4	4110	19617.2	9539	3695.3	3580	1158	674	538
MEAN	410	64.1	75.4	93.9	147	633	318	119	119	37.4	21.7	17.9
MAX	1100	98	442	105	527	1800	1430	1050	468	141	88	68
MIN	9.5	5.4	5.0	5.4	22	6.6	21	9.4	12	11	13	12
AC-FT	25200	3810	4640	5770	8150	38910	18920	7330	7100	2300	1340	1070
CAL YR 1986	TOTAL	56386.0	MEAN	156	MAX	1960	MIN	3.2	AC-FT	112800		
WTR YR 1987	TOTAL	62786.5	MEAN	172	MAX	1800	MIN	5.0	AC-FT	124500		

ARKANSAS RIVER BASIN

07179730 NEOSHO RIVER NEAR AMERICUS, KS

LOCATION.--Lat 38 deg 28 min 01 sec, long 96 deg 15 min 01 sec, in SW1/4 NW1/4 SE1/4 sec.24, T.18 S., R.10 E., Lyon County, Hydrologic Unit 11070201, near right bank, 0.1 mi below Ruggles Dam, 2.0 mi south of Americus, 12.5 mi upstream from Allen Creek, and 24.0 mi upstream from Cottonwood River.

DRAINAGE AREA.--622 sq mi.

PERIOD OF RECORD.--June 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,106.99 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Aug. 8, 1963, water-stage recorder at site 0.4 mi upstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 18-28. Records fair except those for estimated daily discharges, which are poor. Flow moderately regulated since 1964 by Council Grove Lake (station 07179400). Low flow occasionally regulated by Ruggles Dam 0.1 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE.--24 years, 335 cu ft per sec, 242,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 cu ft per sec Oct. 10, 1985, gage height, 27.43 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,660 cu ft per sec Mar. 1, gage height, 24.38 ft; minimum discharge, 27 cu ft per sec Aug. 3, 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1450	244	51	41	351	6680	920	315	1260	298	32	122
2	3200	230	50	41	302	2910	882	315	458	222	30	101
3	6960	232	48	79	264	1150	853	316	322	163	28	63
4	2580	253	44	156	345	2030	636	347	200	87	34	58
5	829	362	41	153	966	2240	333	259	165	2760	39	36
6	519	478	40	150	1390	2160	322	181	264	2170	35	32
7	365	307	104	147	615	1530	314	167	293	514	33	33
8	290	273	539	139	304	1270	398	144	285	392	29	32
9	236	257	521	151	253	1230	696	131	163	291	28	34
10	208	243	633	163	241	518	431	125	82	262	29	147
11	820	237	802	147	221	261	312	124	81	197	27	163
12	5860	233	775	144	211	244	280	112	78	148	60	193
13	2320	218	453	174	202	234	397	105	73	132	249	71
14	1260	210	274	732	211	237	2960	116	106	107	131	48
15	1250	178	260	595	664	216	2260	164	173	80	65	90
16	989	101	247	329	1400	199	1720	152	115	76	49	71
17	1480	98	225	242	639	639	1880	130	74	77	40	51
18	1600	92	208	160	436	3390	1860	134	79	94	38	46
19	1570	121	197	150	412	3670	1820	133	162	84	37	45
20	1540	212	190	150	357	1720	1000	126	95	66	33	81
21	1520	207	183	160	416	2220	235	111	78	60	33	78
22	1520	203	176	150	446	2260	244	79	225	55	33	42
23	1520	201	116	150	416	2220	231	76	2010	53	33	36
24	1490	191	61	150	400	2980	216	86	756	51	40	36
25	973	152	59	150	300	1810	217	130	621	50	40	36
26	786	63	54	160	222	1240	217	139	579	48	257	36
27	783	56	49	170	204	1030	209	289	322	45	962	33
28	541	53	48	180	1550	1040	211	709	217	43	140	155
29	263	51	46	450	---	1170	222	298	215	42	108	51
30	251	51	44	1230	---	986	285	744	380	38	137	40
31	243	---	42	526	---	938	---	1280	---	35	125	---
TOTAL	45216	5807	6581	7519	13738	50472	22610	7537	9931	8740	2954	2060
MEAN	1459	194	212	243	491	1628	754	243	331	282	95.3	68.7
MAX	6960	478	802	1230	1550	6680	2960	1280	2010	2760	962	193
MIN	208	51	40	41	202	199	208	76	73	35	27	32
AC-FT	89690	11520	13050	14910	27250	100100	44850	14950	19700	17340	5860	4090

CAL YR 1986 TOTAL 182037 MEAN 499 MAX 6960 MIN 40 AC-FT 361100
WTR YR 1987 TOTAL 183165 MEAN 502 MAX 6960 MIN 27 AC-FT 363300

ARKANSAS RIVER BASIN

231

07179794 MARION LAKE NEAR MARION, KS

LOCATION.--Lat 38 deg 22 min 20 sec, long 97 deg 04 min 55 sec, in NE1/4 sec.27, T.19 S., R.3 E., Marion County, Hydrologic Unit 11070202, on top of dam on Cottonwood River, 3.0 mi northwest of Marion, and at mile 126.7.

DRAINAGE AREA.--200 sq mi.

PERIOD OF RECORD.--February 1968 to current year. Prior to October 1971 published as "Marion Reservoir."

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Regulated storage began Feb. 26, 1968. Conservation pool elevation was first reached on May 25, 1969. Total capacity, 186,500 acre-ft consisting of the following: Dead storage, 363 acre-ft below elevation 1,320.0 ft; conservation pool, 83,330 acre-ft between elevations 1,320.0 and 1,350.5 ft; flood control pool, 60,210 acre-ft between elevations 1,350.5 ft and 1,358.5 ft; uncontrolled storage, 42,600 acre-ft between elevations 1,358.5 ft and 1,362.8 ft. Reservoir is used for flood control, water quality control, water supply, recreation, and fish and wildlife conservation. Figures given here-in represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,356.66 ft Oct. 13, 1973, contents, 130,600 acre-ft; minimum elevation since conservation pool first reached, 1,346.81 ft Nov. 9, 1978, contents, 62,710 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,352.63 ft Mar. 25, contents, 97,560 acre-ft; minimum elevation, 1,348.33 ft Jan. 6, contents, 70,900 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1977 by U.S. Army Corps of Engineers)

1,345	53,730	1,355	114,700
1,350	80,640		

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350.87	1350.92	1350.43	1348.48	1348.87	1349.96	1350.67	1350.35	1350.71	1350.64	1349.91	1350.87
2	1351.09	1350.88	1350.45	1348.50	1348.88	1350.04	1350.56	1350.34	1350.57	1350.63	1349.88	1350.83
3	1351.35	1350.91	1350.45	1348.51	1348.89	1350.07	1350.55	1350.35	1350.56	1350.63	1349.89	1350.79
4	1351.34	1350.89	1350.43	1348.47	1348.90	1350.08	1350.54	1350.38	1350.51	1350.66	1349.90	1350.74
5	1351.35	1350.86	1350.43	1348.46	1348.92	1350.12	1350.55	1350.44	1350.50	1350.92	1349.85	1350.70
6	1351.34	1350.81	1350.43	1348.53	1348.93	1350.13	1350.53	1350.49	1350.48	1350.89	1349.82	1350.67
7	1351.33	1350.83	1350.52	1348.53	1348.96	1350.14	1350.52	1350.49	1350.45	1350.74	1349.78	1350.68
8	1351.31	1350.84	1350.56	1348.56	1348.94	1350.07	1350.51	1350.49	1350.44	1350.62	1349.78	1350.65
9	1351.30	1350.76	1350.58	1348.53	1348.92	1350.14	1350.51	1350.47	1350.43	1350.52	1349.75	1350.61
10	1351.30	1350.65	1350.56	1348.58	1348.91	1350.12	1350.49	1350.45	1350.46	1350.46	1349.71	1350.61
11	1351.27	1350.67	1350.57	1348.58	1348.89	1350.11	1350.48	1350.46	1350.48	1350.45	1349.68	1350.57
12	1351.35	1350.64	1350.57	1348.60	1348.88	1350.10	1350.47	1350.46	1350.48	1350.46	1349.83	1350.50
13	1351.34	1350.58	1350.58	1348.61	1348.86	1350.07	1350.49	1350.45	1350.49	1350.41	1349.84	1350.47
14	1351.34	1350.57	1350.60	1348.63	1348.85	1350.09	1350.48	1350.48	1350.46	1350.38	1349.82	1350.45
15	1351.34	1350.56	1350.61	1348.63	1348.88	1350.09	1350.63	1350.47	1350.44	1350.36	1349.78	1350.41
16	1351.33	1350.55	1350.63	1348.67	1348.91	1350.20	1350.65	1350.45	1350.42	1350.32	1349.78	1350.42
17	1351.31	1350.52	1350.62	1348.70	1348.90	1351.45	1350.65	1350.43	1350.40	1350.27	1349.74	1350.41
18	1351.29	1350.47	1350.60	1348.72	1348.87	1351.70	1350.63	1350.46	1350.39	1350.29	1349.78	1350.38
19	1351.26	1350.46	1350.50	1348.72	1348.86	1351.73	1350.59	1350.45	1350.38	1350.27	1349.75	1350.37
20	1351.24	1350.44	1350.40	1348.73	1348.85	1351.70	1350.50	1350.45	1350.38	1350.24	1349.74	1350.35
21	1351.20	1350.42	1350.31	1348.75	1348.84	1351.57	1350.55	1350.47	1350.37	1350.21	1349.70	1350.34
22	1351.19	1350.45	1350.10	1348.75	1348.79	1351.44	1350.52	1350.42	1350.78	1350.19	1349.67	1350.31
23	1351.19	1350.43	1349.87	1348.74	1348.78	1352.04	1350.50	1350.41	1350.79	1350.16	1349.70	1350.29
24	1351.17	1350.43	1349.62	1348.74	1348.76	1352.61	1350.49	1350.50	1350.66	1350.15	1349.76	1350.27
25	1351.13	1350.44	1349.36	1348.75	1348.75	1352.63	1350.45	1350.51	1350.58	1350.13	1349.86	1350.26
26	1351.10	1350.43	1349.10	1348.74	1348.75	1352.53	1350.42	1350.55	1350.54	1350.10	1350.97	1350.24
27	1351.09	1350.42	1348.85	1348.77	1348.81	1352.34	1350.41	1351.24	1350.53	1350.07	1351.03	1350.22
28	1351.08	1350.44	1348.60	1348.78	1349.19	1352.00	1350.37	1351.75	1350.49	1350.04	1351.02	1350.24
29	1351.04	1350.42	1348.47	1348.81	---	1351.72	1350.36	1351.66	1350.57	1350.01	1350.97	1350.20
30	1350.95	1350.44	1348.46	1348.83	---	1351.43	1350.35	1351.37	1350.65	1349.98	1350.95	1350.17
31	1350.97	---	1348.48	1348.86	---	1351.08	---	1351.03	---	1349.95	1350.91	---
MEAN	1351.22	1350.60	1350.06	1348.65	1348.88	1350.95	1350.51	1350.60	1350.51	1350.36	1350.02	1350.47
MAX	1351.35	1350.92	1350.63	1348.86	1349.19	1352.63	1350.67	1351.75	1350.79	1350.92	1351.03	1350.87
MIN	1350.87	1350.42	1348.46	1348.46	1348.75	1349.96	1350.35	1350.34	1350.37	1349.95	1349.67	1350.17
(+)	86,650	83,320	71,740	73,910	75,840	87,360	82,760	87,040	84,620	80,350	86,270	81,670
(#)	+640	-3,330	-11,580	+2,170	+1,930	+11,520	-4,600	+4,280	-2,420	-4,270	+5,920	-4,600

CAL YR 1986 (#) -12,380
WTR YR 1987 (#) -4,340

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

ARKANSAS RIVER BASIN

07179795 COTTONWOOD RIVER BELOW MARION LAKE, KS

LOCATION.--Lat 38 deg 22 min 00 sec, long 97 deg 05 min 00 sec, in SE1/4 sec.27, T.19 S., R.3 E., Marion County, Hydrologic Unit 11070202, on left bank, 0.25 mi below outlet of dam, 1.6 mi upstream from South Fork Cottonwood River, 3.0 mi northwest of Marion, and at mile 126.5.

DRAINAGE AREA.--200 sq mi.

PERIOD OF RECORD.--July 1968 to current year. Prior to Oct. 1, 1972, published as "below Marion Reservoir."

REVISED RECORDS.--WDR KS-77: 1976.

GAGE.--Water-stage recorder. Datum of gage is 1,296.57 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 2, 3, Dec. 19 to Jan. 13, Mar. 1, 17, 18, 23, 24, and Aug. 26, 27. Records good except those for Oct. 2, 3, Mar. 1, 17, 18, 23, 24, and Aug. 26, 27 which are fair and Dec. 19 to Jan. 13 which are poor. Flow completely regulated since 1968 by Marion Lake (station 07179794) 0.25 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE.--19 years, 82.2 cu ft per sec, 59,550 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 cu ft per sec June 13, 1971; no flow Oct. 3-5, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,330 cu ft per sec Mar. 27, gage height, 10.47 ft; maximum gage height, 16.95 ft Aug. 26, backwater from South Cottonwood River; minimum discharge 1.8 cu ft per sec, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	90	4.7	2.5	2.0	52	1060	8.1	979	10	13	93
2	12	90	5.3	2.0	2.0	2.7	558	8.0	627	10	13	93
3	11	89	3.5	2.0	2.0	2.2	97	7.2	94	13	16	94
4	11	89	2.6	2.0	2.0	2.2	97	6.5	93	13	14	94
5	9.9	89	2.3	2.0	2.0	2.2	97	6.1	57	14	14	94
6	9.7	93	2.1	2.0	2.0	2.2	97	5.5	12	176	14	94
7	9.9	103	2.2	2.0	2.0	2.2	97	5.2	12	481	14	94
8	9.7	102	2.4	2.0	2.0	2.2	97	5.0	12	476	13	93
9	9.7	102	2.4	2.0	50	2.2	97	4.6	12	275	13	93
10	9.7	102	2.7	2.0	89	45	97	4.1	12	46	13	94
11	11	105	2.6	2.0	89	88	97	4.4	12	13	13	94
12	11	103	2.2	2.5	39	61	97	4.4	12	13	13	92
13	10	103	2.5	3.4	89	39	97	4.3	12	13	13	93
14	9.7	102	2.3	2.5	88	38	98	7.6	12	13	13	47
15	10	100	2.1	2.5	87	38	99	10	12	13	13	11
16	50	99	2.1	2.6	87	38	99	10	11	13	13	11
17	86	99	2.1	2.5	87	38	99	10	15	13	13	11
18	87	98	141	1.9	87	39	100	10	11	13	13	11
19	87	98	330	2.0	87	39	100	10	10	12	13	11
20	87	77	328	2.0	87	311	99	11	10	12	13	12
21	86	26	328	2.0	87	497	100	10	10	12	13	12
22	86	5.1	640	2.0	87	487	100	9.8	13	12	13	12
23	86	5.4	800	2.0	87	373	101	9.8	173	12	13	11
24	86	5.3	800	2.0	87	41	102	11	379	12	13	12
25	86	5.5	780	1.9	87	211	103	9.6	231	11	14	12
26	86	6.0	760	1.9	87	388	104	9.3	50	11	14	13
27	86	5.1	730	1.9	87	795	63	12	10	11	13	13
28	60	4.1	710	2.1	92	1310	27	15	10	12	50	13
29	89	4.0	360	40	---	1270	8.2	286	10	12	93	13
30	89	3.6	5.0	42	---	1190	8.1	1000	10	12	94	13
31	90	---	3.0	2.0	---	1180	---	986	---	12	93	---
TOTAL	1485.3	2007.1	6761.1	144.2	1733.0	8586.1	4095.3	2500.5	2923	1771	690	1453
MEAN	47.9	66.9	213	4.65	61.9	277	137	80.7	97.4	57.1	22.3	48.4
MAX	90	105	800	42	92	1310	1060	1000	979	481	94	94
MIN	9.7	3.6	2.1	1.9	2.0	2.2	8.1	4.1	10	10	13	11
AC-FT	2950	3980	13410	236	3440	17030	8120	4960	5800	3510	1370	2880
CAL YR 1986	TOTAL	28201.6	MEAN	77.3	MAX	1150	MIN	2.1	AC-FT	55940		
WTR YR 1987	TOTAL	34149.6	MEAN	93.6	MAX	1310	MIN	1.9	AC-FT	67740		

ARKANSAS RIVER BASIN

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07180200 COTTONWOOD RIVER AT MARION, KS

LOCATION.--Lat 38 deg 20 min 57 sec, long 97 deg 01 min 59 sec, in SE1/4 SE1/4 SW1/4 sec.31, T.19 S., R.4 E., Marion County, Hydrologic Unit 11070202, on left bank at downstream side of bridge on state Highway 56, west edge of Marion, 0.2 mi downstream of Clear Creek diversion, and at mile 122.2

DRAINAGE AREA.--502 sq mi.

PERIOD OF RECORD.--November 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,278.53 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 13-17, Jan. 16-25, Mar. 30, and Aug. 27. Records fair except those for estimated daily discharges, which are poor. Flow completely regulated on the Cottonwood River from Marion Lake 4.5 mi upstream. No regulation from South Fork Cottonwood River 3.7 mi upstream. Satellite telameter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 cu ft per sec Oct. 10, 1985, gage height 30.23 ft; minimum discharge, 9.0 cu ft per sec Nov. 5, 6, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,020 cu ft per sec Aug. 27, gage height, 24.30 ft, from floodmark; minimum discharge, 20 cu ft per sec Aug. 3, 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	144	48	45	81	4990	1250	102	997	169	21	141
2	1720	132	47	44	66	474	809	79	728	75	20	136
3	2990	139	46	45	57	240	264	70	169	59	21	130
4	569	151	44	45	52	170	258	66	163	71	24	126
5	229	157	43	46	52	141	252	110	127	1090	25	122
6	161	188	42	46	57	124	250	258	64	849	23	120
7	103	193	51	45	54	110	249	143	60	655	22	122
8	84	174	117	44	53	100	245	85	55	581	21	130
9	77	162	118	47	78	91	243	65	53	373	21	125
10	74	154	69	40	125	111	244	58	57	90	20	126
11	125	150	52	31	127	168	237	53	65	45	20	125
12	473	149	56	40	126	147	223	67	62	41	24	120
13	165	148	55	45	127	113	241	56	54	38	41	121
14	103	146	57	54	128	116	761	48	49	37	35	90
15	88	145	65	92	154	114	809	46	45	35	28	40
16	105	145	62	66	224	114	413	44	44	34	24	39
17	152	145	57	39	187	4950	286	43	46	33	22	37
18	149	144	176	28	158	2280	260	44	41	33	262	38
19	145	138	495	31	144	399	237	41	42	33	249	37
20	143	132	477	31	139	475	215	41	43	31	38	36
21	141	85	474	31	137	718	197	42	44	28	27	34
22	144	58	657	31	135	660	185	40	629	26	23	34
23	146	55	843	31	134	1710	184	37	1920	26	144	34
24	147	53	854	31	133	3890	185	66	607	26	161	34
25	145	51	840	29	133	554	181	200	368	24	357	34
26	145	49	817	35	137	590	178	81	101	23	3750	35
27	145	49	765	40	174	838	146	1050	46	23	4410	33
28	121	49	756	45	1630	1480	101	2180	44	23	250	34
29	140	49	493	110	---	1560	75	507	43	22	205	32
30	145	49	49	363	---	1350	74	1110	970	22	167	31
31	146	---	46	123	---	1350	---	1080	---	21	150	---
TOTAL	9406	3583	8771	1733	4802	30127	9252	7912	7736	4636	10605	2296
MEAN	303	119	283	57.5	172	972	308	255	255	150	342	76.5
MAX	2990	193	854	363	1630	4990	1250	2180	1920	1090	4410	141
MIN	74	49	42	28	52	91	74	37	41	21	20	31
AC-FT	18660	7110	17400	3540	9520	59760	18350	15690	15340	9200	21040	4550

CAL YR 1986 TOTAL 70550 MEAN 193 MAX 6610 MIN 24 AC-FT 139900
WTR YR 1987 TOTAL 100909 MEAN 276 MAX 4990 MIN 20 AC-FT 200200

ARKANSAS RIVER BASIN

07180400 COTTONWOOD RIVER NEAR FLORENCE, KS

LOCATION.--Lat 38 deg 14 min 10 sec, long 96 deg 52 min 37 sec, in NW1/4 SW1/4 sec.10, T.21 S., R.5 E., Marion County, Hydrologic Unit 11070202, on left bank at downstream side of county highway bridge, 0.4 mi upstream from Martin Creek, 2.5 mi east of Florence, 3.3 mi downstream from Doyle Creek, and at mile 102.4.

DRAINAGE AREA.--754 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,231.49 ft above sea level. Since Aug. 10, 1965, auxiliary water-stage recorder 2.8 mi downstream at datum 1,219.49 ft above sea level.

REMARKS.--Estimated daily discharges: Jan. 18, 19, 21, 23-26. Records fair. Flow moderately regulated since 1968 by Marion Lake (station 07179794) 24 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE.--26 years, 328 cu ft per sec, 237,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,000 cu ft per sec June 17, 1975, gage height, 28.03 ft; minimum discharge, 5.5 cu ft per sec Oct. 11, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1872, 32.5 ft July 11, 1951, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,850 cu ft per sec Mar. 18; gage height, 23.24 ft; minimum discharge, 53 cu ft per sec Aug. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	220	109	102	170	8670	1780	231	1340	551	60	217
2	3480	215	109	98	140	3270	1370	215	1390	214	60	206
3	7320	216	109	98	121	720	527	191	565	150	58	199
4	2360	230	108	98	108	515	425	177	328	1560	75	189
5	609	241	106	98	103	437	401	196	275	4700	80	183
6	392	250	106	98	111	391	384	341	188	3540	76	180
7	304	259	114	95	111	357	373	314	162	839	69	179
8	262	250	150	93	110	331	363	207	151	713	65	181
9	234	239	231	96	105	306	354	168	142	632	65	182
10	218	234	186	98	164	287	353	159	140	290	63	181
11	361	230	155	93	179	349	351	150	157	179	63	182
12	669	229	139	95	179	366	347	533	160	156	66	180
13	438	224	130	93	179	308	346	223	149	146	108	176
14	278	220	129	103	180	296	642	153	132	138	127	176
15	239	220	130	143	194	294	908	140	121	128	89	106
16	216	220	136	159	254	288	606	144	117	120	77	86
17	259	220	136	131	280	6290	406	130	109	115	71	81
18	269	218	130	125	250	7710	361	127	121	111	76	77
19	262	216	377	115	239	1330	336	126	137	111	471	78
20	254	213	451	107	232	739	317	122	130	103	131	76
21	250	180	451	104	221	1160	304	126	125	95	84	75
22	249	139	519	101	219	1010	297	126	136	89	70	72
23	249	120	972	100	216	1840	296	122	2620	86	101	72
24	249	117	992	100	216	7670	296	123	775	86	309	72
25	249	115	987	100	213	2490	298	325	565	84	414	72
26	249	113	985	96	213	1130	301	249	280	80	1600	72
27	245	109	983	91	236	1030	297	1180	177	76	5500	70
28	241	109	977	91	2140	1990	237	4430	141	71	709	112
29	204	109	941	115	---	2510	217	951	134	70	312	79
30	223	109	214	372	---	1950	201	1350	785	69	266	69
31	221	---	106	285	---	1820	---	1470	---	66	234	---
TOTAL	21453	5784	11368	3693	7083	57854	13694	14499	11752	15368	11549	3880
MEAN	692	193	367	119	253	1866	456	468	392	496	373	129
MAX	7320	259	992	372	2140	8670	1780	4430	2620	4700	5500	217
MIN	204	109	106	91	103	287	201	122	109	66	58	69
AC-FT	42550	11470	22550	7330	14050	114800	27160	28760	23310	30480	22910	7700

CAL YR 1986 TOTAL 116915 MEAN 320 MAX 7320 MIN 62 AC-FT 231900
WTR YR 1987 TOTAL 177977 MEAN 488 MAX 8670 MIN 58 AC-FT 353000

ARKANSAS RIVER BASIN

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07180500 CEDAR CREEK NEAR CEDAR POINT, KS

LOCATION.--Lat 38 deg 11 min 55 sec, long 96 deg 49 min 22 sec, in NE1/4 SE1/4 NE1/4 sec.25, T.21 S., R.5 E., Chase County, Hydrologic Unit 11070202, on right bank at upstream side of highway bridge, 4.0 mi south of Cedar Point, and at mile 9.4.

DRAINAGE AREA.--110 sq mi.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: 1944(M). WSP 1341: 1940-41, 1942(M), 1943, 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 1,262.50 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Sept. 28, 1944, nonrecording gage at downstream side of present bridge at same datum.

REMARKS.--Estimated daily discharge: Apr. 8. Records good.

AVERAGE DISCHARGE.--49 years, 55.6 cu ft per sec, 40,280 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,400 cu ft per sec June 29, 1951, gage height, 23.70 ft, from rating curve extended above 7,500 cu ft per sec on basis of contracted-opening and flow-over-road measurement of peak discharge; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1929 reached a stage of 24.63 ft from floodmarks on house on left bank where flood in 1951 reached a stage of 25.7 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,600 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 2	2400	5,450	15.40	Mar. 17	0700	5,540	15.50
Oct. 3	1900	3,800	13.08	June 2	2100	*6,240	*16.22
Feb. 28	1900	5,440	15.39				

Minimum discharge, 6.0 cu ft per sec Sept. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	42	29	28	40	1410	72	57	36	34	11	9.8
2	2230	41	30	28	38	250	67	41	1650	28	11	9.8
3	3370	41	29	28	36	142	64	40	703	25	10	9.2
4	507	44	28	27	34	115	63	38	131	46	14	8.2
5	197	50	27	27	35	102	62	40	85	220	14	7.8
6	141	48	27	27	36	94	63	48	69	101	12	7.8
7	120	43	35	26	36	87	63	40	59	42	11	7.9
8	108	41	120	26	35	83	60	36	53	32	11	8.2
9	99	39	58	30	33	78	57	34	48	28	11	8.2
10	92	37	42	30	33	74	57	33	46	25	11	11
11	124	36	36	27	33	71	58	31	46	23	11	10
12	144	36	35	26	33	67	56	39	44	22	12	14
13	95	34	34	27	33	65	95	42	40	23	23	11
14	86	34	34	79	35	63	233	33	37	23	20	9.6
15	80	34	34	72	36	62	249	46	34	21	16	8.2
16	75	35	34	44	59	61	91	33	34	19	13	8.8
17	71	35	33	36	51	2580	71	28	32	19	11	9.5
18	68	34	32	34	51	270	64	26	31	18	11	9.3
19	64	33	32	34	88	135	59	26	30	18	11	8.4
20	62	33	32	32	97	108	55	25	32	18	11	7.4
21	60	32	31	31	78	97	52	25	45	16	9.9	7.2
22	60	31	30	31	62	89	49	25	30	15	8.5	6.7
23	60	31	30	31	54	202	49	23	31	15	15	6.6
24	56	30	30	30	50	405	48	34	28	15	20	6.6
25	54	30	30	30	50	125	47	106	27	14	26	6.6
26	54	30	30	29	49	98	46	37	26	14	22	6.5
27	52	30	29	28	107	91	44	399	24	13	15	7.0
28	49	29	29	31	2530	89	43	274	23	13	13	8.6
29	46	29	29	126	---	85	42	76	23	12	12	12
30	44	29	29	82	---	75	44	51	46	12	11	10
31	43	---	28	46	---	73	---	41	---	12	10	---
TOTAL	8485	1071	1086	1183	3852	7346	2123	1827	3543	936	417.4	261.9
MEAN	274	35.7	35.0	38.2	138	237	70.8	58.9	118	30.2	13.5	8.73
MAX	3370	50	120	126	2530	2580	249	399	1650	220	26	14
MIN	43	29	27	26	33	61	42	23	23	12	8.5	6.5
AC-FT	16830	2120	2150	2350	7640	14570	4210	3620	7030	1860	828	519

CAL YR 1936 TOTAL 31539.0 MEAN 26.4 MAX 3370 MIN 16 AC-FT 62560
WTR YR 1987 TOTAL 32131.3 MEAN 28.0 MAX 3370 MIN 6.5 AC-FT 63730

ARKANSAS RIVER BASIN

07192250 COTTONWOOD RIVER NEAR PLYMOUTH, KS

LOCATION.--Lat 38 deg 23 min 51 sec, long 96 deg 21 min 21 sec, in NE1/4 NE1/4 SE1/4 sec.13, T.19 S., R.9. E., Chase County, Hydrologic Unit 11070203, on right bank at upstream side of county bridge, 0.8 mi downstream from Buckeye Creek, 1.5 mi southwest of Plymouth, and at mile 39.2.

DRAINAGE AREA.--1,740 sq mi.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,109.04 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow partially regulated since 1968 by Marion Lake (station 07179794) 87.3 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE.--24 years, 916 cu ft per sec, 663,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,200 cu ft per sec Oct. 10, 1985, gage height, 35.45 ft; maximum gage height, 35.70 ft, June 5, 1965; minimum discharge, 8.7 cu ft per sec Oct. 21, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1903, 37.8 ft July 11, 1951, from information by local residents, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,900 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 3	2100	*17,600	*33.44	Mar. 26	0700	8,880	27.75
Oct. 12	0300	5,920	22.50	May 29	2000	5,140	20.94
Mar. 1	1300	15,500	33.11	June 4	0400	5,180	21.02
Mar. 19	1700	11,300	31.34	July 6	0700	7,380	26.08

Minimum discharge, 68 cu ft per sec Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1936 TO SEPTEMBER 1937
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3950	597	367	445	931	14200	2910	602	1920	983	177	469
2	6840	578	366	405	721	12800	2770	628	2060	1120	169	432
3	15800	574	365	402	625	11900	2390	620	4350	510	162	378
4	16100	590	359	401	576	7010	1550	599	4270	439	194	366
5	12400	663	352	396	603	2420	1150	635	1330	3950	173	336
6	6930	682	347	390	718	1910	1100	637	355	7690	196	320
7	2190	670	392	381	663	1650	1060	689	705	6420	193	314
8	1630	645	773	373	614	1470	1020	753	595	2600	172	313
9	1370	615	867	390	576	1330	981	619	546	1200	161	309
10	1210	538	767	406	556	1210	974	543	514	1000	154	375
11	1440	571	660	394	559	1120	962	507	503	707	149	481
12	5100	559	581	378	596	1100	918	828	503	530	178	491
13	2920	544	545	383	592	1100	1490	1010	490	465	329	389
14	1350	531	531	652	605	1030	2170	792	456	441	527	346
15	1310	530	526	738	736	964	3340	530	422	393	382	335
16	1100	531	524	636	1240	927	2960	517	393	369	293	412
17	992	533	522	643	1070	2970	1960	479	371	356	229	345
18	943	529	510	538	1010	10500	1400	447	358	364	201	263
19	922	518	493	575	1110	11700	1200	434	355	331	185	240
20	867	512	544	554	1120	10100	1080	422	369	312	206	228
21	823	503	754	558	1130	3660	936	412	356	292	379	214
22	807	491	757	526	1060	2450	929	413	419	273	241	199
23	815	446	756	543	939	2350	893	401	1020	261	273	191
24	781	410	1080	533	864	5370	864	414	2440	248	419	184
25	750	395	1240	527	824	8050	836	547	1510	240	928	169
26	731	393	1220	523	794	8330	806	697	811	231	601	79
27	713	326	1210	506	944	4000	772	1520	570	221	1560	74
28	692	380	1200	487	4940	2490	738	3300	406	210	3930	491
29	659	374	1190	725	---	3140	697	4780	375	200	2800	467
30	617	370	1170	929	---	3590	629	3580	567	191	642	303
31	607	---	794	961	---	3250	---	1680	---	184	508	---
TOTAL	93909	15708	21767	15398	26716	144091	41525	30035	29839	32785	17326	9513
MEAN	3029	524	702	529	954	4648	1384	969	995	1058	559	317
MAX	16100	682	1240	961	4940	14200	3340	4780	4350	7690	3930	491
MIN	607	370	347	373	556	927	629	401	355	184	149	74
AC-FT	136300	31160	43170	32530	52990	285800	32360	59570	59190	65030	34370	18870

CAL YR 1986 TOTAL 343578 MEAN 941 MAX 16100 MIN 157 AC-FT 681500
WTR YR 1987 TOTAL 479613 MEAN 1314 MAX 16100 MIN 74 AC-FT 951300

07182450 JOHN REDMOND RESERVOIR NEAR BURLINGTON, KS

LOCATION.--Lat 38 deg 14 min 15 sec, long 95 deg 46 min 05 sec, in SE1/4 SE1/4 NW1/4 sec. 9, T.21 S., R.15 E., Coffey County, Hydrologic Unit 11070204, on the dam on Neosho River, 3,300 ft southwest of spillway, 3.0 mi north of Burlington, and at mile 343.7.

DRAINAGE AREA.--3,015 sq mi.

PERIOD OF RECORD.--August 1963 to current year.

REVISED RECORDS.--Capacity table WDR KS-82: 1931.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. The spillway is a gate-controlled, concrete chute type structure. Filling began Sept. 7, 1963; regulated storage began Sept. 1, 1964. Conservation pool elevation was first reached on Nov. 18, 1964. Maximum pool, 858,900 acre-ft at elevation 1,074.5 ft; top of flood control pool, 630,200 acre-ft at elevation 1,068.0 ft; and top of conservation pool, 71,280 acre-ft at elevation 1,039.0 ft. Reservoir is designed for flood control, water quality control, recreation, fish and wildlife, and future water supply. Figures given herein represent total contents. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,066.81 ft Oct. 16, 1973, contents, 607,500 acre-ft; minimum elevation since conservation pool first filled, 1,032.68 ft Sept. 23, 1984, contents, 25,240 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,064.16 ft Oct. 19, contents, 515,900 acre-ft; minimum elevation, 1,038.62 ft Mar. 3, contents, 67,820 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Army Corps of Engineers, computed in 1977)

1,030	13,580	1,050	209,600
1,035	39,440	1,055	299,300
1,040	80,720	1,060	408,500
1,045	137,100	1,065	539,600

ELEVATION, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1052.63	1046.27	1042.27	1039.06	1040.15	1044.69	1041.83	1038.98	1043.58	1039.28	1039.07	1040.60
2	1054.47	1044.72	1042.24	1038.95	1040.28	1047.60	1041.04	1039.05	1043.99	1039.30	1039.04	1040.34
3	1057.27	1043.48	1041.98	1039.01	1040.19	1049.92	1040.37	1039.17	1043.66	1039.40	1039.00	1040.06
4	1059.36	1042.60	1041.71	1039.04	1039.89	1050.81	1040.63	1039.19	1043.00	1039.50	1039.10	1039.88
5	1061.19	1042.15	1041.49	1039.05	1039.79	1051.08	1040.19	1039.29	1042.26	1040.14	1039.09	1039.85
6	1062.54	1042.17	1041.43	1039.14	1039.85	1050.34	1039.64	1039.30	1041.09	1041.85	1039.05	1039.81
7	1063.62	1042.20	1041.75	1039.22	1039.90	1049.39	1039.27	1039.20	1039.34	1043.01	1039.02	1039.76
8	1063.84	1042.24	1042.05	1039.29	1039.71	1048.27	1039.13	1039.15	1039.17	1042.87	1039.00	1039.71
9	1063.92	1042.21	1042.01	1039.40	1039.54	1047.04	1039.13	1039.14	1039.16	1042.24	1038.96	1039.65
10	1063.35	1041.90	1041.41	1039.45	1039.61	1045.71	1039.25	1039.11	1039.19	1041.42	1038.91	1039.67
11	1062.81	1041.30	1040.82	1039.50	1039.65	1044.27	1039.35	1039.07	1039.24	1040.58	1038.80	1039.68
12	1062.39	1041.10	1040.34	1039.57	1039.59	1042.94	1039.40	1039.08	1039.21	1039.69	1039.11	1039.95
13	1062.28	1041.25	1040.11	1039.57	1039.40	1041.95	1040.13	1039.15	1039.22	1039.22	1039.72	1040.02
14	1061.83	1041.41	1039.86	1039.56	1039.16	1041.01	1041.77	1039.28	1039.18	1039.17	1040.86	1039.94
15	1061.18	1041.59	1039.84	1039.65	1039.55	1040.10	1042.80	1039.35	1039.12	1039.12	1041.04	1039.85
16	1060.47	1041.75	1040.03	1039.68	1040.37	1039.44	1042.52	1039.32	1039.09	1039.11	1040.88	1039.90
17	1059.69	1041.89	1040.23	1039.42	1040.82	1039.66	1041.97	1039.27	1039.02	1039.11	1040.53	1039.82
18	1058.45	1042.00	1040.30	1039.50	1040.84	1041.72	1041.28	1039.25	1038.97	1039.20	1040.19	1039.72
19	1058.20	1042.17	1040.18	1039.20	1040.78	1044.22	1040.47	1039.22	1039.07	1039.25	1039.83	1039.58
20	1057.43	1042.20	1040.02	1039.01	1040.67	1046.26	1039.60	1039.11	1039.10	1039.27	1039.46	1039.41
21	1056.59	1042.07	1039.90	1039.06	1040.45	1047.43	1038.96	1039.08	1039.08	1039.29	1039.20	1039.23
22	1055.74	1041.90	1039.81	1039.05	1040.15	1047.81	1038.92	1039.04	1039.13	1039.30	1039.11	1039.12
23	1054.95	1041.75	1039.74	1039.05	1039.79	1047.89	1039.08	1039.03	1039.58	1039.30	1039.20	1039.10
24	1053.08	1041.65	1039.65	1039.03	1039.40	1047.96	1039.19	1039.10	1040.20	1039.30	1039.47	1039.10
25	1054.54	1041.70	1039.61	1039.00	1039.07	1047.77	1039.31	1039.19	1040.35	1039.30	1040.00	1039.11
26	1053.10	1041.79	1039.60	1039.07	1039.01	1047.56	1039.40	1039.40	1040.25	1039.28	1040.14	1039.10
27	1052.57	1041.87	1039.60	1039.20	1039.09	1047.28	1039.39	1040.81	1039.95	1039.27	1040.20	1039.11
28	1051.67	1041.97	1039.59	1039.36	1041.02	1046.51	1039.22	1041.93	1039.58	1039.22	1040.37	1039.20
29	1050.45	1042.06	1039.59	1039.48	---	1045.40	1039.01	1042.52	1039.28	1039.20	1040.78	1039.52
30	1049.13	1042.13	1039.52	1039.70	---	1044.35	1038.94	1042.76	1039.27	1039.16	1041.05	1039.60
31	1047.75	---	1039.29	1039.99	---	1043.19	---	1043.03	---	1039.12	1040.85	---
MEAN	1057.63	1042.18	1040.52	1039.30	1039.92	1045.79	1040.06	1039.66	1040.09	1039.82	1039.71	1039.65
MAX	1063.92	1046.27	1042.27	1039.99	1041.02	1051.08	1042.80	1043.03	1043.99	1043.01	1041.05	1040.60
MIN	1047.75	1041.10	1039.29	1038.95	1039.01	1039.44	1038.92	1038.98	1038.97	1039.11	1038.80	1039.10
(+)	175,000	102,800	73,990	80,630	90,950	114,900	70,730	113,000	73,800	72,400	89,190	76,910
(#)	-46,900	-72,200	-28,810	+6,640	+10,320	+23,950	-44,170	+42,270	+39,200	-1,400	+16,790	-12,280

CAL YR 1986 (#) +3,540
WTR YR 1987 (#) +144,990

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

ARKANSAS RIVER BASIN

07182510 NEOSHO RIVER AT BURLINGTON, KS

LOCATION.--Lat 32 deg 11 min 40 sec, long 95 deg 44 min 10 sec, in SE1/4 NW1/4 sec.26, T.21 S., R.15 E., Coffey County, Hydrologic Unit 11070204, on right bank at upstream side of highway bridge at Burlington, 0.3 mi upstream from Rock Creek, and at mile 338.4. Records include flow of Rock Creek.

DRAINAGE AREA.--3,042 sq mi, includes that of Rock Creek.

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

GAGE.--Water-stage recorder. Datum of gage is 983.56 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 3, 4. Records good. Flow completely regulated since 1963 by John Redmond Reservoir (station 07182450), 5.3 mi upstream. Diversion of water for the Wolf Creek Nuclear Power Plant began Oct. 8, 1980. Satellite telemeter at station.

AVERAGE DISCHARGE.--22 years (water years 1966-87, since conservation pool at John Redmond Reservoir was first filled), 1,722 cu ft per sec, 1,243,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 cu ft per sec Sept. 13, 1961, gage height, 31.53 ft; no flow part of Nov. 23, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,200 cu ft per sec Mar. 5, gage height, 20.94 ft; minimum discharge, 64 cu ft per sec Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	308	11400	78	2270	1050	755	11300	612	132	1350	276	1860
2	920	10900	585	1230	1050	178	9480	623	1340	1280	274	1820
3	1040	9420	2100	397	1600	2050	4500	621	5860	1140	261	1800
4	646	5860	2070	395	2400	8180	4410	897	8780	1140	181	1280
5	439	4030	1750	391	2380	12100	4330	1430	8530	1160	166	530
6	455	1260	839	393	2410	12100	4320	1420	8120	1790	158	528
7	499	1250	1000	392	2410	11800	3470	1400	7530	5150	149	522
8	540	1220	961	393	2400	11500	2300	1190	5040	9170	150	522
9	1300	1220	2410	399	2000	11300	1780	881	1190	7960	156	520
10	9080	2210	5060	397	881	11400	1220	879	564	6010	152	678
11	11500	4160	4830	399	879	10900	1260	877	561	5710	454	1020
12	11500	2070	4110	397	1340	9800	1250	752	688	5410	120	1030
13	11600	83	2450	847	1980	6990	1690	573	819	3510	128	1040
14	11400	79	2420	1430	1840	6450	1630	564	815	957	841	1030
15	11600	78	1270	1420	1930	5990	3390	675	808	765	1660	1020
16	11700	78	79	1740	2040	4950	8610	790	814	533	1660	1010
17	11600	73	75	2400	2030	4070	8380	780	663	458	1980	997
18	11600	79	558	1040	2640	2340	8040	789	534	294	2250	992
19	11500	81	1570	2400	3210	168	7650	753	536	290	2200	988
20	11500	395	1520	1780	3610	2040	7200	736	536	283	2160	980
21	11700	1610	1510	854	3860	5100	5630	727	535	285	1440	967
22	11500	1700	1500	851	3760	5270	1790	626	542	286	733	794
23	11500	1680	1500	858	3670	5290	790	464	535	286	738	313
24	11600	1250	1490	858	3590	6700	770	464	950	285	793	129
25	9410	432	1480	354	3150	10900	771	454	2060	282	808	129
26	5820	147	1480	581	1930	11100	795	431	2760	282	912	130
27	6110	147	1490	211	1450	11400	1280	767	2720	280	1240	132
28	9510	114	1490	209	1510	11200	1870	420	2680	278	1510	150
29	11600	77	1490	511	---	11000	2100	1010	2170	278	1880	137
30	11500	76	1830	1020	---	10800	1380	3580	1350	276	1900	386
31	11300	---	2430	1040	---	11300	---	3290	---	277	1880	---
TOTAL	242277	63185	53425	28407	63000	235121	113386	29475	70162	57455	29210	23434
MEAN	7815	2106	1723	916	2250	7585	3780	951	2339	1853	942	781
MAX	11700	11400	5060	2400	3860	12100	11300	3580	8780	9170	2250	1860
MIN	308	76	75	209	879	168	770	420	132	276	120	129
AC-FT	480600	125300	106000	56350	125000	466400	224900	58460	139200	114000	57940	46480
CAL YR 1986	TOTAL	783002	MEAN	2145	MAX	11700	MIN	37	AC-FT	1553000		
WTR YR 1987	TOTAL	1008537	MEAN	2763	MAX	12100	MIN	75	AC-FT	2000000		

ARKANSAS RIVER BASIN

239

07183000 NEOSHO RIVER NEAR IOLA, KS

LOCATION.--Lat 37 deg 53 min 27 sec, long 95 deg 25 min 50 sec, in SW1/4 NE1/4 NE1/4 sec.9, T.25 S., R.18 E., Allen County, Hydrologic Unit 11070204, on left bank, 1.0 mi downstream from Elm Creek, 3.0 mi southwest of Iola, and at mile 287.4.

DRAINAGE AREA.--3,818 sq mi.

PERIOD OF RECORD.--August 1895 to December 1903 (published as "at Iola"), October 1917 to current year. Monthly discharge only for some periods, published in WSP 1311. Figures of daily discharge for August 1895 to January 1898, published in previous reports, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1037: 1819-24, 1926-29, 1935(M). WSP 1117: Drainage area. WSP 1311: 1895-98. WSP 1391: 1896(M), 1899, 1901-02(M), 1903-04. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 914.77 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1917, nonrecording gage at tailgate of flume at mill dam, 4.8 mi upstream at datum 12.2 ft higher.

REMARKS.--Estimated daily discharges: Jan. 20-27. Records good except those for estimated daily discharges, which are poor. Considerable regulation since 1963 by John Redmond Reservoir (station 07182450) 59.3 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE.--75 years (water years 1899-1903, 1918-87), 1,831 cu ft per sec, 1,327,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 436,000 cu ft per sec July 13, 1951, gage height, 43.0 ft, from floodmark, from rating curve extended above 84,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in 1936, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64,100 cu ft per sec Oct. 3, gage height, 31.78 ft; minimum discharge, 168 cu ft per sec Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8030	11200	339	2470	1340	19400	10900	1160	2860	1450	287	1890
2	16900	11000	750	2280	1260	8930	11000	682	706	1360	234	1860
3	50800	10500	1670	1150	1210	1880	7410	674	7420	1230	283	1810
4	51900	8480	2530	509	1910	3920	4710	679	8790	1160	312	1770
5	31100	7090	2320	480	2500	9750	4570	2560	8650	1590	247	1160
6	7770	4310	1770	483	3700	11800	4470	5180	8200	1910	205	578
7	2090	1950	3250	476	4290	11800	4540	2930	7710	2410	192	555
8	1560	1680	7970	467	3100	11500	2910	1880	7110	6460	183	543
9	1380	1540	4370	494	2690	11200	2330	1400	3640	8450	238	535
10	3170	1470	5200	495	1930	11100	1670	1090	1190	6890	208	568
11	9970	3090	5600	496	1100	11000	1330	1040	679	5840	184	722
12	12500	4260	5170	497	1030	10500	1300	1430	643	5580	353	1080
13	11700	1670	3880	512	1580	8720	3560	1100	727	5330	2150	1070
14	11400	384	2770	1750	2080	6750	6660	810	823	2570	1600	1080
15	11200	291	2660	2830	5780	6240	6420	1290	805	1030	1810	1050
16	11400	276	1310	2060	10900	5860	7190	1110	782	786	1880	1070
17	11500	267	423	2200	4510	7290	8770	976	767	570	1670	1060
18	11400	258	345	2180	2940	17800	8350	934	645	494	2060	1040
19	11300	245	800	1530	4000	8500	7980	3950	641	378	2230	1030
20	11200	244	1670	2500	5100	1790	7560	2160	851	336	3330	1010
21	11200	512	1640	1600	6040	4030	7530	1090	788	324	2490	988
22	11300	1640	1620	1000	5130	5570	4960	908	629	320	1370	978
23	11200	1740	1590	950	4420	5660	1720	770	2610	316	4170	782
24	11500	1730	1580	950	4020	7870	931	730	1360	312	2610	400
25	16200	1260	1580	950	3810	9840	854	7760	1130	304	1760	200
26	11800	2950	1550	950	2970	11200	822	4150	2320	300	1510	176
27	7000	1380	1550	650	1980	11100	794	6260	2750	296	2110	170
28	7150	677	1540	347	7280	11200	1290	14100	2730	296	1900	2380
29	10100	478	1540	1160	---	11000	1790	5050	2670	296	1860	1610
30	11300	362	1530	2320	---	10600	1910	3230	2210	292	1970	480
31	11300	---	1960	1640	---	10600	---	4130	---	290	1940	---
TOTAL	408320	82934	72477	38376	98600	284400	136231	81263	82836	59170	43396	29645
MEAN	13170	2764	2338	1238	3521	9174	4541	2621	2761	1909	1400	988
MAX	51900	11200	7970	2830	10900	19400	11000	14100	8790	8450	4170	2380
MIN	1380	244	339	347	1030	1790	794	674	629	290	183	170
AC-FT	809900	164500	143800	76120	195600	564100	270200	161200	164300	117400	86080	58800

CAL YR 1986 TOTAL 1099071 MEAN 3011 MAX 51900 MIN 74 AC-FT 2180000
WTR YR 1987 TOTAL 1417648 MEAN 3884 MAX 51900 MIN 170 AC-FT 2812000

ARKANSAS RIVER BASIN

07183500 NEOSHO RIVER NEAR PARSONS, KS
(National stream-quality accounting network station)

LOCATION.--Lat 37 deg 20 min 24 sec, long 95 deg 06 min 35 sec, in NW1/4 NE1/4 sec.21, T.31 S., R.21 E., Labette County, Hydrologic Unit 11070205, on right bank at downstream side of bridge on U.S. Highway 160, 0.4 mi upstream from Hickory Creek, 2.7 mi upstream from dam of Kansas Army Ammunition Plant, 8.0 mi east of Parsons, and at mile 204.1. Prior to June 9, 1987, at site 2.7 mi downstream. Records include flow of Hickory Creek.

DRAINAGE AREA.--4,905 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only October 1921, published in WSP 1311.

REVISED RECORDS.--WSP 307: 1922-23. WSP 1391: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 810.25 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1929, nonrecording gage at bridge 0.5 mi downstream at datum 0.04 ft lower. Oct. 1, 1929, to Feb. 7, 1935, nonrecording gage, and Feb. 8, 1935, to Dec. 7, 1966, water-stage recorder at present site and datum. Dec. 8, 1966, to June 8, 1987, water-stage recorder 2.7 mi downstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Flow moderately regulated since 1963 by John Redmond Reservoir (station 07182450) 139.6 mi upstream. Small diversion by the Kansas Army Ammunition Plant. Records include flow of Hickory Creek. Satellite telemeter at station.

AVERAGE DISCHARGE.--66 years, 2,679 cu ft per sec, 1,941,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 410,000 cu ft per sec July 14, 1951, gage height, 40.20 ft, from floodmark in gage well at present site; no flow at times in 1934, 1936, 1939, 1955-57.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 92,700 cu ft per sec Oct. 5, gage height, 27.20 ft; minimum discharge, 212 cu ft per sec Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38700	11700	1130	2040	2810	23800	11100	2080	5060	2600	320	1970
2	39900	11500	1010	2600	2170	25700	11400	1630	3630	1860	322	1910
3	48500	11400	1220	2480	1920	24500	11400	984	2390	1710	322	1880
4	75300	11800	2120	1710	1750	9050	8460	920	8630	1710	336	1830
5	89900	13900	2950	891	2170	6020	5500	1140	9880	4480	346	1790
6	75600	11400	2750	754	3300	10400	5190	8500	9100	7570	343	1450
7	59300	6450	4010	732	5920	12500	5070	15900	8460	3060	287	748
8	45700	3190	10600	706	5940	12700	5050	7130	8010	2720	244	586
9	27500	2530	12600	700	4170	12300	3560	2920	7360	5400	235	549
10	9260	2190	7980	700	3360	11900	2650	2050	4190	8150	219	535
11	6900	2150	6730	788	2590	11700	2080	1540	1970	7030	256	564
12	12200	3320	6600	700	1660	11600	1620	1390	1910	6130	266	595
13	14500	4690	6020	910	1540	11100	2020	1950	1170	6930	307	979
14	14000	2610	4680	1710	4570	9420	5070	1740	916	6200	2380	1160
15	12700	1070	3400	3380	14700	7510	9080	1240	975	3190	2480	1130
16	12100	725	3190	4290	22800	6980	8900	1330	960	1440	1870	1250
17	12100	642	2140	2800	19600	8560	8070	1450	907	1060	1980	1250
18	12100	594	1100	2300	8900	18100	9130	1190	875	759	1750	1110
19	11900	554	830	1800	5410	22700	8650	1230	1030	672	1970	1080
20	11800	524	861	2040	6960	19100	8230	4230	2060	541	2630	1070
21	11500	495	1840	2000	8190	4420	8330	3080	2030	437	3770	1020
22	12400	486	1930	2420	8130	4870	9500	1520	1600	402	2750	972
23	12800	1440	1900	1790	6560	6490	6160	1150	992	376	1740	962
24	12400	1860	1870	1300	5370	7830	2590	1120	2470	371	3680	877
25	19300	2370	1870	1100	4740	9900	1480	4820	2110	363	3610	569
26	24900	16600	1840	1100	4380	10900	1260	12900	1470	358	2070	356
27	24400	20300	1810	1100	3710	12000	1160	8210	2350	354	1860	245
28	12700	5140	1790	1200	10600	11900	1090	16400	2910	338	2690	231
29	8420	2130	1780	4660	---	11800	1350	23100	2960	318	2340	1740
30	10500	1510	1770	8150	---	11600	1900	17400	2940	316	1960	2170
31	11700	---	1750	4640	---	11200	---	5590	---	316	2020	---
TOTAL	790980	155270	102121	63491	173820	378550	167050	155834	101315	78161	47353	32578
MEAN	25520	5176	3294	2048	6208	12210	5568	5027	3377	2521	1528	1086
MAX	89900	20300	12600	8150	22800	25700	11400	23100	9880	8150	3770	2170
MIN	6900	486	830	700	1540	4420	1090	920	875	316	219	231
AC-FT	1569000	308000	202600	125900	344800	750900	331300	309100	201000	155000	93920	64620
CAL YR 1986	TOTAL	1751351	MEAN	4798	MAX	89900	MIN	153	AC-FT	3474000		
WTR YR 1987	TOTAL	2246523	MEAN	6155	MAX	89900	MIN	219	AC-FT	4456000		

ARKANSAS RIVER BASIN

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07183500 NEOSHO RIVER NEAR PARSONS, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1968, October 1979 to September 1981.

WATER TEMPERATURES: October 1963 to September 1968, October 1979 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 22...	1430	12700	240	7.80	16.0	8.8	760	--	--
DEC 03...	1515	1330	432	7.50	5.5	14.4	754	130	K440
FEB 25...	1000	4730	460	7.90	6.5	9.2	744	56	190
APR 08...	1315	5010	467	7.90	12.0	9.0	742	36	110
JUN 24...	1445	3440	414	8.30	29.0	8.4	737	--	520
AUG 05...	1115	342	390	8.20	32.0	7.8	738	--	240

DATE	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 22...	94	110	34	5.8	11	0.5	5.0	120	--	3.7	18
DEC 03...	42	190	61	8.1	12	0.4	3.8	160	--	9.8	35
FEB 25...	35	210	64	13	16	0.5	2.7	153	190	3.7	58
APR 08...	22	230	69	15	13	0.4	3.3	186	230	5.0	51
JUN 24...	51	200	60	12	14	0.4	3.4	189	230	1.8	46
AUG 05...	16	180	52	12	14	0.5	3.9	150	180	1.8	37

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 22...	13	0.20	12	182	0.25	6240	0.440	0.04	--	0.030	0.030
DEC 03...	15	0.20	11	255	0.35	916	0.700	0.09	0.03	0.070	0.070
FEB 25...	13	0.20	4.2	281	0.38	3590	0.320	0.04	0.03	0.060	0.030
APR 08...	9.0	0.30	8.6	283	0.38	3830	0.900	0.06	0.07	0.050	0.050
JUN 24...	12	0.30	7.4	253	0.34	2350	0.790	0.05	0.10	0.010	0.040
AUG 05...	12	0.10	5.6	228	0.31	211	0.230	0.06	--	0.040	0.050

K Results based on colony count outside the acceptable range (non-ideal colony count).

ARKANSAS RIVER BASIN

07183500 NEOSHO RIVER NEAR PARSONS, KS--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P ₀₄)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
OCT 22...	1.2	<0.010	1.2	0.49	0.210	0.180	0.160	192	6580	99	58
DEC 03...	0.40	0.010	0.33	0.12	0.090	0.060	0.040	46	165	99	--
FEB 25...	1.3	0.010	1.2	--	0.110	0.030	<0.010	89	1140	96	--
APR 08...	<0.20	0.020	--	0.15	0.090	0.080	0.050	58	785	99	--
JUN 24...	1.6	0.030	1.6	0.15	0.360	0.180	0.050	220	2040	99	59
AUG 05...	0.80	<0.010	0.76	0.06	0.060	0.030	0.020	25	23	98	--

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 22...	70	2	70	<0.5	<1	<1	<3	5	61	<5
FEB 25...	50	<1	38	<0.5	<10	<1	<3	3	41	<5
APR 08...	10	1	110	<0.5	<1	<1	<3	5	23	<5
AUG 05...	20	2	110	<0.5	<1	<1	<3	4	9	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 22...	6	11	--	<10	<1	<1	<1	260	<6	16
FEB 25...	10	4	0.3	<10	5	<1	<1	590	<6	10
APR 08...	11	37	0.2	<10	1	<1	<1	650	<6	10
AUG 05...	10	10	0.4	<10	<1	<1	<1	530	<6	4

07184000 LIGHTNING CREEK NEAR MCCUNE, KS

LOCATION.--Lat 37 deg 16 min 54 sec, long 95 deg 01 min 56 sec, in NE1/4 NE1/4 sec.7, T.32 S., R.22 E., Cherokee County, Hydrologic Unit 11070205, on right bank at downstream side of highway bridge, 5.0 mi south of McCune, 13.0 mi southeast of Parsons, and at mile 12.6.

DRAINAGE AREA.--197 sq mi.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to September 1946, October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 818.10 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Mar. 10, 1945, nonrecording gage and Mar. 10, 1945, to Sept. 30, 1946, water-stage recorder at present site and datum. Oct. 1, 1959, to May 26, 1960, water-stage recorder 100 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 19-28. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--36 years, 161 cu ft per sec, 116,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,000 cu ft per sec Oct. 1, 1936, gage height, 18.48 ft, from rating curve extended above 15,000 cu ft per sec; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Oct. 1	0400	*84,000	*18.48	Feb. 16	0300	7,300	16.43
Oct. 4	0300	73,400	18.37	Mar. 1	1100	7,700	16.48
Oct. 26	0900	3,510	15.65	Mar. 19	0400	3,200	15.28
Nov. 5	1900	1,900	11.19	May 6	2200	2,290	12.60
Nov. 27	0600	2,840	14.41	May 29	0900	3,110	15.12
Jan. 30	0800	2,640	13.78				

Minimum flow, 0.46 cu ft per sec Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69000	69	81	22	152	6350	37	10	89	9.0	1.1	2.0
2	20400	58	70	21	147	2960	32	9.5	64	8.9	1.0	1.8
3	16800	52	62	21	105	325	30	9.0	162	8.1	.89	1.3
4	38300	315	53	20	72	145	28	17	164	72	.84	1.1
5	5220	1730	46	20	54	107	26	198	63	425	.77	.90
6	884	1130	41	20	113	87	25	1790	42	245	.78	.82
7	202	245	230	19	125	74	24	1130	29	117	.72	.85
8	121	140	1150	19	76	65	23	119	21	51	.71	.84
9	91	141	497	21	56	57	22	62	19	31	.73	.80
10	77	100	254	35	42	49	21	41	15	21	.76	.78
11	114	166	112	41	37	42	19	31	15	12	1.2	.67
12	747	125	71	50	33	40	19	24	18	12	1.2	.56
13	322	83	58	121	31	40	272	19	36	1220	1.5	.55
14	179	62	52	403	229	37	934	17	23	262	2.3	.49
15	121	52	49	310	3040	34	216	14	28	72	2.3	.62
16	81	51	47	123	6210	33	92	13	25	37	1.8	.95
17	66	52	48	75	2250	398	61	12	16	21	1.4	1.3
18	61	51	46	63	345	2720	44	10	12	15	1.2	1.8
19	50	46	41	72	495	2380	35	160	9.6	16	1.5	2.4
20	43	43	36	72	528	294	28	332	1080	11	8.7	1.9
21	39	41	33	80	389	120	24	49	760	8.1	2.0	1.5
22	385	38	31	100	204	83	22	33	282	6.2	1.6	1.4
23	786	37	29	92	117	77	20	67	97	4.5	1.3	1.5
24	218	35	29	76	83	954	18	183	51	3.3	1.2	1.1
25	2360	133	29	58	69	817	16	222	29	2.6	.92	.91
26	3160	2320	28	40	63	170	16	109	20	2.2	.79	.82
27	738	2450	26	32	76	97	15	125	14	1.9	1.1	.55
28	179	402	25	52	2020	77	14	2090	11	1.6	1.1	1.2
29	118	133	24	1430	---	59	13	3040	8.3	1.5	3.6	1.0
30	91	96	23	2330	---	46	11	1580	7.8	1.4	3.2	.88
31	79	---	22	477	---	40	---	179	---	1.3	2.5	---
TOTAL	161032	10396	3343	6315	17161	18777	2157	11694.5	3215.7	2700.6	50.71	33.29
MEAN	5195	347	108	204	613	606	71.9	377	107	87.1	1.64	1.11
MAX	69000	2450	1150	2330	6210	6350	934	3040	1080	1220	8.7	2.4
MIN	39	35	22	19	31	33	11	9.0	7.3	1.3	.71	.49
AC-FT	319400	20620	6630	12530	34040	37240	4280	23200	6380	5360	101	66

CAL YR 1986 TOTAL 235186.56 MEAN 644 MAX 69000 MIN .02 AC-FT 466500
WTR YR 1987 TOTAL 236875.80 MEAN 649 MAX 69000 MIN .49 AC-FT 469800

ARKANSAS RIVER BASIN

07184000 LIGHTNING CREEK NEAR MCCUNE, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--water years 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 23...	1105	850	336	6.60	16.0	125	287	100
DEC 03...	1050	62	694	7.30	5.5	23	3.8	--
JAN 14...	1700	602	519	8.60	5.5	160	260	--
FEB 24...	1625	81	599	7.40	7.5	38	8.3	--
APR 07...	1715	24	870	8.10	15.0	20	1.3	91
MAY 19...	1550	8.1	750	8.30	27.0	42	0.92	--
JUN 24...	1110	46	261	7.50	26.5	173	22	99
AUG 04...	1615	933	767	7.80	29.5	25	63	--
SEP 16...	0950	0.93	525	7.80	21.0	34	0.08	--

As the number of streams on which streamflow information is likely to be desired far exceeds the number of streamflow-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than streamflow-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or high-flow analyses, depending on the type of data collected.

Records collected at partial-record stations are presented in three tables. The first is a table of annual maximum stage and discharge at high-flow stations, the second is a table of discharge measurements at low-flow stations, and the third is a table of stage and discharge for indicated times at flood hydrograph stations.

High-flow stations

The following table contains annual maximum discharges for high-flow stations. A high-flow gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at high-flow stations

						Annual maximum	
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Discharge (cu ft per sec)
Big Nemaha River basin							
06813700	Tennessee Creek tributary near Seneca, KS	Lat 39 deg 48 min 46 sec, long 96 deg 02 min 44 sec, in SE1/4 SW1/4 sec.2, T.3 S., R.12 E., Nemaha County, Hydrologic Unit 10240007, on upstream side of culvert on county highway, 1.8 mi southeast of Seneca.	0.90	1957-87	9-15-87	13.07	126
Wolf River basin							
06815700	Buttermilk Creek near Willis, KS	Lat 39 deg 45 min 16 sec, long 95 deg 27 min 02 sec, in SW1/4 SW1/4 sec.30, T.3 S., R.18 E., Brown County, Hydrologic Unit 10240005, at downstream side of county highway bridge, 3.6 mi northeast of Willis. Published as "South Branch Wolf Creek tributary" 1957-60, as "South Fork Wolf River tributary" 1961.	3.74	1957-87	5-03-87	14.69	1,210
Independence Creek basin							
06818260	White Clay Creek at Atchison, KS	Lat 39 deg 33 min 33 sec, long 95 deg 07 min 38 sec, in SW1/4 NE1/4 sec.1, T.6 S., R.20 E., Atchison County, Hydrologic Unit 10240011, on right bank at center of highway bridge, on 10th Street in Atchison, and 0.15 mi downstream from Brewery Creek.	13.1	1972-87	5-03-87	13.37	2,870
Kansas River basin							
06844800	South Fork Sappa Creek tributary near Goodland, KS	Lat 39 deg 19 min 14 sec, long 101 deg 37 min 57 sec, in NW1/4 NW1/4 sec.36, T.8 S., R.39 W., Sherman County, Hydrologic Unit 10250010, below culvert on county highway, 4.5 mi southeast of Goodland.	4.98	1957-87	7-04-87	11.93	65
06845100	Long Branch Draw near Norcaturn, KS	Lat 39 deg 54 min 06 sec, long 100 deg 10 min 43 sec, in SW1/4 SW1/4 sec.6, T.2 S., R.25 W., Decatur-Norton County line, Hydrologic Unit 10250011, on downstream side of county highway bridge, 4.7 mi north of Norcaturn.	31.7	1957-87	7-08-87	14.53	115

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at high-flow stations

					Annual maximum		
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)
Kansas River basin--continued							
06846000	Beaver Creek at Ludell, KS	Lat 39 deg 50 min 50 sec, long 100 deg 57 min 30 sec, in NW1/4 SW1/4 sec.30 T.2 S., R.32 W., Rawlins County, Hydrologic Unit 10250014, at downstream side of bridge on county highway, 120 ft downstream from Chicago, Burlington, and Quincy Railway Co. bridge, 0.5 mi south of Ludell, and 9.6 mi downstream from Little Beaver Creek. Prior to June 30, 1932, at site 120 ft upstream and at datum 0.7 ft higher.	1,460	1930-32#, 1946-53#, 1961-87	9-16-87	7.27	178
06846200	Beaver Creek tributary near Ludell, KS	Lat 39 deg 48 min 53 sec, long 100 deg 52 min 19 sec, in SE1/4 SE1/4 sec.2, T.3 S., R.32 W., Rawlins County, Hydrologic Unit 10250014, at downstream end of culvert on U.S. Highway 36, 5.4 mi southeast of Ludell.	10.2	1957-87	9-16-87	11.01	34
06847600	Prairie Dog Creek tributary at Colby, KS	Lat 39 deg 23 min 28 sec, long 101 deg 02 min 43 sec, in SW1/4 NW1/4 NE1/4 sec.6, T.8 S., R.33 W., Thomas County, Hydrologic Unit 10250015, at downstream side of bridge on Franklin Avenue in Colby. Prior to Mar. 31, 1971, at site 0.3 mi upstream at same datum.	7.53	1957-87	7-04-87	10.55	154
06848200	Prairie Dog Creek tributary near Norton, KS	Lat 39 deg 51 min 15 sec, long 99 deg 53 min 17 sec, in NW1/4 NW1/4 sec.26, T.2 S., R.23 W., Norton County, Hydrologic Unit 10250015, at downstream side of bridge on U.S. Highway 283, 1.6 mi north of Norton.	1.02	1957-87	7-08-87	13.48	420
06856100	West Creek near Talmo, KS	Lat 39 deg 40 min 00 sec, long 97 deg 36 min 48 sec, in NW1/4 NW1/4 NW1/4 sec.36, T.4 S., R.3 W., Republic County, Hydrologic Unit 10250017, at downstream side of county highway bridge, 2.5 mi southwest of Talmo. Published as "West Salt Creek" 1957-71.	42.0	1957-87	3-23-87	20.41	2,450
06856320	Elk Creek at Clyde, KS	Lat 39 deg 35 min 40 sec, long 97 deg 23 min 49 sec, in NW1/4 NE1/4 sec.26, T.5 S., R.1 W., Republic County, Hydrologic Unit 10250017, at downstream side of railroad bridge in Clyde, 2.8 mi upstream from mouth.	73.0	1970-87	3-23-87	11.04	1,400
06856800	Moll Creek near Green, KS	Lat 39 deg 22 min 48 sec, long 97 deg 00 min 28 sec, in NE1/4 NW1/4 sec.8, T.8 S., R.4 E., Clay County, Hydrologic Unit 10250017, at downstream side of bridge on U.S. Highway 24, 3.3 mi southwest of Green. Prior to July 15, 1965, at site 60 ft upstream at same datum.	3.60	1957-87	4-14-87	15.20	330
06858500	North Fork Smoky Hill River near McAllaster, KS	Lat 39 deg 01 min 01 sec, long 101 deg 20 min 51 sec, in NW1/4 NW1/4 sec.17, T.12 S., R.36 W., Logan County, Hydrologic Unit 10260002, on left bank at upstream side of bridge on U.S. Highway 40, 3.0 mi east of McAllaster. Prior to Sept. 30, 1953 at site 2.0 mi upstream at datum 15.75 higher.	670	1947-53#, 1959-84#, 1985-87	7-04-87	6.00	+

Operated as a continuous-record streamflow-gaging station.

+ Not determined.

DISCHARGE AT PARTIAL-RECORD STATIONS

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Annual maximum discharge at high-flow stations

					Annual maximum		
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)
Kansas River basin--continued							
06860500	Hackberry Creek near Gove, KS	Lat 38 deg 57 min 15 sec, long 100 deg 29 min 05 sec, in SW1/4 NE1/4 sec.1 T.13 S., R.29 W., Gove County, Hydrologic Unit 10260005, near right bank at downstream side of bridge on State Highway 23, 0.5 mi south of Gove.	426	1948-53#, 1960-87	8-08-87	13.67	6,500
06863400	Big Creek tributary near Ogallah, KS	Lat 38 deg 56 min 00 sec, long 99 deg 44 min 33 sec, in NW1/4 SW1/4 sec.11, T.13 S., R.22 W., Trego County, Hydrologic Unit 10260007, at downstream side of bridge on State Highway 147, 4.0 mi southwest of Ogallah.	4.81	1957-87	3-24-87	15.20	4,100
06863700	Big Creek tributary near Hays, KS	Lat 38 deg 51 min 08 sec, long 99 deg 14 min 48 sec, in SE1/4 NE1/4 sec.7, T.14 S., R.17 W., Ellis County, Hydrologic Unit 10260007, at downstream side of culvert on old U.S. Highway 40 at Toulon, 4.7 mi southeast of Hays.	6.19	1957-87	4-14-87	13.02	940
06864300	Smoky Hill River tributary at Dorrance, KS	Lat 38 deg 50 min 52 sec, long 98 deg 35 min 44 sec, in NE1/4 SE1/4 sec.12, T.14 S., R.12 W., Russell County, Hydrologic Unit 10260006, at downstream end of culvert on old U.S. Highway 40 at Dorrance.	5.39	1957-87	4-14-87	12.96	347
06864700	Spring Creek near Kanopolis, KS	Lat 38 deg 44 min 23 sec, long 98 deg 10 min 07 sec, in NW1/4 NW1/4 sec.24, T.15 S., R.8 W., Ellsworth County, Hydrologic Unit 10260006, at downstream end of culvert on old U.S. Highway 40, 2.2 mi northwest of Kanopolis.	9.84	1957-87	3-26-87	10.56	8.2
06866490	Dry Creek at Mentor, KS	Lat 38 deg 44 min 11 sec, long 97 deg 36 min 46 sec, in SW1/4 NW1/4 sec.24, T.15 S., R.3 W., Saline County, Hydrologic Unit 10260008, near right bank at downstream side of bridge on old U.S. Highway 81, 0.6 mi southwest of Mentor, and 1.7 mi upstream from mouth.	37.0	1970-87	3-24-87	18.93	+
06866800	Saline River tributary at Collyer, KS	Lat 39 deg 02 min 46 sec, long 100 deg 07 min 36 sec, in SW1/4 SW1/4 sec.32, T.11 S., R.25 W., Trego County, Hydrologic Unit 10260009, at downstream side of county highway bridge, 0.7 mi northwest of Collyer.	3.13	1957-87	7-18-87	12.48	150
06868300	Coon Creek tributary near Luray, KS	Lat 39 deg 10 min 30 sec, long 98 deg 42 min 02 sec, in NW1/4 NE1/4 sec.19, T.10 S., R.12 W., Osborne County, Hydrologic Unit 10260010, at downstream side of county highway bridge, 4.4 mi northwest of Luray.	6.53	1957-87	4-14-87	19.66	1,400
06868400	Wolf Creek near Lucas, KS	Lat 39 deg 03 min 30 sec, long 98 deg 33 min 10 sec, in NW1/4 NW1/4 sec.33 T.11 S., R.11 W., Russell County, Hydrologic Unit 10260010, at downstream side of highway bridge, 1.2 mi west of Lucas, 4.0 mi upstream from East Fork, and 15 mi upstream from mouth.	163	1960-71#, 1972-87	4-14-87	31.43	15,400

Operated as a continuous-record streamflow-gaging station.

+ Not determined.

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at high-flow stations

					Annual maximum		
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)
Kansas River basin--continued							
06868900	Bullfoot Creek tributary near Lincoln, KS	Lat 38 deg 58 min 27 sec, long 98 deg 09 min 03 sec, in SW1/4 SW1/4 sec.30, T.12 S., R.7 W., Lincoln County, Hydrologic Unit 10260010, at downstream side of bridge on State Highway 14, 4.6 mi south of Lincoln. Published as "Elkhorn Creek tributary" 1957-70.	2.64	1957-87	4-14-87	13.95	250
06869950	Mulberry Creek near Salina, KS	Lat 38 deg 50 min 40 sec, long 97 deg 40 min 05 sec, in SW1/4 SW1/4 sec.9, T.14 S., R.3 W., Saline County, Hydrologic Unit 10260010, at left downstream pier of bridge on county highway, 2.0 mi downstream from Spring Creek, 2.0 mi west of Salina, and 9.0 mi upstream from mouth.	250	1961-87	3-23-87	26.26	6,000
06872600	Oak Creek at Bellaire, KS	Lat 39 deg 47 min 54 sec, long 98 deg 40 min 00 sec, in NW1/4 NW1/4 sec.15, T.3 S., R.12 W., Smith County, Hydrologic Unit 10260012, at downstream side of bridge at Bellaire. Prior to Sept. 8, 1965, at same site at datum 2.18 ft lower.	4.75	1957-87	4-18-87	14.75	86
06873300	Ash Creek tributary near Stockton, KS	Lat 39 deg 26 min 15 sec, long 99 deg 22 min 16 sec, in SE1/4 SW1/4 sec.18, T.7 S., R.18 W., Rooks County, Hydrologic Unit 10260014, at upstream end of culvert on old U.S. Highway 24, 5.3 mi west of Stockton.	0.89	1957-87	5-31-87	11.19	760
06874500	East Limestone Creek near Ionia, KS	Lat 39 deg 41 min 52 sec, long 98 deg 20 min 19 sec, in NE1/4 NW1/4 sec.21, T.4 S., R.9 W., Jewell County, Hydrologic Unit 10260015, at downstream side of county highway bridge, 2.5 mi northeast of Ionia. Prior to Oct. 1, 1956, at same site at datum 6.2 ft higher.	25.6	1934-38#, 1957-87	3-23-87	20.63	1,300
06877120	Mud Creek at Abilene, KS	Lat 38 deg 55 min 47 sec, long 97 deg 13 min 39 sec, in NE1/4 NE1/4 sec.17, T.13 S., R.2 E., Dickinson County, Hydrologic Unit 10260008, at downstream side of bridge on old U.S. Highway 40 on north edge of Abilene.	87.0	1970-87	4-14-87	4.46	2,600
06877500	Turkey Creek near Abilene, KS	Lat 38 deg 48 min 22 sec, long 97 deg 10 min 53 sec, in SE1/4 SW1/4 NW1/4 sec.26, T.14 S., R.2 E., Dickinson County, Hydrologic Unit 10260008, at downstream side of bridge immediately below mouth of West Branch Turkey Creek, 8.0 mi south of Abilene.	143	1958-65#, 1966-87	5-27-87	21.09	2,500
06879200	Clark Creek near Junction City, KS	Lat 39 deg 00 min 28 sec, long 96 deg 44 min 20 sec, in NE1/4 NW1/4 SW1/4 sec.14, T.12 S., R.6 E., Geary County, Hydrologic Unit 10270101, at upstream side of bridge on State Highway 57, 5.0 mi southeast of Junction City, and 7.5 mi upstream from Humboldt Creek.	200	1957-65#, 1966-87	3-17-87	11.0	2,500

Operated as a continuous-record streamflow-gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS

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Annual maximum discharge at high-flow stations

					Annual maximum		
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)
Kansas River basin--continued							
06879815	Wildcat Creek at Manhattan, KS	Lat 39 deg 11 min 05 sec, long 96 deg 36 min 37 sec, in NW1/4 SE1/4 NE1/4 sec.14, T.10 S., R.7 E., Riley County, Hydrologic Unit 10270101, on downstream side of bridge on State Highway 113 in Manhattan, 5.5 mi above mouth.	74.0	1974-87	5-05-87	14.45	1,650
06884100	Mulberry Creek tributary near Haddam, KS	Lat 39 deg 48 min 49 sec, long 97 deg 17 min 56 sec, in NE1/4 NE1/4 sec.10, T.3 S., R.1 E., Washington County, Hydrologic Unit 10270207, above culvert on U.S. Highway 36, 3.0 mi south of Haddam. Published as "Mill Creek tributary" 1957-71.	1.64	1957-87	3-24-87	11.38	51
06884300	Mill Creek tributary near Washington, KS	Lat 39 deg 48 min 48 sec, long 97 deg 00 min 30 sec, in SW1/4 SW1/4 sec.5, T.3 S., R.4 E., Washington County, Hydrologic Unit 10270207, at downstream end of culvert on U.S. Highway 36, 2.2 mi east of Washington.	3.20	1957-87	10-11-86	14.53	400
06884900	Robidoux Creek at Beattie, KS	Lat 39 deg 51 min 48 sec, long 96 deg 25 min 47 sec, in SW1/4 NE1/4 sec.20, T.2 S., R.9 E., Marshall County, Hydrologic Unit 10270205, at downstream side of county highway bridge, 0.8 mi northwest of Beattie.	40.0	1957-87	9-16-87	19.69	+
06886500	Fancy Creek at Winkler, KS	Lat 39 deg 28 min 20 sec, long 96 deg 49 min 55 sec, in NW1/4 NE1/4 SE1/4 sec.2, T.7 S., R.5 E., Riley County, Hydrologic Unit 10270205, at downstream side of county highway bridge, 0.2 mi downstream from Otter Creek, 0.4 mi south of Winkler, and at mile 13.2.	174	1953-71#, 1972-87	6-28-87	14.70	5,500
06887200	Cedar Creek near Manhattan, KS	Lat 39 deg 15 min 31 sec, long 96 deg 33 min 48 sec, in NE1/4 NE1/4 sec.19, T.9 S., R.8 E., Pottawatomie County, Hydrologic Unit 10270205, at downstream side of county highway bridge, 5.5 mi north of Manhattan.	13.4	1957-87	10-03-86	16.29	+
06887600	Kansas River tributary near Wamego, KS	Lat 39 deg 10 min 28 sec, long 96 deg 15 min 45 sec, in SE1/4 SE1/4 sec.14 T.10 S., R.10 E., Wabaunsee County, Hydrologic Unit 10270102, at upstream end of culvert on county highway, 4.8 mi southeast of Wamego.	0.83	1951, 1957-87	3-18-87	13.92	403
06888300	Rock Creek near Louisville, KS	Lat 39 deg 15 min 53 sec, long 96 deg 22 min 47 sec, in SE1/4 NE1/4 SW1/4 sec.14, T.9 S., R.9 E., Pottawatomie County, Hydrologic Unit 10270103, at downstream side of highway bridge, 4.0 mi west of Louisville.	128	1958-65#, 1966-87	5-28-87	24.32	4,390
06888900	Blacksmith Creek tributary near Valencia, KS	Lat 39 deg 01 min 20 sec, long 95 deg 50 min 06 sec, in SE1/4 SE1/4 NE1/4 sec.10, T.12 S., R.14 E., Shawnee County, Hydrologic Unit 10270102, at downstream side of county highway bridge, 4.3 mi southeast of Valencia.	1.31	1957-87	3-18-87	12.35	640

Operated as a continuous-record streamflow-gaging station.
 + Not determined.

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at high-flow stations

							Annual maximum	
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)	
Kansas River basin--continued								
06889550	Indian Creek near Topeka, KS	Lat 39 deg 07 min 27 sec, long 95 deg 39 min 05 sec, in SE1/4 SE1/4 NE1/4 sec.5, T.11 S., R.16 E., Shawnee County, Hydrologic Unit 10270102, 3.0 mi north of Topeka, 2.7 mi upstream from Soldier Creek (new channel).	9.72	1970-87	3-18-87	15.32	1,640	
06889630	Shunganunga Creek at Topeka, KS	Lat 39 deg 01 min 54 sec, long 95 deg 40 min 57 sec, in SW1/4 SE1/4 SW1/4 sec.6, T.12 S., R.16 E., Shawnee County, Hydrologic Unit 10270102, on downstream side of bridge on U.S. Highway 75, 700 ft north of 21st Street in Topeka.	33.5	1970-87	3-18-87	15.26	3,130	
06891050	Stone House Creek at Williamstown, KS	Lat 39 deg 04 min 00 sec, long 95 deg 20 min 09 sec, in SE1/4 SE1/4 NE1/4 sec.30, T.11 S., R.19 E., Jefferson County, Hydrologic Unit 10270104, at downstream side of bridge on U.S. Highway 24, 0.1 mi north of Williamstown.	12.9	1963-87	3-18-87	15.20	1,660	
06891650	Naismith Creek at Lawrence, KS	Lat 38 deg 56 min 03 sec, long 95 deg 15 min 08 sec, in NE1/4 NE1/4 SW1/4 sec.12, T.13 S., R.19 E., Douglas County, Hydrologic Unit 10270104, at downstream side of 27th Street bridge in Lawrence, 6.0 mi above mouth.	1.54	1974-87	6-23-87	14.29	727	
06892940	Turkey Creek at Kansas City, KS	Lat 39 deg 03 min 31 sec, long 94 deg 37 min 33 sec, in SE1/4 SW1/4 SW1/4 sec.27, T.11 S., R.25 E., Wyandotte County, Hydrologic Unit 10270104, on downstream side of bridge on State Highway 12, in Kansas City.	22.3	1974-87	4-13-87	16.15	3,070	
Osage River basin								
06912300	Dragoon Creek tributary near Lyndon, KS	Lat 38 deg 41 min 33 sec, long 95 deg 41 min 06 sec, in SW1/4 NE1/4 NW1/4 sec.6, T.16 S., R.16 E., Osage County, Hydrologic Unit 10290101, at downstream side of bridge on U.S. Highway 75, 5.8 mi north of Lyndon.	3.76	1957-87	3-18-87	13.35	1,040	
06913700	Middle Creek near Princeton, KS	Lat 38 deg 28 min 39 sec, long 95 deg 15 min 08 sec, in SW1/4 SE1/4 SE1/4 sec.13, T.18 S., R.19 E., Franklin County, Hydrologic Unit 10290101, on right bank at downstream side of bridge on old U.S. Highway 59, 1.3 mi southeast of Princeton.	52.0	1957-87	3-18-87	21.75	4,400	
06914250	South Fork Pottawatomie Creek tributary near Garnett, KS	Lat 38 deg 14 min 00 sec, long 95 deg 14 min 52 sec, in NW1/4 SE1/4 sec.7, T.21 S., R.20 E., Anderson County, Hydrologic Unit 10290101, above culvert on U.S. Highway 59, 3.1 mi south of Garnett.	0.35	1963-87	3-18-87	13.08	350	

DISCHARGE AT PARTIAL-RECORD STATIONS

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Annual maximum discharge at high-flow stations

					Annual maximum		
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)
Osage River basin--continued							
06915100	Big Bull Creek at Paola, KS	Lat 38 deg 34 min 36 sec, long 94 deg 53 min 44 sec, in NW1/4 NE1/4 NW1/4 sec.17, T.17 S., R.23 E., Miami County, Hydrologic Unit 10290102, on downstream side of bridge on county highway (extension of Peoria Street), 0.5 mi west of Paola, and 9.0 mi upstream from mouth.	230	1970-87	10-03-86	18.04	6,800
06916700	Middle Creek near Kincaid, KS	Lat 38 deg 03 min 24 sec, long 95 deg 11 min 15 sec, in SW1/4 NW1/4 SW1/4 sec.11, T.23 S., R.20 E., Anderson County, Hydrologic Unit 10290103, at downstream side of county highway bridge, 2.5 mi southwest of Kincaid.	2.02	1957-87	10-02-86	15.32	1,300
06917100	Marmaton River tributary near Bronson, KS	Lat 37 deg 54 min 20 sec, long 95 deg 05 min 43 sec, in NW1/4 NW1/4 sec.3, T.25 S., R.21 E., Allen County, Hydrologic Unit 10290104, at downstream side of culvert on U.S. Highway 54, 1.5 mi northwest of Bronson. Prior to Oct. 1, 1967, at site 50 ft downstream at same datum.	0.88	1957-87	10-03-86	15.83	460
06917400	Marmaton River tributary near Fort Scott, KS	Lat 37 deg 47 min 26 sec, long 94 deg 47 min 47 sec, in SE1/4 SE1/4 SE1/4 sec.8, T.26 S., R.24 E., Bourbon County, Hydrologic Unit 10290104, at downstream side of county highway bridge, 6.0 mi southwest of Fort Scott.	2.80	1957-87	10-03-86	16.65	1,900
Arkansas River basin							
07138600	White Woman Creek tributary near Selkirk, KS	Lat 38 deg 31 min 30 sec, long 101 deg 37 min 16 sec, in SW1/4 SW1/4 sec.34, T.17 S., R.39 W., Greeley County, Hydrologic Unit 11030002, at downstream side of county highway bridge, 5.6 mi northwest of Selkirk.	38.0 (7.59)	1957-87	5-04-87	10.50	36
07139700	Arkansas River tributary near Dodge City, KS	Lat 37 deg 42 min 52 sec, long 100 deg 00 min 53 sec, in SE1/4 NE1/4 sec.11, T.27 S., R.25 W., Ford County, Hydrologic Unit 11030004, at downstream side of culvert on U.S. Highway 283, 2.6 mi south of Dodge City. Prior to Mar. 1, 1959, above culvert 175 ft north of present site at same datum. Records for 1957-58 discredited.	8.66	1957-87	3-23-87	11.93	25
07140300	Whitewoman Creek near Bellefont, KS	Lat 37 deg 55 min 26 sec, long 99 deg 38 min 31 sec, in SW1/4 NW1/4 sec.33, T.24 S., R.21 W., Hodgeman County, Hydrologic Unit 11030004, at downstream side of county highway bridge, 3.5 mi northeast of Bellefont.	14.0	1957-87	7-04-87	14.88	3,410
07140600	Pawnee River tributary near Kalvesta, KS	Lat 38 deg 03 min 42 sec, long 100 deg 21 min 00 sec, in SE1/4 SW1/4 SW1/4 sec.12, T.23 S., R.28 W., Finney County, Hydrologic Unit 11030005, at downstream side of bridge on U.S. Highway 156, 3.4 mi west of Kalvesta.	6.89	1957-87	7-04-87	13.38	5,490

NOTE.--Figures of drainage area in parentheses show approximate contributing area included in total area.

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at high-flow stations

					Annual maximum		
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)
Arkansas River basin--continued							
07141600	Long Branch Creek near Ness City, KS	Lat 38 deg 27 min 01 sec, long 99 deg 52 min 50 sec, in NE1/4 NE1/4 sec.32, T.18 S., R.23 W., Ness County, Hydrologic Unit 11030007, below bridge on State Highway 96, 1.2 mi east of Ness City.	28.0	1957-87	4-14-87	14.10	740
07141800	Otter Creek near Rush Center, KS	Lat 38 deg 24 min 16 sec, long 99 deg 18 min 26 sec, in NW1/4 NW1/4 sec.15, T.19 S., R.18 W., Rush County, Hydrologic Unit 11030008, at downstream side of bridge on U.S. Highway 183, 4.3 mi south of Rush Center. Prior to Oct. 1, 1965, at site 100 ft downstream at present datum.	17.0	1957-87	4-13-87	16.39	900
07142100	Rattlesnake Creek tributary near Mullinville, KS	Lat 37 deg 35 min 11 sec, long 99 deg 25 min 17 sec, in SE1/4 SW1/4 sec.20, T.28 S., R.19 W., Kiowa County, Hydrologic Unit 11030009, at downstream end of culvert on U.S. Highway 54, 2.9 mi east of Mullinville.	10.3	1957-87	3-24-87	13.02	945
07142700	Salt Creek near Partridge, KS	Lat 38 deg 02 min 22 sec, long 98 deg 05 min 13 sec, in SW1/4 NW1/4 sec.22, T.23 S., R.7 W., Reno County, Hydrologic Unit 11030010, at downstream side of county highway bridge, 5.0 mi north of Partridge.	85.0 (72.0)	1957-87	3-26-87	18.51	2,500
07142860	Cow Creek near Claflin, KS	Lat 38 deg 31 min 20 sec, long 98 deg 35 min 00 sec, in NE1/4 NW1/4 sec.6, T.18 S., R.11 W., Barton County, Hydrologic Unit 11030011, at downstream side of bridge on State Highway 4, 2.5 mi west of Claflin, and at mile 97.8.	43.0	1967-81#, 1982-87	3-23-87	13.39	2,060
07142900	Blood Creek near Boyd, KS	Lat 38 deg 32 min 10 sec, long 98 deg 51 min 35 sec, in NE1/4 NW1/4 sec.34, T.17 S., R.14 W., Barton County, Hydrologic Unit 11030011, on downstream side of bridge on State Highway 4, 1.3 mi northwest of Boyd, 4.8 mi northwest of Hoisington, and 11.9 mi upstream from Cheyenne Bottoms.	61.0	1957-62, 1963-80#, 1981-87	7-08-87	14.10	2,150
07143100	Little Cheyenne Creek tributary near Claflin, KS	Lat 38 deg 27 min 25 sec, long 98 deg 32 min 08 sec, in NE1/4 SE1/4 sec.28, T.18 S., R.11 W., Barton County, Hydrologic Unit 11030011, at culvert on county highway, 4.7 mi south of Claflin. Published as "Cheyenne Creek tributary" 1957-70.	1.48	1957-87	4-14-87	12.03	95
07144900	South Fork Ninnescah River tributary near Pratt, KS	Lat 38 deg 40 min 30 sec, long 98 deg 43 min 23 sec, in NE1/4 NE1/4 sec.27, T.27 S., R.13 W., Pratt County, Hydrologic Unit 11030015, at downstream end of culvert on county highway, 2.4 mi northeast of Pratt.	1.48	1957-87	7-05-87	15.82	2,310
07145300	Clear Creek near Garden Plain, KS	Lat 37 deg 39 min 48 sec, long 97 deg 39 min 22 sec, in NE1/4 NW1/4 sec.33, T.27 S., R.3 W., Sedgwick County, Hydrologic Unit 11030016, at downstream side of bridge on county highway, 1.5 mi northeast of Garden Plain.	5.03	1957-87	6-30-87	14.56	1,140

Operated as a continuous-record streamflow-gaging station.

NOTE.--Figures of drainage area in parentheses show approximate contributing area included in total area.

DISCHARGE AT PARTIAL-RECORD STATIONS

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Annual maximum discharge at high-flow stations

					Annual maximum		
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)
Arkansas River basin--continued							
07145800	Antelope Creek tributary near Dalton, KS	Lat 37 deg 16 min 34 sec, long 97 deg 17 min 01 sec, in SW1/4 SE1/4 sec.11, T.32 S., R.1 E., Sumner County, Hydrologic Unit 11030013, upstream from culvert on U.S. Highway 160, 0.8 mi northwest of Dalton. Published as "Avon Creek tributary" 1957-70.	0.41	1957-87	5-27-87	15.66	340
07147020	Whitewater River tributary near Towanda, KS	Lat 37 deg 51 min 03 sec, long 97 deg 03 min 37 sec, in NE1/4 NE1/4 sec.26, T.25 S., R.3 E., Butler County, Hydrologic Unit 11030017, at culvert on county highway, 5.0 mi northwest of Towanda.	0.17	1963-87	5-28-87	14.76	165
07147990	Cedar Creek tributary near Cambridge, KS	Lat 37 deg 19 min 19 sec, long 96 deg 37 min 33 sec, in NE1/4 NE1/4 SE1/4 sec.26, T.31 S., R.7 E., Cowley County, Hydrologic Unit 11060001, at downstream side of bridge on U.S. Highway 160, 0.5 mi upstream from Cedar Creek, and 2.1 mi northeast of Cambridge. Published as "Grouse Creek tributary" 1961-63.	2.41	1961-87	10-03-86	14.07	1,810
07148100	Grouse Creek near Dexter, KS	Lat 37 deg 13 min 38 sec, long 96 deg 42 min 44 sec, in NW1/4 NW1/4 sec.31, T.32 S., R.7 E., Cowley County, Hydrologic Unit 11060001, on right bank at downstream side of county highway bridge, 3.2 mi north of Dexter.	170	1960-87	10-03-86	25.13	13,000
07151600	Rush Creek near Harper, KS	Lat 37 deg 15 min 12 sec, long 98 deg 04 min 47 sec, in NE1/4 NE1/4 sec.21, T.32 S., R.7 W., Harper County, Hydrologic Unit 11060001, at downstream side of county highway bridge, 3.5 mi southwest of Harper.	12.0	1957-87	5-06-87	16.70	4,260
07155900	North Fork Cimarron River tributary near Elkhart, KS	Lat 37 deg 11 min 27 sec, long 101 deg 53 min 54 sec, in NW1/4 SW1/4 sec.9 T.33 S., R.42 W., Morton County, Hydrologic Unit 11040003, at downstream side of culvert on State Highway 27, 13.0 mi north of Elkhart.	75.0 (10.0)	1957-87	1987	---	0
07156600	Cimarron River tributary near Moscow, KS	Lat 37 deg 20 min 07 sec, long 101 deg 03 min 00 sec, in NW1/4 SW1/4 sec.20 T.31 S., R.34 W., Seward County, Hydrologic Unit 11040006, at downstream side of county highway bridge, 8.8 mi northeast of Moscow.	13.0 (8.00)	1957-87	1987	---	0
07156700	Cimarron River tributary near Satanta, KS	Lat 37 deg 16 min 15 sec, long 100 deg 55 min 36 sec, in NW1/4 NE1/4 sec.17, T.32 S., R.33 W., Seward County, Hydrologic Unit 11040006, at downstream side of bridge on county highway, 12.0 mi southeast of Satanta.	2.41	1957-87	8-04-87	10.23	+

+ Not determined.

NOTE.--Figures of drainage area in parentheses show approximate contributing area included in total area.

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at high-flow stations

							Annual maximum	
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)	
Arkansas River basin--continued								
07157100	Crooked Creek near Copeland, KS	Lat 37 deg 33 min 55 sec, long 100 deg 33 min 15 sec, in SE1/4 SW1/4 sec.36, T.28 S., R.30 W., Gray County, Hydrologic Unit 11040007, at downstream side of culvert on U.S. Highway 56, 4.4 mi northeast of Copeland. Prior to Sept. 15, 1960, at downstream side of bridge, just downstream of present site at same datum.	44.0	1957-87	1987	---	<3	
07157400	Crooked Creek tributary at Meade, KS	Lat 37 deg 17 min 47 sec, long 100 deg 20 min 22 sec, in NE1/4 NW1/4 sec.2, T.32 S., R.28 W., Meade County, Hydrologic Unit 11040007, at downstream side of culvert on State Highway 23, 0.8 mi north of Meade.	6.57	1957-87	3-23-87	10.82	62	
07157700	Keiger Creek near Ashland, KS	Lat 37 deg 11 min 36 sec, long 99 deg 54 min 48 sec, in SW1/4 SE1/4 sec.3, T.33 S., R.24 W., Clark County, Hydrologic Unit 11040008, at upstream side of bridge on U.S. Highway 160, 8.2 mi west of Ashland.	34.0	1957-87	8-26-87	13.67	560	
07157900	Cavalry Creek at Coldwater, KS	Lat 37 deg 16 min 00 sec, long 99 deg 20 min 40 sec, in NE1/4 NE1/4 sec.14, T.32 S., R.19 W., Comanche County, Hydrologic Unit 11040008, at downstream side of county highway bridge, 1.0 mi west of Coldwater, and at mile 18.3.	39.0	1957-66, 1967-81#, 1982-87	7-02-87	8.18	+	
07166200	Sandy Creek near Yates Center, KS	Lat 37 deg 50 min 47 sec, long 95 deg 50 min 07 sec, in NE1/4 SW1/4 NE1/4 sec.26, T.25 S., R.14 E., Woodson County, Hydrologic Unit 11070101, at downstream side of bridge on U.S. Highway 54, 6.0 mi southwest of Yates Center.	6.80	1957-87	5-05-87	18.64	2,150	
07170800	Mud Creek near Mound Valley, KS	Lat 37 deg 11 min 38 sec, long 95 deg 26 min 52 sec, in NW1/4 NW1/4 sec.9, T.33 S., R.18 E., Labette County, Hydrologic Unit 11070103, at downstream side of bridge on State Highway 96, 2.6 mi southwest of Mound Valley.	4.22	1957-87	10-03-86	16.95	1,900	
07171700	Spring Branch near Cedar Vale, KS	Lat 37 deg 06 min 48 sec, long 96 deg 27 min 29 sec, in NW1/4 NE1/4 sec.7, T.34 S., R.9 E., Chautauqua County, Hydrologic Unit 11070106, at downstream side of bridge on U.S. Highway 166, 2.3 mi northeast of Cedar Vale. Published as "Spring Creek tributary" 1957-60, "Spring Creek" 1961-65.	3.10	1957-87	10-02-86	17.6	3,650	
07171800	Cedar Creek tributary near Hooser, KS	Lat 37 deg 06 min 27 sec, long 96 deg 34 min 27 sec, in SW1/4 NE1/4 sec.7, T.34 S., R.8 E., Cowley County, Hydrologic Unit 11070106, above culvert on U.S. Highway 166, 3.9 mi southeast of Hooser.	0.56	1957-87	10-03-86	16.13	720	
07180300	Spring Creek tributary near Florence, KS	Lat 38 deg 11 min 00 sec, long 96 deg 54 min 49 sec, in NW1/4 SW1/4 NW1/4 sec.32, T.21 S., R.5 E., Marion County, Hydrologic Unit 11070202, above culvert on U.S. Highway 77, 4.1 mi southeast of Florence.	0.55	1957-87	3-18-87	12.75	125	

Operated as a continuous-record streamflow-gaging station.

+ Not determined.

DISCHARGE AT PARTIAL-RECORD STATIONS

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Annual maximum discharge at high-flow stations

					Annual maximum		
Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cu ft per sec)
Arkansas River basin--continued							
07181500	Middle Creek near Elmdale, KS	Lat 38 deg 23 min 36 sec, long 96 deg 43 min 04 sec, in SE1/4 SW1/4 sec.13 T.19 S., R.6 E., Chase County, Hydrologic Unit 11070203, at downstream side of county highway bridge, 4.0 mi northwest of Elmdale, and at mile 8.2.	92.0	1939-50#, 1960-87	3-18-87	16.70	5,810
07182600	North Big Creek near Burlington, KS	Lat 38 deg 06 min 37 sec, long 95 deg 45 min 26 sec, in NW1/4 NW1/4 sec.27, T.22 S., R.15 E., Coffey County, Hydrologic Unit 11070204, at downstream side of county highway bridge, 5.9 mi southwest of Burlington.	46.0	1957-87	10-03-86	19.28	3,060
07183800	Limestone Creek near Beulah, KS	Lat 37 deg 24 min 12 sec, long 94 deg 53 min 16 sec, in NE1/4 SE1/4 sec.28, T.30 S., R.23 E., Crawford County, Hydrologic Unit 11070205, at downstream side of county highway bridge, 4.0 mi southwest of Beulah.	12.0	1957-87	9-30-86 10-03-86	b20.06 21.19	b6,480 8,760
07184500	Labette Creek near Oswego, KS	Lat 37 deg 11 min 30 sec, long 95 deg 11 min 30 sec, in NW1/4 NW1/4 sec.11 T.33 S., R.20 E., Labette County, Hydrologic Unit 11070205, at downstream side of bridge on U.S. Highway 96, 2.0 mi upstream from railway bridge, 5.0 mi northwest of Oswego, and at mile 18.8.	211	1939-45#, 1961-87	10-03-86	22.09	15,800

Operated as a continuous-record streamflow-gaging station.
b Revised.

DISCHARGE AT PARTIAL-RECORD STATIONS

Low-flow stations

Measurements of streamflow in the area covered by this report made at low-flow stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow stations during water year 1986

Station Number	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Dis-charge (cu ft per sec)
Arkansas River basin						
07142570	Rattlesnake Creek above Little Salt Marsh near Hudson, KS	Lat 38 deg 05 min 13 sec, long 98 deg 34 min 52 sec, in SW1/4 SW1/4 SW1/4 sec.31, T.22 S., R.11 W., Stafford County, Hydrologic Unit 11030009, at bridge on county highway, 4.0 mi southeast of Hudson, and at mile 30.5.	1,032	1971-76, 1978, 1984-87	10-23-86 2-10-87 5-05-87 8-10-87	18 24 58 38
07142650	Peace Creek near Sylvia, KS	Lat 38 deg 04 min 34 sec, long 98 deg 26 min 18 sec, in SW1/4 NW1/4 SW1/4 sec.4, T.23 S., R.10 W., Reno County, Hydrologic Unit 11030010, at bridge on county highway, 8.5 mi northwest of Sylvia, and at mile 17.2.	92.0	1971-87	10-23-86 2-10-87 5-05-87 8-10-87	2.4 0.69 14 1.4
07142670	Peace Creek near Sterling, KS	Lat 38 deg 08 min 43 sec, long 98 deg 15 min 13 sec, in SW1/4 SW1/4 SW1/4 sec.7, T.22 S., R.8 W., Reno County, Hydrologic Unit 11030010, at bridge on county highway, 4.5 mi southwest of Sterling, and at mile 2.8.	136	1971-87	10-23-86 2-10-87 5-05-87 8-11-87	14 5.2 17 7.5
07142740	Salt Creek near Hutchinson, KS	Lat 38 deg 04 min 23 sec, long 98 deg 02 min 11 sec, in SW1/4 SE1/4 SE1/4 sec.1, T.23 S., R.7 W., Reno County, Hydrologic Unit 11030010, at bridge on county road, 6.0 mi west of Hutchinson, and at mile 6.5.	103	1971-87	10-23-86 5-05-87 7-02-87 8-11-87	15 29 7.1 7.0
07144590	North Fork Minnescah River near Sylvia, KS	Lat 37 deg 55 min 59 sec, long 98 deg 24 min 36 sec, in NW1/4 NW1/4 NW1/4 sec.27, T.24 S., R.10 W., Reno County, Hydrologic Unit 11030014, at county bridge, 1.0 mi south of Sylvia.	208	1968-87	10-23-86 2-11-87 5-05-87 8-10-87	53 24 71 21
07144620	North Fork Minnescah River above Silver Creek near Arlington, KS	Lat 37 deg 51 min 09 sec, long 98 deg 09 min 30 sec, in NW1/4 NW1/4 NW1/4 sec.25, T.25 S., R.8 W., Reno County, Hydrologic Unit 11030014, at bridge on county highway, 3.0 mi southeast of Arlington, and at mile 44.7.	504	1971-87	10-22-86 2-11-87 5-05-87 8-11-87	66 61 182 36
07144640	Silver Creek near Langdon, KS	Lat 37 deg 47 min 54 sec, long 98 deg 19 min 59 sec, in SW1/4 SW1/4 NW1/4 sec.8, T.26 S., R.9 W., Reno County, Hydrologic Unit 11030014, at bridge on county highway, 4.0 mi southwest of Langdon, and at mile 15.7.	103	1971-87	10-22-86 2-11-87 5-04-87 8-11-87	32 12 9.4 2.3
07144890	South Fork Minnescah River at Pratt, KS	Lat 37 deg 38 min 03 sec, long 98 deg 44 min 15 sec, in NW1/4 SW1/4 SW1/4 sec.3, T.28 S., R.13 W., Pratt County, Hydrologic Unit 11030015, at bridge on U.S. Highway 281, at Pratt, and at mile 136.4.	97.1	1971-78, 1984-87	10-22-86 2-12-87 5-04-87 8-12-87	17 15 14 12
07145130	South Fork Minnescah River near Calista, KS	Lat 37 deg 38 min 45 sec, long 98 deg 17 min 12 sec, in SW1/4 SE1/4 SE1/4 sec.34, T.27 S., R.9 W., Kingman County, Hydrologic Unit 11030015, at bridge on U.S. Highway 54, 0.5 mi northwest of Calista, and at mile 103.2.	374	1971-76, 1978-87	10-22-86 2-11-87 5-04-87 8-12-87	162 128 114 148
07148600	Medicine Lodge River at Sun City, KS	Lat 37 deg 22 min 13 sec, long 98 deg 54 min 53 sec, in NW1/4 SE1/4 SE1/4 sec. 2, T.31 S., R.15 W., Barber County, Hydrologic Unit 11060003, at bridge, 0.5 mi south of Sun City.	335	1954-79, 1987	10-21-86 2-12-87 5-04-87 8-12-87	61 60 69 61

DISCHARGE AT PARTIAL-RECORD STATIONS

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Flood Hydrograph station

The following table contains stage and discharge for indicated times at a flood hydrograph station. Records of stage above the elevation of the base discharge are obtained from a water-stage recorder. The base is selected so that an average of about three floods a year can be presented. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak discharge or by current meter. The maximum discharge for each water year is given although it may not be above the base.

KANSAS RIVER BASIN

06870300 GYPSUM CREEK NEAR GYPSUM, KS

LOCATION.--Lat 38 deg 39 min 11 sec, long 97 deg 25 min 10 sec, in SE1/4 SE1/4 SW1/4 sec.15, T.16 S., R.1 W., Saline County, Hydrologic Unit 10260008, 3.5 mi south of Gypsum, and 22.7 mi upstream from mouth. DRAINAGE AREA.--120 sq mi, approximately. PERIOD OF RECORD.--October 1954 to September 1971, continuous record. October 1971 to current year, flood hydrograph record.

GAGE HEIGHT, IN FEET, AND DISCHARGE, IN CUBIC FEET PER SECOND, AT INDICATED TIME, 1987 WATER YEAR

DATE	HOUR	GAGE HEIGHT	DIS- CHARGE	DATE	HOUR	GAGE HEIGHT	DIS- CHARGE	DATE	HOUR	GAGE HEIGHT	DIS- CHARGE
FEB 28	2400	12.50	568	MAR 18	0500	12.00	510	MAY 27	1300	12.08	519
MAR 1	0100	13.10	642	MAR 23	1600	13.00	630		1400	12.97	626
	0200	13.50	694		1700	14.20	800		1500	13.53	698
	0300	13.75	726		1800	14.91	950		1600	14.02	764
	0400	13.95	753		1900	15.35	1060		1700	14.46	853
	0500	14.08	776		2000	15.72	1170		1800	14.78	921
	0600	14.14	788		2100	16.06	1270		1900	15.07	988
	0700	14.09	778		2200	16.40	1400		2000	15.26	1040
	0800	13.92	749		2300	16.72	1550		2100	15.45	1090
	0900	13.56	701		2400	16.92	1660		2200	15.59	1130
	1000	13.03	634	MAR 24	0100	17.12	1760		2300	15.73	1170
	1100	12.33	548		0200	17.27	1850		2400	15.84	1210
MAR 17	0600	11.97	507		0300	17.40	1930	MAY 28	0100	15.93	1230
	0700	13.17	651		0400	17.55	2030		0200	16.00	1260
	0800	14.07	774		0500	17.74	2190		0300	15.99	1250
	0900	14.57	876		0600	17.87	2300		0400	15.90	1220
	1000	14.92	952		0700	17.90	2330		0500	15.71	1170
	1100	15.25	1040		0800	17.88	2310		0600	15.40	1080
	1200	15.53	1120		0900	17.82	2260		0700	14.87	941
	1400	15.95	1240		1000	17.68	2140		0800	14.12	784
	1600	16.28	1340		1100	17.45	1960		0900	13.22	658
	1800	16.38	1390		1200	17.15	1780		1000	12.32	547
	2000	16.29	1350		1300	16.70	1540	AUG 26	1400	12.01	511
	2200	15.95	1240		1400	16.20	1320		1500	12.41	558
	2300	15.65	1150		1500	15.70	1160		1600	12.76	600
	2400	15.25	1040		1600	15.15	1010		1700	13.06	638
MAR 18	0100	14.67	897		1700	14.46	853		1800	13.19	654
	0200	13.95	753		1800	13.70	720		1900	13.18	653
	0300	13.25	662		1900	12.85	611		2000	12.96	625
	0400	12.53	572		2000	12.12	524		2100	12.50	568

Peak discharges above base of 650 cu ft per sec and maximum (*):

Date	Time	Discharge (cu ft per sec)	Gage height (ft)	Date	Time	Discharge (cu ft per sec)	Gage height (ft)
Mar. 1	0600	788	14.14	May 28	0200	1,260	16.00
Mar. 17	1800	1,390	16.38	Aug. 26	1800	654	13.19
Mar. 24	0700	*2,330	*17.90				

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
BIG NEMAH RIVER BASIN					
06814000	TURKEY C NR SENECA, KS (LAT 39 56 52N LONG 096 06 30W)				
OCT 1986					
07...	1550	106	613	8.10	17.5
NOV					
18...	0805	76	860	7.90	3.5
JAN 1987					
07...	0825	61	713	7.80	2.0
FEB					
10...	0905	52	770	7.70	1.5
APR					
01...	0800	1940	286	7.40	5.0
MAY					
12...	1030	91	720	7.90	19.5
JUN					
16...	1200	72	681	7.30	30.0
AUG					
06...	0825	16	645	--	22.5
SEP					
08...	1900	27	630	8.40	22.0
KANSAS RIVER BASIN					
06844900	SF SAPPA C NR ACHILLES, KS (LAT 39 40 37N LONG 100 43 18W)				
NOV 1986					
13...	1050	0.04	962	7.60	1.0
JAN 1987					
12...	1200	0.17	838	7.60	4.0
APR					
07...	1145	13	620	8.20	2.0
MAY					
13...	1710	1.2	975	8.60	25.0
JUN					
09...	1140	0.23	997	7.20	23.0
JUL					
22...	1020	1.6	737	7.70	22.0
SEP					
02...	0945	0.02	960	7.60	17.0
06848000	PRAIRIE DOG C AT NORTON, KS (LAT 39 48 36N LONG 099 55 18W)				
OCT 1986					
09...	1110	0.08	555	7.00	12.5
NOV					
21...	0840	0.07	560	6.20	1.5
JAN 1987					
08...	1010	0.04	615	7.60	0.5
MAY					
29...	0940	0.08	563	7.10	17.5
JUL					
21...	1435	0.03	542	7.90	26.0
SEP					
01...	1125	0.10	615	8.00	19.0
06848500	PRAIRIE DOG C NR WOODRUFF, KS (LAT 39 59 09N LONG 099 28 39W)				
APR 1987					
07...	1405	6.4	693	7.30	6.0
MAY					
28...	1410	0.40	735	7.00	23.5
JUL					
09...	1245	726	224	8.20	23.0
21...	1145	9.8	--	6.80	24.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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KANSAS RIVER BASIN

06853500 REPUBLICAN R NR HARDY, NE (LAT 39 59 33N LONG 097 55 53W)

NOV 1986					
05...	1330	205	637	7.70	9.5
DEC					
15...	1415	213	595	6.20	2.5
FEB 1987					
02...	1245	178	703	7.40	6.5
MAR					
16...	1230	206	628	6.90	7.5
APR					
24...	1235	405	946	8.10	18.5
JUN					
08...	1435	184	772	7.80	30.0
JUL					
20...	1235	990	408	7.70	29.0
SEP					
02...	0910	138	802	8.50	20.0

06854000 WHITE ROCK C AT LOVEWELL, KS (LAT 39 53 10N LONG 098 01 20W)

OCT 1986					
08...	1745	342	613	8.30	16.0
FEB 1987					
02...	1440	0.24	1030	6.40	6.5
APR					
03...	0930	544	625	8.40	5.0
09...	1325	968	498	7.80	8.0
24...	1005	1220	530	7.90	13.0
JUN					
08...	1700	0.69	832	7.60	26.0

06855800 BUFFALO C NR JAMESTOWN, KS (LAT 39 36 55N LONG 097 51 20W)

OCT 1986					
09...	1150	47	828	8.30	15.0
NOV					
06...	1200	71	1440	7.60	8.0
DEC					
16...	1145	114	1040	8.00	3.0
FEB 1987					
03...	1210	48	1610	7.30	4.5
MAR					
17...	0915	254	1060	6.80	8.5
APR					
23...	1310	186	1380	7.30	15.5
JUN					
09...	1245	96	1390	7.90	--
JUL					
21...	0905	44	1500	7.10	24.5
SEP					
03...	0940	7.3	1460	8.20	19.0

MISCELLANEOUS SURFACE-WATER STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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KANSAS RIVER BASIN

06856000 REPUBLICAN R AT CONCORDIA, KS (LAT 39 35 25N LONG 097 39 32W)

OCT 1986					
09...	1455	599	1350	8.10	--
NOV					
06...	1515	540	957	7.50	11.5
DEC					
16...	1500	493	1230	8.40	3.5
FEB 1987					
03...	1420	349	1010	7.90	8.0
MAR					
17...	1305	697	830	7.10	9.0
APR					
23...	1020	2140	858	7.80	15.0
JUL					
21...	1320	1170	597	7.70	29.5
SEP					
03...	1210	268	986	8.60	23.0

06857100 REPUBLICAN R BL MILFORD DAM, KS (LAT 39 04 15N LONG 096 52 00W)

NOV 1986					
13...	1225	1000	525	7.70	9.5
DEC					
18...	1615	2200	580	7.20	5.0
MAR 1987					
24...	1300	688	763	8.10	9.5
APR					
20...	1200	6970	653	7.30	10.0
JUN					
10...	1430	43	--	7.60	--
JUL					
23...	1115	1010	559	6.50	26.5
SEP					
15...	1315	542	685	8.40	25.0

06860000 SMOKY HILL R AT ELKADER, KS (LAT 38 47 33N LONG 100 51 19W)

MAY 1987					
04...	1310	176	620	7.80	13.0
05...	1245	26	740	8.10	14.5
14...	1425	1.5	1060	8.00	24.5
JUL					
27...	0930	0.21	1500	7.90	23.0

06861000 SMOKY HILL R NR ARNOLD, KS (LAT 38 48 31N LONG 100 01 13W)

APR 1987					
28...	1320	1.3	1370	7.50	23.0
JUN					
05...	1300	1.1	1500	--	25.0
JUL					
13...	1350	284	516	7.70	22.0
AUG					
24...	1410	2.8	1310	7.60	18.0

06862000 SMOKY HILL R AT CEDAR BLUFF DAM, KS (LAT 38 47 30N LONG 099 43 20W)

APR 1987					
13...	1710	0.75	2100	7.50	8.0
JUN					
05...	0950	0.19	2060	--	18.0
JUL					
13...	1610	0.01	2160	7.80	26.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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KANSAS RIVER BASIN

06862700

SMOKY HILL R NR SCHOENCHEN, KS (LAT 38 43 30N LONG 099 23 30W)

OCT 1986					
09...	1050	0.03	1490	7.50	14.0
NOV					
17...	1515	0.53	1360	7.80	10.0
JAN 1987					
07...	0920	1.1	1430	7.80	2.0
MAR					
06...	1400	3.7	1790	7.80	13.0
APR					
15...	1130	862	414	7.50	9.0
JUN					
04...	1515	15	1590	--	24.0
JUL					
14...	1420	5.9	1670	8.10	21.0
AUG					
25...	1345	4.7	1630	7.90	24.0

06862850

SMOKY HILL R BL SCHOENCHEN, KS (LAT 38 42 46N LONG 099 17 30W)

APR 1987					
02...	1330	620	454	7.30	5.0
15...	1130	923	414	7.50	9.0
JUN					
04...	1200	45	2870	--	21.5
18...	1530	100	485	6.80	23.0
JUL					
14...	1150	8.3	1690	8.20	18.5
AUG					
25...	1635	6.2	1540	7.90	25.0

06863900

NF BIG C NR VICTORIA, KS (LAT 38 53 12N LONG 099 12 21W)

APR 1987					
28...	1735	11	1580	7.90	21.0
JUN					
03...	1115	57	1830	7.40	20.0
JUL					
09...	1640	4.4	760	8.20	28.0

06864050

SMOKY HILL R NR BUNKER HILL, KS (LAT 38 47 38N LONG 098 46 50W)

OCT 1986					
08...	1420	17	2290	8.10	22.0
NOV					
18...	1310	13	3440	7.90	7.0
JAN 1987					
06...	1120	14	3610	8.00	3.0
MAR					
05...	1720	23	2360	8.30	16.0
19...	1500	288	660	7.80	12.0
APR					
14...	1730	15500	280	5.70	8.0
17...	0825	3940	435	8.10	12.0
JUN					
03...	1430	336	1330	--	22.5
JUL					
14...	1725	99	2860	8.40	25.5
AUG					
26...	0915	120	1830	7.70	20.0

MISCELLANEOUS SURFACE-WATER STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
KANSAS RIVER BASIN					
06864500	SMOKY HILL R AT ELLSWORTH, KS (LAT 38 43 36N LONG 098 14 00W)				
OCT 1986					
07...	1545	70	1200	8.20	21.5
NOV					
19...	0820	32	2190	8.20	2.0
JAN 1987					
05...	1730	34	2610	8.30	5.5
MAR					
04...	1700	48	2680	8.10	16.0
25...	1940	4810	510	6.60	3.0
27...	1025	2450	595	--	8.0
31...	1435	980	880	8.00	8.0
APR					
16...	1255	16000	318	7.70	12.5
24...	1120	708	1920	7.50	17.0
JUN					
03...	0945	184	2250	--	19.0
JUL					
15...	0940	188	2180	8.20	22.0
AUG					
26...	1340	265	1260	7.80	20.0
06865500	SMOKY HILL R NR LANGLEY, KS (LAT 38 36 38N LONG 097 57 04W)				
OCT 1986					
09...	0910	25	983	7.80	17.0
NOV					
06...	1015	35	1260	7.40	11.0
DEC					
17...	1050	41	1130	6.90	3.5
FEB 1987					
04...	0930	41	1060	7.10	4.5
MAR					
20...	1050	136	1220	8.40	10.0
26...	1530	1130	1050	7.80	8.0
27...	0855	1120	885	7.80	6.5
APR					
01...	1650	2070	756	7.40	6.5
29...	1055	3000	664	7.10	14.0
JUN					
10...	1010	234	986	--	22.0
JUL					
21...	1620	733	1180	8.20	25.0
SEP					
01...	1120	230	1080	8.40	21.5
06866500	SMOKY HILL R NR MENTOR, KS (LAT 38 47 54N LONG 097 34 28W)				
OCT 1986					
09...	1300	82	856	7.60	17.0
NOV					
04...	1615	77	1200	7.50	8.5
DEC					
16...	1250	83	1010	7.60	4.5
FEB 1987					
03...	1240	88	1190	7.50	6.0
MAR					
17...	1610	594	825	7.10	10.0
APR					
02...	1045	1310	913	7.30	7.5
28...	1205	2040	614	7.40	15.0
MAY					
14...	1720	3020	593	7.10	20.0
JUN					
09...	1220	547	887	--	24.0
JUL					
23...	0840	717	1030	8.00	27.5
AUG					
31...	1400	294	1040	8.40	23.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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KANSAS RIVER BASIN

06866900 SALINE R NR WAKEENEY, KS (LAT 39 06 22N LONG 099 52 10W)

NOV 1986					
17...	1420	0.004	1100	7.60	8.5
JAN 1987					
08...	1730	0.02	1140	6.10	3.5
APR					
08...	1055	24	599	7.90	7.0
16...	1500	43	676	7.90	15.0
MAY					
28...	1325	2.6	1020	7.30	21.0
JUL					
06...	1500	12	435	7.30	28.0
AUG					
24...	1515	4.6	890	7.40	17.0

06868200 SALINE R AT WILSON DAM, KS (LAT 38 58 35N LONG 098 29 20W)

OCT 1986					
08...	1050	18	4320	8.60	19.5
NOV					
18...	1455	13	4230	9.40	9.0
JAN 1987					
06...	0845	12	4960	8.10	4.5
MAR					
05...	1025	11	4790	7.10	8.0
MAY					
19...	1400	1160	3180	7.50	18.0
AUG					
27...	1315	789	2970	7.70	24.0

06869500 SALINE R AT TESCOTT, KS (LAT 39 00 15N LONG 097 52 26W)

OCT 1986					
06...	1610	53	890	7.90	18.0
NOV					
05...	1555	40	2720	7.70	9.0
DEC					
18...	1220	42	3100	7.70	1.0
FEB 1987					
05...	1140	41	2960	6.80	4.0
MAR					
19...	1645	773	864	5.90	10.0
25...	1415	7720	260	7.80	5.0
APR					
30...	1635	710	3000	7.40	18.0
MAY					
14...	1400	1100	3030	7.40	19.0
JUN					
10...	1340	1210	3150	--	22.0
JUL					
20...	1340	643	3680	8.00	27.0
SEP					
03...	1000	307	3160	8.40	23.0

06869950 MULBERRY C NR SALINA, KS (LAT 38 50 40N LONG 097 40 05W)

JUN 1987					
11...	1620	20	1040	--	23.0

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
KANSAS RIVER BASIN					
06870200	SMOKY HILL R AT NEW CAMBRIA, KS (LAT 38 51 49N LONG 097 28 58W)				
OCT 1986					
09...	1515	158	903	7.70	17.0
NOV					
05...	0900	155	1670	7.50	7.0
DEC					
16...	1505	157	1380	7.60	4.0
FEB 1987					
03...	1530	176	1580	7.70	5.0
MAR					
18...	0935	3950	611	6.90	10.0
26...	0905	9960	275	7.80	6.0
APR					
28...	1550	2650	897	7.40	16.0
JUN					
09...	1630	1780	2430	--	23.0
JUL					
22...	1610	1390	1840	8.10	27.0
SEP					
03...	1640	1030	2430	8.60	24.5
06870300	GYPSUM C NR GYPSUM, KS (LAT 38 39 11N LONG 097 25 10W)				
MAR 1987					
17...	1130	1130	398	6.70	9.5
06871500	BOW C NR STOCKTON, KS (LAT 39 33 46N LONG 099 17 04W)				
OCT 1986					
07...	1200	2.2	1020	8.00	16.0
NOV					
20...	0900	6.5	910	6.50	3.0
JAN 1987					
07...	1440	7.4	940	6.70	3.0
FEB					
25...	1455	8.2	913	7.80	7.0
APR					
06...	1535	91	975	7.40	8.5
MAY					
28...	1125	19	1170	7.50	19.0
JUL					
20...	1455	17	938	7.50	26.5
AUG					
31...	1345	8.2	1080	8.10	20.0
06871800	NF SOLOMON R AT KIRWIN, KS (LAT 39 39 36N LONG 099 06 55W)				
NOV 1986					
19...	1430	0.01	640	--	4.5
JUL 1987					
21...	0915	0.06	830	6.80	22.0
06873200	SF SOLOMON R BL WEBSTER RE, KS (LAT 39 24 34N LONG 099 24 53W)				
APR 1987					
09...	1030	0.53	910	7.30	14.0
JUN					
02...	1315	0.04	672	6.90	22.0
JUL					
07...	1040	0.06	652	7.10	28.0
SEP					
01...	1545	0.21	1180	7.20	28.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
KANSAS RIVER BASIN					
06873460	SF SOLOMON R AT WOODSTON, KS (LAT 39 26 23N LONG 099 06 05W)				
NOV 1986					
18...	1100	8.3	1500	6.90	5.0
JAN 1987					
05...	1540	7.2	1810	7.90	4.5
FEB					
25...	1010	6.7	1640	7.40	6.0
MAR					
27...	1600	281	1480	8.10	9.0
APR					
02...	1550	1030	1460	7.90	7.0
08...	1525	828	1660	7.70	14.5
15...	1440	2650	980	8.20	12.0
MAY					
26...	1425	84	2240	7.30	19.5
JUL					
07...	1245	20	1920	7.70	25.5
SEP					
02...	1050	46	2280	7.80	22.5
06874500	E LIMESTONE C NR IONIA, KS (LAT 39 41 52N LONG 098 20 19W)				
SEP 1987					
01...	1540	3.0	1510	8.20	18.5
06875900	SOLOMON R NR GLEN ELDER, KS (LAT 39 28 27N LONG 098 16 58W)				
OCT 1986					
07...	1405	25	954	7.90	19.0
NOV					
06...	1510	45	1340	7.60	10.0
FEB 1987					
04...	1310	99	949	7.00	2.0
MAR					
19...	1240	488	703	7.80	9.0
APR					
10...	0855	1190	594	7.40	7.0
29...	1725	1160	786	7.30	13.0
JUN					
11...	1150	2000	803	--	21.5
JUL					
21...	0920	1980	815	8.10	25.0
SEP					
02...	1050	226	929	8.10	21.0
06876000	SOLOMON R AT BELOIT, KS (LAT 39 25 09N LONG 098 03 33W)				
JUL 1987					
09...	0805	2580	767	7.70	24.0
06876100	SOLOMON R NR GLASCO, KS (LAT 39 20 18N LONG 097 50 07W)				
JUL 1987					
09...	1200	2610	746	7.70	24.0

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
KANSAS RIVER BASIN					
06876700	SALT C NR ADA, KS (LAT 39 08 30N LONG 097 50 10W)				
OCT 1986					
07...	1025	13	2670	7.90	15.0
NOV					
07...	0910	15	2760	7.50	9.0
DEC					
18...	0920	21	3290	7.60	9.0
FEB 1987					
05...	0920	16	2490	7.50	3.0
MAR					
18...	1600	520	1360	7.10	9.0
APR					
30...	1330	127	1660	7.20	19.0
JUN					
10...	1620	27	1970	--	23.0
JUL					
20...	1605	38	1780	8.00	27.5
SEP					
02...	1610	8.6	--	8.30	22.0
06878000	CHAPMAN C NR CHAPMAN, KS (LAT 39 01 52N LONG 097 02 24W)				
OCT 1986					
16...	0910	144	792	7.60	10.0
NOV					
20...	0950	60	1210	6.70	5.0
JAN 1987					
07...	1240	53	1230	6.30	2.5
FEB					
24...	0840	42	1240	8.10	5.0
MAR					
25...	1145	3510	247	6.60	7.0
APR					
06...	1550	160	994	8.00	10.0
MAY					
13...	1110	69	1200	8.10	21.0
JUN					
24...	0900	61	610	7.80	26.0
AUG					
04...	0850	20	1210	8.00	25.0
SEP					
16...	1240	26	1060	7.90	21.5
06879100	KANSAS R AT FORT RILEY, KS (LAT 39 03 09N LONG 096 46 33W)				
OCT 1986					
16...	1415	7830	556	7.50	14.0
NOV					
20...	1350	1820	1300	7.30	6.0
JAN 1987					
07...	1545	1500	1540	6.90	3.5
FEB					
23...	1100	1610	1520	8.40	6.0
APR					
06...	1200	13200	745	8.20	9.0
MAY					
12...	1405	17900	695	8.20	21.0
JUN					
25...	1045	8640	1210	8.00	24.5
AUG					
03...	1105	4250	1510	8.00	29.0
SEP					
15...	1025	2020	1660	8.20	24.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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KANSAS RIVER BASIN

06879820 KANSAS R AT MANHATTAN, KS (LAT 39 10 52N LONG 096 33 08W)

APR 1987					
22...	1255	26400	505	7.10	17.0

06882510 BIG BLUE R AT MARYSVILLE, KS (LAT 39 50 32N LONG 096 39 39W)

NOV 1986					
07...	0920	953	625	7.70	9.5
DEC					
18...	1045	927	603	7.90	2.0
FEB 1987					
04...	1520	606	714	8.50	4.0
MAR					
18...	1640	8430	371	6.80	7.0
APR					
21...	1505	2020	519	7.70	17.5
JUN					
04...	1750	6280	216	6.80	22.5
JUL					
22...	1340	621	609	7.90	--
AUG					
31...	1600	5050	185	7.50	20.0

06884200 MILL C AT WASHINGTON, KS (LAT 39 48 50N LONG 097 02 20W)

OCT 1986					
10...	1035	86	814	8.30	15.0
NOV					
07...	1135	92	881	7.40	9.0
DEC					
17...	0915	141	840	7.30	2.5
FEB 1987					
04...	0950	60	508	7.80	2.5
MAR					
18...	0915	1710	367	7.00	8.5
APR					
22...	1620	230	860	7.60	14.5
JUN					
10...	0820	161	877	7.90	--
JUL					
21...	1655	48	751	8.00	29.5
SEP					
01...	1310	24	753	8.20	22.0

06885500 BLACK VERMILLION R NR FRANKFORT, KS (LAT 39 41 03N LONG 096 26 15W)

NOV 1986					
12...	1120	92	523	7.90	0.5
DEC					
17...	1525	151	750	6.80	4.5
FEB 1987					
05...	1110	77	631	7.60	--
MAR					
20...	1000	1260	370	7.80	12.0
APR					
21...	1055	199	676	7.50	--
JUN					
04...	1205	258	410	7.90	21.5
JUL					
22...	1700	33	596	8.10	--
AUG					
31...	1150	32	471	8.00	20.0

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
KANSAS RIVER BASIN					
06887000	BIG BLUE R NR MANHATTAN, KS (LAT 39 14 14N LONG 096 34 16W)				
NOV 1986					
18...	1130	49	433	7.20	7.0
JAN 1987					
06...	0840	1450	668	7.10	2.5
FEB					
25...	1045	983	721	8.80	5.0
APR					
09...	0930	16600	413	8.10	8.5
MAY					
11...	1245	23100	330	8.00	18.0
21...	1115	17100	460	7.90	18.0
JUN					
11...	1220	134	429	6.50	--
22...	1415	5970	405	7.90	25.0
JUL					
16...	1325	2010	358	8.30	27.0
AUG					
05...	1120	1770	452	8.00	27.0
SEP					
18...	0940	488	426	8.20	22.0
06887500	KANSAS R AT WAMEGO, KS (LAT 39 11 52N LONG 096 18 16W)				
NOV 1986					
13...	1400	6360	576	7.90	5.0
DEC					
23...	1120	4430	831	8.20	3.0
FEB 1987					
03...	1045	3800	1060	7.80	4.5
MAR					
17...	1100	3730	748	8.50	10.0
APR					
29...	1130	37900	540	8.10	15.0
JUN					
12...	1045	6730	1370	8.00	26.0
JUL					
30...	1120	7040	1120	7.90	29.5
SEP					
02...	1300	8040	857	8.30	24.5
29...	1050	5570	760	8.20	21.0
06888350	KANSAS R NR BELVUE, KS (LAT 39 11 15N LONG 096 08 50W)				
NOV 1986					
19...	0930	3300	870	7.40	5.5
JAN 1987					
07...	1450	3680	832	7.80	4.0
FEB					
11...	1340	3690	923	8.10	6.5
MAR					
31...	1105	31400	460	7.60	7.0
MAY					
07...	1355	20400	593	7.60	17.5
JUN					
15...	1150	8810	1030	7.80	29.0
SEP					
10...	1130	3720	1310	8.50	23.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
KANSAS RIVER BASIN					
06888500 MILL C NR PAXICO, KS (LAT 39 03 44N LONG 096 10 52W)					
NOV 1986					
19...	1330	159	651	7.70	6.0
JAN 1987					
08...	1115	92	700	7.80	3.0
FEB					
11...	0945	184	596	8.00	6.0
MAR					
31...	1545	470	570	7.80	8.5
MAY					
07...	1015	254	562	7.50	17.0
JUN					
16...	1550	80	553	9.00	31.5
SEP					
10...	1500	46	550	8.30	23.0
06889000 KANSAS R AT TOPEKA, KS (LAT 39 04 00N LONG 095 38 58W)					
OCT 1986					
06...	1400	13200	438	7.90	20.5
29...	0945	27900	380	7.70	14.5
NOV					
20...	1525	3240	790	8.00	7.0
JAN 1987					
05...	1035	4350	855	8.00	3.5
FEB					
17...	1055	3710	876	8.00	3.0
MAR					
03...	1025	9020	554	6.80	9.5
30...	1150	27600	470	7.80	6.0
APR					
15...	1140	51000	528	7.60	10.5
MAY					
04...	1050	42700	496	7.50	16.0
28...	1050	54300	400	8.00	19.5
JUN					
15...	1100	10600	855	6.90	29.0
JUL					
06...	1010	13300	840	7.90	26.0
AUG					
20...	0910	5050	895	8.00	25.0
SEP					
04...	1005	8160	866	8.40	24.0
06889100 SOLDIER C NR GOFF, KS (LAT 39 37 27N LONG 095 57 57W)					
OCT 1986					
08...	1000	0.31	508	7.80	15.0
NOV					
18...	1125	0.32	645	7.50	3.5
JAN 1987					
07...	1105	0.25	598	7.50	1.5
FEB					
10...	1200	0.32	605	7.70	3.0
APR					
01...	1200	0.82	436	7.60	10.0
MAY					
05...	1320	2.0	368	7.40	14.5
JUN					
16...	1510	0.11	527	7.20	30.0

MISCELLANEOUS SURFACE-WATER STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
KANSAS RIVER BASIN					
06889120	SOLDIER C NR BANCROFT, KS (LAT 39 35 42N LONG 095 58 17W)				
OCT 1986					
08...	1340	2.4	600	7.80	19.0
NOV					
18...	1345	1.9	700	7.70	3.5
JAN 1987					
06...	1615	2.2	676	7.90	4.5
FEB					
09...	1550	1.7	626	7.60	3.5
10...	1350	2.0	607	7.80	6.5
APR					
01...	1410	5.0	588	7.70	11.0
MAY					
12...	1415	1.7	627	7.90	25.5
JUN					
16...	1440	0.71	637	8.40	33.0
SEP					
08...	1510	0.24	515	8.50	24.0
06889140	SOLDIER C NR SOLDIER, KS (LAT 39 33 57N LONG 095 57 45W)				
OCT 1986					
09...	1100	3.7	636	7.40	15.5
NOV					
18...	1525	3.5	711	7.70	4.5
JAN 1987					
06...	1425	3.5	707	7.80	4.0
FEB					
10...	1525	2.8	624	7.90	6.0
APR					
01...	1610	7.9	654	7.70	10.0
MAY					
05...	1130	27	365	7.40	15.0
JUN					
16...	1310	1.8	642	8.40	30.0
SEP					
08...	1255	0.47	605	8.20	22.0
09...	0805	0.52	610	7.90	16.0
06889160	SOLDIER C NR CIRCLEVILLE, KS (LAT 39 27 47N LONG 095 57 00W)				
OCT 1986					
09...	1430	14	647	7.70	16.5
NOV					
17...	1600	11	735	7.70	6.0
JAN 1987					
06...	1240	1.0	743	7.70	3.5
FEB					
09...	1410	8.5	685	7.60	4.5
APR					
02...	0845	28	650	7.60	5.0
MAY					
05...	1525	72	350	7.40	16.0
28...	1340	195	330	7.80	21.0
JUN					
16...	1025	8.8	734	8.30	28.0
SEP					
08...	1010	1.6	754	8.00	21.0
16...	1140	18	264	7.80	20.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW/ INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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KANSAS RIVER BASIN

06889200 SOLDIER C NR DELIA, KS (LAT 39 12 08N LONG 095 52 25W)

OCT 1986					
10...	1045	84	640	7.90	16.0
NOV					
20...	0950	53	707	7.80	4.5
JAN 1987					
06...	0935	43	760	7.80	3.0
FEB					
12...	1105	39	723	7.90	7.0
APR					
03...	1300	116	725	7.90	8.0
MAY					
05...	0940	421	390	7.50	16.0
28...	1005	7930	167	7.70	20.0
JUN					
15...	1300	45	719	7.20	31.0
SEP					
09...	1050	12	562	8.10	20.0

06889500 SOLDIER C NR TOPEKA, KS (LAT 39 06 00N LONG 095 43 27W)

OCT 1986					
10...	1415	138	588	8.00	16.5
NOV					
20...	1215	91	660	8.00	--
JAN 1987					
05...	1400	85	712	7.90	5.0
FEB					
12...	1425	78	701	8.00	10.0
APR					
03...	0950	204	650	7.80	8.0
MAY					
06...	1015	741	375	7.50	16.0
28...	1415	8990	186	7.60	20.0
JUN					
15...	1030	76	658	7.20	34.0
SEP					
04...	1325	19	495	8.50	27.5
16...	1420	219	371	8.00	22.5

06890100 DELAWARE R NR MUSCOTAH, KS (LAT 39 31 17N LONG 095 31 57W)

NOV 1986					
17...	1220	144	714	8.00	4.0
DEC					
30...	1030	94	650	8.00	2.0
FEB 1987					
09...	1040	86	650	8.00	1.5
APR					
02...	1415	308	547	7.90	9.0
MAY					
08...	1045	265	515	7.70	19.5
JUN					
15...	1225	148	580	8.20	29.0
SEP					
11...	1020	176	289	7.90	18.5

06890900 DELAWARE R BL PERRY DAM, KS (LAT 39 06 51N LONG 095 25 33W)

MAR 1987					
10...	1235	2490	418	8.00	6.5
JUN					
11...	1035	7510	351	7.10	23.0
SEP					
01...	1105	36	388	8.10	24.0

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
KANSAS RIVER BASIN					
06891000 KANSAS R AT LECOMPTON, KS (LAT 39 03 07N LONG 095 23 15W)					
NOV 1986					
03...	1130	11700	471	8.40	11.0
DEC					
16...	1115	11500	475	8.20	5.5
FEB 1987					
02...	1440	5180	805	8.00	7.0
MAR					
09...	1120	8460	458	7.90	5.5
APR					
20...	1250	48000	481	7.90	17.0
JUN					
11...	1410	16500	933	7.20	24.0
JUL					
13...	0955	15400	520	7.90	24.5
SEP					
01...	1415	7630	879	8.10	24.0
06891100 KANSAS R AT EUDORA, KS (LAT 38 57 22N LONG 095 05 43W)					
OCT 1986					
29...	1440	32700	370	7.80	15.0
MAR 1987					
03...	1440	12000	605	6.40	--
APR					
16...	1425	47100	552	7.80	12.5
MAY					
29...	1050	37000	438	6.80	20.5
JUL					
07...	1325	155000	755	8.10	25.0
06891500 WAKARUSA R NR LAWRENCE, KS (LAT 38 54 40N LONG 095 15 37W)					
NOV 1986					
04...	1415	1000	352	8.20	12.0
DEC					
22...	1315	16	630	8.00	5.5
JAN 1987					
30...	1410	544	409	8.10	2.5
MAR					
10...	1615	553	440	8.30	7.0
APR					
21...	1315	56	479	8.10	17.0
MAY					
06...	0910	2660	3370	8.30	17.0
JUN					
11...	0950	35	434	7.70	24.5
JUL					
14...	1625	472	--	8.10	24.5
AUG					
24...	0920	23	335	8.10	22.5

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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KANSAS RIVER BASIN

06892000 STRANGER C NR TONGANOXIE, KS (LAT 39 06 59N LONG 095 00 39W)

NOV 1986					
04...	1020	287	591	8.10	8.0
DEC					
19...	1025	199	631	8.00	5.0
FEB 1987					
06...	0920	235	543	8.20	3.0
MAR					
10...	0930	208	695	8.00	5.0
APR					
21...	1000	269	564	8.20	17.0
MAY					
04...	1040	2930	250	7.80	18.0
JUN					
08...	1005	90	495	8.20	24.0
JUL					
14...	1005	175	--	7.90	25.0
AUG					
12...	1325	8.0	597	7.00	26.5

06892350 KANSAS R AT DESOTO, KS (LAT 38 59 00N LONG 094 57 52W)

OCT 1986					
15...	1050	23800	381	7.60	12.5
28...	1150	38300	362	7.10	14.5
NOV					
21...	1120	4740	725	7.90	7.0
JAN 1987					
02...	1100	5450	790	8.00	4.0
FEB					
13...	0920	5510	736	7.90	7.0
MAR					
03...	1340	15300	555	7.90	9.0
APR					
06...	1025	32000	539	7.90	9.5
MAY					
28...	1040	49300	600	7.10	20.0
JUN					
16...	0950	11300	950	--	30.0
JUL					
07...	0920	14700	733	8.10	25.0
SEP					
14...	0930	5770	945	8.60	23.5

06892506 MILL C AT 111TH ST, OLATHE, KS (LAT 38 55 38N LONG 094 48 18W)

MAR 1987					
25...	1325	26	655	7.90	10.0

06892508 MILL C AT 87TH ST NR LENEXA, KS (LAT 38 58 02N LONG 094 48 42W)

MAR 1987					
16...	1320	93	750	7.70	9.0
25...	1340	53	625	7.90	10.0

06892510 L MILL C AT TOMAHAWK REC. CENTER, SHAWNEE, KS (LAT 38 59 57N LONG 097 47 11W)

MAR 1987					
25...	1150	31	710	8.00	10.0

MISCELLANEOUS SURFACE-WATER STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
BLUE RIVER BASIN					
06893080	BLUE R NR STANLEY, KS (LAT 38 48 45N LONG 094 40 31W)				
NOV 1986					
10...	1450	17	575	7.60	6.0
DEC					
18...	1405	26	602	8.10	5.0
JAN 1987					
28...	1415	9.4	648	8.00	1.0
MAR					
16...	1220	27	530	7.40	9.0
APR					
28...	1405	11	468	8.20	19.5
JUN					
11...	1040	1.3	438	8.70	23.0
JUL					
15...	1100	6.3	--	8.10	24.0
AUG					
26...	1030	2.8	440	8.00	20.0
06893300	INDIAN C AT OVERLAND PARK, KS (LAT 38 56 30N LONG 094 40 10W)				
NOV 1986					
12...	1220	22	916	8.40	3.0
DEC					
22...	1050	16	989	7.70	7.0
JAN 1987					
28...	1105	14	1630	8.00	3.5
MAR					
16...	1015	17	6940	7.30	9.5
25...	1010	62	525	7.70	10.0
APR					
28...	1135	22	839	8.00	20.0
JUN					
11...	1335	28	631	7.90	24.0
OSAGE RIVER BASIN					
06910800	MARAIS DES CYGNES R NR READING, KS (LAT 38 34 00N LONG 095 57 50W)				
NOV 1986					
06...	1415	201	630	8.40	10.0
DEC					
15...	1145	98	698	7.70	3.0
FEB 1987					
02...	1030	100	495	8.00	3.0
MAR					
11...	1330	79	794	7.70	9.0
APR					
23...	1135	76	717	8.30	17.0
JUN					
15...	1400	15	939	8.30	31.0
AUG					
31...	1400	15	316	7.90	21.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW/ INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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OSAGE RIVER BASIN

06911500 SALT C NR LYNDON, KS (LAT 38 36 32N LONG 095 38 17W)

NOV 1986					
06...	1025	145	640	8.50	9.5
DEC					
15...	0900	53	672	7.70	3.0
JAN 1987					
27...	1020	21	891	7.90	0.5
MAR					
11...	1010	41	708	7.40	7.0
APR					
24...	0945	32	664	8.30	17.0
JUN					
09...	0840	5.6	490	8.20	24.5
JUL					
24...	1115	1.6	--	8.10	28.5
AUG					
28...	1050	18	329	8.10	21.0

06912500 HUNDRED AND TEN MILE C NR QUENEMO, KS (LAT 38 38 41N LONG 095 33 34W)

NOV 1986					
07...	1150	1300	351	7.40	13.0
DEC					
17...	1040	520	413	8.00	4.5
JAN 1987					
29...	1110	279	479	8.10	2.0
MAR					
12...	1230	1600	396	7.80	8.0
APR					
23...	1515	1830	359	8.10	16.0
JUN					
09...	1305	16	337	7.70	21.5
JUL					
16...	1015	198	345	8.00	25.5
AUG					
27...	1100	15	415	7.90	20.5

06913000 MARAIS DES CYGNES R NR POMONA, KS (LAT 38 35 03N LONG 095 27 12W)

NOV 1986					
07...	1540	3560	402	7.80	13.0
DEC					
17...	1435	1360	468	7.80	5.0
JAN 1987					
29...	1500	824	511	8.10	3.0
MAR					
13...	0850	3920	473	8.30	7.0
APR					
22...	1445	4420	424	8.20	14.0
JUN					
15...	1025	73	--	7.80	27.0
JUL					
24...	1515	44	--	7.90	30.0

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
OSAGE RIVER BASIN					
06913500	MARAIS DES CYGNES R NR OTTAWA, KS (LAT 38 37 00N LONG 095 15 25W)				
NOV 1986					
10...	1120	3210	347	8.50	10.0
DEC					
18...	1015	1200	449	7.40	5.0
JAN 1987					
30...	1045	822	508	8.10	3.5
MAR					
13...	1330	3700	451	8.20	8.5
APR					
22...	1025	4240	389	8.10	15.0
JUN					
04...	1140	1370	345	8.10	23.0
AUG					
25...	0945	411	286	7.60	21.0
06913700	MIDDLE C NR PRINCETON, KS (LAT 38 28 39N LONG 095 15 08W)				
APR 1987					
10...	1335	7.5	406	8.40	16.0
06914250	SF POTTAWATOMIE C TR NR GARNETT, KS (LAT 38 14 00N LONG 095 14 52W)				
APR 1987					
10...	0920	0.12	1310	7.80	11.0
06915000	BIG BULL C NR HILLSDALE, KS (LAT 38 38 12N LONG 094 53 29W)				
OCT 1986					
28...	1040	2950	237	7.30	17.0
30...	1140	1680	249	7.40	16.0
DEC					
08...	1220	533	256	7.60	3.5
JAN 1987					
15...	1130	77	274	7.70	3.0
MAR					
03...	1010	20	350	7.60	9.0
APR					
14...	1000	41	269	7.90	11.5
MAY					
26...	1000	26	297	8.20	23.5
JUN					
29...	0955	25	287	7.60	26.5
AUG					
03...	1005	26	292	7.90	29.5
SEP					
11...	1015	26	271	8.00	24.0
06915100	BIG BULL C AT PAOLA, KS (LAT 38 34 36N LONG 094 53 44W)				
MAY 1987					
26...	1315	38	290	8.20	22.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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OSAGE RIVER BASIN

06915800 MARAIS DES CYGNES R AT LA CYGNE, KS (LAT 38 20 43N LONG 094 46 19W)

OCT 1986					
27...	1230	9440	283	8.30	15.5
DEC					
05...	1450	1940	393	8.30	4.5
JAN 1987					
07...	1040	1390	484	8.60	3.0
FEB					
27...	1340	2810	416	8.10	7.0
APR					
06...	1125	3010	341	7.90	10.5
MAY					
18...	1050	1030	365	8.40	24.0
JUN					
22...	1115	1220	338	8.00	27.0
AUG					
03...	1405	63	359	8.20	34.0
SEP					
15...	1050	229	339	7.80	23.0

06916600 MARAIS DES CYGNES R NR KS-MO ST LINE, KS (LAT 38 13 21N LONG 094 40 04W)

OCT 1986					
24...	1120	5110	274	7.90	16.5
DEC					
05...	1045	2220	419	8.20	4.5
JAN 1987					
08...	1200	1390	486	8.00	3.0
FEB					
27...	0940	3030	415	8.30	6.5
MAR					
02...	1245	22200	256	7.80	7.0
APR					
06...	1440	3390	387	8.40	10.5
MAY					
18...	1435	1110	385	8.00	25.0
JUN					
22...	1520	1600	346	8.50	28.0
JUL					
27...	1440	101	344	8.50	33.5
AUG					
03...	1605	67	367	8.70	35.0
SEP					
15...	1345	283	322	8.00	25.0

06916700 MIDDLE C NR KINCAID, KS (LAT 38 03 24N LONG 095 11 15W)

APR 1987					
10...	0815	0.54	376	7.80	11.5

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
OSAGE RIVER BASIN					
06917000	L OSAGE R AT FULTON, KS (LAT 38 01 09N LONG 094 42 48W)				
OCT 1986					
17...	1130	129	435	7.90	13.0
DEC					
04...	1455	248	477	7.70	5.5
JAN 1987					
07...	1420	70	601	8.40	3.0
FEB					
26...	0950	241	490	8.00	7.5
APR					
07...	0830	97	396	8.60	10.0
MAY					
19...	0805	64	420	8.50	24.0
JUN					
23...	1420	1550	182	7.80	24.0
AUG					
04...	1225	3.5	419	7.90	30.0
SEP					
14...	1305	2.3	279	7.80	22.0
MARMATON R NR MARMATON, KS (LAT 37 49 03N LONG 094 47 30W)					
06917380					
FEB 1987					
26...	1315	184	400	8.60	8.0
APR					
07...	1135	75	441	8.40	11.5
MAY					
19...	1110	47	375	8.30	25.0
JUN					
23...	0935	1520	105	8.00	23.0
AUG					
04...	0835	2.4	369	7.80	28.0
SEP					
14...	1050	1.5	367	7.90	23.0
ARKANSAS RIVER BASIN					
07137000	FRONTIER DITCH NR COOLIDGE, KS (LAT 38 02 18N LONG 102 02 19W)				
APR 1987					
30...	1030	44	2960	8.20	15.0
JUL					
06...	1015	7.0	2180	8.30	24.0
AUG					
04...	1140	49	2410	8.20	23.0
SEP					
01...	1010	30	2090	8.00	20.0
ARKANSAS R AT SYRACUSE, KS (LAT 37 57 58N LONG 101 45 23W)					
07138000					
OCT 1986					
07...	1535	225	3800	7.90	17.5
NOV					
05...	1335	261	4230	8.10	9.0
JAN 1987					
14...	1555	201	4600	8.40	4.5
MAR					
31...	1430	1600	2280	8.20	25.0
31...	1510	803	--	--	10.0
MAY					
12...	1100	2170	2350	8.10	21.0
28...	1450	2950	2280	7.80	19.0
JUL					
30...	1340	611	2280	8.20	--
SEP					
01...	1305	274	3600	8.10	22.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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ARKANSAS RIVER BASIN

07139000 ARKANSAS R AT GARDEN CITY, KS (LAT 37 57 21N LONG 100 52 37W)

NOV 1986					
24...	1535	166	3440	8.20	5.0
APR 1987					
01...	1515	401	2780	8.20	8.0
27...	1200	1630	2550	8.00	18.0
MAY					
01...	0920	268	2500	8.30	17.0
19...	1525	1890	2300	8.00	22.0
29...	1045	2790	2330	8.00	20.0
JUN					
22...	1515	2320	2410	8.10	28.0
AUG					
03...	0910	0.80	2650	8.10	25.0
31...	1455	67	3350	8.40	27.0

07139500 ARKANSAS R AT DODGE CITY, KS (LAT 37 44 51N LONG 100 01 08W)

MAR 1987					
20...	1405	45	3430	8.10	17.0
APR					
08...	1110	366	2430	8.20	12.5
27...	1135	786	2040	8.40	22.5
MAY					
21...	1125	1230	2820	8.40	17.0
27...	1050	1960	2260	7.60	19.0
JUN					
25...	1130	1960	2120	8.50	27.0
JUL					
29...	1045	164	2820	8.30	26.0
AUG					
19...	1000	51	2800	8.20	23.0
SEP					
02...	1340	31	2970	8.40	28.0

07140000 ARKANSAS R NR KINSLEY, KS (LAT 37 55 33N LONG 099 22 31W)

OCT 1986					
06...	1445	4.8	1150	7.80	19.0
NOV					
18...	1210	2.0	1170	7.30	9.0
JAN 1987					
12...	1355	1.0	1950	7.70	8.0
MAR					
09...	1140	36	3580	8.30	8.0
APR					
01...	1015	133	2540	7.70	9.0
28...	1010	701	2240	8.00	18.0
MAY					
27...	1455	1600	2310	7.60	20.0
AUG					
24...	1335	85	2310	7.40	18.5

07140850 PAWNEE R NR BURDETT, KS (LAT 38 12 24N LONG 099 38 35W)

OCT 1986					
06...	1245	1.1	2160	7.10	15.5
MAR 1987					
27...	1535	15	195	6.60	6.0
APR					
14...	1840	797	118	7.40	8.0
JUL					
20...	1330	36	180	7.60	26.0

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
ARKANSAS RIVER BASIN					
07141200 PAWNEE R NR LARNED, KS (LAT 38 12 00N LONG 099 20 50W)					
OCT 1986					
06...	1515	11	1860	7.40	16.0
APR 1987					
17...	1105	966	360	7.20	17.0
JUL					
22...	1245	67	510	8.10	26.0
AUG					
31...	1120	3.5	356	7.40	22.0
07141300 ARKANSAS R AT GREAT BEND, KS (LAT 38 21 11N LONG 098 45 50W)					
OCT 1986					
07...	0920	16	521	8.20	17.0
NOV					
19...	1020	4.4	1200	8.60	7.0
JAN 1987					
05...	1530	2.6	1530	8.20	5.0
MAR					
04...	0925	5.2	1360	8.00	9.0
APR					
16...	1435	3390	560	7.10	12.5
JUN					
02...	0840	1680	2300	7.60	24.0
JUL					
16...	1100	1110	2020	8.10	24.0
AUG					
27...	0925	165	1830	7.70	19.0
07141780 WALNUT C NR RUSH CENTER, KS (LAT 38 28 07N LONG 099 22 07W)					
OCT 1986					
06...	1655	4.6	2620	7.80	17.5
APR 1987					
15...	1730	3260	275	7.20	8.0
JUN					
04...	1725	6.6	1000	--	23.0
JUL					
17...	1015	82	560	--	22.5
AUG					
27...	1615	6.8	853	8.30	22.0
07141900 WALNUT C AT ALBERT, KS (LAT 38 27 40N LONG 099 00 50W)					
OCT 1986					
07...	1115	6.8	2380	7.90	17.0
MAR 1987					
26...	1540	496	290	7.60	5.0
APR					
16...	1020	2840	278	7.20	10.5
29...	1455	34	662	8.20	21.0
JUN					
02...	1135	6.6	1070	7.80	22.0
JUL					
16...	1455	145	460	8.00	23.5
AUG					
27...	1415	3.0	400	7.60	20.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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ARKANSAS RIVER BASIN

07142575 RATTLESNAKE C NR ZENITH, KS (LAT 38 06 01N LONG 098 30 32W)

NOV 1986					
19...	1025	20	3000	7.60	2.5
JAN 1987					
13...	0920	32	4130	8.40	2.0
MAR					
10...	1330	30	3580	8.60	6.0
27...	1010	1.0	410	7.50	7.5
31...	1330	460	476	7.30	7.5
APR					
29...	1150	44	3190	8.60	20.0
JUN					
02...	1220	55	2550	8.20	25.0
JUL					
07...	1500	181	931	8.00	29.0
AUG					
25...	1200	36	3070	--	24.0

07142620 RATTLESNAKE C NR RAYMOND, KS (LAT 38 13 50N LONG 098 25 00W)

NOV 1986					
19...	1215	14	--	7.70	5.5
JAN 1987					
13...	1035	21	12000	8.20	3.0
MAR					
10...	1650	47	9430	8.50	6.0
APR					
29...	1635	44	6080	8.40	23.0
JUN					
02...	1610	110	3720	8.00	20.0
JUL					
08...	1050	232	2850	8.00	26.0
AUG					
25...	1415	18	4510	--	25.0

07143330 ARKANSAS R NR HUTCHINSON, KS (LAT 37 56 47N LONG 097 46 29W)

OCT 1986					
29...	1650	180	3460	8.30	17.0
DEC					
10...	1410	149	3070	8.20	5.0
JAN 1987					
14...	1535	155	4270	--	7.0
MAR					
04...	1010	272	3580	7.70	12.0
25...	1320	6260	417	7.60	6.0
APR					
16...	1015	2130	1560	8.00	12.0
JUN					
04...	0840	1860	2320	8.20	21.0
JUL					
09...	1455	5610	757	7.80	27.0
AUG					
27...	1035	1320	1130	7.90	--
SEP					
30...	1540	365	2150	8.80	22.0

07143600 L ARKANSAS R NR LITTLE RIVER, KS (LAT 38 24 50N LONG 098 01 00W)

APR 1987					
01...	1330	72	722	7.60	10.0

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
ARKANSAS RIVER BASIN					
07144200	L ARKANSAS R AT VALLEY CENTER, KS (LAT 37 49 56N LONG 097 23 16W)				
OCT 1986					
29...	0950	84	870	8.10	13.0
DEC					
11...	1300	88	1190	8.20	3.0
JAN 1987					
15...	1305	80	1280	--	3.0
MAR					
03...	1240	2220	398	7.90	8.5
19...	1415	2620	210	8.30	12.0
APR					
17...	1135	1470	598	7.80	13.5
JUN					
03...	1255	639	485	7.80	21.0
JUL					
10...	1215	419	333	7.60	26.0
AUG					
26...	1355	2010	170	8.00	--
07144300	ARKANSAS R AT WICHITA, KS (LAT 37 38 41N LONG 097 20 06W)				
NOV 1986					
14...	1510	252	2550	7.90	4.0
DEC					
18...	0925	284	2340	8.40	6.0
JAN 1987					
29...	1505	338	2540	8.00	8.0
MAR					
09...	1740	525	2390	7.70	4.0
20...	0830	6630	429	7.60	12.0
24...	1840	13600	200	7.30	7.5
31...	0920	9280	466	7.80	5.5
APR					
14...	1010	2570	1560	7.60	9.5
JUN					
04...	1555	3300	1770	7.20	27.0
JUL					
16...	1005	3640	1330	8.10	25.5
SEP					
02...	1025	1820	1110	--	25.0
07144550	ARKANSAS R AT DERBY, KS (LAT 37 32 34N LONG 097 16 31W)				
NOV 1986					
13...	1430	371	2140	7.80	3.5
DEC					
17...	1555	409	2050	--	8.0
JAN 1987					
29...	1125	584	2160	8.00	7.0
MAR					
10...	1100	615	2140	7.80	5.0
26...	0930	13700	246	7.80	6.0
31...	1350	8560	477	7.40	5.5
APR					
14...	1430	2170	1450	7.70	10.0
JUN					
04...	1245	2570	1650	7.20	24.0
JUL					
15...	1445	3750	1380	7.90	26.5
SEP					
01...	1605	1950	945	8.10	25.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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ARKANSAS RIVER BASIN

07144795 NF MINNESCAH R AT CHENEY DAM, KS (LAT 37 43 17N LONG 097 47 39W)

OCT 1986					
28...	1515	15	773	8.20	17.0
DEC					
11...	0920	552	848	8.50	4.0
JAN 1987					
15...	0940	489	817	--	2.0
MAR					
04...	1425	5.5	1010	8.30	8.5
APR					
16...	1500	575	836	8.80	11.0
JUN					
02...	1120	790	770	8.20	21.5
JUL					
09...	1110	1670	739	8.30	24.0
AUG					
25...	1655	1.2	645	7.70	--

07145500 MINNESCAH R NR PECK, KS (LAT 37 27 26N LONG 097 25 20W)

NOV 1986					
14...	1210	788	1050	8.40	2.5
DEC					
17...	1325	621	926	8.40	6.0
JAN 1987					
30...	0930	916	534	8.50	3.0
MAR					
10...	1520	686	914	7.80	4.0
APR					
15...	1240	1320	818	8.10	11.0
JUN					
04...	0910	929	687	--	21.0
JUL					
15...	1010	2020	645	8.20	25.0
SEP					
02...	1440	796	756	8.50	27.5

07146623 WALNUT R BL EL DORADO LK, KS (LAT 37 50 43N LONG 096 49 25W)

NOV 1986					
05...	1400	12	271	8.20	14.0
DEC					
15...	1525	496	277	8.00	5.0
JAN 1987					
26...	1620	110	300	8.00	1.0
MAR					
13...	1045	534	856	8.60	8.0
APR					
16...	1625	821	268	7.60	12.0
JUN					
01...	1145	309	278	7.10	19.0
AUG					
25...	1245	15	280	8.10	27.0

MISCELLANEOUS SURFACE-WATER STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
ARKANSAS RIVER BASIN					
07146830	WALNUT R AT HWY 54 E OF EL DORADO, KS (LAT 37 49 01N LONG 096 50 21W)				
NOV 1986					
05...	1655	42	1110	8.00	11.0
DEC					
12...	1600	554	395	8.10	5.5
JAN 1987					
27...	0915	138	752	7.70	2.0
MAR					
12...	1740	608	422	8.00	10.0
APR					
17...	0950	911	338	8.00	11.0
JUN					
01...	1430	303	628	7.10	23.0
AUG					
26...	0910	460	327	7.90	22.0
07147800	WALNUT R AT WINFIELD, KS (LAT 37 13 27N LONG 096 59 40W)				
NOV 1986					
07...	1150	800	650	8.00	13.0
DEC					
16...	0930	1140	808	8.10	6.0
JAN 1987					
28...	0935	629	833	8.00	3.5
MAR					
12...	0945	1630	750	7.80	9.0
APR					
16...	0920	1350	821	7.80	15.0
JUN					
02...	1030	2890	444	7.20	30.0
JUL					
13...	1415	716	314	7.60	25.0
AUG					
26...	1605	2680	307	7.80	22.0
07149000	MEDICINE LODGE R NR KIOWA, KS (LAT 37 02 17N LONG 098 28 04W)				
OCT 1986					
09...	1515	192	1020	8.10	17.0
NOV					
21...	1130	168	1480	8.20	10.0
JAN 1987					
14...	1040	177	1460	8.50	4.0
MAR					
13...	1115	189	1610	7.90	11.5
25...	1720	5880	785	8.20	6.0
26...	0950	1980	1320	7.70	5.5
MAY					
01...	1320	197	1820	7.80	29.0
JUN					
04...	1500	267	1260	7.90	26.0
JUL					
10...	1045	394	1300	8.40	26.0
AUG					
27...	1535	441	485	--	22.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
ARKANSAS RIVER BASIN					
07151500 CHIKASKIA R NR CORBIN, KS (LAT 37.07 44N LONG 097 36 04W)					
NOV 1986					
13...	1000	116	696	7.90	0.5
DEC					
17...	0935	156	754	8.30	6.0
JAN 1987					
28...	1535	198	651	8.10	2.5
MAR					
11...	0920	234	680	8.20	7.0
25...	1010	3870	207	8.00	7.0
APR					
15...	0925	339	662	8.00	11.0
JUN					
03...	1345	993	394	7.10	22.5
JUL					
14...	1355	450	347	7.90	28.0
AUG					
28...	0925	663	274	8.10	20.0
07155590 CIMARRON R NR ELKHART, KS (LAT 37 07 30N LONG 101 53 50W)					
JAN 1987					
14...	1055	0.04	1180	8.20	4.5
MAR					
30...	1400	0.86	1150	8.10	13.0
MAY					
08...	1245	720	670	8.10	21.0
JUN					
09...	0945	2.0	1420	8.50	21.0
07166000 VERDIGRIS R NR COYVILLE, KS (LAT 37 42 20N LONG 095 54 20W)					
OCT 1986					
23...	0935	2120	240	8.00	17.0
NOV					
17...	1310	97	455	7.70	7.0
JAN 1987					
05...	1320	165	560	7.70	5.0
FEB					
20...	1125	1600	575	7.90	6.0
APR					
10...	0755	172	485	8.10	12.0
MAY					
11...	1330	1210	425	7.80	23.0
JUN					
22...	1420	14	338	--	29.0
SEP					
14...	1140	34	405	7.90	25.0
07166500 VERDIGRIS R NR ALTOONA, KS (LAT 37 29 26N LONG 095 40 49W)					
OCT 1986					
20...	1530	3240	230	7.90	18.0
NOV					
19...	0835	205	530	7.60	5.5
JAN 1987					
06...	1340	241	570	7.70	6.0
FEB					
20...	0830	2980	490	7.90	4.5
APR					
09...	1320	302	528	8.00	15.0
MAY					
12...	1410	3030	340	7.80	22.0
SEP					
15...	1020	65	435	7.60	24.0

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
ARKANSAS RIVER BASIN					
07167500	OTTER C AT CLIMAX, KS (LAT 37 42 30N LONG 096 13 30W)				
OCT 1986					
03...	1220	13700	134	7.90	20.5
NOV					
18...	0835	37	690	7.90	6.0
JAN 1987					
06...	1110	25	675	7.70	6.0
FEB					
12...	1045	79	640	8.10	9.0
APR					
08...	0810	43	620	7.70	12.0
MAY					
18...	1100	33	530	7.80	25.0
SEP					
16...	1035	3.0	700	7.80	23.0
07168500	FALL R NR FALL RIVER, KS (LAT 37 38 34N LONG 096 03 33W)				
OCT 1986					
14...	1320	4460	228	7.20	17.0
NOV					
18...	1115	65	430	7.70	8.0
JAN 1987					
06...	0855	141	605	7.80	5.0
FEB					
18...	1115	1490	575	8.00	6.0
APR					
07...	1110	220	552	7.70	12.0
MAY					
12...	0840	47	480	7.70	21.0
SEP					
16...	0835	5.9	390	7.90	23.0
07169500	FALL R AT FREDONIA, KS (LAT 37 30 30N LONG 095 50 00W)				
OCT 1986					
21...	1230	3760	260	7.50	17.0
NOV					
18...	1345	150	585	7.60	9.0
JAN 1987					
05...	1515	221	650	7.60	5.0
FEB					
18...	1400	2040	525	8.00	6.0
APR					
07...	1340	309	552	7.80	13.0
MAY					
12...	1135	695	305	7.80	21.0
SEP					
15...	1420	12	500	8.10	25.0
07169800	ELK R AT ELK FALLS, KS (LAT 37 22 32N LONG 096 11 07W)				
NOV 1986					
20...	1310	62	620	7.70	8.0
JAN 1987					
07...	1520	54	640	7.60	6.0
FEB					
12...	1310	143	640	8.00	10.0
APR					
08...	1105	66	582	7.90	15.0
MAY					
18...	1400	50	505	7.80	27.0
SEP					
16...	1320	3.2	455	7.80	25.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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ARKANSAS RIVER BASIN

07170060 ELK R BL ELK CITY LK, KS (LAT 37 16 46N LONG 095 46 53W)

OCT 1986					
08...	1230	8910	135	7.70	21.0
NOV					
19...	1120	3.4	310	7.50	7.0
JAN 1987					
07...	0930	504	410	7.80	5.0
FEB					
19...	0945	3310	395	7.80	6.0
APR					
09...	1100	84	356	8.00	11.0
MAY					
13...	0750	191	370	7.70	22.0
SEP					
17...	1430	13	335	8.10	26.0

07170500 VERDIGRIS R AT INDEPENDENCE, KS (LAT 37 13 26N LONG 095 40 43W)

OCT 1986					
21...	0915	12300	220	7.80	17.0
NOV					
19...	1430	661	430	7.60	7.0
JAN 1987					
08...	0850	1020	560	7.70	4.0
FEB					
19...	1245	8350	455	7.60	5.0
APR					
09...	0750	813	528	8.10	13.0
MAY					
13...	1040	5130	420	7.70	22.0
SEP					
17...	1200	119	400	8.20	25.0

07170700 BIG HILL C NR CHERRYVALE, KS (LAT 37 16 00N LONG 095 28 05W)

OCT 1986					
01...	1315	1120	233	8.00	23.5
21...	1710	20	170	7.80	17.5
DEC					
02...	1235	64	158	8.50	8.0
JAN 1987					
14...	1030	39	183	8.80	5.0
FEB					
24...	1125	56	170	7.80	6.0
APR					
09...	0900	2.8	194	7.70	12.5
MAY					
21...	0930	0.78	240	7.70	23.0
28...	1300	351	214	8.30	23.0
JUN					
24...	1100	1.9	332	8.00	25.0
AUG					
06...	0920	0.11	384	7.60	26.0
SEP					
17...	0900	0.02	420	7.70	21.5

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
ARKANSAS RIVER BASIN					
07172000	CANEY R NR ELGIN, KS (LAT 37 00 13N LONG 096 18 54W)				
NOV 1986					
20...	0910	211	590	7.80	8.0
JAN 1987					
07...	1250	106	660	7.60	6.0
FEB					
13...	0915	315	610	7.80	10.0
APR					
08...	1455	168	600	7.70	18.0
MAY					
19...	0950	48	540	7.80	29.0
SEP					
17...	0910	14	480	7.80	24.0
07179500	NEOSHO R AT COUNCIL GROVE, KS (LAT 38 39 54N LONG 096 29 38W)				
OCT 1986					
06...	1740	11	443	7.50	20.0
NOV					
04...	0940	101	314	7.20	12.0
DEC					
15...	1620	93	384	7.70	4.0
FEB 1987					
02...	1710	98	329	8.30	4.5
MAR					
16...	1730	93	436	7.40	8.5
APR					
27...	1530	82	344	7.20	18.0
JUN					
08...	1730	13	344	--	26.0
JUL					
23...	1700	13	363	8.20	29.0
AUG					
28...	1100	12	374	7.90	21.0
07179710	NEOSHO R NR DUNLAP, KS (LAT 38 33 17N LONG 096 22 16W)				
OCT 1986					
06...	1450	356	494	7.50	18.0
07179730	NEOSHO R NR AMERICUS, KS (LAT 38 28 01N LONG 096 15 01W)				
OCT 1986					
06...	1230	503	481	7.00	18.0
NOV					
03...	1140	228	525	7.90	11.0
DEC					
15...	1120	260	562	7.60	3.5
FEB 1987					
02...	1120	298	414	7.30	5.0
MAR					
16...	1110	200	747	7.40	10.5
APR					
27...	1200	216	539	7.50	20.0
JUN					
08...	1040	289	358	--	23.5
JUL					
24...	0950	51	485	8.10	27.0
AUG					
27...	1120	838	196	7.90	20.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
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ARKANSAS RIVER BASIN

07179795 COTTONWOOD R BL MARION LK, KS (LAT 38 22 00N LONG 097 05 00W)

OCT 1986					
08...	0810	9.8	553	7.60	19.0
30...	1535	88	576	8.20	14.0
DEC					
09...	1655	2.3	689	8.10	4.0
JAN 1987					
14...	0935	2.7	694	--	3.0
FEB					
26...	1200	85	664	8.60	7.0
APR					
14...	1350	95	569	8.30	10.5
JUN					
05...	0950	96	649	8.00	21.0
JUL					
08...	1135	472	588	8.10	25.0
AUG					
31...	1145	91	544	8.00	--
SEP					
29...	1435	13	590	8.30	21.5

07180200 COTTONWOOD R AT MARION, KS (LAT 38 20 57N LONG 097 01 59W)

OCT 1986					
08...	1150	85	1050	7.50	17.5
30...	1130	140	945	6.70	13.0
DEC					
09...	1255	110	1500	8.00	4.5
JAN 1987					
13...	1235	43	1540	8.30	2.5
FEB					
26...	1430	138	943	8.50	7.5
APR					
15...	0905	939	414	8.00	9.0
JUN					
05...	1315	158	978	8.20	22.0
JUL					
08...	0830	592	600	8.10	24.0
AUG					
28...	0945	225	678	--	--
SEP					
30...	0910	31	1170	8.10	16.0

07180400 COTTONWOOD R NR FLORENCE, KS (LAT 38 14 10N LONG 096 52 37W)

OCT 1986					
07...	1115	304	792	7.40	17.5
31...	1000	220	1020	8.00	13.0
DEC					
09...	0945	243	1320	8.10	4.0
JAN 1987					
13...	0930	91	1350	8.40	1.0
FEB					
27...	0950	230	959	8.30	8.0
APR					
14...	0915	533	985	8.10	11.0
JUN					
08...	1525	154	1140	8.30	25.0
JUL					
07...	1140	921	544	7.90	24.5
AUG					
31...	1435	226	760	8.20	--
SEP					
29...	1035	78	1030	8.10	19.0

MISCELLANEOUS SURFACE-WATER STATIONS
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
ARKANSAS RIVER BASIN					
07180500	CEDAR C NR CEDAR POINT, KS (LAT 38 11 55N LONG 096 49 22W)				
OCT 1986					
07...	1330	118	563	7.50	17.0
31...	1215	43	671	7.80	14.0
DEC					
08...	1630	104	673	8.00	5.5
JAN 1987					
12...	1535	25	666	8.10	1.0
FEB					
27...	0810	62	607	8.30	8.0
JUN					
08...	1240	53	627	8.00	22.0
JUL					
07...	0845	43	281	7.80	24.0
SEP					
01...	0855	9.7	514	8.00	--
28...	1605	9.3	506	8.40	22.0
07182250	COTTONWOOD R NR PLYMOUTH, KS (LAT 38 23 51N LONG 096 21 21W)				
NOV 1986					
03...	1235	551	776	8.10	10.5
DEC					
08...	1210	845	790	8.00	4.5
JAN 1987					
12...	1135	385	950	8.20	2.5
MAR					
05...	1350	2250	687	8.30	10.0
APR					
13...	1150	1010	760	8.30	13.0
JUN					
01...	1240	1920	637	8.10	22.5
JUL					
06...	1220	7500	230	7.80	22.5
AUG					
27...	1615	1740	411	7.80	21.0
SEP					
28...	1155	604	685	8.00	21.0
07182510	NEOSHO R AT BURLINGTON, KS (LAT 38 11 40N LONG 095 44 10W)				
OCT 1986					
20...	1140	11600	250	7.30	18.0
NOV					
17...	1015	80	610	7.80	7.0
JAN 1987					
05...	1010	370	605	7.70	3.0
FEB					
24...	0940	3560	580	8.20	6.0
APR					
10...	1200	1180	568	7.90	16.0
MAY					
11...	1030	882	580	7.70	23.0
JUN					
22...	1010	521	425	--	29.5
SEP					
14...	0910	1040	385	7.70	24.0

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
ARKANSAS RIVER BASIN					
07183000 NEOSHO R NR IOLA, KS (LAT 37 53 27N LONG 095 25 50W)					
OCT 1986					
21...	0950	9770	223	7.90	16.5
DEC					
01...	1615	340	487	8.00	6.5
JAN 1987					
13...	1410	503	643	8.40	3.5
FEB					
23...	1555	4340	--	8.30	6.5
APR					
09...	1435	2350	499	8.00	14.0
MAY					
06...	1430	5990	318	7.20	18.0
21...	1605	1070	361	7.80	27.0
JUN					
25...	1605	1600	354	8.10	29.0
AUG					
06...	1415	205	381	8.30	33.0
SEP					
17...	1505	1040	347	--	24.0

MISCELLANEOUS SURFACE-WATER STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)
ARKANSAS RIVER BASIN										
07142570 RATTLESNAKE C AB L SALT MARSH NR HUDSON, KS (LAT 38 05 13N LONG 098 34 52W)										
OCT 1986										
23...	1145	18	3710	7.90	13.0	9.8	718	215	910	110
FEB 1987										
10...	1545	24	3630	8.00	10.0	12.9	715	192	840	110
MAY										
05...	1310	58	2550	7.10	16.5	8.9	719	186	660	94
AUG										
10...	1505	38	2150	8.60	29.0	8.2	711	234	400	160
07142650 PEACE C NR SYLVIA, KS (LAT 38 04 34N LONG 098 26 18W)										
OCT 1986										
23...	1340	2.4	1640	7.40	15.0	7.8	717	170	410	44
FEB 1987										
10...	1415	0.69	3190	8.40	12.0	15.2	717	196	760	100
MAY										
05...	1420	14	1920	6.90	17.0	6.8	720	169	470	51
AUG										
10...	1645	1.4	4830	8.40	31.0	10.6	711	271	--	94
07142670 PEACE C NR STERLING, KS (LAT 38 08 43N LONG 098 15 13W)										
OCT 1986										
23...	1020	14	5600	7.70	13.0	9.4	720	166	1900	170
FEB 1987										
10...	1720	5.2	6160	8.10	11.0	11.8	719	180	1600	200
MAY										
05...	1045	17	4640	6.80	16.0	7.0	723	182	1800	190
AUG										
11...	1025	7.5	6160	8.60	23.0	10.4	713	183	1500	170
07142740 SALT C NR HUTCHINSON, KS (LAT 38 04 23N LONG 098 02 11W)										
OCT 1986										
23...	0905	15	3170	7.80	13.0	8.2	720	271	820	120
MAY 1987										
05...	0915	29	1900	6.90	17.0	6.9	725	180	450	81
JUL										
02...	1155	7.1	3100	7.60	6.5	9.7	721	268	1000	160
AUG										
11...	1215	7.0	--	8.40	24.0	9.2	715	216	890	130
07144590 NF MINNESCAH R NR SYLVIA, KS (LAT 37 55 59N LONG 098 24 36W)										
OCT 1986										
23...	1445	53	1170	7.70	13.0	7.9	718	188	200	33
FEB 1987										
11...	1215	24	1060	7.40	7.0	11.8	719	210	280	52
MAY										
05...	1555	71	1140	7.10	17.5	7.4	721	172	210	49
AUG										
10...	1315	21	1190	8.30	28.0	8.1	715	219	240	59

MISCELLANEOUS SURFACE-WATER STATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW/ INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)
ARKANSAS RIVER BASIN										
07144620 NF NINNESCAH R AB SILVER C NR ARLINGTON, KS (LAT 37 51 09N LONG 098 09 30W)										
OCT 1986										
22...	1430	66	1040	7.80	15.0	9.4	718	207	160	41
FEB 1987										
11...	1120	61	1320	7.90	7.0	11.4	724	196	210	47
MAY										
05...	1720	182	898	7.20	18.0	7.7	725	--	140	38
AUG										
11...	1415	36	1100	8.80	30.0	9.5	715	184	240	54
07144640 SILVER C NR LANGDON, KS (LAT 37 47 54N LONG 098 19 59W)										
OCT 1986										
22...	1555	32	1660	7.80	16.0	8.8	715	223	350	53
FEB 1987										
11...	1345	12	2230	7.90	7.0	11.8	721	224	410	61
MAY										
04...	1720	9.4	1640	7.30	20.0	9.3	696	192	340	51
AUG										
11...	1600	2.3	1330	8.80	34.0	10.0	711	185	290	53
07144890 SF NINNESCAH R AT PRATT, KS (LAT 37 38 03N LONG 098 44 15W)										
OCT 1986										
22...	0935	17	381	7.40	13.5	7.3	718	138	28	19
FEB 1987										
12...	0845	15	436	7.60	8.0	11.0	720	166	40	19
MAY										
04...	1430	14	511	7.20	18.5	9.2	718	168	34	22
AUG										
12...	1130	12	394	7.40	23.5	8.9	707	141	42	17
07145130 SF NINNESCAH R NR CALISTA, KS (LAT 37 38 45N LONG 098 17 12W)										
OCT 1986										
22...	1145	162	1110	7.70	13.0	9.4	717	190	260	43
FEB 1987										
11...	1535	128	1550	7.80	14.0	10.0	722	178	300	49
MAY										
04...	1610	114	1550	7.20	20.5	9.6	618	186	300	49
AUG										
12...	0930	148	821	7.90	24.0	5.7	713	124	180	36
07148600 MEDICINE LODGE R AT SUN CITY, KS (LAT 37 22 13N LONG 098 54 53W)										
OCT 1986										
21...	1605	61	643	7.60	15.5	7.4	718	169	35	150
FEB 1987										
12...	1115	60	674	8.00	8.0	12.0	724	188	36	150
MAY										
04...	1145	69	1210	7.40	18.0	8.8	720	208	77	330
AUG										
12...	1405	61	1080	8.30	30.0	6.2	710	236	87	240

MISCELLANEOUS SURFACE-WATER STATIONS
SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
KANSAS RIVER BASIN					
06848500	PRAIRIE DOG C NR WOODRUFF, KS (LAT 39 59 09N LONG 099 28 39W)				
	JUL 1987				
	09...	1245	726	1450	2840
06861000	SMOKY HILL R NR ARNOLD, KS (LAT 38 48 31N LONG 100 01 13W)				
	JUL 1987				
	09...	1525	910	3500	8600
06862700	SMOKY HILL R NR SCHOENCHEN, KS (LAT 38 43 30N LONG 099 23 30W)				
	APR 1987				
	15...	1130	862	3350	7800
06862850	SMOKY HILL R BL SCHOENCHEN, KS (LAT 38 42 46N LONG 099 17 30W)				
	APR 1987				
	02...	1330	620	1490	2490
06864050	SMOKY HILL R NR BUNKER HILL, KS (LAT 38 47 38N LONG 098 46 50W)				
	MAR 1987				
	19...	1500	288	529	411
	APR				
	14...	1730	15500	1300	54400
06864500	SMOKY HILL R AT ELLSWORTH, KS (LAT 38 43 36N LONG 098 14 00W)				
	MAR 1987				
	25...	1940	4810	6220	80800
	27...	1025	2450	5660	37400
	31...	1435	980	1370	3630
	APR				
	16...	1255	16000	1520	65700
06873460	SF SOLOMON R AT WOODSTON, KS (LAT 39 26 23N LONG 099 06 05W)				
	MAR 1987				
	27...	1600	281	181	137
	APR				
	08...	1525	828	226	505
	15...	1440	2650	659	4720
06887000	BIG BLUE R NR MANHATTAN, KS (LAT 39 14 14N LONG 096 34 16W)				
	NOV 1986				
	18...	1130	49	11	1.5
ARKANSAS RIVER BASIN					
07138000	ARKANSAS R AT SYRACUSE, KS (LAT 37 57 58N LONG 101 45 23W)				
	MAR 1987				
	31...	1510	803	852	1850
	MAY				
	12...	1100	2170	442	2590
	28...	1450	2950	4960	39500

MISCELLANEOUS SURFACE-WATER STATIONS

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SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
ARKANSAS RIVER BASIN				
07139000	ARKANSAS R AT GARDEN CITY, KS (LAT 37 57 21N LONG 100 52 37W)			
APR 1987				
27...	1200	1630	875	3850
MAY				
29...	1045	2790	1090	8210
07139500	ARKANSAS R AT DODGE CITY, KS (LAT 37 44 51N LONG 100 01 08W)			
APR 1987				
08...	1110	366	318	314
MAY				
27...	1050	1960	743	3930
07140000	ARKANSAS R NR KINSLEY, KS (LAT 37 55 33N LONG 099 22 31W)			
MAR 1987				
09...	1140	36	49	4.8
MAY				
27...	1455	1600	368	1590
07140850	PAWNEE R NR BURDETT, KS (LAT 38 12 24N LONG 099 38 35W)			
APR 1987				
14...	1840	797	1770	3810
07141200	PAWNEE R NR LARNED, KS (LAT 38 12 00N LONG 099 20 50W)			
APR 1987				
17...	1105	966	752	1960
07141300	ARKANSAS R AT GREAT BEND, KS (LAT 38 21 11N LONG 098 45 50W)			
APR 1987				
16...	1435	3390	865	7920
JUN				
02...	0840	1680	516	2340
07141780	WALNUT C NR RUSH CENTER, KS (LAT 38 28 07N LONG 099 22 07W)			
APR 1987				
15...	1730	3260	987	8690
07141900	WALNUT C AT ALBERT, KS (LAT 38 27 40N LONG 099 00 50W)			
MAR 1987				
26...	1540	496	955	1280
APR				
16...	1020	2840	1440	11000
07142575	RATTLESNAKE C NR ZENITH, KS (LAT 38 06 01N LONG 098 30 32W)			
MAR 1987				
27...	1010	1.0	739	2.0

MISCELLANEOUS SURFACE-WATER STATIONS

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
ARKANSAS RIVER BASIN				
07149000	MEDICINE LODGE R NR KIOWA, KS (LAT 37 02 17N LONG 098 28 04W)			
MAR 1987				
25...	1720	5880	870	12
07151500	CHIKASKIA R NR CORBIN, KS (LAT 37 07 44N LONG 097 36 04W)			
MAR 1987				
25...	1010	3870	1060	11100
07155590	CIMARRON R NR ELKHART, KS (LAT 37 07 30N LONG 101 53 50W)			
MAY 1987				
08...	1245	720	6890	13400

MISCELLANEOUS SURFACE-WATER STATIONS

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PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
KANSAS RIVER BASIN											
06861000 SMOKY HILL R NR ARNOLD, KS (LAT 38 48 31N LONG 100 01 13W)											
JUL 1987 09...	1525	3500	100	66	88	97	--	--	--	--	--
06862700 SMOKY HILL R NR SCHOENCHEN, KS (LAT 38 43 30N LONG 099 23 30W)											
APR 1987 15...	1130	3350	12	8	9	10	12	15	30	78	--
06864050 SMOKY HILL R NR BUNKER HILL, KS (LAT 38 47 38N LONG 098 46 50W)											
MAR 1987 19...	1500	529	98	75	85	92	--	--	--	--	--
APR 14...	1730	1300	83	49	56	67	88	90	94	99	--
06864500 SMOKY HILL R AT ELLSWORTH, KS (LAT 38 43 36N LONG 098 14 00W)											
MAR 1987 25...	1940	6220	20	11	13	16	20	22	35	87	--
27...	1025	5660	16	9	10	12	16	16	31	90	--
31...	1435	1370	30	--	--	--	30	30	46	100	--
06873460 SF SOLOMON R AT WOODSTON, KS (LAT 39 26 23N LONG 099 06 05W)											
MAR 1987 27...	1600	181	99	--	70	--	--	--	--	--	--
06887000 BIG BLUE R NR MANHATTAN, KS (LAT 39 14 14N LONG 096 34 16W)											
NOV 1986 18...	1130	11	78	--	--	--	--	--	--	--	--
ARKANSAS RIVER BASIN											
07138000 ARKANSAS R AT SYRACUSE, KS (LAT 37 57 58N LONG 101 45 23W)											
MAR 1987 31...	1510	852	45	20	26	35	47	50	81	86	--
MAY 12...	1100	442	62	--	45	--	64	69	92	100	--
28...	1450	4960	8	--	4	--	8	10	38	50	88
07139000 ARKANSAS R AT GARDEN CITY, KS (LAT 37 57 21N LONG 100 52 37W)											
APR 1987 27...	1200	875	82	45	56	72	83	86	95	97	--
MAY 29...	1045	1090	94	51	67	84	98	100	--	--	--
07139500 ARKANSAS R AT DODGE CITY, KS (LAT 37 44 51N LONG 100 01 08W)											
MAY 1987 27...	1050	743	82	49	58	69	84	88	95	100	--

MISCELLANEOUS SURFACE-WATER STATIONS

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
ARKANSAS RIVER BASIN										
07140000 ARKANSAS R NR KINSLEY, KS (LAT 37 55 33N LONG 099 22 31W)										
MAY 1987 27...	1455	368	98	--	81	--	--	--	--	--
07140850 PAWNEE R NR BURDETT, KS (LAT 38 12 24N LONG 099 38 35W)										
APR 1987 14...	1840	1770	87	51	56	68	90	90	92	100
07141200 PAWNEE R NR LARNED, KS (LAT 38 12 00N LONG 099 20 50W)										
APR 1987 17...	1105	752	97	--	83	--	--	--	--	--
07141300 ARKANSAS R AT GREAT BEND, KS (LAT 38 21 11N LONG 098 45 50W)										
APR 1987 16...	1435	865	68	--	62	--	68	72	88	100
JUN 02...	0840	516	55	--	46	--	55	55	59	65
07141780 WALNUT C NR RUSH CENTER, KS (LAT 38 28 07N LONG 099 22 07W)										
APR 1987 15...	1730	987	97	66	74	83	--	--	--	--
07141900 WALNUT C AT ALBERT, KS (LAT 38 27 40N LONG 099 00 50W)										
MAR 1987 26...	1540	955	98	78	86	92	--	--	--	--
APR 16...	1020	1440	86	52	57	66	92	92	94	100
07142575 RATTLESNAKE C NR ZENITH, KS (LAT 38 06 01N LONG 098 30 32W)										
MAR 1987 27...	1010	739	67	--	--	--	77	99	100	--
07149000 MEDICINE LODGE R NR KIOWA, KS (LAT 37 02 17N LONG 098 28 04W)										
MAR 1987 25...	1720	870	52	34	--	45	56	70	98	100
07151500 CHIKASKIA R NR CORBIN, KS (LAT 37 07 44N LONG 097 36 04W)										
MAR 1987 25...	1010	1060	78	53	57	66	82	84	93	96
07155590 CIMARRON R NR ELKHART, KS (LAT 37 07 30N LONG 101 53 50W)										
MAY 1987 08...	1245	6890	90	63	77	88	91	96	100	--

B L A N K P A G E

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
ALLEN COUNTY							
24S 18E 28CDD 01	375528095263701	KGS	U	110ALVM	23	6	948
BARBER COUNTY							
32S 12W 04DBC 01	371710098374501	EVANS, MADGE	I	110ALVM	66	16	1480
BARTON COUNTY							
18S 14W 27CDD 01	382704098512701	BALDWIN, ORVILLE TRUST	I	--	125	--	1896
18S 15W 28CCC 03	382704098593803	USGS	--	110ALVM	68	1	1912.5
19S 11W 198DD 01	382307098345601	ISERN, ELMER	I	--	--	--	1791
19S 11W 26BDA 01	382225098304401	ISERN, ELMER	I	--	52	--	1772
19S 12W 06ADA 01	382551098410001	BRYANT, MELVIN	I	--	--	--	1800
19S 13W 08BAD 01	382506098470501	LEROY, GLENN E	U	--	128	4	1855
19S 13W 330DB 01	382104098453301	THIES, HODY	I	110ALVM	118	16	1848
19S 14W 06BBB 01	382601098550101	--	I	--	56	--	1895
19S 14W 238BD 01	382321098503701	CLARK, MRS J	I	--	73	--	1873
19S 14W 29DDB 01	382156098531001	HALL, LILA M	I	--	86	--	1895
19S 14W 36BBC 01	382137098493201	ESSMILLER, DAVID	I	--	--	--	1868
20S 11W 06CCC 01	382004098352101	ERNSTING, W H	I	110ALVM	51	16	1788
20S 11W 26AAC 01	381714098300701	DEWERFF, DALLAS	I	112PLSC	70	16	1752
20S 12W 03DAC 01	382018098375001	KEYES, G W	I	112ALVM	80	14	1799
20S 12W 06AAC 01	382044098410801	SCHARTZ BROS	I	112PLSC	69	16	1822
20S 12W 23CCA 01	381734098372501	KRUEGER, AUGUST	I	112PLSC	80	16	1814
20S 13W 17DDC 01	381821098463901	TITUS, H R	I	112PLSC	120	16	1876
20S 13W 24DCB 01	381734098423001	SCHERMULY, J A	I	112PLSC	89	16	1850
20S 14W 22DCB 01	381734098511501	ASHER, VERNON	I	112ALVM	73	16	1897
20S 15W 24DBD 01	381739098552101	ERMIS, CLARENCE J	I	--	82	--	1915
20S 15W 33ADD 01	381614098583801	CARR, LARRY	I	--	25	--	1945
BOURBON COUNTY							
25S 24E 36AAC 01	374953094425901	CITY OF FT SCOTT	U	367RBDX	700	16	916
CHEROKEE COUNTY							
34S 25E 13BAC 01	370514094373901	GALENA SMELTER	U	367RBDX	1150	6	890
CHEYENNE COUNTY							
01S 38W 02CDC 01	395921101331801	O'BRIEN, PAUL	I	110ALVM	41	18	3034
01S 38W 08DCC 01	395829101362501	PETERS, R L	I	110ALVM	33	18	3057.1
01S 38W 30BDC 01	395619101375201	RAMSEY, J W	I	1210GLL	28	16	3090
01S 39W 25CBC 01	395606101391601	USGS	U	110ALVM	28	1	3102
02S 37W 33DCC 01	394947101283501	SMITH, DEAN E	I	--	320	--	3420
02S 39W 27BBB 01	395125101413401	BEST, G W	U	110ALVM	28	8	3235.1
02S 40W 28DBA 01	395100101484301	ZWEYGARDT, B L	I	1210GLL	142	16	3452
02S 40W 32BCB 01	395021101503301	GIENGER, C C	I	1210GLL	172	16	3492
02S 41W 278BD 01	395120101545301	ZIMBELMAN, RAYMOND	I	1210GLL	245	16	3620
02S 41W 33DBC 01	395001101553501	ORTH, LYDIA	I	1210GLL	288	16	3650
03S 37W 198BC 01	394658101312601	KEHLBECK, A L	I	1210GLL	325	18	3468
03S 37W 21DDD 01	394619101281101	KITE, H W	I	1210GLL	--	--	3422.00
03S 37W 36ADB 01	394507101245701	ARCHER FARMS INC	I	1210GLL	300	18	3381
03S 38W 048CC 01	394921101355801	BEESON, LEE	I	1210GLL	300	16	3479
03S 38W 218CB 01	394651101360001	HARPER, ETTA	I	1210GLL	317	16	3512

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
ALLEN COUNTY							
1964-	2.30	03/20/73	16.10	07/29/64	7.50 4.00 6.85 10.37	12/02/86 03/02/87 06/02/87 09/08/87	24S 18E 28CDD 01
BARBER COUNTY							
1940-	12.50	06/22/49	19.40	09/16/64	13.74	12/11/86	32S 12W 04DBC 01
BARTON COUNTY							
1972-	39.45	08/07/72	45.16	01/13/87	45.16	01/13/87	18S 14W 27CDD 01
1960-	4.86	11/20/61	26.54	09/07/83	23.87 23.50 22.64 15.26 19.08	12/17/86 01/13/87 03/12/87 07/07/87 09/10/87	18S 15W 28CCC 03
1985-	19.63	01/17/85	20.42	01/14/86	20.40	01/13/87	19S 11W 198DD 01
1985-	12.75	01/14/86	13.88	01/16/85	13.42	01/13/87	19S 11W 26BDA 01
1985-	4.05	01/14/86	6.65	01/16/85	4.66	01/13/87	19S 12W 06ADA 01
1977-	17.80	01/26/82	20.75	01/27/81	19.90	01/13/87	19S 13W 08BAD 01
1963-	3.3	04/10/63	10.56	01/24/84	9.47	01/13/87	19S 13W 33DDB 01
1979-	15.73	03/20/79	21.36	01/16/85	20.54	01/13/87	19S 14W 06BBB 01
1986-	19.45	01/13/87	20.47	10/07/86	20.47 19.45	10/07/86 01/13/87	19S 14W 238BD 01
1979-	25.20	03/20/79	29.24	01/13/87	29.24	01/13/87	19S 14W 29DOB 01
1985-	11.18	01/14/86	11.77	01/13/87	11.77	01/13/87	19S 14W 36B8C 01
1967-	2.95	04/11/73	11.89	01/24/84	10.39	01/13/87	20S 11W 06CCC 01
1973-	1.60	12/17/73	10.95	01/16/85	10.00	01/13/87	20S 11W 26AAC 01
1972-	1.28	12/17/73	7.99	01/24/84	7.55	01/13/87	20S 12W 03DAC 01
1973-	2.5	04/10/73	9.98	01/24/84	9.83	01/13/87	20S 12W 06AAC 01
1973-	3.68	01/14/74	17.75	01/16/85	14.35	01/13/87	20S 12W 23CCA 01
1973-	7.22	12/17/73	17.70	01/16/85	16.80	01/13/87	20S 13W 17DDC 01
1968-	9.60	12/17/73	23.25	01/16/85	20.70	01/13/87	20S 13W 24DCB 01
1967-	6.22	04/11/73	15.04	01/16/85	14.30	01/13/87	20S 14W 22DCB 01
1977-	11.53	01/26/82	14.82	01/16/85	14.54	01/13/87	20S 15W 240BD 01
1984-	19.85	01/13/87	20.34	01/16/85	19.85	01/13/87	20S 15W 33ADD 01
BOURBON COUNTY							
1977-	174.10	12/08/81	226.10	09/10/86	224.60 223.00 222.10 225.40	12/03/86 03/03/87 06/03/87 09/09/87	25S 24E 36AAC 01
CHEROKEE COUNTY							
1975-	64.00	06/20/87	115.79	03/10/78	65.60 65.50 64.00 68.70	12/02/86 03/02/87 06/20/87 09/08/87	34S 25E 13BAC 01
CHEYENNE COUNTY							
1948-	18.09	08/01/67	26.42	09/17/68	24.15	01/06/87	01S 38W 02CDC 01
1946-	5.15	01/22/70	15.94	01/02/79	13.55	01/06/87	01S 38W 08DCC 01
1964-	6.24	05/16/66	15.73	01/05/77	9.60	01/06/87	01S 38W 30BDC 01
1966-	7.99	01/24/67	10.4	01/02/79	10.15	01/06/87	01S 39W 25CBC 01
1984-	212.69	01/07/86	219.00	08/20/84	213.30	01/06/87	02S 37W 33DCC 01
1946-	14.99	06/25/53	22.09	02/15/66	18.17	01/06/87	02S 39W 278BB 01
1965-	110.90	01/26/83	116.52	01/07/86	115.80	01/05/87	02S 40W 28DBA 01
1984-	130.35	01/05/87	131.66	08/20/84	130.35	01/05/87	02S 40W 32CBC 01
1964-	198.60	01/18/66	218.63	01/04/79	207.35	01/05/87	02S 41W 278BD 01
1965-	235.24	01/18/66	247.13	01/15/76	236.27	01/05/87	02S 41W 330BC 01
1950-	210.64	06/08/76	242.19	06/06/72	230.15 230.98 229.00 238.42	01/06/87 03/03/87 06/10/87 09/02/87	03S 37W 198BC 01
1979-	217.50	01/10/80	225.93	01/04/79	218.55	01/06/87	03S 37W 210DD 01
1965-	182.09	01/17/66	205.67	01/02/79	201.70	01/06/87	03S 37W 36ADB 01
1966-	213.00	04/01/66	230.65	01/09/85	217.85	01/06/87	03S 38W 048CC 01
1966-	226.00	04/01/66	240.05	01/06/87	240.05	01/06/87	03S 38W 218CB 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
CHEYENNE COUNTY -- CONTINUED							
03S 38W 25BBB 01	394612101323501	CHILDERS, BERT	I	--	316	--	3479
03S 39W 04CCC 01	394856101424201	COOK, J F	S	1210GLL	75	5	3351
03S 39W 20DAC 01	394632101430001	SCHAUER, ADOLPH	I	1210GLL	199	18	3450
03S 39W 24DDD 01	394619101382601	WATERS, BRADLEY	I	1210GLL	--	--	3505
03S 39W 32BDB 01	394507101433401	YONKEY, CLARENCE	I	1210GLL	224	16	3490
03S 40W 09BAA 02	394850101490002	SCHAUER, M R	U	110ALVM	22	5	3358
03S 40W 35AAC 01	394514101463001	WILBER, W R	I	1210GLL	150	16	3445
03S 41W 33ABB 01	394521101553601	ZWEYGARDT, W H	I	--	--	--	3594
03S 42W 04AAA 01	394942102014901	VANDYKE, R E	U	1210GLL	255	--	3727.0
03S 42W 26CCD 01	394527102002701	ZWEYGARDT, W D	I	--	250	--	3702
04S 37W 17AAC 01	394237101292901	UNDERWOOD, E W	I	1210GLL	342	16	3446
04S 37W 25DCA 01	394020101250801	TONGUISH, H F	I	1210GLL	297	16	3374
04S 38W 04BAC 01	394421101354501	WRIGHT, F E	I	1210GLL	330	16	3509
04S 38W 20CCC 01	394106101371301	USGS	U	1210GLL	303	2	3485
04S 38W 21ADC 01	394132101351201	PARTCH, R L	I	1210GLL	319	16	3491
04S 40W 22BCB 01	394139101482101	BROWN, FLORENCE	S	1210GLL	144	5	3520
04S 41W 16DAA 01	394218101551201	DOUTHIT, T J	I	110ALVM	38	16	3403
04S 41W 23AAA 01	394152101525901	HOLZWARTH, MARGARET	I	--	172	--	3526
04S 41W 25BCB 01	394047101525101	WARNER, D E	H,S	1210GLL	167	5	3571
04S 41W 31ACA 01	393955101574301	GRAVES, LOLA M	H,S	1210GLL	117	5	3552
04S 42W 02BCC 01	394409102003501	STIMBERT, ROYCE	I	--	230	--	3704
04S 42W 16CCD 01	394159102022201	NOLAN, HAROLD	U	--	168	--	3590
05S 37W 15DBB 01	393704101273301	EGGERS, WALTER	I	1210GLL	285	18	3397
05S 38W 13BAD 01	393724101321401	BUSSE, MARTIN	I	1210GLL	220	16	3390
05S 38W 22ACB 01	393625101342401	GILLILAND, SUSAN	I	1210GLL	270	18	3437
05S 39W 06DAA 01	393849101440101	WIECK, DON & BETTY	I	--	--	--	--
05S 39W 11CBC 01	393751101403601	GUTSCH, LARRY	I	1210GLL	291	16	3530
05S 39W 18CCC 01	393646101450001	FIRKINS, M	I	1210GLL	--	--	3630
05S 39W 25CDA 01	393508101390801	WIECK, W R	I	1210GLL	297	16	3533
05S 40W 14BCD 01	393712101470601	NICHOL, RALEIGH	I	1210GLL	325	--	3645.0
05S 41W 20DAA 01	393613101562101	MCGOWAN, R E	I	1210GLL	311	16	3742
05S 42W 14CBC 01	393658102003601	SCHLEPP, MELVIN	I	1210GLL	221	16	3687
CLARK COUNTY							
30S 23W 06AAA 01	372758099520401	HOUFF, ARNOLD	H,S	1210GLL	160	6	2556.7
33S 22W 30CBC 01	370822099452801	KLINGER, KATHERINE	I	112PLSC	168	18	--
CLAY COUNTY							
06S 01E 02BCD 01	393341097173201	AARDAPPEL, ARLO	I	112TRRC	57	18	1259.6
06S 02E 29DAC 01	392959097133801	MILLIES EST	I	110ALVM	54	18	1242.4
08S 02E 02CCA 01	392256097105701	DITTMAR, GLENN V	I	110ALVM	48	18	1193
CLOUD COUNTY							
05S 02W 01BAC 01	393907097293701	PALMER, MRS MARY	I	210DKOT	230	20	1380
COMANCHE COUNTY							
31S 18W 19ACB 01	371958099190101	DEEWALL, E	S	1210GLL	96	6	--

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
CHEYENNE COUNTY--CONTINUED							
1985-	226.70	01/09/85	227.20	01/06/87	227.20	01/06/87	03S 38W 25888 01
1950-	64.30	01/24/67	DRY	01/11/71	66.35	01/06/87	03S 39W 04CCC 01
1964-	139.10	01/17/74	148.76	01/05/77	140.20	01/06/87	03S 39W 20DAC 01
1978-	218.63	01/10/80	224.43	12/14/78	221.95	01/06/87	03S 39W 24DDD 01
1960-	149.18	06/07/83	178.74	07/15/60	153.60	01/06/87	03S 39W 32BDB 01
					166.48	03/03/87	
					152.88	06/15/87	
					160.82	09/02/87	
1951-	19.60	01/05/77	21.50	08/08/68	19.85	01/05/87	03S 40W 098AA 02
1964-	95.95	07/02/64	101.72	02/05/74	96.60	01/05/87	03S 40W 35AAC 01
1981-	163.50	01/06/86	173.50	01/08/81	165.00	01/05/87	03S 41W 33ABB 01
1978-	230.75	01/25/83	231.58	12/14/78	230.90	01/05/87	03S 42W 04AAA 01
1985-	204.95	01/05/87	206.20	01/08/85	204.95	01/05/87	03S 42W 26CCD 01
1966-	187.90	04/04/66	202.10	01/14/76	197.45	01/06/87	04S 37W 17AAC 01
1964-	141.10	07/13/66	153.31	01/05/77	151.80	01/06/87	04S 37W 25DCA 01
1966-	207.0	02/01/66	218.90	01/06/87	218.90	01/06/87	04S 38W 04BAC 01
1967-	149.57	08/28/67	157.20	01/06/87	157.20	01/06/87	04S 38W 20CCC 01
1965-	178.92	01/30/67	195.54	01/05/77	185.90	01/06/87	04S 38W 21ADC 01
1950-	123.40	01/22/69	126.65	01/06/82	124.30	01/05/87	04S 40W 22BCB 01
1964-	14.24	01/30/67	18.40	01/08/76	15.55	01/05/87	04S 41W 16DAA 01
1985-	120.48	01/05/87	121.00	01/08/85	120.48	01/05/87	04S 41W 23AAA 01
1946-	139.64	01/26/65	142.77	01/05/87	142.77	01/05/87	04S 41W 25BCB 01
1946-	94.02	01/18/66	98.74	01/08/81	96.42	01/05/87	04S 41W 31ACA 01
1985-	213.10	01/06/86	214.55	01/05/87	214.55	01/05/87	04S 42W 02BCC 01
1984-	86.15	01/05/87	87.40	01/06/86	86.15	01/05/87	04S 42W 16CCD 01
1964-	135.50	07/07/64	153.34	01/05/77	145.70	01/06/87	05S 37W 15DBB 01
1964-	72.56	01/17/66	81.21	01/05/77	78.65	01/06/87	05S 38W 13BAD 01
1964-	89.71	01/23/67	110.46	09/16/69	97.75	01/06/87	05S 38W 22ACB 01
					103.17	03/03/87	
					104.19	06/15/87	
1980-	208.58	01/07/81	218.70	08/28/80	214.50	01/06/87	05S 39W 06DAA 01
1965-	138.30	01/23/67	158.29	01/08/76	150.50	01/06/87	05S 39W 11CBC 01
1978-	212.53	01/09/78	220.00	01/08/85	218.90	01/05/87	05S 39W 18CCC 01
1965-	125.05	01/23/67	136.80	01/05/77	132.55	01/06/87	05S 39W 25CDA 01
1975-	202.82	03/12/75	232.28	09/08/86	220.77	01/05/87	05S 40W 14BCD 01
					221.90	06/15/87	
					231.83	09/02/87	
1964-	209.40	05/16/66	227.98	01/25/83	227.75	01/05/87	05S 41W 20DAA 01
1964-	147.27	01/25/67	172.82	09/14/76	153.75	01/05/87	05S 42W 14CBC 01
					158.61	03/03/87	
					151.68	06/10/87	
CLARK COUNTY							
1939-	135.90	01/17/61	151.30	12/16/81	144.59	12/12/86	30S 23W 06AAA 01
1961-	12.09	01/09/74	42.75	06/15/81	14.13	12/12/86	33S 22W 30CBC 01
CLAY COUNTY							
1955-	1.75	06/07/84	12.0	09/24/59	3.60	12/05/86	06S 01E 02BCD 01
					4.90	03/11/87	
					2.60	06/05/87	
					6.30	09/03/87	
1955-	5.00	06/24/70	12.30	09/12/84	7.30	12/05/86	06S 02E 29DAC 01
					8.35	03/11/87	
					5.45	06/05/87	
					8.20	09/03/87	
1954-	8.70	06/07/84	14.00	09/03/87	12.60	12/05/86	08S 02E 02CCA 01
					13.90	03/11/87	
					12.00	06/05/87	
					14.00	09/03/87	
CLOUD COUNTY							
1970-	40.75	03/11/87	71.07	09/09/76	40.75	03/11/87	05S 02W 018AC 01
COMANCHE COUNTY							
1940-	62.12	12/12/86	94.07	06/08/45	62.12	12/12/86	31S 18W 19ACB 01

GROUND-WATER LEVELS IN KANSAS, 1987

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
CRAWFORD COUNTY							
29S 23E 24DBA 01	373020094501801	CITY OF GIRARD	U	367RBDX	1212	16	995
DECATUR COUNTY							
01S 26W 18DD 01	395740100161901	WIGGINS, C & W	S	110ALVM	59	5	2413
01S 29W 03DD 01	395925100331901	MOCKRY, L & M	U	110ALVM	45	18	2539
01S 29W 19DD 01	395708100370701	MC CARTNEY, B E	I	110ALVM	54	18	2572
01S 30W 34DD 01	395458100395501	ANDERSON, M	I	110ALVM	60	18	2610
02S 26W 119BA 01	395358100124001	SUMMITT, G	S	1210GLL	110	5	2509
02S 28W 13ABA 01	395307100243001	EUHUS, H & M	I	110ALVM	60	18	2487
02S 30W 26DCC 01	395037100391501	MAY, MARTHA	I	1210GLL	228	--	2835
03S 26W 30CBB 02	394544100172202	USGS	U	1210GLL	144	1	2610
03S 27W 32ABA 01	394517100221801	JOHNSON, OTTO	S	1210GLL	93	5	2637
03S 28W 06DCB 01	394859100301701	PADDOCK, J D	I	110ALVM	55	18	2571
03S 28W 32BCA 01	394504100293601	LOTKER, F & D	I	1210GLL	205	18	2749
03S 29W 12BBA 01	394846100314901	WHITE, WARREN	I	110ALVM	60	18	2556.1
03S 29W 17DCB 01	394715100355501	BRYAN, G C	I	110ALVM	51	36	2587
03S 29W 31DCC 01	394432100370401	RAULSTON, R & G	I	110ALVM	40	18	2633
03S 30W 03CBA 01	394913100404701	EUHUS, H F & G	U	1210GLL	129	42	2807
03S 30W 26BBB 01	394610100395001	WURM, J	I	110ALVM	51	24	2629
04S 26W 08DDD 01	394248100150801	HARRIS, R	I	110ALVM	70	18	2455.7
04S 26W 19DCA 01	394110100163301	DOHERTY, J & C	I	110ALVM	37	18	2464
04S 27W 17DAC 01	394208100221101	VACURA, J A & M	I	1210GLL	165	18	2648
04S 27W 33BBB 01	394005100215501	MUIRHEAD EST, DAVID	I	110ALVM	55	18	2528
04S 28W 30DDD 01	394011100295401	EHLERS, BRYAN	H,S	1210GLL	110	5	2726
04S 30W 07BBB 01	394335100441701	GINTER, R	S	110ALVM	21	5	2697
05S 26W 05ADD 01	393853100150901	BROCK, A M	U	1210GLL	138	6	2607
05S 26W 26DDA 01	393505100115901	SCOTT, R & L	I	110ALVM	74	18	2437
05S 26W 33DCC 01	393407100143101	RANDOLPH, L	I	110ALVM	60	30	2475
05S 27W 21CCA 01	393557100214701	MUIRHEAD, KING	S	1210GLL	140	5	2675
05S 28W 07BBC 01	393814100305401	MEITL, J	I	110ALVM	55	18	2644
05S 28W 10BBB 01	393820100273201	HERL, J P	I	110ALVM	50	18	2600
05S 28W 14ADD 01	393709100252601	BREWER, M	U	1210GLL	142	5	2723
05S 28W 17DAC 01	393656100285601	YMPA, F J	S	1210GLL	124	7	2734
05S 29W 11BAA 01	393820100324401	NEFF, D A & G	I	110ALVM	44	18	2670
05S 29W 22CBB 01	393610100341701	CORDER, R & E	I	110ALVM	46	18	2686
05S 30W 15CCB 01	393651100410001	DELLERE, GERALD	I	--	150	--	2878
05S 30W 35BCB 01	393440100395501	MUMM, G H	I	1210GLL	201	18	2891
DICKINSON COUNTY							
13S 01E 26DDC 01	385311097165501	KWO	U	110ALVM	52	2	1156
DOUGLAS COUNTY							
12S 20E 07CBC 01	390105095142901	KGS	U	110ALVM	29	2	826
15S 19E 15AAD 01	384501095164901	RWD 5	P	--	190	4	1120

GROUND-WATER LEVELS IN KANSAS, 1987

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PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
CRAWFORD COUNTY							
1977-	299.25	06/05/78	310.20	09/13/84	309.30 305.30 304.60	12/02/86 03/02/87 06/02/87	29S 23E 24DBA 01
DECATUR COUNTY							
1959-	21.53	12/27/78	32.37	09/09/74	28.05	12/10/86	01S 26W 18DDB 01
1965-	22.70	04/19/66	31.62	12/16/80	28.02	12/10/86	01S 29W 03DDB 01
1959-	10.07	07/13/60	26.76	09/08/80	17.39 19.52 16.28 10.92	12/10/86 03/03/87 06/10/87 09/02/87	01S 29W 19BDD 01
1962-	18.94	05/19/66	35.08	12/16/80	27.46	12/10/86	01S 30W 34DDD 01
1966-	85.23	12/16/80	87.87	01/15/68	85.72	12/10/86	02S 26W 11BBA 01
1962-	26.23	05/19/66	31.07	10/04/68	29.10	12/10/86	02S 28W 13ABA 01
1975-	134.02	12/10/86	152.59	09/13/76	134.02 142.30	12/10/86 03/03/87	02S 30W 26DCC 01
1965-	119.45	03/18/66	132.11	01/11/78	125.27	12/10/86	03S 26W 30CBB 02
1967-	69.92	12/10/86	76.62	01/11/78	69.92	12/10/86	03S 27W 32ABA 01
1967-	25.61	01/24/67	47.49	12/08/82	30.63	12/10/86	03S 28W 06DCB 01
1962-	130.64	12/10/84	142.66	12/15/80	130.79	12/10/86	03S 28W 32BCA 01
1959-	20.92	07/13/60	35.19	03/04/74	25.38 28.16 24.84 23.74	12/10/86 03/03/87 06/01/87 09/02/87	03S 29W 12BBA 01
1962-	19.90	08/07/62	25.46	12/27/78	20.44	12/10/86	03S 29W 17DCB 01
1962-	20.17	08/06/62	27.00	01/05/70	23.40	12/10/86	03S 29W 31DCC 01
1964-	93.58	12/10/84	101.06	12/17/80			03S 30W 03CBA 01
1962-	4.10	12/10/86	13.80	01/16/73	4.10	12/10/86	03S 30W 26BBB 01
1959-	25.70	01/21/72	37.48	09/13/76	29.73 29.29 28.55	12/10/86 03/03/87 06/10/87	04S 26W 08DDD 01
1962-	13.30	08/13/62	20.70	12/08/81	16.12	12/10/86	04S 26W 19DCA 01
1962-	103.55	02/04/86	108.75	01/02/75	103.79	12/10/86	04S 27W 17DAC 01
1962-	11.50	01/25/65	19.45	12/15/80	17.41	12/10/86	04S 27W 33BBB 01
1962-	90.56	12/10/86	93.00	07/30/62	90.56	12/10/86	04S 27W 30DDD 01
1964-	7.39	01/18/66	15.29	12/17/80	12.00	12/10/86	04S 30W 07BBB 01
1962-	124.75	01/13/71	134.06	01/12/78	127.16	12/10/86	05S 26W 05ADD 01
1962-	20.39	01/14/74	27.8	08/13/62	23.10	12/10/86	05S 26W 26DDA 01
1962-	17.56	01/12/78	21.63	01/21/72	18.52	12/10/86	05S 26W 33DCC 01
1964-	98.67	12/15/80	104.90	10/12/64	103.34	12/10/86	05S 27W 21CCA 01
1964-	14.20	02/07/74	26.90	09/02/64	17.94	12/10/86	05S 28W 07BBC 01
1964-	8.04	01/18/66	15.20	09/02/64	8.67	12/10/86	05S 28W 10BBB 01
1962-	133.50	01/17/73	137.52	12/08/82	135.79	12/10/86	05S 28W 14ADD 01
1962-	95.59	12/10/86	104.69	01/13/71	95.59	12/10/86	05S 28W 17DAC 01
1964-	11.74	12/28/79	15.55	10/09/64	12.63	12/10/86	05S 29W 11BAA 01
1966-	12.35	12/18/85	15.76	12/18/80	13.10	12/10/86	05S 29W 22CBB 01
1984-	95.13	12/10/84	99.00	12/10/86	99.00	12/10/86	05S 30W 15CCB 01
1966-	111.48	04/18/66	125.84	12/10/86	125.84	12/10/86	05S 30W 35BCB 01
DICKINSON COUNTY							
1985-	16.70	06/04/87	22.75	03/10/87	22.70 22.75 16.70 18.05	12/04/86 03/10/87 06/04/87 09/02/87	13S 01E 26DDC 01
DOUGLAS COUNTY							
1966-	5.45	06/03/87	17.40	12/09/76	7.94 8.42 5.45 11.48	12/03/86 03/02/87 06/03/87 09/09/87	12S 20E 07CBC 01
1972-	39.35	03/02/87	51.90	06/19/73	39.35	03/02/87	15S 19E 15AAD 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
EDWARDS COUNTY							
23S 19W 22CCC 01	380145099241301	LIPPOLDT, E F	U	210DKOT	68	54	2238
24S 16W 12CBC 01	375826099022201	HART, F L	I	112PLSC	87	16	2055
24S 16W 12CCC 01	375813099022201	HART, F L	I	112PLSC	78	--	2055
24S 17W 20ADC 01	375655099123501	CROSS, M H	I	112PLSC	84	19	2126
24S 17W 24DDD 01	375629099075901	KGS	U	112PLSC	61	1	2100
24S 18W 13DAC 01	375732099144301	CHALK, LEO	I	--	--	--	2130
24S 18W 17ABD 01	375801099191001	SLENTZ, DWIGHT	I	112PLSC	89	16	2147
24S 18W 28DAC 01	375550099175601	SLENTZ, A M	I	112PLSC	69	16	2158
24S 18W 36DDC 01	375445099143901	MC LEAN, GROVER J	I	112PLSC	79	16	2149
24S 19W 34ADD 01	375513099231701	USGS	U	110ALVM	30	1	2160
25S 16W 02BBB 01	375436099032701	KGS	U	112PLSC	62	1	2069
25S 16W 27AAC 01	375059099034201	CUDNEY, R E	I	112PLSC	84	16	2063
25S 16W 31DCC 01	374926099071601	MAYHEW, DONALD	U	1100GLL	82	5	--
25S 17W 01DAB 01	375411099080701	JOHNSON, CHARLES	I	112PLSC	72	30	2102
25S 17W 17AAC 01	375245099123501	MOORE, J T	I	112PLSC	110	16	2129
25S 17W 318BD 01	375008099141501	HUFF, ELMER	I	112PLSC	73	16	2148
25S 18W 09AAA 01	375346099174801	KGS	U	112PLSC	74	1	2161
25S 18W 33CDC 01	374931099182901	MCLEAN, G J	I	112PLSC	90	16	2182
25S 19W 088DD 01	375329099260101	BURR, MYRON	I	--	--	--	--
25S 19W 260DB 01	375032099222001	MILLER, JACK	I	112PLSC	92	16	2206
25S 19W 31CAB 01	374954099270701	WHEATHEART LAND CO	I	112PLSC	49	16	2220
25S 20W 038CD 01	375406099303401	HEINZ, JOE	I	--	--	--	2237
25S 20W 34CCC 01	374935099304801	SHOUSE, M	I	--	26	22	2219
26S 16W 10CCC 01	374731099035701	KGS	U	112PLSC	42	1	2065
26S 16W 31CCA 01	374408099070401	TUTTLE CATTLE CO INC	I	112PLSC	173	16	2110
26S 16W 34ABC 01	374440099032401	GILES, E D	I	112PLSC	100	16	2079
26S 17W 04AAC 01	374914099104701	ROENBAUGH, J B	I	112PLSC	153	16	2146
26S 17W 14BAA 01	374720099090001	FISHER, M B	I	112PLSC	90	16	2109
26S 17W 330DB 01	374404099104601	MULL, G A	I	112PLSC	120	16	2127
26S 18W 15DCB 01	374637099163101	SIMPSON, C J	I	112PLSC	158	16	2174
26S 18W 31CCC 01	374354099202001	KGS	U	112ALVM	82	1	2215
26S 19W 12ABB 02	374803099205402	KLINE, JAMES	H	--	100	5	2210
26S 19W 16BCB 01	374658099244301	BARNGROVER, D L	I	112PLSC	82	16	2231
26S 19W 31BAC 01	374425099264201		I	--	--	--	2257
26S 19W 348BD 01	374427099232901	POLSON, ART	I	112PLSC	80	14	2232
26S 20W 20BBC 01	374558099321601	WETZEL, HERBERT ETAL	I	--	--	--	2251
ELLIS COUNTY							
13S 18W 29CCC 01	385313099211601	FELDT, JOHN	H	110ALVM	34	4	2000
14S 18W 12AAD 01	385115099155401	CO HWY	U	--	54	1	--
15S 18W 25CCD 01	384246099165101	WERTH, DON P	I	110ALVM	56	--	--
15S 19W 25CAB 01	384305099232201	KRAUS, HAROLD G	I	110ALVM	65		1937

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
EDWARDS COUNTY							
1944-	54.62	03/18/81	68.20	03/13/46	58.35 58.38 58.27 58.10	12/19/86 03/19/87 06/15/87 09/16/87	23S 19W 22CCC 01
1970-	9.21	12/13/73	24.90	01/14/85	23.96	01/12/87	24S 16W 12CBC 01
1986-	24.11	03/13/86	25.76	09/16/86	25.63 25.40 24.85 25.22	12/19/86 03/17/87 06/15/87 09/16/87	24S 16W 12CCC 01
1973-	15.80	12/13/73	28.64	01/12/87	28.64	01/12/87	24S 17W 20ADC 01
1973-	13.31	12/13/73	32.28	09/06/84	29.61 29.50 30.47 28.68 28.03	12/19/86 01/12/87 03/19/87 06/15/87 09/16/87	24S 17W 24DDD 01
1986-	28.12	01/13/86	28.65	01/12/87	28.65	01/12/87	24S 18W 13DAC 01
1973-	18.80	12/13/73	30.05	01/14/85	29.70	01/12/87	24S 18W 17ABD 01
1973-	16.64	12/13/73	36.80	01/24/83	33.75	01/12/87	24S 18W 28DAC 01
1972-	23.68	03/21/74	42.98	09/17/81			24S 18W 36DDC 01
1961-	5.81	06/15/87	10.12	03/18/81	8.60 8.57 8.19 5.81 7.50	12/19/86 01/12/87 03/19/87 06/15/87 09/15/87	24S 19W 34ADD 01
1973-	6.89	12/14/73	25.30	01/14/86	24.90	01/13/87	25S 16W 02BBB 01
1973-	6.10	12/14/73	17.70	01/14/86	16.80	01/13/87	25S 16W 27AAC 01
1981-	16.74	03/17/87	26.97	09/09/85	23.38 19.25 16.74 21.33 19.49	12/12/86 01/13/87 03/17/87 06/15/87 09/14/87	25S 16W 31DCC 01
1945-	8.84	12/14/73	27.10	01/14/86	26.57	01/13/87	25S 17W 01DAB 01
1973-	14.45	12/14/73	30.10	01/14/86	29.53	01/13/87	25S 17W 17AAC 01
1964-	11.11	12/14/73	24.15	01/14/86	24.00	01/13/87	25S 17W 31BBD 01
1973-	15.61	12/14/73	30.16	09/12/85	29.42 29.30 28.86 28.02 26.07	12/22/86 01/12/87 03/19/87 06/15/87 09/14/87	25S 18W 09AAA 01
1972-	21.25	03/21/74	31.25	09/17/81	30.60	01/13/87	25S 18W 33CDC 01
1984-	5.65	01/12/87	7.38	08/ /84	5.65	01/12/87	25S 19W 083DD 01
1973-	30.10	12/14/73	38.80	01/13/86	37.90	01/13/87	25S 19W 26DDB 01
1973-	14.18	06/07/73	19.95	01/15/85	18.30	01/13/87	25S 19W 31CAB 01
1984-	28.01	01/13/86	29.45	01/15/85	28.85	01/12/87	25S 20W 03BCD 01
1945-	6.40	08/01/45	8.20	01/12/87	8.20	01/12/87	25S 20W 34CCC 01
1973-	3.82	12/14/73	11.18	01/15/85	9.82	01/13/87	26S 16W 10CCC 01
1973-	19.56	12/14/73	32.65	01/14/85	32.05	01/13/87	26S 16W 31CCA 01
1966-	6.81	12/14/73	23.40	01/15/85	22.75	01/13/87	26S 16W 34ABC 01
1978-	23.4	02/05/79	43.40	01/14/86			26S 17W 04AAC 01
1973-	17.93	06/13/73	25.64	01/14/86	24.58	01/13/87	26S 17W 14BAA 01
1973-	12.36	12/14/73	23.85	01/15/85	23.50	01/13/87	26S 17W 33DDB 01
1969-	22.04	12/14/73	30.45	01/14/86	30.35	01/13/87	26S 18W 15DCB 01
1973-	33.58	12/14/73	45.80	01/13/87	45.80	01/13/87	26S 18W 31CCC 01
1979-	36.34	09/14/87	52.10	01/15/85	49.90 48.54 50.58 36.34	01/13/87 03/19/87 06/15/87 09/14/87	26S 19W 12ABB 02
1966-	29.37	12/13/73	38.27	01/13/87	38.27	01/13/87	26S 19W 16BCB 01
1984-	40.15	01/14/86	43.80	01/13/87	43.80	01/13/87	26S 19W 31BAC 01
1973-	30.78	12/13/73	38.15	01/13/87	38.15	01/13/87	26S 19W 348BD 01
1985-	11.35	01/12/87	23.50	01/15/85	11.35	01/12/87	26S 20W 20BBC 01
ELLIS COUNTY							
1982-	19.02	06/02/87	24.35	09/06/83	22.12 21.65 19.02 19.23	12/04/86 03/03/87 06/02/87 09/01/87	13S 18W 29CCC 01
1976-	24.89	09/01/87	27.37	12/01/83	26.32 26.39 25.21 24.89	12/04/86 03/03/87 06/02/87 09/01/87	14S 18W 12AAD 01
1982-	15.22	12/03/85	17.41	09/16/83	15.81 15.74 15.31	12/04/86 03/03/87 09/01/87	15S 18W 25CCD 01
1982-	14.94	06/02/87	28.35	09/13/84	17.33 16.44 14.94	12/04/86 03/03/87 06/02/87	15S 19W 25CAB 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
ELLSWORTH COUNTY							
17S 09W 20BCD 01	383335098204601	KRUSE, ALBERT	H,S	--	63	6	--
17S 09W 21BCC 01	383334098194701	NGP	U	210DKOT	200	2	1775
17S 09W 28CBB 02	383236098194702	NGP	U	112PLSC	77	2	--
17S 09W 31AAB 01	383210098211001	NGP	U	210DKOT	162	2	1762
17S 09W 31ADC 01	383150098211001	HYDROCARB TRAN INC	U	112PLSC	245	6	--
FINNEY COUNTY							
21S 29W 36CCB 01	381043100274201	MEAKEL, T A	U	110ALVM	--	8	2611
21S 30W 05888 01	381548100384201	ELLIS, R F	H,S	112PLSC	44	6	2863
21S 31W 08ABB 01	381458100444501	BREYFOGLE, M	U	112PLSC	73	--	2903
21S 31W 26CCC 01	381134100420001	JOYCE, MILO JR	I	112PLSC	120	16	2900
21S 32W 08ABD 01	381453100511001	UNKNOWN	I	112PLSC	155	16	2910
21S 32W 20CBD 01	381242100514201	ARCHER, GLENN C	I	112PLSC	203	16	2898
21S 32W 26DAA 01	381155100473701	LANDGRAF, A E	I	112PLSC	--	16	2946
21S 33W 07DDAA01	381419100583201	BUERKLE, A L	I	112PLSC	95	16	2918
21S 33W 29BBC 01	381215100582401	BETTS, CORWIN	I	--	--	--	2891
21S 34W 14DBB 01	381340101010701	MCHUGH, PAT	I	211NBRR	141	16	2947
21S 34W 16AADA02	381400101025302	NICHOLS, V	I	112PLSC	130	16	2981
22S 27W 14ADC 01	380823100144801	OMEY, LOUIS	I	210DKOT	395	16	2458
22S 31W 08CCC 01	390856100451901	OPSTAD, ELEANOR	I	--	200	10	2911
22S 31W 16ADD 01	380831100431301	WINTERS, ELEANOR	I	112PLSC	182	16	2904
22S 31W 29DCC 01	380618100444701	LEWIS, WILLIAM L	I	--	80	16	2904
22S 32W 08ACB 01	380932100511801	GREATHOUSE, RALPH	I	112PLSC	148	16	2884
22S 32W 21CDC 01	380715100503701	HETT, NAOMI ETAL	I	112PLSC	200	16	2903.0
22S 33W 22BAA 01	380801100554801	TRENT, O	I	112PLSC	184	16	2900.0
22S 33W 36AAA 02	380616100530402	HAHN, GEORGE H	I	112PLSC	190	16	2860
22S 34W 08BCB 01	380932101045601	GREEN, W A	I	211NBRR	170	16	2987
22S 34W 10AAA 01	380945101014801	SALMONS, MARION K	I	112PLSC	150	16	2933
22S 34W 18CDD 01	380807101054001	JOHNSON, TOM	I	--	--	--	2984
22S 34W 26CCC 01	380622101014001	MILLER, LAWRENCE	U	--	206	16	2939
23S 27W 12CCC 01	380333100143301	RIXON, C	U	112PLSC	72	6	2618
23S 27W 22DAB 01	380208100155501	EVANS, GEORGE J	I	112PLSC	--	16	2654
23S 28W 22DCD 01	380149100223801	WOODEN, E C ETAL	I	112PLSC	--	--	2729
23S 28W 34DDC 01	380003100223001	KOPPER, R E	I	112PLSC	162	16	2738
23S 29W 30888 01	380146100331301	HAFLICH, RALPH T	I	112PLSC	125	--	2794
23S 29W 34CDD 01	380006100293001	WEHKAMP, W H	I	121OGLL	141	16	2772
23S 30W 04CAC 01	380446100371901	HAFLICH, INC	I	112PLSC	--	--	2846
23S 30W 19CCB 01	380202100394701	GOLIGHTLY, AGNES	I	112PLSC	205	16	2862.0
23S 31W 03DCD 01	380435100422401	SHERMAN ESTATE	I	112PLSC	180	16	2877
23S 31W 17ABA 01	380333100442901	ISAAC FARMS INC	I	--	--	--	2900
23S 31W 35CCC 01	380013100415901	SNELL, W M	I	112PLSC	205	16	2875
23S 32W 11ADC 01	380411100474401	CHAMBERLAIN, N D	I	112PLSC	180	16	2937
23S 32W 31CBD 01	380033100523501	ARCHER, L N	I	112PLSC	290	16	2876
23S 33W 17888 01	380339100582401	GARDEN CITY CO	I	112PLSC	340	16	2904
23S 33W 26ABB 01	380155100543401	SHEAKS, CLYDE	I	112PLSC	327	16	2890
23S 33W 28CDC 01	380109100570201	BURGHARDT, ANDREW	I	121OGLL	300	16	2904

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
ELLSWORTH COUNTY							
1961-	18.10	03/17/75	33.2	03/15/61	23.10 23.05 20.28 18.94 09/09/87	12/10/86 03/11/87 06/09/87 09/09/87	17S 09W 20BCD 01
1966-	71.63	03/09/83	141.82	09/09/83	83.10 76.15 76.89 90.61 09/09/87	12/10/86 03/11/87 06/09/87 09/09/87	17S 09W 21BCC 01
1966-	34.97	09/18/75	48.67	02/27/69	36.73 36.83 36.32 35.46 09/09/87	12/10/86 03/11/87 06/09/87 09/09/87	17S 09W 28CBB 02
1966-	55.89	12/12/85	128.57	08/20/69	76.89 69.38 69.43 75.93 09/09/87	12/10/86 03/11/87 06/09/87 09/09/87	17S 09W 31AAB 01
1966-	56.72	03/09/83	121.75	08/20/69	68.86 65.52 63.50 71.11 09/09/87	12/10/86 03/11/87 06/09/87 09/09/87	17S 09W 31ADC 01
FINNEY COUNTY							
1939-	11.72	02/27/52	23.10	01/11/83			21S 29W 36CCB 01
1940-	25.20	04/29/60	40.30	01/08/80	38.30	12/30/86	21S 30W 05BBB 01
1940-	45.63	01/19/76	60.2	02/ /62	47.78	12/30/86	21S 31W 08ABB 01
1985-	73.82	01/17/85	74.23	12/30/86	74.23	12/30/86	21S 31W 26CCC 01
1958-	34.8	02/03/61	103.77	12/30/86	103.77	12/30/86	21S 32W 08ABD 01
1964-	44.22	03/15/65	107.23	10/07/82	102.01 103.51 04/28/87	10/03/86 04/28/87	21S 32W 20CBD 01
1961-	96.6	02/08/61	108.73	01/09/79	107.26	12/30/86	21S 32W 26DAA 01
1961-	42.5	02/03/61	79.98	01/02/87	79.98	01/02/87	21S 33W 07DDAA01
1985-	79.07	01/15/85	81.41	01/02/87	81.41	01/02/87	21S 33W 29BBC 01
1961-	63.58	09/29/64	112.80	01/18/83	104.17 105.16 04/08/87	01/02/87 04/08/87	21S 34W 14DBB 01
1962-	92.6	01/ /62	107.02	02/24/76	93.03	01/02/87	21S 34W 16AADA02
1970-	137.08	03/11/71	201.25	09/16/71	190.21 177.29 176.11 04/07/87	10/09/86 01/05/87 04/07/87	22S 27W 14ADC 01
1985-	98.16	01/09/86	99.70	01/16/85	98.97	12/30/86	22S 31W 08CCC 01
1961-	83.50	02/08/61	107.58	01/15/81	106.96	12/30/86	22S 31W 16ADD 01
1985-	105.45	01/09/86	108.18	01/17/85			22S 31W 29DCC 01
1960-	32.72	02/08/61	90.36	01/21/87	90.36	01/21/87	22S 32W 08ACB 01
1958-	61.3	04/18/58	128.00	12/30/86	128.00	12/30/86	22S 32W 21CDC 01
1960-	37.03	02/01/62	114.25	12/31/86	114.25	12/31/86	22S 33W 22BAA 01
1958-	18.46	03/18/64	89.36	07/17/81	65.01 63.14 12/31/86 59.57 04/28/87 74.41 07/24/87	10/03/86 12/31/86 04/28/87 07/24/87	22S 33W 36AAA 02
1961-	99.44	02/03/61	147.40	12/30/76	134.07	01/02/87	22S 34W 08BCB 01
1961-	50.77	02/03/61	112.03	02/22/85	107.86	01/02/87	22S 34W 10AAA 01
1985-	147.94	01/09/86	149.47	01/02/87	149.47	01/02/87	22S 34W 13CDD 01
1985-	164.18	04/04/85	167.86	07/24/87	166.00 167.66 167.29 04/08/87 167.86 07/24/87	10/03/86 12/31/86 04/08/87 07/24/87	22S 34W 26CCC 01
1939-	60.01	07/02/86	68.49	10/02/41	61.41 60.77 61.00 04/07/87 61.01 07/31/87	10/09/86 01/14/87 04/07/87 07/31/87	23S 27W 12CCC 01
1976-	80.54	01/15/86	89.01	01/14/81	81.35	01/05/87	23S 27W 22DAB 01
1976-	74.13	01/14/82	83.60	01/04/77	75.13	01/05/87	23S 28W 22DCD 01
1976-	76.60	01/08/76	92.50	01/15/86	92.06	01/05/87	23S 28W 34DDC 01
1976-	76.00	01/08/76	78.82	01/05/87	78.82	01/05/87	23S 29W 30BBB 01
1966-	81.63	01/31/72	94.75	01/18/78	90.45	01/05/87	23S 29W 34CDD 01
1976-	65.31	01/23/78	75.14	01/01/77	68.18	01/14/87	23S 30W 04CAC 01
1961-	81.12	01/21/71	87.90	12/30/86	87.90	12/30/86	23S 30W 19CCB 01
1961-	80.40	02/08/61	107.82	12/30/86	107.82	12/30/86	23S 31W 03DCD 01
1985-	106.25	01/16/85	108.45	12/30/86	108.45	12/30/86	23S 31W 17ABA 01
1961-	94.91	02/08/61	116.54	01/02/87	116.54	01/02/87	23S 31W 35CCC 01
1960-	114.34	02/ /61	149.80	01/14/87	149.80	01/14/87	23S 32W 11ADC 01
1958-	39.3	04/23/58	106.90	01/17/83	90.20	01/02/87	23S 32W 31CBD 01
1958-	40.0	04/28/58	168.03	10/15/80	150.42	12/30/86	23S 33W 17BBB 01
1958-	40.8	04/25/58	132.07	01/08/79	109.37	12/30/86	23S 33W 26ABB 01
1958-	50.2	04/ /58	180.61	07/15/81	122.14 111.57 104.92 114.71 07/09/87	10/10/86 01/02/87 04/08/87 07/09/87	23S 33W 28CDC 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
FINNEY COUNTY -- CONTINUED							
23S 34W 17CCC 01	380253101045501	LEAVITT, J C	I	112PLSC	310	16	2974
24S 31W 27CCB 01	375558100430401	CITY OF GARDEN CITY	P	112PLSC	295	16	2883
24S 32W 03DAC 01	375936100484901	G. C. EXP. STATION	U	112PLSC	185	26	2881
24S 33W 188DB 02	375812100591302	SUNFLOWER ELECTRIC	U	210DKOT	720	1.25	2878
24S 33W 19DBB 02	375706100585702	SUNFLOWER ELECTRIC	U	210DKOT	740	1.25	2927.8
24S 33W 22BCC 01	375713100561301	GIGOT, DEAN	U	--	300	2	2888
24S 33W 22DCA 01	375654100553201	GIGOT WELL NO. 21	I	112PLSC	373	16	2905
24S 33W 28DAA 01	375614100562101	GIGOT WELL NO. 41	I	112PLSC	350	16	2886
24S 33W 34CAC 01	375516100555601	GIGOT WELL	I	112PLSC	--	16	2910
24S 34W 01BCBB01	375957101003501	BROWN, GRACE	I	112PLSC	295	16	2894
25S 31W 35DBA 01	375003100411701	BEACH, RALPH	S	112PLSC	59	4	2801
25S 32W 22DBC 01	375145100485701	GIGOT, C J	I	112PLSC	--	16	2865
25S 32W 31DDC 01	374948100515801		I	--	--	--	2871
25S 32W 35ADB 01	375020100474201	SMITH, PETE JR	I	112PLSC	180	16	2857
25S 33W 038CC 01	375436100561301	GIGOT, DEAN	U	--	300	2	2902.00
25S 33W 05ABD 01	375449100574301	GIGOT WELL NO. 56	I	112PLSC	420	16	2920
25S 33W 09ABD 01	375357100563701	GIGOT WELL NO. 31	I	112PLSC	400	16	2909
25S 33W 15DAC 01	375239100552401	GIGOT WELL NO. 1	I	112PLSC	470	16	2915
25S 33W 16DCC 01	375226100564601	GIGOT, DEAN	U	--	300	2	2920.00
25S 33W 17DBD 01	375239100574301	GIGOT WELL NO. 51	I	112PLSC	473	16	2940
25S 33W 33CDA 01	374955100565401	NUSSER, MARTIN	I	--	--	--	2915
25S 33W 35DBD 01	375002100542601	DRUSSEL, OLIVER W	U	112PLSC	340	16	2894
25S 34W 06AAA 01	375456101050301	GIGOT, DEAN	U	112PLSC	300	2	2972
25S 34W 10ABB 01	375404101021201	GIGOT, DEAN	U	112PLSC	300	2	2962
25S 34W 34DBD 01	375002101020401	GIGOT, TERRY	I	112PLSC	--	16	2945
26S 31W 01DDA 01	374840100391301	HUTTON, E M	I	112PLSC	169	16	2811
26S 31W 06888B01	374931100453501	VANDERREE, DONALD W	I	112PLSC	180	16	2832
26S 31W 31CDC 01	374417100451901	KLEYSTEBER, HENRY W	I	112PLSC	--	16	2841
26S 31W 36CAB 01	374426100395001	RUNDELL, B & W	I	112PLSC	160	16	2817
26S 32W 22ABB 01	374645100481901	OHMES, A	I	112PLSC	--	16	2899
26S 33W 17DBD 01	374701100565001	SINN, GEORGE H	I	--	305	--	2900
26S 33W 26ABB 01	374553100534701	VOTH, C J	I	112PLSC	340	16	2929
26S 34W 05ADC 01	374905101032801	JONES, ROBERT L	I	--	--	--	2960
26S 34W 218BD 01	374638101025601	O'NEAL, JOHN OR RACHEL	I	--	--	--	2955
26S 34W 30BD 01	374533101045801	KUHN, W	S	112PLSC	195	6	3005

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
FINNEY COUNTY -- CONTINUED							
1958-	51.7	05/07/58	160.90	01/18/83	141.62	12/31/86	23S 34W 17CCC 01
1942-	110.26	11/09/53	138.43	10/09/86	138.43	10/09/86	24S 31W 27CCB 01
					131.30	12/29/86	
					135.24	04/08/87	
1934-	63.85	10/29/51	113.02	10/09/86	113.02	10/09/86	24S 32W 03DAC 01
					110.86	12/29/86	
					110.27	04/08/87	
					111.86	07/31/87	
1979-	29.22	07/03/79	97.81	07/03/86	86.90	10/16/86	24S 33W 18BDB 02
					71.30	01/22/87	
					49.35	04/16/87	
					72.91	07/22/87	
1977-	88.80	04/16/77	177.53	08/01/84	141.81	10/16/86	24S 33W 19DBB 02
					113.95	01/22/87	
					108.81	04/16/87	
					118.28	07/22/87	
1975-	59.44	07/17/75	83.74	10/21/82	73.71	10/10/86	24S 33W 22BCC 01
					73.17	01/27/87	
					72.08	04/08/87	
					71.27	07/30/87	
1973-	75.88	02/22/73	122.41	07/30/87	121.58	10/10/86	24S 33W 22DCA 01
					111.45	01/08/87	
					114.01	04/08/87	
					122.41	07/30/87	
1973-	60.37	03/07/74	117.44	10/10/86	117.44	10/10/86	24S 33W 28DAA 01
					100.02	01/08/87	
					100.39	04/08/87	
					116.91	07/30/87	
1974-	87.10	01/15/74	127.87	01/03/85	127.33	01/08/87	24S 33W 34CAC 01
1961-	14.4	01/06/61	88.82	01/17/83	66.38	01/02/87	24S 34W 01BCBB01
1958-	48.25	02/07/62	77.00	01/16/86			25S 31W 35DBA 01
1968-	62.85	01/25/68	101.28	12/29/86	101.28	12/29/86	25S 32W 22DBC 01
1983-	98.46	01/13/83	109.36	04/08/87	108.72	10/10/86	25S 32W 31DDC 01
					109.36	04/08/87	
1960-	63.79	02/02/61	102.49	12/29/86	102.49	12/29/86	25S 32W 35ADB 01
1975-	51.31	10/28/85	56.98	07/17/75	52.68	10/10/86	25S 33W 03BCC 01
					52.92	01/08/87	
					53.34	04/08/87	
					54.09	07/30/87	
1973-	70.16	03/07/74	124.29	04/08/87	120.86	10/10/86	25S 33W 05ABD 01
					123.24	01/08/87	
					124.29	04/08/87	
					123.71	07/30/87	
1973-	76.63	03/07/74	127.59	10/03/80	120.57	10/10/86	25S 33W 09ABD 01
					120.46	01/08/87	
					121.51	04/08/87	
					118.53	07/30/87	
1972-	93.04	02/27/72	142.34	09/11/74	140.76	10/10/86	25S 33W 15DAC 01
					140.07	01/08/87	
					139.58	04/08/87	
1975-	79.04	07/17/75	91.52	07/30/87	89.98	10/10/86	25S 33W 16DCC 01
					90.19	01/08/87	
					90.52	04/08/87	
					91.52	07/30/87	
1973-	100.04	12/13/73	137.34	07/30/87	134.26	10/10/86	25S 33W 17DBD 01
					136.34	01/08/87	
					137.01	04/08/87	
					137.34	07/30/87	
1985-	113.62	01/03/85	122.80	01/15/87	122.80	01/15/87	25S 33W 33CDA 01
1974-	74.32	03/01/74	131.50	07/01/74	114.15	01/15/87	25S 33W 35DBD 01
1975-	67.26	04/ /75	109.98	01/15/87	109.98	01/15/87	25S 34W 06AAA 01
1975-	68.15	01/24/78	103.82	07/30/87	102.26	10/10/86	25S 34W 10ABB 01
					100.48	01/15/87	
					101.99	04/08/87	
					103.82	07/30/87	
1970-	73.77	01/22/70	126.74	01/15/87	122.76	10/10/86	25S 34W 34DBD 01
					126.74	01/15/87	
					124.78	04/08/87	
					124.93	07/22/87	
1959-	71.57	01/30/62	107.05	12/29/86	107.05	12/29/86	26S 31W 01DDA 01
1961-	53.04	02/01/61	91.15	01/12/83	90.42	12/29/86	26S 31W 06BBB01
1961-	84.59	01/30/62	138.52	12/29/86	138.52	12/29/86	26S 31W 31DDC 01
1961-	77.5	10/04/61	127.40	12/29/86	127.40	12/29/86	26S 31W 36CAB 01
1962-	113.36	02/14/62	149.27	12/29/86	149.27	12/29/86	26S 32W 22ABB 01
1981-	95.33	01/15/81	114.36	01/09/87	114.36	01/09/87	26S 33W 17DBD 01
1961-	115.53	02/01/61	166.60	01/12/87	166.60	01/12/87	26S 33W 26ABB 01
					166.31	04/08/87	
1981-	101.03	01/15/81	123.15	01/15/87	123.15	01/15/87	26S 34W 05ADC 01
1981-	112.32	01/15/81	133.39	01/12/87	133.39	01/12/87	26S 34W 21BBD 01
1961-	130.7	09/29/61	182.14	01/12/87	182.14	01/12/87	26S 34W 30BD 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
FORD COUNTY							
25S 22W 20AAA 01	375206099451001	AREND, MARY	U	1210GLL	72	6	2437.9
25S 22W 27CCD 01	375028099434701	NIETLING, JAMES	H	210DKOT	240	--	2432
25S 23W 11CCC 01	375307099492701	KGS + USGS	U	210DKOT	385	1	2424
25S 23W 12BBB 01	375353099482001	INDIEK, ANTHONY	U	210DKOT	362	1	2390
25S 23W 14ADD 01	375241099482901	GLEASON, T	H, S	210DKOT	263	5	2452
25S 25W 32CDD 01	374936100052801	BROCE CONSTRUCTION	I	210DKOT	383	16	2607
25S 25W 32DAD 01	374948100045601	BROCE, RAY	I	--	--	--	2593
25S 26W 25CDD 01	375026100074001	AGUR, O L	I	1210GLL	187	--	2623
25S 26W 30ABC 01	375107100125801	YOUNG, HOWARD	U	1210GLL	225	16	2679
26S 21W 17DBC 01	374632099381801	STRONG, LARRY	U	210DKOT	--	12	2348
26S 21W 23ADA 01	374559099343801	HATTRUP, HENRY	U	110ALVM	12	1	2262.4
26S 21W 25CCC 01	374434099343001	JOHNSON, NORMAN	I	--	--	--	2270
26S 22W 21DCD 01	374529099433401	TASSET, NORBERT	I	210DKOT	360	14	2377
26S 23W 02ABB 01	374929099481601	SCHUETTE, CLARENCE	I	--	350	16	2451
26S 23W 10DAD 01	374725099485601	MCGUIN, J A	U	210DKOT	280	16	2463
26S 24W 29DDD 01	374442099573601	USGS	U	1210GLL	209	1	2575
26S 24W 31DDA 01	374356099584201	WILSON, DEAN	U	1210GLL	112	1	2463.3
26S 24W 32CBA 01	374409099582501	FARMLAND IND INC	U	1210GLL	136	1	2468.9
26S 24W 33CDA 01	374357099570301	WINTER INVEST INC	U	1210GLL	126	1	2466.4
26S 25W 16DCC 01	374649100035201	REBEIN, HAROLD	I	--	--	--	2619
26S 26W 18CCB 01	374657100124101	KIDWELL, DELBERT	I	--	--	--	2558
26S 26W 32DCC 01	374403100110601	IRSIK + DOLL	S	--	124	4	2616
26S 26W 36DCC 01	374404100064401	SHUMARD, DONALD A	I	1210GLL	--	--	2543
27S 21W 10DBB 01	374214099360301	WETZEL, ALAN L	I	--	--	--	2291
27S 22W 09DAB 01	374219099432501	SCHOMAKER, HENRY	I	210DKOT	390	16	2418
27S 23W 24BCB 01	374048099474001	RIEGEL, DUANE	I	210DKOT	220	16	2395
27S 23W 28AAA 01	374035099500101	STEELE, ALAN	I	--	--	--	2421
27S 23W 36CCC 01	373831099473901	HAGER, ANSEL	I	1210GLL	147	--	2428
27S 24W 03BBB 01	374337099561401	KSBA	U	1210GLL	97.7	1.25	2455.2
27S 24W 03CDD 01	374258099555701	RING, MARILYN	U	1210GLL	96	4	2445
27S 24W 04BBC 01	374337099572801	CAUGHRON, SAMUEL M	U	1210GLL	119	1	2453.0
27S 24W 09AAD 01	374245099563001	RENICK & DOLL CATTLE	U	1210GLL	160	1	2448
27S 24W 16BDB 01	374146099571101	RENICK & DOLL	I	--	200	--	2515
27S 24W 26DAA 01	373950099541801	BARNGROVER, LOREN L	I	1210GLL	191	--	2512
27S 25W 09ACA 01	374304100032201	BRADY, RICHARD	I	--	--	--	2546
27S 25W 25BBB 01	374040100004601	ROFF, DAVID	I	--	--	--	2574
28S 21W 10DDD 01	373644099354101	AUSTIN, G F	I	112PCPC	89	--	2349
28S 21W 23DBC 01	373513099350001	SMITH, GEORGE	I	1210GLL	145	--	--
28S 21W 25ABB 01	373510099335801	PRICE, M W	I	112PCPC	149	--	2365
28S 22W 05ADD 01	373820099442701	STEPHENSON, DWAYNE	I	--	--	--	2370

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
FORD COUNTY							
1939-	59.75	09/16/87	67.75	10/18/53	60.07 60.07 59.93 59.75	12/19/86 03/18/87 07/08/87 09/16/87	25S 22W 20AAA 01
1970-	112.02	06/25/80	147.70	11/24/70	129.29 118.91 133.42 134.49	12/19/86 03/18/87 07/08/87 09/16/87	25S 22W 27CCD 01
1968-	42.43	06/28/78	120.08	08/05/77	63.24	12/19/86	25S 23W 11CCC 01
1972-	116.70	05/23/73	173.53	09/10/85	158.37 146.91 155.88	12/19/86 07/08/87 09/16/87	25S 23W 12BBB 01
1969-	156.40	04/11/69	226.26	09/22/80			25S 23W 14ADD 01
1981-	181.49	02/01/82	188.96	01/15/85	188.19	01/05/87	25S 25W 32CDD 01
1985-	73.62	01/15/85	73.79	01/05/87	73.79	01/05/87	25S 25W 32DAD 01
1977-	72.02	01/05/87	77.63	01/05/79	72.02	01/05/87	25S 26W 25CDD 01
1977-	107.98	02/07/77	111.46	01/15/85	110.89	01/05/87	25S 26W 30ABC 01
1973-	48.52	05/23/73	73.65	09/22/76	58.72 57.78 57.23 60.98	12/19/86 03/18/87 07/08/87 09/15/87	26S 21W 17DBC 01
1938-	2.40	03/27/73	11.02	09/05/39	7.41 7.45 6.33 6.40	12/19/86 03/18/87 07/08/87 09/15/87	26S 21W 23ADA 01
1985-	5.82	01/06/87	7.19	01/17/85	5.82	01/06/87	26S 21W 25CCC 01
1982-	40.55	01/27/86	54.18	01/24/83	41.48	01/06/87	26S 22W 21DCD 01
1985-	78.29	01/17/85	79.50	01/29/86	79.24	01/08/87	26S 23W 02ABB 01
1968-	123.19	04/11/69	188.86	09/22/80	179.99 173.72 183.93	12/19/86 07/08/87 09/16/87	26S 23W 10DAD 01
1968-	130.74	11/26/73	150.71	07/02/79	137.17 140.07 143.07 137.43	12/22/86 03/18/87 07/08/87 09/15/87	26S 24W 29DDD 01
1968-	10.62	02/21/73	32.76	06/15/77	16.07 15.11 16.51 18.16	12/22/86 03/18/87 07/08/87 09/15/87	26S 24W 31DDA 01
1962-	4.30	07/07/67	48.33	06/15/77	23.34	01/13/87	26S 24W 32CBA 01
1968-	26.67	04/27/73	55.74	07/18/69	27.84	12/22/86	26S 24W 33CDA 01
1980-	137.80	09/11/80	143.53	01/05/87	143.53	01/05/87	26S 25W 16DCC 01
1981-	9.36	01/27/86	14.58	07/29/81	10.14	01/05/87	26S 26W 18CCB 01
1977-	71.14	12/29/81	86.34	12/17/85	85.69 85.13 86.27 47.35	12/22/86 06/29/87 09/15/87 01/05/87	26S 26W 32DCC 01
1977-	34.18	02/08/77	47.35	01/05/87	47.35	01/05/87	26S 26W 36DCC 01
1985-	7.04	01/27/86	7.57	01/17/85			27S 21W 10DBB 01
1982-	52.63	02/03/82	59.49	01/13/87	59.49	01/13/87	27S 22W 09DAB 01
1974-	1.40	03/21/74	119.58	09/11/85	38.63 30.49 75.89	12/23/86 03/17/87 09/15/87	27S 23W 24BCB 01
1981-	25.91	02/06/81	58.58	07/31/81	35.93	01/07/87	27S 23W 28AAA 01
1977-	40.70	02/08/77	45.50	01/07/87	45.50	01/07/87	27S 23W 36CCC 01
1968-	17.25	04/27/73	43.02	08/20/73	24.51	12/23/86	27S 24W 03BBD 01
1973-	6.06	04/25/75	43.95	07/25/77	11.46 11.31 20.47 13.68	12/22/86 03/17/87 06/29/87 09/15/87	27S 24W 03CDD 01
1968-	11.24	12/13/74	39.30	06/15/77	14.41 14.61 20.18 16.19	12/23/86 03/19/87 07/08/87 09/15/87	27S 24W 04BBC 01
1972-	14.40	04/27/73	51.07	07/22/77	20.11	12/22/86	27S 24W 09AAD 01
1973-	72.53	01/22/80	96.88	09/15/82	75.78	12/22/86	27S 24W 16BDB 01
1977-	84.45	01/09/78	91.12	01/07/87	91.12	01/07/87	27S 24W 26DAA 01
1981-	62.90	01/24/83	68.88	01/13/87	68.88	01/13/87	27S 25W 09ACA 01
1981-	113.47	02/06/81	117.15	01/07/87	117.15	01/07/87	27S 25W 25BBB 01
1977-	38.99	01/11/78	43.74	01/16/85	42.09	01/06/87	28S 21W 10DDD 01
1977-	71.80	11/23/77	77.02	01/16/85	74.58	01/06/87	28S 21W 23DBC 01
1981-	70.25	02/15/82	74.70	07/31/81	70.46	01/06/87	28S 21W 25ABB 01
1981-	17.27	02/09/81	19.80	07/31/81	17.58	01/06/87	28S 22W 05ADD 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
FORD COUNTY -- CONTINUED							
28S 22W 12CAC 01	373659099404301	MELIA, JOHN	I	1210GLL	--	16	2405
28S 22W 32BAB 01	373404099445801	SMITH, RONALD	I	1210GLL	161	16	2485
28S 23W 18BAB 01	373702099525701	CONRAD, M A	I	112PCPC	247	16	2547
28S 23W 24ABB 01	373602099470101	CLEVINGER, BRUCE	I	--	--	--	2465
28S 24W 08DCC 01	373652099575901	BELL, T W	I	--	--	--	2578
28S 24W 22CDA 01	373528099553501	DOWLING, DEAN	I	112PCPC	295	16	2500
28S 24W 35CAB 01	373358099550801	ROONEY, BERNARD	I	112PCPC	421	16	2528
28S 25W 06ABB 01	373838100053901	SWITZER, CHAS W	I	--	189	16	2643
28S 25W 19BBB 01	373601100061301	POST, DANNY	I	1210GLL	265	--	2635
28S 26W 06AAB 01	373841100115601	CLARK, WILLIAM	I	1210GLL	--	--	2685
28S 26W 10BAA 01	373806100090301	S & R LAND & CATTLE	I	112PCPC	199	16	2608
28S 26W 13CAA 01	373632100065401	GREENWOOD, ALBERT	U	--	218	--	--
29S 21W 05BBB 01	373309099384901	ESTES, E & M	I	1210GLL	131	16	2418
29S 21W 20CAD 01	373005099381801	ESTES, MAYNARD L	I	112PCPC	275	16	2445
29S 22W 17DAD 01	373054099441601	STIMPERT, WALDO A	I	1210GLL	240	--	2475
29S 22W 36ACA 01	372841099401201	ESTES, BUD	I	112PCPC	245	16	2445
29S 23W 12BAC 01	373223099472101	CLEVINGER, BRUCE MRS	I	--	240	--	2447
29S 24W 01ABA 01	373318099532701	BERRYMAN, WADE	I	1210GLL	225	--	2560
29S 24W 13BCA 01	373127099540701	SCOTT, WILBUR	I	112PCPC	220	16	2530
29S 24W 18BAA 01	373131099591001	TEMPLEMAN, BILL	I	1210GLL	--	--	2610
29S 25W 03ADA 01	373310100015601	WINGER, DWIGHT E	I	1210GLL	--	--	2630
29S 25W 10BBBC01	373231100025401	HARSHBERGER, GEORGE	U	--	245	--	2617
29S 26W 01CDD 01	373242100065401	WHITE, H C	I	1210GLL	--	--	2583
29S 26W 20BDD 01	373042100112201	SOBBA, ROBERT	I	112PCPC	170	16	2575
29S 26W 29ABB 01	372957100110901	DEAVOR, O J	I	--	178	16	2558
29S 26W 36BBB 01	372906100072001	BLANCETT, O J	I	1210GLL	--	--	2532
GEARY COUNTY							
11S 06E 27CBB 01	390356096455601	KGS	U	110ALVM	65	2	1057
GOVE COUNTY							
11S 26W 04CDC 01	390709100125401	STERRETT, J C	I	1210GLL	167	12	2583
11S 27W 04CCD 01	390709100194001	GOETZ, LAVERN	I	1210GLL	138	12	2708
11S 27W 13ABB 01	390611100155701	NEHER, GALEN	I	--	235	--	2671
11S 27W 36BCC 01	390316100163201	IKENBERRY, MERTON	I	1210GLL	142	12	2676
11S 28W 08AAA 01	390703100263601	GOETZ, DARYL	I	--	170	--	2797
11S 28W 17DDC 01	390526100264501	HEIER, E J	I	1210GLL	135	14	2784
11S 28W 26ABA 01	390427100233401	ZERR, GEORGE	U	--	180	--	2749
11S 29W 04DAD 01	390723100320801	HOOVER, ALBERT	I	1210GLL	171	18	2844
11S 29W 33BBA 01	390336100330001	SHAW, GERALDINE	I	--	140	--	2857
11S 30W 27ABB 01	390428100380701	KARLIN, W J	I	1210GLL	168	12	2922
11S 30W 28CBA 01	390402100393801	DICKMAN, ROBERT	I	--	168	--	2925
11S 30W 36CBB 01	390310100362801	KARLIN, MARNE	I	--	152	--	2885
11S 31W 12AAB 01	390704100421401	SWART, A L	I	1210GLL	154	16	2959
11S 31W 27ADC 01	390409100442901	HANNA, JAMES	I	--	99	--	2913
11S 31W 35BDC 01	390317100435701	RACETTE, LUKE	I	--	125	--	2951

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
FORD COUNTY -- CONTINUED							
1976-	41.00	10/30/76	63.92	02/03/82	61.22	01/06/87	28S 22W 12CAC 01
1977-	120.10	02/07/77	129.66	01/06/87	129.66	01/06/87	28S 22W 32BAB 01
1981-	133.42	02/05/81	136.63	01/07/87	136.63	01/07/87	28S 23W 18BAB 01
1980-	93.16	02/09/81	97.88	06/16/80	94.70	01/13/87	28S 23W 24ABB 01
1977-	132.16	06/15/77	153.94	03/19/81	140.84	12/22/86	28S 24W 08DCC 01
					140.11	03/17/87	
					140.73	07/08/87	
					146.54	09/16/87	
1976-	100.00	04/19/76	106.35	01/07/87	106.35	01/07/87	28S 24W 22CDA 01
1981-	99.07	02/05/81	102.90	02/05/86	102.31	01/07/87	28S 24W 35CAB 01
1972-	138.31	03/24/72	157.57	09/16/87	149.59	12/22/86	28S 25W 06ABB 01
					149.05	03/17/87	
					149.44	07/08/87	
					157.57	09/16/87	
1977-	137.00	02/01/77	145.12	01/07/87	145.12	01/07/87	28S 25W 19BBB 01
1977-	140.71	02/01/77	163.62	01/05/87	163.62	01/05/87	28S 26W 06AAB 01
1985-	98.01	01/15/85	99.27	01/05/87	99.27	01/05/87	28S 26W 10BAA 01
1978-	132.71	04/05/79	155.49	09/05/84	139.55	12/22/86	28S 26W 13CAA 01
					138.74	03/17/87	
					138.59	07/08/87	
					139.66	09/16/87	
1956-	79.50	05/05/56	115.21	09/15/82	100.15	12/12/86	29S 21W 05BBB 01
					99.67	03/17/87	
					99.38	07/08/87	
					100.67	09/15/87	
1980-	132.28	02/09/81	136.26	06/02/80	133.80	01/06/87	29S 21W 20CAD 01
1977-	124.88	01/11/78	130.20	08/04/81	127.80	01/06/87	29S 22W 17DAD 01
1979-	131.00	08/03/79	138.88	01/25/86	136.82	01/06/87	29S 22W 36ACA 01
1980-	175.30	06/10/80	182.38	01/25/86	178.26	01/06/87	29S 23W 12BAC 01
1976-	138.06	11/22/76	144.28	01/07/87	144.28	01/07/87	29S 24W 01ABA 01
1980-	111.44	06/11/80	114.09	01/07/87	114.09	01/07/87	29S 24W 13BCA 01
1976-	155.5	01/05/79	158.70	08/03/81	157.98	01/07/87	29S 24W 18BAA 01
1977-	174.08	01/09/78	185.50	09/12/80	183.66	01/07/87	29S 25W 03ADA 01
1978-	149.22	05/15/78	162.64	09/17/80	161.50	01/05/87	29S 25W 10BBBC01
1977-	89.60	02/07/77	93.40	01/15/85	92.50	01/05/87	29S 26W 01CDD 01
1980-	92.04	06/02/80	103.60	02/06/86	101.84	01/13/87	29S 26W 20BDD 01
1971-	60.75	06/11/75	93.51	07/27/82	87.95	10/08/86	29S 26W 29ABB 01
					88.68	01/05/87	
					88.14	05/05/87	
1977-	21.20	06/04/80	28.76	07/28/81	28.48	01/05/87	29S 26W 36BBB 01
GEARY COUNTY							
1966-	13.07	09/11/84	20.82	03/14/67	16.20	12/04/86	11S 06E 27CBB 01
					15.25	03/05/87	
					15.87	06/04/87	
					15.60	09/02/87	
GOVE COUNTY							
1970-	60.00	07/02/70	85.29	09/12/73	67.40	01/07/87	11S 26W 04CDC 01
					63.36	03/05/87	
					63.00	07/07/87	
					62.62	09/01/87	
1970-	84.30	04/ /70	98.57	09/15/82	97.85	01/07/87	11S 27W 04CCD 01
					97.85	03/05/87	
					97.81	09/01/87	
1984-	115.38	01/06/86	118.52	01/07/87	118.52	01/07/87	11S 27W 13ABB 01
1975-	36.90	04/ /70	82.23	03/18/76	76.60	01/07/87	11S 27W 36BCC 01
					76.05	03/05/87	
					75.49	07/07/87	
					75.39	09/01/87	
1984-	116.16	01/06/86	117.78	01/07/87	117.78	01/07/87	11S 28W 08AAA 01
1970-	95.39	01/06/86	97.20	04/ /70	95.90	01/07/87	11S 28W 17DDC 01
1984-	91.92	01/06/86	93.00	07/10/84	92.64	01/07/87	11S 28W 26ABA 01
1968-	111.76	06/06/79	128.28	09/15/76	113.24	01/07/87	11S 29W 04DAD 01
					112.71	03/05/87	
					116.24	07/07/87	
1984-	104.80	01/06/86	105.60	07/09/84	104.95	01/07/87	11S 29W 33BBA 01
1970-	118.06	04/27/70	137.99	09/15/76	129.30	01/07/87	11S 30W 27ABB 01
					129.32	03/05/87	
					129.43	07/07/87	
1985-	124.08	01/06/86	125.02	01/07/85	124.81	01/07/87	11S 30W 28CBA 01
1985-	106.43	01/06/86	107.45	01/07/87	107.45	01/07/87	11S 30W 36CBB 01
1970-	103.61	01/07/85	106.00	04/ /70			11S 31W 12AAB 01
1984-	49.00	07/11/84	51.82	01/06/86	50.73	01/07/87	11S 31W 27ADC 01
1984-	97.05	07/09/84	98.70	01/07/87	98.70	01/07/87	11S 31W 35BDC 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
GOVE COUNTY -- CONTINUED							
12S 26W 12BCC 01	390131100095701	TURNER, L M	I	1210GLL	66	12	2573
12S 27W 10CCB 01	390113100184501	YOUNGER, PAUL P	I	--	130	--	2700
12S 27W 12ABB 01	390152100155901	BRYANT, R W	I	1210GLL	93	14	2636
12S 28W 07DDD 01	390106100274501	OCHS, VERLENE	I	--	110	--	2742
12S 28W 12DDD 01	390106100221301	ZERR, AUGUSTINE M	I	1210GLL	152	6	2741
13S 26W 20CBC 01	385423100142501	USGS	U	110ALVM	45	1	2432
GRAHAM COUNTY							
06S 21W 19CDC 01	393039099423701	--	I	1210GLL	--	--	2305.00
06S 22W 19CCC 01	393039099493101	--	U	1210GLL	198	--	2395
06S 22W 28ACA 01	393019099463401	WORCESTER, EUGENE	I	1210GLL	--	--	2360
06S 23W 13BBB 01	393216099503801	--	U	1210GLL	183	--	2340
06S 23W 17CCA 01	393137099550001	MCKIM, W LYNN	I	--	165	--	2406
06S 24W 14AAA 01	393216099572401	AUGUSTINE, MIKE	I	--	280	--	2527
06S 24W 28BAB 01	393032100002001	DAY, ALLEN	I	1210GLL	212	--	2478
06S 24W 35DDD 01	392854099572501	KEITH, OLA	S	1210GLL	153	6	2492
06S 25W 12CCC 01	393223100040801	--	U	1210GLL	244	--	2538.00
06S 25W 28CBC 01	392959100073201	KLEIN, HENRY	I	1210GLL	180	12	2540.00
07S 22W 10BBC 01	392749099461001	WORCESTER, M E	I	1210GLL	--	--	2217
07S 22W 19BBB 01	392611099493301	USGS	U	1210GLL	56	--	2295.00
07S 23W 17BBC 01	392657099551101	WORCESTER, EUGENE	I	--	150	--	2430
07S 24W 08CBA 01	392729100013501	BORN, J B	I	1210GLL	--	--	2519
07S 25W 24BBB 01	392611100040901	USGS	U	1210GLL	218	--	2495.00
07S 25W 33DDD 01	392340100063401	MINIUM, VUEL	I	--	157	--	2502
08S 21W 17ABB 01	392151099410501	BILLIPS, DON	I	--	60	--	2035
08S 22W 18CDC 01	392105099491801	QUINT, DELMAR	I	110ALVM	50	--	--
08S 24W 23ACC 01	392038099575401	RIVERSIDE FARMS	I	110ALVM	62	--	--
08S 25W 24BAB 01	392058100035201	CULLEY, BOB	I	--	91	--	2302
09S 22W 19BBB 01	391545099493701	USGS	U	1210GLL	132	--	2416.00
09S 24W 12BCC 01	391709099572201	NICKELSON, RONALD	I	--	142	--	2461
09S 24W 22BAA 01	391545099590901	MICHELSON, RONNY	I	1210GLL	--	--	2491.00
09S 25W 14DDD 01	391551100041901	USGS	U	1210GLL	--	--	2534.00
GRANT COUNTY							
27S 35W 17ADD 01	374203101095101	MEYER, HERMANN	I	112PLSC	410	16	3086
27S 35W 25CAB 01	374013101060801	--	I	--	--	--	--
27S 36W 18DCB 01	374142101175001	MEYER, W H	I	112PLSC	393	26	3065
27S 36W 21DCC 01	374047101153401	MC CAULEY, C W	U	112PLSC	400	16	3132
27S 36W 25CC 01	373955101125101	SMITH, BLANCHE	I	112PLSC	440	16	3133
27S 37W 04ABB 01	374406101221501	JURY JR, C L	I	112PLSC	370	16	3080
27S 37W 11ABA 01	374314101195601	MOORE, ROBERT A	I	112PLSC	340	16	3093
27S 37W 16AAD 01	374215101222301	GAIL, RUTH MRS.	I	--	400	--	3054
27S 37W 21BDD 01	374110101222301	COFFEY, RICHARD H	I	--	630	--	3058
27S 38W 12AOC 01	374255101251501	WAECHTER, L C	I	112PLSC	280	16	3076
27S 38W 15BBB 01	374221101281501	ANDES, MRS CHARLES	I	112PLSC	479	16	3148
27S 38W 22CBB 01	374103101281401	HOHNER, L F	I	112PLSC	287	16	3110
27S 38W 23CBB 01	374100101270501	HOHNER, L F	U	112PLSC	235	16	3105
28S 35W 03DBB 01	373828101080401	COVEY, GARY	I	--	420	--	3079
28S 35W 05BCC 01	373833101104901	DEW, C L	I	112PLSC	443	16	3117

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
GOVE COUNTY -- CONTINUED							
1970-	38.19	01/06/86	38.84	07/10/84	38.55	01/07/87	12S 26W 12BCC 01
1985-	77.93	01/06/86	79.70	01/07/87	79.70	01/07/87	12S 27W 10CCB 01
1984-	50.35	01/07/85	52.10	01/07/87	52.10	01/07/87	12S 27W 12ABB 01
1984-	48.14	07/10/84	49.50	01/07/87	49.50	01/07/87	12S 28W 07DDD 01
1968-	91.29	03/09/72	96.77	12/30/68	95.15	01/07/87	12S 28W 12DDD 01
1971-	7.86	01/02/79	16.47	01/09/84	16.35	01/07/87	13S 26W 20CBC 01
					16.02	07/07/87	
					10.83	09/01/87	
GRAHAM COUNTY							
1978-	99.79	12/09/86	103.20	12/26/78	99.79	12/09/86	06S 21W 19CDC 01
1976-	105.00	09/ /76	109.00	12/17/84	108.24	12/09/86	06S 22W 19CCC 01
1978-	113.46	12/09/82	127.98	12/26/78	120.16	12/09/86	06S 22W 28ACA 01
1976-	55.45	12/20/79	58.24	12/10/81	57.58	12/09/86	06S 23W 13BBB 01
1984-	70.00	12/17/84	74.24	12/09/86	74.24	12/09/86	06S 23W 17CCA 01
1984-	116.45	12/05/85	116.90	12/09/86	116.90	12/09/86	06S 24W 14AAA 01
1976-	90.05	06/14/82	124.17	06/04/87	101.89	12/09/86	06S 24W 28BAB 01
					101.66	03/03/87	
					124.17	06/04/87	
					108.59	09/01/87	
1977-	141.58	04/13/77	149.21	03/03/87	147.55	12/09/86	06S 24W 35DDD 01
					149.21	03/03/87	
					146.08	06/04/87	
					146.18	09/01/87	
1976-	136.00	09/ /76	144.89	12/13/83	142.49	12/09/86	06S 25W 12CCC 01
1962-	96.38	09/04/62	117.08	12/27/79	106.84	12/09/86	06S 25W 28CBC 01
					108.66	03/03/87	
					105.83	06/04/87	
					113.49	09/01/87	
1978-	8.39	12/05/85	9.91	12/09/86	9.91	12/09/86	07S 22W 10BBC 01
1979-	37.54	12/05/85	40.70	09/ /76	38.52	12/09/86	07S 22W 19BBB 01
1984-	95.00	08/ /76	103.84	12/17/84	102.98	12/09/86	07S 23W 17BBC 01
1978-	126.30	12/09/82	128.46	12/21/79	127.73	12/09/86	07S 24W 08CBA 01
1978-	85.35	12/26/78	88.10	12/09/86	88.10	12/09/86	07S 25W 24BBB 01
1985-	101.55	12/09/86	107.83	12/05/85	101.55	12/09/86	07S 25W 33DDD 01
1975-	22.39	06/04/87	26.85	09/09/83	26.55	12/09/86	08S 21W 17ABB 01
					25.53	03/03/87	
					22.39	06/04/87	
					25.49	09/01/87	
1977-	5.99	06/14/82	10.86	09/19/83	9.26	12/09/86	08S 22W 18CDC 01
					9.08	03/03/87	
					8.68	06/04/87	
					9.48	09/01/87	
1976-	31.88	12/09/86	36.54	10/26/76	31.88	12/09/86	08S 24W 23ACC 01
					34.40	03/03/87	
					33.40	06/04/87	
					34.66	09/01/87	
1984-	29.04	12/17/84	32.64	08/23/84	31.67	12/09/86	08S 25W 24BAB 01
1976-	91.14	12/29/86	96.58	12/06/82	91.14	12/09/86	09S 22W 19BBB 01
1984-	98.75	12/09/86	100.83	12/17/84	98.75	12/09/86	09S 24W 12BCC 01
1977-	92.95	12/06/82	97.18	12/09/86	97.18	12/09/86	09S 24W 22BAA 01
1979-	91.36	12/18/80	92.24	12/09/86	92.24	12/09/86	09S 25W 14DDD 01
GRANT COUNTY							
1954-	179.25	11/10/58	245.65	01/09/87	240.81	10/15/86	27S 35W 17ADD 01
					245.65	01/09/87	
1982-	216.30	01/14/82	229.87	01/09/87	229.87	01/09/87	27S 35W 25CAB 01
1959-	107.4	03/28/60	191.43	01/09/87	191.43	01/09/87	27S 36W 18DCB 01
1982-	265.60	01/14/82	279.70	01/09/87	279.70	01/09/87	27S 36W 21DCC 01
1959-	230.85	01/27/59	312.77	01/09/87	312.77	01/09/87	27S 36W 25CC 01
1958-	74.16	03/28/60	171.61	10/03/85	171.44	01/09/87	27S 37W 04ABB 01
1959-	116.65	03/28/60	201.13	01/09/87	201.13	01/09/87	27S 37W 11ABA 01
1984-	221.23	01/09/87	258.85	05/11/84	221.23	01/09/87	27S 37W 16AAD 01
1967-	114.00	01/ /67	198.77	01/09/87	198.77	01/09/87	27S 37W 21BDD 01
1960-	33.63	03/28/60	189.70	01/23/85	182.90	01/09/87	27S 38W 12ADC 01
1958-	97.15	01/15/58	181.12	07/09/84	174.01	10/15/86	27S 38W 15BBB 01
					171.68	01/09/87	
					175.05	05/01/87	
					174.05	07/28/87	
1958-	65.4	01/15/58	201.74	01/19/77	166.69	01/09/87	27S 38W 22CBB 01
1943-	41.25	03/09/43	168.61	07/09/84	163.31	10/15/86	27S 38W 23CBB 01
					161.67	01/09/87	
					163.71	07/28/87	
1984-	274.58	01/24/86	283.22	01/09/87	283.22	01/09/87	28S 35W 03DBB 01
1964-	251.10	01/22/64	320.62	01/09/87	320.62	01/09/87	28S 35W 05BCC 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
GRANT COUNTY -- CONTINUED							
28S 35W 15C8B 01	373643101083701	DAYATZ, C R	I	112PLSC	405	16	3064
28S 35W 36ABC 01	373426101055101	BRITTEN, M E	I	112PLSC	400	16	3032
28S 36W 02CDD 02	373807101133602	HAMPTON, WADE	I	112PLSC	450	18	3111
28S 36W 18ABC 01	373701101175001	MOORE, LEWIS	I	--	554	--	3050
28S 36W 21CDD 01	373530101154601	COGDON, J S	H	112PLSC	325	6	3066
28S 37W 0288B 04	373853101203604	BECHTELHEIMER, BIRDIE	I	--	--	--	--
28S 37W 10BCD 02	373741101213302	PUCKETT, KEITH	I	112PLSC	340	16	3057
28S 38W 0788B 01	373758101313001	PINEGAR EST, DELIA	I	112PLSC	284	16	3134
28S 38W 12DDD 01	373716101250601	USGS	U	112PLSC	367	1	3080
28S 38W 17AAA 01	373707101292701	USGS	U	112PLSC	390	1	3112
28S 38W 33BDB 01	373417101290201	JOBE, BILLY J	U	--	410	--	--
29S 35W 07C8D 01	373214101114301	UNKNOWN	U	112PLSC	--	--	3036
29S 35W 24BAA 01	373104101060001	MILLER, ERIC	I	1210GLL	415	--	3037
29S 35W 28ACC 01	372951101091001	LAKEY, WAYNE	S	112PLSC	250	7	2975
29S 36W 19BCB 01	373048101182401	KELLER, MRS LLOYD	I	112PLSC	370	16	2995
29S 36W 33ADB 01	372904101152101	PICKENS, CARL & HOWARD	I	--	480	--	3011
29S 37W 03CDB 01	373300101212501	BREWER, PAUL H	I	112PLSC	408	16	3051
29S 37W 08CBA 01	373220101234401	SULLIVAN, DAN C	I	112PLSC	300	16	3065
29S 37W 298BA 01	373009101234301	SWINDLER, EUGENE F	I	112PLSC	380	16	3095
29S 38W 20CDC 01	373015101300701	SIEBERT, J W	I	112PLSC	550	16	3139
29S 38W 35CCD 01	372832101265901	KEPLEY, RAY	I	112PLSC	271	16	3124
30S 35W 19BCD 01	372528101114301	BREWER, EUAL P	I	112PLSC	430	16	3004
30S 36W 018BB 01	372826101125501	USGS	U	112PLSC	400	1	2973
30S 36W 04ABB 01	372825101153801	ALFORD, JOHN	I	112PLSC	590	16	3033
30S 36W 328BC 01	372357101171501	BROLLIER, FANNIE	I	112PLSC	370	16	3064
30S 37W 028AA 02	372826101201102	STEEN, LAWRENCE E	I	112PLSC	480	16	3102
30S 37W 03DBA 01	372759101210001	STEEN, EARL	I	112PLSC	558	16	3104
30S 37W 20CBC 01	372515101235101	LEWIS, J H	I	112PLSC	335	16	3125
30S 38W 13CCC 01	372556101260201	HENNIGH, LAWRENCE	I	112PLSC	560	16	3142
30S 38W 15DBC 01	372608101273901	SCHARTZ, F B	I	112PLSC	360	16	3144
30S 38W 30ACA 01	372442101304601	COLLINS, CLARENCE B	I	112PLSC	380	16	3152
GRAY COUNTY							
24S 27W 08CCC 01	375819100185601	DAVIDSON, DALE	I	112PLSC	138	--	2697.0
24S 27W 14ABB 01	375811100145901	WERNER, HERMAN	I	112PLSC	92	14	2654
24S 27W 29BCC 01	375607100185701	SAPP, HARRIET MRS	I	--	155	16	2702.7
24S 28W 288BA 01	375626100241701	BUSCH, MELVIN	I	--	--	--	2750
24S 28W 31DD 01	375451100254401	NEUFELD, H J	I	112PLSC	265	16	2754
24S 28W 36ACA 01	375520100202701	SCHARTZ, ART	I	1210GLL	135	16	2720
24S 29W 16DCA 01	375735100302001	KOPPER, RICHARD	I	112PLSC	222	16	2787
24S 29W 18CCB 01	375736100331301	NICHOLSON, W	I	112PLSC	220	16	2814.0
24S 30W 15CCC 01	375732100363001	NICHOLSON, WALTER	I	112PLSC	240	18	2846
24S 30W 33ADD 01	375521100363801	IRSIK & SONS, STEVE	I	--	--	--	2857

GROUND-WATER LEVELS IN KANSAS, 1987

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PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
GRANT COUNTY -- CONTINUED							
1958-	223.02	01/18/58	301.17	01/09/87	301.17	01/09/87	28S 35W 15CBB 01
1959-	222.85	03/25/60	315.00	01/09/87	315.00	01/09/87	28S 35W 36ABC 01
1966-	241.60	01/17/66	295.95	01/24/86	285.17	01/09/87	28S 36W 02CDD 02
1984-	223.80	01/23/85	242.06	05/11/84	234.47	01/09/87	28S 36W 18ABC 01
1966-	193.85	02/18/66	287.48	10/13/83	282.21	01/09/87	28S 36W 21CDD 01
					284.90	05/01/87	
1981-	226.23	04/14/83	250.40	01/09/86	250.40	01/09/87	28S 37W 02BBB 04
1958-	62.18	03/30/60	208.76	02/13/84	207.22	01/09/87	28S 37W 10BCD 02
1958-	82.36	03/21/60	280.21	10/15/86	280.21	10/15/86	28S 38W 07BBB 01
					279.11	05/01/87	
1963-	72.06	03/02/66	209.50	09/09/70	193.44	10/15/86	28S 38W 12DDD 01
					191.90	01/09/87	
					190.57	05/01/87	
					195.03	07/28/87	
1963-	100.41	02/21/66	223.01	01/09/87	211.21	10/15/86	28S 38W 17AAA 01
					223.01	01/09/87	
					213.11	05/01/87	
					209.91	07/28/87	
1982-	197.65	02/13/84	231.06	04/14/83	217.08	10/15/86	28S 38W 33BDB 01
					216.05	01/09/87	
					215.80	05/01/87	
1979-	255.85	02/02/79	291.61	11/07/84	175.15	01/06/87	29S 35W 07CBD 01
1984-	325.40	01/07/86	334.20	01/06/87	334.20	01/06/87	29S 35W 24BAA 01
1959-	173.77	03/24/60	256.75	01/06/87	256.75	01/06/87	29S 35W 28ACC 01
1959-	56.07	03/31/60	207.05	01/06/87	207.05	01/06/87	29S 36W 19BCB 01
1984-	226.50	01/06/87	275.40	05/11/84	226.50	01/06/87	29S 36W 33ADB 01
1967-	125.81	01/22/70	230.80	01/06/87	230.80	01/06/87	29S 37W 03CDB 01
1959-	65.50	02/11/60	230.55	01/06/87	230.55	01/06/87	29S 37W 08CBA 01
1953-	104.21	03/31/60	267.00	01/07/86	266.15	01/06/87	29S 37W 29BBA 01
1963-	75.35	01/22/63	168.05	01/06/87	168.05	01/06/87	29S 38W 20CDC 01
1958-	100.24	04/01/60	179.97	10/03/85	177.76	10/15/86	29S 38W 35CCD 01
					177.55	01/06/87	
					176.87	05/01/87	
					179.91	07/28/87	
1958-	144.43	02/23/59	202.10	01/11/84	193.05	01/06/87	30S 35W 19BCD 01
1963-	120.64	03/02/66	226.96	07/31/86	223.99	10/15/86	30S 36W 01BBB 01
					207.80	01/06/87	
					207.31	05/01/87	
					225.85	07/28/87	
1968-	140.95	01/21/70	186.90	01/15/68	162.10	01/06/87	30S 36W 04ABB 01
1960-	112.89	03/21/60	178.02	10/13/82	169.31	10/15/86	30S 36W 32BBC 01
					162.85	01/06/87	
					166.34	05/01/87	
					165.31	07/28/87	
1957-	153.74	03/31/60	300.60	01/06/87	300.60	01/06/87	30S 37W 02BAA 02
1959-	149.14	03/31/60	279.61	08/09/85			30S 37W 03DBA 01
1941-	114.29	04/16/42	218.86	04/24/86	215.26	10/15/86	30S 37W 20CBC 01
					216.03	05/01/87	
					218.55	07/28/87	
1957-	126.12	04/01/60	225.00	03/07/57	211.60	01/06/87	30S 38W 13CCC 01
1958-	102.80	04/01/60	187.55	01/06/87	187.55	01/06/87	30S 38W 15DBC 01
1959-	71.38	02/05/59	173.40	01/06/87	173.40	01/06/87	30S 38W 30ACA 01
GRAY COUNTY							
1956-	59.13	01/28/65	77.81	01/18/78	75.17	01/06/87	24S 27W 08CCC 01
1956-	63.84	01/25/74	73.70	01/18/78	65.37	01/06/87	24S 27W 14ABB 01
1985-	84.58	01/23/86	86.35	01/06/87	86.35	01/06/87	24S 27W 29BCC 01
1985-	108.10	01/22/85	109.65	01/06/87	109.65	01/06/87	24S 28W 28BBA 01
1964-	87.90	01/17/66	129.50	01/19/78	123.16	01/06/87	24S 28W 31DD 01
1956-	82.24	01/20/65	98.25	01/06/87	98.25	01/06/87	24S 28W 36ACA 01
					97.56	04/07/87	
					97.91	07/31/87	
1964-	95.2	01/28/65	115.04	01/14/87	115.04	01/14/87	24S 29W 16DCA 01
1964-	109.57	01/16/68	130.52	01/23/86	126.41	01/06/87	24S 29W 18CCB 01
1965-	117.00	01/10/66	146.85	01/18/78	136.53	10/09/86	24S 30W 15CCC 01
					139.23	01/14/87	
					138.85	04/07/87	
1985-	149.85	01/06/87	156.22	01/22/85	149.85	01/06/87	24S 30W 33ADD 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
GRAY COUNTY -- CONTINUED							
25S 27W 33ABB 01	375018100171901	LANER, ROY E	I	112PLSC	249	16	2728
25S 29W 07BCB 01	375339100331401	MAXWELL, WILLIAM F	I	112PLSC	--	16	2830
25S 29W 14ABB 01	375258100281701	ERSICK, CLARENCE	I	112PLSC	316	--	2776.3
25S 29W 27CCB 01	375034100295601	IRSIK, NORBERT	I	--	184	--	2678
25S 30W 20BCB 01	375159100384101	LARSON, ANDREW	I	112PLSC	45	18	2734
26S 27W 13BBC 01	374727100134801	BUTCHER, C E	I	112PLSC	28	16	2567
26S 27W 27CDD 01	374502100153401	HUBBELL, G	I	112PLSC	230	16	2612
26S 28W 060DB 01	374848100250301	WASSON, BEATRICE	I	--	--	--	2647
26S 29W 15BCA 01	374731100285701	RENICK, DON	I	--	208	16	2732
26S 29W 35CCC 01	374417100280401	FRACK, FLOYD	I	112PLSC	218	--	2742
26S 30W 01ABC 01	374924100325901	RENICK BROS.	I	--	232	16	2740
26S 30W 240DD 01	374557100323401	BOGARD, W F	--	112PLSC	210	16	2754
27S 27W 01BAA 01	374403100132401	BEERY, LOUIS	I	--	--	--	2631
27S 27W 07ADC 01	374251100182601	MAXFIELD, W R	I	112PLSC	200	18	2686
27S 27W 10CDB 01	374231100154201	BRYAN, ELLSWORTH V	I	112PLSC	237	20	2712.0
27S 27W 25CCD 01	373947100134201	SLOCUM, ARTHUR	I	112PLSC	200	16	2732
27S 28W 05AAA 01	374411100235101	BYER, BILL	I	112PLSC	228	16	2707
27S 28W 30CCA 01	374001100254501	UNRUH, DAVID	I	112PLSC	195	16	2738.0
27S 29W 27CAA 01	374014100284601	FRY, RALPH	I	--	317	16	2760
27S 30W 08BBB 01	374317100375501	NIGHTENGAGE, MARVIN	I	112PLSC	200	--	2790
27S 30W 23BBA 01	374126100343401	HOSKINSON BROS	I	112PLSC	135	16	2772
27S 30W 34CCC 01	373900100354401	UNRUH, ALBERT	I	112PLSC	225	16	2807
28S 27W 03BBB 01	373848100155901	MACKEY, ELLIS V	I	112PLSC	250	16	2755
28S 28W 07CDD 01	373717100252901	FRICKE, OBED M	I	--	455	16	2775
28S 28W 20ADD 02	373557100235102	GIESBRECHT, TOBIAS	I	112PLSC	220	16	2795
28S 29W 16ACC 01	373651100294301	KOEHN, HARVEY R	I	112PLSC	--	--	2799
28S 30W 10DDD 01	373714100344601	KOEHN, PETER	I	112PLSC	--	16	2814
28S 30W 17BBA 01	373709100374701	NELSON, EARL A	I	121OGLL	300	16	2817
28S 30W 24BAB 01	373614100331601	ISAAC, ALLEN	I	112PLSC	242	16	2804
29S 27W 30BCC 01	372942100192201	HUELSKAMP, GEORGE	I	112PLSC	187	16	2655
29S 28W 28CDC 01	372922100232701	MC CUNE, DELBERT	I	121OGLL	204	16	2688
29S 29W 10ABB 01	373247100283801	SCHMIDT, ELI	I	--	170	12	--
29S 29W 27BCB 01	372957100291101	ROBERTSON, CLAYTON	I	112PLSC	302	--	2739
29S 30W 22BBC 01	373054100354401	ADAMS, J F	I	112PLSC	289	--	2816
29S 30W 35ACD 01	372855100335801	TYLER, E K	I, S	112PLSC	261	--	2805
GREELEY COUNTY							
16S 39W 02BDC 01	384139101354901	HERL & SONS, F J	I	121OGLL	190	16	3520
16S 39W 22DCB 01	383841101363801	BERNING, ANDREW	I	121OGLL	163	16	3529
16S 40W 15ACC 01	383954101432401	STOSKOPF, J F	I	121OGLL	204	--	3650
16S 40W 17CBC 01	383941101461201	KOEHN, ALFRED	I	121OGLL	--	--	3688
16S 40W 18DBA 01	383947101463701	CAVENEY, GORDON	I	121OGLL	210	16	3691
16S 40W 26ADA 01	383815101415101	YOUNG CATTLE CO	I	121OGLL	--	--	3602
16S 41W 20BAD 01	383915101522901	BARR, JACK	I	121OGLL	250	18	3739
16S 41W 33AAB 01	383736101505601	WALTER, C W	I	121OGLL	202	16	3746
16S 42W 22BCB 01	383909101572301	YOUNG, V M	I	121OGLL	237	18	3828
17S 39W 02BAA 01	383643101354101	WENALT, N H	I	121OGLL	--	--	3511
17S 39W 22ABB 01	383405101363901	KLEYMANN & SONS, F H	I	121OGLL	194	16	3527

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
GRAY COUNTY -- CONTINUED							
1965-	131.8	01/17/66	148.78	01/12/81	139.07	01/14/87	25S 27W 33ABB 01
1964-	128.86	01/24/67	149.92	01/25/82	145.58	01/06/87	25S 29W 07BCB 01
1956-	104.80	01/11/56	133.22	01/06/87	133.22	01/06/87	25S 29W 14ABB 01
1985-	9.89	01/06/87	16.20	01/22/85	9.89	01/06/87	25S 29W 27CCB 01
1956-	8.50	01/20/70	16.94	01/21/85	10.89	01/06/87	25S 30W 208CB 01
1939-	3.78	01/13/81	12.60	01/23/86	8.63	01/06/87	26S 27W 13BBC 01
1970-	23.84	01/14/75	53.72	01/14/87	53.72	01/14/87	26S 27W 27CDD 01
1985-	11.87	01/06/87	14.53	01/21/85	11.87	01/06/87	26S 28W 06DDB 01
1985-	86.82	01/21/85	91.49	01/06/87	91.49	01/06/87	26S 29W 15BCA 01
1965-	65.80	01/20/69	103.38	01/08/87	102.71	10/08/86	26S 29W 35CCC 01
					103.38	01/08/87	
					101.51	05/05/87	
1984-	65.00	01/12/84	69.14	01/06/87	69.14	01/06/87	26S 30W 01ABC 01
1972-	55.75	01/17/73	103.30	01/13/87	103.30	01/13/87	26S 30W 24DDD 01
1985-	82.50	01/22/85	86.18	01/07/87	86.18	01/07/87	27S 27W 01BAA 01
1967-	74.34	01/16/68	104.33	01/07/83	99.45	01/07/87	27S 27W 07ADC 01
1964-	123.47	01/18/66	145.70	01/07/87	145.70	01/07/87	27S 27W 10CDB 01
1937-	163.85	01/17/66	189.16	10/27/81	182.23	10/08/86	27S 27W 25CCD 01
					183.13	01/07/87	
					182.99	05/05/87	
					182.98	07/29/87	
1971-	61.29	01/21/71	98.01	01/08/87	98.01	01/08/87	27S 28W 05AAA 01
1970-	72.00	01/25/74	107.06	02/06/86			27S 28W 30CCA 01
1985-	102.40	01/24/85	107.08	01/07/87	107.08	01/07/87	27S 29W 27CAA 01
1964-	66.21	12/10/64	115.70	01/07/87	115.70	01/07/87	27S 30W 08BBB 01
1940-	62.50	12/10/64	114.93	07/29/87	108.13	10/08/86	27S 30W 23BBA 01
					112.16	01/07/87	
					114.93	07/29/87	
1967-	101.35	01/24/67	150.48	01/07/87	150.48	01/07/87	27S 30W 34CCC 01
1972-	164.26	01/14/75	194.02	01/07/87	194.02	01/07/87	28S 27W 03BBB 01
1985-	178.04	01/24/85	187.50	01/13/87	187.50	01/13/87	28S 28W 07CDD 01
1964-	144.90	01/24/74	159.98	01/18/78	149.13	01/07/87	28S 28W 20ADD 02
1965-	125.00	01/17/66	162.02	01/07/87	162.02	01/07/87	28S 29W 16ACC 01
1964-	120.00	01/28/65	170.36	01/07/87	170.36	01/07/87	28S 30W 10DDD 01
1959-	107.05	01/06/59	166.26	05/01/87	165.51	01/07/87	28S 30W 17BBA 01
					166.26	05/01/87	
1961-	115.37	04/02/62	169.99	10/08/86	169.99	10/08/86	28S 30W 24BAB 01
					167.09	01/07/87	
1959-	93.58	07/13/59	135.74	01/07/87	135.74	01/07/87	29S 27W 30BCC 01
1959-	87.60	04/18/60	124.61	01/13/87	124.61	01/13/87	29S 28W 28CDC 01
					121.81	05/05/87	
1981-	116.16	10/27/81	126.96	05/05/87	125.49	10/08/86	29S 29W 10ABB 01
					123.58	01/07/87	
					126.96	05/05/87	
1965-	100.70	01/04/65	139.90	01/07/87	139.90	01/07/87	29S 29W 27BCB 01
1965-	144.64	01/17/66	182.41	01/07/87	182.41	01/07/87	29S 30W 22BBC 01
1965-	147.55	01/04/65	204.05	01/24/86	203.88	01/13/87	29S 30W 35ACD 01
GREELEY COUNTY							
1970-	100.88	01/24/70	146.53	10/02/86	146.53	10/02/86	16S 39W 02BDC 01
					139.65	01/05/87	
					140.96	04/27/87	
1964-	87.22	01/28/65	140.06	10/02/86	140.06	10/02/86	16S 39W 22DCB 01
					131.15	01/05/87	
					132.61	04/27/87	
					133.81	07/23/87	
1965-	119.90	01/21/66	162.04	01/07/85	151.73	01/05/87	16S 40W 15ACC 01
1985-	158.86	01/06/86	168.21	10/09/85	161.09	10/02/86	16S 40W 17CBC 01
					160.30	01/05/87	
					160.18	04/27/87	
					162.53	07/23/87	
1965-	126.70	01/18/66	165.01	04/10/85			16S 40W 18DBA 01
1976-	108.48	01/18/77	118.88	03/19/85	117.99	01/05/87	16S 40W 26ADA 01
1966-	131.34	03/30/66	171.88	10/29/84	170.61	10/02/86	16S 41W 20BAD 01
					170.50	01/05/87	
1969-	152.31	01/23/69	176.28	01/10/84			16S 41W 33AAB 01
1966-	186.36	01/20/69	209.67	01/06/86	200.28	01/05/87	16S 42W 22BCB 01
1972-	101.76	03/11/77	197.4	01/26/78	120.91	10/02/86	17S 39W 02BAA 01
					117.56	01/05/87	
					117.47	04/27/87	
					117.47	07/23/87	
1965-	119.50	01/28/65	140.74	10/09/85	133.86	10/02/86	17S 39W 22ABB 01
					131.70	01/05/87	
					131.28	04/27/87	

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
GREELEY COUNTY -- CONTINUED							
17S 39W 34CCB 01	383141101371201	MAI, EDWARD	H	1210GLL	--	--	3505
17S 40W 15CCB 01	383418101435701	SMITH, J E	I	1210GLL	200	18	3607
17S 40W 17BBA 01	383458101460201	HOFFMAN, D N	I	1210GLL	227	16	3663
17S 40W 31BBA 01	383220101470801	SMITH RANCH	I	1210GLL	250	--	3663
17S 42W 27CBB 01	383247101572001	LOBMEYER JR, NICK	I	1210GLL	50	8	3768
18S 39W 07BBD 01	383028101402701	BRUNSWIG, BOB	I	1210GLL	145	16	3564
18S 39W 19CDA 01	382810101400801	PRINGLE RANCH	I	1210GLL	100	12	3510
18S 39W 23CCB 01	382810101360701	BATES, EMERY	I	1210GLL	185	16	3485
18S 39W 24AAC 01	382843101341301	BATES, EMERY	I	1210GLL	183	16	3467
HAMILTON COUNTY							
21S 39W 07CBA 01	381422101385501	OBRATE, A H	H, S	1210GLL	216	6	3497
22S 39W 03BBB 01	381027101355301	CRAWFORD, VELMA E	H	1210GLL	199	6	3453
22S 39W 08DDD 01	380849101370701	WHITE, O D	U	1210GLL	214	6	3468
23S 39W 15ADD 01	380309101345301	BUCK, O P	S	1210GLL	144	--	3325
23S 40W 29ddb 01	380105101433601	DOTTS, BELVA	S	217CRCSL	--	--	3397
23S 42W 19CBB 01	380210101584801	VAN EDDY, C	I	110ALVM	74	20	3339
23S 42W 26DCA 01	380105101534401	BALDWIN, W B	I	110ALVM	70	16	3309
23S 42W 27ddb 01	380105101544101	BALDWIN, W B	I	110ALVM	70	16	3311
23S 42W 34CBB 01	380025101553001	EDDIE, LOU	I	110ALVM	--	--	3307
23S 43W 21ABA 01	380236102023501	HUSER, CHESTER	I	110ALVM	29	40	3364
23S 43W 23CB 01	380223102010301	CRITTENDEN, LANCE	I	110ALVM	68	19	3356
23S 43W 25CBD 02	380111101594702	SLAVEN, WINFIELD	I	110ALVM	83	16	3335
23S 43W 26BCC 01	380124102010201	LOW, CLIFFORD	I	110ALVM	22	16	3343
24S 39W 19CBC 01	375650101390001	OWINGS, C G	I	110ALVM	50	25	3175
24S 39W 22CCB 01	375643101355001	HUMMEL, FLOYD E	I	110ALVM	42	16	3152
24S 39W 35BAC 01	375531101342601	HERMAN, LAWRENCE	I	110ALVM	40	16	3143
24S 39W 35CBA 01	375512101343401	HERMAN, LAWRENCE	I	112PLSC	90	16	3146
24S 40W 07CBB 01	375841101453401	SCHOLL, GEORGE R	I	110ALVM	58	20	3233
24S 40W 17BBB 01	375815101442401	SMITH, JOHN H	I	110ALVM	59	16	3221
24S 40W 23AAB 01	375722101402101	HELM, MINNIE V	I	110ALVM	68	19	3204
24S 40W 31BBB 01	375538101453401	LEVENS, J B	S	112PLSC	72	6	3287
24S 41W 01DAD 01	375927101454301	TRION, RUSSELL	I	110ALVM	45	16	3254
24S 42W 04AAD 01	375953101553901	TATE, C A	S	110ALVM	13	6	3304
24S 42W 28DDD 01	375544101553801	BARRETT, J	S	200MSZC	200	6	3455
24S 43W 14CBB 01	375749102010201	RAMSEY JR, H E	S	200MSZC	119	5	3452
25S 39W 02CAD 01	375413101341701	HOWELL, W F	S	112PLSC	40	--	3156
25S 39W 23BDD 01	375149101341601	TREMBLEY ETAL, N	S	112PLSC	133	6	3286
25S 40W 01CA 01	375416101394401	CAMPBELL, F W	S	112PLSC	58	6	3218
25S 40W 26BBB 01	375116101410801	EVERS, A	H, S	200MSZC	255	6	3412
25S 43W 03ABB 01	375446102013601	WELCAL, H C	U	200MSZC	295	6	3575
25S 43W 21AAB 01	375209102022601	HART, CLIFFORD	H, S	200MSZC	175	6	3522
25S 43W 25CCD 01	375031101594501	WEAVER, DAVE	I	112PLSC	225	16	3490
26S 41W 12DCC 01	374744101450401	BRITTINGHAM, J B	S	200MSZC	300	4	3379
26S 41W 20BCD 01	374638101495001	NICKERSON, I & G	I	112PLSC	140	16	3317.0
26S 41W 36CCC 01	374414101453701	COMBS, MELVIN	I	112PLSC	240	16	3270
26S 42W 10BB 02	374826101541402	HOLDREN, C W	I	112PLSC	370	18	3405
26S 42W 17CBB 01	374708101562401	WECKERLY, MARION	I	112PLSC	749	16	3458
26S 42W 22CDB 01	374606101540201	PAYNE, HAROLD	I	112PLSC	265	16	3412
26S 43W 10DBB 01	374803102001501	HATCHER FARMS INC.	I	--	376	16	3516
26S 43W 25DCC 01	374507101580601	SCHENK, J P	I	112PLSC	400	16	3508
HARPER COUNTY							
32S 06W 01DDD 01	371708097544701	UNKNOWN	U	--	52.6	--	1360

GROUND-WATER LEVELS IN KANSAS, 1987

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PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
GREELEY COUNTY -- CONTINUED							
1977-	93.65	01/29/79	98.99	01/10/84	96.10	01/06/87	17S 39W 34CCB 01
1962-	125.16	11/05/62	146.98	10/06/82	140.58	10/02/86	17S 40W 15CCB 01
					138.84	01/05/87	
					138.61	04/27/87	
1972-	179.40	01/06/86	202.30	01/17/77			17S 40W 17BBA 01
1965-	163.40	01/05/87	191.60	09/16/75	173.24	10/02/86	17S 40W 31BBA 01
					163.40	01/05/87	
1971-	34.47	01/24/74	46.28	02/01/72	38.06	10/02/86	17S 42W 27CBB 01
					37.00	01/06/87	
					35.83	04/27/87	
1969-	112.48	01/19/70	127.78	01/13/75	116.30	01/06/87	18S 39W 07BBD 01
1972-	70.38	01/17/77	74.22	01/06/87	74.22	01/06/87	18S 39W 19CBA 01
1967-	122.20	03/10/67	133.40	01/08/87	133.40	01/08/87	18S 39W 23CCB 01
1963-	110.00	02/01/63	142.29	01/07/85	135.05	01/06/87	18S 39W 24AAC 01
HAMILTON COUNTY							
1962-	183.02	01/10/87	205.4	10/11/62	183.02	01/10/87	21S 39W 07CBA 01
1962-	182.79	01/15/85	193.41	10/11/62	183.15	01/10/87	22S 39W 03BBB 01
1962-	174.70	01/15/85	182.21	01/12/81	182.13	01/10/87	22S 39W 08DDD 01
1962-	128.31	01/13/79	133.80	02/20/63	129.54	01/10/87	23S 39W 15ADD 01
1962-	238.69	02/20/63	309.37	01/10/87	309.37	01/10/87	23S 40W 29DDB 01
1962-	24.01	02/19/63	29.09	03/12/65	25.40	01/10/87	23S 42W 19CBB 01
1961-	23.78	01/20/66	29.80	06/13/78	26.18	01/20/87	23S 42W 26CCA 01
1961-	19.22	01/18/71	27.50	11/29/78	21.90	01/20/87	23S 42W 27DDB 01
1961-	9.67	01/20/66	13.79	01/03/77	10.40	01/20/87	23S 42W 34CBB 01
1944-	11.27	10/02/69	18.79	09/17/64	13.04	01/10/87	23S 43W 21ABA 01
1947-	19.80	01/31/62	26.53	01/03/79	21.06	01/10/87	23S 43W 23CBB 01
1961-	8.00	02/02/87	11.80	08/29/78	8.00	02/02/87	23S 43W 25CDB 02
1960-	6.83	01/31/62	10.33	09/19/61	9.16	01/10/87	23S 43W 26BCC 01
1950-	5.85	01/06/61	12.37	01/14/80	8.68	01/26/87	24S 39W 19CBC 01
1948-	8.00	03/26/48	17.33	01/12/81	12.70	02/02/87	24S 39W 22CCB 01
1953-	4.50	01/31/53	10.56	01/16/81	8.67	02/02/87	24S 39W 35BAC 01
1958-	1.20	08/01/58	17.22	01/11/82	15.39	01/20/87	24S 39W 35CBA 01
1948-	13.41	01/29/86	16.79	01/14/80	14.92	01/20/87	24S 40W 07CBB 01
1970-	13.38	01/29/86	21.23	09/14/79	16.76	10/14/86	24S 40W 17BBB 01
					13.98	01/20/87	
					14.21	04/08/87	
1959-	23.00	03/01/59	30.50	08/29/78	25.57	01/26/87	24S 40W 23AAB 01
1960-	63.55	01/16/68	66.74	01/30/86	64.37	01/20/87	24S 40W 31BBB 01
1961-	14.47	01/17/66	29.08	03/15/65	24.97	01/20/87	24S 41W 01DAD 01
1962-	6.88	01/20/66	14.32	01/20/83	9.70	01/20/87	24S 42W 04AAD 01
1961-	159.30	02/19/63	165.28	01/26/87	165.28	01/26/87	24S 42W 28DDD 01
1939-	109.82	01/16/68	120.18	01/10/87	120.18	01/10/87	24S 43W 14CBB 01
1960-	27.91	01/18/66	34.76	01/30/86	34.70	01/20/87	25S 39W 02CAD 01
1962-	78.72	01/18/66	94.75	01/19/71			25S 39W 23BDD 01
1962-	45.86	01/18/66	52.19	01/14/80			25S 40W 01CA 01
1940-	213.07	01/20/69	224.72	01/20/87	224.72	01/20/87	25S 40W 26BBB 01
1962-	189.84	03/31/64	266.20	02/01/84	266.01	01/10/87	25S 43W 03ABB 01
1962-	128.45	02/19/63	144.41	01/24/74	137.10	01/26/87	25S 43W 21AAB 01
1961-	118.02	01/31/62	150.99	01/24/74	150.38	01/26/87	25S 43W 25CCD 01
1962-	184.2	10/16/62	229.59	01/17/85			26S 41W 12DCC 01
1962-	20.59	10/16/82	39.79	01/21/76	34.72	02/02/87	26S 41W 20BCD 01
1966-	29.00	01/15/66	59.20	01/26/87	59.20	01/26/87	26S 41W 36CCC 01
1961-	74.66	01/31/61	115.01	01/26/87	115.01	01/26/87	26S 42W 10BB 02
1960-	100.00	02/06/60	170.82	01/29/86	166.65	10/14/86	26S 42W 17CBB 01
1959-	87.42	01/05/60	208.81	08/08/85	162.81	10/14/86	26S 42W 22CDB 01
					168.20	02/02/87	
					212.03S	04/30/87	
					216.81S	07/27/87	
1984-	230.56	05/16/84	233.12	01/29/86			26S 43W 10DBB 01
1972-	158.83	01/18/72	221.95	01/29/86	218.72	01/26/87	26S 43W 25DCC 01
HARPER COUNTY							
1986-	23.98	03/06/86	24.65	02/24/87	24.65	02/24/87	32S 06W 01DDD 01

GROUND-WATER LEVELS IN KANSAS, 1987

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
HARVEY COUNTY							
22S 02W 05CBD 01	380950097340901	BARTEL, EARL	I	--	--	--	1468
22S 03W 02DCD 01	380937097365501	REGIER, RAYMOND	I	112PLSC	86	18	1450
22S 03W 29BAD 01	380647097402901	SCHMIDT, GORDON	I	112PLSC	--	--	1430
22S 03W 35AAA 01	380601097363601	SCHRAG, PETE	I	112PLSC	90	--	1420
23S 01W 19AAC 01	380225097275401	DUBOIS, MARVIN	I	112PLSC	120	18	1420
23S 01W 28AAD 01	380133097253501	CORFMAN, CLARENCE	I	--	--	--	1403
23S 02W 22CCD 01	380146097315501	VAN CLEVE SOOTER	I	112PLSC	--	--	1395
23S 02W 34DCC 01	380001097313001	CITY OF WICHITA	U	112PLSC	37	1	1398.5
23S 03W 06DDD 01	380423097410101	GMD 2	U	112PLSC	148	2	1495
23S 03W 14AAC 01	380318097364301	DARLINS, MARVIN MRS.	I	112PLSC	--	--	1450
23S 03W 32DCC 02	380002097401702	CITY OF WICHITA	U	112PLSC	98	1	1444.71
24S 01W 05AAB 01	375955097264801	UNKNOWN	I	--	--	--	1394
24S 01W 19BCC 01	375658097284601	JACOB, WAYNE	I	112PLSC	--	--	1383
24S 01W 22BCC 01	375658097252701	HARPER, JOE	I	112PLSC	--	--	1390
24S 03W 14BBB 01	375811097373001	CITY OF WICHITA	U	112PLSC	34	1	1430
HASKELL COUNTY							
27S 31W 24CDC 01	374044100395001	NUSSER, E W	I	112PLSC	206	16	2816
27S 31W 31BCC 01	373929100453601	NIGHTENGAL, MRS A	I	112PLSC	250	16	2895
27S 32W 03CBB 01	374342100485201	NIGHTENGAL, HENRY	I	--	--	--	2872
27S 32W 06CBB 01	374343100520801	SNODGRASS, CLAUDE	I	112PLSC	298	16	2905
27S 32W 19CCD 01	374046100520101	COX, F N	I	112PLSC	400	16	2906
27S 33W 29DAA 01	374013100564001	KELLS, W T	I	112PLSC	452	16	2995
27S 34W 16DDD 01	374136101020901	WALTER KUHN RANCH	U	--	--	--	--
27S 34W 28DAA 02	374011101020902	--	I	--	--	--	3042
28S 31W 35CCB 01	373352100411301	OCKER, MANFORD	I	112PLSC	312	16	2863
28S 32W 18BBB 01	373710100521001	MEAIRS, EARL	I	112PLSC	438	16	2951
28S 32W 24BCC 01	373556100464201	WEIDNER, ALTA M	I	112PLSC	250	18	2910
28S 33W 20DDD 01	373531100564001	LEE, R F	H	--	545	16	2967
28S 34W 13BBB 01	373709100594901	FOREMAN, WALTER A	I	112PLSC	388	16	3022
28S 34W 15DAB 01	373642101011201	STONESTREET, R & A	I	112PLSC	408	16	3020
29S 31W 09CB 01	373218100432101	CONVERSE, E G	I	112PLSC	340	16	2871
29S 31W 34BAC 01	372904100421101	BRYANT, D D	I	112PLSC	417	16	2858
29S 32W 04AAA 01	373340100490201	CAIN, GERALD	U	--	447	16	2914
29S 32W 19CCC 01	373018100521101	ELLIOT, DORSEY	I	112PLSC	325	16	2923.4
29S 32W 26CBB 02	372944100474902	MC CLURE, KELLY	I	112PLSC	384	16	2895
29S 33W 01AAB 01	373340100522701	JACQUART, ROLLAND	I	112PLSC	450	16	2946
29S 33W 28BCB 01	372958100563301	HALL, S & G	U	112PLSC	--	--	2963
29S 33W 34DDD 01	372833100543001	BROOKOVER, EARL	I	--	412	16	--
29S 34W 11CCC 01	373201101005501	ANOTON, GARY	I	--	595	--	2969
30S 31W 24BBC 01	372540100400701	UNKNOWN	I	--	--	--	2831
30S 31W 26ABB 01	372454100404001	SCHMIDT, CLARENCE D	I	--	--	--	2834
30S 32W 11BBB 01	372733100474901	WATSON, VIRGIL	I	112PLSC	412	16	2885
30S 32W 31BAB 01	372405100515601	LEMON &, MILLER	I	112PLSC	380	16	2906
30S 33W 06DBD 01	372754100580201	HOFFMAN, L C	I	112PLSC	460	16	2986
30S 33W 30CBD 01	372425100583501	SCHNELBACKER, EMIL	I	112PLSC	415	16	2963
30S 34W 05BBB 01	372825101041201	ROONEY &, ROONEY	I	112PLSC	410	16	3006
30S 34W 30ADD 02	372436101042002	UNKNOWN	U	--	--	--	2843

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
HARVEY COUNTY							
1984-	47.33	01/14/87	48.25	01/16/85	47.33	01/14/87	22S 02W 05CBD 01
1970-	30.82	05/08/73	40.32	01/20/84	33.93	01/14/87	22S 03W 02DCD 01
1984-	6.93	01/15/86	15.78	01/16/85	9.28	01/14/87	22S 03W 29BAD 01
1984-	6.11	01/15/86	11.69	01/20/84	6.94	01/14/87	22S 03W 35AAA 01
1970-	26.97	01/09/75	33.14	01/20/84	31.46	01/15/87	23S 01W 19AAC 01
1984-	19.46	01/15/86	22.57	02/16/84	20.22	01/15/87	23S 01W 28AAD 01
1984-	12.79	01/15/86	18.37	01/20/84	14.15	01/14/87	23S 02W 22CCD 01
1949-	+1.03	08/01/51	18.66	08/31/56	12.37	10/01/86	23S 02W 34DCC 01
					12.49	01/01/87	
					12.79	01/14/87	
					12.36	04/01/87	
					11.31	07/01/87	
1984-	65.90	01/15/86	74.35	01/31/84	67.46	01/14/87	23S 03W 06DDD 01
1984-	32.76	01/15/86	37.39	01/20/84	32.90	01/14/87	23S 03W 14AAC 01
1939-	2.82	10/11/51	10.67	12/28/56	8.84	10/01/86	23S 03W 32DCC 02
					7.94	01/01/87	
					8.45	01/14/87	
					6.71	04/01/87	
					6.68	07/01/87	
1986-	22.26	01/15/86	23.95	01/14/87	23.95	01/14/87	24S 01W 05AAB 01
1984-	18.63	01/15/86	22.95	01/16/85	20.08	01/14/87	24S 01W 19BCC 01
1984-	24.64	01/15/86	29.43	02/16/84	26.84	01/14/87	24S 01W 22BCC 01
1965-	5.29	07/01/79	15.81	10/01/81	15.35	10/01/86	24S 03W 14BBB 01
					15.26	01/01/87	
					15.43	01/14/87	
					15.34	04/01/87	
					15.38	07/01/87	
HASKELL COUNTY							
1964-	97.3	12/07/64	152.85	01/24/85	150.33	01/09/87	27S 31W 24CDC 01
1948-	145.	11/04/48	204.85	01/27/87	204.85	01/27/87	27S 31W 31BCC 01
1985-	138.08	01/24/85	142.48	01/09/87	142.48	01/09/87	27S 32W 03CBB 01
1973-	118.28	01/16/73	155.38	01/09/87	155.38	01/09/87	27S 32W 06CBB 01
1954-	122.00	12/14/54	183.65	01/09/87	183.65	01/09/87	27S 32W 19CCD 01
1965-	186.30	01/20/66	271.90	01/09/87	264.23	10/15/86	27S 33W 29DAA 01
					271.90	01/09/87	
1982-	175.10	07/15/82	198.41	04/07/82	190.94	01/09/87	27S 34W 16DDD 01
					194.61	07/28/87	
1977-	209.08	01/18/78	237.66	01/09/87	237.66	01/09/87	27S 34W 28DAA 02
1964-	162.93	12/09/64	215.42	01/27/87	215.42	01/27/87	28S 31W 35CCB 01
1966-	203.3	10/04/66	307.43	10/03/85	302.46	01/09/87	28S 32W 18BBB 01
1964-	172.30	07/07/65	233.98	07/17/86	229.73	10/08/86	28S 32W 24BCC 01
					231.68	01/09/87	
					231.86	05/01/87	
1985-	327.43	10/15/86	327.61	05/22/85	327.43	10/15/86	28S 33W 20DDD 01
1966-	260.84	01/20/66	366.90	01/22/86			28S 34W 13BBB 01
1966-	263.0	06/06/66	370.70	01/12/87	369.91	10/15/86	28S 34W 15DAB 01
					370.70	01/12/87	
					370.07	05/01/87	
1964-	168.03	01/24/67	223.55	01/07/87	223.55	01/07/87	29S 31W 09CB 01
1956-	172.00	01/28/65	224.65	01/07/87	224.65	01/07/87	29S 31W 34BAC 01
1985-	220.00	09/30/85	260.30	01/07/87	260.30	01/07/87	29S 32W 04AAA 01
1959-	197.75	02/26/59	295.95	01/07/87	295.95	01/07/87	29S 32W 19CCC 01
1960-	199.16	01/06/61	261.10	01/07/87	261.10	01/07/87	29S 32W 26CB 02
					259.48	05/01/87	
1958-	216.10	01/30/58	336.50	01/07/87	336.50	01/07/87	29S 33W 01AAB 01
1970-	237.03	01/21/70	308.27	10/03/85	307.60	01/07/87	29S 33W 283CB 01
1985-	304.64	02/04/85	314.85	01/07/87	314.85	01/07/87	29S 33W 34DDD 01
1985-	303.90	01/07/87	316.01	05/22/85	303.90	01/07/87	29S 34W 11CCC 01
1985-	204.50	01/08/86	233.69	05/22/85	228.52	10/08/86	30S 31W 24BBC 01
					213.10	01/07/87	
					213.01	05/01/87	
					215.57	07/28/87	
1985-	227.25	02/04/85	232.90	01/07/87	232.90	01/07/87	30S 31W 26ABB 01
1961-	195.39	04/02/62	270.10	01/07/87	270.10	01/07/87	30S 32W 11BBB 01
1958-	195.38	02/24/59	277.44	10/24/85	265.01	10/08/86	30S 32W 31BAB 01
					263.95	01/07/87	
1964-	239.78	12/08/64	305.90	01/07/87	305.90	01/07/87	30S 33W 06DBJ 01
1965-	219.78	01/20/66	270.70	01/07/87	264.79	10/15/86	30S 33W 30CBD 01
					270.70	01/07/87	
1957-	190.00	02/15/57	325.11	11/07/84	313.81	10/15/86	30S 34W 05BBB 01
					301.10	01/07/87	
1978-	82.71	04/25/78	112.18	07/28/87	108.95	01/07/87	30S 34W 30ADD 02
					112.11R	05/01/87	
					112.18	07/28/87	

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
HODGEMAN COUNTY							
21S 22W 12BCB 01	381430099414001	MC FADDEN, HAROLD	I	110ALVM	72	16	2156.6
22S 22W 13CCC 01	380752099414101	MACEY, WILLIAM	U	110ALVM	49	1	2152
22S 23W 31ADD 01	380544099525201	HAYS, DANIEL L	S	210DKOT	315	6	2340
22S 24W 14BBC 01	380833099560201	SHRIWISE, CLARE	I	210DKOT	560	16	2460
22S 24W 15BDA 01	380827099564301	MC KIBBEN, W E	I	210DKOT	588	16	2463
22S 24W 16ADB 02	380827099572502	SHRIWISE, WAYNE	U	210DKOT	565	1	2465
22S 24W 24DDD 01	380701099535801	SPRINGER, BERNARD	H	210DKOT	410	6	2360
22S 24W 25DDC 01	380609099540701	CRAIGHEAD, DARRELL	S	210DKOT	330	6	2332
22S 24W 26DDA 01	380616099550401	FORD, LEONARD	S	210DKOT	240	6	2365
22S 24W 35DAC 01	380530099551301	OWENS, J S	S	210DKOT	282	6	2312
23S 22W 07DAA 01	380351099461501	KORF, FRED	U	210DKOT	482	1	2239
23S 23W 04AAD 01	380504099504001	BRISTOW, N H	I	210DKOT	282	16	2235
23S 23W 04DCA 01	380432099505701	HOAGLAND, D W	I	210DKOT	264	16	2236
23S 23W 12ABD 01	380412099473801	JARNAGIN JR, J J	I	210DKOT	245	16	2256
23S 24W 11DAA 01	380352099550501	JONES, TRACY	S	210DKOT	300	6	2335
23S 25W 22DBB 01	380207100031301	CARDER, ROY	I	210DKOT	575	16	2522
23S 26W 07CCC 01	380335100132701	COHOON, HARRY	I	210DKOT	500	16	2612
23S 26W 20CCC 01	380149100122201	OCHS, NOLA	I	--	100	--	2594
23S 26W 26AAD 01	380135100081001	OCHS, LOREN	I	--	102	--	2590
23S 26W 31CDD 01	380005100130401	NUSS, JARRELL	I	1210GLL	--	16	2621
24S 21W 20CBB 01	375653099392401	KATZ, LEONARD	I	210DKOT	--	16	2348
24S 23W 03CCC 01	375912099503201	SCHAFER, EARL	I	1210GLL	90	16	2422
24S 23W 06AAB 01	375958099530101	WOLF, FRANK	I	210DKOT	517	16	2457
24S 24W 02CCC 01	375911099560301	SCHRADER, U V	I	1210GLL	90	16	2478
24S 24W 20CCC 01	375636099592101	BYERS, LOUIS	I	210DKOT	--	16	2511
24S 25W 22BAB 01	375719100033001	WILSON, JOHN	I	--	--	--	2545
24S 26W 35CBC 01	375502100090801	JAMES, A C	S	1210GLL	86	6	2608.8
JACKSON COUNTY							
06S 15E 27BAB 01	393024095435701	RWD 3	U	--	123	2	1135
JEFFERSON COUNTY							
11S 16E 25CBA 01	390347095352701	KGS	U	110ALVM	39.5	2	873
11S 17E 27BBC 01	390407095310901	KGS	U	110ALVM	42	2	860
11S 18E 08DAC 01	390617095255301	KGS	U	110ALVM	49	2	852
11S 19E 29CCA 01	390334095195801	KGS	U	112NWMN	71	2	848

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
HODGEMAN COUNTY							
1960-	28.10	04/17/62	56.39	03/08/84	51.15 50.70 49.67 50.34	12/18/86 03/12/87 07/07/87 09/10/87	21S 22W 12BCB 01
1965-	23.70	03/20/74	36.27	06/15/82	33.63 30.65 31.70 30.86	12/18/86 03/12/87 07/07/87 09/10/87	22S 22W 13CCC 01
1969-	123.99	04/27/73	233.30	08/27/71	138.57	12/18/86	22S 23W 31ADD 01
1971-	252.08	03/22/71	369.05	10/05/78	267.59	12/18/86	22S 24W 148BC 01
1971-	249.35	03/21/73	343.93	10/04/77	266.38	01/14/87	22S 24W 15BDA 01
1972-	230.28	09/16/87	341.88	09/28/76	269.52 259.24 248.74 230.28	12/18/86 03/18/87 07/07/87 09/16/87	22S 24W 16ADB 02
1970-	154.40	03/22/71	252.15	08/27/71	160.75	01/14/87	22S 24W 24DDD 01
1970-	128.27	03/21/73	226.35	08/27/71	138.36 134.12 130.22 148.27	12/18/86 03/18/87 07/07/87 09/16/87	22S 24W 25DDC 01
1970-	150.08	12/22/83	194.50	07/23/71	152.80	01/08/87	22S 24W 26DDA 01
1970-	107.10	03/21/73	198.55	10/05/78	118.33	12/18/86	22S 24W 35DAC 01
1972-	73.97	06/10/86	127.07	09/23/75	76.70 75.15 75.10 79.28	12/18/86 03/18/87 07/07/87 09/16/87	23S 22W 07DAA 01
1970-	28.46	03/21/73	110.85	09/23/75	31.58 29.72 28.88 42.10	12/18/86 03/18/87 07/07/87 09/16/87	23S 23W 04AAD 01
1970-	26.02	03/21/73	102.10	10/28/71	37.15	12/18/86	23S 23W 04DCA 01
1970-	79.37	12/22/83	141.80	07/27/71	86.23	12/18/86	23S 23W 12ABD 01
1970-	125.87	03/21/73	205.23	09/25/74	136.05 129.62 125.95 151.69	12/18/86 03/18/87 07/07/87 09/16/87	23S 24W 11DAA 01
1973-	233.2	05/24/73	297.98	09/17/84			23S 25W 22DBB 01
1968-	272.92	04/09/69	356.91	10/25/85	327.72	01/14/87	23S 26W 07CCC 01
1985-	46.15	01/08/87	48.66	01/17/85	46.15	01/08/87	23S 26W 20CCC 01
1985-	67.65	01/25/86	70.71	01/17/85	69.21	01/08/87	23S 26W 26AAD 01
1977-	67.45	01/25/86	71.57	01/08/79	68.55	01/08/87	23S 26W 31CDD 01
1977-	77.30	01/20/83	79.19	12/13/77	77.62	01/08/87	24S 21W 20CBB 01
1977-	56.09	01/19/82	58.66	01/08/87	58.66	01/08/87	24S 23W 03CCC 01
1973-	208.09	07/07/87	268.33	09/28/76	211.30 208.09 208.09 216.42	12/22/86 03/18/87 07/07/87 09/16/87	24S 23W 06AAB 01
1977-	51.47	12/15/77	59.62	01/08/87	59.62	01/08/87	24S 24W 02CCC 01
1977-	63.05	01/08/87	68.40	01/25/86	63.05	01/08/87	24S 24W 20CCC 01
1985-	80.24	01/08/87	85.00	01/17/85	80.24	01/08/87	24S 25W 22BAB 01
1954-	59.73	07/07/87	67.30	01/06/75	60.50 59.73 60.11	12/22/86 07/07/87 09/16/87	24S 26W 35CBC 01
JACKSON COUNTY							
1972-	76.22	03/15/74	88.30	02/26/87	88.30	02/26/87	06S 15E 27BAB 01
JEFFERSON COUNTY							
1966-	18.50	12/26/73	26.90	12/09/76	22.53 23.80 18.70 22.50	12/03/86 03/03/87 06/03/87 09/09/87	11S 16E 25CBA 01
1966-	11.60	06/03/87	20.40	12/09/76	15.80 16.90 11.60 16.15	12/03/86 03/03/87 06/03/87 09/09/87	11S 17E 27BBC 01
1966-	3.60	06/10/82	19.20	03/14/67	10.40 10.90 8.80 12.60S	12/03/86 03/03/87 06/03/87 09/09/87	11S 18E 08DAC 01
1966-	10.40	03/21/73	24.60	06/17/77	18.80 18.80 15.60 19.63	12/03/86 03/03/87 06/03/87 09/09/87	11S 19E 29CCA 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
JOHNSON COUNTY							
12S 22E 25BCCB01	385841094553401	USGS	U	110ALVM	33	1	780.2
12S 22E 29BBD 01	385853094594901	KGS	U	110ALVM	46	5	791
KEARNY COUNTY							
22S 35W 23CDD 01	380713101075501	GRAHAM, L N	I	121OGLL	175	16	3025
22S 36W 28DCC 01	380618101163101	COMBS, LARRY	I	--	--	--	3215
22S 37W 34BBC 01	380606101223501	BEYMER & BEYMER INC	I	--	184	16	3230
23S 35W 05ACC 01	380500101110501	LONDON, J	I	121OGLL	180	13	3096
23S 35W 12CCC 01	380344101071301	WHITE, E S	I	112PLSC	378	16	3009.0
23S 35W 16BBC 01	380329101103001	WARNER, SIDNEY	I	--	263	--	3038
23S 35W 25BBB 02	380153101071302	HAMLIN, C C	I	112PLSC	320	16	3005
23S 36W 04CBB 01	380452101170901	URIE, LAWRENCE G	I	121OGLL	198	16	3183
23S 36W 32BBB 01	380057101181401	FOSTER, W H	I	121OGLL	307	18	3234.0
23S 36W 35BBB 01	380058101145601	RATZLAFF ESTATE	I	--	290	16	3193
23S 37W 04ABC 01	380510101231101	WIATT FARMS INC	U	121OGLL	--	--	3281
23S 37W 19CCC 01	380153101255501	BELL, GEORGE R	I	121OGLL	294	16	3326
23S 37W 28CCB 01	380108101234301	MILES, B E	I	121OGLL	300	16	3303
24S 35W 09CCC 01	375828101103101	KETTLER, MRS A	I	112PLSC	253	16	2998
24S 35W 13CCC 02	375738101071302	GLUNT, ROBERT	I	110ALVM	50	5	2941
24S 35W 24BCB 01	375718101071301	GLUNT, ROBERT	I	110ALVM	325	36	2941.4
24S 36W 23CBB 02	375702101145602	FLETCHER RANCH	I	112PLSC	280	16	3014
25S 35W 02BAA 01	375454101075401	GIGOT, DEAN	U	112PLSC	300	2	2990
25S 35W 04BDD 01	375433101100601	TATE, BRAD	I	--	299	--	2990
25S 35W 17AAA 01	375307101103901	C C CATTLE CO	I	112PLSC	--	--	2995
25S 35W 26BAB 01	375124101080201	GEORGE H. TATE, III	I	112PLSC	--	--	3005
25S 36W 14B 01	375257101144301	HITCH FAMILY FARMS	I	--	370	16	--
25S 36W 28BBD 01	375115101165801	BARR + ROUNDS	I	112PLSC	362	16	3050
25S 36W 35CCA 01	374951101144601	JAEGER FARMS	I	--	272	--	3025
25S 37W 15ABA 02	375305101215502	MARQUARDT, CARL	U	110ALVM	29	1.25	3050
25S 37W 25BAD 02	375115101195902	BEYMER, C E	U	112PLSC	180	3	3056
25S 38W 02BDA 01	375435101274001	MOORE, J. NELSON	S	--	--	--	3170
25S 38W 08CAA 01	375328101305701	BEATY, R T	U	112PLSC	120	3	3140
25S 38W 20ACC 01	375150101304801	BEATY, R T	U	112PLSC	127	5	3175
25S 38W 26ACC 01	375059101273101	MC KINNEY, IDA W	I	112PLSC	--	18	3145
26S 35W 29BBD 01	374544101103701	FORT, JON	I	--	--	--	3045
26S 36W 22CCA 01	374606101145401	BERLIER, EARL E	I	--	--	--	3090
26S 37W 06ACB 01	374917101242701	WAECHTER, L C	S	112PLSC	47	--	3092
KINGMAN COUNTY							
27S 05W 24CDC 01	374050097491601	ISAACS, MORTIMER	I	112PLSC	42	16	1477
27S 05W 33ABB 02	373951097521902	PEOPLES GAS CO.	N	112PLSC	40	6	1460
27S 06W 12CCD 01	374225097555101	GOERING, M D	I	112PLSC	52	16	1488
27S 06W 16CCB 01	374139097591601	NOTESTINE, R O	I	112ALVM	30	16	1462
27S 07W 03ADC 01	374332098040101	YOUNG, MERLE	I	112PLSC	55	12	1545
27S 07W 23BCC 01	374055098034401	KGS	U	112PLSC	14	1	1567
27S 08W 17DAB 01	374143098124601	GRABER, R A	I	112PLSC	113	16	1665
27S 08W 25DAD 01	373951098082101	FUNKE, DICK	U	--	49	16	1622
27S 08W 30AAA 02	374024098134402	UNKNOWN	S	--	59	--	--
27S 08W 35CBC 01	373859098101701	ARNOLD, P A	I	112PLSC	57	16	1610

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
JOHNSON COUNTY							
1961-	14.69	03/21/73	29.05	06/11/81	23.00 24.95 22.10 26.08	12/03/86 03/03/87 06/03/87 09/09/87	12S 22E 25BCCB01
1967-	8.32	12/26/73	21.67	05/30/67	13.80 14.95 13.50 16.00	12/03/86 03/03/87 06/03/87 09/09/87	12S 22E 29BBD 01
KEARNY COUNTY							
1961-	99.53	02/10/61	132.03	01/06/87	132.03	01/06/87	22S 35W 23CDD 01
1984-	172.79	01/06/87	177.74	01/21/85	172.79	01/06/87	22S 36W 28DCC 01
1986-	135.17	01/30/86	135.82	01/06/87	135.82	01/06/87	22S 37W 34BBC 01
1966-	121.48	01/20/67	150.90	01/21/85			23S 35W 05ACC 01
1958-	66.60	05/12/58	173.96	07/08/83	143.92	01/05/87	23S 35W 12CCC 01
1985-	136.80	01/21/85	142.38	01/06/87	142.38	01/06/87	23S 35W 16BBC 01
1958-	46.37	01/15/68	132.72	01/05/83	107.19	01/05/87	23S 35W 25BBB 02
1961-	128.59	02/08/61	147.35	01/06/83	143.92	01/06/87	23S 36W 04CBB 01
1962-	203.74	02/01/62	238.50	01/06/83	238.17	01/06/87	23S 36W 32BBB 01
1985-	213.52	01/06/87	214.00	01/21/85	213.52	01/06/87	23S 36W 35BBB 01
1978-	188.49	04/15/82	250.35	03/08/79	190.73 189.94	01/06/87 04/08/87	23S 37W 04ABC 01
1961-	227.10	02/09/61	258.39	01/09/80	249.36	01/06/87	23S 37W 19CCC 01
1961-	235.60	02/05/63	260.49	01/09/80	254.71	01/06/87	23S 37W 28CCB 01
1958-	28.56	01/16/68	64.60	01/10/83	35.98	01/06/87	24S 35W 09CCC 01
1962-	8.28	01/26/66	24.77	10/21/82	17.73 16.11 16.44 14.58	10/12/86 01/06/87 04/08/87 07/30/87	24S 35W 13CCC 02
1958-	9.50	05/ /58	29.32	01/21/85	26.43	01/06/87	24S 35W 24BCB 01
1958-	22.60	05/04/58	40.59	01/10/80	32.25	01/06/87	24S 36W 23CBB 02
1975-	71.54	04/ /75	102.64	10/10/86	102.64 101.63 100.27 101.69	10/10/86 01/08/87 04/08/87 07/30/87	25S 35W 02BAA 01
1985-	41.94	01/21/85	70.31	01/08/87	70.31	01/08/87	25S 35W 04BDD 01
1975-	56.60	04/24/75	100.53	04/08/87	97.24 98.52 100.53	10/10/86 01/09/87 04/08/87	25S 35W 17AAA 01
1975-	74.31	06/03/75	136.00	01/08/87	136.00	01/08/87	25S 35W 26BAB 01
1985-	91.46	01/09/87	99.94	01/22/85	91.46	01/09/87	25S 36W 14B 01
1969-	56.55	04/27/70	96.53	02/01/84	91.51	10/10/86	25S 36W 28BBD 01
1977-	71.50	05/11/77	103.07	10/10/86	103.07 101.59 100.53	10/10/86 01/09/87 04/08/87	25S 36W 35CCA 01
1967-	6.51	07/30/87	13.50	01/14/80	8.81 8.53 8.21 6.51	10/10/86 01/22/87 04/08/87 07/30/87	25S 37W 15ABA 02
1962-	36.81	12/09/65	69.10	02/12/86			25S 37W 25BAD 02
1984-	96.67	01/24/85	97.40	08/08/84			25S 38W 02BDA 01
1966-	37.57	01/27/66	45.00	02/12/86	44.88	01/07/87	25S 38W 08CAA 01
1962-	63.28	01/28/66	71.18	01/07/87	71.18	01/07/87	25S 38W 20ACC 01
1962-	61.90	02/15/62	81.62	01/31/84	75.63	01/07/87	25S 38W 26ACC 01
1981-	157.89	01/13/81	179.85	01/09/87	179.85	01/09/87	26S 35W 29BBD 01
1981-	160.70	01/12/82	177.34	01/09/87	177.34	01/09/87	26S 36W 22CCA 01
1962-	25.95	01/20/70	35.28	01/11/80	30.70	01/07/87	26S 37W 06ACB 01
KINGMAN COUNTY							
1955-	11.08	01/13/86	17.09	02/07/79	12.37	01/13/87	27S 05W 24CDC 01
1973-	3.70	01/13/86	8.87	02/07/79	5.14	01/13/87	27S 05W 33AB8 02
1970-	6.20	01/23/80	13.51	01/27/81	7.11	01/13/87	27S 06W 12CCD 01
1973-	0.92	12/14/73	3.93	01/27/81	2.60	01/13/87	27S 06W 16CCB 01
1956-	5.62	01/13/86	20.0	10/ /56	6.90	01/13/87	27S 07W 03ADC 01
1973-	6.12	01/13/86	8.9	02/07/79	6.60	01/13/87	27S 07W 23BCC 01
1973-	34.44	12/13/73	39.50	07/30/73	35.17	01/13/87	27S 08W 17DAB 01
1964-	18.36	01/14/86	21.97	01/28/64	18.99	01/13/87	27S 08W 25DAD 01
1985-	32.58	03/11/87	36.65	05/29/85	34.86 32.58	12/11/86 03/11/87	27S 08W 30AAA 02
1966-	20.27	01/14/86	27.0	09/ /66	22.65	01/13/87	27S 08W 35CBC 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
KINGMAN COUNTY -- CONTINUED							
27S 09W 15ABA 01	374208098170901	HELM, CLARENCE	U	112PLSC	64	2	1702
27S 09W 29AAA 01	374023098190401	STILLWELL, ROBERT JR	H	--	36	5	1700
27S 10W 03DDD 01	374309098232301	UNKNOWN	N	112PLSC	170	16	1743
27S 10W 17DDD 01	374123093253201	KGS	U	112PLSC	84	1	1755
27S 10W 24DAD 01	374045098211401	STUCKEY, H D	H,S	112PLSC	42	6	1692
28S 07W 29CDD 01	373422098063301	BROWN, L + R	I	112PLSC	80	16	1601
28S 07W 35CCD 01	373331098033301	KREHBIEL, ALBERT	I	112PLSC	73	16	1585
28S 08W 21BBB 01	373602098123001	KGS	U	112PLSC	43	1	1562
28S 08W 26ABC 01	373503098094301	SIMONS, ARTHUR	I	112PLSC	164	16	1652
28S 09W 01BCC 01	373819098154001	KING SR, R H	I	112ALVM	65	16	1580
28S 09W 21AAA 01	373601098175901	KGS	U	112PLSC	84	1	1666
28S 09W 29CCC 01	373422098200201	KGS	U	112PLSC	76	1	1708
28S 09W 34AAB 01	373417098170201	HARBERT, WALTER J	I	112PLSC	76	16	1690
28S 10W 16BCB 01	373641098252501	STERNEKER, RICHARD	I	112PLSC	150	16	1756
29S 10W 19DDB 01	373008098264801	SIMON, GERALD	I	--	125	--	1765
KIOWA COUNTY							
27S 16W 10BAC 01	374255099033901	CORBET, H G	I	112PLSC	94	16	2088
27S 16W 19BBD 01	374111099070401	TUTTLE, GERALD E	I	112PLSC	177	16	2112
27S 16W 28CDD 01	373938099043601	FRUIT, HELEN	I	112PLSC	130	16	2120
27S 17W 21ADC 01	374054099104501	WILLIAMSON, C	I	112PLSC	90	18	2140
27S 18W 13AAA 01	374201099135401	KGS	U	112PLSC	66	1	2152
27S 13W 18DDC 01	374117099193001	YOHNN, GILBERT	U	112PLSC	40	1	2192.00
27S 18W 22ADC 01	374050099161301	LIVENGOOD, M E	I	112PLSC	136	16	2175
27S 19W 28CBD 01	373940099243301	MC DONALD, G R	I	112PLSC	167	16	2262
27S 20W 26ABD 01	374001099282201	BOWERS, GLENN	I	210DKOT	95	16	2274
27S 20W 32ABD 01	373910099313701	PEARSON, WILMA	I	112PLSC	123	16	2308
28S 16W 12BCA 01	373732099013501	DAVIS, E E	I	112PLSC	206	16	2111
28S 16W 17AAC 01	373648099051601	CHENOWETH, DEAN	I	112PLSC	196	16	2165
28S 16W 31DCA 01	373341099062501	OBENCHAIN, GLEN	I	--	--	--	2110
28S 17W 01CAB 01	373809099080001	RUSH, PHILIP	I	112PLSC	154	16	2135
28S 17W 050DB 01	373757099115501	TUTTLE, W S	I	112PLSC	133	16	2163
28S 17W 150DB 01	373612099093801	ROSS, M C	I	112PLSC	185	16	2178
28S 18W 09BAC 01	373734099175001	ROSENBERGER, J W	I	112PLSC	144	16	2221
28S 18W 19CCB 01	373517099201701	VIEUX, CECIL	I	112PLSC	134	16	2268
28S 18W 26DCA 01	373423099151401	ROSS, G H	I	112PLSC	180	16	2231
28S 19W 10AAC 01	373729099224501	PYLE-TAYLOR LAND CO	U	210DKOT	175	4	--
28S 19W 30CBC 01	373427099265001	SLOAN, C S	I	112PLSC	170	16	2335
28S 19W 33CBD 01	373334099243001	LEMON-MCCOY-JENNINGS	I	112PLSC	163	16	2325
28S 20W 128BD 01	373724099274801	SHERER, VERNON	I	112PLSC	86	17	2288
29S 20W 30ACA 01	373442099324101	SIDENER, A B	I	112PLSC	89	17	2319
29S 17W 04ABC 01	373315099105901	WIRTH, W E	I	112PLSC	110	--	2125
29S 18W 02ACC 01	373258099152101	SCHWARM, LAURENCE	U	210DKOT	188	4	2251
29S 13W 07BBD 01	373220099200801	UNRUH, ROBERT	I	112PLSC	229	16	2311
29S 19W 22BAA 01	373038099230801	MILLER, A L	I	112PLSC	254	16	2340
29S 20W 11CDD 01	373131099283501	HILLTOP FARM & LIVESTOCK	I	112PLSC	200	16	2398

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
KINGMAN COUNTY -- CONTINUED							
1973-	45.62	01/13/87	51.60	08/01/73	45.62	01/13/87	27S 09W 15ABA 01
1980-	22.83	09/30/80	24.34	01/14/85	24.33	01/13/87	27S 09W 29AAA 01
1966-	48.80	07/01/80	56.99	09/19/75	51.50	12/10/86	27S 10W 03DDD 01
					51.48	01/13/87	
					51.16	03/11/87	
					50.64	06/12/87	
					50.66	09/11/87	
1974-	61.25	01/27/81	63.29	01/13/87	63.29	01/13/87	27S 10W 17DDD 01
1973-	15.04	01/14/86	18.49	01/13/87	18.49	01/13/87	27S 10W 24DAD 01
1955-	23.29	09/11/87	30.2	10/09/56	25.10	12/11/86	28S 07W 29CDD 01
					25.18	01/13/87	
					24.94	03/13/87	
					24.26	06/12/87	
					23.29	09/11/87	
1967-	20.00	01/23/80	23.4	05/11/67	20.44	01/13/87	28S 07W 35CCD 01
1974-	1.91	01/14/86	2.80	01/16/84	2.13	01/13/87	28S 08W 218BB 01
1971-	59.60	01/14/86	76.07	01/27/82	63.02	01/13/87	28S 08W 26ABC 01
1969-	6.74	01/14/86	10.0	12/ /69	7.24	01/13/87	28S 09W 018CC 01
1974-	27.11	01/14/86	29.92	02/07/79	27.93	01/13/87	28S 09W 21AAA 01
1974-	30.98	08/21/87	34.34	02/07/79	30.98	08/21/87	28S 09W 29CCC 01
1968-	41.61	01/13/87	45.46	03/20/68	41.61	01/13/87	28S 09W 34AAB 01
1971-	48.76	01/14/86	60.0	08/ /71	49.01	01/13/87	28S 10W 16BCB 01
1985-	22.94	05/24/85	23.15	01/13/87	23.15	01/13/87	29S 10W 19DDB 01
KIOWA COUNTY							
1962-	19.55	06/21/73	28.0	01/12/87	28.0	01/12/87	27S 16W 10BAC 01
1972-	20.30	12/12/73	32.70	01/12/87	32.70	01/12/87	27S 16W 198BD 01
1973-	56.70	12/12/73	67.70	01/12/87	67.70	01/12/87	27S 16W 28CDD 01
1941-	24.35	12/12/73	59.60	06/23/80	34.93	12/12/86	27S 17W 21ADC 01
					34.70	01/12/87	
					34.92	03/17/87	
					33.31	06/15/87	
					33.58	09/14/87	
1973-	15.62	05/09/74	24.34	03/11/85	24.11	12/12/86	27S 18W 13AAA 01
					24.10	01/12/87	
					24.08	03/17/87	
					22.35	06/15/87	
					21.73	09/14/87	
1940-	10.30	03/15/74	26.62	04/28/41	20.02	12/22/86	27S 18W 18DDC 01
					20.00	01/12/87	
					20.02	03/17/87	
					20.10	06/15/87	
					20.05	09/14/87	
1970-	14.08	12/12/73	23.91	01/17/84	23.80	01/12/87	27S 18W 22ADC 01
1973-	70.12	02/06/79	73.70	01/15/85	73.40	01/12/87	27S 19W 28CBD 01
1969-	39.19	03/24/75	58.75	09/04/84	43.10	12/22/86	27S 20W 26ABD 01
					42.90	01/12/87	
					42.73	03/17/87	
					42.42	06/15/87	
					42.78	09/14/87	
1969-	44.43	02/06/79	49.3	10/13/69	45.70	01/12/87	27S 20W 32ABD 01
1960-	96.67	02/05/79	101.10	01/14/85	100.50	01/13/87	28S 16W 12BCA 01
1962-	110.0	12/ /62	119.85	01/21/80	117.00	01/13/87	28S 16W 17AAC 01
1985-	70.30	01/15/85	71.50	01/13/86	70.70	01/13/87	28S 16W 31DCA 01
1968-	55.60	12/13/73	60.10	01/15/85	60.00	01/13/87	28S 17W 01CAB 01
1969-	56.30	01/22/80	66.0	06/ /69	60.10	01/13/87	28S 17W 05DDB 01
1962-	94.74	02/05/79	97.00	01/15/85	96.60	01/13/87	28S 17W 15DDB 01
1969-	61.69	12/13/73	65.6	06/10/69	64.30	01/13/87	28S 18W 09BAC 01
1966-	86.43	02/06/79	90.0	09/ /66	88.70	01/13/87	28S 18W 19CCB 01
1963-	117.74	01/25/82	121.30	01/15/85	120.30	01/13/87	28S 18W 26DCA 01
1977-	89.13	07/05/77	97.29	09/15/80	93.32	12/22/86	28S 19W 10AAC 01
					93.00	01/13/87	
					92.77	03/17/87	
					93.28	06/15/87	
					94.80	09/14/87	
1973-	112.60	01/13/86	114.4	12/13/73	113.80	01/13/87	28S 19W 30CBC 01
1966-	133.10	01/25/83	135.54	01/16/84	134.60	01/13/87	28S 19W 33CBD 01
1954-	53.0	/ /54	57.50	01/14/85	57.00	01/14/87	28S 20W 12BBD 01
1960-	37.58	02/06/79	42.44	01/25/82	41.10	01/14/87	28S 20W 30ACA 01
1957-	50.04	12/12/73	55.0	/ /57	51.90	01/14/87	29S 17W 04ABC 01
1977-	142.63	06/15/87	145.44	09/22/78	143.06	12/12/86	29S 18W 02ACC 01
					142.90	01/14/87	
					142.73	03/17/87	
					142.63	06/15/87	
					143.04	09/14/87	
1968-	153.30	01/13/86	156.54	02/06/79	153.50	01/13/87	29S 18W 07BBD 01
1967-	155.64	01/25/82	160.0	05/ /67	156.70	01/13/87	29S 19W 22BAA 01
1970-	166.10	01/13/86	170.15	06/20/73	166.40	01/13/87	29S 20W 11CDD 01

GROUND-WATER LEVELS IN KANSAS, 1987

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
LABETTE COUNTY							
31S 21E 15CCC 02	372026095060702	KGS	U	--	17	7	836.1
LANE COUNTY							
16S 29W 26CCD 01	383743100295901	SCHMIED ET AL, W S	I	1210GLL	--	16	2803.0
16S 30W 24DCC 01	383836100350501	JENNISON, K E	I	1210GLL	--	16	2840
16S 30W 29CDD 01	383743100393801	GRAVES, R & D	I	1210GLL	--	16	2884
16S 30W 34DAB 01	383711100370001	SHARP ET AL, G W	I	1210GLL	180	16	2857
17S 27W 20CCC 01	383320100201101	NEELEY, E C	I	1210GLL	--	16	2717
17S 27W 26CCC 01	383227100165301	REPSHIRE, E	I	1210GLL	127	16	2678
17S 28W 078BB 01	383551100275501	JAMES, E J	I	1210GLL	--	16	2785
17S 28W 15BBC 01	383452100243601	LOONER, M	I	1210GLL	--	16	2760
17S 28W 26ABB 01	383314100225601	HARTMAN, BEN	I	1210GLL	140	16	2735
17S 28W 34CBB 01	383155100243401	CARTMILD, HAROLD	I	1210GLL	--	16	2747
17S 29W 03BDC 01	383624100305601	MUNSELL, LARRY	I	1210GLL	--	--	2816
17S 29W 36BAA 01	383222100283401	BOOMHOWER, GENE	I	1210GLL	--	16	2784
17S 30W 13CBB 01	383433100353601	BURMEISTER, F L	S	1210GLL	94	6	2846
17S 30W 20BBB 01	383407100400201	VONSCHRILTZ, DON	I	1210GLL	165	16	2889.0
18S 27W 13CCC 01	382857100154501	MERRIWEATHER, C H	U	1210GLL	95	6	2674
18S 28W 18ACC 01	382925100271801	WALKER, JAY	I	1210GLL	104	16	2764
18S 29W 04DAD 01	383056100311801	PINKSTON, L H	I	1210GLL	110	16	2801
18S 30W 02AAA 01	383130100354301	CRAMER, ROBERT	I	1210GLL	130	16	2849.0
18S 30W 04BAB 01	383130100383801	SHARP, GALE	I	1210GLL	130	16	2872
18S 30W 23AAA 01	382853100354201	SHULL, D	I	1210GLL	150	16	2848
LEAVENWORTH COUNTY							
12S 22E 21BCD 01	385932094584301	KGS	U	110ALVM	48	2	793
12S 22E 22CAA 01	385926094572001	KGS	U	110ALVM	48	2	785
LOGAN COUNTY							
11S 32W 04ACD 01	390737100522201	HOCKERSMITH, W G	I	1210GLL	208	16	3059
11S 32W 19AAB 01	390521100542901	DEPPERSCHMIDT, A D	I	1210GLL	180	16	3073
11S 32W 31CCD 01	390252100551301	ZERR, L M	I	--	135	--	3054
11S 32W 36ABA 01	390336100490501	SEIBEL, C H	I	1210GLL	134	16	3009
11S 33W 10BDD 01	390646100581301	KELLER ENTERPRISES	I	--	185	--	3113
11S 33W 14DCC 01	390528100565901	AHRENS, J D	I	1210GLL	203	16	3117
11S 34W 13AAB 01	390615101021601	WASSEMILLER, R E	I	1210GLL	214	16	3184
11S 34W 16CDB 01	390537101060901	PETERSON, A T	S	1210GLL	142	5	3218
11S 35W 01DCC 01	390715101091101	BERRY, VICTOR	I	1210GLL	206	16	3268
11S 36W 06ADD 02	390741101205902	USGS	U	1210GLL	220	1	3380
11S 37S 01DCD 01	390715101222201	GOFF, ROSE	U	--	173	4	3369
15S 37W 29AAA 01	384344101265101	USGS	U	1210GLL	60	1	3420

GROUND-WATER LEVELS IN KANSAS, 1987

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PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
LABETTE COUNTY							
1967-	0.30	03/05/85	17.55	12/16/80	7.80 6.93 13.45	12/02/86 06/02/87 09/08/87	31S 21E 15CCC 02
LANE COUNTY							
1972-	94.77	01/20/73	106.50	01/05/87	106.50	01/05/87	16S 29W 26CCD 01
1972-	115.15	01/21/74	122.60	01/19/82	121.90	01/05/87	16S 30W 24DCC 01
1972-	121.6	01/21/74	131.35	12/13/72	128.40	01/05/87	16S 30W 29COD 01
1977-	118.37	01/18/77	131.70	01/17/83	125.93	01/22/87	16S 30W 34DAB 01
1973-	91.56	01/17/73	102.70	01/17/83			17S 27W 20CCC 01
1973-	92.46	01/17/73	96.80	01/09/84	96.40	01/05/87	17S 27W 26CCC 01
1973-	89.26	01/17/73	99.20	01/05/87	99.20	01/05/87	17S 28W 07BBB 01
1973-	98.28	01/21/74	105.70	01/05/87	105.70	01/05/87	17S 28W 15BBC 01
1963-	85.63	04/07/64	109.99	06/28/79	104.58 102.50 102.48 91.00	10/09/86 01/05/87 04/07/87 01/05/87	17S 28W 26ABB 01
1977-	88.30	01/11/78	91.00	01/05/87	91.00	01/05/87	17S 28W 34CBB 01
1977-	109.50	01/11/78	116.28	01/09/84	116.10	01/05/87	17S 29W 03BDC 01
1973-	78.19	01/21/74	87.00	01/05/87	87.00	01/05/87	17S 29W 36BAA 01
1948-	80.55	04/07/64	91.51	10/09/86	91.51 91.20 91.03 91.21	10/09/86 01/05/87 04/07/87 07/30/87	17S 30W 13CBB 01
1977-	95.20	01/11/78	107.60	01/13/82			17S 30W 20BBB 01
1948-	83.34	12/09/69	88.99	09/19/58	86.20 86.46 86.08	01/05/87 04/07/87 07/31/87	18S 27W 13CCC 01
1972-	51.66	01/18/73	72.84	01/14/80			18S 28W 18ACC 01
1972-	61.02	01/21/74	70.60	01/06/87	70.60	01/05/87	18S 29W 04DAD 01
1971-	75.86	03/05/73	89.70	10/09/86	89.70 85.50 88.11	10/09/86 01/06/87 04/07/87	18S 30W 02AAA 01
1977-	69.54	01/18/77	75.50	01/06/87	75.50	01/06/87	18S 30W 04BAB 01
1977-	63.40	01/06/87	67.50	01/18/82	63.40	01/06/87	18S 30W 23AAA 01
LEAVENWORTH COUNTY							
1967-	16.90	06/10/82	29.60	12/07/84	25.44 25.80 20.15 26.68	12/03/86 03/03/87 06/03/87 09/09/87	12S 22E 219CD 01
1967-	10.60	12/26/73	23.40	06/11/81	17.10 19.20 15.50 18.20	12/03/86 03/03/87 06/03/87 09/09/87	12S 22E 22CAA 01
LOGAN COUNTY							
1968-	102.21	04/21/69	118.93	09/11/85	113.60 113.29 116.90	01/04/87 07/07/87 09/02/87	11S 32W 04ACD 01
1975-	99.46	01/07/76	124.75	09/02/87	103.33 112.58 103.73 124.75	01/04/87 03/04/87 07/07/87 09/02/87	11S 32W 19AAB 01
1984-	68.67	01/06/86	71.33	01/04/87	71.33	01/04/87	11S 32W 31CCD 01
1970-	86.60	/ /70	91.42	01/06/86	89.15	01/04/87	11S 32W 36ABA 01
1984-	110.90	07/02/84	116.57	01/08/86			11S 33W 10BDD 01
1969-	127.00	05/ /69	131.30	01/08/86			11S 33W 14DCC 01
1984-	143.30	01/07/85	144.05	07/02/84	143.92	01/04/87	11S 34W 13AAB 01
1959-	118.04	09/01/70	123.	01/06/77	120.23	01/08/87	11S 34W 16CDB 01
1969-	150.00	05/ /69	156.81	07/02/84	152.40	01/04/87	11S 35W 01DCC 01
1965-	135.50	12/ /65	179.79	09/09/86	168.90 167.01 168.07 171.45	01/04/87 03/04/87 07/07/87 09/02/87	11S 36W 06ADD 02
1979-	165.01	09/09/79	182.40	01/04/87	182.40 169.64 169.09 169.10	01/04/87 03/04/87 07/07/87 09/02/87	11S 37W 01DCD 01
1971-	32.08	01/07/85	35.6	01/19/82	33.75	01/05/87	15S 37W 29AAA 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
MCPHERSON COUNTY							
17S 04W 25DDD 01	383216097421501	USGS	U	112TRRC	39	1	1347.7
17S 05W 07CBB 01	383514097552401	USGS	U	112TRRC	30	1	1424
17S 05W 22BAA 01	383355097514001	OLSON, C L	U	--	--	--	--
18S 03W 30CCC 01	382702097420701	LOVETT, WILLIAM	I	112PLSC	208	18	1515
18S 04W 21CCC 01	382755097463301	KUMLE, PETE	I	112PLSC	80	20	1412
19S 01W 32DAC 01	382110097265601	KOEHN, ALBERT	I	112PLSC	114	16	1590
19S 03W 16BCB 01	382406097395501	PETERSON, DELBERT	I	112PLSC	190	24	1511
19S 03W 318BA 01	382142097415901	JANSSEN, WILLIAM	I	112PLSC	--	--	1494
19S 04W 15AAC 01	382413097443601	UNKNOWN	I	--	--	--	1494
20S 01W 22BBB 01	381813097253201	BECKER, ORLAN	I	112PLSC	66	24	1527
20S 01W 29DDD 01	381635097264701	IMMANUEL LUTHERAN CHURCH	H	112PLSC	--	--	1530
20S 03W 22DAA 01	381747097375101	SCHRAG, HERMAN	I	112PLSC	--	--	1473
20S 03W 308BA 01	381721097415901	SEIDEL, MARTIN	I	112PLSC	--	--	1476
20S 04W 158DD 01	381847097450101	WALKER, WINSTON	I	112PLSC	--	--	1474
20S 04W 27DAC 01	381649097443601	PENNER, BEN	I	112PLSC	--	--	1467
21S 02W 12BBB 01	381444097295401	RUPP, MARK	I	112PLSC	--	--	1503
21S 02W 36ACA 01	381102097291201	LOGANBILL, WILLIS	I	112PLSC	--	--	1475
21S 03W 06CBD 01	381504097415701	HEIDEBRECHT, ERNEST	I	112PLSC	--	--	1464
21S 03W 22BBB 01	381300097384401	KAUFMAN, HOWARD	I	112PLSC	--	--	1450
21S 03W 33BBC 01	381109097395001	SCHROEDER, ALVIN	I	112PLSC	180	16	1461
21S 04W 26CDC 01	381122097435901	WIENS, ELMER J	I	112PLSC	133	18	1445
MEADE COUNTY							
30S 26W 04CBB 01	372746100103701	SMITH, E L	I	112PLSC	228	16	2525.0
30S 26W 13ABB 01	372628100064701	FRAZIER, JOHN	U	--	--	--	2575
30S 26W 32DDD 01	372304100104601	BERGKAMP, DON	I	--	--	--	2488
30S 27W 20ABA 01	372539100171401	BROCK, GAYLE	I	--	--	--	--
30S 27W 23ABB 01	372539100142501	SOBBA, CHRIS	U	112PLSC	210	16	2531
30S 27W 273BB 01	372446100160201	ZORTMAN BROS	I	--	320	--	2518
30S 27W 32DDD 01	372307100171401	MEADE COUNTY	U	112PCPC	18	1.25	2475.0
30S 28W 17ABB 01	372638100241701	FOOTE, E L	I	112PLSC	311	16	2697
30S 28W 33AAA 01	372359100224701	BATMAN, RICHARD	U	--	--	--	2646
30S 29W 23CAD 01	372513100274101	JENKINSON ET AL	I	112PLSC	--	--	2744
30S 29W 28BBB 01	372455100301701	PIPPITT, E	I	112PLSC	400	16	2758
30S 30W 06CCC 01	372740100390101	PATTERSON, MAX	I	112PCPC	398	16	2824.6
30S 30W 28ABB 01	372454100361701	CHAPPELL, H E	I	112PLSC	340	16	2803
31S 26W 30BBB 01	371931100115501	USGS	U	112PLSC	212	1	2516
31S 27W 20AAA 02	372026100162402	USGS	U	112PLSC	150	1	2466
31S 28W 02CCC 01	372220100203501	MARRS, ROY	I	--	360	16	--
31S 28W 10BCB 01	372200100214001	REXFORD, A E	I	112PLSC	470	16	2643
31S 28W 26ABB 01	371936100200301	BATMAN, A W	I	--	--	--	2496
31S 29W 02DBB 01	372241100263201	SMITH, ELMER	I	--	258	16	2720
31S 29W 25AAA 02	371938100250102	BERGHAUS, P H	I	112PLSC	--	--	2698
31S 29W 30AAA 01	371938100302901	DEMMITT, Q C	I	112PLSC	--	16	2741
31S 30W 16BBC 01	372117100354701	SCHAEFFER, M M	I	112PLSC	200	16	2770
32S 28W 04ADD 01	371732100214701	WOOD, J W	H/S	112PLSC	199	3	2546
32S 29W 05CC 01	371711100301701	ODGERS, CARL	I	112PLSC	360	16	2719
32S 29W 27AAB 02	371425100272002	USGS	U	112PLSC	468	1	2688
32S 30W 09CCC 01	371618100354701	COLLINGWOOD, MAUDE	I	112PLSC	--	16	2764
32S 30W 28BBC 01	371421100354801	HOLMES, CARL	I	112PLSC	450	16	2759
33S 28W 29BCB 01	370857100234601	BORCHERS, FRED	I	1210GLL	160	16	2371.3
33S 29W 36AAB 01	370819100250601	CORDES, B H	I	112PLSC	--	16	2463
33S 30W 21ACC 01	370948100351601	MCVEY, V VIERLE	I	--	453	16	2725
33S 30W 35CBB 01	370754100333501	COLUMBIA FUEL CORP	N	112PLSC	420	10	2684
34S 28W 05BDA 01	370712100232201						
34S 30W 22CBC 01	370423100344401	GOWAN, EARL	I	1210GLL	--	16	2675
35S 30W 10CDA 01	370048100342101	XIT RANCH	I	110ALVM	260	16	2393

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
MCPHERSON COUNTY							
1946-	15.11	07/24/51	27.93	03/18/57	24.30	12/04/86	17S 04W 25DDD 01
					24.80	03/10/87	
					19.30	06/04/87	
					21.20	09/02/87	
1976-	16.53	09/13/82	20.40	12/08/82	19.00	12/04/86	17S 05W 07CBB 01
					19.17	03/10/87	
					18.45	06/04/87	
					18.44	09/02/87	
1983-	11.20	06/04/87	17.83	03/08/84	16.60	12/04/87	17S 05W 22BAA 01
					17.35	03/10/87	
					11.20	06/04/87	
					11.85	09/02/87	
1970-	103.68	05/11/73	112.00	01/16/85	110.80	01/14/87	18S 03W 30CCC 01
1970-	6.55	05/09/73	11.16	01/31/84	10.24	01/14/87	18S 04W 21CCC 01
1970-	46.22	01/15/86	53.22	01/20/84	46.30	01/15/87	19S 01W 32DAC 01
1970-	91.80	04/ /70	101.73	01/16/85	99.68	01/14/87	19S 03W 16BCB 01
1984-	81.13	01/16/85	84.78	02/16/84	81.43	01/15/87	19S 03W 31BBA 01
1985-	85.75	01/15/86	85.93	01/15/87	85.93	01/15/87	19S 04W 15AAC 01
1970-	6.88	01/14/87	11.00	01/17/85	6.88	01/14/87	20S 01W 22BBB 01
1984-	4.70	01/17/85	17.66	01/20/84	7.30	01/14/87	20S 01W 29DDD 01
1984-	37.50	01/15/86	38.37	01/31/84	37.60	01/14/87	20S 03W 22DAA 01
1984-	52.11	01/31/84	53.50	01/15/86	52.55	01/14/87	20S 03W 30BBA 01
1984-	52.50	01/15/86	54.02	01/27/84			20S 04W 15BDD 01
1983-	40.22	01/27/83	43.00	01/16/85	41.50	01/16/87	20S 04W 27DAC 01
1984-	10.25	01/15/86	13.81	01/20/84	10.60	01/14/87	21S 02W 12BBB 01
1984-	8.65	01/15/86	12.40	01/20/84	9.36	01/14/87	21S 02W 36ACA 01
1984-	43.60	01/15/87	44.80	01/16/85	43.60	01/15/87	21S 03W 06CBD 01
1984-	33.35	01/31/84	34.55	01/16/85	33.90	01/14/87	21S 03W 22BBB 01
1970-	37.16	05/09/73	55.84	01/31/84	43.75	01/14/87	21S 03W 33BBC 01
1970-	20.53	05/09/73	33.80	01/16/85	30.20	01/14/87	21S 04W 26CDC 01
MEADE COUNTY							
1939-	9.40	07/17/39	48.76	01/07/87	48.76	01/07/87	30S 26W 04CBB 01
1986-	63.99	01/07/86	63.99	01/07/86			30S 26W 13ABB 01
1985-	17.89	01/07/86	19.32	01/15/85	18.70	01/07/87	30S 26W 32DDD 01
1985-	55.99	01/15/85	60.39	01/07/87	60.39	01/07/87	30S 27W 20ABA 01
1939-	11.47	07/10/51	64.10	08/18/63	44.42	01/07/87	30S 27W 23ABB 01
1985-	22.10	01/07/87	31.61	10/08/86	31.61	10/08/86	30S 27W 27BBB 01
					22.10	01/07/87	
1953-	4.68	06/04/74	DRY	06/18/57	7.73	01/07/87	30S 27W 32DDD 01
					7.61	05/05/87	
1965-	103.45	01/28/65	144.65	01/06/87	144.65	01/06/87	30S 28W 17ABB 01
1985-	116.45	01/15/85	120.31	01/06/87	120.31	01/06/87	30S 28W 33AAA 01
1965-	137.86	01/28/65	181.94	01/15/85	179.95	01/07/87	30S 29W 23CAD 01
1959-	132.44	01/08/60	176.20	01/07/86	175.83	01/07/87	30S 29W 28BBB 01
1965-	154.42	01/28/65	201.29	01/07/87	201.29	01/07/87	30S 30W 06CCC 01
1959-	144.59	01/06/59	192.36	05/05/87	189.91	10/08/86	30S 30W 28ABB 01
					191.72	01/07/87	
					192.36	05/05/87	
1975-	94.39	01/22/75	102.52	01/06/83	102.02	01/07/87	31S 26W 30BBB 01
1975-	27.12	01/07/86	35.66	01/11/77	28.05	01/06/87	31S 27W 20AAA 02
1984-	121.15	01/06/87	125.50	07/16/84	121.15	01/06/87	31S 28W 02CCC 01
1965-	112.20	01/17/66	156.23	02/01/79	136.92	01/06/87	31S 28W 10BCB 01
1986-	27.01	01/06/87	30.46	01/07/86	27.01	01/06/87	31S 28W 26ABB 01
1985-	175.21	01/07/86	178.56	01/16/85	178.01	01/07/87	31S 29W 02BBB 01
1965-	143.26	01/28/65	182.70	02/01/79	181.24	01/07/87	31S 29W 25AAA 02
1965-	129.80	01/28/65	168.99	01/08/86	166.72	01/07/87	31S 29W 30AAA 01
1965-	133.70	01/28/65	188.85	01/07/87	188.85	01/07/87	31S 30W 16BBC 01
1939-	60.18	03/19/52	78.01	07/29/87	74.06	10/08/86	32S 28W 04ADD 01
					71.37	01/06/87	
					78.01	07/29/87	
1959-	134.60	01/09/63	168.16	01/08/86	167.69	01/07/87	32S 29W 05CC 01
1975-	140.92	01/23/75	149.82	01/08/86	149.51	01/07/87	32S 29W 27AAB 02
1965-	155.42	01/28/65	194.34	01/06/87	194.34	01/06/87	32S 30W 09CCC 01
1965-	170.28	01/17/66	212.85	01/08/86	211.34	01/06/87	32S 30W 28BBC 01
1939-	13.10	05/12/42	19.99	12/16/74	16.81	10/08/86	33S 28W 29BCB 01
					15.59	01/06/87	
					16.21	05/05/87	
1965-	81.20	01/22/70	90.74	01/15/82	87.20	01/06/87	33S 29W 36AAB 01
1985-	180.69	01/16/85	183.19	01/08/86			33S 30W 21ACC 01
1959-	157.18	06/08/64	180.28	01/06/87	180.28	01/06/87	33S 30W 35CBB 01
1986-	24.72	01/06/87	25.80	01/08/86	24.72	01/06/87	34S 28W 05BDA 01
1975-	191.48	01/23/75	198.25	01/06/87	198.25	01/06/87	34S 30W 22CBC 01
1965-	22.47	01/15/74	26.70	01/06/83	25.40	01/06/87	35S 30W 10CDA 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
MORTON COUNTY							
31S 39W 18CCC 01	372043101363101	DANIELS, OTIS L	I	112PLSC	293	16	3246
31S 39W 33BCC 01	371833101341501	SHARMAN, FRANK P	I	112PLSC	560	16	3253
31S 40W 01DA 01	372243101364301	DEMMITT, JACK	I	112PLSC	246	16	3236
31S 40W 29ABB 01	371945101412701	CHAFFIN & MORRELL	I	112PLSC	215	16	3331
31S 41W 07CDD 01	372135101491101	--	U	--	--	16	3441
31S 41W 31CBB 01	371827101493501	HARRISON, R F	I	200MSZC	--	16	3441
31S 42W 29AAB 01	371945101541201	BITTNER, JIM	I	112PLSC	137	15	3510
31S 43W 03CB 01	372243101591701	SIPES, GLENN	I	112PLSC	108	16	3609
31S 43W 14DDC 01	372043101572701	WILCOX, E A	U,S	217CRCSL	94	5	3576
31S 43W 20CBB 01	372011102013101	WHITE, EARL R	I	112PLSC	--	16	3653
32S 40W 07BDC 01	371649101424801	DUNN, DON	I	--	385	16	3302
32S 40W 21ADB 01	371511101400401	LIGHT, J E	I	112PLSC	--	16	3342
32S 41W 15CDC 01	371531101460301	MURPHY, C M	I	112PLSC	317	16	3360
32S 41W 35DCC 01	371255101444201	BOWKER, WARREN	I	--	310	16	3420
32S 42W 14CCC 01	371531101514501	JACKSON, R A	I	112PLSC	187	16	3500
32S 42W 21BCC 01	371505101535601	JACKSON, L & H	I	112PLSC	190	16	3526
32S 42W 26CDD 01	371347101512101	RATZLAFF, BEN	I	112PLSC	--	--	3485
32S 43W 08CBD 01	371636102012301	ACREE, CHARLES	I	--	410	16	3615
32S 43W 17DCC 01	371531102005901	THOMPSON, LARRY	I	1210GLL	165	16	3626
32S 43W 28BBC 01	371426102002601	SMITH, JOHN B	I	--	390	16	3526
33S 39W 04DBB 01	371221101334301	MANGELS, IRVIN	I	1210GLL	377	16	3237
33S 39W 16ABB 01	371103101334301	DEAN, E C	I	112PLSC	422	16	3234
33S 40W 27CCC 01	370835101394701	KALLENBACH, RAY	I	112PLSC	316	--	3308
33S 41W 03AAD 01	371242101452201	BOWKER, WARREN	I	112PLSC	305	16	3425
33S 41W 33DDD 01	370743101462601	USFS	H,S	112PLSC	--	6	3377
33S 42W 01AA 01	371245101494701	HARMANN, FRED	U	112PLSC	46	6	3438
33S 42W 05DCC 01	371203101542801	BLOUT, FLOYD	I	--	167	8	3235
33S 42W 21BCB 01	371000101535601	WHITE, E F	I	112PLSC	207	--	3527
33S 43W 08BDA 01	371143102010701	ROSTETTER, G A	I	112PLSC	280	16	3643
33S 43W 09DBA 01	371130101594601	WITCHER, DAN	I	--	270	16	3612
34S 39W 06CCA 01	370655101362201	LIGHT, WILLIAM C	I	--	500	16	3310
34S 40W 16ABB 01	370552101401901	FRIEND, CHARLES	I	--	405	16	3363
34S 41W 26DCD 01	370322101443201	THOMASON, CLINT	I	--	289	16	3360
34S 41W 28CBA 01	370342101471501	STEWART, ESTEL K	I	--	300	16	3299
34S 42W 05BDC 01	370717101544501	USFS	S	112PLSC	75	5	3449
34S 42W 22CDB 01	370422101523401	US FORESTRY SERVICE	S	112PLSC	--	6	3492
34S 43W 07BDD 01	370625102021201	UNKNOWN	S	200MSZC	158	6	3655
35S 39W 06CDD 01	370136101360401	MILLEMOM, CLOYD G	I	--	460	16	3330
35S 40W 03BBB 02	370224101394602	HERSHEY, W D	I	--	227	--	3369
35S 41W 16CCD 01	370001101472201	HAYWARD FARMS	I	--	350	16	3385
35S 42W 02DBB 01	370159101511101	CYR, ARCHIL E	I	--	380	16	3295
35S 43W 04AAC 01	370217101593801	PENICK, WILLIAM	I	--	160	16	3554
35S 43W 13BDB 01	370027101565601	HAMILTON, J T	I	112PLSC	--	--	3615
NEMAH COUNTY							
05S 11E 10ADB 01	393803096100101	ONAGE, CITY OF	U	--	284	--	----
NESS COUNTY							
16S 24W 15ABB 01	384006099574601	FLAX, F H	U	1210GLL	42	24	--
18S 21W 25AAB 01	382749099352001	WELLS, LON JR	I	110ALVM	50	16	2085
18S 21W 31CAA 01	382632099411501	DIEMER, GEORGE	U	112PLSC	44	5	2122
18S 24W 36ADB 01	382645099551201	PARKERSON, KEITH	I	110ALVM	59	16	2235
18S 25W 33BBC 01	382656100055901	DINGES, CHRIS	I	110ALVM	48	--	2402

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
MORTON COUNTY							
1962-	119.07	02/07/62	204.82	01/06/87	204.82	01/06/87	31S 39W 18CCC 01
1967-	160.57	01/18/67	231.02	01/07/86	224.93	01/06/87	31S 39W 33BCC 01
1962-	115.62	02/15/62	191.39	01/06/87	191.39	01/06/87	31S 40W 01DA 01
1959-	162.43	03/02/59	189.86	09/11/78	187.91	10/14/86	31S 40W 29ABB 01
					184.58	01/06/87	
					184.91	04/30/87	
					189.76	07/27/87	
1967-	134.69	01/22/81	135.97	01/16/75	135.93	01/07/87	31S 41W 07CDD 01
1967-	73.25	01/18/67	100.90	01/06/87	100.90	01/06/87	31S 41W 31CBB 01
1962-	91.46	01/03/62	109.30	01/21/77	100.28	01/07/87	31S 42W 29AAB 01
1960-	60.82	04/04/60	66.90	01/28/65	64.32	01/07/87	31S 43W 03CB 01
1939-	65.63	01/20/69	78.29	08/14/58	69.06	10/14/86	31S 43W 14DDC 01
					70.78	01/07/87	
					70.61	04/30/87	
					70.71	07/27/87	
1962-	50.64	01/03/62	100.92	01/01/78			31S 43W 20CBB 01
1984-	106.77	01/24/85	113.27	02/22/84	109.36R	01/08/87	32S 40W 07BDC 01
1967-	155.90	01/18/67	193.69	01/08/87	193.69	01/08/87	32S 40W 21ADB 01
1967-	17.38	01/20/70	22.60	01/22/76	21.61	01/08/87	32S 41W 15CDC 01
1984-	129.32	02/02/84	173.81	01/09/86	168.11	01/08/87	32S 41W 35DCC 01
1962-	84.25	01/02/62	128.61	01/05/84	127.81	01/08/87	32S 42W 14CCC 01
1959-	83.62	02/18/60	164.87	04/07/81			32S 42W 21BCC 01
1967-	102.24	01/18/67	153.40	01/24/85	151.01	01/08/87	32S 42W 26CDD 01
1984-	89.33	01/24/85	95.08	01/08/86	94.54	01/08/87	32S 43W 08CBB 01
1967-	60.02	01/18/67	75.11	01/04/84	74.13	01/08/87	32S 43W 17DCC 01
1984-	61.36	02/22/84	63.18	01/08/86	64.40R	01/08/87	32S 43W 28BBC 01
1984-	97.10	01/24/85	99.45	03/13/84	97.77	01/07/87	33S 39W 04DBB 01
1962-	68.04	01/20/70	78.69	01/05/84	77.23	01/07/87	33S 39W 16ABB 01
1967-	80.15	01/18/67	91.76	04/17/84	87.06	10/14/86	33S 40W 27CCC 01
					81.31	01/07/87	
					84.21	04/30/87	
1959-	111.20	03/20/59	171.90	10/13/80	148.86	10/14/86	33S 41W 03AAD 01
					140.87	01/08/87	
					140.93	04/30/87	
1963-	62.20	01/16/78	70.36	01/08/86	69.05	01/07/87	33S 41W 33DDD 01
1962-	34.5	01/18/66	45.90	01/19/72			33S 42W 01AA 01
1984-	66.92	01/24/85	75.65	02/22/84			33S 42W 05DCC 01
1967-	85.05	01/16/68	102.91	01/04/84	89.22	01/08/87	33S 42W 21BCB 01
1967-	90.23	01/19/72	107.82	01/04/84	105.34	01/08/87	33S 43W 08BDA 01
1986-	87.53	01/08/86	87.53	01/08/86			33S 43W 09DBA 01
1984-	120.97	01/07/86	136.50	02/22/84	123.00	01/07/87	34S 39W 06CCA 01
1984-	144.80	01/25/85	147.36	02/22/84	144.88	01/07/87	34S 40W 16ABB 01
1984-	155.33	02/22/84	159.23	01/07/87	159.23	01/07/87	34S 41W 26DCD 01
1984-	118.61	01/25/85	128.80	02/22/84	120.09	01/07/87	34S 41W 28CBA 01
1959-	37.56	01/16/68	40.86	01/05/84			34S 42W 05BDC 01
1967-	79.24	01/08/87	83.70	02/02/79	79.24	01/08/87	34S 42W 22CDB 01
1963-	146.67	02/13/63	150.78	01/24/85	149.51	01/08/87	34S 43W 07BDD 01
1984-	210.08	01/25/85	222.69	02/21/84	212.80	01/07/87	35S 39W 06CDD 01
1987-	178.47	01/07/87	178.47	01/07/87	178.47	01/07/87	35S 40W 03BBB 02
1984-	215.47	01/08/86	225.85	03/13/84	215.57	01/07/87	35S 41W 16CCD 01
1984-	102.92	02/23/84	169.52	01/07/87	169.52	01/07/87	35S 42W 02DBB 01
1984-	77.81	02/21/84	82.97	01/08/87	82.97	01/08/87	35S 43W 04AAC 01
1971-	165.06	01/20/71	190.30	01/08/87	190.30	01/08/87	35S 43W 13BDB 01
NEMAHA COUNTY							
1984-	68.40	12/12/84	75.00	09/04/87	73.55	12/08/86	05S 11E 10ADB 01
					71.05	03/04/87	
					72.63	06/01/87	
					75.00	09/04/87	
NESS COUNTY							
1975-	28.99	06/27/75	30.10	01/21/85	29.90	01/22/87	16S 24W 15ABB 01
1974-	28.24	06/26/75	31.7	01/02/79	29.18	01/22/87	18S 21W 25AAB 01
1971-	29.53	09/10/87	34.55	10/04/71	33.11	12/17/86	18S 21W 31CAA 01
					31.55	01/22/87	
					31.51	03/12/87	
					29.78	07/07/87	
					29.53	09/10/87	
1974-	32.70	01/22/87	36.40	10/29/74	32.70	01/22/87	18S 24W 36ADB 01
1974-	23.77	06/26/75	29.94	01/22/87	29.94	01/22/87	18S 25W 33BBC 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
NESS COUNTY -- CONTINUED							
18S 26W 06BAB 02	383129100142402	WHIPPLE, C J	I	110ALVM	--	12	2570
19S 23W 01CCB 01	382526099492301	CLOUSTON, JAMES R	I	210DKOT	450	16	2214
19S 23W 08CBB 01	382447099534801	SCHNEIPP, ROBERT	U	112TRRC	52	1	2220
20S 22W 20CCC 01	381728099470701	WHITLEY, C L	I	112TRRC	51	20	2189
20S 22W 35BCC 01	381609099434801	COX, LESLIE	I	110ALVM	68	14	2168
20S 23W 32CDA 01	381550099532001	FICKEN, J E	I	112TRRC	67	19	2233
20S 26W 07BDC 01	381946100141801	DAVIDSON, LYLE	I	110ALVM	50	16	2538
NORTON COUNTY							
01S 21W 17AAA 01	395820099420601	UNKNOWN	U	--	139	--	2290
01S 23W 15AAA 01	395819099532001	UNKNOWN	U	--	72	--	2340
01S 24W 13BCB 01	395806099584801	UNKNOWN	U	--	133	--	2425
01S 25W 25BBB 01	395634100053201	UNKNOWN	U	--	--	--	2405
02S 21W 33CCC 01	394945099420101	USGS	U	--	200	--	--
02W 23W 22AAA 01	395214099532101	UNKNOWN	U	--	120	--	2378
02S 25W 14AAA 01	395306100054301	UNKNOWN	U	--	228	--	--
04S 23W 03DDD 01	394340099532401	UNKNOWN	U	--	241	--	--
04S 23W 26CCC 01	394012099531601	UNKNOWN	U	--	83	--	--
04S 25W 13CCC 01	394156100054101	UNKNOWN	U	--	170	--	--
05S 21W 10AAA 01	393822099395801	SCHANDLER, EUGENE	S	110ALVM	17	6	--
05S 22W 18CCD 01	393643099505401	STOWELL, BILL	I	110ALVM	51	18	--
05S 24W 21AAA 01	393637100012001	FINLEY, E B	U	110ALVM	46	5	--
OSBORNE COUNTY							
06S 12W 23CDC 01	393038098374501	FINK, C	H	112TRRC	30	36	1505.8
07S 12W 28ABA 01	392518098393601	GALLEY, C E	H,S	112TRRC	46	12	--
07S 15W 10CCC 01	392710098591901	USBR	U	--	55	1	1648
PAWNEE COUNTY							
21S 15W 11CBB 01	381419098565201	KGS	U	110ALVM	20	1	1932
21S 15W 31BAD 01	381108099005301	MULL, K K	I	112PLSC	83	16	1972
21S 16W 14ADC 01	381333099025001	POWERS, ALVA	I	--	--	--	1970
21S 18W 32DAA 01	381047099185301	SANFORD CO-OP	H	110ALVM	73	5	2056.00
21S 19W 27CCC 01	381120099241101	ELMORE, FRANK	I	--	123	16	2076.7
21S 19W 30BCC 01	381147099272701	USGS	U	112TRRC	69	1	2087.00

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
NESS COUNTY -- CONTINUED							
1974-	6.54	06/26/75	7.45	01/22/87	7.45	01/22/87	18S 26W 06BAB 02
1971-	75.50	05/12/71	89.90	01/21/85	88.17	12/17/86	19S 23W 01CCB 01
1965-	18.05	07/07/87	29.97	05/23/69	88.14	01/22/87	19S 23W 08CBB 01
					22.02	12/17/86	
					22.15	01/22/87	
					22.26	03/12/87	
					18.05	07/07/87	
1940-	17.81	07/12/51	64.09	09/07/83	20.98	09/10/87	20S 22W 20CCC 01
					47.38	12/18/86	
					57.72	01/22/87	
					47.61	03/12/87	
					47.77	07/07/87	
1974-	33.38	06/26/75	45.08	01/22/87	48.77	09/10/87	20S 22W 35BCC 01
1940-	25.58	10/24/51	41.50	05/25/67	45.08	01/22/87	20S 23W 32CDA 01
1974-	21.90	01/22/87	24.78	01/18/82	36.84	12/18/86	
					36.20	01/22/87	
					36.88	03/12/87	
					36.44	07/07/87	
					36.10	09/10/87	
					21.90	01/22/87	20S 26W 07BDC 01
NORTON COUNTY							
1976-	84.91	12/05/86	86.60	09/ /76	84.91	12/05/86	01S 21W 17AAA 01
1976-	32.74	12/05/86	34.80	09/ /76	32.74	12/05/86	01S 23W 15AAA 01
1976-	116.08	12/05/86	119.00	09/ /76	116.08	12/05/86	01S 24W 13BCB 01
1985-	42.83	12/06/85	43.83	12/05/86	43.83	12/05/86	01S 25W 25BBB 01
1976-	94.16	12/04/85	95.60	09/ /76	94.20	12/05/86	02S 21W 33CCC 01
1976-	75.29	12/05/86	76.30	09/ /76	75.29	12/05/86	02S 23W 22AAA 01
1976-	141.80	12/05/86	144.00	09/ /76	141.80	12/05/86	02S 25W 14AAA 01
1976-	90.31	12/05/86	91.20	09/ /76	90.31	12/05/86	04S 23W 03DDD 01
1976-	46.00	09/ /76	46.14	12/06/85	46.12	12/05/86	04S 23W 26CCC 01
1976-	119.80	12/05/86	120.30	10/10/85	119.80	12/05/86	04S 25W 13CCC 01
1982-	6.46	06/21/82	11.10	12/13/83	9.78	12/05/86	05S 21W 10AAA 01
					9.81	03/05/87	
					8.70	06/04/87	
					8.95	09/04/87	
1982-	8.77	06/04/87	14.18	02/26/82	12.10	12/05/86	05S 22W 18CCD 01
					11.13	03/05/87	
					8.77	06/04/87	
1982-	31.37	06/04/84	34.48	09/17/82	10.70	09/04/87	05S 24W 21AAA 01
					33.54	12/05/86	
					33.76	03/05/87	
					33.31	06/04/87	
					33.85	09/04/87	
OSBORNE COUNTY							
1945-	16.68	07/24/51	30.05	04/27/81	24.72	12/03/86	06S 12W 23CDC 01
1946-	26.44	05/25/52	35.78	03/07/85	24.51	03/04/87	
					22.31	06/01/87	
					22.07	09/03/87	
					32.53	12/03/86	07S 12W 28ABA 01
					32.15	03/04/87	
1964-	14.14	06/01/87	22.9	08/03/72	30.12	06/01/87	
					29.91	09/03/87	
					17.44	12/03/86	
					17.38	03/04/87	
					14.14	06/01/87	
15.30S					09/03/87		
PAWNEE COUNTY							
1973-	4.90	12/17/73	10.20	01/13/87	10.20	01/13/87	21S 15W 11CBB 01
1973-	10.26	12/17/73	18.75	01/15/85	18.00	01/14/87	21S 15W 31BAD 01
1985-	15.85	01/14/86	16.63	01/15/85	16.07	01/14/87	21S 16W 14ADC 01
1963-	15.88	03/20/74	33.31	12/30/80	31.85	12/18/86	21S 18W 32DAA 01
1944-	21.60	07/ /44	44.55	01/12/87	32.26	01/12/87	21S 19W 27CCC 01
					32.29	03/12/87	
					30.13	06/16/87	
					27.08	09/10/87	
					44.55	01/12/87	
1965-	31.87	03/20/74	48.66	09/11/86	47.98	12/18/86	21S 19W 30BCC 01
					47.76	01/12/87	
					47.45	03/12/87	
					46.30	06/16/87	
					47.33	09/10/87	

GROUND-WATER LEVELS IN KANSAS, 1987

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
PAWNEE COUNTY -- CONTINUED							
21S 20W 29BBB 01	381207099325201	MUSIL, E R	U	112TRRC	117	16	2104.00
22S 15W 03AAA 01	381022098570001	KGS	U	112PLSC	51	1	1970
22S 15W 03AAA 02	381022098570002	KGS	U	112PLSC	196	1	1970
22S 15W 13DCA 01	380758098550501	BLACKWELL, D B	I	112PLSC	95	16	1976
22S 15W 20CDC 01	380659098595301	FOX, L D	I	112PLSC	101	16	2004
22S 15W 33DDD 01	380513098580601	ZOOK, M & B	I	--	--	--	2003
22S 16W 03CBC 02	380949099043602	BUSTER, J C	I	110ALVM	45	16	1996
22S 16W 06BBA 01	381021099074601	REED, FRED B	U	110ALVM	30	1	2010
22S 16W 23AAA 01	380744099023201	CLARK, EDGAR	I	112PLSC	60	19	2011
22S 16W 32CDD 01	380513099062201	KOEHN, HAROLD	I	--	--	--	2047
22S 17W 05BBC 02	381015099132702	FRIZELL	I	--	--	--	2036.00
22S 17W 18AAD 01	380830099133401	LUPFER, RALPH	I	112PLSC	122	16	2047
22S 17W 24CBC 01	380712099090001	JOSEFIK, D R	I	110ALVM	--	16	2034
22S 19W 07AAA 01	380930099263001	POLSON, RAYMOND	U	210DKOT	165	1.5	2102
22S 19W 10BBA 01	380929099240301	JOSEFIK, DALE R	U	210DKOT	130	16	2087.00
23S 15W 12DDB 01	380338098550101	TRANBARGER, L & C	I	--	--	--	1974
23S 15W 18DDB 01	380242099002501	BAIRD, R H	I	112PLSC	86	16	2035
23S 16W 16BAB 01	380321099052401	HORTON, TOM	I	112PLSC	42	6	2048
23S 16W 35CCD 02	375958099032002	SCHARTZ, WILLIAM J	U	--	87	1.25	--
23S 17W 07ACC 01	380354099135501	SCHARTZ, HAZEL	H	--	--	--	2073
23S 17W 10CDB 01	380335099105601	LANGE, C C	I	112PLSC	59	16	2091
23S 17W 25ADC 01	380118099080901	HENNING, K R	I	112PLSC	65	16	2076
23S 17W 33CCA 01	380005099121101	MILLER, HAROLD	I	112PLSC	73	16	2109
23S 18W 28DAD 01	380105099174801	KGS	U	112PLSC	50	1	2102
23S 18W 36DAC 01	380013099143901	HOUDYSHELL, L H	I	112PLSC	73	19	2116
PHILLIPS COUNTY							
04S 18W 23CDC 01	394105099192201	LEMON, ALLEN	S	--	--	--	--
04S 19W 35DDD 01	393922099253001	ZIRSCHKY, ALICE	U	110ALVM	41	10	--

GROUND-WATER LEVELS IN KANSAS, 1987

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PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
PAWNEE COUNTY -- CONTINUED							
1965-	31.85	03/16/66	55.51	09/16/85	46.56	12/18/86	21S 20W 298BB 01
					46.32	01/12/87	
					45.56	03/12/87	
					44.57	06/16/87	
					47.49	09/10/87	
1973-	14.84	12/18/73	29.42	01/13/87	29.42	01/13/87	22S 15W 03AAA 01
1973-	15.47	10/30/73	52.54	09/10/82	30.91	12/18/86	22S 15W 03AAA 02
					30.79	01/13/87	
					30.72	03/12/87	
					32.56	06/16/87	
					32.95	09/10/87	
1969-	17.47	12/18/73	37.76	01/14/86	37.73	01/13/87	22S 15W 130CA 01
1969-	15.58	12/18/73	32.20	01/13/87	32.20	01/13/87	22S 15W 20C0C 01
1985-	33.33	01/13/87	34.38	01/15/85	33.33	01/13/87	22S 15W 330DD 01
1973-	9.44	12/18/73	15.44	01/15/85	14.04	01/12/87	22S 16W 03CBC 02
1961-	14.57	09/10/87	19.12	09/14/84	17.74	12/18/86	22S 16W 068BA 01
					17.73	01/12/87	
					17.62	03/12/87	
					15.62	06/16/87	
					14.57	09/10/87	
1970-	21.19	06/25/74	41.95	06/20/85	36.72	12/18/86	22S 16W 23AAA 01
					36.71	01/12/87	
					36.69	03/12/87	
					36.12	06/16/87	
					36.13	09/10/87	
1985-	30.45	01/12/87	31.66	01/13/86	30.45	01/12/87	22S 16W 32CDD 01
1981-	22.66	01/25/82	33.50	01/26/81	25.32	01/12/87	22S 17W 058BC 02
1964-	24.88	03/20/74	52.07	09/14/84	36.80	12/18/86	22S 17W 18AAD 01
					36.40	01/12/87	
					40.87	03/12/87	
					38.44	06/16/87	
					35.05	09/10/87	
1971-	5.57	12/18/73	11.67	01/24/83	10.58	01/12/87	22S 17W 24CBC 01
1977-	52.62	03/17/78	114.96	09/14/84	63.18	12/18/86	22S 19W 07AAA 01
					61.58	01/12/87	
					60.79	03/12/87	
					57.30	06/16/87	
					80.57	09/10/87	
1978-	48.35	03/11/83	85.54	09/16/85	56.39	12/18/86	22S 19W 108BA 01
					55.65	01/12/87	
					55.91	03/12/87	
					52.64	06/16/87	
					76.04S	09/10/87	
1986-	38.80	01/12/87	30.38	01/13/86	28.80	01/12/87	23S 15W 120DB 01
1973-	20.74	12/18/73	36.67	01/13/86	36.00	01/12/87	23S 15W 180DB 01
1973-	8.07	01/14/74	20.64	01/13/86	18.95	01/12/87	23S 16W 168AB 01
1981-	21.50	01/26/81	30.70	09/12/85	27.75	12/18/86	23S 16W 35CCD 02
					28.56	01/12/87	
					27.40	03/17/87	
					26.70	06/15/87	
					26.71	09/16/87	
1985-	7.99	01/14/85	7.99	01/14/85			23S 17W 07ACC 01
1968-	25.45	12/18/73	38.10	01/13/86	37.95	01/12/87	23S 17W 10CDB 01
1973-	12.55	12/18/73	25.77	01/12/87	25.77	01/12/87	23S 17W 25ADC 01
1963-	13.0	01/ /63	29.30	01/15/86	28.33	01/12/87	23S 17W 33CCA 01
1973-	5.47	06/15/87	17.64	04/17/79	8.15	12/19/86	23S 18W 28DAD 01
					8.25	01/12/87	
					7.96	03/19/87	
					5.47	06/15/87	
					7.46	09/16/87	
1961-	8.28	12/18/73	25.89	01/15/85	24.43	01/12/87	23S 18W 36DAC 01
PHILLIPS COUNTY							
1977-	39.08	04/29/81	51.69	03/06/87	47.70	12/05/86	04S 18W 23CDC 01
					51.69	03/06/87	
					42.26	06/04/87	
					46.02	09/04/87	
1982-	17.28	09/04/87	28.14	09/17/82	21.24	12/05/86	04S 19W 35DDD 01
					21.27	03/06/87	
					17.28	06/04/87	
					17.28	09/04/87	

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
POTTAWATOMIE COUNTY							
09S 11E 19CDB 01	391456096140801	PEDICORD LAND & CATTLE CO	I	112NWMN	--	24	--
09S 11E 27CAA 01	391417096103601	STRUB, JOE	U	110ALVM	43	2	--
09S 11E 31DCC 01	391305096135201	KSBA	U	110ALVM	26	1	962
09S 11E 32ADC 01	391331096122601	POTTAWATOMIE CO TWSP	U	110ALVM	--	8	968
09S 11E 35DDD 01	391305096085401	KGS	U	112NWMN	45	2	956
10S 08E 14CBA 01	391050096295201	CK PROCESSING	I	112NWMN	69	18	1009
10S 10E 10DBC 01	391134096171301	ERIKSEN, CONRAD	I	110ALVM	67	18	973
10S 11E 03BCA 01	391246096105301	KP+L	U	110ALVM	45.5	2	963
10S 11E 04ACB 01	391246096113501	FULMER, C R	I	112NWMN	85	24	968
10S 12E 07BBC 01	391159096073701	PESSEMIER FARM CO	I	110ALVM	84	16	--
PRATT COUNTY							
26S 11W 01DOB 01	374833098280001	SCHWERTZFEGER, RONALD	I	112PLSC	110	16	1801
26S 11W 27AAC 01	374533098301301	HASTINGS, L V	I	112PLSC	140	17	1808
26S 11W 29BCB 01	374526098331501	PRESTON, CITY OF	P	112PLSC	45	12	1830
26S 12W 020BD 01	374841098355201	MARDIS, M O	I	112PLSC	135	16	1868
26S 12W 17CCA 01	374646098394401	TRIMPE, GERHARDT	I	112PLSC	170	6	1906
26S 12W 34CDC 01	374403098372301	KGS	U	112PLSC	210	1	1884
26S 12W 34CDC 02	374403098372302	KGS	U	112PLSC	145	1	1884
26S 13W 16DAA 01	374703098442401	KELLER, E F	I	112PLSC	160	16	1929
26S 13W 198BD 01	374631098472501	BENNET, A E	I	112PLSC	112	16	1953
26S 13W 34BCB 01	374438098441601	SOAKEN, GEORGE	U	112PLSC	75	6	1950
26S 14W 17DCB 01	374648098522901	HEMPHILL, DEAN E	I	112GDID	100	16	2010
26S 15W 18DAB 01	374657098595101	DOGGETT, KEITH	I	112PLSC	96	16	2050
27S 11W 12CBC 01	374230098285101	KGS	U	112PLSC	86	1	1783
27S 11W 31DAA 01	373905098332501	KGS	U	110ALVM	22	1	1726
27S 12W 12DAA 01	374238098343001	THOMPSON, WILLARD B	U	--	115	2	--
27S 12W 33CBA 01	373907098383801	BERGNER, R S	I	112PLSC	90	16	1777
27S 13W 13DOC 01	374126098411501	MC GUIRE, W R	I	112PLSC	112	17	1897
27S 14W 03DAC 01	374323098500101	HUFFMAN, H E	I	112PLSC	135	16	1995
27S 14W 12DDD 01	374217098474101	KGS	U	112PLSC	158	1	1983
27S 14W 21CAB 01	374052098513901	JONES, L B	I	112PLSC	144	18	1998

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
POTTAWATOMIE COUNTY							
1974-	22.20	12/04/81	34.15	06/04/81	27.30 29.25 23.45 29.90	12/08/86 02/04/87 06/01/87 09/04/87	09S 11E 19CDB 01
1977-	11.05	06/01/87	30.80	06/04/81	15.65 17.80 11.05 20.33	12/08/86 02/04/87 06/01/87 09/04/87	09S 11E 27CAA 01
1959-	8.65	06/01/87	18.18	03/09/81	13.03 14.50 8.65 13.47	12/08/86 02/04/87 06/01/87 09/04/87	09S 11E 31DCC 01
1977-	14.30	06/01/87	28.15	05/23/77	16.65 19.05 14.30 19.40	12/08/86 02/04/87 06/01/87 09/04/87	09S 11E 32ADC 01
1966-	7.70	06/20/74	25.06	06/04/81	12.60 14.05 10.40 14.33	12/08/86 02/04/87 06/01/87 09/04/87	09S 11E 35DDD 01
1961-	14.75	12/20/73	24.87	03/11/81	19.45	12/08/86	10S 08E 14CBA 01
1966-	12.50	06/01/87	22.38	12/09/80	18.30 18.70 12.50 17.05	12/08/86 02/04/87 06/01/87 09/04/87	10S 10E 10DBC 01
1977-	14.80	06/01/87	28.03	12/09/80	18.15 18.10 14.80 18.90	12/08/86 02/04/87 06/01/87 09/04/87	10S 11E 03BCA 01
1967-	22.15	06/08/84	31.30	03/09/81	24.15 24.07 23.45 24.95	12/08/86 02/04/87 06/01/87 09/04/87	10S 11E 04ACB 01
1974-	10.48	02/13/74	17.45	03/09/81	13.65 14.85 10.90 15.10	12/08/86 02/04/87 06/01/87 09/04/87	10S 12E 07BBC 01
PRATT COUNTY							
1973-	22.90	01/12/87	25.27	01/16/84	22.90	01/12/87	26S 11W 010DB 01
1964-	21.74	01/13/86	27.3	06/18/64	21.88	01/12/87	26S 11W 27AAC 01
1964-	13.19	01/13/86	19.80	08/ /64	13.24	01/12/87	26S 11W 29BCB 01
1964-	24.48	01/12/87	28.94	02/06/79	24.48	01/12/87	26S 12W 020BD 01
1964-	31.28	01/12/87	37.09	01/25/83	31.28	01/12/87	26S 12W 17CCA 01
1964-	41.01	01/13/86	47.89	09/22/78	41.72	01/12/87	26S 12W 34CDC 01
1964-	34.35	03/23/81	46.58	09/22/78	40.66 40.70 40.69 39.44 37.81	12/10/86 01/12/87 03/13/87 06/15/87 09/14/87	26S 12W 34CDC 02
1967-	15.58	12/13/73	27.18	01/29/81	20.64	01/12/87	26S 13W 16DAA 01
1963-	14.44	12/13/73	27.26	01/14/85	23.71	01/13/87	26S 13W 19BBD 01
1959-	41.63	07/18/60	54.78	09/09/83	49.50 49.18 49.69 48.12 48.03	12/12/86 01/12/87 03/13/87 06/15/87 09/14/87	26S 13W 34BCB 01
1960-	12.0	11/01/60	32.06	09/06/84	27.25 26.73 26.05 25.03 23.58	12/12/86 01/13/87 03/13/87 06/15/87 09/14/87	26S 14W 17DCB 01
1973-	4.75	12/13/73	18.47	01/15/85	17.56	01/13/87	26S 15W 18DAB 01
1974-	44.25	01/13/86	46.67	01/24/83	45.27	01/12/87	27S 11W 12CBC 01
1964-	2.74	12/15/73	11.0	05/12/64	4.92	01/12/87	27S 11W 31DAA 01
1980-	51.30	09/14/87	74.03	09/08/82	54.27 54.16 54.10 71.29S 51.30	12/10/86 01/12/87 03/13/87 06/15/87 09/14/87	27S 12W 12DAA 01
1964-	1.22	12/14/73	3.39	05/24/64	2.44	01/12/87	27S 12W 33CBA 01
1964-	56.89	01/12/87	65.11	01/24/83	56.89	01/12/87	27S 13W 13DDC 01
1979-	39.54	03/27/79	47.53	01/29/81	43.98	01/13/87	27S 14W 03DAC 01
1974-	56.04	06/21/76	64.16	09/06/84	61.84 61.64 61.30 60.99 60.95	12/12/86 01/13/87 03/13/87 06/15/87 09/14/87	27S 14W 12DDD 01
1964-	30.80	01/29/81	43.88	01/17/84	42.96	01/13/87	27S 14W 21CAB 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
PRATT COUNTY -- CONTINUED							
27S 15W 02ABC 01	374347098554501	MAERCKER, LEROY	I	112PLSC	117	--	2036
27S 15W 08BBD 01	374254098592601	THOMPSON, D H JR	I	112PLSC	149	16	2059
27S 15W 32CCA 01	373851098592501	BRYANT, R W	I	112PLSC	149	16	2068
27S 15W 36ADD 01	373911098541401	HUITT, ELLIS	S	112PLSC	160	6	2050
28S 11W 12ACC 01	373728098281801	JOHNSON, L J	I	112PLSC	123	16	1755
28S 11W 20CAC 01	373529098330001	MEEKER, BRUCE	I	--	170	--	1840
28S 12W 21BAD 01	373556098382201	MARTIN, L K	I	112PLSC	150	16	1882
28S 13W 02DDC 01	373756098422001	KF&G	N	112PLSC	105	18	1827
28S 13W 17AAA 01	373658098452901	SMITH, F L	I	112PLSC	135	16	1938
28S 13W 26DCB 01	373432098423701	FINCHAM, D L	I	112PLSC	190	16	1916
28S 14W 14CCC 01	373609098494301	LAMBERT, EDDIE	I	112PLSC	152	16	1984
28S 15W 23CCD 01	373514098560801	MILLER, H L	I	112PLSC	217	16	2071
29S 11W 06AAA 01	373324098332601	BIG BEND GMD 5	U	--	83	5	1828
29S 11W 09ADD 01	373213098311301	TERRY, CARL	U	112PLSC	97	12	1830
29S 11W 29AAD 01	372948098322001	WEIR, L D	U	112PLSC	80	6	1849
29S 12W 20CCD 01	373000098394501	HIRT, VERNON	I	112PLSC	215	16	1907
29S 13W 12ABB 01	373233098411501	BIG BEND GMD 5	U	--	87	5	1906
29S 13W 31CAA 01	372838098470601	LAMBERT, M E	I	112PLSC	80	12	1893
29S 14W 12ABB 01	373231098480401	BIG BEND GMD 5	U	--	120	5	1988
29S 14W 170BD 01	373107098521801	SCHREPEL, MELVIN	I	--	--	--	2012
29S 15W 02CCA 01	373243098560701	PETRIE, JEAN	I	112PLSC	190	16	2035
29S 15W 18ADA 01	373124098594001	HOWELL, R S	I	112PLSC	174	16	2050
RAWLINS COUNTY							
01S 33W 29CCC 01	395551101031601	BEARLEY, J D	S	121OGLL	125	5	2992
02S 31W 03CAD 01	395419100471001	KOGL, CLEM	I	110ALVM	42	18	2665
02S 32W 20CCD 01	395130100555301	SAMSON, ADRIAN	I	110ALVM	32	18	2735
02S 33W 26DCC 01	395038100592301	NIERMEIR, E	I	110ALVM	48	18	2798
02S 35W 13ABB 01	395308101114301	KOPRIVA, P E	S	121OGLL	187	6	3178
02S 35W 34CAA 01	395006101140801	KAMPUS, F	S	110ALVM	49	6	3064
02S 36W 13DDD 01	395224101180301	FRISBIE FARMS INC.	I	121OGLL	262	18	3286
02S 36W 15CDD 01	395224101205101	FRISBIE, F L	I	121OGLL	290	18	3334
02S 36W 36BAA 01	395033101183701	BALIK, MORRIS	I	121OGLL	280	18	3263
03S 31W 07CBD 01	394814100505201	NOREN, W D	S	121OGLL	163	6	2960.0
03S 31W 23BBB 01	394703100463101	CEDERBERG, N C	S	121OGLL	88	6	2849
03S 33W 03DCC 01	394854101003101	CORLEY, E	I	110ALVM	68	18	2823
03S 33W 08CDC 01	394802101030301	WALKER, G R	I	110ALVM	52	18	2855
03S 34W 03ABB 01	394940101071501	CLOE, BERNARD	I	110ALVM	40	12	2882
03S 34W 26BAC 01	394605101062601	BROWN, ELVIA M	I	110ALVM	40	18	2900
03S 35W 24CBB 01	394637101122001	HAWKINS, D V	I	110ALVM	50	16	3001
03S 36W 14CBB 01	394730101201001	BELL, L C	I	121OGLL	312	16	3332
03S 36W 17CCC 01	394711101233201	FISHER, C K	I	121OGLL	300	18	3375
04S 31W 16ABD 01	394236100480601	ROBBINS, V V	I	110ALVM	51	18	2761.0
04S 31W 25DDD 01	394012100442701	BROWN ETAL, F A	S	110ALVM	32	5	2755.0
04S 33W 10ABC 01	394328101003401	CHLEBORAD, CLARENCE	I	--	199	--	3086
04S 33W 18DDA 01	394204101033001	MINNEY, W B	U	121OGLL	104	5	3068
04S 33W 28DCA 01	394026101014201	MORGAN, J P	I	121OGLL	240	12	3125
04S 34W 33CBC 01	393933101090001	MC FEE, R	I	121OGLL	212	18	3160
04S 35W 06DCD 01	394342101171501	FIKAN, E	S	121OGLL	167	6	3252
04S 35W 13DAD 01	394210101112301	HENNEBERGER, C E	I	110ALVM	51	18	3002
04S 35W 29DDD 01	394013101155301	ANDREWS, O L	S	121OGLL	165	6	3219
04S 36W 06BBB 01	394428101244001	WAHRMAN, JOE C	I	121OGLL	295	18	3370
04S 36W 23CBB 01	394125101201301	BANISTER, AMELIA	I	121OGLL	308	16	3351
04S 36W 23DCA 01	394112101193101	BANISTER, KENT	I	--	289	--	3339
05S 31W 10DDA 01	393742100464301	ERICKSON, E C	I	121OGLL	72	16	2820
05S 31W 20CCA 01	393558100495001	CEDERBERG, J W	I	121OGLL	70	18	2865
05S 32W 14CDD 01	393644100525501	RYAN, L J	U	121OGLL	147	5	3020
05S 33W 29BDA 01	393533101030001	MORTON BROTHERS	I	121OGLL	115	18	3042

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
PRATT COUNTY -- CONTINUED							
1982-	30.40	01/13/87	35.09	06/08/82	30.40	01/13/87	27S 15W 02ABC 01
1973-	13.20	12/13/73	30.23	01/14/86			27S 15W 0888D 01
1973-	45.95	12/13/73	56.50	01/14/86	52.56	01/13/87	27S 15W 32CCA 01
1973-	68.43	01/23/78	77.09	01/15/85	75.70	01/13/87	27S 15W 36ADD 01
1973-	32.12	12/14/73	35.80	01/16/84	33.57	01/12/87	28S 11W 12ACC 01
1979-	66.93	09/14/87	70.41	01/14/85	67.70	12/11/86	28S 11W 20CAC 01
					67.71	01/12/87	
					67.44	03/13/87	
					67.72	06/15/87	
					66.93	09/14/87	
1964-	81.27	01/12/87	83.25	01/24/78	81.27	01/12/87	28S 12W 21BAD 01
1973-	8.08	12/14/73	14.64	01/13/86	13.13	01/12/87	28S 13W 02DDC 01
1964-	69.20	01/13/86	79.70	01/24/83	75.55	01/12/87	28S 13W 17AAA 01
1964-	90.32	01/13/86	99.61	01/14/85	92.60	01/12/87	28S 13W 26DCB 01
1964-	76.87	12/13/73	79.57	05/13/64	77.11	01/12/87	28S 14W 14CCC 01
1973-	105.22	01/23/78	114.64	01/25/83	108.53	01/13/87	28S 15W 23CCD 01
1984-	42.21	01/13/86	45.62	01/14/85	42.23	01/12/87	29S 11W 06AAA 01
1964-	48.90	12/14/73	55.30	06/12/64	51.50	01/12/87	29S 11W 09ADD 01
1973-	57.45	12/14/73	62.40	01/22/80	58.71	01/12/87	29S 11W 29AAD 01
1966-	96.77	06/15/87	122.01	12/17/82	97.22	12/11/86	29S 12W 20CCD 01
					97.10	01/12/87	
					96.81	03/13/87	
					96.77	06/15/87	
					97.01	09/14/87	
1984-	69.90	01/12/87	71.33	01/31/84	69.90	01/12/87	29S 13W 12ABB 01
1964-	28.46	01/23/78	32.04	01/24/83	30.16	01/13/87	29S 13W 31CAA 01
1984-	99.04	01/12/87	100.79	01/15/85	99.04	01/12/87	29S 14W 12ABB 01
1979-	96.97	01/13/87	99.70	01/22/80	97.97	01/13/87	29S 14W 17DBD 01
1973-	85.15	12/13/73	94.22	01/25/82	93.29	01/13/87	29S 15W 02CCA 01
1973-	85.25	01/23/78	98.20	01/15/85	90.88	01/13/87	29S 15W 18ADA 01
RAWLINS COUNTY							
1960-	112.80	01/06/87	119.50	10/15/63	112.80	01/06/87	01S 33W 29CCC 01
1965-	14.70	12/23/65	21.52	01/06/75	17.73	01/06/87	02S 31W 03CAD 01
1965-	8.30	01/17/66	15.35	12/16/80	12.23	01/06/87	02S 32W 20DCD 01
1965-	19.24	01/25/67	26.33	12/28/78	23.38	01/06/87	02S 33W 26DCC 01
1952-	152.59	12/16/80	174.20	09/03/52	168.64	01/05/87	02S 35W 13ABB 01
1952-	29.02	01/18/68	31.63	01/05/77			02S 35W 34CAA 01
1964-	187.80	01/05/87	196.99	01/05/77	187.80	01/05/87	02S 36W 13DDD 01
1964-	198.58	01/09/85	213.37	12/16/80			02S 36W 15DDD 01
1965-	169.73	01/24/67	185.83	01/05/77	174.57	01/05/87	02S 36W 36BAA 01
1959-	145.13	01/06/86	154.34	01/15/71			03S 31W 07CBD 01
1952-	63.83	09/28/67	75.61	07/10/68			03S 31W 23BBB 01
1959-	20.38	10/09/62	31.20	09/17/68	26.58	01/06/87	03S 33W 03DCC 01
					27.13	03/03/87	
					26.08	06/01/87	
					29.18	09/02/87	
1964-	15.62	03/17/66	27.86	12/16/80	21.45	01/05/87	03S 33W 08CDC 01
1964-	12.22	01/26/83	22.42	02/04/74	14.79	01/06/87	03S 34W 03ABB 01
1964-	8.48	01/19/66	14.99	01/07/86			03S 34W 26BAC 01
1965-	24.72	01/18/66	29.57	01/05/77	27.42	01/07/87	03S 35W 24CBB 01
1965-	191.16	01/23/69	221.45	12/16/80	201.10	01/05/87	03S 36W 14CBB 01
1962-	195.20	03/07/66	223.80	09/16/75	210.18	01/05/87	03S 36W 17CCC 01
					217.59	03/03/87	
					208.90	06/10/87	
					219.87	09/02/87	
1965-	7.08	01/10/85	18.25	12/18/79	11.46	01/06/87	04S 31W 16ABD 01
1956-	13.90	12/23/65	20.00	05/05/56	16.06	01/06/87	04S 31W 25DDD 01
1985-	143.48	01/07/86	146.65	01/10/85	143.87	01/06/87	04S 33W 10ABC 01
1952-	82.24	01/13/76	88.52	01/13/60	85.80	01/06/87	04S 33W 18DDA 01
1964-	149.26	01/05/87	157.00	01/07/75	149.26	01/05/87	04S 33W 28DCA 01
1964-	116.74	01/24/84	121.66	02/04/74	120.75	01/05/87	04S 34W 33CBC 01
1952-	151.50	01/06/82	165.10	01/05/77			04S 35W 06DCD 01
1964-	15.05	02/04/74	16.36	12/17/80	15.20	01/06/87	04S 35W 13DAD 01
1952-	148.53	02/04/74	154.80	01/14/76	149.65	01/05/87	04S 35W 29DDD 01
1975-	182.20	03/11/75	197.66	03/03/87	197.66	03/03/87	04S 36W 06BBB 01
1967-	205.00	10/ /67	216.12	01/10/85	215.90	01/05/87	04S 36W 23CBB 01
1985-	211.88	01/07/86	212.66	01/10/85	212.56	01/05/87	04S 36W 23DCA 01
1964-	40.18	01/17/66	49.40	08/26/64	41.46	01/06/87	05S 31W 10DDA 01
1965-	29.70	01/17/66	37.36	12/17/80	33.18	01/06/87	05S 31W 20CCA 01
1964-	130.10	08/26/64	133.64	01/08/86	130.24	01/06/87	05S 32W 14CDD 01
1964-	16.18	06/05/84	21.97	09/16/75	18.95	01/06/87	05S 33W 29BDA 01
					18.60	03/04/87	
					17.93	09/10/87	

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
RAWLINS COUNTY -- CONTINUED							
05S 34W 0188B 01	393914101053801	WIGNER, H E	S	1210GLL	127	5	3137
05S 34W 28ADC 01	393526101081201	HENRY EST, B T	I	1210GLL	250	16	3207
05S 35W 10CDD 01	393736101141301	DEWEY, C JR	S	1210GLL	180	6	3267
05S 35W 30CBC 01	393513101180001	HILL, JEFFREY	I	--	285	--	3336
05S 36W 21BCD 01	393619101222101	CRIST, E R	I	110ALVM	56	18	3220
RENO COUNTY							
22S 04W 12CDA 01	380851097424301	DICK, RICHARD	I	112PLSC	--	--	1449
22S 04W 328BC 01	380555097473101	STUCKY, GERALD	U	112PLSC	77	6	1510
22S 05W 17BCC 01	380818097540801	BECK, LYLE & SHARON	H	--	62	6	--
22S 05W 33DBD 01	380528097522001	KANSAS POWER AND LIGHT	U	--	49	8	1598
22S 06W 18BCB 01	380825098015601	HURD, JAMES	I	--	50	16	--
22S 06W 28CCB 01	380614097594201	CITY OF WILLOW BROOK	I	--	31	--	--
22S 07W 17DCB 01	380758098065401	GRIFFIN, ROBERT	I	112PLSC	29	12	1596
22S 08W 09DBB 01	380903098122701	STUBBS, P E	U	112PLSC	88	6	1670
22S 08W 23DAD 01	380712098094801	MCGONIGLE, PHYLL	H, S	112PLSC	53	5	1651
22S 08W 33CCD 01	380514098124901	CRENSHEN, ALBERT	S	112PLSC	27	6	1658
22S 09W 038BD 01	381015098182501	ERICKSEN, D W	I	112PLSC	105	16	1712
22S 09W 17BAB 01	380837098202801	DRAKE, V A	N	112PLSC	76	6	1732
22S 09W 258BA 01	380652098160901	SCHWEIZER, P A	S	112PLSC	50	7	1705
22S 10W 02DCC 01	380935098233201	POTTER ETAL, MARY	S	112PLSC	38	6	1736
22S 10W 08BBB 01	380929098272701	KGS	U	112PLSC	50	1	1764
22S 10W 30DAA 01	380625098273401	KGS	U	112PLSC	40	1	1775
23S 04W 03BAB 02	380509097450202	UNKNOWN	U	--	--	--	--
23S 04W 16BBB 01	380324097462401	JONES, ROBERT	U	112PLSC	63	6	1570
23S 04W 30BAA 01	380139097481201	SMITH, ALAN	I	112PLSC	--	--	1491
23S 06W 15BAC 01	380318097581801	HINKLE, DONALD	I	--	50	10	--
23S 06W 31DCB 01	380008098011901	CLARK, BILL H	I	112PLSC	95	18	1577
23S 07W 01ABA 01	380509098021901	DEAN, F L	I	112PLSC	30	12	1567
23S 07W 05ABA 01	380508098064501	GREEN, R L	U	112PLSC	75	13	1623
23S 07W 13DDD 01	380238098020201	KGS	U	112PLSC	113	1	1604
23S 08W 18AAD 01	380316098140901	MEIER, H D	U	112PLSC	44	1	1675
23S 09W 05CBD 01	380435098203301	TAYLOR, R A	I	112PLSC	90	16	1740
23S 09W 21DDB 01	380151098184301	RANKIN, WILBUR	I	112PLSC	96	16	1732
23S 09W 35CCC 01	380000098171701	KGS	U	112PLSC	82	1	1718
23S 10W 02BAB 01	380507098233001	SANKEY, L & M	S	112PLSC	17	6	1751
23S 10W 25CAC 01	380104098223701	JOHNSON, C R	I	112PLSC	101	18	1752
24S 04W 05CDB 01	375915097471301	MILLER, MORETHA	I	112PLSC	40	18	1480
24S 04W 14DAC 01	375737097431801	STALCUP, HAROLD	I	112PLSC	48	16	1455
24S 04W 258BD 01	375619097425301	WENINGER, DON	I	112PLSC	65	--	1448
24S 04W 31DAB 01	375507097474501	MILLER, R H	I	112PLSCL	60	16	1485
24S 05W 10CCA 01	375823097514501	YODER, HAROLD	I	112PLSC	184	10	1509
24S 06W 03AAB 01	375955097574301	SHOWALTER, C B	U	--	120	3	1554
24S 06W 23CBA 01	375652097571701	SHOWALTER, C B	I	--	42	16	--
24S 07W 08ADA 01	375849098062501	HAMILTON, C W	H	112PLSC	60	6	1636
24S 07W 28AAA 01	375625098051701	GHORMLEY, HAROLD	N	112PLSC	48	16	1588
24S 08W 04AB 01	375950098121501	--	S	--	65	6	1660
24S 08W 18BAC 01	375802098144501	JONES, B R	I	112PLSC	52	16	1649
24S 08W 34DAC 01	375459098105401	TREMBLEY, G W	I	112PLSC	60	12	1590
24S 09W 19DDB 01	375637098205201	ZONKER, B E	I	112PLSC	90	16	1704
24S 10W 06DBB 01	375926098275201	KREY, FRED	U	112PLSC	87	16	1797
24S 10W 17DDC 01	375721098263301	HALL, J A	I	112PLSC	72	16	1755
24S 10W 31CBC 01	375457098281801	BIG BEND GMD 5	U	--	43	5	1750
25S 04W 02ABB 01	375441097433301	COKELY, MAJOR	I	112PLSC	--	--	1449
25S 07W 078BD 01	375341098081801	BLODGETT, K R	I	112PLSC	71	16	1602
25S 07W 36CCC 01	374933098025301	LONE STAR CEM. ASSN.	I	112PLSC	85	16	1570
25S 08W 19ADB 01	375149098140701	SHULTZ, E G	I	112PLSC	25	12	1607
25S 09W 010CD 01	375353098153101	THAYER, ED	I	112PLSC	60	18	1658
25S 09W 178BC 01	375248098203301	LUBBERS, EDWARD	I	112PLSC	52	16	1710
25S 09W 30DDA 01	375030098203901	MEEKER, B P	I	112PLSC	52	18	1693
25S 10W 14BBB 01	375252098235701	KGS	U	112PLSC	85	1	1748

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
RAWLINS COUNTY -- CONTINUED							
1952-	113.51	01/24/84	116.23	12/29/78	114.12	01/05/87	05S 34W 0188B 01
1965-	132.80	01/05/87	136.12	01/24/67	132.80	01/05/87	05S 34W 28ADC 01
1952-	165.80	01/18/66	171.94	01/21/70	167.10	01/05/87	05S 35W 10CDD 01
1985-	170.23	01/05/87	171.18	01/07/86	170.23	01/05/87	05S 35W 30CBC 01
1964-	13.67	01/24/84	20.12	01/05/77	19.00	01/05/87	05S 36W 21BCD 01
RENO COUNTY							
1984-	32.71	01/07/87	40.20	01/16/85	32.71	01/07/87	22S 04W 12CDA 01
1971-	3.10	05/07/73	13.99	01/07/77	13.99	01/07/87	22S 04W 32BBC 01
1984-	5.83	04/17/84	9.75	01/08/85	6.72	01/08/87	22S 05W 17BCC 01
1984-	14.70	04/13/84	18.94	01/08/85	18.41	01/08/87	22S 05W 33DBD 01
1984-	6.85	04/17/84	9.56	01/08/85	9.11	01/08/87	22S 06W 18CCB 01
1982-	7.49	06/06/83	9.71	10/29/82	8.62	12/10/86	22S 06W 28CCB 01
					8.78	01/08/87	
					8.48	03/11/87	
					7.51	06/12/87	
					7.96	09/09/87	
1973-	2.09	12/17/73	7.84	01/27/82	4.63	01/08/87	22S 07W 17DCB 01
1973-	27.31	12/17/73	32.91	01/08/87	32.91	01/08/87	22S 08W 09DBB 01
1973-	27.80	01/28/81	32.40	05/15/73	29.42	01/08/87	22S 08W 23DAD 01
1949-	4.17	12/17/73	9.37	01/27/82			22S 08W 33CCD 01
1973-	29.08	12/17/73	36.42	08/13/73	34.42	01/09/87	22S 09W 038BD 01
1973-	8.6	02/07/79	20.75	01/08/85	19.84	01/09/87	22S 09W 17BAB 01
1973-	18.87	12/17/73	22.82	01/09/87	22.82	01/09/87	22S 09W 258BA 01
1973-	1.57	12/17/73	10.70	01/27/81	9.91	01/09/87	22S 10W 02DCC 01
1974-	5.92	04/10/74	15.90	01/28/81	14.22	01/09/87	22S 10W 088BB 01
1974-	3.93	04/10/74	12.95	01/08/85	9.52	01/09/87	22S 10W 30DAA 01
1985-	2.51	01/07/87	7.53	01/16/85	2.51	01/07/87	23S 04W 03BAB 02
1970-	15.18	05/07/73	24.50	01/24/73	19.10	01/07/87	23S 04W 168BB 01
1984-	6.68	01/07/87	9.05	02/23/84	6.68	01/07/87	23S 04W 30BAA 01
1984-	7.80	04/13/84	9.65	01/08/87	9.65	01/08/87	23S 06W 15BAC 01
1971-	20.51	06/12/86	40.17	09/16/80	30.10	12/10/86	23S 06W 31DCB 01
					30.12	01/07/87	
					29.80	03/11/87	
					29.72	06/12/87	
					29.32	09/09/87	
1966-	4.84	05/15/73	8.27	01/27/83	8.07	01/08/87	23S 07W 01ABA 01
1973-	22.52	12/17/73	27.95	01/27/82	25.41	01/08/87	23S 07W 05ABA 01
1973-	51.89	01/08/87	58.40	10/05/73	51.89	01/08/87	23S 07W 130DD 01
1973-	9.90	10/26/73	16.67	02/06/79	13.20	01/08/87	23S 08W 18AAD 01
1969-	12.05	12/17/73	31.0	12/ /69	19.60	01/09/87	23S 09W 05CBD 01
1957-	3.20	12/17/73	22.0	03/ /57	10.09	01/09/87	23S 09W 210DB 01
1974-	12.89	06/12/87	25.63	03/21/77	16.87	12/10/86	23S 09W 35CCC 01
					16.88	01/08/87	
					16.01	03/11/87	
					12.89	06/12/87	
					13.31	09/09/87	
1973-	3.00	12/18/73	8.16	01/27/81	7.07	01/09/87	23S 10W 02BAB 01
1959-	4.53	12/17/73	14.69	01/08/85	13.96	01/09/87	23S 10W 25CAC 01
1971-	3.58	05/07/73	7.85	03/09/77	7.02	01/07/87	24S 04W 05CDB 01
1971-	3.62	05/07/73	9.47	02/24/84	7.15	01/07/87	24S 04W 14DAC 01
1984-	4.17	01/09/86	6.28	02/24/84	4.42	01/07/87	24S 04W 258BD 01
1969-	25.61	01/07/87	32.00	11/ /69	25.61	01/07/87	24S 04W 31DAB 01
1984-	20.30	01/07/87	25.60	02/24/84	20.30	01/07/87	24S 05W 10CCA 01
1986-	27.21	01/07/87	27.68	09/23/86	27.51	01/07/87	24S 06W 03AAB 01
1984-	6.94	01/07/87	11.84	01/16/85	6.94	01/07/87	24S 06W 23CBA 01
1973-	45.48	01/05/84	50.71	03/07/79			24S 07W 08ADA 01
1973-	9.01	01/08/87	15.17	08/09/73	9.01	01/08/87	24S 07W 28AAA 01
1979-	9.96	01/09/87	17.69	01/26/83	9.96	01/09/87	24S 08W 04AB 01
1955-	2.45	12/17/73	16.0	07/ /55	2.57	01/08/87	24S 08W 188AC 01
1971-	5.10	01/08/87	9.0	06/ /71	5.10	01/08/87	24S 08W 34DAC 01
1966-	21.85	01/28/81	40.0	/ /66	22.57	01/09/87	24S 09W 190DB 01
1973-	17.88	12/17/73	24.59	01/09/87	24.59	01/09/87	24S 10W 06DBB 01
1973-	0.85	02/06/78	17.63	01/07/85	17.21	01/09/87	24S 10W 17DDC 01
1984-	9.87	01/07/87	10.52	01/07/85	9.87	01/07/87	24S 10W 31CBC 01
1984-	8.25	01/09/86	8.93	02/24/84	8.42	01/07/87	25S 04W 02ABB 01
1967-	22.39	01/07/86	26.10	12/11/67	22.69	01/08/87	25S 07W 07BBD 01
1972-	23.88	01/07/87	28.01	02/06/79	23.88	01/07/87	25S 07W 36CCC 01
1973-	7.11	01/08/87	9.60	01/27/83	7.11	01/08/87	25S 08W 19ADB 01
1965-	12.80	12/15/73	15.14	01/07/85	13.05	01/08/87	25S 09W 010CD 01
1973-	12.28	01/07/87	15.88	08/07/73	12.28	01/07/87	25S 09W 17BBC 01
1954-	14.35	02/06/78	18.53	08/08/73	16.62	01/07/87	25S 09W 30DDA 01
1973-	24.56	01/26/82	26.76	10/03/73	25.49	01/07/87	25S 10W 14BBB 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
RENO COUNTY -- CONTINUED							
25S 10W 19ABD 01	375153098274401	NIES, V D	I	112PLSC	110	16	1790
26S 06W 13BAB 01	374732097554401	GOERING, HARRY	I	112PLSC	50	12	1475
26S 06W 34BBC 01	374449097581101	FRENCH, W B	I	112PLSC	74	16	1545
26S 07W 12DCC 01	374728098020801	LARSON, L H	I	112PLSC	90	16	1582
26S 07W 21DDC 01	374543098050601	GRABER, H H	I	112PLSC	56	12	1620
26S 08W 09ABA 01	374815098114801	BORDER, A H	I	112PLSC	20	4	1569
26S 08W 30DCB 01	374459098140501	KUHNS, W D	I	112PLSC	82	16	1680
26S 09W 10DDB 01	374735098170001	MONTFORD, I C	I	112PLSC	81	16	1686
26S 09W 18AAA 01	374721098200701	KGS	U	112PLSC	38	1	1668
26S 09W 31DCC 01	374358098203301	BIG BEND GMD 5	U	--	102	5	1735
26S 09W 34DBD 01	374412098170901	WOODSON, G M JR	I	112PLSC	144	16	1685
26S 10W 18CDC 01	374637098272501	KGS	U	112PLSC	84	1	1797
26S 10W 328BD 01	374439098262101	MILLER, C O	I	112PLSC	132	16	1760
REPUBLIC COUNTY							
01S 03W 01CCA 01	395926097363101	HUCKIN, GERALD	I	--	210	--	--
01S 03W 09CBD 01	395837097395101	FRYE, KEITH	U	112PLSC	167	16	1635
01S 04W 15AAA 01	395820097444301	HOOPS, WERNER	H	112PLSC	185	6	1680
RICE COUNTY							
18S 09W 04BCC 01	383058098194601	N NAT GAS	U	--	194	1.25	1748
18S 10W 24BBB 01	382840098230601	ROELF, F W	S	--	144	6	1755
20S 08W 22AAA 01	381813098110101	TOBIAS, CECIL M	I	--	59	12	1644
20S 09W 12DDA 01	381918098152601	GRIFFIN, DAVID C	H	110ALVM	32	1.25	1664
20S 10W 27BBB 01	381718098251501	RAYMOND TWP	Z	--	--	--	1786
20S 10W 36ACD 01	381608098221001	EBERHART, JERRY G	I	--	72	--	1715
21S 07W 04AAC 01	381530098053501	COLLE, LESTER	I	--	50	--	1615
21S 07W 26CBD 01	381134098040201	THODE, ANCIL L	I	--	50	14	1595
21S 08W 09CBD 01	381411098125601	WILKEY, JOHN	I	--	78	--	1647
21S 08W 25ABB 01	381203098090501	RIVER VALLEY FARMS	I	--	40	--	1620
21S 08W 32DBB 01	381048098133501	--	I	--	--	--	1641
21S 09W 02DDA 01	381453098163801	SCHAFER, DON	I	--	60	--	1670
21S 09W 15AAC 02	381344098174702	PROFFITT, CLINTON	U	--	40	--	1669
21S 10W 16CDC 01	381305098260401	STARR, RONALD	U	--	80	--	1720
21S 10W 21ADB 01	381245098253101	STARR, ALLISON	S	112PLSC	17	1	1720
RILEY COUNTY							
10S 09E 17BDD 01	391055096261701	KGS	U	110ALVM	37	2	996

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
RENO COUNTY -- CONTINUED							
1973-	25.91	02/07/79	33.18	08/08/73	27.98	01/07/87	25S 10W 19ABD 01
1972-	6.76	01/07/86	9.86	02/06/79	7.44	01/07/87	26S 06W 13BAB 01
1968-	15.22	01/07/87	20.00	01/27/83	15.22	01/07/87	26S 06W 34BBC 01
1970-	27.72	01/07/87	32.03	02/06/79	27.72	01/07/87	26S 07W 12DCC 01
1959-	17.50	01/07/86	26.0	01/01/59	18.28	01/07/87	26S 07W 21DDC 01
1973-	6.65	01/28/81	7.80	01/27/83			26S 08W 09ABA 01
1972-	29.90	01/07/86	35.95	03/13/72	30.95	01/07/87	26S 08W 30DCB 01
1953-	19.70	01/23/78	25.0	10/ /53	19.98	01/07/87	26S 09W 10DDB 01
1974-	6.53	01/07/86	8.59	02/05/79	7.12	01/07/87	26S 09W 18AAA 01
1984-	51.98	01/07/86	53.22	02/01/84	52.93	01/07/87	26S 09W 31DCC 01
1973-	22.98	01/07/86	26.61	01/04/84	23.99	01/07/87	26S 09W 34DBD 01
1973-	21.29	09/09/87	25.49	03/09/84	23.72	12/10/86	26S 10W 18CDC 01
					23.79	01/07/87	
					23.96	03/11/87	
					22.50	06/12/87	
					21.29	09/09/87	
1972-	24.47	12/15/73	31.72	04/13/72	25.29	01/07/87	26S 10W 32BBD 01
REPUBLIC COUNTY							
1972-	134.24	06/17/75	154.90	09/04/86	149.95	12/04/86	01S 03W 01CCA 01
					140.00	03/10/87	
					139.50	06/04/87	
					145.25	09/02/87	
1979-	138.54	06/04/80	147.60	09/04/86	140.70	03/10/87	01S 03W 09CBD 01
					140.60	06/04/87	
					140.70	09/02/87	
1979-	174.45	06/02/81	182.30	09/04/86	177.00	12/04/86	01S 04W 15AAA 01
					176.10	03/10/87	
					175.85	06/04/87	
					176.55	09/02/87	
RICE COUNTY							
1966-	47.33	06/09/87	92.05	09/13/79	52.64	12/10/86	18S 09W 04BCC 01
					48.96	03/11/87	
					47.33	06/09/87	
					50.55	09/09/87	
1945-	31.89	07/05/45	42.01	09/16/80	35.48	12/10/86	18S 10W 24BBB 01
					35.11	03/11/87	
					33.78	06/09/87	
					33.55	09/09/87	
1979-	11.51	06/09/87	15.58	09/10/84	14.52	12/10/86	20S 08W 22AAA 01
					14.50	01/12/87	
					15.54	03/11/87	
					11.51	06/09/87	
					12.39	09/09/87	
1960-	7.05	10/05/73	16.28	09/10/84	12.97	12/10/86	20S 09W 12DDA 01
					12.80	01/12/87	
					12.80	03/11/87	
					10.70	06/09/87	
					11.49	09/09/87	
1985-	33.34	01/13/86	35.49	01/12/87	35.49	01/12/87	20S 10W 27BBB 01
1977-	12.29	11/16/77	14.21	01/17/85	14.18	01/12/87	20S 10W 36ACD 01
1977-	11.6	11/16/77	14.22	01/24/84	13.71	01/12/87	21S 07W 04AAC 01
1977-	7.14	11/16/77	12.97	01/12/87	12.97	01/12/87	21S 07W 26CBD 01
1977-	8.44	11/16/77	12.78	12/18/84	12.16	12/10/86	21S 08W 09CBD 01
					12.17	01/12/87	
					12.24	03/11/87	
					10.46	06/09/87	
					11.41	09/09/87	
1977-	0.44	03/28/80	9.04	06/09/87	5.43	12/10/86	21S 08W 25ABB 01
					5.55	01/12/87	
					5.20	03/11/87	
					9.04	06/09/87	
					4.38	09/09/87	
1985-	6.68	01/13/86	7.30	01/12/87	7.30	01/12/87	21S 08W 32DBB 01
1977-	10.49	11/16/77	14.25	01/17/85	13.33	01/12/87	21S 09W 02DDA 01
1985-	5.99	01/13/86	6.80	05/30/85	6.75	01/12/87	21S 09W 15AAC 02
1984-	6.70	01/12/87	8.00	08/19/84	6.70	01/12/87	21S 10W 16CDC 01
1973-	2.00	12/ /73	9.15	01/24/84			21S 10W 21ADB 01
RILEY COUNTY							
1966-	9.90	06/20/74	25.44	03/14/67	12.10	12/10/86	10S 09E 17BDD 01
					13.40	03/11/87	
					10.70	06/05/87	
					12.70	09/03/87	

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
ROOKS COUNTY							
07S 17W 24BBB 01	392612099102501	BALLARD, ROY	S	110ALVM	31	10	1713.99
07S 19W 23CDB 01	392533099243701	MCEWEN, ZACK	S	--	22	36	1878.50
RUSH COUNTY							
18S 16W 23DCC 01	382756099033301	KGS	U	--	120	--	1930
18S 16W 23DCC 02	382756099033302	KGS	U	--	51	2	1930
18S 17W 22AAD 01	382835099105401	USGS	U	110ALVM	51	1.25	1960
18S 17W 23BCC 01	382822099104601	USGS	U	112PLSC	56	1	1958
18S 18W 27AAC 01	382742099174001	USGS	U	110ALVM	53	1.25	1993
18S 19W 20ADD 01	382821099262301	RUSH COUNTY	U	110ALVM	--	1	2034.2
18S 20W 14CCC 01	382848099304201	USGS	U	112PLSC	48	1	--
18S 20W 19AAD 01	382835099341201	HUXOL, V	I	110ALVM	58	1.25	2077
SALINE COUNTY							
13S 01W 23BCB 02	385435097242502	USGS	U	110ALVM	49	2	1172
13S 02W 33DDC 01	385217097323101	UNKNOWN	U	110ALVM	64	2	1207
SCOTT COUNTY							
16S 31W 17DDD 01	383928100453301	SCHEUERMAN, S	S	121OGLL	125	6	2931
16S 31W 31BCB 01	383724100474001	EATON, L	I	121OGLL	179	18	2958
16S 33W 19CBB 01	383856101005901	FAIRLEIGH, ROY	I	121OGLL	192	18	3097
16S 33W 33BAA 01	383738100582001	ROHRBOUGH, DALE	I	121OGLL	194	16	3066
16S 34W 09CCB 01	384028101052301	TUCKER, ROY	I	121OGLL	181	16	3146
16S 34W 29CBB 01	383804101062801	CHRISTY, RUSSELL	I	121OGLL	200	16	3160
17S 31W 04DCC 01	383559100445101	SCHMIDT, STANLEY	I	121OGLL	--	--	2932
17S 31W 19CDA 01	383328100471201	BROOKOVER CATTLE CO	U	--	--	--	2960
17S 31W 35CCB 01	383144100431201	RAMSEY, GLEN	I	121OGLL	--	--	2925.0
17S 32W 169BB 01	383501100520601	JANSSEN, A JR	I	121OGLL	231	16	2980
17S 32W 27BBB 01	383316100505801	BEBERMEYER, O C	I	121OGLL	185	16	2990
17S 32W 31BCB 01	383211100541801	WIECHMAN, GERALD	I	121OGLL	245	16	2984
17S 33W 07BBB 01	383553101005701	JANZEN, ALBERT	U	121OGLL	202	16	3093
17S 33W 14ACB 01	383448100555801	HEYDE, E	I	121OGLL	--	16	3014
17S 34W 06BCB 01	383633101073401	THOREN, E C	I	121OGLL	194	16	3163
17S 34W 16ACB 01	383448101044801	NELSON, B	I	121OGLL	208	16	3134.0
17S 34W 25DBB 01	383250101012901	DRAKE, ANSEL	I	121OGLL	189	16	3092
18S 31W 24BCB 01	382841100420601	SNYDER, F H	I	121OGLL	--	16	2913
28S 31W 27SBS 01	382801100433501	SCHMIDT, R J	I	121OGLL	127	16	2930
18S 32W 14BBB 01	382947100495001	CARPENTER, E G	I	121OGLL	180	16	2980

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
ROOKS COUNTY							
1958-	10.15	06/14/61	18.98	12/10/81	15.11 15.00 11.92 12.89	12/03/86 03/04/87 06/01/87 09/03/87	07S 17W 248BB 01
1958-	13.16	06/15/60	19.2	12/21/78	15.67 15.30 14.04 15.20	12/03/86 03/04/87 06/04/87 09/03/87	07S 19W 23CDB 01
RUSH COUNTY							
1986-	19.42	07/07/87	27.20	03/12/87	26.81 27.20 19.42 20.08	12/17/86 03/12/87 07/07/87 09/10/87	18S 16W 23DCC 01
1986-	19.47	07/07/87	30.22	09/11/86	29.58 29.26 19.47 22.06	12/17/86 03/12/87 07/07/87 09/10/87	18S 16W 23DCC 02
1960-	16.31	06/20/60	37.34	12/21/83	37.10	12/17/86	18S 17W 22AAD 01
1960-	16.15	06/20/60	37.41	12/23/85	37.39 37.25 35.43 34.79	12/17/86 03/12/87 07/07/87 09/10/87	18S 17W 23BCC 01
1965-	24.85	09/21/70	36.88	03/12/87	36.83 36.88 36.06 35.77	12/17/86 03/12/87 07/07/87 09/10/87	18S 18W 27AAC 01
1969-	22.04	03/19/74	37.02	12/21/83	32.64 32.41 31.89	03/12/87 07/07/87 09/10/87	18S 19W 20ADD 01
1960-	19.97	11/07/60	26.85	12/22/82	25.15 24.88 22.59	12/17/86 03/12/87 07/07/87	18S 20W 14CCC 01
1960-	25.12	03/19/74	35.00	04/20/65	22.22 30.08 29.16 26.33 26.47	09/10/87 12/17/86 03/12/87 07/07/87 09/10/87	18S 20W 19AAD 01
SALINE COUNTY							
1982-	10.40	06/04/87	20.20	12/03/83	18.50 19.00 10.40 13.88	12/04/86 03/10/87 06/04/87 09/02/87	13S 01W 23BCB 02
1985-	16.40	06/04/87	23.60	03/10/87	23.00 23.60 16.40 19.00	12/04/86 03/10/87 06/04/87 09/02/87	13S 02W 33DDC 01
SCOTT COUNTY							
1951-	116.68	01/20/68	DRY	01/19/81	120.03	01/05/87	16S 31W 17DDD 01
1951-	127.05	05/21/51	139.50	01/19/81	135.81	01/05/87	16S 31W 31BCB 01
1959-	129.78	12/12/60	169.31	12/10/74	162.62 161.45 162.61	10/02/86 01/05/87 04/27/87	16S 33W 19CBB 01
1969-	137.50	01/21/69	152.33	01/09/84	151.76	01/05/87	16S 33W 33BAA 01
1951-	121.81	04/06/51	158.56	01/05/87	158.56	01/05/87	16S 34W 09CCB 01
1967-	134.12	03/09/67	168.16	01/18/82	167.47	01/05/87	16S 34W 29CBB 01
1976-	120.98	01/31/79	135.11	02/07/83			17S 31W 04DCC 01
1983-	121.46	01/06/86	125.36	01/07/85	123.66	01/05/87	17S 31W 19CDA 01
1977-	94.12	01/31/78	101.77	01/19/82	99.87	01/05/87	17S 31W 35CCB 01
1971-	98.25	01/20/71	152.21	02/07/83			17S 32W 16BBB 01
1965-	106.25	04/25/66	153.81	07/10/85	150.61 147.03	10/09/86 01/05/87	17S 32W 27BBB 01
1966-	88.69	01/22/66	146.76	01/18/83	138.74	01/08/87	17S 32W 31BCB 01
1965-	129.51	01/27/65	158.04	01/06/86	151.27	01/05/87	17S 33W 07BBB 01
1969-	113.95	01/17/70	140.69	01/06/86	139.98	01/05/87	17S 33W 14ACB 01
1965-	118.55	03/29/66	150.01	10/06/82	146.06 147.87	10/02/85 01/05/87	17S 34W 06BCB 01
1951-	106.53	04/26/51	128.20	01/06/86			17S 34W 16ACB 01
1965-	114.58	01/21/66	137.14	01/09/84	136.50	01/07/87	17S 34W 250BB 01
1973-	69.82	01/11/73	77.90	01/18/83	75.57	01/05/87	18S 31W 24BCB 01
1977-	68.61	01/05/87	70.41	01/18/83	68.61	01/05/87	18S 31W 27ABA 01
1967-	98.47	03/09/67	115.99	01/18/83	114.68	01/05/87	18S 32W 14BBB 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
SCOTT COUNTY -- CONTINUED							
18S 32W 17ABA 02	382947100522902	PITTMAN, ED	I	1210GLL	135	16	2973
18S 33W 03CCB 01	383053100573701	WINDERLIN, C F	I	1210GLL	182	18	3008
18S 33W 05CCC 01	383046100594901	BUEHLER, N C	I	1210GLL	119	16	3041
18S 33W 11ABB 01	383040100555701	PARKINSON, H D	I	1210GLL	119	16	2981
18S 33W 15DDD 01	382902100563801	KIMBALL, B H	N	--	--	16	2958
18S 33W 26DAD 02	382730100553102	USGS	U	1210GLL	195	1	2952
18S 33W 34ADB 01	382658100564601	DANIELS, R E	I	1210GLL	--	16	2960
18S 34W 05CBB 01	383106101062701	ESTES, GEORGE	I	1210GLL	--	16	3148
18S 34W 25BBD 01	382756101015201	HUGHES, CLAUDE	I	1210GLL	142	18	3092
18S 34W 34BBC 01	382704101041301	WILLIAMS, D E	I	1210GLL	160	16	3130
19S 32W 32ACB 01	382144100523501	ALLEN, A A	I	110QRNR	210	16	2984
19S 33W 06DBB 01	382552101002001	UPPENDAHL, EDNA	I	1210GLL	120	16	3021
19S 33W 12DDC 01	382441100543301	DUFF, C W	I	110QRNR	76	16	2939
19S 33W 15DBD 01	382401100565301	GEESEKA, OTTO	I	1210GLL	132	18	2964
19S 33W 29CBB 02	382223100594602	BONTRAGER, SAMUEL	I	110QRNR	--	16	2994
19S 34W 19DCCC01	382255101070001	--	U	--	135	--	3138
20S 32W 16DAD 01	381847100510201	MAHLER, F H	I	1210GLL	150	16	2955
20S 32W 30BCD 01	381716100540601	FAIRLEIGH, FLOYD	I	1210GLL	--	--	2917
20S 33W 02DBB 01	382039100555401	COLLINGWOOD, A J	I	112ALVM	110	18	2955.0
20S 33W 17BAB 01	381921100592801	HAYS, B J	I	1210GLL	--	16	2974
20S 33W 21ABD 01	381822100575701	HUTCHINS, MARION	I	110QRNR	154	16	2957
20S 33W 35DBA 01	381618100554501	CORN, M L	I	110QRNR	147	16	2929
20S 34W 15BAA 01	381920101034501	MINNIX ETAL, B	I	1210GLL	148	16	3060
20S 34W 36CCD 01	381557101014701	CRIST, R L	I	1210GLL	95	16	2962
SEDGWICK COUNTY							
25S 01W 07ABD 01	375342097280201	BASE, GARY	I	112PLSC	--	--	1377
25S 01W 28DBA 01	375045097255201	WILBUR, BILL	I	112PLSC	--	--	1364
25S 02W 16DDA 01	375217097320801	MCCURRY BROTHERS	I	112PLSC	--	--	1390
25S 02W 23DBD 01	375131097301401	DOSIEN, PHIL	I	112PLSC	--	--	1379
25S 03W 03DDD 01	375356097373601	CITY OF WICHITA	U	112PLSC	17	1	1423.39
25S 03W 15CCC 01	375211097383301	ELLIOTT, ROBERT	I	112PLSC	--	--	1428
26S 01W 12BAD 01	374837097225301	DAVISON, JOHN	I	112PLSC	--	--	1341
26S 01W 31CCC 02	374428097284302	KG&E	U	--	189	1	--
26S 01W 31CCD 01	374428097283501	FABER, JOHN	S	112MCPR	37	6	1370
26S 02W 02DDD 02	374843097295802	KG&E	U	--	189	1	1368.2
26S 02W 07AAA 02	374837097342002	KG&E	U	--	189	1	1388.2
26S 02W 08AAB 01	374837097332301	SPEXARTH, TED	I	112PLSC	--	--	1397
26S 02W 10DAA 01	374811097310301	KG&E	U	--	126	2	1380
26S 02W 13ACA 01	374731097290801	CRAMMER GRASS FARMS	I	112PLSC	--	--	1360
26S 02W 14DDD 01	374658097295701	KG&E	U	--	43	1	--

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
SCOTT COUNTY -- CONTINUED							
1981-	112.00	01/22/81	121.71	10/09/84	114.46 114.05 116.37	10/09/86 01/05/87 04/07/87	18S 32W 17ABA 02
1951-	74.90	04/ /51	120.80	01/18/82	118.86	01/05/87	18S 33W 03CCB 01
1944-	75.15	06/16/44	106.84	10/06/82	100.56 106.70 100.54 102.64	10/02/86 01/05/87 04/27/87 07/23/87	18S 33W 05CCC 01
1977-	102.93	01/17/77	117.10	02/06/85	114.78	01/08/87	18S 33W 11ABB 01
1975-	77.11	01/30/79	101.98	01/19/81	94.17	01/08/87	18S 33W 15DDD 01
1971-	16.29	10/07/82	81.51	01/05/87	78.31 81.51 80.93 79.98	10/03/86 01/05/87 04/28/87 07/24/87	18S 33W 26DAD 02
1980-	72.14	01/14/80	82.52	01/08/87	82.52	01/08/87	18S 33W 34ADB 01
1977-	108.75	01/17/77	117.15	01/05/87	117.15	01/05/87	18S 34W 05CBB 01
1940-	87.82	04/29/42	120.61	10/07/83	118.29 116.35 114.78 119.01	10/03/86 01/05/87 04/28/87 07/24/87	18S 34W 25BBD 01
1944-	87.94	06/15/44	119.07	01/18/83	118.71	01/05/87	18S 34W 34BBC 01
1973-	77.03	01/11/73	88.29	07/07/83	87.56 85.64 85.34	10/09/86 01/05/87 04/07/87	19S 32W 32ACB 01
1971-	62.69	01/06/86	76.88	12/21/71	62.90	01/05/87	19S 33W 06DBB 01
1940-	24.69	09/10/40	56.94	01/08/87	56.94	01/08/87	19S 33W 12DDC 01
1936-	45.60	08/ /36	114.62	04/24/84	112.08 109.96 111.17 112.22	10/03/86 01/05/87 04/28/87 07/24/87	19S 33W 15DBD 01
1971-	113.23	01/21/74	126.39	06/21/79	119.46 117.23 118.06	10/03/86 01/05/87 04/28/87	19S 33W 29CBB 02
1980-	125.01	02/07/83	127.99	10/02/80	126.18	01/05/87	19S 34W 19DCCC01
1971-	86.93	01/20/71	126.16	01/17/83			20S 32W 16DAD 01
1977-	74.07	01/17/77	101.64	01/05/87	101.64	01/05/87	20S 32W 30BCD 01
1941-	48.75	03/29/43	115.03	01/17/83	101.09	01/08/87	20S 33W 02DBB 01
1940-	62.02	09/06/40	118.16	01/08/87	118.16	01/08/87	20S 33W 17BAB 01
1944-	47.07	06/15/44	134.98	01/08/85	126.26 125.96 124.87	10/03/86 01/05/87 04/28/87	20S 33W 21ABD 01
1944-	34.02	06/15/44	100.01	01/05/87	100.01	01/05/87	20S 33W 35DBA 01
1977-	102.49	01/17/77	104.98	01/19/81	102.57	01/05/87	20S 34W 15BAA 01
1971-	69.05	01/20/71	82.23	01/19/76	80.26	01/05/87	20S 34W 36CCD 01
SEDGWICK COUNTY							
1984-	27.20	01/14/87	30.80	01/17/85	27.20	01/14/87	25S 01W 07ABD 01
1984-	12.90	01/15/86	15.10	01/17/85	13.70	01/14/87	25S 01W 28DBA 01
1984-	4.40	01/15/86	8.57	02/16/84	4.90	01/14/87	25S 02W 16DBA 01
1984-	8.70	01/15/86	11.68	02/16/84	9.10	01/15/87	25S 02W 23DBD 01
1953-	7.15	04/04/73	13.96	10/01/84	11.29 10.74 10.90 9.57 9.18	10/01/86 01/01/87 01/15/87 04/01/87 07/01/87	25S 03W 03DDD 01
1984-	20.00	01/15/87	22.60	01/16/85	20.00	01/15/87	25S 03W 15CCC 01
1984-	14.20	01/15/86	19.08	03/01/84	15.80	01/15/87	26S 01W 12BAD 01
1960-	20.46	12/18/61	28.38	09/16/81	24.76 22.67 23.47 23.72	12/11/86 03/13/87 06/12/87 09/11/87	26S 01W 31CCC 02
1984-	38.80	01/16/87	40.31	03/01/84	38.00	01/16/87	26S 01W 31CCD 01
1960-	4.73	09/11/87	11.62	09/21/72	8.17 7.96 7.13 4.73	12/11/86 03/13/87 06/12/87 09/11/87	26S 02W 02DDD 02
1960-	8.63	04/23/63	18.00	09/12/84	12.40 11.80 10.31 11.93	12/11/86 03/13/87 06/12/87 09/11/87	26S 02W 07AAA 02
1984-	21.98	02/24/84	32.80	01/16/85	29.60	01/16/87	26S 02W 08AAB 01
1960-	14.58	05/15/61	22.30	09/16/81	19.13	12/11/86	26S 02W 10DAA 01
1984-	8.50	01/16/87	20.62	03/01/84	9.50	01/16/87	26S 02W 13ACA 01
1960-	10.23	05/15/61	21.05	09/16/81	15.47	12/11/86	26S 02W 14DDD 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
SEDGWICK COUNTY -- CONTINUED							
26S 02W 15DBB 01	374718097312801	KG&E	U	--	101	4	--
26S 02W 23CCC 01	374606097305501	KG&E	U	--	43	1	1363.6
26S 02W 29AAA 01	374600097331401	KG&E	U	112PLSC	50	1	1384
26S 03W 02AAC 01	374927097362801	WINTER, TOM	I	112PLSC	--	--	1409
28S 01W 11BCB 01	373802097241801	KG&E	U	--	83	4	--
28S 01W 15ACA 02	373710097244202	HINCKLEY, FLOYD	H	112PLSC	62	4	--
28S 01W 36BAB 01	373446097225401	HAY, JOHN	I	112PLSC	55	12	1345
29S 01E 16DDD 01	373122097185401	STUCKER, ROBERT	U	--	--	--	1240
SEWARD COUNTY							
31S 31W 08BCC 01	372159100432201	FLEMING, J A	I	112PLSC	400	16	2829
31S 31W 13BBC 01	372119100390201	DING, LILA M JONES	I	--	--	--	2800
31S 31W 32DCC 01	371805100424901	BROCE CONSTRUCTION CO	I	--	--	--	2801
31S 32W 03DAD 01	372239100464501	BURR, LEWIS	I	112PLSC	412	16	2845
31S 32W 31BBB 01	371852100505801	LAMBERT, DUANE	I	--	--	--	2864
31S 33W 06CBD 01	372240100572101	CONOVER, C J	I	112PLSC	347	16	2948
31S 33W 20DBB 01	372010100555101	WOHLENBERG, F H	I	112PLSC	383	16	2897
31S 34W 18BBB 01	372128101035901	BEARD, DALE E	I	112PLSC	375	16	2951
32S 31W 02BBB 01	371757100400701	BARNHARDT, MARTHA J	I	--	476	26	2787
32S 31W 08BBB 01	371706100432201	REIMER ETAL, E	I	112PLSC	396	16	2815
32S 31W 26CAA 01	371403100394301	WALLACE, WALDO	I	112PLSC	390	16	2783
32S 32W 14BBB 01	371615100463701	DUFFIELD, FRANK E	I	112PLSC	420	16	2830
32S 32W 19BAB 01	371524100504201	BEAVER, JOHN D	I	112PLSC	400	16	2854
32S 33W 04BAA 01	371750100550601	--	I	--	--	--	2869
32S 33W 32DBD 01	371306100554201	FRANZ LAND CO	U	--	--	--	2830
32S 34W 10DAA 01	371641100594601	BOLES, P	I	112PLSC	350	16	2925.4
32S 34W 17DCC 01	371529101022001	SNYDER, C C	I	112PCPC	335	16	2953
32S 34W 32BBB 01	371339101025301	HITCH CATTLE CO	I	112PLSC	350	16	2921
33S 31W 28CDB 01	370842100413301	HANDY, A J	I	--	--	--	2720
33S 32W 28CDD 02	370833100482402	USGS	U	112PLSC	205	1	2630
33S 33W 12AAD 01	371148100510701	HUNT EST, A B	I	112PLSC	140	14	2626
33S 33W 20BCC 01	371000100561001	--	I	--	--	--	2866
33S 33W 25DCC 01	370842100515101	--	I	--	485	--	2810
33S 34W 17DCC 01	371026101020701	--	I	--	--	--	2918
34S 31W 30BBB 01	370407100442701	USGS	U	112PLSC	705	1	2731
34S 32W 29BAA 01	370407100492901	ROCO INC	I	--	--	--	2765
34S 32W 35ADA 01	370301100454001	HAYS, NEIL	I	112PLSC	--	--	2734
34S 33W 04BCD 01	370658100550501	--	I	--	605	--	2855
34S 33W 07CCB 01	370602100572601	METCALF, KENNETH	I	112PCPC	360	24	2901
34S 34W 16DAA 01	370523101004901	DUNLAP, LULA	I	112PLSC	458	16	2943
34S 34W 26BCA 01	370355100592301	POWELL, KENNETH	I	--	--	--	2908
35S 31W 10AAC 01	370123100402401	LOUDERBACK, PAUL	I	--	480	--	--
35S 31W 18BBA 01	370039100441901	LOFLAND, T R	I	112PLSC	328	16	2707
35S 32W 06CBB 01	370157100505901	BOX, H E	I	--	--	--	2780
35S 33W 16BCA 01	370023100550801	LARABEE, ROBERT	I	112PLSC	383	16	2838
35S 34W 03CBC 01	370147101004001	BOLES, STAN	I	--	--	--	2920.00
35S 34W 10BBB 01	370128101004001	GROVER, JOHN	I	112PLSC	352	16	2912

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
SEDGWICK COUNTY -- CONTINUED							
1961-	13.37	05/15/61	26.30	09/08/82	19.20 18.59 17.87 18.06	12/11/86 03/13/87 06/12/87 09/11/87	26S 02W 15D8B 01
1960-	7.77	12/18/61	18.85	09/08/82	12.64	12/11/86	26S 02W 23CCC 01
1960-	3.74	10/20/60	28.21	09/12/84	24.75 24.14 23.00 24.17	12/11/86 03/13/87 06/12/87 09/11/87	26S 02W 29AAA 01
1984-	20.00	01/16/87	23.45	02/24/84	20.00	01/16/87	26S 03W 02AAC 01
1964-	12.75	11/20/64	20.17	09/16/81	15.10 14.28 14.29 13.78	12/11/86 03/13/87 06/12/87 09/11/87	28S 01W 11BCB 01
1979-	14.81	12/08/83	35.70	09/16/81	33.21 32.93 32.02 32.32	12/11/86 03/13/87 06/12/87 09/11/87	28S 01W 15ACA 02
1982-	38.76	05/25/82	43.30	09/12/83	39.75 39.60 39.43 40.07	12/11/86 03/13/87 06/12/87 09/11/87	28S 01W 36BAB 01
1985-	6.43	06/12/87	10.32	09/13/85	8.91 8.16 6.43 7.40	12/11/86 03/13/87 06/12/87 09/11/87	29S 01E 16DDD 01
SEWARD COUNTY							
1962-	167.55	06/12/62	221.31	10/24/85	219.83R	01/06/87	31S 31W 08BCC 01
1985-	158.40	01/17/85	160.84	01/06/87	160.84	01/06/87	31S 31W 13BBC 01
1985-	162.21	01/17/85	163.21	01/06/87	163.21	01/06/87	31S 31W 32DCC 01
1958-	165.7	01/30/58	222.31	01/25/83	218.51	01/06/87	31S 32W 03DAD 01
1985-	213.14	01/07/86	218.51	01/17/85	217.03R	01/07/87	31S 32W 31BBB 01
1958-	208.42	12/02/58	247.47	01/07/87	247.47	01/07/87	31S 33W 06CBD 01
1964-	179.11	01/17/66	217.11	01/25/83	216.53	01/07/87	31S 33W 20DBB 01
1958-	180.70	12/02/58	220.09	01/07/87	220.09	01/07/87	31S 34W 18BBB 01
1985-	191.81	01/07/86	192.57	01/17/85	192.53	01/06/87	32S 31W 02BBB 01
1964-	159.78	12/11/64	214.63	01/25/83	204.51	01/06/87	32S 31W 08BBB 01
1979-	205.3	02/01/79	220.53	01/08/86	220.23	01/06/87	32S 31W 26CAA 01
1964-	182.33	12/11/64	235.74	10/26/83	230.38 222.50 217.51	10/08/86 01/06/87 01/06/87	32S 32W 14BBB 01
1958-	191.0	01/30/58	227.23	01/25/83	217.51	01/06/87	32S 32W 19BAB 01
1981-	188.35	01/22/81	195.36	01/21/82	194.01	01/07/87	32S 33W 04BAA 01
1985-	150.75	01/07/87	176.99	05/22/85	150.75 165.19	01/07/87 05/05/87	32S 33W 32DBD 01
1966-	199.44	01/18/77	223.05	01/11/84	220.53	01/07/87	32S 34W 10DAA 01
1958-	215.5	01/30/58	258.73	01/26/83	253.81	01/07/87	32S 34W 17DCC 01
1958-	154.30	01/17/66	189.43	01/26/83	175.35	01/07/87	32S 34W 32BBB 01
1985-	186.84	01/16/85	188.68	01/06/87	188.68	01/06/87	33S 31W 28DBB 01
1974-	50.50	10/10/74	58.82	01/07/87	58.82	01/07/87	33S 32W 28CDD 02
1964-	4.4	01/16/68	9.43	01/08/86	9.36	01/07/87	33S 33W 12AAD 01
1981-	194.25	01/08/86	217.51	01/25/83	197.81	01/07/87	33S 33W 20BCC 01
1967-	187.00	1/1/67	213.01	01/25/83	203.02R	01/07/87	33S 33W 25DCC 01
1983-	112.20	01/12/84	118.91	01/07/87	118.91	01/07/87	33S 34W 17DCC 01
1940-	208.0	01/01/40	211.14	01/16/85	214.56R	01/07/87	34S 31W 30BBB 01
1985-	168.80	01/08/86	175.72	01/16/85	171.74	01/07/87	34S 32W 29BAA 01
1977-	188.86	01/12/77	191.90	01/16/85	193.24R	01/07/87	34S 32W 35ADA 01
1981-	192.77	01/12/84	210.50	01/25/83	194.83	01/07/87	34S 33W 04BCD 01
1964-	126.46	03/05/75	139.78	05/01/86	138.09 138.85 137.83	10/08/86 01/07/87 05/05/87	34S 33W 07CCB 01
1965-	94.59	01/17/66	137.91	01/20/83			34S 34W 16DAA 01
1985-	106.77	01/16/85	109.90	01/07/87	109.90	01/07/87	34S 34W 26BCA 01
1985-	193.54	01/08/86	194.03	01/16/85	194.00	01/07/87	35S 31W 10AAC 01
1959-	170.92	01/15/74	188.75	01/16/68	181.36	01/07/87	35S 31W 188BA 01
1985-	159.16	01/16/85	160.31	01/07/87	160.31	01/07/87	35S 32W 06CBB 01
1964-	103.75	01/17/66	129.71	01/07/87	129.71	01/07/87	35S 33W 16BCA 01
1978-	91.60	03/30/78	104.30	01/16/85	101.46	01/07/87	35S 34W 03CBC 01
1954-	66.94	03/07/78	97.51	07/25/66	83.10 78.73	10/08/86 01/07/87	35S 34W 10BBB 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
SHAWNEE COUNTY							
11S 12E 01ABA 01	390744096013401	KGS	U	110ALVM	39	2	926
11S 13E 04ADA 01	390731095575801	FRENCH, BERNIECE	U	110ALVM	--	1.50	--
11S 14E 13BBB 01	390559095485301	KGS	U	112NWMN	48	2	903.6
11S 14E 15ABB 01	390559095503301	HERRING	U	110ALVM	50	1	908
11S 14E 18CBB 01	390534095542901	KGS	U	110ALVM	44	2	908
11S 14E 22CCC 01	390421095510601	KGS	U	110ALVM	66	2	897
11S 15E 13DBC 01	390525095414301	GOODYEAR TIRE CO	U	112NWMN	77	2	888.7
11S 15E 23DBD 02	390433095424002	MEIER, J G	I	110ALVM	52	18	888.62
11S 16E 29ACA 01	390400095392101	KGS	U	110ALVM	52	2	880
SHERIDAN COUNTY							
06S 26W 26CBB 01	393005100114801	BRANDT, FARMS INC	I	--	293	--	2636
06S 27W 05CBB 01	393334100215501	SMITH, WADE	I	--	176	--	2684
06S 27W 08DCA 01	393228100211301	LAUNCHBAUGH, G W	I	110ALVM	108	16	2588
06S 27W 19DAB 01	393057100221201	BAINTER, R C	I	110ALVM	60	16	2610
06S 27W 27BCC 01	393018100194201	SCHRUBIN, L M	I	1210GLL	320	18	2716
06S 29W 10DBC 01	393235100322701	RITTER, C H	I	1210GLL	207	18	2823
06S 29W 24ABB 01	393123100301401	DORENKAMP, JOHN	I	1210GLL	211	16	2781
06S 29W 33CDA 01	392900100334201	MOUNTFORD, EARL	I	1210GLL	207	18	2828
06S 30W 13BAA 01	393216100371301	EATHERLY, JAMES	I	1210GLL	218	--	2875
06S 30W 14CCD 01	393131100383701	CORDER, DENNIS	I	1210GLL	205	16	2884
07S 26W 06AAB 01	392847100152601	MAUCK, L E	S	1210GLL	143	5	2634
07S 26W 12BAC 01	392748100102601	HESKETT, R M	I	1210GLL	170	19	2559
07S 26W 19BBC 01	392604100162101	MILLS, LLOYD E	I	1210GLL	203	18	2625.00
07S 26W 28CAB 01	392452100134601	KARNES, J C	I	1210GLL	247	16	2634
07S 27W 22DAC 01	392538100185201	SCHAMBERGER, RONALD	I	--	--	--	2644
07S 28W 08BDC 01	392735100282501	USGS	U	1210GLL	288	1.25	2808
07S 28W 21ABB 01	392610100270101	USGS	U	1210GLL	238	1	2774
07S 28W 36ABA 01	392426100233001	RICHARDSON, H O	I	1210GLL	233	18	2725
07S 29W 05BBB 01	392848100351301	SHAW, DANNY	I	--	190	--	2841
07S 29W 27CCC 01	392433100330201	HILL, JOHN	I	1210GLL	267	--	2869.00
07S 29W 30ABA 01	392519100354201	HILL, F	I	1210GLL	255	18	2886.6
07S 30W 08CBB 01	392729100420601	DIBLE, LESLIE	I	--	219	--	2919
08S 26W 14DAA 01	392123100105401	DAVIS, R L	I	110ALVM	66	16	2398
08S 27W 11DCD 01	392156100175401	DAVIS, L B	I	110ALVM	60	18	2504
08S 27W 35CBB 01	391847100183701	--	N	--	163	--	--
08S 28W 09ABC 01	392235100270201	SHATZELL, H C	I	1210GLL	206	18	2766
08S 28W 11DAA 01	392215100242101	GAEDE, CARL	I	--	182	--	2692
08S 29W 01DCB 01	392255100301801	NEAL, E L	I	1210GLL	241	15	2823
08S 30W 11CBC 01	392210100384601	ALMA, E D	I	1210GLL	286	16	2941
08S 30W 13DAA 01	392124100364001	USGS	U	1210GLL	254	1	2891

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
SHAWNEE COUNTY							
1966-	7.65	06/01/87	16.18	03/31/67	12.37 13.73 7.65 12.20	12/08/86 03/04/87 06/01/87 09/04/87	11S 12E 01ABA 01
1978-	15.60	06/01/87	23.35	03/09/81	18.85 19.50 15.60 18.85	12/08/86 03/04/87 06/01/87 09/04/87	11S 13E 04ADA 01
1966-	7.75	06/01/87	21.58	12/10/76	13.18 14.05 7.75 12.85	12/08/86 03/04/87 06/01/87 09/04/87	11S 14E 13BBB 01
1977-	9.80	06/01/87	23.20	02/24/77	15.68 16.70 9.80 15.65	12/08/86 03/04/87 06/01/87 09/04/87	11S 14E 15ABB 01
1966-	8.75	06/01/87	17.76	03/09/81	12.60 13.75 8.75 12.45	12/08/86 03/04/87 06/01/87 09/04/87	11S 14E 18CBB 01
1966-	3.50	09/04/87	16.70	03/09/81	4.60 5.40 4.25 3.50	12/08/86 03/04/87 06/01/87 09/04/87	11S 14E 22CCC 01
1958-	25.35	06/10/83	38.16	06/02/67	26.97 29.78 25.50 28.04	12/08/86 03/04/87 06/01/87 09/04/87	11S 15E 13DBC 01
1959-	20.25	06/01/87	28.65	06/02/67	23.90 24.70 20.25 23.30	12/08/86 03/04/87 06/01/87 09/04/87	11S 15E 23DBD 02
1966-	15.65	06/01/87	25.85	12/05/66	20.40 22.80 15.65 20.85	12/03/86 03/04/87 06/01/87 09/04/87	11S 16E 29ACA 01
SHERIDAN COUNTY							
1984-	166.35	12/19/85	167.74	04/27/84	167.58	12/12/86	06S 26W 26CBB 01
1984-	112.12	12/19/85	113.78	12/12/86	113.78	12/12/86	06S 27W 05CBB 01
1964-	14.61	01/18/66	24.97	08/29/64	22.19	12/12/86	06S 27W 08DCA 01
1965-	26.62	01/18/66	38.38	12/11/84			06S 27W 19DAB 01
1964-	153.71	03/21/67	164.84	12/09/81			06S 27W 27BCC 01
1965-	118.56	01/23/67	142.18	01/12/78	131.18	12/12/86	06S 29W 10DBC 01
1966-	96.25	01/17/66	107.35	12/12/86	107.35	12/12/86	06S 29W 24ABB 01
1965-	93.20	01/25/65	121.56	12/12/86	121.56	12/12/86	06S 29W 33CDA 01
1975-	122.97	03/18/75	135.78	09/15/75	128.02 126.41 125.48 110.75	12/12/86 03/05/87 06/09/87 12/12/86	06S 30W 13BAA 01
1965-	99.84	03/16/66	111.47	12/11/84	110.75	12/12/86	06S 30W 14CCD 01
1964-	123.73	01/06/75	132.10	12/12/86	132.10	12/12/86	07S 26W 06AAB 01
1965-	91.99	01/18/66	105.02	12/11/84	101.68	12/12/86	07S 26W 12BAC 01
1975-	118.78	06/17/75	131.45	06/08/81	125.37 126.56 123.98 127.13	12/12/86 03/03/87 06/10/87 09/01/87	07S 26W 19BBC 01
1965-	148.48	01/18/66	162.11	12/12/86	162.11	12/12/86	07S 26W 28CAB 01
1984-	113.89	12/11/84	122.27	12/12/86	122.27	12/12/87	07S 27W 22DAC 01
1968-	139.95	10/01/68	171.02	09/10/86	166.79 168.60	03/05/87 09/01/87	07S 28W 08BDC 01
1965-	129.86	05/16/69	177.52	12/12/86	177.52	12/12/86	07S 28W 21ABB 01
1964-	127.36	01/20/67	150.99	12/19/85	147.06	12/12/86	07S 28W 36ABA 01
1984-	103.25	12/11/84	104.86	12/12/86	104.86	12/12/86	07S 29W 05BBB 01
1976-	159.39	06/07/76	206.75	12/12/86	206.75 181.08 177.39 190.81	12/12/86 03/05/87 06/09/87 09/01/87	07S 29W 27CCC 01
1962-	119.74	01/23/67	160.69	12/19/85	160.37	12/12/86	07S 29W 30ABA 01
1984-	95.63	06/27/84	104.59	12/11/84	104.53	12/12/86	07S 30W 08CBB 01
1965-	13.59	01/07/76	26.42	10/01/68	19.18	12/12/86	08S 26W 14DAA 01
1964-	8.56	01/18/66	11.65	08/31/64	10.59	12/12/86	08S 27W 11DCD 01
1984-	127.69	12/17/84	128.80	12/12/86	128.80	12/12/86	08S 27W 35CBB 01
1952-	117.29	03/16/66	144.18	12/12/86	144.18	12/12/86	08S 28W 09ABC 01
1984-	97.93	12/12/84	99.73	12/12/86	99.73	12/12/86	08S 28W 11DAA 01
1964-	122.53	03/16/66	157.69	12/11/86	157.69	12/11/86	08S 29W 01DCB 01
1964-	132.80	09/02/64	184.88	12/11/86	184.88	12/11/86	08S 30W 11CBC 01
1964-	109.07	11/02/64	154.98	09/01/87	147.41 149.62 145.82 154.98	12/11/86 03/05/87 06/09/87 09/01/87	08S 30W 13DAA 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
SHERIDAN COUNTY -- CONTINUED							
08S 30W 30ABC 01	392000100424001	STEPHENS, P J	I	1210GLL	235	16	2962
09S 26W 22BBB 01	391544100130001	SIMON, LAWRENCE	I	--	217	--	2669
09S 27W 12CCC 01	391643100173001	BREEDEN, H L	I	1210GLL	199	16	2678
09S 27W 19DDD 01	391459100220801	HAFFNER, JOSEPH	H	1210GLL	138	5	2750
09S 27W 27DAA 01	391426100184601	POPP, DAVID	I	--	197	--	2705
09S 28W 04BCC 01	391801100273801	PRATT, FRED	I	1210GLL	100	18	2677
09S 29W 03AAA 01	391821100320601	PATMON, WILLIAM	I	--	195	--	2819
09S 29W 17BAB 01	391637100345901	BANGE, J H	I	1210GLL	196	16	2854
09S 29W 26BAA 01	391452100313401	PRATT, T L	S	1210GLL	146	5	2863
09S 30W 03AAB 02	391822100390302	BAALMAN, KEITH	I	1210GLL	225	18	2933
09S 30W 35BBB 01	391401100384601	BAALMAN, A G	I	1210GLL	220	18	2943.9
10S 26W 08BAA 01	391216100144701	MARTIN, WAYNE	I	--	100	--	--
10S 26W 12AAD 01	391209100095401	MADER, A	I	--	88	--	2534
10S 27W 20CBC 01	390959100220001	GOETZ, JEROME	I	110ALVM	50	18	2605
10S 27W 22DBA 01	391005100190401	ACKERMAN, C H	I	110ALVM	65	18	2568
10S 28W 05DDB 01	391229100275701	ENGEL, IGNATIUS	I	1210GLL	173	16	2789
10S 28W 29DAA 01	390913100274901	SIMPKINS, M P	I	110ALVM	62	16	2691
10S 29W 02DDD 01	391222100310301	BIXENMAN, JOE	I	--	180	--	2803
10S 29W 20CAA 01	391006100345201	--	I	--	--	--	--
10S 30W 08DDD 01	391131100410801	USGS	U	1210GLL	184	1	2930
10S 30W 12ADA 01	391204100364101	BAALMAN, J H	I	1210GLL	187	18	2874
SHERMAN COUNTY							
06S 37W 07BBA 01	393310101295101	DEEDS, RAY	I	110ALVM	21	18	3304
06S 37W 16CDD 01	393132101272001	HOYT, M L	I	1210GLL	264	16	3460
06S 37W 19ABB 01	393126101292601	QUERY, ELMER	I	1210GLL	320	16	3476
06S 38W 09ABD 01	393304101334601	BUSSE, A H	I	1210GLL	320	16	3510
06S 39W 09DDD 01	393225101401201	SCHOOL	U	1210GLL	160	6	3585
06S 40W 10AAC 01	393304101455501	PETER, D E	I	1210GLL	310	18	3641
06S 40W 13CBC 01	393146101443201	HELMAN, G R	I	--	328	--	3624
06S 40W 30DCC 01	392948101493301	PRICE, W B	I	1210GLL	331	18	3718
06S 41W 01ABB 01	393403101503501	WEIS, J I	I	1210GLL	296	16	3675
06S 41W 19DBD 01	393053101560401	LEONARD, R O	I	1210GLL	330	16	3792
06S 41W 27DBD 01	393001101524301	ENFIELD, WILBUR	I	1210GLL	326	18	3741
06S 42W 02AAA 01	393403101575901	STEWART, H J	U	1210GLL	225	6	3777
06S 42W 08CBB 01	393244102021801	BOLL, SHIRLEY	I	1210GLL	306	16	3841
06S 42W 22DCC 01	393040101593201	KONTNY, L M	I	1210GLL	319	16	3837
06S 42W 30ADA 01	393020102022701	ANDERSON, NETTIE L	I	1210GLL	315	16	3871
07S 37W 04BBC 01	392843101274601	BAIRD, BERNIE	I	1210GLL	275	16	3455
07S 37W 05CCB 01	392811101285301	MCDANIEL, R L	I	1210GLL	300	16	3472
07S 38W 28DAA 01	392456101333201	DEEDS, EDWIN	I	--	330	--	3545
07S 39W 01DCD 01	392804101371001	HICKS, WILLIAM	I	--	300	--	3563
07S 39W 09BBB 01	392758101411201	MCCONNELL, B J	I	1210GLL	300	18	3589
07S 39W 24BAA 01	392613101372701	FRANK ETAL, BLANCHE	I	1210GLL	300	16	3587
07S 40W 06ADB 01	392836101491801	ROEDER, P A	I	1210GLL	345	16	3722
07S 40W 29BBA 01	392521101485501	CURRY, WENDELL	I	1210GLL	200	16	3708
07S 40W 35BBB 01	392429101454201	WALKER, BETTY S	I	1210GLL	258	16	3650
07S 40W 36BAB 01	392429101441801	USGS	U	1210GLL	321	1	3643
07S 41W 07BCB 01	392744101564801	BAIR, HAROLD	H,S	1210GLL	187	6	3840
07S 41W 28DBB 01	392454101540201	EVERT, N F	I	1210GLL	287	18	3774
07S 42W 07DAA 01	392730102022801	CHRISTENSON, C	I	1210GLL	311	16	3903
07S 42W 17CCC 01	392618102022101	USGS	U	1210GLL	270	1	3864
07S 42W 27AAB 01	392520101591901	COLLINS, MELVIN	I	1210GLL	321	16	3862
08S 37W 03ADB 01	392324101255101	HORNEY, D D	I	1210GLL	275	16	3476
08S 37W 21CCC 01	392016101274901	CRAFT, E L	I	1210GLL	235	18	3496
08S 37W 32ABB 01	391917101282301	BATEMAN, J H	I	1210GLL	217	18	3468
08S 38W 17CDD 01	392109101351401	SPOMER, G D	I	1210GLL	295	16	3603
08S 38W 24AAB 01	392101101302001	RAILE, J J	I	1210GLL	264	16	3513

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
SHERIDAN COUNTY -- CONTINUED							
1965-	105.86	01/17/66	131.99	12/11/86	131.99	12/11/86	08S 30W 30ABC 01
1984-	140.30	12/12/84	142.58	12/12/86	142.58	12/12/86	09S 26W 228BB 01
1966-	105.23	04/13/66	115.92	01/07/76	115.34	12/12/86	09S 27W 12CCC 01
1952-	123.54	09/02/64	133.18	12/12/86	133.18	12/12/86	09S 27W 19DDD 01
1984-	110.29	12/12/84	113.34	12/12/86	113.34	12/12/86	09S 27W 27DAA 01
1964-	23.02	01/08/76	28.50	09/01/64	27.50	12/11/86	09S 28W 048CC 01
1984-	103.43	02/04/86	104.61	12/11/86	104.61	12/11/86	09S 29W 03AAA 01
1966-	84.23	01/18/66	106.48	12/12/84	106.34	12/11/86	09S 29W 17BAB 01
1964-	132.05	01/17/66	141.89	01/03/84			09S 29W 26BAA 01
1964-	118.77	04/13/66	148.30	12/11/86	148.30	12/11/86	09S 30W 03AAB 02
1962-	121.84	04/11/63	156.36	09/18/85	148.48	12/11/86	09S 30W 358BB 01
					147.59	03/05/87	
					150.52	09/01/87	
1984-	22.02	06/28/84	24.04	12/17/85			10S 26W 08BAA 01
1984-	27.80	12/17/85	29.12	12/11/86	29.12	12/11/86	10S 26W 12AAD 01
1966-	13.95	01/17/66	20.99	12/11/86	20.99	12/11/86	10S 27W 20CBC 01
1965-	18.17	01/20/67	23.13	01/03/84	20.59	12/11/86	10S 27W 220BA 01
1965-	94.88	01/18/68	112.11	12/07/81	108.00	12/11/86	10S 28W 050DB 01
1964-	25.05	12/13/65	31.55	12/07/81	27.03	12/11/86	10S 28W 29DAA 01
1984-	90.72	12/12/84	93.35	12/17/85			10S 29W 02DDD 01
1984-	28.75	12/12/84	71.22	12/11/86	71.22	12/11/86	10S 29W 20CAA 01
1964-	92.50	03/08/66	105.69	09/15/81	98.88	12/11/86	10S 30W 080DD 01
					101.62	03/05/87	
					99.69	06/09/87	
					101.85	09/01/87	
1965-	87.19	03/16/66	107.55	01/25/65	100.32	12/11/86	10S 30W 12ADA 01
SHERMAN COUNTY							
1964-	5.18	06/26/64	9.77	01/04/79	7.35	01/05/87	06S 37W 078BA 01
1966-	163.82	02/17/66	180.80	01/23/84	171.87	01/05/87	06S 37W 16CDD 01
1965-	154.23	04/12/67	162.89	01/09/80	160.65	01/07/87	06S 37W 19ABB 01
1964-	149.80	06/15/64	169.20	01/09/80	162.96	01/05/87	06S 38W 09ABD 01
1949-	142.48	01/21/69	151.20	12/14/77	149.50	01/07/87	06S 39W 090DD 01
1964-	151.24	01/19/66	162.85	01/07/87	162.85	01/07/87	06S 40W 10AAC 01
1985-	147.00	01/07/86	148.15	01/07/87	148.15	01/07/87	06S 40W 13CBC 01
1965-	153.60	01/19/66	168.90	01/07/87	168.90	01/07/87	06S 40W 300CC 01
1964-	152.35	06/16/64	165.85	01/09/86	159.80	01/07/87	06S 41W 01ABB 01
1965-	169.57	01/19/66	187.99	01/09/80	185.40	01/07/87	06S 41W 190BD 01
1964-	142.15	01/19/66	164.50	01/07/86	164.35	01/07/87	06S 41W 270BD 01
1959-	180.10	07/12/61	208.79	09/13/84	199.75	01/07/87	06S 42W 02AAA 01
					203.49	03/03/87	
					203.55	06/15/87	
					200.36	09/02/87	
1964-	192.35	06/16/64	215.17	01/06/82	211.15	01/07/87	06S 42W 08CBB 01
1965-	183.19	01/20/67	198.25	01/16/73	195.35	01/07/87	06S 42W 22DCC 01
1964-	181.59	06/16/64	204.85	01/07/87	204.85	01/07/87	06S 42W 30ADA 01
1975-	131.92	06/25/75	144.19	06/12/85	137.55	01/07/87	07S 37W 048BC 01
					138.15	03/03/87	
					136.94	06/10/87	
					140.52	09/01/87	
1965-	129.30	12/12/65	144.41	01/05/87	144.41	01/05/87	07S 37W 05CCB 01
1985-	145.40	01/08/85	147.78	01/06/87	147.78	01/06/87	07S 38W 28DAA 01
1985-	133.70	01/05/87	134.17	01/07/86	133.70	01/05/87	07S 39W 010CD 01
1964-	103.74	01/24/67	118.05	01/26/65	117.30	01/07/87	07S 39W 098BB 01
1964-	132.66	06/26/64	153.13	01/07/82	148.65	01/07/87	07S 39W 243AA 01
1964-	148.38	06/16/64	168.62	01/07/86	168.40	01/07/87	07S 40W 06ADB 01
1949-	120.45	06/16/64	141.58	01/07/87	141.58	01/07/87	07S 40W 298BA 01
1965-	101.90	06/ / 65	128.38	01/05/82	127.35	01/07/87	07S 40W 358BB 01
1964-	108.71	03/07/66	140.25	09/01/87	134.90	01/07/87	07S 40W 368AB 01
					133.56	03/04/87	
					132.28	06/10/87	
					140.25	09/01/87	
1949-	174.17	06/17/64	213.07	09/09/86	199.50	01/07/87	07S 41W 07BCB 01
					200.96	03/03/87	
					198.05	06/15/87	
					205.72	09/02/87	
1964-	110.45	06/17/64	129.32	01/07/87	129.32	01/07/87	07S 41W 28DBB 01
1949-	159.57	06/17/64	199.62	01/06/81	191.90	01/07/87	07S 42W 07DAA 01
1966-	117.96	04/13/67	141.90	01/07/87	141.90	01/07/87	07S 42W 17CCC 01
1964-	139.00	06/17/64	167.21	01/07/87	167.21	01/07/87	07S 42W 27AAB 01
1964-	143.59	01/25/66	159.93	01/05/87	159.93	01/05/87	08S 37W 03ADB 01
1964-	119.18	06/12/64	141.00	01/05/87	141.00	01/05/87	08S 37W 21CCC 01
1964-	79.10	06/25/64	97.07	01/07/81	96.06	01/05/87	08S 37W 32ABB 01
1964-	141.45	06/26/64	162.20	01/24/84	160.77	01/06/87	08S 38W 17CDD 01
1964-	110.62	05/13/66	124.33	01/05/87	124.33	01/05/87	08S 38W 24AAB 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
SHERMAN COUNTY -- CONTINUED							
08S 39W 15CCC 01	392107101400701	CEBULA, THOMAS	I	1210GLL	269	18	3642
08S 40W 12DBA 01	392218101435301	HEVNER, M G	U	1210GLL	247	16	3670
08S 40W 17CDB 01	392113101484901	SCOFIELD, M W	I	1210GLL	246	18	3727
08S 40W 20CCC 01	392014101490601	G W SUGAR CO	U	1210GLL	282	2	3716
08S 40W 25AAC 01	392001101434601	USGS	U	1210GLL	290	2	3701
08S 41W 17CBA 01	392125101553601	ERRINGTON, C H	I	1210GLL	300	16	3843
08S 41W 25BBC 01	392000101511701	TOPLIFF, R E	I	1210GLL	267	16	3754
08S 42W 15DOB 01	392112101592101	DAILY, DELYLE	I	1210GLL	274	16	3859
08S 42W 31DCD 01	391828102024901	USGS	U	1210GLL	184	1	3872
09S 37W 07DOB 01	391654101291401	OWENS, L J	I	--	172	--	3496
09S 38W 13BCC 01	391622101311101	OWENS, LEONARD	I	1210GLL	166	16	3510
09S 39W 01OBA 01	391758101371201	LAUGHLIN, W J	I	--	257	--	3619
09S 39W 02BAB 01	391824101383601	HOUSE, HARLAN	I	1210GLL	--	16	3646
09S 39W 10CCB 01	391652101400901	YOUNG, VERNON	I	--	256	--	3661
09S 39W 19CCC 01	391502101433001	COLE, BILL	I	1210GLL	200	16	3695.00
09S 40W 13CDC 01	391553101442101	IRVIN, VERNON	I	1210GLL	260	18	3722
09S 40W 29BBB 01	391454101490901	USGS	U	1210GLL	242	1	3782
09S 41W 05DCC 01	391737101551301	TAYLOR, H J	I	1210GLL	266	16	3860
09S 41W 14BBC 01	391632101522601	HAYDEN, R J	I	--	--	--	3835
09S 41W 28AAA 01	391454101534201	MUSALEK, F	I	1210GLL	292	18	3854
09S 41W 34BAB 01	391401101531801	SILKMAN, C L	I	1210GLL	292	18	3841
09S 42W 08AAA 01	391730102012701	USGS	U	1210GLL	265	1	3943
09S 42W 14AAA 01	391638101580901	USGS	U	1210GLL	278	1	3901
09S 42W 29CBB 01	391427102022601	DARRAH FARMS	U	--	--	--	--
09S 42W 35ABB 01	391401101583501	LIVENGOD, E P	I	1210GLL	274	16	3916
10S 37W 23ABB 01	391037101250601	MILLER, I R	I	1210GLL	295	16	3421
10S 40W 10ADC 01	391158101460401	LARSEN, G E	I	110ALVM	68	16	3624
10S 41W 15CAD 01	391052101531101	ROCKWELL, E A	I	1210GLL	120	16	3762
10S 42W 20ABB 01	391032102015501	NAGEL JR, H	I	--	320	--	3968
10S 42W 21BBB 01	391032102012201	NAGEL ETAL, GUS	U	1210GLL	140	24	3963
10S 42W 24BAB 01	391032101574801	GOLDEN, L D	I	1210GLL	205	16	3903
STAFFORD COUNTY							
21S 11W 07BBB 01	381444098345101	BIG BEND GMD 5	U	--	50	5	1808
21S 12W 10CDD 01	381358098374401	CHRISTIANSSEN, L E	S	112PLSC	100	6	1845
21S 13W 27DDD 02	381120098434802	GATES, ARTHUR	U	112PLSC	25	1	1877
21S 14W 22AAC 01	381253098503401	STROBEL, SADIE	I	112PLSC	125	16	1926
21S 14W 32BAC 01	381108098531801	NEELAND, P R	I	112PLSC	--	16	1949
22S 11W 07BBB 01	380929098345101	KGS	U	112PLSC	54	1	1785
22S 12W 05BBD 01	381015098401201	ALPERS, WAYNE	I	112PLSC	140	18	1870
22S 12W 30BBB 01	380644098411901	WITT, VERNON	I	112PLSC	100	16	1872
22S 12W 36BBB 02	380558098355802	KGS	U	112PLSC	63	1	1827
22S 13W 05CBC 01	380948098465901	SCHARTZ, T N	N	112PLSC	96	10	1905
22S 13W 12CAC 01	380855098421601	BRACH, LEONARD	U	112PLSC	110	2	1885
22S 13W 29DAD 01	380617098460101	WALLS, L C	U	112PLSC	30	1.25	1902

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
SHERMAN COUNTY -- CONTINUED							
1949-	126.48	08/04/49	177.58	09/15/81	163.80	01/06/87	08S 39W 15CCC 01
					164.16	03/03/87	
					163.55	06/10/87	
					168.39	09/01/87	
1965-	132.94	04/10/66	175.55	09/15/81	165.81	01/07/87	08S 40W 12DBA 01
					165.62	03/04/87	
					165.09	06/10/87	
					169.27	09/01/87	
1964-	106.75	06/17/64	135.14	01/09/85	133.89	01/07/87	08S 40W 17CDB 01
1967-	80.40	02/06/67	129.21	09/09/86	112.88	01/07/87	08S 40W 20CCC 01
					112.76	03/04/87	
					111.79	06/01/87	
					113.38	09/02/87	
1967-	157.22	04/20/68	184.27	09/15/81	182.05	01/07/87	08S 40W 25AAC 01
					181.71	03/04/87	
					181.19	06/10/87	
					183.01	09/01/87	
1965-	127.67	01/23/67	153.55	01/09/85	148.82	01/07/87	08S 41W 17CBA 01
1965-	93.58	01/23/67	120.54	01/07/87	120.54	01/07/87	08S 41W 25BBC 01
1964-	98.33	06/17/64	126.75	01/07/87	126.75	01/07/87	08S 42W 15DDB 01
1964-	57.30	10/28/64	81.49	09/02/87	81.17	01/07/87	08S 42W 31DCD 01
					81.29	03/04/87	
					81.36	06/10/87	
					81.49	09/02/87	
1985-	92.78	01/08/86	93.27	01/05/87	93.27	01/05/87	09S 37W 07DDB 01
1976-	74.48	07/13/76	80.36	01/08/85	79.36	01/05/87	09S 38W 13BCC 01
1985-	139.74	01/06/87	163.41	01/08/85	139.74	01/06/87	09S 39W 01DBA 01
1978-	168.17	01/06/81	170.84	12/13/78	168.67	01/06/87	09S 39W 02BAB 01
1985-	144.42	01/08/86	146.59	01/06/87	146.59	01/06/87	09S 39W 10CCB 01
1972-	119.57	03/06/74	157.82	09/15/76	134.54	01/06/87	09S 39W 19CCC 01
					135.08	03/04/87	
					132.98	06/10/87	
1964-	125.14	01/18/66	160.98	01/07/81	159.82	01/06/87	09S 40W 13CDC 01
1964-	118.44	03/09/65	161.13	09/12/84	156.01	01/06/87	09S 40W 29BBB 01
					158.89	03/04/87	
					158.34	06/10/87	
					161.09	09/02/87	
1964-	131.63	06/18/64	176.95	01/09/85	168.87	01/07/87	09S 41W 05DCC 01
1969-	143.43	01/20/69	176.19	01/09/85	176.07	01/06/87	09S 41W 14BBC 01
1966-	134.20	05/13/66	182.69	01/07/81	173.82	01/07/87	09S 41W 28AAA 01
1964-	113.00	06/18/64	155.30	01/05/82	149.46	01/06/87	09S 41W 34BAB 01
1964-	128.89	10/28/64	160.58	09/12/84	157.62	01/07/87	09S 42W 08AAA 01
					156.51	03/04/87	
					156.28	06/10/87	
					159.44	09/02/87	
1964-	127.90	10/28/64	176.83	09/20/83	166.75	01/07/87	09S 42W 14AAA 01
					166.10	03/04/87	
					173.08	09/02/87	
1986-	138.54	01/07/87	139.56	01/06/86	138.54	01/07/87	09S 42W 29CBB 01
1965-	102.98	01/26/66	143.85	01/07/87	143.85	01/07/87	09S 42W 35ABB 01
1967-	172.15	03/08/68	200.40	01/07/87	200.40	01/07/87	10S 37W 23ABB 01
1964-	15.68	01/25/65	18.74	01/06/75	18.42	01/06/87	10S 40W 10ADC 01
1964-	11.70	11/18/65	25.39	01/06/87	25.39	01/06/87	10S 41W 15CAD 01
1984-	113.46	01/06/86	117.20	01/09/85	113.53	01/06/87	10S 42W 20ABB 01
1964-	85.38	05/16/66	110.77	01/06/87	110.77	01/06/87	10S 42W 21BBB 01
1964-	82.40	06/18/64	101.96	01/06/87	101.96	01/06/87	10S 42W 24BAB 01
STAFFORD COUNTY							
1984-	17.88	01/12/87	22.85	01/14/85	17.88	01/12/87	21S 11W 07BBB 01
1973-	4.90	12/13/73	28.99	01/14/85			21S 12W 10CDD 01
1963-	0.50	03/14/74	11.64	12/10/84	10.56	12/17/86	21S 13W 27DDD 02
					10.59	01/12/87	
					10.70	03/12/87	
					7.65	06/16/87	
					7.51	09/10/87	
1973-	4.76	12/13/73	22.89	01/12/87	22.89	01/12/87	21S 14W 22AAC 01
1973-	16.2	04/13/73	30.70	01/12/87	30.70	01/12/87	21S 14W 32BAC 01
1973-	3.14	09/25/73	5.37	01/27/81	4.63	01/12/87	22S 11W 07BBB 01
1973-	8.94	12/13/73	21.26	01/27/81	19.36	01/12/87	22S 12W 05BBB 01
1966-	6.97	12/13/73	24.0	12/ /66	16.17	01/12/87	22S 12W 30BBB 01
1973-	+0.73	12/13/73	5.43	01/27/81	3.80	01/12/87	22S 12W 36BBB 02
1973-	3.08	12/13/73	18.89	01/14/85	17.88	01/12/87	22S 13W 05CBC 01
1970-	8.62	12/13/73	22.15	01/14/85	20.40	01/12/87	22S 13W 12CAC 01
1961-	5.16	03/14/74	25.81	09/07/83	17.74	12/17/86	22S 13W 29DAD 01
					17.63	01/12/87	
					17.53	03/12/87	
					18.10	06/16/87	
					15.43	09/10/87	

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
STAFFORD COUNTY -- CONTINUED							
22S 14W 14CCA 01	380757098500901	GARVIN, MORRIS	I	112PLSC	100	16	1930
22S 14W 350DB 01	380519098492701	BARTLETT, VONNIE	I	112PLSC	130	18	1930
23S 11W 028BB 01	380506098302901	KGS	U	112PLSC	30	1	1789
23S 11W 22BCC 01	380209098313501	MITZNER, C T	I	112PLSC	100	16	1802
23S 12W 07DBD 01	380340098404601	STREET, J M	I	112PLSC	60	16	1859
23S 12W 22BCC 01	380208098381001	THOMSEN, LEE	I	112PLSC	91	8	1853
23S 12W 368BC 01	380036098355801	WENDELBURG, R H	I	112PLSC	77	16	1849
23S 13W 08CCB 01	380333098465901	KGS	U	112PLSC	126	1	1895
23S 13W 30CBB 01	380108098480501	RADKE, W L	I	112PLSC	50	18	1906
23S 13W 35CCA 01	380002098433201	PETERSON ETAL, U S	I	112PLSC	92	16	1897
23S 14W 15ADD 01	380301098502501	COEN, JACK	I	112PLSC	70	16	1927
23S 14W 30BBB 01	380136098544001	KGS	U	112PLSC	156	1	1988
24S 11W 14CAB 01	375740098301301	BRADEN-ZENITH, INC.	N	112PLSC	107	8	1813
24S 11W 170DB 01	375727098325701	NEWELL, R H	I	112PLSC	69	16	1833
24S 12W 17CAB 01	375738098400601	TEICHMAN, IRVIN	I	112PLSC	103	16	1893
24S 12W 34ABC 01	375520098373701	DUDREY, WAYNE	I	112PLSC	70	16	1880
24S 13W 16ACA 01	375750098451101	DELP, CECIL	I	112PLSC	85	16	1915
24S 13W 20CDD 01	375625098463401	LUTZ, WAYNE	I	--	85	16	1932
24S 13W 36DDD 01	375439098413701	GMD 5	U	--	38	1.25	1907
24S 14W 17AAC 01	375759098524501	MCCANDLESS, H A	I	112PLSC	108	16	1982
24S 14W 318BD 01	375521098543201	SATTERLEE, O W	I	112PLSC	90	16	1998
24S 15W 10BAB 01	375859098574001	SUTTER, ADRIAN	I	112PLSC	110	16	2024
24S 15W 32DBC 01	375456098593401	SEIBERT, VERNE	I	112PLSC	88	16	2044
25S 11W 02ACB 01	375423098295601	STEWART, RITCHEY	H	112PLSC	65	5	1770
25S 11W 23DDD 01	375112098293101	KGS	U	112PLSC	84	1	1796
25S 12W 11AAA 01	375342098360701	BIG BEND GMD 5	U	--	92	5	1846
25S 12W 240DB 01	375117098350901	DICKSON, W V	I	112PLSC	60	16	1840
25S 13W 16AAC 01	375228098451901	SHANK, ROBERT	I	--	130	16	1940
25S 13W 31DDA 01	374930098470601	BIG BEND GMD 5	U	--	51	5	1973
25S 13W 36DCC 01	374923098420201	BIG BEND GMD 5	U	--	48	5	1902
25S 14W 04AAD 01	375428098513101	FISHER, D B	I	112PLSC	68	16	1969
25S 14W 210DB 01	375118098513901	GRUNDER, GAREL	I	--	98	--	1980
25S 14W 30CDB 01	375025098542401	CHILDS, C M	I	112PLSC	105	16	2004
25S 15W 11BCB 01	375330098565101	DANIEL, W N	U	112PLSC	57	2	2020
25S 15W 298BD 01	375059098595801	SMITH, I I	I	112PLSC	96	16	2034
STANTON COUNTY							
27S 39W 028BB 01	374408101334101	TRUSSEL, VAN	S	112PLSC	96	6	3217
27S 39W 27BBA 01	374039101343701	MOLZ, M P	I	112PLSC	379	16	3175
27S 40W 07ABB 01	374316101435901	L & N FARMS	I	--	521	16	3273
27S 40W 16CCC 01	374138101422201	PLUMMER, PAUL JR	I	--	362	16	3259
27S 40W 25CBC 01	374006101390601	WINGER, CLARENCE	I	112PLSC	320	16	3228
27S 41W 31CCB 02	373907101510402	MACK, ADA	I	112PLSC	346	16	3402
27S 41W 35CCC 01	373901101464301	SEYB BROS	I	112PLSC	332	16	3340
27S 42W 110BD 01	374243101523301	HOFF, WILLIAM M	U	112PLSC	252	16	3409
27S 42W 17CCC 01	374138101562901	NICHOLS, ROBERT	I	--	504	16	3496
27S 42W 31CCC 01	373901101573501	ANDERSON, EARL	I	112PLSC	400	16	3537
27S 43W 028BD 01	374401101593501	COOK, RALPH	I	--	416	16	3544
28S 39W 14BBC 01	373703101334001	CAMPBELL, HERBERT	U	112PLSC	419	16	3158
28S 39W 16CCC 01	373624101355001	BARBER, MAXINE GLENN	I	--	--	--	3171
28S 39W 33ACC 01	373413101351701	WETZLER, E	I	112PLSC	430	16	3201
28S 39W 36ABB 01	373433101320201	SHORE, FRED	I	112PLSC	408	16	3145

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
STAFFORD COUNTY -- CONTINUED							
1972-	+0.80	01/17/74	23.90	01/14/85	22.02	01/12/87	22S 14W 14CCA 01
1973-	11.08	12/13/73	29.80	01/14/85	27.86	01/12/87	22S 14W 350DB 01
1974-	1.05	04/17/74	3.73	01/27/81	1.20	01/12/87	23S 11W 02BBB 01
1970-	17.35	12/14/73	23.10	01/27/81	21.79	01/12/87	23S 11W 22BCC 01
1966-	0.47	12/13/73	10.0	10/ /66	8.14	01/12/87	23S 12W 070BD 01
1973-	5.40	12/13/73	22.53	02/13/79	13.15	01/12/87	23S 12W 22BCC 01
1970-	11.74	12/14/73	18.31	01/09/84	14.90	01/12/87	23S 12W 36BCC 01
1972-	4.49	12/17/73	13.89	09/14/84	12.50	12/17/86	23S 13W 08CCB 01
					12.35	01/12/87	
					12.24	03/12/87	
					10.67	06/16/87	
					10.34	09/10/87	
1973-	7.94	12/17/73	13.42	01/14/85	12.26	01/12/87	23S 13W 30CBB 01
1968-	7.29	12/17/73	20.57	01/14/85	18.73	01/12/87	23S 13W 35CCA 01
1970-	3.28	12/17/73	10.60	01/14/85	10.58	01/12/87	23S 14W 15ADD 01
1974-	29.62	03/25/75	61.27	09/07/83	41.67	12/18/86	23S 14W 30BBB 01
					41.49	01/12/87	
					41.27	03/12/87	
					44.62	06/16/87	
					49.35	09/10/87	
1973-	30.25	12/14/73	36.27	04/30/73	32.77	01/12/87	24S 11W 14CAB 01
1973-	22.26	01/12/87	24.48	01/14/85	22.26	01/12/87	24S 11W 170DB 01
1973-	16.80	12/14/73	28.50	01/25/83	24.68	01/13/87	24S 12W 17CAB 01
1973-	19.32	01/13/87	23.91	01/25/83	19.32	01/13/87	24S 12W 34ABC 01
1968-	8.57	12/17/73	21.85	01/14/85	20.24	01/13/87	24S 13W 16ACA 01
1986-	20.32	09/09/87	22.31	09/22/86	22.17	12/12/86	24S 13W 20CDD 01
					22.10	01/13/87	
					22.17	03/17/87	
					21.13	06/15/87	
					20.32	09/09/87	
1979-	18.84	01/13/87	24.72	09/23/81	18.84	01/13/87	24S 13W 36DDD 01
1967-	21.74	01/16/74	33.15	01/14/85	30.89	01/13/87	24S 14W 17AAC 01
1965-	7.77	12/17/73	21.79	01/24/83	20.42	01/12/87	24S 14W 318BD 01
1970-	14.64	12/17/73	29.40	01/12/87	29.40	01/12/87	24S 15W 10BAB 01
1973-	9.94	12/17/73	26.97	01/13/86	26.63	01/12/87	24S 15W 320BC 01
1973-	10.31	12/17/73	11.83	02/13/79	11.01	01/13/87	25S 11W 02ACB 01
1974-	10.36	09/09/87	17.56	03/21/77	14.71	12/10/86	25S 11W 230DD 01
					14.90	01/13/87	
					15.21	03/11/87	
					12.18	06/12/87	
					10.36	09/09/87	
1984-	11.16	01/13/87	19.42	01/31/84	11.16	01/13/87	25S 12W 11AAA 01
1973-	10.17	12/14/73	15.0	04/ /73	11.69	01/13/87	25S 12W 240DB 01
1977-	19.01	09/ /87	32.54	09/14/84	23.44	12/13/86	25S 13W 16AAC 01
					23.33	01/13/87	
					23.23	03/17/87	
					19.01	09/ /87	
1984-	18.91	01/13/87	22.95	01/31/84	18.91	01/13/87	25S 13W 310DA 01
1984-	9.72	01/13/87	15.25	01/31/84	9.72	01/13/87	25S 13W 360CC 01
1973-	9.22	12/20/73	14.44	01/24/83	13.94	01/12/87	25S 14W 04AAD 01
1984-	12.00	07/01/84	12.20	01/13/87	12.20	01/13/87	25S 14W 210DB 01
1959-	7.25	12/14/73	16.95	01/15/85	14.50	01/12/87	25S 14W 30CDB 01
1973-	11.37	11/09/73	21.11	01/12/87	21.11	01/12/87	25S 15W 118CB 01
1973-	4.30	12/14/73	12.25	01/15/85	10.91	01/12/87	25S 15W 298BD 01
STANTON COUNTY							
1939-	85.48	01/09/86	95.6	01/16/58	87.52	01/08/87	27S 39W 02BBB 01
1958-	78.41	01/30/59	195.81	08/08/84	181.04	01/08/87	27S 39W 278BA 01
					180.31	07/27/87	
1985-	70.69	02/04/85	106.76	01/08/87	106.76	01/08/87	27S 40W 07ABB 01
1985-	96.89	10/02/85	165.61	08/18/85	107.09	01/08/87	27S 40W 16CCC 01
1959-	71.45	04/01/60	177.99	01/11/84	169.24	01/08/87	27S 40W 25CBC 01
1959-	164.4	01/22/63	248.66	01/09/86	243.30	01/07/87	27S 41W 31CCB 02
1959-	131.48	03/29/60	172.49	01/08/87	172.49	01/08/87	27S 41W 35CCC 01
1959-	115.98	10/29/59	174.63	01/11/84			27S 42W 110BD 01
1986-	226.29	01/07/87	237.73	01/09/86	226.29	01/07/87	27S 42W 17CCC 01
1958-	190.33	02/25/60	247.24	10/12/83	240.51	01/07/87	27S 42W 31CCC 01
1985-	226.03	02/05/85	232.22	01/07/87	232.22	01/07/87	27S 43W 028BD 01
1959-	82.01	03/21/60	147.58	01/14/86	147.58	10/14/86	28S 39W 148BC 01
					146.01	01/08/87	
					146.03	04/30/87	
					147.09	07/27/87	
1984-	149.66	02/04/85	239.60	08/22/84	157.57	01/08/87	28S 39W 16CCC 01
1959-	94.95	03/21/60	186.28	01/06/87	186.28	01/06/87	28S 39W 33ACC 01
1959-	75.05	03/21/60	204.01	07/27/87	192.50	10/14/86	28S 39W 36ABB 01
					189.49	01/06/87	
					191.11	04/30/87	
					204.01	07/27/87	

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
STANTON COUNTY -- CONTINUED							
28S 40W 04CCC 01	373808101422201	FLOYD, EUGENE	I	112PLSC	320	16	3289
28S 40W 12DDD 02	373716101380902	USGS	U	112PLSC	280	1.25	3225.2
28S 40W 23ACC 01	373558101393901	EDMISSON, F R	I	112PLSC	295	16	3254
28S 40W 32CCB 01	373353101432801	SPECK, R M	I	112PLSC	393	16	3320
28S 41W 02CCC 01	373808101464301	WIEBE BROS	I	--	365	16	3343
28S 41W 19CBB 01	373551101510501	SCHWATZ, A J	I	--	405	16	3433
28S 41W 31BDD 01	373413101504101	MCKINNEY, M	I	112PLSC	298	16	3414
28S 42W 08CCC 01	373716101563001	HENDERSON, J G	I	112PLSC	300	16	3539
28S 42W 20BCC 01	373558101563001	STANTON, LYNDLE	U	--	249	--	3553
28S 42W 32BBB 01	373433101563101	NICHOLS, MABEL	I	200MSZC	443	16	3540
29S 39W 17BCB 01	373143101365501	WELCH, G V	I	112PLSC	460	16	3239
29S 39W 21BBD 01	373031101350901	GAREY, C E	I	112PLSC	390	14	3183
29S 39W 24DDA 01	373024101313601	RUTH, V E	I	112PLSC	314	16	3154
29S 40W 28ABB 01	373011101415001	PLUMMER IRR. CO	I	--	520	16	3282
29S 41W 13ACC 01	373136101450601	DICE, ALLIENE	I	112PLSC	423	16	3344
29S 41W 31CBD 01	372846101505801	HARMON, CLIFFORD	I	200MSZC	307	16	3477
29S 42W 08CDC 01	373202101561501	BILBERRY, HARRY	I	200MSZC	367	16	3517
29S 42W 24CCC 01	373018101521101	WILCOX, G H	I	112PLSC	515	16	3484
29S 43W 33CDB 01	372840102014101	STEWART, VIRGIL	I	200MSZC	300	16	3654
30S 39W 18BBB 01	372642101380001	JULIAN, T	I	112PLSC	400	16	3238
30S 39W 23BBB 01	372550101333801	SHORE, L I	I	112PLSC	405	16	3179
30S 40W 12BBB 01	372734101390601	SNOOK, ROYCE N.	I	--	405	16	3274
30S 40W 24CDC 01	372504101384901	SHORE, IONE	I	112PLSC	295	16	3237
30S 40W 33CCB 01	372326101422301	HERRICK, WALTER	I	200MSZC	245	16	3309
30S 41W 13CCC 02	372556101454002	BEAUCHAMP D	I	--	--	--	--
30S 41W 23DDB 01	372510101455601	JOHNS, JULIUS	I	--	325	16	3365
30S 42W 12ACC 01	372715101513901	HARMON, CLIFFORD	I	200MSZC	410	16	3457
30S 42W 16BDB 01	372629101551101	BITNER, HARVEY	I	200MSZC	220	16	3524
30S 43W 34BBB 01	372405102005301	LAUMAN, W T	I	112PLSC	103	16	3622
30S 43W 36BB 01	372402101584001	HUME, M H	I	112PLSC	100	14	3595
STEVENS COUNTY							
31S 35W 15BAA 01	372128101065001	MCCUE, BLANCHE	I	112PLSC	450	--	3009
31S 35W 19CCC 01	371950101102901	BUNTON, C H	I	112PLSC	300	16	3039
31S 35W 26DCC 01	371858101053601	BROLLIER, C B	I	112PLSC	420	16	2988.0
31S 36W 02CDD 01	372227101121501	CLARK, EARL	I	112PLSC	410	16	3019
31S 36W 27BCB 01	371931101134301	GASKILL, GLEN B	I	112PLSC	450	16	3071
31S 37W 09BCC 01	372201101211701	PARSONS, B W	I	112PLSC	310	16	3103
31S 37W 22BCC 01	372016101201201	CROTTS, WALTER	H	112PLSC	258	6	3096
31S 37W 30DDB 01	371904101223801	MUSGROVE, J M	I	--	480	16	3138
31S 39W 23BBB 01	372036101320601	VERNING, LOUISE	I	112PLSC	338	16	3199
32S 35W 08DDD 01	371621101082601	COOPER, ARCHIE	I	112PLSC	495	16	3012
32S 36W 21AAC 01	371516101135901	BUNTON, C H MRS	I	--	400	16	3067
32S 36W 27DDD 01	371354101125801	--	I	--	--	--	3041
32S 37W 10DCC 01	371621101194001	ELLIS, CLARA M	I	112PLSC	480	16	3120
32S 37W 26BAC 01	371420101185501	--	I	--	--	--	3118
32S 38W 11ADA 01	371654101244001	HITTLE, WALTER	N	112PLSC	250	6	3159
32S 38W 23BDD 01	371503101251201	KUHN, W	N	112PLSC	200	6	3175
32S 39W 02BBB 01	371800101320601	SCHMIDT, D Y	I	112PLSC	300	--	3216
32S 39W 14DDD 01	371530101320601	YOUNGREN, VINCENT	I	--	425	16	3202
33S 35W 23CBB 01	370958101055501	--	I	--	--	--	2968
33S 36W 03ACA 01	371236101125801	--	I	--	--	--	3027
33S 36W 26DDD 01	370831101114001	HEGER, R O	I	112PLSC	360	16	3032
33S 37W 17CCC 01	371015101222101	BARNES, L A	I	112PLSC	420	16	3124
33S 37W 23CDB 01	370930101185001	BOEHME, F M	U	112PLSC	200	6	3092
33S 38W 06AAB 01	371246101290701	RENFRO, M W	I	112PLSC	360	16	3203
33S 38W 10ACC 01	371135101260901	MUSGROVE, J M	I	112PLSC	350	--	3166
33S 38W 20DAD 01	370937101275401	SLEMP, JOHN R	I	--	--	--	--
34S 35W 03DCC 01	370655101065901	--	I	--	--	--	2981

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
STANTON COUNTY -- CONTINUED							
1959- 1963-	104.66 101.53	04/01/60 03/03/64	197.46 219.23	01/27/83 10/12/83	221.62R 213.30 207.72 205.81 218.98	01/08/87 10/14/86 01/08/87 04/30/87 07/27/87	28S 40W 04CCC 01 28S 40W 12DDD 02
1959- 1959- 1985-	106.05 153.95 234.86	01/30/59 03/30/60 01/09/86	181.45 252.83 236.18	01/09/86 01/26/83 01/08/87	 236.18	 01/08/87	28S 40W 23ACC 01 28S 40W 32CCB 01 28S 41W 02CCC 01
1985- 1959- 1959- 1959- 1984- 1959-	224.03 141.5 223.5 249.00 211.85	01/09/86 03/30/60 10/29/59 08/22/84 10/29/59	224.37 178.67 264.80 251.04 238.50	02/05/85 01/17/78 01/16/78 01/09/86 01/15/75	 168.97 259.03 249.99 228.63	 01/07/87 01/07/87 01/07/87 01/07/87	28S 41W 19CBB 01 28S 41W 31BDD 01 28S 42W 08CCC 01 28S 42W 20BCC 01 28S 42W 32BBB 01
1959- 1959- 1948- 1984- 1959-	107.37 65.86 62.0 219.00 178.87	02/04/59 03/31/60 08/ /48 02/04/85 03/30/60	227.98 179.43 157.04 247.91 268.91	02/04/85 01/06/87 01/07/86 08/22/84 04/30/87	218.06 179.43 149.94 227.60 263.00 267.08 268.91	01/06/87 01/06/87 01/06/87 01/07/87 10/14/86 01/07/87 04/30/87	29S 39W 17BCB 01 29S 39W 21BDD 01 29S 39W 24DDA 01 29S 40W 28ABB 01 29S 41W 13ACC 01
1959- 1959- 1960-	226.37 183.19 196.50	11/03/59 01/22/64 04/15/69	263.24 200.17 254.38	01/17/78 01/19/77 12/28/70	262.22 192.72 212.01 206.29 115.79 205.85	01/07/87 01/07/87 10/14/86 01/07/87 01/07/87 01/06/87	29S 41W 31CBB 01 29S 42W 08CDB 01 29S 42W 24CCC 01 29S 43W 33CDB 01 30S 39W 18BBB 01
1959- 1959-	99.73 108.79	11/15/59 04/01/60	195.4 211.82	01/28/65 01/21/82	115.79 205.85	01/07/87 01/06/87	29S 43W 33CDB 01 30S 39W 18BBB 01
1958- 1984- 1959-	76.2 225.22 105.07	01/28/58 02/04/85 04/01/60	172.95 246.61 198.19	02/04/85 08/22/84 01/21/82	167.66 240.29 167.11 165.46 186.16 201.68	01/06/87 01/06/87 01/06/87 04/30/87 01/06/87 01/07/87	30S 39W 23BBB 01 30S 40W 12BBB 01 30S 40W 24CDB 01 30S 40W 33CCB 01 30S 41W 13CCC 02
1959- 1977-	155.52 189.62	04/01/60 01/20/82	193.73 204.78	01/18/80 01/18/80	186.16 201.68	01/06/87 01/07/87	30S 40W 33CCB 01 30S 41W 13CCC 02
1984- 1959- 1959- 1958-	189.80 183.02 171.44 45.72	02/05/85 11/03/59 04/04/60 12/04/58	214.58 206.19 193.60 92.81	08/23/84 01/17/78 01/26/83 09/19/77	190.94 191.95 176.46 88.09 74.39 74.00 81.72 79.36	01/07/87 01/07/87 01/07/87 10/14/86 01/07/87 04/30/87 07/27/87 01/07/87	30S 41W 23DDB 01 30S 42W 12ACC 01 30S 42W 16BDB 01 30S 43W 34BBB 01
1959-	57.60	04/04/60	79.36	01/07/87	79.36	01/07/87	30S 43W 36BB 01
STEVENS COUNTY							
1959- 1962-	226.52 178.57	02/26/59 08/12/63	331.40 237.35	01/21/63 07/30/86	289.39 236.53 226.96 227.51 234.73 286.09 180.59 185.71 186.53	01/07/87 10/14/86 01/07/87 04/03/87 07/27/87 01/07/87 01/07/87 04/30/87 07/27/87	31S 35W 15BAA 01 31S 35W 19CCC 01
1964- 1958-	227.55 140.50	01/28/65 03/21/60	286.09 192.73	01/07/87 10/12/82	286.09 180.59 185.71 186.53	01/07/87 01/07/87 04/30/87 07/27/87	31S 35W 26DCC 01 31S 36W 02CDB 01
1964-	135.84	01/23/67	183.93	01/06/84			31S 36W 27BCB 01
1958- 1956- 1984- 1958- 1970-	119.3 121.67 200.73 170.55 127.13	01/29/58 01/14/63 03/14/84 03/02/59 01/19/70	204.29 197.35 219.84 164.16 167.26	01/09/86 01/08/87 01/08/87 01/22/81 01/07/87	 197.35 219.84 163.36 167.26	 01/08/87 01/08/87 01/08/87 01/07/87	31S 37W 09BCC 01 31S 37W 22BCC 01 31S 37W 30DDP 01 31S 39W 23BBB 01 32S 35W 08DDD 01
1984- 1981- 1958- 1983- 1965-	183.67 149.71 128.70 116.26 112.60	01/09/86 01/17/85 01/29/58 01/25/83 01/23/67	194.24 169.29 167.26 120.51 132.90	03/14/84 01/21/81 01/09/86 01/24/85 01/06/87	189.08 117.51 132.90	01/07/87 01/08/87 01/06/87	32S 36W 21AAC 01 32S 36W 27DDD 01 32S 37W 10DCC 01 32S 37W 26BAC 01 32S 38W 11ADA 01
1965- 1958- 1984- 1981- 1981-	101.69 96.90 64.41 120.64 121.21	01/24/74 01/28/65 05/10/84 01/21/82 01/17/85	133.80 208.61 65.97 132.98 123.22	01/06/87 01/19/83 01/09/86 01/07/87 01/21/81	133.80 195.74R 64.74 132.98	01/06/87 01/08/87 01/08/87 01/07/87	32S 38W 23BDD 01 32S 39W 02BBB 01 32S 39W 14DDD 01 33S 35W 23CBB 01 33S 36W 03ACA 01
1942- 1964- 1964- 1959- 1958-	118.73 69.90 83.85 90.84 104.72	01/18/66 01/23/67 01/18/66 01/22/76 01/28/65	163.27 100.06 96.62 95.65 142.19	09/09/74 01/08/87 01/08/87 01/04/84 01/04/84	151.89 100.06 96.62 92.27 140.94	01/08/87 01/08/87 01/08/87 01/07/87 01/07/87	33S 36W 26DDD 01 33S 37W 17CCC 01 33S 37W 23CDB 01 33S 38W 06AAB 01 33S 38W 10ACC 01
1983-	147.31	01/17/85	164.25	01/04/84	151.73 152.51	10/14/86 01/07/87	33S 38W 20DAD 01
1982-	130.51	01/20/82	139.51	01/08/87	139.51	01/08/87	34S 35W 03DCC 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
STEVENS COUNTY -- CONTINUED							
34S 35W 07CBB 01	370612101102601	THOMAS, SIDNEY	U	--	--	1.25	--
34S 35W 26ACC 01	370352101055301	--	I	--	--	--	2977
34S 36W 10CAC 01	370604101132901	--	I	--	--	--	3065
34S 36W 21DBD 01	370422101140501	WHEELER & SONS	I	--	600	16	3079
34S 37W 08DAC 01	370607101213201	HOFFMAN, C W	N	112PLSC	120	6	3162
34S 37W 27ABC 01	370356101193901	LEONARD, BESSIE	I	112PLSC	--	--	3132
34S 37W 29BBD 01	370356101221301	BLAKELY, EESSIE	I	--	360	16	3170
34S 37W 35AAD 01	370304101180901	REQUA, JOHN	I	--	328	16	3111
34S 38W 02CAC 01	370654101252001	MOSER, E	I	112PLSC	607	--	3197
34S 38W 34CAA 01	370246101261701	MORRIS, STEPHEN	I	--	568	16	2984
34S 39W 02CCA 01	370655101315801	BANE EST, J	U	112PLSC	200	6	3248
34S 39W 15CAD 01	370517101324601	KEEFER, C B	U	112PLSC	200	6	3280
35S 35W 15BCC 01	370012101070901	ROSENBLAG, R.	I	--	450	16	2978
35S 36W 01AAA 01	370218101103301	WEBB, MELVIN	I	112PLSC	400	16	3022
35S 36W 15AAD 01	370027101124301	TOWNER, MELVIN	U	--	581	16	3025
35S 37W 16BCC 01	370014101211601	CLAGGETT, EFFIE	I	--	480	16	3138
35S 39W 10CAD 01	370057101324601	SIMPSON, JOE	I	112PLSC	530	16	3302
SUMNER COUNTY							
30S 04W 34BAA 01	372409097443201	STITT, KENNETH	U	--	89	2.5	1460
31S 04W 018BB 01	372317097424201	UNKNOWN	U	--	51	--	1440
31S 04W 01DAC 01	372244097415201	UNKNOWN	U	--	70	2.5	1440
31S 04W 028BB 01	372317097434801	UNKNOWN	U	--	50	2.5	1435
THOMAS COUNTY							
06S 31W 03ADB 01	393348100454501	MARSHALL, F G	I	1210GLL	196	16	2957
06S 31W 33CCD 01	392854100473701	WARK, A R	I	110ALVM	131	16	2916
06S 32W 12CBC 01	393236100505101	ZIEGELMEIER, B	I	1210GLL	168	16	3020
06S 32W 29CDC 01	392946100550001	ZIEGELMEIER, C E	I	1210GLL	204	16	3077
06S 33W 078BB 01	393309101030601	MALONE, J	I	1210GLL	--	--	3177.00
06S 33W 23DDD 01	393039100574201	SCHROEDER, DAN S	U	110ALVM	81	--	2997
06S 34W 01DDD 01	393315101031501	SANDERS, JOHN	H	1210GLL	156	6	--
06S 34W 11CDD 01	393223101045601	GROVER, HOWARD	I	1210GLL	254	16	3218
06S 34W 17CBC 01	393144101084301	DECHERT, C A	I	1210GLL	264	16	3261
06S 34W 22DCA 01	393045101054701	BOURQUIN, D T	I	--	210	--	3207
06S 34W 31CDB 01	392901101093401	BAIRD, VICTOR	I	--	253	--	--
06S 35W 02CDD 01	393316101113801	CURRY, E O	I	1210GLL	290	16	3245
06S 35W 26ACB 01	393020101113101	WHITE, LLOYD N	U	1210GLL	250	16	3300
06S 36W 06BCD 01	393342101230701	BRINEY, B C	U	1210GLL	255	6	3408
06S 36W 11ACC 01	393250101181301	BROWN, RALPH E	I	1210GLL	290	16	3360
06S 36W 30DCB 01	392955101224301	BEAR, D L	I	1210GLL	285	18	3417
06S 36W 34DCB 01	392903101190501	GOETSCH ETAL, W	I	1210GLL	248	18	3334
07S 31W 01DCA 01	392809100433901	MUSTOE, E D JR	I	1210GLL	246	18	2956
07S 32W 07ACA 01	392736100554301	SEARS ETAL, V R	I	1210GLL	135	18	3056
07S 32W 13AAA 01	392703100495601	BAALMAN, E A	I	1210GLL	239	18	3037
07S 32W 33CB 01	392414100541201	HOUSTON, THELMA	I	--	270	--	3082
07S 33W 07BDA 01	392743101024401	HENRY, G S	I	1210GLL	256	16	3203
07S 33W 35ADD 01	392408100574501	FINK, ERNEST	I	1210GLL	265	18	3145
07S 34W 25AAA 01	392520101031901	MARSHALL, G D	I	1210GLL	240	18	3167
07S 34W 26DBD 01	392448101044301	PRATT, MARY M	I	1210GLL	234	18	3177
07S 35W 09CCC 01	392712101142001	COLE, M H	I	1210GLL	--	--	3315.00
07S 36W 17CCC 01	392620101221101	MAYER, R H	I	1210GLL	275	18	3417
07S 36W 35CBB 01	392403101135001	GUISE, WILL	S	1210GLL	96	6	3341
08S 31W 03CDD 01	392249100461301	JOHNSON, JOHN R	I	1210GLL	--	--	3003.00
08S 31W 20CDD 01	392013100483101	STEPHENS, C B	I	1210GLL	223	16	3026

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
STEVENS COUNTY -- CONTINUED							
1982-	153.99	04/13/83	190.99	07/30/86	187.54 160.18 163.26 183.96	10/14/86 01/08/87 04/30/87 07/27/87	34S 35W 07CBB 01
1981-	117.53	01/20/82	128.45	01/08/87	128.45	01/08/87	34S 35W 26ACC 01
1981-	137.78	01/21/81	154.09	01/08/87	154.09	01/08/87	34S 36W 10CAC 01
1984-	156.76	01/24/85	161.15	01/08/87	161.15	01/08/87	34S 36W 2109D 01
1964-	110.08	01/16/75	131.67	01/08/87	131.67	01/08/87	34S 37W 08DAC 01
1965-	103.13	01/23/74	122.79	01/08/87	122.79	01/08/87	34S 37W 27ABC 01
1984-	153.48	01/09/86	158.25	03/14/84	155.95	01/08/87	34S 37W 29BBD 01
1984-	122.19	01/09/86	124.65	03/14/84	124.29	01/08/87	34S 37W 35AAD 01
1967-	131.92	01/19/71	162.77	07/07/81			34S 38W 02CAC 01
1984-	144.67	05/10/84	157.43	01/07/87	157.43	01/07/87	34S 38W 34CAA 01
1964-	99.90	01/07/86	109.15	12/16/64	100.05	01/07/87	34S 39W 02CCA 01
1965-	134.79	01/22/76	142.11	01/27/65	136.95	01/07/87	34S 39W 15CAD 01
1984-	106.95	01/24/85	119.57	05/10/84	112.84	01/08/87	35S 35W 15BCC 01
1970-	102.66	01/19/70	125.57	01/08/87	125.57	01/08/87	35S 36W 01AAA 01
1984-	103.90	01/24/85	107.07	01/08/87	107.07	01/08/87	35S 36W 15AAD 01
1984-	128.30	01/09/86	148.11	03/14/84	131.61	01/08/87	35S 37W 16BCC 01
1967-	184.90	01/22/76	202.25	01/03/84	195.48	01/07/87	35S 39W 10CAD 01
SUMNER COUNTY							
1981-	22.50	03/06/86	25.70	02/25/82	23.11	02/24/87	30S 04W 34BAA 01
1986-	14.54	06/03/86	14.54	06/03/86			31S 04W 01BBB 01
1986-	15.20	02/24/87	15.48	06/06/86	15.20	02/24/87	31S 04W 01DAC 01
1986-	5.64	02/24/87	5.81	03/06/86	5.64	02/24/87	31S 04W 02BBB 01
THOMAS COUNTY							
1965-	113.70	01/24/69	123.05	01/13/76	115.65	01/07/87	06S 31W 03ADB 01
1964-	10.30	01/17/66	31.11	01/07/87	31.11	01/07/87	06S 31W 33CCD 01
1942-	113.95	01/17/68	120.84	01/10/84	119.69	01/07/87	06S 32W 12CBC 01
1964-	111.07	01/19/66	132.20	09/20/83	122.41 128.88 120.75	01/07/87 03/05/87 06/09/87	06S 32W 29CDC 01
1979-	136.00	01/08/80	141.22	01/08/85	138.89	01/05/87	06S 33W 07BBB 01
1978-	10.96	01/27/83	14.30	01/06/81	12.81	01/07/87	06S 33W 23DDD 01
1971-	137.10	12/09/71	149.41	03/05/87	143.13 149.41 137.67	01/05/87 03/05/87 06/09/87	06S 34W 01DDD 01
1967-	155.90	06/29/67	168.69	01/08/85	161.34	01/05/87	06S 34W 11CDD 01
1962-	148.81	03/11/75	167.52	09/15/81	159.12 158.46 157.32	01/05/87 03/05/87 06/09/87	06S 34W 17CBC 01
1984-	128.00	01/06/86	132.58	01/08/85	128.12	01/05/87	06S 34W 22DCA 01
1985-	127.00	10/18/85	131.65	01/05/87	131.65	01/05/87	06S 34W 31CDB 01
1964-	121.	01/09/75	132.93	01/03/79	129.80	01/05/87	06S 35W 02CDD 01
1965-	146.75	09/16/75	157.99	09/04/87	155.15 155.98 155.65 157.99	01/05/87 03/05/87 06/09/87 09/04/87	06S 35W 26ACB 01
1964-	176.30	06/25/64	191.44	01/09/80	188.92	01/05/87	06S 36W 06BCD 01
1964-	160.20	06/08/64	171.4	01/10/79	166.83	01/05/87	06S 36W 11ACC 01
1964-	146.43	01/18/67	155.50	01/05/87	155.50	01/05/87	06S 36W 30DCB 01
1964-	92.88	06/08/64	104.83	01/14/76	103.20	01/05/87	06S 36W 34DDB 01
1964-	101.25	01/25/67	123.49	01/07/86	117.14	01/07/87	07S 31W 01DCA 01
1942-	63.50	01/19/66	79.51	01/07/87	79.51	01/07/87	07S 32W 07ACA 01
1964-	100.40	01/25/67	123.80	01/27/83	123.77	01/07/87	07S 32W 13AAA 01
1984-	113.74	06/21/84	116.10	01/07/87	116.10	01/07/87	07S 32W 33CB 01
1964-	149.04	01/25/67	162.28	01/03/79	155.63	01/07/87	07S 33W 07BDA 01
1965-	130.10	11/19/65	152.57	01/04/79			07S 33W 35ADD 01
1966-	105.84	03/14/66	114.76	12/23/80	113.29	01/06/87	07S 34W 25AAA 01
1964-	103.37	06/08/64	118.99	01/06/87	118.99	01/06/87	07S 34W 26DBD 01
1980-	126.78	01/08/85	129.57	12/23/80	128.86	01/05/87	07S 35W 09CCC 01
1962-	131.49	04/09/63	152.97	09/10/86	145.49 145.31 145.41 152.15	01/05/87 03/05/87 06/09/87 09/01/87	07S 36W 17CCC 01
1942-	81.55	06/08/64	92.96	01/06/86	88.55	01/05/87	07S 36W 35CBB 01
1980-	123.20	03/05/86	146.23	09/16/81	137.73 136.90 136.28 141.35	01/07/87 03/05/87 06/09/87 09/01/87	08S 31W 03CDD 01
1964-	98.16	12/07/65	120.22	01/08/85	120.05	01/07/87	08S 31W 20CDD 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
THOMAS COUNTY -- CONTINUED							
08S 32W 07BAA 01	392243100560301	SWANSON, E A	I	1210GLL	190	18	3102
08S 32W 12DBC 01	392210100502301	SADDLER, DONALD W	I	1210GLL	220	18	3057
08S 32W 27DAB 01	391940100521901	RYAN, T A	U	1210GLL	156	8	3078
08S 33W 34BBC 01	391908100595301	HILLS, HAROLD JR	I	1210GLL	200	16	3168
08S 34W 06CBC 01	392303101095401	BREMENKAMP, J P	I	1210GLL	227	18	3266
08S 34W 23CBD 01	392027101051901	GUNNELS, J O	I	1210GLL	235	16	3232
08S 34W 29CCC 01	391922101084901	FRAHM FARMLAND, INC	I	--	280	--	3283
08S 35W 04CCC 01	392252101142201	COLBY PCA	I	--	192	--	3302
08S 36W 15CBB 01	392127101195901	MILLER, DARLENE	I	--	216	--	3365
08S 36W 18ABA 02	392153101223802	CARPENTER, NORA	U	1210GLL	140	6	3428
08S 36W 31BCD 01	391858101231301	KINKADE, LEONARD	I	--	135	--	3369
09S 31W 10BBB 01	391730100464001	LINDEMAN, OLIVER	I	1210GLL	180	16	2999
09S 31W 17CCC 01	391552100485901	STOPPEL, L K & A E	I	--	290	--	3016
09S 31W 36AAB 01	391401100433101	OSTMEYER, DONALD	I	1210GLL	227	18	3013
09S 32W 03AAA 01	391822100521201	CERSOUSKY, CLARANCE G	I	--	165	--	3051
09S 32W 27BCD 01	391434100530301	CAVE, MRS L	I	1210GLL	210	16	3076
09S 33W 35AAD 01	391355100574901	WILLEMS, J C	I	1210GLL	244	18	3145
09S 34W 11CCC 01	391646101052901	KISTLER, HARVEY	I	--	257	--	3180
09S 34W 12ADA 01	391718101032301	UNKNOWN	I	1210GLL	--	--	3199
09S 34W 17ABA 01	391639101080801	MCILNAY, JOSEPH	I	--	198	--	3229
09S 35W 32DAA 01	391339101143501	JACOBS, JESSE W	I	1210GLL	238	16	3361
10S 31W 26AAA 01	390940100443201	HAYS, G M	S	110ALVM	31	6	2891
10S 31W 29AAB 01	390940100480901	TEETER, HERBERT C	I	1210GLL	190	16	2997
10S 32W 11BAA 01	391217100514101	VAHTER, R H	I	1210GLL	185	18	3072
10S 32W 29DCB 01	390901100545201	KARLIN, EUGENE J	I	1210GLL	185	16	3064
10S 33W 03DBC 01	391237100592201	DUMLER BROS	I	1210GLL	258	18	3145
10S 33W 06BBC 01	391303101031701	DAHL, D S	I	1210GLL	316	16	3191
10S 33W 19CBD 01	391001101031001	REED, BURTIS M	I	1210GLL	168	18	3161
10S 34W 12BCD 01	391200101041601	LOWENTHAL, ALFRED	I	1210GLL	300	18	3220
10S 34W 29BBC 01	390936101085301	ROBINSON, KATIE	I	--	185	--	3208
10S 35W 09ABB 01	391221101135301	JACOBS, JOHN	I	--	189	16	3290
10S 36W 16CCC 01	391043101211101	CRANSTON, REX	I	--	179	--	3366
10S 36W 36ACC 01	390833101171601	MARSHALL FARMS	H,S	1210GLL	189	6	3359
TREGO COUNTY							
12S 23W 20CCC 01	385919099542601	KEYSER, H & F	I	110ALVM	65	16	2373.6
WABAUNSEE COUNTY							
10S 10E 15DCC 01	391029096171301	KGS	U	110ALVM	39	2	971
10S 12E 29ADD 01	390909096053101	KGS	U	112NWMN	37	2	944.4
WALLACE COUNTY							
11S 38W 35CCC 02	390254101305402	BRETZ, LINDY	I	1210GLL	189	16	3372
11S 42W 08DDC 01	390618102000301	CULWELL, THERON	I	1210GLL	166	16	3953
11S 42W 10AAD 01	390657101573901	AGNEW, G W	I	1210GLL	202	16	3948

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
THOMAS COUNTY -- CONTINUED							
1964-	98.86	01/26/66	123.06	01/07/87	123.06	01/07/87	08S 32W 07BAA 01
1964-	103.65	01/11/72	118.44	01/07/87	118.44	01/07/87	08S 32W 12DBC 01
1942-	88.64	09/15/75	130.19	09/01/87	128.09	01/07/87	08S 32W 27DAB 01
					124.15	03/05/87	
					130.19	09/01/87	
1964-	128.38	03/08/66	162.60	06/09/81	155.35	01/08/87	08S 33W 34BBC 01
					158.69	03/04/87	
					153.81	06/09/87	
					160.12	09/01/87	
1964-	134.90	06/12/64	141.6	01/04/79	149.71R	01/06/87	08S 34W 06CBC 01
1964-	154.33	06/11/64	178.52	01/08/86			08S 34W 23CBD 01
1984-	198.28	01/08/85	206.77	01/06/87	206.77	01/06/87	08S 34W 29CCC 01
1984-	94.77	01/09/85	94.96	06/19/84	94.78	01/05/87	08S 35W 04CCC 01
1984-	85.35	01/09/85	86.13	06/19/84	86.11	01/06/87	08S 36W 15CBB 01
1942-	122.09	03/08/66	132.70	01/05/87	132.70	01/05/87	08S 36W 18ABA 02
					130.07	03/04/87	
					130.55	06/09/87	
					130.53	09/01/87	
1984-	45.17	01/07/86	46.55	06/25/84	45.19	01/06/87	08S 36W 31BCD 01
1966-	82.95	01/27/66	92.28	01/07/86	90.24	01/07/87	09S 31W 10BBB 01
1984-	88.58	01/07/86	91.00	01/08/85	89.92	01/07/87	09S 31W 17CCC 01
1964-	130.65	01/27/66	143.39	01/07/87	143.39	01/07/87	09S 31W 36AAB 01
1984-	96.08	06/21/84	99.42	01/07/87	99.42	01/07/87	09S 32W 03AAA 01
1964-	96.98	06/04/64	132.31	09/10/86	121.60	01/08/87	09S 32W 27BCD 01
					129.99	03/04/87	
					123.92	06/09/87	
					124.87	09/01/87	
1964-	125.85	01/25/67	158.56	01/08/87	158.56	01/08/87	09S 33W 35AAD 01
1985-	118.36	01/08/85	122.81	01/06/87	122.81	01/06/87	09S 34W 11CCC 01
1979-	153.00	01/10/80	161.54	01/06/87	161.54	01/06/87	09S 34W 12ADA 01
1984-	152.24	06/25/84	155.45	01/06/87	155.45	01/06/87	09S 34W 17ABA 01
1968-	186.38	01/28/83	191.45	01/08/75	193.38	01/06/87	09S 35W 32DAA 01
1964-	5.08	01/27/66	12.22	01/07/86	12.02	01/07/87	10S 31W 26AAA 01
1964-	79.19	06/04/64	93.66	01/25/65	91.60	01/08/87	10S 31W 29AAB 01
1965-	104.84	01/23/67	120.70	01/08/87	120.70	01/08/87	10S 32W 11BAA 01
1964-	80.48	01/27/66	98.38	01/07/86	96.35	01/08/87	10S 32W 29DCB 01
1964-	124.32	01/23/67	152.64	01/08/86	152.47	01/08/87	10S 33W 03DBC 01
1971-	160.64	03/11/71	230.89	03/17/76	177.36	01/06/87	10S 33W 06BBC 01
					173.28	03/04/87	
					172.43	06/09/87	
1964-	98.30	04/14/66	107.04	12/15/77	106.22	01/06/87	10S 33W 19CBD 01
1964-	168.84	01/23/67	182.2	01/04/79	171.40	01/06/87	10S 34W 12BCD 01
1984-	88.80	01/06/87	91.61	01/08/86	88.80	01/06/87	10S 34W 29BBC 01
1984-	112.81	01/08/85	113.36	01/06/87	113.36	01/06/87	10S 35W 09ABB 01
1984-	128.67	01/07/86	130.16	01/06/87	130.16	01/06/87	10S 36W 16CCC 01
1966-	167.50	03/08/68	175.80	01/08/85	171.70	01/06/87	10S 36W 36ACC 01
TREGO COUNTY							
1960-	18.02	09/01/87	26.22	09/01/71	20.31	12/04/86	12S 23W 20CCC 01
					18.60	03/03/87	
					18.14	07/07/87	
					18.02	09/01/87	
WABAUNSEE COUNTY							
1966-	5.65	12/20/73	20.58	03/17/76	9.15	12/05/86	10S 10E 15DCC 01
					10.85	03/04/87	
					6.10	06/05/87	
					11.40	09/03/87	
1974-	11.50	06/08/82	20.84	12/08/76	14.76	12/05/86	10S 12E 29ADD 01
					13.95	03/04/87	
					13.40	06/05/87	
					15.70	09/03/87	
WALLACE COUNTY							
1966-	76.00	08/25/66	148.62	01/05/82	126.20	01/04/87	11S 38W 35CCC 02
					126.94	03/04/87	
					127.86	06/09/87	
					121.98	09/02/87	
1969-	99.89	03/06/70	118.94	09/15/76	110.26	01/07/87	11S 42W 08DDC 01
					115.48	03/04/87	
					108.83	06/15/87	
					112.44	09/02/87	
1970-	128.00	11/ /70	130.10	01/07/85	129.98	01/07/87	11S 42W 10AAD 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
WALLACE COUNTY -- CONTINUED							
13S 39W 33BBB 01	385314101395701	TILTON, E L	I	110ALVM	66	12	3322
13S 42W 10BAC 01	385635101583001	WILSON, HOWARD	S	1210GLL	52	4	3770
13S 43W 36ABB 01	385314102024201	SEXSON, N D	I	1210GLL	270	16	3894
14S 38W 21DCC 01	384900101324801	SCHEMM, H F	S	1210GLL	94	6	3538
14S 40W 23ADD 01	384927101432801	WALKER, O C	I	1210GLL	220	18	3645
14S 40W 29ABA 01	384854101470601	WERTZ, CLAUDE	I	1210GLL	230	16	3702
14S 41W 22BBC 01	384946101521301	BONTRAGER, D M	I	1210GLL	218	26	3729
14S 42W 10BAA 01	385130101584201	WELSH, RAY	I	1210GLL	406	26	3838
14S 42W 14DBD 01	385006101570301	DOOP, G	I	1210GLL	400	16	3796
14S 42W 30BCA 01	384841102020401	PURVIS, LAWRENCE	I	1210GLL	386	16	3880
15S 38W 05CCB 01	384630101343101	BOLEN, LESTER	I	1210GLL	152	18	3531
15S 38W 14CCD 01	384441101310301	UNRUH, R I	I	1210GLL	150	18	3486
15S 38W 28DBB 01	384315101325301	NELSON, SELMA	I	1210GLL	202	18	3502
15S 38W 36CBB 01	384224101300601	BROWN, E L	I	1210GLL	153	16	3461
15S 39W 02BCD 01	384651101374201	FRASIER FARMS	I	1210GLL	195	30	3585
15S 39W 06CBC 01	384644101420801	THEIS, FRED	I	1210GLL	227	16	3631
15S 39W 08ACC 01	384558101403701	MAI, WILLIAM	I	1210GLL	222	18	3623
15S 39W 26ACC 01	384323101372101	LARSON, JOHN	I	1210GLL	239	16	3561
15S 40W 03BAB 01	384710101451901	HEISE, J C	I	1210GLL	254	16	3636
15S 40W 09DCB 01	384539101461101	ROHN, FERD	I	1210GLL	261	16	3653
15S 40W 26CAB 01	384316101441601	MARTIN, ETHEL M	I	1210GLL	--	--	3646
15S 41W 05ACB 01	384657101535501	LUCAS, MARVIN	I	1210GLL	235	16	3794
15S 41W 10BAB 01	384618101515901	BRANDBERG, O F	I	1210GLL	264	16	3787
15S 41W 27CBC 01	384310101521901	CLARK, DEAN	I	1210GLL	--	--	3750
15S 41W 36DOB 02	384212101491702	POTTER, F R	I	1210GLL	265	16	3695
15S 42W 02BBB 01	384711101574701	CHARLES, W H	I	1210GLL	225	18	3854
15S 42W 32BDA 01	384238102004501	KS CATTLE INC	I	1210GLL	--	--	3901
15S 42W 36CDC 01	384206101562901	SMOTHERMON, W O	I	1210GLL	270	16	3844
WASHINGTON COUNTY							
01S 05E 05ADA 01	395948096524601	SCHRAMM, M & N	I	210DKOT	75	16	1370
04S 02E 14CCC 01	394155097104501	HELMS, ERNA	U	210DKOT	150	6	1485
05S 01E 20ADA 01	393624097195301	HAMEL, MARY	H	--	110	6	1325
05S 01E 31DDD 01	393407097205901	TOVYNE, LOWELL E	--	--	63	1.25	1278
WICHITA COUNTY							
16S 35W 06AAB 01	384200101132301	REDDING, O T	S	1210GLL	108	6	3208
16S 35W 13CCC 01	383929101084101	MC NEAL, A M	I	1210GLL	176	16	3182
16S 35W 20CCC 01	383837101130601	MILLER, E L	I	1210GLL	189	18	3228
16S 36W 03DCC 01	384114101165701	HARPER, L F	I	1210GLL	138	18	3267
16S 36W 07BCB 01	384054101204801	HOBSON, R	I	1210GLL	130	18	3319

PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
WALLACE COUNTY -- CONTINUED							
1970-	25.24	04/20/83	30.27	06/19/79	26.25	10/02/86	13S 39W 3388B 01
					26.04	01/05/87	
					25.94	04/27/87	
					25.42	07/23/87	
1973-	37.97	06/09/76	40.53	06/15/82	39.73	03/04/87	13S 42W 10BAC 01
1957-	148.75	10/08/57	183.02	01/05/87	183.02	01/05/87	13S 43W 36AB8 01
1951-	80.15	01/19/66	83.00	01/18/68	82.46	01/05/87	14S 38W 21DCC 01
1958-	118.44	06/19/58	157.09	01/06/86	156.00	01/05/87	14S 40W 23ADD 01
1969-	142.84	01/18/71	174.74	01/06/86	174.02	01/05/87	14S 40W 29ABA 01
1958-	84.30	06/11/58	128.15	01/05/87	128.15	01/05/87	14S 41W 2288C 01
1969-	162.40	08/ /69	186.11	01/05/87	186.11	01/05/87	14S 42W 108AA 01
1958-	102.06	06/24/58	154.35	04/27/87	152.03	10/02/86	14S 42W 140BD 01
					154.06	01/05/87	
					154.35	04/27/87	
1969-	159.60	01/24/69	197.50	01/05/87	197.50	01/05/87	14S 42W 308CA 01
1977-	100.75	01/18/77	104.76	01/10/84	104.32	01/05/87	15S 38W 05CCB 01
1958-	72.97	06/14/58	107.23	01/05/87	107.23	01/05/87	15S 38W 14CCD 01
1960-	85.70	10/07/60	154.44	10/29/84	147.95	01/05/87	15S 38W 28DBB 01
					150.62	04/27/87	
					147.98	07/23/87	
1958-	70.81	06/19/58	122.90	01/08/87	122.90	01/08/87	15S 38W 36CBB 01
1958-	112.22	06/23/58	157.89	09/21/76	154.33	10/02/86	15S 39W 028AC 01
					151.22	01/05/87	
					152.59	07/23/87	
1965-	116.40	01/28/65	153.26	01/05/87	153.26	01/05/87	15S 39W 06CBC 01
1948-	104.00	05/10/48	163.31	09/13/78	161.91	10/02/86	15S 39W 08ACC 01
					160.80	01/05/87	
					160.91	04/27/87	
1960-	98.93	10/07/60	162.26	10/02/86	162.26	10/02/86	15S 39W 26ACC 01
					153.83	01/05/87	
					160.33	04/27/87	
1957-	74.56	06/19/58	127.46	10/02/86	127.46	10/02/86	15S 40W 038AB 01
					124.31	01/05/87	
					126.69	04/27/87	
1967-	90.80	03/10/67	131.78	01/05/87	131.78	01/05/87	15S 40W 09DCB 01
1969-	102.05	01/24/69	142.03	01/19/82	137.29	01/05/87	15S 40W 26CAB 01
1958-	145.03	06/11/58	207.85	01/05/87	207.85	01/05/87	15S 41W 05ACB 01
1958-	161.16	06/11/58	216.77	07/28/82	206.57	10/02/86	15S 41W 10BAB 01
					204.11	01/05/87	
					203.73	04/27/87	
1969-	154.30	01/22/70	191.84	01/10/84	191.50	01/05/87	15S 41W 27CBC 01
1966-	110.36	03/28/67	149.14	10/29/84	147.73	10/02/86	15S 41W 36DD8 02
					146.40	01/05/87	
					147.43	04/27/87	
1969-	166.95	01/24/69	212.29	01/06/86	203.15	01/05/87	15S 42W 0288B 01
1969-	233.45	01/18/83	247.86	01/05/87	247.86	01/05/87	15S 42W 328DA 01
1951-	193.70	01/29/65	245.30	01/05/87	245.30	01/05/87	15S 42W 36CDC 01
WASHINGTON COUNTY							
1979-	31.50	06/05/87	44.70	09/14/83	32.70	12/05/86	01S 05E 05ADA 01
					33.15	03/11/87	
					31.50	06/05/87	
					37.75	09/03/87	
1979-	44.20	09/03/87	47.75	03/10/83	46.10	12/05/86	04S 02E 14CCC 01
					45.60	03/11/87	
					45.16	06/05/87	
					44.20	09/03/87	
1977-	36.05	06/05/87	49.30	09/14/83	39.20	12/05/86	05S 01E 20ADA 01
					38.95	03/11/87	
					36.05	06/05/87	
					38.70	09/03/87	
1975-	11.45	06/05/87	19.55	09/09/76	13.30	12/05/86	05S 01E 31DDD 01
					14.67	03/11/87	
					11.45	06/05/87	
					14.00	09/03/87	
WICHITA COUNTY							
1948-	71.90	07/07/48	85.30	01/17/72	83.20	01/05/87	16S 35W 06AAB 01
1965-	125.76	01/29/65	159.33	01/19/82	158.80	01/05/87	16S 35W 13CCC 01
1950-	103.24	05/07/51	163.48	10/06/83	160.87	10/02/86	16S 35W 20CCC 01
					160.30	01/05/87	
					160.01	04/27/87	
1947-	86.79	05/09/51	135.21	01/18/83	131.60	01/05/87	16S 36W 03DCC 01
1948-	82.68	06/14/51	117.35	01/05/87	117.35	01/05/87	16S 36W 07BCB 01

LOCAL NUMBER	SITE-ID	OWNER	USE OF WATER	PRINCIPAL AQUIFER	DEPTH OF WELL (FEET)	CASING DIAM- ETER (INCHES)	ALTITUDE OF LAND SURFACE (FEET)
WICHITA COUNTY -- CONTINUED							
16S 36W 21CCC 01	383837101183601	NICKELSON, D	I	1210GLL	205	16	3295
16S 36W 30CBC 01	383757101204701	KALBACH, W D	I	1210GLL	218	16	3319
16S 36W 34CCC 02	383652101172902	MILLER, J E	I	1210GLL	187	16	3275
16S 36W 36CBC 01	383705101151701	WIMMER, J J	I	1210GLL	200	20	3246
16S 37W 17BBB 01	384014101261501	GEHRKE, G F	I	1210GLL	200	16	3399
16S 37W 30BAB 01	383829101270401	BUEHLER, B	I	1210GLL	--	--	3404
16S 38W 10ABB 01	384106101300501	BUEHLER, MARGARET	I	1210GLL	210	16	3458
16S 38W 26BBB 01	383829101293201	LOGAN, G E	I	1210GLL	197	16	3424
17S 35W 02BBB 01	383646101094601	DENNIS, G B	I	1210GLL	200	16	3189
17S 35W 15CDC 01	383416101103601	SIMONS, LOUIS	I	1210GLL	204	--	3194
17S 35W 18ACB 01	383448101133801	SHUMARD, WESLEY	I	1210GLL	195	18	3226
17S 35W 27CCC 01	383231101105201	BEESON, L C	I	1210GLL	210	16	3195
17S 35W 30CBB 01	383251101141001	KNOBBE, G	I	1210GLL	218	18	3235
17S 36W 10CBB 01	383526101172901	WILSON, J F & E	I	110ALVM	120	18	3202
17S 36W 23BCC 01	383348101162301	SCHWINDT, H R	I	1210GLL	240	18	3258
17S 37W 08BAA 01	383551101255001	KIEFFER, LEONARD	I	1210GLL	180	--	3374
17S 37W 13CDD 01	383414101212801	SCHWINDT, H H	I	1210GLL	175	--	3300
17S 37W 28CCC 01	383228101250901	JEAGER FARMS	I	1210GLL	190	18	3360
17S 38W 21BBB 01	383406101314401	BAUCK, G & F	I	1210GLL	165	16	3446
17S 38W 24ACC 01	383346101275301	BAUER, JOHN	I	1210GLL	210	16	3394
17S 38W 28CCC 01	383227101314401	GRIBBON, A L	I	1210GLL	200	16	3446
18S 35W 08BBC 02	383033101130402	BOULWARE, THEODORE	I	1210GLL	150	16	3217
18S 35W 14DCD 01	382902101090301	KRAUSE, P E & F W	I	1210GLL	139	16	3171
18S 35W 31DDD 01	382625101131101	HRC FEEDYARD	I	1210GLL	142	16	3210
18S 36W 15DAD 01	382913101163001	WILKEN, D A	I	1210GLL	165	18	3235
18S 37W 01BBB 01	383130101215201	NUSS, M O	I	1210GLL	184	18	3315
18S 37W 21BBB 01	382852101250901	GIBSON, RUTH	I	1210GLL	195	16	3360
18S 37W 36ABB 01	382707101211901	HARVEY, LORENE	I	1210GLL	155	16	3301
18S 38W 02BCC 01	383109101293201	SHELL, PHILLIP	I	1210GLL	--	--	3414
18S 38W 08BBD 01	383029101324201	BJURSTRON, F H	I	1210GLL	--	16	3432
18S 38W 12BCC 01	383016101282601	SIMMONS, E L	I	1210GLL	202	--	3401
18S 38W 20ACC 02	382831101321702	REIMER, J A	I	1210GLL	169	16	3440
18S 38W 23BAB 01	382851101291601	KREY, W W	U	110ALVM	119	1	3340
18S 38W 31DBC 01	382633101332401	DURHAM, C F	I	1210GLL	148	16	3450
18S 38W 36DDD 01	382620101272901	KRENZEL, A	S	1210GLL	--	6	3374
19S 35W 01AAA 01	382618101074001	HOLLAWAY, R Y	I	1210GLL	134	16	3165
19S 35W 08BBB 01	382526101130201	GROFF, JUSTIN	I	1210GLL	138	18	3217
19S 36W 15BAA 01	382431101170201	PALKOWITSH, MIKE	I	1210GLL	112	16	3236
19S 37W 22AAB 01	382337101231301	KRENZEL, J W	I	1210GLL	138	12	3330
19S 38W 26CCB 01	382204101293301	DIERKS, CLAIR	I	1210GLL	--	--	3408
19S 38W 31CBC 01	382118101335801	NICKELSON, GEORGE	I	1210GLL	205	16	3463
20S 35W 15BBB 01	381920101104901	UNKNOWN	H,S	1210GLL	88	6	3129.2
20S 36W 14DAD 01	381844101152101	HARTMAN, ELMER	U	1210GLL	109	6	3225
20S 37W 29DCC 01	381643101254101	DIERKS, E H	I	1210GLL	147	16	3359
20S 38W 17CBD 01	381840101324401	COPELAND, RALPH	I	1210GLL	--	--	3442
20S 38W 33BBA 01	381635101313701	CALDWELL, E A	I	1210GLL	205	16	3424
WYANDOTTE COUNTY							
11S 24E 14BDA 01	390543094430601	KGS	U	110ALVM	53	2	754.4

GROUND-WATER LEVELS IN KANSAS, 1987

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PERIOD OF RECORD	WATER LEVELS (FEET BELOW LAND SURFACE)						LOCAL NUMBER
	HIGHEST	DATE	LOWEST	DATE	CURRENT	DATE	
WICHITA COUNTY -- CONTINUED							
1968-	99.9	02/20/69	171.20	01/19/83	151.60	01/08/87	16S 36W 21CCC 01
1956-	90.00	01/03/56	158.55	01/08/85	156.04	10/02/86	16S 36W 30CBC 01
					154.45	01/05/87	
1985-	137.77	03/19/85	138.27	01/06/86	137.90	01/05/87	16S 36W 34CCC 02
1964-	105.45	03/16/66	135.10	01/20/87	135.10	01/20/87	16S 36W 36CBC 01
1966-	101.00	01/20/66	145.90	01/05/87	145.90	01/05/87	16S 37W 17BBB 01
1985-	154.39	01/07/85	157.91	10/02/86	157.91	10/02/86	16S 37W 30BAB 01
					155.30	01/05/87	
					155.51	04/27/87	
1951-	77.56	03/29/51	153.26	10/06/83	146.40	01/05/87	16S 38W 10ABB 01
1961-	87.44	04/12/61	145.93	01/19/82	141.15	01/05/87	16S 38W 26BBB 01
1970-	125.74	01/24/70	153.25	01/05/87	153.25	01/05/87	17S 35W 02BBB 01
1965-	110.00	01/19/66	136.38	01/18/82	135.16	01/08/87	17S 35W 15CDC 01
1951-	96.94	05/04/51	146.00	01/05/87	146.00	01/05/87	17S 35W 18ACB 01
1955-	91.00	01/01/55	149.46	01/18/82	144.50	01/05/87	17S 35W 27CCC 01
1951-	94.12	04/19/51	178.63	10/07/83	164.53	10/03/86	17S 35W 30CBB 01
					163.60	01/05/87	
1971-	38.72	01/22/71	60.95	01/08/87	60.95	01/08/87	17S 36W 10CBB 01
1940-	89.00	07/25/47	162.46	01/10/84	156.83	01/08/87	17S 36W 23BCC 01
1951-	84.15	03/29/51	141.20	01/17/83	134.05	01/05/87	17S 37W 08BAA 01
1972-	87.60	01/19/72	110.75	01/05/87	110.75	01/05/87	17S 37W 13CDD 01
1964-	98.31	03/30/66	151.71	01/17/83	143.31	10/03/86	17S 37W 28CCC 01
					138.15	01/05/87	
					139.88	04/28/87	
1964-	90.00	11/10/64	130.67	04/28/87	129.50	01/05/87	17S 38W 21BBB 01
					130.67	04/28/87	
1951-	86.26	03/29/51	132.73	01/09/86	132.25	01/08/87	17S 38W 24ACC 01
1967-	111.76	01/16/68	144.85	01/07/85			17S 38W 28CCC 01
1970-	110.56	01/25/70	144.58	01/18/83	137.00	01/05/87	18S 35W 08BBC 02
1951-	79.74	04/11/51	119.55	10/07/82	115.75	01/05/87	18S 35W 14CDD 01
1972-	87.30	09/1/72	95.40	01/07/86			18S 35W 31DDD 01
1970-	71.73	01/19/71	88.79	01/08/85	88.30	01/05/87	18S 36W 15DAD 01
1965-	108.41	01/19/66	139.90	01/09/84	139.68	01/05/87	18S 37W 01BBB 01
1962-	98.26	02/20/62	170.96	10/07/82	162.19	10/03/86	18S 37W 21BBB 01
					158.05	01/05/87	
1967-	89.33	03/09/67	108.83	01/05/87	108.83	01/05/87	18S 37W 36ABB 01
1965-	108.35	01/18/65	160.89	01/09/84	151.40	01/05/87	18S 38W 02BCC 01
1970-	101.95	01/21/70	132.40	01/08/87	132.40	01/08/87	18S 38W 08BBB 01
1965-	116.53	01/28/65	164.67	01/09/84	160.02	01/08/87	18S 38W 12BCC 01
1951-	90.20	03/21/51	138.74	12/11/74	133.76	10/02/86	18S 38W 20ACC 02
					130.25	01/05/87	
					130.48	04/28/87	
1971-	25.65	01/05/87	53.54	01/09/84	25.65	01/05/87	18S 38W 23BAB 01
1948-	102.64	04/01/51	125.74	01/29/79	121.04	01/05/87	18S 38W 31DBC 01
1951-	77.90	01/25/67	84.09	01/05/87	84.09	01/05/87	18S 38W 36DDD 01
1967-	100.25	03/09/67	120.04	01/17/77	115.47	01/05/87	19S 35W 01AAA 01
1977-	92.15	02/01/78	97.05	01/19/82	96.94	01/05/87	19S 35W 08BBB 01
1969-	75.37	01/19/70	79.07	01/05/87	79.07	01/05/87	19S 36W 15BAA 01
1969-	100.40	01/05/87	112.36	01/17/77	100.40	01/05/87	19S 37W 22AAB 01
1969-	99.03	01/05/87	107.39	01/20/81	99.03	01/05/87	19S 38W 26CCB 01
1969-	135.00	03/10/69	141.67	01/20/81	139.22	01/05/87	19S 38W 31CBC 01
1981-	68.00	01/19/82	68.31	09/25/81	68.15	01/05/87	20S 35W 15BBB 01
1962-	93.83	01/19/71	100.88	01/17/77	99.27	01/05/87	20S 36W 14DAD 01
1970-	100.60	01/20/70	117.34	01/17/77	105.62	01/05/87	20S 37W 29DCC 01
1971-	137.54	01/21/74	147.28	01/17/77	141.22	01/05/87	20S 38W 17CBD 01
1963-	134.20	10/10/65	155.79	01/17/77	139.69	01/05/87	20S 38W 33BBA 01
WYANDOTTE COUNTY							
1967-	17.85	06/03/87	31.45	03/05/81	24.00	12/03/86	11S 24E 14BDA 01
					27.60	03/03/87	
					17.85	06/03/87	
					22.92	09/09/87	

GROUND-WATER LEVELS IN KANSAS 1987

DOUGLAS COUNTY

WELL 12S 20E 17CCB 01

SITE NUMBER 390006095132301

12-20E-17CCB. FRANK D. WALTERS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 50 FEET, DIAMETER 10 INCHES. MEASURING POINT, EAST SIDE OF HOLE IN TOP OF BOX, 1.5 FEET ABOVE LSD. MEASURING POINT CHANGED TO 2.5 FEET ABOVE LSD, AUGUST 24, 1977.

ALTITUDE OF LAND SURFACE 831. FEET

RECORDS AVAILABLE 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.39 FEET BELOW LAND SURFACE DATUM FEB 05, 1962.

LOWEST WATER LEVEL 26.33 FEET BELOW LAND SURFACE DATUM MAR 30, 1957.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1986	15.59	JAN 20, 1987	17.14	APR 05, 1987	15.48	JUL 25, 1987	16.93
10	15.47	25	17.20	10	15.54	28	17.16
15	15.43	31	17.25	15	15.40	30	17.33
20	15.55	FEB 05	17.34	20	15.21	AUG 05	17.80
22	15.57	10	17.39	21	15.27	10	18.07
25	15.64	15	17.49	25	15.28	15	18.23
31	15.67	20	17.60	30	15.33	20	18.40
NOV 05	15.60	23	17.55	MAY 05	15.39	25	18.55
10	15.42	25	17.56	10	14.93	31	18.70
15	15.34	28	17.53	15	15.19	SEP 05	18.83
20	15.18	MAR 02	17.11	20	15.39	10	18.95
21	15.10	05	16.90	JUN 22	16.01	15	19.05
DEC 22	16.46	10	16.84	25	15.90	20	19.16
25	16.44	15	16.81	30	16.03	22	19.22
31	16.62	19	16.42	JUL 05	15.93	25	19.26
JAN 05, 1987	16.74	20	16.27	10	16.20	30	19.37
10	16.87	25	15.75	15	16.40		
15	17.02	31	15.45	20	16.66		

FINNEY COUNTY

WELL 23S 34W 21DDC 01

SITE NUMBER 380201101030101

23-34W-21DDC. P. W. TURRENTINE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 300 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CONCRETE, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2961. FEET

RECORDS AVAILABLE 1958, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.3 FEET BELOW LAND SURFACE DATUM MAY 13, 1958.

LOWEST WATER LEVEL 183.54 FEET BELOW LAND SURFACE DATUM SEP 01, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	151.60	FEB 01, 1987	127.40	JUN 01, 1987	126.40	SEP 01, 1987	148.30
16	142.17	MAR 01	125.40	JUL 01	125.50		
JAN 01, 1987	128.56	APR 07	136.65	30	148.66 S		
02	129.79	MAY 01	136.65	AUG 01	149.70		

WELL 24S 33W 09CCD 01

SITE NUMBER 375832100571001

24-33W-9CCD. KGS-USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 210 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 1.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2865. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 47.53 FEET BELOW LAND SURFACE DATUM MAR 15, 1978.

LOWEST WATER LEVEL 129.40 FEET BELOW LAND SURFACE DATUM AUG 01, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	73.55	JAN 01, 1987	55.05	APR 01, 1987	50.56	JUL 01, 1987	62.43
16	65.41	22	53.69	MAY 01	63.20	02	62.43
NOV 01	61.22	FEB 01	53.14	07	72.31	AUG 01	86.07
DEC 01	57.40	MAR 01	51.74	JUN 01	59.00	SEP 01	93.60

GROUND-WATER LEVELS IN KANSAS 1987

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FINNEY COUNTY -- CONTINUED

WELL 24S 33W 09CCD 02

SITE NUMBER 375832100571002

24-33W-9CCD2. KGS - USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 55 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 1.25 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2865. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.40 FEET BELOW LAND SURFACE DATUM JULY 01, 1987.

LOWEST WATER LEVEL 37.77 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	16.50	JAN 01, 1987	15.07	APR 01, 1987	14.95	JUL 02, 1987	12.43
16	16.34	22	15.00	MAY 07	14.03	AUG 01	12.83
NOV 01	16.00	FEB 01	14.85	JUN 01	13.25	SEP 01	13.63
DEC 01	15.25	MAR 01	14.90	JUL 01	12.40		

WELL 24S 33W 09CCD 03

SITE NUMBER 375832100571003

24-33W-9CCD3. MRS. GERTRUDE E. WEBDELL. DRILLED, WATER-TABLE OBSERVATION WELL IN DAKOTA FORMATION. DEPTH 560 FEET, MEASURING POINT, TOP OF CASING, 1.6 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2865. FEET

RECORDS AVAILABLE 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 46.54 FEET BELOW LAND SURFACE DATUM JUN 03, 1980.

LOWEST WATER LEVEL 98.64 FEET BELOW LAND SURFACE DATUM SEP 01, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	86.50	JAN 01, 1987	65.75	APR 01, 1987	57.17	JUL 01, 1987	62.94
16	82.72	22	63.48	MAY 01	56.97	02	62.63
NOV 01	79.60	FEB 01	64.02	07	59.27	AUG 01	66.15
DEC 01	71.32	MAR 01	59.54	JUN 01	64.45	SEP 01	71.95

GRANT COUNTY

WELL 27S 38W 32BCC 01

SITE NUMBER 373924101302501

27-38W-32BCC. G. M. COFFEY. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 258 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, SOUTH, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3131. FEET

RECORDS AVAILABLE 1940, 1958 - 1985.

HIGHEST WATER LEVEL 49.66 FEET BELOW LAND SURFACE DATUM NOV 29, 1940.

LOWEST WATER LEVEL 165.50 FEET BELOW LAND SURFACE DATUM MAR 01, 1987.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	163.90	JAN 01, 1987	164.10	MAY 01, 1987	164.15	AUG 01, 1987	164.70
15	164.05	FEB 01	163.95	JUN 01	164.55	SEP 01	165.40
NOV 01	164.20	MAR 01	165.50	JUL 01	164.50		
DEC 01	164.30	APR 01	164.20	28	164.66		

GROUND-WATER LEVELS IN KANSAS 1987

HARVEY COUNTY

WELL 24S 02W 16BAA 01

SITE NUMBER 375810097324301

24-2W-16BAA. (886) F. H. HAIBER. DRILLED, UNUSED, WATER-TABLE WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 57 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.8 FOOT ABOVE LSD. MEASURED BY CITY OF WICHITA.

ALTITUDE OF LAND SURFACE 1402.23 FEET

RECORDS AVAILABLE 1939 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.34 FEET BELOW LAND SURFACE DATUM AUG 21, 1939.

LOWEST WATER LEVEL - 32.11 FEET BELOW LAND SURFACE DATUM OCT 01, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	30.42	JAN 01, 1987	27.03	APR 01, 1987	26.31	JUL 01, 1987	29.51
20	29.94	20	27.37	21	27.17	21	28.83
NOV 20	28.74	FEB 20	27.29	MAY 20	28.75	AUG 24	28.77
DEC 17	27.03	MAR 20	26.31	JUN 19	29.51	SEP 18	29.05

WELL 24S 02W 28DDD 01

SITE NUMBER 375540097320901

24-2W-28DDD. (M-49) CITY OF WICHITA. DRILLED, WATER-TABLE PUBLIC-SUPPLY WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 249 FEET, DIAMETER 18 INCHES. MEASURING POINT, TOP OF CASING, 2.0 FEET ABOVE LSD. MEASURED BY CITY OF WICHITA.

ALTITUDE OF LAND SURFACE 1403. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 22.48 FEET BELOW LAND SURFACE DATUM JUN 02, 1975.

LOWEST WATER LEVEL 74.28 FEET BELOW LAND SURFACE DATUM NOV 01, 1986.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	36.02	JAN 14, 1987	27.88	MAY 01, 1987	33.64	SEP 01, 1987	34.90
NOV 01	74.28	FEB 01	31.30	JUN 01	36.20		
DEC 01	33.34	MAR 01	33.09	JUL 01	35.60		
JAN 01, 1987	30.33	APR 01	33.70	AUG 01	32.50		

POTTAWATOMIE COUNTY

WELL 09S 11E 34CAB 01

SITE NUMBER 391325096104401

9-11E-34CAB. KP+L. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIAL DEPOSITS. DEPTH 66 FEET, DIAMETER 8 INCHES. MEASURING POINT, TO OF CASING, 1.1 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 961. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.14 FEET BELOW LAND SURFACE DATUM JUN 01, 1987.

LOWEST WATER LEVEL 27.07 FEET BELOW LAND SURFACE DATUM MAY 01, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	14.50	JAN 01, 1987	14.67	APR 01, 1987	14.60	AUG 01, 1987	15.98
NOV 01	13.20	FEB 01	15.25	MAY 01	13.70	SEP 01	16.25
DEC 01	13.88	04	15.80	JUN 01	12.14	04	16.28
08	14.10	MAR 01	15.90	JUL 01	14.42		

GROUND-WATER LEVELS IN KANSAS 1987

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POTTAWATOMIE COUNTY -- CONTINUED

WELL 10S 11E 01CBC 01

SITE NUMBER 391226096084501

10-11E-1CBC. POTTAWATOMIE TOWNSHIP. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 81 FEET, DIAMETER 8 INCHES. MEASURING POINT, TOP OF CASING, 1.1 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 953. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.40 FEET BELOW LAND SURFACE DATUM JUN 01, 1987.

LOWEST WATER LEVEL 25.56 FEET BELOW LAND SURFACE DATUM MAY 01, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	18.66	JAN 01, 1987	17.85	APR 01, 1987	17.80	AUG 01, 1987	18.90
NOV 01	17.00	FEB 01	18.30	MAY 01	16.31	SEP 01	19.10
DEC 01	17.35	04	18.73	JUN 01	15.40	04	19.15
08	17.55	MAR 01	18.75	JUL 01	17.40		

SCOTT COUNTY

WELL 19S 32W 06CCB 01

SITE NUMBER 382539100541601

19-32W-6CCB. B. G. WITHAM. DRILLED, WATER-TABLE OBSERVATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH 115 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF PLATFORM, 2.65 FEET ABOVE LSD. MP CHANGED TO TOP OF WELL CASING, 1.42 FEET ABOVE LSD, NOVEMBER 7, 1972.

ALTITUDE OF LAND SURFACE 2937. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.56 FEET BELOW LAND SURFACE DATUM JUN 10, 1973.

LOWEST WATER LEVEL 72.58 FEET BELOW LAND SURFACE DATUM DEC 01, 1986.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	72.45	JAN 01, 1987	72.18	APR 01, 1987	71.13	JUL 01, 1987	71.00
03	72.48	05	71.97	28	70.71	24	71.46
NOV 01	72.58	FEB 01	71.75	MAY 01	70.60	AUG 01	71.60
DEC 01	72.58	MAR 01	71.40	JUN 01	70.70	SEP 01	72.14

WELL 20S 33W 09BBB 01

SITE NUMBER 382013100583901

20-33W-9BBB. R. K. PETRO. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 128 FEET, DIAMETER 24 INCHES. MEASURING POINT, TOP OF CONCRETE BASE, 0.1 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2973. FEET

RECORDS AVAILABLE 1931 TO CURRENT YEAR.

HIGHEST WATER LEVEL 55.92 FEET BELOW LAND SURFACE DATUM JUN 05, 1932.

LOWEST WATER LEVEL 100.97 FEET BELOW LAND SURFACE DATUM SEP 01, 1987.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	100.52	JAN 01, 1987	100.65	APR 01, 1987	100.71	JUL 24, 1987	100.91
03	100.52 R	05	100.61	MAY 01	100.80	AUG 01	100.94
NOV 01	100.55	FEB 01	100.62	JUN 01	100.84	SEP 01	100.97
DEC 01	100.57	MAR 01	100.65	JUL 01	100.90		

GROUND-WATER LEVELS IN KANSAS 1987

SEDGWICK COUNTY

WELL 25S 01W 260BD 01

SITE NUMBER 375039097234201

25-1W-260BD. (12) DR. A. D. UPDEGRAPH. DRILLED, UNUSED WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 54 FEET, DIAMETER 24 INCHES. MEASURING POINT, STEEL PLATE ON INSTRUMENT SHELF, 2.99 FEET ABOVE LSD. MP CHANGED TO TOP OF CASING, AT LAND SURFACE, MAY 1967.

ALTITUDE OF LAND SURFACE 1351.96 FEET

RECORDS AVAILABLE 1937 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.05 FEET BELOW LAND SURFACE DATUM JUL 25, 1951.

LOWEST WATER LEVEL 22.60 FEET BELOW LAND SURFACE DATUM NOV 22, 1952.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1986	17.75	JAN 20, 1987	18.50	APR 21, 1987	16.60	JUL 12, 1987	16.50
NOV 20	18.08	FEB 20	18.58	MAY 20	18.03	AUG 24	17.19
DEC 17	18.30	MAR 20	18.19	JUN 19	16.55	SEP 18	16.55

WELL 26S 01W 19ABA 01

SITE NUMBER 374659097280201

26-1W-19ABA. (805) CITY OF WICHITA. DRIVEN, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 38 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1351.7 FEET

RECORDS AVAILABLE 1938 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.57 FEET BELOW LAND SURFACE DATUM APR 01, 1980.

LOWEST WATER LEVEL 9.89 FEET BELOW LAND SURFACE DATUM SEP 30, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	6.30	JAN 01, 1987	5.95	APR 01, 1987	3.47	JUL 01, 1987	3.96
DEC 11	5.83	MAR 13	5.06	JUN 12	4.10	SEP 11	5.43

SHAWNEE COUNTY

WELL 11S 15E 16DCA 01

SITE NUMBER 390519095445301

11-15E-16DCA. (16C) KSBA. DRILLED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 38 FEET, DIAMETER 18 INCHES. MEASURING POINT, TOP OF CASING, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 899.3 FEET

RECORDS AVAILABLE 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.93 FEET BELOW LAND SURFACE DATUM JUL 15, 1951.

LOWEST WATER LEVEL 34.68 FEET BELOW LAND SURFACE DATUM SEP 15, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	25.05	JAN 01, 1987	25.50	APR 01, 1987	22.30	AUG 01, 1987	24.20
NOV 01	24.20	FEB 01	25.82	MAY 01	22.03	SEP 01	24.27
DEC 01	24.87	MAR 01	25.94	JUN 01	22.89	04	24.27
08	25.10	04	25.90	JUL 01	23.35		

GROUND-WATER LEVELS IN KANSAS 1987

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THOMAS COUNTY

WELL 08S 34W 01BAC 01

SITE NUMBER 392329101040201

8-34W-1BAC. KS. AGRICULTURAL EXPERIMENT STATION. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 160 FEET. MEASURING POINT, TOP OF HOLE IN CONCRETE WELL COVER, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3177. FEET

RECORDS AVAILABLE 1947 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.31 FEET BELOW LAND SURFACE DATUM MAY 20, 1954.

LOWEST WATER LEVEL 128.87 FEET BELOW LAND SURFACE DATUM SEP 06, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1986	127.07	JAN 06, 1987	126.48	APR 20, 1987	126.23	JUL 20, 1987	126.73
NOV 20	126.74	21	126.00	MAY 20	126.22	AUG 24	127.80
DEC 29	126.53	FEB 23	126.18	JUN 19	126.95	SEP 21	127.65

WICHITA COUNTY

WELL 17S 36W 33BCB 01

SITE NUMBER 383210101183401

17-36W-33BCB. EUGENE BERNING. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 187 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3286. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.35 FEET BELOW LAND SURFACE DATUM MAR 30, 1966.

LOWEST WATER LEVEL 157.74 FEET BELOW LAND SURFACE DATUM JAN 10, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1986	147.60	JAN 01, 1987	145.90	APR 01, 1987	146.10	JUL 01, 1987	151.30
03	147.31	05	145.95	28	146.09	24	150.56
NOV 01	147.30	FEB 01	145.20	MAY 01	145.70	AUG 01	151.00
DEC 01	146.50	MAR 01	145.50	JUN 01	149.00	SEP 01	148.75

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

ATCHISON COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
06S 18E 22BCD 01	393056095235201		250.00	112NBRK	06-01-87	1010	7.29	15.5	220	0
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
06S 18E 22BCD 01	55	20	160	61	5	8.1	353	35	40	130
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	
06S 18E 22BCD 01	0.38	32	670	0.600	<0.010	0.100	5	90	1	
LOCAL IDENT- I- FIER	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	
06S 18E 22BCD 01	<10	30	40	15	120	<0.5	14	2	20	

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

BARBER COUNTY

LOCAL IDENTIFIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEOLOGIC UNIT	DATE	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS NONCARBONATE (MG/L AS CaCO3)	
32S 10W 218BA 02 33S 11W 33ABB 01	371507098250502 370811098310901	43.00 29.00		07-20-87 07-21-87	1060 2310	7.47 7.03	17.5 22.5	350 660	99 330	
LOCAL IDENTIFIER	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)
32S 10W 218BA 02 33S 11W 33ABB 01	91 170	29 55	80 180	33 34	2 3	1.9 65	246 328	16 59	130 200	82 330
LOCAL IDENTIFIER	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR TOTAL RECOVER (UG/L)
32S 10W 218BA 02 33S 11W 33ABB 01	0.43 0.27	18 27	580 1200	<0.010 <0.010	2.30 33.7	<0.010 1.30	60 50	20 20	1.3 --	<0.25 --
LOCAL IDENTIFIER	ALDRIN, TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON TETRACHLORIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	1,2-TRANS DI CHLOROETHYLENE TOTAL (UG/L)
32S 10W 218BA 02 33S 11W 33ABB 01	<0.025 --	<1.2 --	<0.40 --	<1.5 --	<0.70 --	<0.40 --	<0.3 --	<0.70 --	<3.7 --	<0.50 --
LOCAL IDENTIFIER	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DACHTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	DI-BROMOMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)
32S 10W 218BA 02 33S 11W 33ABB 01	<0.50 --	<0.90 --	<0.05 --	<0.40 --	<1.0 --	<1.0 --	<1.0 --	<0.50 --	<0.50 --	<0.60 --

BARBER COUNTY--Continued

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QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

BARTON COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
19S 11W 31A 01	382132098343501		--		06-10-87	2100	7.71	16.0	640	370
20S 14W 27BCA 01	381708098513901		80.00	112PLSC	07-13-87	711	7.64	17.5	260	46

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
19S 11W 31A 01	200	35	220	42	4	6.7	276	11	540
20S 14W 27BCA 01	79	15	43	27	1	2.8	211	9.4	46

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
19S 11W 31A 01	180	0.34	15	1400	<0.010	1.18	0.040	70	10
20S 14W 27BCA 01	36	0.65	19	370	<0.010	7.40	<0.010	20	10

BROWN COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
01S 17E 07CBC 01	395833095334401		40.00	112ALVM	06-02-87	661	6.36	14.0	350	84
02S 17E 31DDC 01	394939095324601		50.00		06-02-87	456	6.59	15.0	260	22

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
01S 17E 07CBC 01	110	19	36	18	0.9	0.80	263	223	70
02S 17E 31DDC 01	75	18	24	17	0.7	1.0	239	120	22

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
01S 17E 07CBC 01	41	0.20	21	450	<0.010	5.20	0.020	60	<10
02S 17E 31DDC 01	5.6	0.30	22	310	<0.010	9.40	<0.010	50	20

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

BUTLER COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
24S 03E 17CAB 01	375742097074401		46.00	310PRMN	06-15-87	853	7.30	14.0	320	5
29S 03E 20BAB 01	373112097073501		--		06-10-87	1450	7.03	20.0	860	520
29S 07E 07DDA 01	373212096414901		240.00	319CHSE	06-17-87	640	7.38	19.5	270	0

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
24S 03E 17CAB 01	85	27	58	28	1	0.70	318	31	57	8.8
29S 03E 20BAB 01	240	61	61	13	0.9	0.90	338	62	500	58
29S 07E 07DDA 01	87	12	29	19	0.8	0.40	297	24	11	6.3

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
24S 03E 17CAB 01	0.50	15	450	<0.010	20.1	<0.010	80	30	--	--
29S 03E 20BAB 01	0.52	14	1100	<0.010	2.90	<0.010	210	30	--	--
29S 07E 07DDA 01	0.20	16	340	<0.010	1.69	0.120	80	20	0.2	<0.25

LOCAL IDENT- I- FIER	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	1,2- TRANSDI- CHLORO- ETHYL- ENE TOTAL (UG/L)
24S 03E 17CAB 01	--	--	--	--	--	--	--	--	--	--
29S 03E 20BAB 01	--	--	--	--	--	--	--	--	--	--
29S 07E 07DDA 01	<0.025	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7	<0.50

LOCAL IDENT- I- FIER	CHLORO- FORM TOTAL (UG/L)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)
24S 03E 17CAB 01	--	--	--	--	--	--	--	--	--	--
29S 03E 20BAB 01	--	--	--	--	--	--	--	--	--	--
29S 07E 07DDA 01	<0.50	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50	<0.60

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

BUTLER COUNTY--Continued

LOCAL IDENT- I- FIER	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L)
24S 03E 17CAB 01	--	--	--	--	--	--	--	--	--	--
29S 03E 20BAB 01	--	--	--	--	--	--	--	--	--	--
29S 07E 07DDA 01	<0.60	<0.40	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2	<5.0
LOCAL IDENT- I- FIER	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
24S 03E 17CAB 01	--	--	--	--	--	--	--	--	--	--
29S 03E 20BAB 01	--	--	--	--	--	--	--	--	--	--
29S 07E 07DDA 01	<0.90	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20	<0.20
LOCAL IDENT- I- FIER	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)	
24S 03E 17CAB 01	--	--	--	--	--	--	--	--	--	
29S 03E 20BAB 01	--	--	--	--	--	--	--	--	--	
29S 07E 07DDA 01	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80	

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

CHASE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
19S 07E 27CBC 01	382202096390401		50.00		06-09-87	1070	6.99	16.0	480	53
19S 08E 20AAA 01	382327096321801		57.00	112ALVM	06-25-87	1130	7.18	15.5	580	180
22S 08E 05CCA 01	380944096331101		55.00	319CCGV	06-18-87	999	7.01	14.0	470	91

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
19S 07E 27CBC 01	140	34	67	23	1	1.2	431	86	71	73
19S 08E 20AAA 01	170	37	24	8	0.5	1.8	405	52	170	41
22S 08E 05CCA 01	150	21	24	10	0.5	1.4	378	72	71	34

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
19S 07E 27CBC 01	0.35	17	660	0.050	0.110	0.290	--	--	--	--
19S 08E 20AAA 01	0.16	27	720	<0.010	0.070	0.630	--	--	--	--
22S 08E 05CCA 01	0.24	25	560	<0.010	3.87	0.360	1	220	<1	<10

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
19S 07E 27CBC 01	--	40	--	130	--	--	--	--	--	--
19S 08E 20AAA 01	--	2100	--	2700	--	--	--	--	--	--
22S 08E 05CCA 01	20	10	16	<10	<0.5	9	<1	<10	0.7	<0.25

LOCAL IDENT- I- FIER	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	1,2- TRANSDI CHLORO- ETHYL- ENE TOTAL (UG/L)
19S 07E 27CBC 01	--	--	--	--	--	--	--	--	--	--
19S 08E 20AAA 01	--	--	--	--	--	--	--	--	--	--
22S 08E 05CCA 01	<0.025	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7	<0.50

LOCAL IDENT- I- FIER	CHLORO- FORM TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)
19S 07E 27CBC 01	--	--	--	--	--	--	--	--	--	--
19S 08E 20AAA 01	--	--	--	--	--	--	--	--	--	--
22S 08E 05CCA 01	<0.50	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50	<0.60

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

CHASE COUNTY--Continued

LOCAL IDENT- I- FIER	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L)
19S 07E 27CBC 01	--	--	--	--	--	--	--	--	--	--
19S 08E 20AAA 01	--	--	--	--	--	--	--	--	--	--
22S 08E 05CCA 01	<0.60	<0.40	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2	<5.0

LOCAL IDENT- I- FIER	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
19S 07E 27CBC 01	--	--	--	--	--	--	--	--	--	--
19S 08E 20AAA 01	--	--	--	--	--	--	--	--	--	--
22S 08E 05CCA 01	<0.90	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20	<0.20

LOCAL IDENT- I- FIER	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)
19S 07E 27CBC 01	--	--	--	--	--	--	--	--	--
19S 08E 20AAA 01	--	--	--	--	--	--	--	--	--
22S 08E 05CCA 01	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

CHEROKEE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
32S 23E 06AD 01	371723094552501		--		06-08-87	1800	7.66	26.0	360	98
33S 23E 13ABB 01	371038094501701		--		06-09-87	1050	7.66	22.0	250	0
33S 25E 18DA 01	371007094423501		900.00		06-09-87	471	7.69	19.0	220	26
34S 24E 17DDC 01	370437094475501		40.00		06-09-87	1120	7.80	21.0	210	36
34S 24E 35DAB 01	370218094445301		--		06-09-87	631	7.70	19.0	240	84
34S 25E 23AAC 01	370421094381301		1189.00	367RBDX	06-09-87	459	7.77	19.0	200	58

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
32S 23E 06AD 01	83	38	210	55	5	11	264	11	120	270
33S 23E 13ABB 01	56	26	130	52	4	7.3	286	12	73	130
33S 25E 18DA 01	51	22	17	14	0.5	3.5	192	7.9	52	3.0
34S 24E 17DDC 01	48	22	130	56	4	6.2	174	5.3	43	200
34S 24E 35DAB 01	57	24	35	24	1	3.0	157	6.0	87	48
34S 25E 23AAC 01	52	18	13	12	0.4	1.6	146	4.9	64	9.1

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
32S 23E 06AD 01	1.3	7.5	900	0.100	<0.010	<0.010	--	--	--	--
33S 23E 13ABB 01	1.5	6.5	610	<0.010	<0.010	<0.100	--	--	--	--
33S 25E 18DA 01	0.64	5.9	270	<0.010	<0.010	<0.010	3	100	<1	<10
34S 24E 17DDC 01	0.90	6.2	560	<0.010	<0.010	<0.010	--	--	--	--
34S 24E 35DAB 01	0.25	6.7	350	<0.010	<0.010	<0.010	--	--	--	--
34S 25E 23AAC 01	0.21	6.2	250	<0.010	<0.010	<0.010	4	70	<1	<10

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDE TOTAL (PCI/L)
32S 23E 06AD 01	--	20	--	20	--	--	--	--	--	--
33S 23E 13ABB 01	--	110	--	<10	--	--	--	--	--	--
33S 25E 18DA 01	<10	70	<1	<10	<0.5	11	2	<10	6.3	1.3
34S 24E 17DDC 01	--	30	--	30	--	--	--	--	4.4	2.5
34S 24E 35DAB 01	--	90	--	30	--	--	--	--	--	--
34S 25E 23AAC 01	<10	70	<1	<10	<0.5	8	5	130	6.3	1.9

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

CHEYENNE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
05S 38W 22ACB 01	393625101342401		270.00	1210GLL	07-22-87	454	7.77	16.0	150	0
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
05S 38W 22ACB 01	36	16	31	29	1	6.7	168	5.5	35	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
05S 38W 22ACB 01	8.5	1.6	60	290	<0.010	4.20	<0.010	<10	<10	

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

CLARK COUNTY

[illegible]

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CLARK COUNTY--Continued

[illegible]

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

CLAY COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
06S 01E 02BAC 01	3933540971	72401	65.00		06-23-87	860	7.08	14.5	340	130
07S 02E 03COC 01	3928020971	115601	--		06-24-87	1060	7.45	14.5	510	190
07S 04E 20ADC 01	3925490965	95701	170.00	317BRNS	06-24-87	1180	7.23	14.0	520	180
08S 02E 11ADB 01	3922300971	101401	52.00	112ALVM	06-24-87	1690	7.28	17.0	820	450
10S 01E 17DCC 01	3910390972	203401	110.00	211DKOT	06-24-87	167	6.73	14.5	50	1

LOCAL IDENTIFIER				CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM DIS-SOLVED (MG/L AS MG)	SODIUM DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD (MG/L AS CAC03)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE DIS-SOLVED (MG/L AS CL)
06S	01E	02BAC	01	110	17	37	19	0.9	6.9	206	34	130	42
07S	02E	03CDC	01	160	26	25	9	0.5	14	322	22	220	9.0
07S	04E	20ADC	01	110	58	48	17	0.9	2.0	343	39	120	63
08S	02E	11ADB	01	290	27	30	7	0.5	19	373	38	280	53
10S	01E	17DCC	01	15	3.0	7.0	23	0.4	0.80	39	14	23	2.7

LOCAL IDENT- IFIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
06S 01E 02BAC 01	0.20	31	500	<0.010	0.270	0.100	4	100	<1	<10
07S 02E 03CDC 01	0.30	32	680	<0.010	<0.010	0.190	--	--	--	--
07S 04E 20ADC 01	0.37	18	630	<0.010	15.1	<0.010	--	--	--	--
08S 02E 11ADB 01	0.30	24	940	0.060	32.8	0.120	--	--	--	--
10S 01E 17DCC 01	0.15	16	92	<0.010	0.810	<0.010	--	--	--	--

LOCAL IDENTIFIER				COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR TOTAL RECOVER (UG/L)
06S	01E	02BAC	01	20	350	<1	120	<0.5	<1	<1	20	0.9	<0.25
07S	02E	03CDC	01	--	570	--	430	--	--	--	--	--	--
07S	04E	20ADC	01	--	20	--	<10	--	--	--	--	--	--
08S	02E	11ADB	01	--	10	--	60	--	--	--	--	--	--
10S	01E	17DCC	01	--	60	--	<10	--	--	--	--	--	--

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CLAY COUNTY--Continued

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QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

CLOUD COUNTY

LOCAL IDENTIFIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS NONCARBONATE (MG/L AS CaCO3)
05S 01W 26ABD 01	393538097233201		158.00	211DKOT	06-23-87	635	7.17	14.5	260	0
05S 03W 32ADA 02	393439097401402		58.00		06-23-87	1130	7.23	14.0	430	49
08S 01W 17DBC 01	392116097270601		100.00		06-23-87	747	6.90	14.5	260	90
08S 05W 14ACD 01	392128097503001		41.00	112TRRC	06-23-87	1220	7.32	14.0	460	79

LOCAL IDENT- IFIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
05S 01W 26ABD 01	86	10	34	22	1	2.8	262	35	40	15
05S 03W 32ADA 02	140	20	59	22	1	12	386	45	92	62
08S 01W 17DBC 01	76	16	44	26	1	4.2	169	42	86	37
08S 05W 14ACD 01	150	18	80	27	2	4.4	381	36	72	110

LOCAL IDENTIFIER	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, AMMONIA, DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3, DIS-SOLVED (MG/L AS N)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)
05S 01W 26ABD 01	0.33	25	370	<0.010	0.090	<0.010	--	--	--	--
05S 03W 32ADA 02	0.40	32	650	<0.010	1.00	0.060	4	120	<1	<10
08S 01W 17DBC 01	0.24	20	390	<0.010	18.1	0.020	3	140	<1	<10
08S 05W 14ACD 01	0.29	29	700	<0.010	3.83	0.230	--	--	--	--

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
05S 01W 26ABD 01	--	140	--	360	--	--	--	--	<0.1	<0.25
05S 03W 32ADA 02	30	130	<1	590	1.5	<1	<1	<10	3.2	<0.25
08S 01W 17DBC 01	20	<10	<1	320	<0.5	<1	<1	10	--	--
08S 05W 14ACD 01	--	80	--	<10	--	--	--	--	--	--

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CLOUD COUNTY--Continued

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QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

COMANCHE COUNTY

LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	HARDNESS AS CA(CO3)	HARDNESS NONCARBONATE AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM DIS-SOLVED (MG/L AS MG)	
32S 18W 07DCC 01 33S 20W 03BAB 01	371558099190101 371219099290201		06-25-87 06-25-87	260 679	16.5 16.5	110 280	1 50	38 79	4.4 21	
LOCAL IDENTIFIER	SODIUM DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE DIS-SOLVED (MG/L AS CL)	FLUORIDE DIS-SOLVED (MG/L AS F)	SILICA DIS-SOLVED (MG/L AS SI02)	SOLIDS SUM OF CONSTITUENTS DIS-SOLVED (MG/L)
32S 18W 07DCC 01 33S 20W 03BAB 01	7.7 32	13 20	0.3 0.9	1.9 3.2	112 234	<10 90	3.1 20	0.32 0.59	22 23	160 410
LOCAL IDENTIFIER	NITROGEN AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM DIS-SOLVED (UG/L AS CR)	COPPER DIS-SOLVED (UG/L AS CU)	IRON DIS-SOLVED (UG/L AS FE)	LEAD DIS-SOLVED (UG/L AS PB)
32S 18W 07DCC 01 33S 20W 03BAB 01	<0.010 <0.010	2.80 0.100	<0.010 0.090	6 --	230 --	1 --	<10 --	10 --	50 180	<1 --
LOCAL IDENTIFIER	MANGANESE DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELENIUM DIS-SOLVED (UG/L AS SE)	SILVER DIS-SOLVED (UG/L AS AG)	ZINC DIS-SOLVED (UG/L AS ZN)	CARBON ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR TOTAL RECOVER (UG/L)	ALDRIN TOTAL (UG/L)	ATRAZINE TOTAL (UG/L)	BENZENE TOTAL (UG/L)
32S 18W 07DCC 01 33S 20W 03BAB 01	<10 140	<0.5 --	2 --	<1 --	20 --	0.1 --	<0.25 --	<0.025 --	<1.2 --	<0.40 --
LOCAL IDENTIFIER	BROMOFORM TOTAL (UG/L)	CARBON TETRACHLORIDE TOTAL (UG/L)	CHLORO BENZENE TOTAL (UG/L)	CHLORDANE TOTAL (UG/L)	CHLOROBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	1,2-TRANS DI CHLORO ETHYLENE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DI CHLORO PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)
32S 18W 07DCC 01 33S 20W 03BAB 01	<1.5 --	<0.70 --	<0.40 --	<0.3 --	<0.70 --	<3.7 --	<0.50 --	<0.50 --	<0.90 --	<0.05 --
LOCAL IDENTIFIER	2,4-D TOTAL (UG/L)	1,2-DI CHLORO BENZENE TOTAL (UG/L)	1,3-DI CHLORO BENZENE TOTAL (UG/L)	1,4-DI CHLORO BENZENE TOTAL (UG/L)	DI CHLORO BROMO METHANE TOTAL (UG/L)	1,1-DI CHLORO ETHANE TOTAL (UG/L)	1,2-DI CHLORO ETHANE TOTAL (UG/L)	1,1-DI CHLORO ETHYL ENE TOTAL (UG/L)	1,2-DI CHLORO PROPANE TOTAL (UG/L)	
32S 18W 07DCC 01 33S 20W 03BAB 01	<0.40 --	<1.0 --	<1.0 --	<1.0 --	<0.50 --	<0.50 --	<0.60 --	<0.60 --	<0.40 --	

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COMANCHE COUNTY--Continued

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QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

COWLEY COUNTY.

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
32S 03E 258BC 01	3714330970	32901	113.00	310NLS	07-06-87	920	7.63	16.5	310	0
34S 03E 268DA 01	3703390970	40501	36.00	112TRRC	06-16-87	646	7.30	16.0	210	13
34S 04E 35C0C 01	3702330965	73901	190.00		06-16-87	726	7.13	27.0	380	42

LOCAL IDENTIFIER	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM DIS-SOLVED (MG/L AS MG)	SODIUM DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE DIS-SOLVED (MG/L AS CL)
32S 03E 25BBC 01	75	30	63	30	2	1.8	312	14	69	25
34S 03E 26BDA 01	61	13	64	40	2	4.1	193	19	41	82
34S 04E 35CDC 01	130	17	15	8	0.3	2.2	342	50	50	14

LOCAL IDENT- IFIER	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHROMIUM, DIS- SOLVED (UG/L AS CR)
32S 03E 258BC 01	0.30	20	470	<0.010	6.80	<0.010	--	--	--	--
34S 03E 268DA 01	0.33	11	390	0.020	0.380	0.080	<1	120	<1	<10
34S 04E 35C0C 01	0.24	21	450	<0.010	1.36	0.060	--	--	--	--

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
32S 03E 258BC 01	--	30	--	<10	--	--	--	--	--	--
34S 03E 268DA 01	10	30	5	1400	<0.5	2	1	<10	1.6	<0.25
34S 04E 35CDC 01	--	30	--	10	--	--	--	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

COWLEY COUNTY--Continued

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QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

CRAWFORD COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
29S 23E 24ACD 01	373026094501801		1187.00	367BBDX	06-08-87	1260	7.44	24.0	330	60
29S 25E 01ACB 01	373308094372001		--		06-08-87	1120	7.54	21.0	220	0
30S 25E 28DDA 01	372356094400901		1050.00	367RBDX	06-08-87	968	7.33	21.0	280	12

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
29S 23E 24ACD 01	76	33	110	42	3	6.5	268	19	92	150
29S 25E 01ACB 01	51	23	130	56	4	5.3	285	16	40	140
30S 25E 28DDA 01	66	28	83	39	2	5.0	266	24	64	95

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
29S 23E 24ACD 01	0.79	7.8	640	0.150	<0.010	<0.010	--	--	--	--
29S 25E 01ACB 01	0.79	7.8	580	0.130	<0.010	<0.010	--	--	--	--
30S 25E 28DDA 01	0.67	7.4	510	0.120	<0.010	<0.010	3	230	<1	<10

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDE TOTAL (PCI/L)
29S 23E 24ACD 01	--	310	--	<10	--	--	--	--	--	--
29S 25E 01ACB 01	--	90	--	<10	--	--	--	--	--	--
30S 25E 28DDA 01	<10	50	<1	10	<0.5	10	7	<10	4.3	3.6

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DECATUR COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
04S 27W 17DAC 01	394208100221101		165.00	1210GLL	07-23-87	412	7.33	15.5	190	0
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
04S 27W 17DAC 01	55	13	12	12	0.4	6.9	195	18	<10	5.6
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
04S 27W 17DAC 01	0.75	59	280	<0.010	1.90	<0.010	2	160	<1	<10
LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
04S 27W 17DAC 01	<10	50	4	<10	<0.5	1	<1	<10	0.1	<0.25
LOCAL IDENT- I- FIER	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	1,2- TRANS DI- CHLORO- ETHYL- ENE TOTAL (UG/L)
04S 27W 17DAC 01	<0.025	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7	<0.50
LOCAL IDENT- I- FIER	CHLORO- FORM TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)
04S 27W 17DAC 01	<0.50	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50	<0.60

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DECATUR COUNTY--Continued

LOCAL IDENT- I- FIER	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L)
34S 27W 17DAC 01	<0.60	<0.40	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2	<5.0
LOCAL IDENT- I- FIER	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
04S 27W 17DAC 01	<0.90	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20	<0.20
LOCAL IDENT- I- FIER	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	APHENE, TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)	
04S 27W 17DAC 01	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80	

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DICKINSON COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
12S 04E 30DDD 01	385825097011101	--	--		06-18-87	974	6.80	15.0	500	160
13S 01E 18DCA 02	385500097213002	45.00	110ALVM		06-22-87	1480	7.21	18.0	630	390
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
12S 04E 30DDD 01	130	41	22	9	0.4	3.6	337	105	130	32
13S 01E 18DCA 02	190	37	52	15	0.9	3.1	249	30	300	63
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
12S 04E 30DDD 01	0.24	28	590	<0.010	4.65	0.130	--	--	--	30
13S 01E 18DCA 02	0.23	28	830	<0.010	5.65	0.070	20	<10	20	20
LOCAL IDENT- I- FIER	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)
12S 04E 30DDD 01	<10	--	--	--	--	--	--	--	--	--
13S 01E 18DCA 02	<10	12	<1	20	0.2	<0.25	<0.025	<1.2	<0.40	1.5
LOCAL IDENT- I- FIER	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	1,2- TRANS DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	CHLORO- FORM TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	
12S 04E 30DDD 01	--	--	--	--	--	--	--	--	--	
13S 01E 18DCA 02	<0.70	<0.40	<0.3	4.2	<3.7	<0.50	1.9	<0.90	<0.05	
LOCAL IDENT- I- FIER	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	
12S 04E 30DDD 01	--	--	--	--	--	--	--	--	--	
13S 01E 18DCA 02	<0.40	<1.0	<1.0	<1.0	3.0	<0.50	<0.60	<0.60	<0.40	

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DICKINSON COUNTY--Continued

LOCAL IDENT- I- FIER	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
12S 04E 30DDD 01	--	--	--	--	--	--	--	--	--
13S 01E 18DCA 02	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2	<5.0	<0.90
LOCAL IDENT- I- FIER	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
12S 04E 30DDD 01	--	--	--	--	--	--	--	--	--
13S 01E 18DCA 02	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20	<0.20
LOCAL IDENT- I- FIER	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)
12S 04E 30DDD 01	--	--	--	--	--	--	--	--	--
13S 01E 18DCA 02	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DONIPHAN COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
02S 19E 27CBC 01	395042095170401		72.00	112DRFT	06-02-87	406	6.58	14.5	220	61
03S 21E 06BCC 01	394912095065101		97.00	112KGFV	06-03-87	640	7.05	18.0	360	32
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
02S 19E 27CBC 01	68	13	13	11	0.4	1.0	162	83	30	
03S 21E 06BCC 01	88	35	6.6	4	0.2	4.9	332	57	32	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
02S 19E 27CBC 01	6.7	0.38	21	250	<0.010	31.4	0.050	30	20	
03S 21E 06BCC 01	2.0	0.51	19	390	<0.010	1.50	0.080	<10	20	

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DOUGLAS COUNTY

LOCAL IDENT- IFIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
11S 18E 34BDA 02	390308095240402	41.00	110ALVM	05-26-87	715	7.03	17.5	440	32
12S 20E 19AAA 01	385953095133101	60.00	112ALVM	05-22-87	821	6.90	15.5	450	93
13S 21E 06AAB 01	385716095065101	--	110ALVM	05-26-87	708	7.46	14.0	420	39
14S 19E 21BBB 01	384928095185601	126.00		05-22-87	650	7.36	15.0	350	24
14S 20E 18ABB 01	385020095135401	23.00	322DGLS	05-22-87	483	7.20	14.5	330	77

LOCAL IDENT- IFIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
11S 18E 34BDA 02	140	22	9.0	4	0.2	5.3	404	73	51	3.0
12S 20E 19AAA 01	150	18	20	9	0.4	7.1	354	86	53	53
13S 21E 06AAB 01	140	15	5.9	3	0.1	5.9	377	25	60	6.0
14S 19E 21BBB 01	76	40	25	13	0.6	1.6	331	28	63	2.0
14S 20E 18ABB 01	100	18	45	23	1	6.2	248	30	110	69

LOCAL IDENT- IFIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
11S 18E 34BDA 02	0.30	29	500	<0.010	0.600	<0.010	--	--	--	--
12S 20E 19AAA 01	0.35	28	540	<0.010	1.10	0.040	4	530	2	<10
13S 21E 06AAB 01	0.25	33	510	<0.010	0.100	0.330	--	--	--	--
14S 19E 21BBB 01	0.24	11	420	<0.010	0.100	<0.010	--	--	--	--
14S 20E 18ABB 01	0.21	10	510	<0.010	1.00	0.170	--	--	--	--

LOCAL IDENT- IFIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
11S 18E 34BDA 02	--	1000	--	550	--	--	--	--	--	--
12S 20E 19AAA 01	<10	50	<1	150	0.5	4	12	10	1.1	<0.25
13S 21E 06AAB 01	--	15000	--	490	--	--	--	--	--	--
14S 19E 21BBB 01	--	40	--	20	--	--	--	--	--	--
14S 20E 18ABB 01	--	30	--	290	--	--	--	--	--	--

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DOUGLAS COUNTY--Continued

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QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

EDWARDS COUNTY

LOCAL IDENT- IFIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (HG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
24S 18W 25BDC 01	375604099151201	51.00		07-13-87	470	7.67	19.0	200	27
25S 19W 01AC 01	375424099212601	--		07-07-87	315	7.80	16.0	150	39
25S 20W 07CAA 01	375324099333801	125.00	112PLSC	07-07-87	644	7.66	16.0	260	63

LOCAL IDENT- IFIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT- Y WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
24S 18W 25BDC 01	66	8.5	23	19	0.7	2.6	174	7.2	27	9.7
25S 19W 01AC 01	51	5.8	7.5	10	0.3	1.4	114	3.5	30	5.1
25S 20W 07CAA 01	80	14	38	24	1	5.2	194	8.2	52	56

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
24S 18W 25BDC 01	0.48	24	270	<0.010	6.30	<0.010	--	--	--	--
25S 19W 01AC 01	0.29	21	190	<0.010	2.40	0.040	<1	310	1	<10
25S 20W 07CAA 01	0.88	51	410	<0.010	1.40	<0.010	--	--	--	--

LOCAL IDENT- IFIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
24S 18W 25BDC 01	--	30	--	10	--	--	--	--	--	--
25S 19W 01AC 01	<10	30	8	<10	<0.5	2	7	<10	<0.1	<0.25
25S 20W 07CAA 01	--	60	--	20	--	--	--	--	--	--

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EDWARDS COUNTY--Continued

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QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

ELLIS COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
14S 18W 03CCD 01	385128099185601		412.00		07-14-87	1330	7.48	15.5	400	120
14S 18W 25AAB 01	384845099160401		27.60	112TRRC	07-21-87	2730	7.48	15.5	1400	1100
15S 18W 28CAC 01	384305099195401		68.00		06-23-87	1760	7.60	15.0	730	520

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
14S 18W 03CCD 01	130	17	110	37	3	6.4	286	18	200	100
14S 18W 25AAB 01	430	73	110	15	1	8.5	260	17	860	220
15S 18W 28CAC 01	240	35	82	19	1	13	215	10	460	120

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
14S 18W 03CCD 01	0.39	41	780	<0.010	1.40	<0.010	100	450	--	--
14S 18W 25AAB 01	0.45	32	1900	<0.010	19.4	<0.010	20	20	--	--
15S 18W 28CAC 01	0.42	23	1100	<0.010	0.200	0.040	2700	450	3.5	<0.25

LOCAL IDENT- I- FIER	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)
14S 18W 03CCD 01	--	--	--	--	--	--	--	--	--	--
14S 18W 25AAB 01	--	--	--	--	--	--	--	--	--	--
15S 18W 28CAC 01	<0.025	<1.2	<0.3	<0.05	<0.40	<0.050	<0.10	<0.025	<0.6	<0.20

LOCAL IDENT- I- FIER	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P'- DDT, TOTAL (UG/L)	P,P'- DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
14S 18W 03CCD 01	--	--	--	--	--	--	--	--	--	--
14S 18W 25AAB 01	--	--	--	--	--	--	--	--	--	--
15S 18W 28CAC 01	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20	<0.20	<2

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

ELLSWORTH COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
15S 08W 198CD 01	384401098153001		--	112TRRC	06-10-87	1130	7.38	15.0	420	120
17S 09W 16DAB 01	383420098185701		210.00	211DKOT	07-08-87	782	7.49	16.0	270	6
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
15S 08W 198CD 01	140	18	71	27	2	7.6	303	24	140	93
17S 09W 16DAB 01	86	14	59	32	2	2.7	265	17	25	71
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALA- CHLOR TOTAL RECOVER (UG/L)	ALDRIN, TOTAL (UG/L)
15S 08W 198CD 01	0.49	25	680	0.050	0.240	0.050	240	290	--	--
17S 09W 16DAB 01	0.54	33	450	<0.010	<0.010	<0.010	1100	170	<0.25	<0.025
LOCAL IDENT- I- FIER	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	1,2- TRANSDI CHLORO- ETHYL- ENE TOTAL (UG/L)	CHLORO- FORM TOTAL (UG/L)
15S 08W 198CD 01	--	--	--	--	--	--	--	--	--	--
17S 09W 16DAB 01	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7	<0.50	<0.50
LOCAL IDENT- I- FIER	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)
15S 08W 198CD 01	--	--	--	--	--	--	--	--	--	--
17S 09W 16DAB 01	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50	<0.60	<0.60

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

ELLSWORTH COUNTY--Continued

LOCAL IDENT- I- FIER	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
15S 08W 19BCD 01 17S 09W 16DAB 01	-- <0.40	-- <0.050	-- <0.10	-- <0.70	-- <0.025	-- <0.6	-- <0.20	-- <1.2	-- <5.0	-- <0.90
LOCAL IDENT- I- FIER	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	
15S 08W 19BCD 01 17S 09W 16DAB 01	-- <0.25	-- <0.10	-- <0.10	-- <0.10	-- <0.6	-- <0.5	-- <0.25	-- <0.20	-- <0.20	
LOCAL IDENT- I- FIER	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)	
15S 08W 19BCD 01 17S 09W 16DAB 01	-- <0.60	-- <1.1	-- <0.40	-- <2	-- <0.80	-- <0.70	-- <0.60	-- <0.6	-- <0.80	

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FINNEY COUNTY

[illegible]

FINNEY COUNTY--Continued

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QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

FORD COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
26S 24W 20CCC 01	374534099583401		--		06-04-87	436	7.80	16.0	220	4
26S 24W 29ACA 01	374515099573001		260.00		06-04-87	454	7.81	17.0	230	12
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
26S 24W 20CCC 01	50	22	9.0	8	0.3	3.8	211	6.4	14	
26S 24W 29ACA 01	50	25	7.7	7	0.2	4.0	214	6.4	12	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
26S 24W 20CCC 01	3.5	2.3	50	280	0.030	1.29	<0.010	<10	<10	
26S 24W 29ACA 01	3.8	2.6	55	290	<0.010	1.12	<0.010	<10	10	

GEARY COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
12S 05E 01BBA 03	390238096494403		53.00	112ALVM	06-02-87	715	7.76	9.0	210	44
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
12S 05E 01BBA 03	61	14	40	28	1	8.2	168	5.7	80	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
12S 05E 01BBA 03	30	0.33	7.0	340	<0.010	0.700	0.090	60	110	

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

GOVE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
14S 29W 20C8B 01	384920100342301			07-20-87	1920	7.13	17.0	1000	810
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
14S 29W 20C8B 01	330	49	98	17	1	20	209	31	880
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
14S 29W 20C8B 01	67	0.59	38	1600	<0.010	0.600	<0.010	100	30

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GRAHAM COUNTY

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GRAY COUNTY--Continued

[illegible]

HAMILTON COUNTY--Continued

[illegible]

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

HARPER COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
32S 07W 02CDA 01	371706098025801		80.00	111CLVM	07-21-87	637	7.40	17.5	230	0
32S 08W 20BCB 01	371455098130401		132.00		07-20-87	--	6.95	19.0	230	100
33S 07W 28CCC 01	370820098052901		40.00		07-21-87	615	7.33	21.5	230	40

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
32S 07W 02CDA 01	70	13	46	31	1	1.4	238	18	41	22
32S 08W 20BCB 01	69	15	31	23	0.9	1.4	130	29	46	73
33S 07W 28CCC 01	61	18	41	28	1	3.6	187	17	59	41

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
32S 07W 02CDA 01	0.40	20	360	<0.010	5.90	<0.010	--	--	--	--
32S 08W 20BCB 01	0.29	27	340	<0.010	5.50	0.100	--	--	--	--
33S 07W 28CCC 01	0.41	20	360	<0.010	2.70	<0.010	3	140	<1	<10

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
32S 07W 02CDA 01	--	30	--	40	--	--	--	--	--
32S 08W 20BCB 01	--	<10	--	20	--	--	--	--	--
33S 07W 28CCC 01	<10	10	<1	110	<0.5	3	3	10	1.4

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

HARVEY COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
22S 01W 15AA 02	380835097243302		142.00		06-17-87	600	7.10	14.5	240	33
23S 01W 32B8C 01	380041097273701		133.00	112PLSC	06-15-87	367	6.50	15.0	150	8
23S 02W 29CDD 01	380054097334901		237.00	112MCPR	06-17-87	328	7.10	16.5	120	0
23S 03W 29DBD 02	380107097400902		--		06-15-87	664	6.42	14.5	210	64
24S 03W 26ADA 01	375613097363101		75.00		06-15-87	1420	6.85	19.5	520	220

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
22S 01W 15AA 02	80	9.1	26	19	0.8	1.2	204	32	31	36
23S 01W 32B8C 01	48	7.4	20	22	0.7	1.6	142	89	18	6.2
23S 02W 29CDD 01	39	5.9	26	32	1	2.1	153	24	20	7.6
23S 03W 29DBD 02	61	15	59	36	2	6.5	151	114	61	82
24S 03W 26ADA 01	160	29	130	35	3	4.5	304	84	290	100

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
22S 01W 15AA 02	0.23	30	340	<0.010	2.22	0.120	1	220	<1	<10
23S 01W 32B8C 01	0.19	30	220	<0.010	5.85	0.180	--	--	--	--
23S 02W 29CDD 01	0.34	24	220	<0.010	0.190	0.210	--	--	--	--
23S 03W 29DBD 02	0.25	24	400	<0.010	3.46	0.180	--	--	--	--
24S 03W 26ADA 01	0.42	17	930	<0.010	<0.010	0.090	3	60	<1	1

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
22S 01W 15AA 02	10	40	3	10	<0.5	6	<1	<10	0.7	<0.25
23S 01W 32B8C 01	--	20	--	10	--	--	--	--	--	--
23S 02W 29CDD 01	--	150	--	300	--	--	--	--	--	--
23S 03W 29DBD 02	--	180	--	20	--	--	--	--	--	--
24S 03W 26ADA 01	10	4500	13	240	<0.5	<1	4	<10	0.5	<0.25

LOCAL IDENT- I- FIER	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	1,2- TRANS DI- CHLORO- ETHYL- ENE TOTAL (UG/L)
22S 01W 15AA 02	<0.025	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7	<0.50
23S 01W 32B8C 01	--	--	--	--	--	--	--	--	--	--
23S 02W 29CDD 01	--	--	--	--	--	--	--	--	--	--
23S 03W 29DBD 02	--	--	--	--	--	--	--	--	--	--
24S 03W 26ADA 01	<0.025	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7	<0.50

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

HARVEY COUNTY--Continued

LOCAL IDENT- I- FIER				CHLORO- FORM TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)
22S	01W	15AA	02	<0.50	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50	<0.60
23S	01W	32BBC	01	--	--	--	--	--	--	--	--	--	--
23S	02W	29CDD	01	--	--	--	--	--	--	--	--	--	--
23S	03W	29DBD	02	--	--	--	--	--	--	--	--	--	--
24S	03W	26ADA	01	<0.50	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50	<0.60

LOCAL IDENT- I- FIER				1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L)
22S	01W	15AA	02	<0.60	<0.40	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2	<5.0
23S	01W	32BBC	01	--	--	--	--	--	--	--	--	--	--
23S	02W	29CDD	01	--	--	--	--	--	--	--	--	--	--
23S	03W	29DBD	02	--	--	--	--	--	--	--	--	--	--
24S	03W	26ADA	01	<0.60	<0.40	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2	<5.0

LOCAL IDENT- I- FIER				METHYL- ENE CHLO- RIDE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P', DDT, TOTAL (UG/L)	P,P', DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
22S	01W	15AA	02	<0.90	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20	<0.20
23S	01W	32BBC	01	--	--	--	--	--	--	--	--	--	--
23S	02W	29CDD	01	--	--	--	--	--	--	--	--	--	--
23S	03W	29DBD	02	--	--	--	--	--	--	--	--	--	--
24S	03W	26ADA	01	<0.90	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20	<0.20

LOCAL IDENT- I- FIER				1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)
22S	01W	15AA	02	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80
23S	01W	32BBC	01	--	--	--	--	--	--	--	--	--
23S	02W	29CDD	01	--	--	--	--	--	--	--	--	--
23S	03W	29DBD	02	--	--	--	--	--	--	--	--	--
24S	03W	26ADA	01	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

HASKELL COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
27S 32W 06CBB 01	374343100520801		298.00	1210GLL	08-17-87	373	7.76	18.0	150	13
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
27S 32W 06CBB 01	49	7.8	16	.18	0.6	2.4	142	4.8	34	2.8
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
27S 32W 06CBB 01	0.46	21	220	<0.010	2.20	<0.010	3	90	1	<10
LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	CARBON, ORGANIC TOTAL (MG/L AS C)
27S 32W 06CBB 01	<10	50	<1	20	<0.5	<1	8	<10	2.4	0.4
LOCAL IDENT- I- FIER	ALA- CHLOR TOTAL RECOVER (UG/L)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)
27S 32W 06CBB 01	<0.25	<0.025	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7
LOCAL IDENT- I- FIER	1,2- TRANS DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	CHLORO- FORM TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)
27S 32W 06CBB 01	<0.50	<0.50	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

HASKELL COUNTY--Continued

LOCAL IDENT- I- FIER	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)
27S 32W 06CBB 01	<0.60	<0.60	<0.40	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2
LOCAL IDENT- I- FIER	METHYL- CHLO- RIDE TOTAL (UG/L)	METHYL- ENE- CHLO- RIDE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P'- DDT, TOTAL (UG/L)	P,P'- DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)
27S 32W 06CBB 01	<5.0	<0.90	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20
LOCAL IDENT- I- FIER	2,4,5-T TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)
27S 32W 06CBB 01	<0.20	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

HODGEMAN COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
21S 22W 038BC 01	381529099435301			08-12-87	813	7.50	15.0	360	140
23S 23W 06CAB 02	380445099533402			08-12-87	1050	7.80	16.0	460	240
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
21S 22W 038BC 01	120	13	19	10	0.4	4.4	223	14	67
23S 23W 06CAB 02	150	19	28	12	0.6	5.1	221	6.8	180
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
21S 22W 038BC 01	54	0.32	32	450	0.020	6.40	0.030	<10	<10
23S 23W 06CAB 02	67	0.59	28	610	0.120	<0.010	0.030	1200	210

JACKSON COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
05S 16E 10BBA 01	393815095365901			06-03-87	470	6.79	14.0	260	67
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
05S 16E 10BBA 01	77	16	18	13	0.5	1.4	191	60	60
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
05S 16E 10BBA 01	6.7	0.23	12	310	<0.010	8.90	0.020	<10	20

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

JEFFERSON COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
07S 19E 298BD 01	392502095193501		179.00	112KGFV	05-27-87	584	8.00	14.5	310	0
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
07S 19E 298BD 01	80	28	26	15	0.7	1.8	347	6.6	23	4.0
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
07S 19E 298BD 01	0.53	25	390	<0.010	<0.010	0.020	<1	90	1	<10
LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
07S 19E 298BD 01	<10	600	<1	150	<0.5	2	<1	20	0.2	<0.25
LOCAL IDENT- I- FIER	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	
07S 19E 298BD 01	<0.025	<1.2	<0.3	<0.05	<0.40	<0.050	<0.10	<0.025	<0.20	
LOCAL IDENT- I- FIER	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P'- DDT, TOTAL (UG/L)	P,P'- DDT, TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	
07S 19E 298BD 01	<0.25	<0.10	<0.10	<0.10	<0.5	<0.25	<0.20	<0.20	<2	

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

JEWELL COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
02S 09W 23BAC 01	395209098180001		62.00	112ALVM	07-07-87	1240	7.49	14.0	660	380
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
02S 09W 23BAC 01	210	32	43	12	0.8	15	284	18	400	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
02S 09W 23BAC 01	17	6.3	34	930	<0.010	2.50	0.340	50	1000	

JOHNSON COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
12S 22E 25BBC 01	385853094553201		66.00		06-05-87	835	7.20	15.0	370	81
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
12S 22E 25BBC 01	130	12	29	14	0.7	5.5	289	36	80	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
12S 22E 25BBC 01	38	0.30	23	500	<0.010	0.600	0.260	4200	330	

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KEARNY COUNTY

[illegible]

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

KEARNY COUNTY--Continued

[illegible]

KINGMAN COUNTY--Continued

[illegible]

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

KIOWA COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
28S 18W 19CCB 01	373517099201701		134.00	112PLSC	07-22-87	489	7.75	16.0	220	27
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
28S 18W 19CCB 01	74	7.9	16	14	0.5	3.1	189	6.5	27	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
28S 18W 19CCB 01	13	0.34	26	280	<0.010	4.30	<0.010	<10	20	

LANE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
18S 29W 13DBA 01	382918100281601		131.00		06-02-87	576	7.60	15.0	260	45
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
18S 29W 13DBA 01	52	31	14	10	0.4	6.4	213	11	34	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
18S 29W 13DBA 01	12	2.7	75	360	<0.010	1.97	<0.010	<10	10	

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

LEAVENWORTH COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
08S 21E 19BAA 01	392047095065601	60.00	322DGLS	06-01-87	424	6.85	17.0	230	59
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
08S 21E 19BAA 01	69	13	17	14	0.5	2.1	166	46	25
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
08S 21E 19BAA 01	46	0.29	27	300	<0.010	<0.010	<0.010	40	20

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LINCOLN COUNTY

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QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

LINCOLN COUNTY--Continued

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LOGAN COUNTY

[illegible]

LOGAN COUNTY--Continued

[illegible]

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MCPHERSON COUNTY

[illegible]

CIS				DI-					
CHLORO- FORM TOTAL (UG/L)	1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)

17S	03W	17DBD	01	--	--	--	--	--	--	--	--
17S	05W	23DAB	01	--	--	--	--	--	--	--	--
18S	03W	14BDD	01	--	--	--	--	--	--	--	--
19S	03W	29DBA	02	<0.50	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50
20S	01W	11CCB	01	--	--	--	--	--	--	--	<0.60

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QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MARION COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
19S 01E 04ACC 01	382542097192801	151.00	310NNSC	06-08-87	307	6.62	14.0	110	15
22S 03E 04AA 01	381018097060001	70.00		06-08-87	981	6.98	15.5	500	190

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
19S 01E 04ACC 01	35	5.8	24	32	1	0.90	95	44	32
22S 03E 04AA 01	130	43	24	9	0.5	1.3	315	65	150

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
19S 01E 04ACC 01	8.0	0.25	13	180	0.040	5.65	<0.010	40	<10
22S 03E 04AA 01	12	0.48	14	560	<0.010	10.1	<0.010	<10	<10

MARSHALL COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
04S 06E 16DDD 01	394152096450801	55.00		06-11-87	686	7.18	13.5	390	46
04S 09E 16AAB 02	394237096243702	104.00		06-24-87	593	7.43	13.5	290	1

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
04S 06E 16DDD 01	110	26	10	5	0.2	5.9	342	44	42
04S 09E 16AAB 02	88	16	32	19	0.9	2.4	285	21	52

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
04S 06E 16DDD 01	4.0	0.30	22	430	<0.010	6.10	0.200	10	320
04S 09E 16AAB 02	9.4	0.20	26	400	<0.010	0.790	0.030	<10	<10

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MEADE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
32S 28W 11BA 01	371656100201501		278.00		06-04-87	400	7.71	17.0	170	10
35S 30W 10CDB 01	370048100342901		260.00	1210GLL	08-11-87	2430	7.90	17.5	360	200
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
32S 28W 11BA 01	52	11	15	15	0.5	3.2	164	6.3	28	4.4
35S 30W 10CDB 01	96	29	340	67	8	4.8	161	4.0	100	590
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	
32S 28W 11BA 01	0.54	19	230	<0.010	2.25	<0.010	<10	<10	2.9	
35S 30W 10CDB 01	0.84	21	1300	<0.010	1.69	0.020	<10	<10	--	

MITCHELL COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
06S 09W 26CAD 01	392958098173401		48.00	112TRRC	06-23-87	1080	7.22	15.0	480	120
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
06S 09W 26CAD 01	170	12	71	24	1	7.9	362	43	120	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
06S 09W 26CAD 01	73	0.13	42	720	<0.010	6.72	0.340	<10	50	

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MORRIS COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
14S 06E 34AAC 01	384742096450301		151.00	319CHSE	06-25-87	1010	7.42	14.5	420	85
14S 08E 07DAC 01	385044096334401		100.00	319CHSE	07-08-87	872	7.35	15.0	390	110
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
14S 06E 34AAC 01	120	31	47	20	1	1.2	332	25	72	34
14S 08E 07DAC 01	120	22	43	19	1	1.2	284	24	47	40
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
14S 06E 34AAC 01	0.22	19	520	<0.010	11.3	<0.010	--	--	--	--
14S 08E 07DAC 01	0.19	19	460	<0.010	10.8	0.020	2	240	<1	<10
LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
14S 06E 34AAC 01	--	10	--	20	--	--	--	--	--	--
14S 08E 07DAC 01	<10	50	5	10	<0.5	9	5	10	0.9	<0.25
LOCAL IDENT- I- FIER	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	BROMO- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	1,2- TRANSDI CHLORO- ETHYL- ENE TOTAL (UG/L)
14S 06E 34AAC 01	--	--	--	--	--	--	--	--	--	--
14S 08E 07DAC 01	<0.025	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7	<0.50
LOCAL IDENT- I- FIER	CHLORO- FORM TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)
14S 06E 34AAC 01	--	--	--	--	--	--	--	--	--	--
14S 08E 07DAC 01	<0.50	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50	<0.60

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MORRIS COUNTY--Continued

LOCAL IDENT- I- FIER	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L)
14S 06E 34AAC 01	--	--	--	--	--	--	--	--	--	--
14S 08E 07DAC 01	<0.60	<0.40	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2	<5.0
LOCAL IDENT- I- FIER	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- SUZIN IN WHOLE WATER (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
14S 06E 34AAC 01	--	--	--	--	--	--	--	--	--	--
14S 08E 07DAC 01	<0.90	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20	<0.20
LOCAL IDENT- I- FIER	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)	
14S 06E 34AAC 01	--	--	--	--	--	--	--	--	--	
14S 08E 07DAC 01	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80	

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MORTON COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
32S 42W 14CCC 01	371531101514501		187.00	1210GLL	08-18-87	705	7.75	17.0	300	110
33S 43W 27CDC 01	370835101590501		--		08-18-87	718	7.88	18.5	240	30
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
32S 42W 14CCC 01	49	43	44	24	1	3.7	186	6.4	140	18
33S 43W 27CDC 01	35	36	61	35	2	6.8	207	5.3	120	14
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CO)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
32S 42W 14CCC 01	3.0	28	440	<0.010	2.81	<0.010	--	--	--	--
33S 43W 27CDC 01	2.5	22	430	<0.010	3.78	<0.010	<1	<10	<1	<10
LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	CARBON, ORGANIC TOTAL (MG/L AS C)
32S 42W 14CCC 01	--	30	--	<10	--	--	--	--	--	--
33S 43W 27CDC 01	20	40	2	10	<0.5	2	2	90	13	<0.1
LOCAL IDENT- I- FIER	ALA- CHLOR TOTAL RECOVER (UG/L)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)
32S 42W 14CCC 01	--	--	--	--	--	--	--	--	--	--
33S 43W 27CDC 01	<0.25	<0.025	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7
LOCAL IDENT- I- FIER	1,2- TRANS DI CHLORO- ETHYL- ENE TOTAL (UG/L)	CHLORO- FORM TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)
32S 42W 14CCC 01	--	--	--	--	--	--	--	--	--	--
33S 43W 27CDC 01	<0.50	<0.50	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MORTON COUNTY--Continued

LOCAL IDENT- I- FIER	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META- XYLENE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)
32S 42W 14CCC 01	--	--	--	--	--	--	--	--	--	--
33S 43W 27CDC 01	<0.60	<0.60	<0.40	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2
LOCAL IDENT- I- FIER	METHYL- CHLO- RIDE TOTAL (UG/L)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	METRI- BUZIN IN WHOLE WATER (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	PARA- XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA- CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)
32S 42W 14CCC 01	--	--	--	--	--	--	--	--	--	--
33S 43W 27CDC 01	<5.0	<0.90	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20
LOCAL IDENT- I- FIER	2,4,5-T TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)
32S 42W 14CCC 01	--	--	--	--	--	--	--	--	--	--
33S 43W 27CDC 01	<0.20	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

NEMAHA COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
02S 12E 26CDA 01	395039096022801		54.00	112KGFV	06-04-87	691	7.31	13.0	480	89
04S 13E 35BAA 01	393959095554201		121.00	112PLSC	06-03-87	1470	6.98	13.5	820	510
05S 01E 03BCC 01	393848096105101		--		06-04-87	576	7.40	17.5	270	0
05S 14E 11ACC 01	393755095490101		65.00	112PLSC	06-24-87	--	7.50	15.0	350	66

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
02S 12E 26CDA 01	150	28	22	9	0.5	1.7	390	37	71	19
04S 13E 35BAA 01	200	76	92	19	1	8.1	309	63	650	42
05S 01E 03BCC 01	66	25	75	37	2	11	391	30	55	4.9
05S 14E 11ACC 01	92	29	42	20	1	3.3	285	18	110	28

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
02S 12E 26CDA 01	0.24	20	540	<0.010	8.10	0.060	--	--	--	--
04S 13E 35BAA 01	0.46	27	1300	0.700	<0.010	0.020	--	--	--	--
05S 01E 03BCC 01	0.35	13	490	1.30	<0.010	0.210	--	--	--	--
05S 14E 11ACC 01	0.26	30	510	0.220	<0.010	0.110	1	30	<1	<10

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
02S 12E 26CDA 01	--	<10	--	<10	--	--	--	--	--	--
04S 13E 35BAA 01	--	1800	--	180	--	--	--	--	--	--
05S 01E 03BCC 01	--	580	--	60	--	--	--	--	--	--
05S 14E 11ACC 01	<10	1800	<1	280	<0.5	<1	4	10	0.5	<0.25

LOCAL IDENT- I- FIER	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLORO- DI- METHANE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	1,2- TRANSDI- CHLORO- ETHYL- ENE TOTAL (UG/L)
02S 12E 26CDA 01	--	--	--	--	--	--	--	--	--	--
04S 13E 35BAA 01	--	--	--	--	--	--	--	--	--	--
05S 01E 03BCC 01	--	--	--	--	--	--	--	--	--	--
05S 14E 11ACC 01	<0.025	<1.2	<0.40	<1.5	<0.70	<0.40	<0.3	<0.70	<3.7	<0.50

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

NEMAHA COUNTY--Continued

LOCAL IDENT-I-FIER				CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)
02S	12E	26CDA	01	--	--	--	--	--	--	--	--	--	--
04S	13E	35BAA	01	--	--	--	--	--	--	--	--	--	--
05S	01E	03BCC	01	--	--	--	--	--	--	--	--	--	--
05S	14E	11ACC	01	1.1	<0.90	<0.05	<0.40	<1.0	<1.0	<1.0	<0.50	<0.50	<0.60
LOCAL IDENT-I-FIER				1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	META-XYLENE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)
02S	12E	26CDA	01	--	--	--	--	--	--	--	--	--	--
04S	13E	35BAA	01	--	--	--	--	--	--	--	--	--	--
05S	01E	03BCC	01	--	--	--	--	--	--	--	--	--	--
05S	14E	11ACC	01	<0.60	<0.40	<0.050	<0.10	<0.70	<0.025	<0.6	<0.20	<1.2	<5.0
LOCAL IDENT-I-FIER				METHYL-ENE CHLO-RIDE TOTAL (UG/L)	METOLA-CHLOR IN WHOLE WATER (UG/L)	METRI-BUZIN IN WHOLE WATER (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	PARA-XYLENE TOTAL (UG/L)	PCB, TOTAL (UG/L)	PROPA-CHLOR IN WHOLE WATER (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
02S	12E	26CDA	01	--	--	--	--	--	--	--	--	--	--
04S	13E	35BAA	01	--	--	--	--	--	--	--	--	--	--
05S	01E	03BCC	01	--	--	--	--	--	--	--	--	--	--
05S	14E	11ACC	01	<0.90	<0.25	<0.10	<0.10	<0.10	<0.6	<0.5	<0.25	<0.20	<0.20
LOCAL IDENT-I-FIER				1,1,2,2-TETRA-CHLORO-ETHANE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	
02S	12E	26CDA	01	--	--	--	--	--	--	--	--	--	
04S	13E	35BAA	01	--	--	--	--	--	--	--	--	--	
05S	01E	03BCC	01	--	--	--	--	--	--	--	--	--	
05S	14E	11ACC	01	<0.60	<1.1	<0.40	<2	<0.80	<0.70	<0.60	<0.6	<0.80	

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

NESS COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
19S 23W 05CCD 01	382520099534001	70.00		06-02-87	1140	7.21	16.0	440	150

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)
19S 23W 05CCD 01	130	27	70	25	2	15	289	35	180

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
19S 23W 05CCD 01	73	0.50	51	720	0.590	<0.010	0.100	360	840

NORTON COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
02S 21W 08ADD 01	395340099420801	--		06-24-87	920	7.70	14.0	430	56
05S 24W 14CCA 01	393650099595401	42.00		07-15-87	948	7.56	14.0	440	120

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)
02S 21W 08ADD 01	130	25	28	12	0.6	17	370	14	65
05S 24W 14CCA 01	130	26	32	13	0.7	12	320	17	110

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
02S 21W 08ADD 01	31	0.28	51	570	--	--	--	30	380
05S 24W 14CCA 01	40	0.39	43	590	<0.010	3.60	0.200	360	230

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OSBORNE COUNTY--Continued

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QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

OTTAWA COUNTY

LOCAL IDENT- IFIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS NONCAR- BONATE (MG/L AS CaCO3)
09S 04W 10B8C 07	391720097453407		--		06-22-87	720	7.52	14.5	270	11
12S 03W 0108A 02	390213097360002		47.00	112TRRC	06-22-87	535	7.23	14.5	210	3
12S 05W 09DCA 01	390108097524301		--		06-23-87	393	6.60	14.0	120	3

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
09S 04W 10BBC 07	93	9.4	30	19	0.8	4.3	260	15	35	18
12S 03W 01DBA 02	71	7.4	27	22	0.9	2.2	206	24	33	10
12S 05W 09DCA 01	38	7.3	25	30	1	2.6	93	46	58	11

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
09S 04W 10BBC 07	0.20	39	390	<0.010	3.56	0.230	--	--	--	--
12S 03W 01DBA 02	0.26	28	300	<0.010	4.25	0.100	1	120	<1	<10
12S 05W 09DCA 01	0.22	29	230	<0.010	1.14	0.060	--	--	--	--

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
09S 04W 10B8C 07	--	50	--	<10	--	--	--	--	0.3	<0.25
12S 03W 01DBA 02	20	40	<1	10	<0.5	<1	3	20	--	--
12S 05W 09DCA 01	--	60	--	30	--	--	--	--	--	--

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OTTAWA COUNTY--Continued

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QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

PHILLIPS COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
01S 20W 23DDD 01	395643099320601	--		06-24-87	920	7.50	14.0	420	65
04S 16W 27CCA 01	394019099070801	70.00	112TRRC	07-23-87	842	7.31	15.5	330	58
04S 18W 23DCA 01	394112099185701	69.00	210CRCS	07-23-87	752	7.34	20.5	340	64

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
01S 20W 23DDD 01	130	24	47	19	1	16	352	22	120
04S 16W 27CCA 01	98	20	60	27	1	15	268	25	120
04S 18W 23DCA 01	120	11	30	16	0.7	5.7	280	25	81

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
01S 20W 23DDD 01	24	0.25	49	620	--	--	--	30	110
04S 16W 27CCA 01	36	0.35	44	560	<0.010	5.80	0.300	50	210
04S 18W 23DCA 01	21	0.37	34	470	<0.010	2.80	<0.010	20	<10

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

POTTAWATOMIE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
07S 07E 23BBA 01	392606096372701		110.00	319CHSE	06-01-87	719	7.51	14.0	390	34
10S 09E 09CDC 01	391122096251801		--	112PLSC	06-04-87	300	7.44	15.0	170	26
10S 10E 09ABC 01	391200096181901		--	110ALVM	06-01-87	826	7.09	15.0	330	120
10S 12E 09ADB 04	391152096043304		52.00	112NWMN	06-01-87	853	7.14	17.0	490	170

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
07S 07E 23BBA 01	100	33	32	15	0.7	1.1	352	21	28
10S 09E 09CDC 01	57	6.1	12	14	0.4	1.9	141	10	<10
10S 10E 09ABC 01	110	14	54	26	1	7.9	215	34	110
10S 12E 09ADB 04	150	27	34	13	0.7	5.9	328	46	110

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
07S 07E 23BBA 01	21	0.22	16	440	<0.010	9.70	0.020	10	<10
10S 09E 09CDC 01	4.2	0.15	26	220	<0.010	7.90	0.060	<10	<10
10S 10E 09ABC 01	73	0.26	25	530	<0.010	4.40	0.230	140	<10
10S 12E 09ADB 04	56	0.27	25	610	<0.010	11.3	0.190	20	<10

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

PRATT COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
26S 11W 30ADD 02	374519098332402		66.00	112KNSN	06-09-87	585	7.64	15.0	260	53
26S 14W 18CCA 01	374648098535901		--		07-27-87	318	7.70	15.5	170	42
27S 13W 08DDC 01	374220098453801		178.00		06-08-87	627	7.56	16.0	200	50
29S 14W 238BA 01	373047098493401		110.00	112KNSN	07-22-87	393	7.25	17.0	180	14

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
26S 11W 30ADD 02	93	6.1	24	17	0.7	2.4	206	9.2	28	13
26S 14W 18CCA 01	61	4.2	7.9	9	0.3	2.8	129	5.0	17	5.7
27S 13W 08DDC 01	70	6.3	53	36	2	2.7	150	8.0	28	66
29S 14W 238BA 01	61	5.9	14	15	0.5	2.9	163	18	11	9.9

LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
26S 11W 30ADD 02	0.30	19	310	<0.010	9.50	0.020	--	--	--	--
26S 14W 18CCA 01	0.27	25	200	<0.010	7.85	0.080	9	210	<1	<10
27S 13W 08DDC 01	0.30	20	340	<0.010	6.50	0.020	--	--	--	--
29S 14W 238BA 01	0.28	26	230	<0.010	3.40	<0.010	--	--	--	--

LOCAL IDENT- I- FIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
26S 11W 30ADD 02	--	40	--	<10	--	--	--	--	--	--
26S 14W 18CCA 01	<10	40	3	10	<0.5	2	9	<10	0.6	<0.25
27S 13W 08DDC 01	--	60	--	<10	--	--	--	--	--	--
29S 14W 238BA 01	--	70	--	40	--	--	--	--	--	--

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PRATT COUNTY--Continued

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QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

RAWLINS COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
03S 36W 17CCC 01	394711101233201	300.00	1210GLL	07-22-87	504	7.70	18.0	160	0
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
03S 36W 17CCC 01	38	17	34	30	1	8.6	167	6.5	41
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
03S 36W 17CCC 01	9.1	1.8	71	320	<0.010	8.70	<0.010	50	<10

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

RENO COUNTY

LOCAL IDENT- IFIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
22S 04W 12DDD 02	380845097421002		88.00	112MCPR	07-08-87	678	7.48	15.0	320	25
22S 07W 10CAA 01	380904098045101		12.00		06-09-87	2330	7.63	15.0	590	330
23S 06W 13BBA 01	380324097561301		--		06-09-87	1780	7.48	16.5	450	170
24S 10W 15CAB 01	375741098245101		54.00	112CRET	07-07-87	529	7.40	16.0	180	59
25S 04W 05DAD 01	375408097462901		54.00	112WSCS	06-09-87	1060	7.24	16.0	410	85
25S 08W 10BAD 01	375340098111701		58.00	112MEDE	06-09-87	590	7.43	16.0	130	24
26S 10W 05DD 01	374827098253601		60.00	112MEDE	06-09-87	802	7.72	15.0	250	58

LOCAL IDENT- IFIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
22S 04W 12DDD 02	100	16	28	16	0.7	3.3	295	19	51	14
22S 07W 10CAA 01	180	35	260	49	5	6.2	264	12	170	460
23S 06W 13BBA 01	140	23	200	49	4	6.0	281	18	170	260
24S 10W 15CAB 01	61	6.5	32	28	1	2.8	121	9.2	15	50
25S 04W 05DAD 01	130	18	70	27	2	2.4	324	36	63	69
25S 08W 10BAD 01	45	5.2	64	51	3	2.0	109	7.9	18	73
26S 10W 05DD 01	86	7.2	93	45	3	2.1	188	6.9	37	130

LOCAL IDENT- IFIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
22S 04W 12DDD 02	0.36	26	420	<0.010	<0.010	<0.010	34	120	<1	<10
22S 07W 10CAA 01	0.65	13	1300	<0.010	5.74	<0.010	--	--	--	--
23S 06W 13BBA 01	0.50	13	990	<0.010	4.42	<0.010	--	--	--	--
24S 10W 15CAB 01	0.25	26	270	<0.010	7.00	<0.010	--	--	--	--
25S 04W 05DAD 01	0.23	23	570	<0.010	15.1	0.020	--	--	--	--
25S 08W 10BAD 01	0.22	19	290	<0.010	9.90	0.040	--	--	--	--
26S 10W 05DD 01	0.40	21	500	<0.010	11.2	<0.010	--	--	--	--

LOCAL IDENT- IFIER	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA- CHLOR TOTAL RECOVER (UG/L)
22S 04W 12DDD 02	10	310	3	400	<0.5	<1	<1	<10	0.5	<0.25
22S 07W 10CAA 01	--	40	--	<10	--	--	--	--	--	--
23S 06W 13BBA 01	--	60	--	90	--	--	--	--	--	--
24S 10W 15CAB 01	--	70	--	10	--	--	--	--	--	--
25S 04W 05DAD 01	--	30	--	10	--	--	--	--	--	--
25S 08W 10BAD 01	--	60	--	<10	--	--	--	--	--	--
26S 10W 05DD 01	--	30	--	<10	--	--	--	--	--	--

[illegible]

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RENO COUNTY--Continued

[illegible]

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

REPUBLIC COUNTY

LOCAL IDENT- IFIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
01S 02W 33DCD 01	395458097323501	62.00	112PLSC	06-10-87	1010	6.54	12.5	520	190
01S 03W 02CCB 01	395926097374801	151.00	211DKOT	06-11-87	518	6.93	13.5	260	21
01S 04W 31BCC 01	395524097490501	--		06-10-87	780	6.60	14.0	260	0
03S 04W 17DAD 01	394722097465901	42.00		06-10-87	1110	6.96	13.5	420	92
04S 01W 16ACC 01	394222097255901	100.00	211DKOT	06-10-87	696	7.02	14.5	340	39

LOCAL IDENT- IFIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
01S 02W 33DCD 01	180	18	55	19	1	3.1	323	183	85
01S 03W 02CCB 01	90	9.2	17	12	0.5	2.3	242	57	14
01S 04W 31BCC 01	86	11	67	35	2	5.5	266	131	52
03S 04W 17DAD 01	140	17	70	26	2	12	331	71	130
04S 01W 16ACC 01	120	11	29	16	0.7	1.9	298	57	47

LOCAL IDENT- IFIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
01S 02W 33DCD 01	80	0.24	21	640	<0.010	27.1	<0.010	90	<10
01S 03W 02CCB 01	12	0.21	37	330	0.030	4.95	0.040	30	<10
01S 04W 31BCC 01	30	0.23	25	440	<0.010	12.8	0.280	30	<10
03S 04W 17DAD 01	72	0.39	23	670	0.100	2.77	0.020	1200	840
04S 01W 16ACC 01	11	0.26	26	430	<0.010	6.20	0.030	40	<10

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

RICE COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
19S 06W 29CCD 01	382149098004801	--		06-10-87	1170	7.75	15.0	320	99
19S 09W 31DAB 01	382116098210601	60.00	112WSCS	07-08-87	1030	7.60	15.0	320	83
20S 08W 16AA 01	381902098121101	64.00		06-10-87	1100	7.51	16.0	300	46
21S 08W 21BAC 01	381252098124701	92.00		06-09-87	884	7.70	16.0	270	52

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
19S 06W 29CCD 01	110	11	100	41	3	1.5	223	7.7	31
19S 09W 31DAB 01	110	11	94	39	2	3.2	237	12	32
20S 08W 16AA 01	91	17	100	43	3	3.2	251	15	59
21S 08W 21BAC 01	80	16	81	40	2	3.2	215	8.3	86

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
19S 06W 29CCD 01	200	0.22	19	610	<0.010	4.50	<0.010	50	10
19S 09W 31DAB 01	140	0.35	26	560	<0.010	4.80	0.400	<10	<10
20S 08W 16AA 01	140	0.30	22	590	<0.010	2.28	0.150	30	10
21S 08W 21BAC 01	74	0.80	12	480	<0.010	7.50	<0.010	40	50

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

RILEY COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
07S 06E 21CDD 01	392525096460701	0.0		06-03-87	930	7.26	14.0	420	96
09S 05E 018DB 01	391805096492901	--		06-03-87	827	7.30	14.0	350	1
10S 07E 32DBD 01	390808096400901	45.00	112NWMN	06-03-87	746	7.30	16.0	320	2
11S 06E 12ADB 01	390644096423601	65.00	110ALVM	06-02-87	1200	7.07	15.0	590	100

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)
07S 06E 21CDD 01	120	28	15	7	0.3	1.0	324	35	64
09S 05E 018DB 01	79	38	28	15	0.7	1.4	352	34	14
10S 07E 32DBD 01	100	15	26	15	0.7	3.6	314	31	36
11S 06E 12ADB 01	180	34	38	12	0.7	6.6	486	80	120

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
07S 06E 21CDD 01	16	0.35	10	450	<0.010	2.70	0.020	30	<10
09S 05E 018DB 01	8.1	0.27	15	400	<0.010	7.50	0.040	20	<10
10S 07E 32DBD 01	2.2	0.26	28	400	<0.010	3.40	0.310	30	10
11S 06E 12ADB 01	37	0.29	28	730	<0.010	2.30	0.170	<10	250

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

ROOKS COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
07S 18W 24BAD 02	392606099164402		50.00		06-23-87	1570	7.50	14.0	690	340
09S 18W 35CCCD01	391313099181501		--	1210GLL	07-14-87	842	7.47	13.0	360	83
09S 19W 348BD 01	391354099254901		70.00	1210GLL	06-25-87	637	7.70	16.5	260	86

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
07S 18W 24BAD 02	230	31	70	18	1	11	344	21	360
09S 18W 35CCCD01	120	12	32	16	0.8	4.7	281	19	45
09S 19W 348BD 01	92	8.0	19	13	0.5	3.8	177	6.9	39

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
07S 18W 24BAD 02	85	0.30	38	1000	--	--	--	8000	1200
09S 18W 35CCCD01	54	0.28	36	480	<0.010	2.40	<0.010	40	10
09S 19W 348BD 01	38	0.33	33	340	--	--	--	30	10

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

RUSH COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
16S 17W 16DCD 01	383916099121801		370.00	211DKOT	07-14-87	2510	8.36	15.5	90	0
18S 16W 23AAA 02	382842099030902		75.00	112PLSC	07-14-87	1050	7.29	14.5	470	180
18S 20W 20DCA 01	382802099332201		47.00	112PLSC	07-23-87	1180	7.65	15.0	570	300

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
16S 17W 16DCD 01	24	7.5	400	89	19	16	222	1.9	190
18S 16W 23AAA 02	170	14	32	13	0.7	5.9	292	29	94
18S 20W 20DCA 01	200	18	39	13	0.7	6.3	277	12	250

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA, DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3, DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
16S 17W 16DCD 01	420	2.9	7.5	1200	0.200	<0.010	<0.010	40	50
18S 16W 23AAA 02	89	0.23	33	620	<0.010	<0.010	0.100	2000	270
18S 20W 20DCA 01	62	0.46	35	780	0.100	2.40	<0.010	20	<10

RUSSELL COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
14S 11W 07DBC 01	385048098351201		100.00	211DKOT	06-10-87	1160	7.52	15.0	470	160

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
14S 11W 07DBC 01	170	9.3	61	22	1	3.7	304	18	150

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA, DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3, DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
14S 11W 07DBC 01	78	0.18	22	670	<0.010	4.84	0.020	50	10

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

SALINE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
15S 02W 260DD 01	384242097300901		100.00	317SMNR	06-08-87	485	7.22	14.5	180	21
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
15S 02W 260DD 01	48	14	30	27	1	1.4	156	18	51	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
15S 02W 260DD 01	19	0.35	12	270	0.050	<0.010	0.030	1000	400	

SCOTT COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
17S 32W 05ABB 01	383645100523901		208.00	1210GLL	07-02-87	780	7.50	14.5	330	150
18S 33W 24A 01	382845100543801		--		05-28-87	484	7.76	15.0	210	29
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
17S 32W 05ABB 01	92	25	32	17	0.8	6.2	181	11	100	
18S 33W 24A 01	48	21	28	22	0.9	5.5	177	5.9	49	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
17S 32W 05ABB 01	47	1.9	58	470	<0.010	9.40	<0.010	<10	<10	
18S 33W 24A 01	19	2.0	52	330	<0.010	2.70	<0.010	10	<10	

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

SEDGWICK COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
25S 01W 07BAA 01	375348097281901		130.00	112PLSC	06-17-87	665	--	15.0	230	26
25S 01W 30ABB 01	375111097281101		--		07-07-87	638	7.43	16.5	230	59
25S 01W 36ACB 01	375006097224601		52.00		06-15-87	784	7.40	16.5	370	78
25S 03W 14CCB 01	375218097372701		90.00		06-15-87	2210	7.50	16.0	450	230
26S 01E 17AAB 01	374743097201601		42.00	112PLSC	06-15-87	1130	7.36	15.5	480	150
27S 02W 368BB 01	373953097294701		158.00	112PLSC	06-10-87	970	7.49	16.0	360	43
29S 01E 05CAA 01	373325097203401		54.00	112PLSC	06-10-87	1260	7.30	15.0	450	140
29S 01E 08CBB 01	373233097205801		36.00	112PLSC	06-10-87	644	7.34	16.0	230	0
29S 02W 23DDD 01	373024097295401		54.00		06-10-87	574	7.30	18.5	210	0

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)
25S 01W 07BAA 01	73	12	37	25	1	2.4	207	--	70
25S 01W 30ABB 01	74	12	53	33	2	2.8	174	12	49
25S 01W 36ACB 01	110	24	34	17	0.8	2.0	292	23	140
25S 03W 14CCB 01	140	26	240	53	5	5.0	219	13	140
26S 01E 17AAB 01	140	35	46	17	0.9	2.3	336	29	170
27S 02W 368BB 01	110	23	62	27	1	1.7	319	20	110
29S 01E 05CAA 01	140	22	86	29	2	3.4	306	30	170
29S 01E 08CBB 01	68	14	47	31	1	1.6	236	21	43
29S 02W 23DDD 01	66	11	34	26	1	2.4	217	21	32

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
25S 01W 07BAA 01	16	0.39	18	350	<0.010	6.48	0.030	30	50
25S 01W 30ABB 01	44	0.48	16	350	<0.010	14.8	<0.010	20	<10
25S 01W 36ACB 01	15	0.37	18	520	<0.010	0.800	1.11	260	160
25S 03W 14CCB 01	420	0.50	16	1100	<0.010	3.36	<0.010	30	<10
26S 01E 17AAB 01	41	0.28	18	660	<0.010	0.440	0.040	80	90
27S 02W 368BB 01	33	0.24	17	550	<0.010	1.80	0.040	50	30
29S 01E 05CAA 01	98	0.59	11	720	<0.010	0.900	<0.010	440	210
29S 01E 08CBB 01	14	0.32	17	350	<0.010	6.30	0.050	20	<10
29S 02W 23DDD 01	12	0.63	25	320	<0.010	3.37	0.120	90	<10

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

SEWARD COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
31S 32W 03DAD 01	372239100464501		412.00	1210GLL	08-12-87	682	7.40	17.0	260	64
34S 33W 32AAC 01	370306100553201		580.00		08-12-87	549	7.70	18.0	220	52
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
31S 32W 03DAD 01	69	22	37	23	1	4.2	198	15	79	28
34S 33W 32AAC 01	53	22	30	22	0.9	4.3	171	6.6	75	14
LOCAL IDENT- I- FIER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	
31S 32W 03DAD 01	0.69	21	380	0.040	6.70	<0.010	10	<10	--	
34S 33W 32AAC 01	0.38	23	320	<0.010	3.89	<0.010	30	<10	5.8	

SHAWNEE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
11S 15E 13BBC 01	390551095421601		85.00	112NWMN	06-04-87	513	7.19	14.0	330	49
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	
11S 15E 13BBC 01	110	14	15	9	0.4	3.3	284	36	56	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
11S 15E 13BBC 01	9.9	0.22	22	400	<0.010	0.600	0.090	2200	770	

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

SHERIDAN COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)
08S 28W 158BA 01	392149100262001	200.00	1210GLL	06-25-87	543	7.74	16.0	220
LOCAL IDENT- I- FIER	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03
08S 28W 158BA 01	23	54	21	21	16	0.6	6.8	198
LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	IRON, DIS- SOLVED (MG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
08S 28W 158BA 01	6.9	40	18	0.84	58	340	20	<10

SHERMAN COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
08S 39W 19DCA 01	392021101424701	--		07-21-87	410	7.38	16.5	140	0
08S 42W 20CAC 01	392026102020701	230.00	1210GLL	07-22-87	420	7.70	16.0	160	11
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)
08S 39W 19DCA 01	35	13	32	33	1	4.1	163	13	32
08S 42W 20CAC 01	40	14	28	27	1	4.2	148	5.7	37
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
08S 39W 19DCA 01	8.1	1.5	50	270	<0.010	4.10	<0.010	30	<10
08S 42W 20CAC 01	12	1.6	54	280	<0.010	5.40	<0.010	20	<10

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

SMITH COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
03S 15W 20DCC 01	394618099021301		60.00	211CLRD	07-23-87	1060	7.10	15.0	450	110
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
03S 15W 20DCC 01	140	21	45	18	1	7.2	333	51	89	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
03S 15W 20DCC 01	58	0.35	45	610	<0.010	10.0	<0.010	40	<10	

STAFFORD COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
23S 13W 33BDB 01	380028098453601		80.00	112MEDE	06-11-87	610	7.61	16.5	220	0
24S 15W 22B8B 01	375714098575701		--		07-07-87	465	7.70	15.0	180	0
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
23S 13W 33BDB 01	70	11	45	31	1	3.2	220	10	32	
24S 15W 22B8B 01	65	5.1	24	22	0.8	4.0	187	7.2	20	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
23S 13W 33BDB 01	29	0.47	18	340	<0.010	5.60	0.020	<10	10	
24S 15W 22B8B 01	17	0.60	19	270	<0.010	1.60	<0.010	<10	<10	

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

STANTON COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
28S 41W 36DB 01	373403101450201	223.00		08-13-87	658	7.88	18.0	250	100
30S 39W 238BB 01	372550101333801	405.00	1210GLL	08-13-87	594	7.83	17.0	220	70

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
28S 41W 36DB 01	63	22	36	23	1	4.2	150	3.8	130
30S 39W 238BB 01	51	23	34	24	1	3.4	155	4.5	96

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
28S 41W 36DB 01	25	0.85	16	390	<0.010	3.51	<0.010	<10	<10
30S 39W 238BB 01	24	1.2	17	340	0.020	2.94	<0.010	10	<10

STEVENS COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
31S 35W 26DCC 01	371858101053601	420.00	1210GLL	08-12-87	691	7.60	18.0	280	100
33S 37W 16AC 02	371045101204002	300.00		06-03-87	781	7.54	17.0	320	140

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
31S 35W 26DCC 01	54	34	37	22	1	4.9	172	8.4	110
33S 37W 16AC 02	73	33	39	21	1	3.7	180	10	170

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
31S 35W 26DCC 01	34	1.1	21	400	<0.010	3.60	<0.010	30	<10
33S 37W 16AC 02	19	0.27	22	470	<0.010	4.16	<0.010	60	10

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

SUMNER COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
30S 02E 06CAB 01	372810097151101	44.00		06-16-87	1110	7.15	15.0	330	92
31S 01E 04BDC 01	372307097192901	46.50	310WLN	06-16-87	1650	7.35	17.5	490	160
31S 02E 02888 02	372325097110702	70.00	310WLN	06-16-87	680	7.26	18.0	300	90
31S 03W 05ACA 01	372304097395401	43.20	112NBRK	06-16-87	304	--	15.0	88	59
32S 02W 31DBD 01	371308097341601	--		06-16-87	1280	--	26.0	460	230
34S 02W 21DAB 01	370432097315201	40.00		06-16-87	683	7.72	17.0	250	26

LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
30S 02E 06CAB 01	100	19	110	41	3	3.5	236	33	120
31S 01E 04BDC 01	150	30	120	34	2	2.3	330	29	62
31S 02E 02888 02	100	13	19	12	0.5	3.7	214	23	82
31S 03W 05ACA 01	27	5.2	14	25	0.7	0.70	29	--	25
32S 02W 31DBD 01	120	40	63	23	1	1.6	226	--	120
34S 02W 21DAB 01	68	20	35	23	1	2.9	225	8.4	57

LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
30S 02E 06CAB 01	120	0.41	17	640	0.060	3.04	0.090	50	700
31S 01E 04BDC 01	230	0.24	20	810	<0.010	0.280	0.130	30	640
31S 02E 02888 02	12	0.19	21	380	<0.010	6.20	0.080	50	20
31S 03W 05ACA 01	8.2	0.16	29	130	<0.010	13.3	0.090	30	<10
32S 02W 31DBD 01	150	0.18	20	650	<0.010	6.96	0.020	30	20
34S 02W 21DAB 01	30	0.26	14	360	<0.010	0.020	0.100	60	1100

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

THOMAS COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
07S 33W 31D88 01	392401101023801		232.00	1210GLL	07-23-87	479	7.44	15.5	230	32
07S 36W 15D88 01	392639101192301		285.00		07-22-87	428	7.10	17.0	160	0
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
07S 33W 31D88 01	60	19	21	16	0.6	6.3	196	14	27	
07S 36W 15D88 01	43	13	27	26	1	5.4	178	28	27	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
07S 33W 31D88 01	13	1.8	58	320	<0.010	4.70	<0.010	20	<10	
07S 36W 15D88 01	5.4	1.8	61	290	<0.010	3.30	<0.010	20	<10	

TREGO COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
12S 22W 08B8B 01	390149099472801		118.00	1210GLL	07-15-87	448	7.70	15.0	200	0
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
12S 22W 08B8B 01	61	11	18	16	0.6	4.6	207	8.1	18	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
12S 22W 08B8B 01	6.3	0.45	46	290	<0.010	1.00	<0.010	20	10	

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

WALLACE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
11S 38W 35CCC 02	390254101305402		189.00	1210GLL	07-23-87	440	7.48	16.0	190	36
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
11S 38W 35CCC 02	53	14	16	15	0.5	5.5	153	9.7	46	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
11S 38W 35CCC 02	18	0.58	28	270	<0.100	2.50	<0.010	20	<10	

WASHINGTON COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
02S 03E 32ABB 01	395029097065301		120.00	2110KOT	06-11-87	331	6.80	14.5	120	5
04S 05E 09CAA 03	394305096520903		0.0		06-11-87	864	7.18	13.5	430	36
05S 02E 12CBA 01	393754097093201		151.00	2110KOT	06-11-87	217	6.77	14.5	81	14
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
02S 03E 32ABB 01	37	6.7	25	31	1	2.5	114	35	34	
04S 05E 09CAA 03	100	43	33	14	0.7	1.8	394	50	46	
05S 02E 12CBA 01	26	3.8	16	30	0.8	1.2	67	22	17	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
02S 03E 32ABB 01	4.0	0.29	22	200	<0.010	3.19	0.070	30	<10	
04S 05E 09CAA 03	15	0.23	18	490	<0.010	11.1	<0.010	20	<10	
05S 02E 12CBA 01	5.1	0.24	12	120	<0.010	5.30	<0.010	40	<10	

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

WICHITA COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
18S 37W 13CAC 01	382912101213501			07-02-87	628	7.70	15.5	270	120
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)
18S 37W 13CAC 01	68	24	21	14	0.6	4.7	147	5.6	67
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
18S 37W 13CAC 01	46	1.1	42	360	<0.010	5.70	<0.010	<10	<10

WYANDOTTE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
11S 23E 28CBC 01	390339094520801	--			05-26-87	718	6.80	15.5	290	93
11S 25E 20ABA 05	390503094393505	97.00	110ALVM		05-27-87	1240	6.70	15.5	520	85
LOCAL IDENT- I- FIER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	
11S 23E 28CBC 01	100	6.9	7.2	5	0.2	0.60	196	60	48	
11S 25E 20ABA 05	180	21	64	21	1	10	438	172	140	
LOCAL IDENT- I- FIER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
11S 23E 28CBC 01	3.0	0.35	9.9	300	<0.010	0.100	<0.010	70	<10	
11S 25E 20ABA 05	70	0.25	23	780	0.400	<0.010	0.270	9500	1400	

CHEMICAL QUALITY OF PRECIPITATION

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OSAGE RIVER BASIN

373903094481300 FARLINGTON STATE FISH HATCHERY, KS
(National trends network station)

LOCATION.--Lat 37 deg 39 min 03 sec, long 94 deg 48 min 13 sec, in NW1/4 NW1/4 SE1/4 sec.32, T.27 S., R.24 E., Crawford County, Hydrologic Unit 10290104, 3 mi northwest of Farlington, and 0.5 mi northwest of Farlington Lake.

PERIOD OF RECORD.--March 1984 to current year.

INSTRUMENTATION.--The sample collector is an Aeriochem Metrics Wet/Dry Precipitation Collector and a recording rain gage (with event recorder).

REMARKS.--Chemical analyses of rainfall collected in wet-dry automatic sampler. Data collected in cooperation with Kansas State Park and Resources Authority. Chemical analyses from National Atmospheric Deposition Program, National Trends Network Analytical Laboratory. Specific conductance and pH are measured in the field, before the composite sample is sent in for analysis.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PRECIP- ITATION TOTAL INCHES/ WEEK	SAMPLE SIZE (ML)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 07-14	0.95	1500	11	11	4.53	4.72	0	0.05	0.01
OCT 21-28	1.20	2100	12	13	4.63	4.62	0	0.03	0.00
OCT 28- NOV 04	0.75	1300	13	12	4.60	4.77	1	0.20	0.02
NOV 04-11	--	1500	21	18	4.44	4.50	0	0.07	0.01
NOV 18-25	0.10	160	51	43	4.22	4.43	4	1.3	0.08
NOV 25- DEC 02	2.15	3900	7	8	4.81	4.83	0	0.05	0.00
DEC 02-09	0.81	1400	14	12	4.53	4.64	0	0.08	0.02
DEC 09-16	0.05	28	--	22	--	6.30	2	0.86	0.06
DEC 16-23	0.0	0	--	2	--	5.83	0	0.12	0.01

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
OCT 07-14	0.04	34	0.0	0.01	1.1	<0.03	0.64	0.11	<0.01
OCT 21-28	0.02	33	0.0	0.01	1.2	<0.03	0.67	0.19	0.01
OCT 28- NOV 04	0.06	18	0.0	0.00	1.4	0.11	0.64	0.08	<0.01
NOV 04-11	0.02	17	0.0	0.01	1.8	0.05	1.1	0.29	<0.01
NOV 18-25	0.20	10	0.0	0.09	6.7	0.20	4.5	1.6	<0.01
NOV 25- DEC 02	0.01	16	0.0	0.01	0.8	<0.03	0.42	0.09	<0.01
DEC 02-09	0.10	42	0.1	0.01	1.2	0.17	0.74	0.08	<0.01
DEC 09-16	1.8	63	0.5	0.02	3.1	0.22	4.8	<0.07	<0.04
DEC 16-23	0.03	16	0.0	0.03	0.1	0.04	0.11	0.02	<0.01

CHEMICAL QUALITY OF PRECIPITATION

OSAGE RIVER BASIN

373903094481300 FARLINGTON STATE FISH HATCHERY, KS--Continued
(National trends network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PRECIP- ITATION TOTAL INCHES/ WEEK	SAMPLE SIZE (ML)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DEC 30 1986-									
JAN 06 1987	0.05	75	--	26	--	4.95	2	0.86	0.06
JAN 06-13	0.75	1300	9	10	4.84	4.90	1	0.18	0.02
JAN 13-20	1.27	0	--	4	--	5.99	1	0.29	0.02
JAN 27-									
FEB 03	0.02	8	--	37	--	6.77	2	0.75	0.14
FEB 03-10	0.29	500	40	39	4.00	4.12	0	0.15	0.02
FEB 10-17	3.15	5600	20	18	4.31	4.48	0	0.07	0.01
FEB 24-									
MAR 03	2.15	5500	7	7	4.71	4.86	0	0.02	0.01
MAR 03-10	0.0	3	--	2	--	5.76	1	0.18	0.01
MAR 10-17	--	900	17	15	4.69	4.87	2	0.54	0.05
MAR 17-24	--	3300	8	8	4.95	4.97	0	0.11	0.01
MAR 24-31	0.05	6	--	40	--	6.37	--	--	--
MAR 31-									
APR 07	0.0	0	--	8	--	6.52	2	0.71	0.07
APR 07-14	--	80	--	17	--	5.64	3	1.0	0.11

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
DEC 30 1986-									
JAN 06 1987	0.65	37	0.2	0.04	4.1	0.16	4.2	1.4	<0.01
JAN 06-13	0.02	8	0.0	0.01	1.1	0.06	1.3	0.43	<0.01
JAN 13-20	0.03	8	0.0	0.02	0.3	0.06	0.73	0.15	<0.01
JAN 27-									
FEB 03	0.55	--	0.2	<0.09	1.7	<0.86	1.2	<0.58	<0.29
FEB 03-10	0.07	25	0.0	0.01	3.3	0.10	3.3	0.41	<0.01
FEB 10-17	0.03	22	0.0	0.01	1.8	0.07	1.3	0.37	<0.01
FEB 24-									
MAR 03	0.00	10	0.0	0.00	0.6	<0.03	0.39	0.05	<0.01
MAR 03-10	0.01	--	0.0	<0.01	0.0	<0.03	0.35	<0.02	<0.01
MAR 10-17	0.23	18	0.1	0.48	2.2	0.32	1.4	0.32	<0.01
MAR 17-24	0.04	22	0.0	0.02	1.1	0.08	0.54	0.26	<0.01
MAR 24-31	--	--	--	--	--	--	--	--	--
MAR 31-									
APR 07	0.04	4	0.0	0.02	1.1	0.11	0.75	0.21	<0.01
APR 07-14	0.18	11	0.0	0.10	2.7	0.32	0.39	0.59	<0.01

CHEMICAL QUALITY OF PRECIPITATION

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OSAGE RIVER BASIN

373903094481300 FARLINGTON STATE FISH HATCHERY, KS--Continued
(National trends network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PRECIP- ITATION TOTAL INCHES/ WEEK	SAMPLE SIZE (ML)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
APR 14-21	0.16	0	--	4	--	5.96	1	0.21	0.02
APR 21-28	0.0	0	--	2	--	5.85	0	0.08	0.01
APR 28- MAY 05	0.75	1300	14	--	4.90	5.94	1	0.36	0.03
MAY 05-12	1.93	3400	17	18	4.59	4.62	1	0.15	0.02
MAY 12-19	0.55	900	12	13	4.97	5.36	1	0.42	0.04
MAY 19-26	0.92	1600	--	9	5.19	5.76	1	0.43	0.03
MAY 26- JUN 02	3.00	5100	12	11	4.75	4.76	0	0.08	0.02
JUN 02-09	0.58	1000	8	7	5.08	5.40	1	0.29	0.02
JUN 09-16	0.40	670	12	10	5.27	5.19	1	0.18	0.02
JUN 16-23	2.00	3500	19	20	4.45	4.50	1	0.35	0.02
JUN 23-30	0.70	1200	12	13	6.02	6.33	3	1.1	0.05
JUN 30- JUL 07	2.96	4900	14	15	4.56	4.63	1	0.16	0.02
JUL 07-14	0.45	--	16	12	4.62	5.74	2	0.61	0.06

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
APR 14-21	0.03	8	0.0	0.03	0.8	0.05	0.35	0.25	<0.01
APR 21-28	0.02	17	0.0	0.00	0.0	<0.03	0.10	0.05	<0.01
APR 28- MAY 05	0.08	14	0.0	0.05	1.5	0.16	0.73	0.41	<0.01
MAY 05-12	0.03	13	0.0	0.04	2.3	0.09	1.4	0.62	<0.01
MAY 12-19	0.09	13	0.0	0.06	1.9	0.13	1.2	0.55	<0.01
MAY 19-26	0.08	11	0.0	0.05	1.2	0.14	1.2	0.45	<0.01
MAY 26- JUN 02	0.17	55	0.1	0.02	1	0.26	0.62	0.13	<0.01
JUN 02-09	0.05	12	0.0	0.02	0.9	0.08	0.95	0.22	<0.01
JUN 09-16	0.17	21	0.1	0.73	1.3	0.39	<0.03	<0.02	<0.02
JUN 16-23	0.07	13	0.0	0.02	2.1	0.15	1.4	0.27	<0.02
JUN 23-30	0.05	3	0.0	0.06	1.6	0.15	2.2	0.66	<0.02
JUN 30- JUL 07	0.08	27	0.1	0.02	1.5	0.14	1.0	0.28	<0.02
JUL 07-14	0.36	29	0.1	0.12	1.3	0.54	1.9	0.14	<0.02

CHEMICAL QUALITY OF PRECIPITATION

OSAGE RIVER BASIN

373903094481300 FARLINGTON STATE FISH HATCHERY, KS--Continued
(National trends network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PRECIP- ITATION TOTAL INCHES/ WEEK	SAMPLE SIZE (ML)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 14-21	0.35	620	5	5	5.71	5.88	1	0.27	0.03
JUL 21-28	0.0	0	--	2	--	5.50	0	0.02	0.00
JUL 28- AUG 04	0.25	460	24	7	4.59	5.09	1	0.27	0.02
AUG 04-11	0.05	72	--	20	--	5.41	5	1.6	0.12
AUG 11-18	0.80	1200	17	20	4.41	4.51	1	0.31	0.03
AUG 18-25	2.72	4700	15	18	4.37	4.55	1	0.29	0.02
AUG 25- SEP 01	0.50	850	17	19	4.45	4.47	1	0.24	0.02
SEP 01-08	0.55	870	66	18	4.16	4.46	1	0.16	0.01
SEP 08-15	0.40	680	16	18	4.47	4.62	1	0.31	0.02
SEP 15-22	0.95	1600	7	7	4.77	4.95	0	0.07	0.01
SEP 22-29	1.40	2500	16	15	4.46	4.54	0	0.03	0.01
SEP 29- OCT 06	--	0	--	2	--	5.68	0	0.07	0.00

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
JUL 14-21	0.11	22	0.0	0.02	0.8	0.17	0.59	0.20	<0.02
JUL 21-28	0.02	29	0.0	0.00	<0.0	0.05	<0.03	<0.02	<0.02
JUL 28- AUG 04	0.06	15	0.0	0.01	0.4	0.10	1.3	<0.02	<0.02
AUG 04-11	0.36	14	0.1	0.05	3.1	0.40	3.4	0.18	0.05
AUG 11-18	0.11	21	0.0	0.02	1.5	0.17	2.2	0.13	<0.02
AUG 18-25	0.07	14	0.0	0.02	1.8	0.11	1.5	0.25	<0.02
AUG 25- SEP 01	0.05	12	0.0	0.01	1.9	0.10	1.3	0.12	<0.02
SEP 01-08	0.07	24	0.0	0.02	1.9	0.07	1.0	0.16	<0.02
SEP 08-15	0.03	8	0.0	0.03	1.8	0.08	2.0	0.34	<0.02
SEP 15-22	0.05	31	0.0	0.01	0.6	0.08	0.51	0.04	<0.02
SEP 22-29	0.03	32	0.0	0.01	1.5	0.06	0.63	0.17	<0.02
SEP 29- OCT 06	0.05	--	0.1	<0.00	<0.0	0.10	0.09	0.03	0.03

CHEMICAL QUALITY OF PRECIPITATION

483

KANSAS RIVER BASIN

384021100545400 SCOTT LAKE STATE PARK, KS
(National trends network station)

LOCATION.--Lat 38 deg 40 min 21 sec, long 100 deg 54 min 54 sec, in SW1/4 SW1/4 SE1/4 sec.12, T.16 S., R.33 W., Scott County, Hydrologic Unit 10260004, 14 mi north of Scott City, and 1 mi south of Scott Lake.

PERIOD OF RECORD.--March 1984 to current year.

INSTRUMENTATION.--The sample collector is an Aeriochem Metrics Wet/Dry Precipitation Collector and a recording rain gage (with event recorder).

REMARKS.--Chemical analyses of rainfall collected in wet-dry automatic sampler. Data collected in cooperation with Kansas State Park and Resources Authority. Chemical analyses from National Atmospheric Deposition Program, National Trends Network Analytical Laboratory. Specific conductance and pH are measured in the field, before the composite sample is sent in for analysis.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PRECIPITATION TOTAL INCHES/ WEEK	SAMPLE SIZE (ML)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 07-14	0.41	E700	7	7	5.43	6.31	0	0.07	0.01
OCT 14-21	0.30	530	16	11	4.56	4.96	1	0.21	0.02
OCT 21-28	0.08	130	12	11	4.81	5.79	0	0.08	0.02
OCT 28-NOV 04	0.65	980	14	12	4.61	4.92	0	0.13	0.01
NOV 04-11	0.02	15	--	20	--	6.39	3	0.89	0.08
NOV 18-25	0.01	10	--	16	--	6.70	1	0.45	0.06
NOV 25-DEC 02	--	93	21	19	4.80	5.62	1	0.46	0.05
DEC 02-09	--	1500	16	16	4.49	4.66	0	0.08	0.01
DEC 09-15	--	0	--	1	--	5.60	0	0.04	0.01

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
OCT 07-14	0.02	17	0.0	0.01	0.9	<0.03	0.84	0.32	<0.01
OCT 14-21	0.06	17	0.0	0.04	1.7	0.09	0.93	0.51	<0.01
OCT 21-28	0.28	66	0.2	0.02	1.5	0.11	1.4	1.0	0.01
OCT 28-NOV 04	0.03	13	0.0	0.02	1.9	0.05	0.81	0.60	<0.01
NOV 04-11	0.59	32	0.2	0.15	1.2	0.53	4.3	<0.13	<0.07
NOV 18-25	0.61	--	0.2	<0.04	1.1	<0.42	0.99	<0.28	<0.14
NOV 25-DEC 02	0.31	32	0.1	0.05	2.3	0.18	3.4	1.1	<0.04
DEC 02-09	0.05	30	0.0	0.02	1.9	0.07	0.83	0.50	<0.01
DEC 09-15	0.01	--	0.0	<0.00	0.0	0.04	<0.03	<0.02	<0.01

CHEMICAL QUALITY OF PRECIPITATION

KANSAS RIVER BASIN

384021100545400 SCOTT LAKE STATE PARK, KS--Continued
(National trends network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PRECIP- ITATION TOTAL INCHES/ WEEK	SAMPLE SIZE (ML)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DEC 30 1986-									
JAN 06 1987	--	0	--	2	--	5.34	0	0.08	0.01
JAN 06-13	--	250	11	10	4.76	5.06	0	0.12	0.02
JAN 13-20	--	21	--	6	--	5.97	1	0.33	0.04
JAN 27-									
FEB 03	0.0	0	--	2	--	5.57	0	0.03	0.00
FEB 03-10	0.0	0	--	2	--	5.36	0	0.02	0.01
FEB 10-17	1.20	2000	13	10	4.15	5.03	0	0.08	0.01
FEB 17-24	0.04	71	9	11	5.30	6.30	1	0.20	0.03
FEB 24-									
MAR 03	0.62	890	4	3	5.16	5.64	0	0.03	0.01
MAR 10-17	0.41	780	13	12	5.19	5.98	2	0.62	0.05
MAR 17-24	0.35	500	15	16	5.03	6.35	1	0.42	0.04
MAR 24-31	0.17	120	21	20	5.09	6.22	2	0.87	0.06
MAR 31-									
APR 07	0.0	0	--	2	--	5.60	0	0.02	0.01
APR 07-14	0.55	900	10	9	4.99	5.83	1	0.37	0.03

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
DEC 30 1986-									
JAN 06 1987	0.02	17	0.0	0.00	0.1	0.04	0.05	<0.02	<0.01
JAN 06-13	0.10	35	0.1	0.01	0.9	0.10	1.2	0.34	<0.01
JAN 13-20	0.11	18	0.0	0.06	0.5	0.22	0.88	0.13	<0.04
JAN 27-									
FEB 03	0.02	28	0.0	0.00	0.0	0.05	<0.03	<0.02	<0.01
FEB 03-10	0.01	--	0.0	<0.00	0.0	<0.03	0.13	0.03	<0.01
FEB 10-17	0.03	22	0.0	0.01	1.3	0.06	1.2	0.60	<0.01
FEB 17-24	0.34	49	0.2	0.14	0.7	0.29	1.9	0.83	<0.01
FEB 24-									
MAR 03	0.01	20	0.0	0.00	0.4	<0.03	0.43	0.22	<0.01
MAR 10-17	0.15	15	0.0	0.05	2.1	0.12	1.4	0.63	<0.01
MAR 17-24	0.12	18	0.0	0.04	2.4	0.13	2.2	1.4	<0.01
MAR 24-31	0.16	12	0.0	0.07	3.2	0.19	2.9	1.5	<0.01
MAR 31-									
APR 07	0.01	--	0.0	<0.00	<0.0	0.04	<0.03	<0.02	<0.01
APR 07-14	0.06	10	0.0	0.02	1.2	0.08	1.7	0.62	0.02

CHEMICAL QUALITY OF PRECIPITATION

485

KANSAS RIVER BASIN

384021100545400 SCOTT LAKE STATE PARK, KS--Continued
(National trends network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PRECIP- ITATION TOTAL INCHES/ WEEK	SAMPLE SIZE (ML)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
APR 14-21	0.0	0	--	2	--	5.90	0	0.02	0.01
APR 28- MAY 05	1.77	3000	9	11	5.50	6.63	2	0.77	0.04
MAY 05-12	0.75	1300	18	14	4.67	5.47	1	0.40	0.03
MAY 12-19	0.10	170	14	17	5.83	6.50	3	0.90	0.07
MAY 19-26	0.95	1700	6	7	5.35	6.10	0	0.12	0.02
JUN 09-16	0.59	990	7	7	5.37	5.86	0	0.13	0.01
JUN 16-23	1.14	1800	7	7	5.38	5.77	1	0.25	0.02
JUN 23-30	1.44	2500	10	11	5.82	6.44	1	0.43	0.04
JUN 30- JUL 07	2.14	3600	7	6	4.96	5.47	1	0.20	0.02
JUL 07-14	3.99	6700	7	7	5.70	6.37	1	0.47	0.04
JUL 14-21	0.07	120	10	13	5.68	6.58	2	0.66	0.06
JUL 21-28	0.0	0	--	2	--	5.38	--	0.01	<0.00
JUL 28- AUG 04	0.85	1400	17	9	5.05	6.30	1	0.40	0.03

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
APR 14-21	0.04	--	0.1	<0.00	0.0	0.06	0.04	0.05	<0.01
APR 28- MAY 05	0.04	4	0.0	0.04	1.0	0.08	1.2	0.76	<0.01
MAY 05-12	0.03	5	0.0	0.02	2.3	0.11	2.2	1.1	<0.01
MAY 12-19	0.09	7	0.0	0.12	1.8	0.15	2.6	1.3	<0.01
MAY 19-26	0.03	16	0.0	0.02	0.7	0.12	1.2	0.63	<0.01
JUN 09-16	0.02	10	0.0	0.03	0.9	0.05	0.97	0.60	<0.02
JUN 16-23	0.05	12	0.0	0.03	0.7	0.07	1.1	0.39	<0.02
JUN 23-30	0.05	7	0.0	0.09	1.2	0.12	1.6	0.64	<0.02
JUN 30- JUL 07	0.03	9	0.0	0.03	0.6	0.07	0.94	0.29	<0.02
JUL 07-14	0.09	12	0.0	0.05	0.7	0.12	0.88	0.39	<0.02
JUL 14-21	0.21	18	0.1	0.11	1	0.19	1.7	0.70	<0.02
JUL 21-28	0.01	--	--	<0.00	<0.0	<0.03	<0.03	<0.02	<0.02
JUL 28- AUG 04	0.05	8	0.0	0.05	0.7	0.08	1.7	0.70	<0.02

CHEMICAL QUALITY OF PRECIPITATION

KANSAS RIVER BASIN

384021100545400 SCOTT LAKE STATE PARK, KS--Continued
(National trends network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PRECIP- ITATION TOTAL INCHES/ WEEK	SAMPLE SIZE (ML)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 04-11	0.49	640	10	10	5.52	6.38	2	0.60	0.05
AUG 11-18	1.49	2500	6	6	4.97	5.49	0	0.09	0.01
AUG 18-25	0.18	260	10	8	5.08	6.19	1	0.26	0.03
AUG 25- SEP 01	0.57	950	10	10	5.88	6.50	1	0.43	0.04
SEP 01-08	0.06	120	12	29	4.22	4.82	2	0.60	0.06
SEP 08-15	0.24	430	14	14	5.80	6.43	2	0.63	0.05
SEP 15-22	0.09	150	12	10	4.55	5.29	2	0.32	0.40
SEP 22-29	0.0	0	--	1	--	5.64	0	0.04	0.00
SEP 29- OCT 06	0.0	0	--	2	--	5.80	0	0.02	0.00

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
AUG 04-11	0.09	10	0.0	0.11	0.9	0.13	1.8	0.57	<0.02
AUG 11-18	0.02	16	0.0	0.00	0.6	0.06	0.83	0.40	<0.02
AUG 18-25	0.14	27	0.1	0.02	0.8	0.10	1.2	0.37	<0.02
AUG 25- SEP 01	0.06	9	0.0	0.10	1.0	0.14	1.2	0.69	<0.02
SEP 01-08	0.22	20	0.1	0.17	3.3	0.25	5.0	1.6	<0.02
SEP 08-15	0.15	14	0.0	0.10	1.6	0.12	2.5	0.98	<0.02
SEP 15-22	0.18	13	0.0	0.06	1.1	0.15	2.0	0.36	<0.02
SEP 22-29	0.03	30	0.0	0.01	0.0	0.04	0.04	<0.02	<0.02
SEP 29- OCT 06	0.02	37	0.0	0.01	<0.0	0.05	0.13	<0.02	<0.02

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