DESIGN OF A SEDIMENT DATA-COLLECTION PROGRAM IN KANSAS AS AFFECTED BY TIME TRENDS

By P. R. Jordan

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 85-4204

Prepared in cooperation with the

KANSAS WATER OFFICE

Lawrence, Kansas

1985

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to:

District Chief
U.S. Geological Survey, WRD
1950 Constant Avenue - Campus West
Lawrence, Kansas 66046
[Telephone: (913) 864-4321]

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CONVERSION FACTORS

For those readers who may prefer to use the International System (SI) of Units, the conversion factors for inch-pound units used in this report are listed below:

Multiply inch-pound unit	By	To obtain SI unit
mile	1.609	kilometer
square mile	2.590	square kilometer
cubic foot per second	0.02832	cubic meter per second

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ABSTRACT

Data-collection programs need to be re-examined periodically in order to insure their usefulness, efficiency, and applicability. The possibility of time trends in sediment concentration, in particular, makes the examination with new statistical techniques desirable.

After adjusting sediment concentrations for their relation to streamflow rates and by using a seasonal adaptation of Kendall's nonparametric statistical test, time trends of flow-adjusted concentrations were detected for 11 of the 38 sediment records tested that were not affected by large reservoirs. Ten of the 11 trends were toward smaller concentrations; only 1 was toward larger concentrations. Of the apparent trends that were not statistically significant (0.05 level) using data available, nearly all were toward smaller concentrations. Because the reason for the lack of statistical significance of an apparent trend may be inadequacy of data rather than absence of trend and because of the prevalence of apparent trends in one direction, the assumption was made that a time trend may be present at any station. This assumption can significantly affect the design of a sediment data-collection program.

Sudden decreases (step trends) in flow-adjusted sediment concentrations were found at all stations that were short distances downstream from large reservoirs and that had adequate data for a seasonal adaptation of Wilcoxon's nonparametric statistical test.

Examination of sediment records in the 1984 data-collection program of the Kansas Water Office indicated 12 stations that can be discontinued temporarily because data are now adequate. Data collection could be resumed in 1992 when new data may be needed because of possible time trends. New data are needed at eight previously operated stations where existing data may be inadequate or misleading because of time trends. Operational changes may be needed at some stations, such as hiring contract observers or installing automatic pumping samplers. Implementing the changes in the program can provide a substantial increase in the quantity of useful information on stream sediment for the same funding as the 1984 level.

INTRODUCTION

Data-collection programs need to be re-examined periodically in order to insure their usefulness, efficiency, and applicability. The sediment-data program in Kansas receives a cursory examination each year in connection with decisions on funding and current data needs. Nineteen years have elapsed since publication of the last Statewide evaluation of the sediment-data program (Collins, 1965), although a partial program evaluation in the Arkansas River basin was included in a 1977 publication (Osterkamp, 1977a). Since those evaluations, the sediment data at many of the currently operated (1984) stations may have become adequate to justify discontinuing data collection at those stations for several years. New large reservoirs have been completed along with hundreds of farm ponds and watershed-district reservoirs. Changes in farming practices have occurred that either may have decreased or increased erosion and stream-sediment concentrations at different locations in the State. Statistical techniques that have become available recently are more capable of detecting time trends from the existing data than previous techniques.

Purpose and Scope of this Investigation

The purpose of this investigation is to use information on time trends, together with other information on sediment data, to design modifications to the cooperative sediment-data program with the Kansas Water Office. The investigation was funded jointly by the Kansas Water Office and the U.S. Geological Survey. The investigation focused primarily on suspended-sediment concentration and secondarily on suspended-sediment particle size. Bed-material particle size was included in the inventory of existing data but was not used in evaluating the data program. Because bed-material particle size does not change as rapidly with time as does suspended-sediment concentration and particle size, bed-material data can be assumed to be adequate if suspended-sediment data are adequate.

Major Changes in Kansas Sediment-Data Programs

A few analyses of suspended-sediment concentration were obtained during the first decade of the 20th century in Kansas in connection with chemical analyses of samples from the Missouri and Kansas Rivers. Systematic programs of sediment-data collection began during the late 1930's in connection with studies for Federal reservoir design. Sample collection and analysis improved markedly beginning in the early 1940's as a result of a Federal interagency project to develop improved equipment for sampling and laboratory analysis. A typical example of a report by the interagency project is one on improved samplers (Subcommittee on Sedimentation, 1952b). Sediment-data programs in Kansas were almost entirely Federally funded until 1957 when the Kansas Water Resources Board (now the Kansas Water Office) began an extensive program in cooperation with the U.S. Geological Survey.

Previous Publications on Sediment Data-Collection Programs in Kansas

Before about 1957, most sediment data were collected by Federal agencies at the sites of proposed Federal reservoirs for the purpose of providing data for design of the reservoirs. After its formation in 1955, the Kansas Water Resources Board, in cooperation with the U.S. Geological Survey, undertook a program to provide sediment data for broader and more general knowledge. After a few years of the new program, all the data available at the time were studied, and a new data-collection program was designed (Mundorff, 1961). Design of sediment-data programs was furthered by a study, principally based on knowledge of soil characteristics and geology, that classified source areas of sediment within the State (Collins, 1965). Southern Kansas was included in the sediment data-collection network as recommended by a Federal interagency group for the Arkansas, Red, and White River basins (Sedimentation Work Group, 1967). The most recently published data-collection recommendations were included in a report on sediment in the Arkansas River basin in Kansas (Osterkamp, 1977a). Time trends of sediment discharge or concentration in Kansas have not been previously studied.

INVENTORY OF EXISTING SEDIMENT DATA

Published and unpublished sources of data were searched in order to compile an inventory of available sediment data through water year 1983 (table 5 at the end of this report). Because many sediment stations were operated on somewhat irregular schedules, this inventory provides useful information by listing the number of measurements of each type in each year. However, many published records of daily suspended-sediment concentrations and discharges, or both, were developed from graphs of concentration or sediment discharge versus time based on samples collected more or less frequently than daily. Although these records are shown as daily records, far less than 365 samples may have been collected during the year, and for some periods the concentrations or discharges may not have been shown for each day but as averages for periods of a few days to a month.

Much of the data identified in the inventory for this investigation are stored on the U.S. Geological Survey's WATSTORE (water-data storage and retrieval) system and can be retrieved by individual station number, range of station numbers, or areal polygon identified by coordinates of latitude and longitude. The inventory is arranged generally by eight-digit station numbers, which are in downstream order. Sites not identified by station number also are arranged in downstream order with the eight-digit numbered stations. Some stations, identified by 15-digit numbers which represent the latitude and longitude, are found in two groups in table 5 (at the end of this report). One group is at the end of the Missouri River basin stations (following the eight-digit station numbers that have 06 as the first two digits), and the other group is at the end of the Lower Mississippi (Arkansas) River basin stations (following the eight-digit station numbers that have 07 as the first two digits).

The first 6 of the 15 digits denote the latitude with 2 digits each for degrees, minutes, and seconds. The next seven digits denote the longitude with three digits for degrees and two digits each for minutes and seconds. The last 2 of the 15 digits denote the sequence number, zero except when 2 or more data-collection sites (not necessarily sediment stations) are identified by the same latitude and longitude.

Although many published and unpublished sources of data were searched, the inventory may have some omissions, overcounts of numbers of analyses, or other errors. Where more than one source of data is listed for any year, any of the sources may or may not contain all the data. Some sources of data did not describe the exact location of each station, and the inventory may list data from different locations on a stream under a single station's listing. Listings of data outside Kansas may be less accurate and less complete than those within Kansas. The listings outside Kansas were provided to aid in obtaining data that may be useful for interpolating sediment characteristics for unsampled sites. The inventory is stored on a computer file for efficiency in making corrections and updates.

In addition to stream-sediment data, data on sediment deposition in reservoirs are available from numerous surveys. Such data for reservoirs and ponds in Kansas and on streams flowing into Kansas are contained in the following references:

Committee on Sedimentation, 1969;
Committee on Sedimentation, 1973;
Dendy and Champion, 1969;
Hansen and others, 1949;
Hill and Gow, 1955;
Holland, 1971;
Subcommittee on Sedimentation, 1957;
U.S. Army Corps of Engineers, 1953;
U.S. Army Corps of Engineers, 1961;
U.S. Army Corps of Engineers, 1963;
U.S. Army Corps of Engineers, 1972a; and
U.S. Bureau of Reclamation, 1950.

TIME TRENDS OF SEDIMENT CONCENTRATION

Sediment concentration in a stream varies in response to many factors, but time *per se* is not one of them. It is because of a lack of exact knowledge of the physical relationships that affect sediment concentration and a lack of detailed data on the conditions in a drainage basin and stream, which are continually changing, that attempts are made to determine trends of sediment concentration with respect to time. It is known that, within a year, sediment concentrations respond to changes in precipitation and to seasonal changes in the condition of the land in a drainage basin and that some changes extend for a number of years. These responses are called "time trends." An example of a gradual time trend would be a gradual decrease of sediment concentration because of completion of a few watershed-district flood-detention structures in a drainage basin each year for a number of years. Another example would be a gradual increase in sediment concentration because of conversion of rangeland to row crops each year for several years. In contrast to a gradual trend, the immediate decrease of sediment concentration downstream from a large reservoir when it begins storage would be an example of a sudden or "step trend."

Design of data-collection programs can be affected by knowledge of time trends. A record of sediment concentrations and discharges at a site for 1941-54 might be sufficient to satisfy needs for planning or design in 1984 if there is no time trend, but the record may be completely inadequate or misleading if there has been a time trend.

Knowledge of relations of time trends to changes in physical characteristics of a drainage basin would be desirable but is sometimes impractical to obtain. For example, it would be extremely difficult to compile yearly data on all land-use changes in a drainage basin of 2,000 square miles. In contrast, some relations are easy to obtain; a large reservoir a short distance upstream from a sediment-data-collection station undoubtedly has an effect that overshadows any other factor.

Even in the absence of knowledge of the causes of a time trend, knowledge of the existence of a time trend is valuable in the design of a data-collection program. In this report, because the emphasis is on design of a data program, principal emphasis on time trends will be on their presence or absence rather than on their causes.

Criteria for Selecting Data-Collection Stations for Trend Analysis

If sediment concentrations at a data-collection station have had a time trend, detection depends on the availability of adequate data during the time of the trend. Because the time trend of interest is one of several years, the data available need to be for several years. Because sediment concentrations are extremely variable within a year, the measurements need to include a considerable range of concentrations, and numerous measurements during each year are desirable. The data need to be suitable for an unbiased determination of the average relation between sediment concentration and streamflow rate. The best indication of an unbiased relation would be the availability of samples collected throughout a wide range of streamflow rates in both early and late years, whereas samples collected only within a small range of streamflow rates in either early or late years would result in a biased relation. For the purpose of detecting a trend, measurements of sediment concentrations need not be available in every year. The absence of data in some middle years of a period may decrease but not eliminate the chance of detecting the trend.

For the purpose of this report, selection of sediment stations for trend analysis was made according to the following criteria:

(1) Measurements of sediment concentrations were available for at least 8 years from the first to the last year; however, some middle years could be without data. Data were assumed to be equally accurate in all years.

(2) Data available included at least 30 days when sediment concentrations and streamflow rates were determined.

(3) If the station had near the minimum number of concentration determinations, the first 3 years and the last 3 years had at least 4 determinations each.

In addition, if the available data appeared biased, the results were discounted.

Method of Analysis

This investigation used nonparametric tests for detection of time trends as described by Crawford and others (1983). Most of the earlier trend-detection methods were, as explained by Crawford and others (1983, p. 2), "...based on classical (parametric) hypothesis testing. However, because of the nature of water-quality data (typically skewed, serially correlated, and showing seasonality), many of the assumptions underlying classical hypothesis tests are not met, rendering them inappropriate... . Recently, however, thinking has begun to shift toward distribution-free (nonparametric) tests that have less restrictive assumptions than their classical counterparts and are therefore less sensitive to the distribution of the water-quality time series." Although nonparametric tests also have problems with serially correlated data, the nonparametric tests used in this report have the advantage that the form of the distribution need not be known or assumed.

Typically, suspended-sediment concentrations are related to rates of streamflow. The effect of this relation on trend detection is, as explained by Crawford and others (1983, p. 10-11, paraphrased): When sediment concentrations and streamflow are related, apparent trends in sediment may be due only to fluctuation in streamflow rather than to changes in the processes that affect the introduction and fate of sediment in the stream. For example, consider a typical stream where sediment concentrations increase as streamflow increases and vice versa. During wet weather, large suspended-sediment concentrations would be expected. If this wet weather was followed by a drought, a decrease in suspended-sediment concentrations would be expected. If such a time series was tested for trends in sediment concentrations, a significant downtrend would be indicated. However, such a trend could be entirely attributable to the fluctuation in streamflow during the period. In order to test for trends in the processes affecting sediment during the period, it would be necessary to remove the effect of streamflow. Flow adjustment is an attempt to remove a major source of variation in sediment concentrations that may be masking those variations attributable to changes in the sediment contributions to the stream or in the processes occurring in the stream.

The method of flow adjustment used in this investigation was simply to fit a regression equation to the relation between sediment concentrations and streamflow rate, then calculate the flow-adjusted concentration as the actual concentration minus the concentration predicted from the regression equation. Several regression models were tested for fit of the data without regard to time for each sediment station. These included linear,

log-linear, quadratic, log-quadratic-log, log-log, and hyberbolic models. Mathematical forms of these models are given in Crawford and others (1983). The applicability of each model was judged by the coefficient of determination (R^2) and graphs of predicted and measured values versus streamflow rate. When the model was linear, log-linear, quadratic, or hyperbolic, the flow-adjusted concentrations were in units of concentration (milligrams per liter). When the model was log-quadratic-log or log-log, the flow-adjusted concentrations were in units of natural logarithms of concentration. The regression equations used in the calculation of flow-adjusted concentrations are not shown in this report because their use for any other purpose would probably give erroneous results if time trends exist or if applied to data outside the range for which they were developed.

It is well known that unadjusted sediment concentrations and flow-adjusted concentrations vary seasonally in Kansas. For example, unadjusted and flow-adjusted concentrations generally are small in winter, when streamflows result from snowmelt or slight-intensity rainfall on frozen soil, compared with summer, when streamflows commonly result from intense rainfall on tilled soil. The statistical tests for trend used in this report avoided the problem of seasonality by comparing only data from the same season of the year. January data were compared only with January data, April data only with April data, and so on.

The test used for monotonic time trends (one-directional and without discontinuity) is a modified form of Kendall's *tau* (Kendall, 1975) derived by Hirsch and others (1982). For data-collection stations having the possibility of a sudden change in flow-adjusted concentrations because of the closure of a large reservoir upstream, a test for differences between two separate periods in a time series was used. This test uses a modified version of the Wilcoxon rank-sum test, which is equivalent to the Mann-Whitney test described in Conover (1971, p. 224). The seasonal rank-sum test compares only data from the same season, as does the seasonal Kendall test.

The tests used are tests of the "null hypothesis" that there was no monotonic trend (for the seasonal Kendall test) or that there was no change between two periods (for the seasonal rank-sum test). One value computed for each test is the probability of falsely rejecting the null hypothesis. The slope estimator in the seasonal Kendall test is the median of the slopes of all possible same-season pairs of data. In tests for trend, as in other statistical tests, even if the probability of falsely rejecting for an individual station is small, when the test is made for each of a group of stations the probability of falsely rejecting the hypothesis for at least one station of the group is fairly substantial. This needs to be kept in mind when evaluating the results of tests for a group of stations.

Another possibility of error is of accepting the null hypothesis when it is actually false; that is, concluding there was no trend when a trend actually existed. The screening of data-collection stations before trend tests were made may have eliminated many stations where this error would have been made, as well as eliminating other stations where the

other error, of erroneously concluding that a trend existed, would have been made. If a significant trend is not indicated by the test for a particular station, no conclusion can be made for that station. The absence of indication of trend may have been caused by actual absence of trend or by the small number or substantial variance of the data available for the test.

In this investigation the interpretation has been made that, for the purpose of design of a data-collection program, if trends are detected for several stations, the assumption is that trends may have existed or may occur in the near future at other stations, and the data-collection program can be adjusted to accommodate them.

Sediment data used for the trend analyses were from the U.S. Geological Survey's Water-Quality Data File, which includes all types of water-quality data except for daily values. For most sediment stations having daily records, concentration data other than daily values are available, usually in the form of concentrations determined from samples collected for particle-size analysis. For some stations, the use of daily values for trend analysis would be worthwhile because it would increase the quantity of data used. However, daily values are strongly serially correlated, which decreases the value of the additional data. Because of the serial correlation and because the computation system used in this investigation provides for the most convenient use of a single-file system as input to the trend tests, the daily values were not used.

In addition to the daily values, some of the other available data were not used in the trend analyses. For many of the samples, the streamflow rate at the time of sampling had not been determined, and those samples were not used in the analyses. Sediment-concentration values with peculiarities, such as concentrations for composites of samples collected on different days, were not used. For these reasons, the quantity of data used in the trend tests for many of the stations was less than the quantity of data listed in the inventory table (table 5).

Results of Analysis

Results of the tests for monotonic trends are shown in table 1. The seasonal Kendall test for monotonic trend was used for stations at which there was no sudden large change (a large reservoir) that would overshadow any gradual trend. Results for stations at which sediment concentrations would be affected by more than one reservoir in different years also are included in table 1. Some of these stations also are included in table 2, which contains the results of Wilcoxon rank-sum tests for step trend where a large reservoir would be expected to have a sudden large effect. The Wilcoxon rank-sum test was used for some stations where a particular one of two or more reservoirs was thought to have the most effect.

Of the 38 data-collection stations in table 1 that were not affected by large reservoirs, trends were detected at the 5-percent (0.05) level of probability at 11 stations, or 29 percent of the stations. Because of the limitations of the data and the analysis, the probability that trends

Table 1.--*Results of tests for monotonic time trends in suspended-sediment concentrations*

Data collection station	Water years	Number of measurements	12-season Kendall test on flow-adjusted concentration		Remarks
			Slope	Probability level	
06815300	1963-71, 1976-79	90	[1]/-0.025	0.90	Watershed-district flood-detention structures 1963-68, 47 percent of drainage area.
06846500	1962-63, 1973-75, 1977, 1979, 1981, 1983	47	[2]/-97.	[3]/.00	No watershed district.
06856600	1960-61, 1976, 1978-83	444	[1]/.035	.36	Harlan County and Lovewell Reservoirs completed before 1960. Watershed-district flood-detention structures 1983, 0.2 percent of drainage. Upstream from Milford Lake.
06867000	1951, 1958, 1960, 1976-77, 1979-83	80	[1]/-.015	[4]/ --	Upstream from Wilson Lake. No watershed district. Data biased; only small flow rates sampled in late years.
06869500	1960, 1972-83	84	[1]/.058	.71	Downstream from Wilson Lake. Watershed-district flood-detention structures 1971-80, 4 percent of drainage area.
06876900	1960-62, 1973-83	141	[1]/-.008	.57	Downstream from Waconda Lake. Watershed-district flood-detention structures, 5 percent of drainage area.

Table 1.--*Results of tests for monotonic time trends in suspended-sediment concentrations*--Continued

Data collection station	Water years	Number of measurements	12-season Kendall test on flow-adjusted concentration		Remarks
			Slope	Probability level	
06877600	1960-61, 1973-83	119	[1/] -0.022	0.19	Downstream from several reservoirs. Watershed-district flood-detention structures 1971-83, 4 percent of drainage area.
06884400	1976-83	55	[1/] -.017	.89	Upstream from Tuttle Creek Lake. Thirteen watershed-district flood-detention structures in Nebraska 1979, very small fraction of drainage area.
06887000	1975-83	80	[2/]-2.6	[3/].02	Directly downstream from Tuttle Creek Lake. Measurements all made after completion of lake.
06887500	1960-61, 1973-83	105	[1/]-.052	.00	Downstream from reservoirs. Watershed-district flood-detention structures 1971-83, 4 percent of drainage area.
06889100	1973-80	44	[1/] .194	.59	No watershed district.
06889120	1973-80	58	[1/] .060	.66	No watershed district.
06889140	1973-80	39	[1/] .014	1.00	No watershed district.
06889160	1973-80	67	[1/] .104	.36	No watershed district.
06889180	1973-75, 1977-80	44	[1/].010	1.00	No watershed district.

Table 1.--*Results of tests for monotonic time trends in suspended-sediment concentrations*--Continued

Data collection station	Water years	Number of measurements	12-season Kendall test on flow-adjusted concentration		Remarks
			Slope	Probability level	
06889200	1973-75, 1978-80	35	[1]/0.034	0.84	No watershed district.
06892000	1960-61, 1976-83	62	[1]/-.006	.95	No watershed district.
07137500	1958, 1962, 1975-83	104	[1]/-.130	[3]/.01	Downstream from John Martin Reservoir, measurements all made after completion of reservoir. No watershed district.
07138000	1958, 1961, 1973-81, 1983	132	[1]/.021	.26	Downstream from John Martin Reservoir, measurements all made after completion of reservoir. No watershed district.
07139500	1958, 1961, 1973-81	61	[2]/93.	[3]/.00	Downstream from John Martin Reservoir, measurements all made after completion of reservoir. Watershed-district flood-detention structures 1968-69, 0.2 percent of drainage area.
07140000	1958, 1960-62, 1975-83	71	[1]/.026	.30	Downstream from John Martin Reservoir, measurements all made after completion of reservoir. Watershed-district flood-detention structures 1968-69, 0.1 percent of drainage area.

Table 1.--*Results of tests for monotonic time trends in suspended-sediment concentrations*--Continued

Data collection station	Water years	Number of measurements	12-season Kendall test on flow-adjusted concentration		Remarks
			Slope	Probability level	
07141200	1958-60, 1962, 1973-83	46	1/-0.005	0.73	Sixteen watershed-district flood-detention structures completed by 1975, 5 percent of drainage area.
07141300	1957-61, 1973-76, 1981	73	2/3.5	.32	Downstream from John Martin Reservoir, measurements all made after completion of reservoir. Watershed-district flood-detention structures 1968-69, 0.8 percent of drainage area.
07143300	1939-52, 1958, 1960-63, 1965-66, 1971, 1973-83	237	1/-.016	3/.00	Cheyenne Bottoms wetland enlarged about 1955. No watershed district.
07143330	1959-62, 1973-83	120	1/-.004	.83	Downstream from John Martin Reservoir, measurements all made after completion of reservoir. Watershed-district flood-detention structures, 0.8 percent of drainage area.
07144200	1944-52, 1957-63, 1965-74, 1977-83	188	1/.006	.38	Watershed-district flood-detention structures 1982, 0.4 percent of drainage area.
07144780	1973-83	136	2/.7	.68	Upstream from Cheney Reservoir. No watershed district.

Table 1.--*Results of tests for monotonic time trends in suspended-sediment concentrations*--Continued

Data collection station	Water years	Number of measurements	12-season Kendall test on flow-adjusted concentration		Remarks
			Slope	Probability level	
07145200	1962, 1973-83	77	2/-1.1	0.58	No watershed district.
07145500	1940-52, 1954, 1958, 1960-62, 1973-83	204	1/-.203	.00	Downstream from Cheney Reservoir. Watershed-district flood-detention structures 1962, 1972, 0.6 percent of drainage area.
07146500	1943-45, 1958, 1961-62, 1973-83	192	1/-.027	3/.00	Watershed-district flood-detention structures 1962-83, 0.7 percent of drainage area.
07147070	1961-62, 1976-83	71	1/-.038	.04	Probably biased; only high flows sampled in 1961-62. Watershed-district flood-detention structures 1976-81, 15 percent of drainage area.
07147800	1943-45, 1961-62, 1973-74, 1976-77, 1979-83	125	1/-.027	.00	Downstream from El Dorado Lake. Watershed-district flood-detention structures 1965-82, 28 percent of drainage area.
07149000	1938-50, 1958, 1962, 1976-81	256	2/-15.	4/ --	No watershed district. Data biased; only small flow rates sampled in late years.

Table 1.--*Results of tests for monotonic time trends in suspended-sediment concentrations*--Continued

Data collection station	Water years	Number of measurements	12-season Kendall test on flow-adjusted concentration		Remarks
			Slope	Probability level	
07157500	1944-48, 1973, 1975-83	82	2/-0.7	0.69	No watershed district.
07157900	1973-81, 1983	46	1/-.097	4/ --	No watershed district. Data biased; only small flow rates sampled in late years.
07165700	1956-77	544	1/-.009	.19	Downstream from Toronto Lake. Watershed-district flood-detention structures 1962-70, 66 percent of drainage area.
07166000	1940-52, 1954-78	423	2/-26.	.00	Downstream from Toronto Lake. Watershed-district flood-detention structures all upstream from Toronto Lake, all completed after lake.
07166500	1940-78	451	1/-.035	.00	Downstream from Toronto Lake. Watershed-district flood-detention structures all upstream from Toronto Lake, all completed after lake.
07167000	1947-48, 1950-51, 1954-76	185	1/-.036	3/.00	Upstream from Fall River Lake. Watershed-district flood-detention structures 1965-71, 50 percent of the drainage area.
07168500	1940-49, 1951-52, 1955, 1957-78	245	2/-10.	.00	Downstream from Fall River Lake. Watershed-district flood-detection structures all upstream from lake, all completed after lake.

Table 1.--*Results of tests for monotonic time trends in suspended-sediment concentrations*--Continued

Data collection station	Water years	Number of measurements	12-season Kendall test on flow-adjusted concentration		Remarks
			Slope	Probability level	
07169800	1967-78, 1980	104	[1]-0.048	[3]0.04	Upstream from Elk City Lake. Watershed-district flood-detention structures 1973-79, 52 percent of drainage area.
07170000	1940-44, 1948, 1954-70	170	[1]-.016	.13	Upstream from Elk City Lake. All measurements made before any watershed-district flood-detention structures completed.
07170700	1958-78, 1980	502	[1]-.002	.81	Site of Big Hill Lake. Measurements all made before lake. No watershed district.
07172000	1940-53, 1955-78	224	[1]-.041	[3].00	Watershed-district flood-detention structures 1965-82, 40 percent of drainage area.
07179500	1940-47, 1950, 1955-56, 1958-64, 1969-72, 1978-79, 1982	157	[2]14.	.00	Downstream from Council Grove Lake. No watershed district.
07179730	1966-78	119	[1].0	1.00	Downstream from Council Grove Lake, all measurements made after lake completed. No watershed district.
07180000 and 07179795	1940-42, 1944-48, 1951-52, 1951-52, 1957-63, 1965-67, 1971-76, 1979, 1981-82	164	[2]-9.5	.00	Downstream from Marion Lake. Biased by change of site. No watershed district.

Table 1.--*Results of tests for monotonic time trends in suspended-sediment concentrations*--Continued

Data collection station	Water years	Number of measurements	12-season Kendall test on flow-adjusted concentration		Remarks
			Slope	Probability level	
07180500	1940-48, 1951-52, 1957-79, 1982	217	[1]/-0.028	[3]/0.00	No watershed district.
07182250	1963-79, 1982	180	[1]/-.020	.09	Downstream from Marion Lake. Watershed-district flood-detention structures 1965, 0.7 percent of drainage area.
07183000	1940, 1944-49, 1951-52, 1961	51	[1]/-.25	.44	Downstream from John Redmond Reservoir, all measurements made before completion of reservoir. No watershed district during time of measurement.
07183500	1958, 1961, 1976-83	82	[2]/-1.1	[4]/--	Downstream from John Redmond Reservoir. Watershed-district flood-detention structures 1976, 1979, 0.7 percent of drainage area. Data biased; only large flow rates sampled in early years.
07184000	1940-46, 1976-83	109	[1]/ .035	[3]/.00	No watershed district. Probably affected by strip-mine ponds.

1 Units are natural logarithms of milligrams per liter per year.
2 Units are milligrams per liter per year.
3 Statistically significant (0.05 level) and not affected by closure of large reservoirs during period analyzed.
4 Probability level unknown because of bias in data analyzed.

Table 2.--*Results of seasonal nonparametric tests for step changes in flow-adjusted concentrations*

Station	Water years of data used	Seasonal step test, 12 seasons					Reservoir having most effect
		Cutoff date (decimal time)	Number of measurements before reservoir completion	Number of measurements after reservoir completion	Flow-adjusted concentration		
					Step	Probability level	
06869500	1960, 1972-83	1964.99	9	75	1/-1.227	0.02	Wilson Lake
06876900	1960-62, 1973-83	1969.02	58	83	1/-.315	.16	Waconda Lake
06887500	1960-61, 1973-83	1967.04	41	64	1/-1.159	.00	Milford Lake
07145500	1940-52, 1954, 1958, 1960-62, 1973-83	1964.88	121	83	1/-.738	.00	Cheney Reservoir
07147800	1943-45, 1961-62, 1973-74, 1976-83	1981.50	108	17	1/-.547	.00	El Dorado Lake
07166000	1940-52, 1954-78	1960.21	125	298	2/-816.	.00	Toronto Lake
07166500	1940-78	1960.21	209	242	1/-.752	.00	Toronto Lake

Table 2.--*Results of seasonal nonparametric tests for step changes in flow-adjusted concentrations*--Continued

Station	Water years of data used	Seasonal step test, 12 seasons					Reservoir having most effect
		Cutoff date (decimal time)	Number of measurements before reservoir completion	Number of measurements after reservoir completion	Flow-adjusted concentration		
					Step	Probability level	
07168500	1940-48, 1950-51, 1954-76	1949.30	89	156	2/-638.	0.00	Fall River Lake
07179500	1940-47, 1950, 1955-56, 1958-64, 1969-72, 1978-79, 1982	1964.78	93	64	2/-444.	.00	Council Grove Lake
07180000 and 07179795	1940-48, 1944-48, 1951-52, 1957-63, 1965-67, 1971-76, 1979, 1982	1968.16	141	23	2/-412.	.00	Marion Lake. Probably biased by change of site.
07182250	1963-79, 1982	1968.16	74	106	1/-.138	.08	Marion Lake.
07183500	1958, 1961, 1976-83	1963.69	4	78	2/-228.	3/--	Biased: only high-flow measurements before 1963. John Redmond Reservoir

1 Units are natural logarithms of milligrams per liter.
2 Units are milligrams per liter.
3 Probability level unknown because of bias in data analyzed.

existed at other stations but were not detected cannot be determined. Ten of the trends were negative, or toward smaller concentrations in later years, and 1 of the trends was positive. The single positive trend was at station 07139500, Arkansas River at Dodge City. The scope of this study did not allow for investigation of this unusual trend at this site, which is downstream from station 07137500, Arkansas River at Coolidge, where a negative trend was detected.

Of the apparent trends that were individually not significant at the 5-percent probability level, the slopes were negative for many more stations than were positive. This result is another indication of widespread negative trends and indicates a likelihood that many stations, including some not in table 1 because of insufficient data, had trends toward smaller concentrations. However, the slopes of the trends were not steep enough or the available data not complete enough to show them with statistical significance.

Six of the 11 detected trends were in and adjacent to the Walnut River basin, southeast of Wichita. This cluster of detected trends may exist only because of a geographic cluster of stations having a relatively large quantity of data available.

Nine of the stations analyzed for time trend were upstream from large reservoirs, and trends toward smaller concentrations were detected at only two of them (07167000, upstream from Fall River Lake, and 07169800, upstream from Elk City Lake). From this relatively limited evidence it may be concluded that additional measures, such as erosion-control treatment and upstream reservoirs, would be needed if the rate of sediment accumulation in large reservoirs is to be significantly decreased.

The seasonal step test for sudden changes was applied for stations downstream from large reservoirs. In 9 of the 12 cases (table 2) the test showed a significant (0.05 level) step trend to smaller concentrations, as expected. Records that did not show significant step trends were station 06876900, for which 25 percent of the drainage area is downstream from Waconda Lake and produces 75 percent of the streamflow; station 07182250, for which 90 percent of the drainage area is downstream from Marion Lake; and station 07183500, for which the available data were biased.

Factors Affecting Time Trends

Detailed study of factors affecting time trends is beyond the scope of this report because knowledge of the causes of trends is not necessary for the design of a data-collection program. Knowledge that time trends exist is sufficient for the major decisions in designing a program. In addition, for most of the drainage areas of the sediment data-collection stations in this report, detailed data on changes in land-use and farming practices would be extremely difficult to compile. The effect of watershed-district activities, however, can be studied in a limited way with data readily available.

In watershed districts, structures and erosion-control practices are intended to decrease the quantity of sediment moving downstream, among other benefits. In this report the watershed-district activity upstream from each sediment station was measured by the span of years during which flood-detention structures were completed and by the percentage of the drainage area from which floodwater was detained and sediment was trapped (table 1). For a few of the stations, the information was incomplete, but enough information was available to judge whether the watershed-district activity was extensive enough to measurably affect the sediment concentrations at the sediment-data station. Because of the large variability of sediment concentrations, less than 10 percent of the area was judged to be too little to have a measurable effect.

Of the 6 data-collection stations with more than 10 percent of the area affected by watershed-district flood-detention structures, 4 stations or 67 percent had statistically significant trends toward smaller sediment concentrations, and none had trends toward larger concentrations, significant or not. In contrast, of the 32 stations with less than 10 percent of the area affected by watershed-district structures, only 4 or 12 percent had statistically significant trends toward smaller sediment concentrations. Although not statistically testable, the conclusion appears to be that the sediment-data program has shown that watershed districts have a definite effect of decreasing the sediment concentrations at locations downstream. The conclusion appears justified despite some apparent anomalies in the results. For example, the trend was not statistically significant at station 07165700, Verdigris River near Madison, despite 66 percent of the drainage area being affected by watershed-district flood-detention structures. Nearby, station 07180500, Cedar Creek near Cedar Point, showed a significant trend to smaller sediment concentrations despite having no watershed-district activity. The results for two stations on Elk River strengthen the conclusion, however. For station 07170000, Elk River near Elk City, the sediment data were collected before the beginning of watershed-district activity upstream, and the trend was not significant. For station 07169800, Elk River at Elk Falls, sediment data were collected before, during, and after watershed-district construction, and the trend to smaller sediment concentrations was statistically significant.

Effect of Time Trends on Use of Sediment-Data Records and Design of Sediment Data-Collection Program

For many of the sediment stations, various users have made computations of such information as long-term average sediment yields and concentration-duration curves. Future needs for planning or design of water projects may include similar sediment information. Because time trends have been detected at numerous stations and trends cannot be ruled out where not detected at the 5-percent level of probability, computations based on data more than a few years old may be misleading at any site. Where accurate sediment information applicable to current conditions is needed at a specific site, collection of additional data for about 2 years needs to be considered.

SEDIMENT-DATA PROGRAM, 1984

The 1984 sediment-data program of the Kansas Water Office in cooperation with the U.S. Geological Survey was designed to supplement the specific-purpose programs of other agencies by providing more general-purpose data. The 1984 set of stations has been in operation for about 7 years and consists of 42 stations at which suspended-sediment samples are collected about 9 times per year--more times if high flow is frequent during a year, and fewer times if periods of no flow are prevalent during a year. The sediment stations are at streamflow-gaging stations, and the streamflow rate is determined for the time of sediment sampling. A particle-size analysis is performed in conjunction with the concentration analysis, except when the quantity of sediment in the samples is insufficient for a valid analysis. Normally, bed-material samples are collected and analyzed for particle size two times a year.

The adequacy of the 1984 program was judged by the suspended-sediment concentration and particle size but not by data on bed material. Bed-material particle size does not change as rapidly as suspended-sediment concentration does or as suspended-sediment particle size sometimes does; thus, adequacy of bed-material data is easily achieved. Therefore, the assumption can be made that bed-material data will be adequate whenever suspended-sediment data are adequate.

The adequacy of sediment-concentration data at an individual station was judged by the adequacy of the data to determine the relation between sediment concentration and streamflow rate for the purpose of estimating the suspended-sediment discharge or concentration-duration curve during a period of available streamflow record (a long-term average). Adequacy of both concentration and particle-size data, therefore, was judged by the density of coverage by samples of the full range of streamflow rates, except for low flow which has negligible effect. Consideration of time trend was not ignored, but time trend was assumed to be present at every station. Therefore, first the adequacy of data to represent conditions during the period of record was judged, then the effect of the assumed time trend on the need for change in the data program was included.

Density of sediment-sample coverage was judged from diagrams of streamflow percentage distributions on which the sampled streamflows were noted. An example in which the range of streamflows, except for low flow, is covered for both concentration and particle-size samples is shown in figure 1. Coverage for particle size does not need to be dense and is adequate in this example. However, coverage for suspended-sediment concentration is not dense enough for good estimation of the relation between concentration and streamflow. The inability of the data to define the relation is shown in figure 2.

An example of very dense sample coverage for both suspended-sediment concentration and particle size is illustrated in figure 3. Although concentrations are scattered with respect to streamflow rate in figure 4, the average relation is reasonably well defined. However, nearly all the suspended-sediment samples taken during high flow are from 1949-51, and

the preponderance of low-flow samples are from 1979-82. New samples of suspended sediment during high flow are needed. In another example (fig. 5), it is obvious that a substantial range of high flows has not been covered by sediment samples. In addition, the graph shows very little sample coverage for particle size. Data collection needs to be continued at this station until concentration coverage has been achieved for high flows, and particle-size coverage has been achieved for all flows.

The results of the analysis for stations in the 1984 cooperative program of the Kansas Water Office and the U.S. Geological Survey are summarized in table 3 at the end of this report. In this table, the period of record is considered to include any year in which at least one sample was obtained. At some stations in the data-collection program, the stream was flowing so infrequently that no samples were obtained in some years.

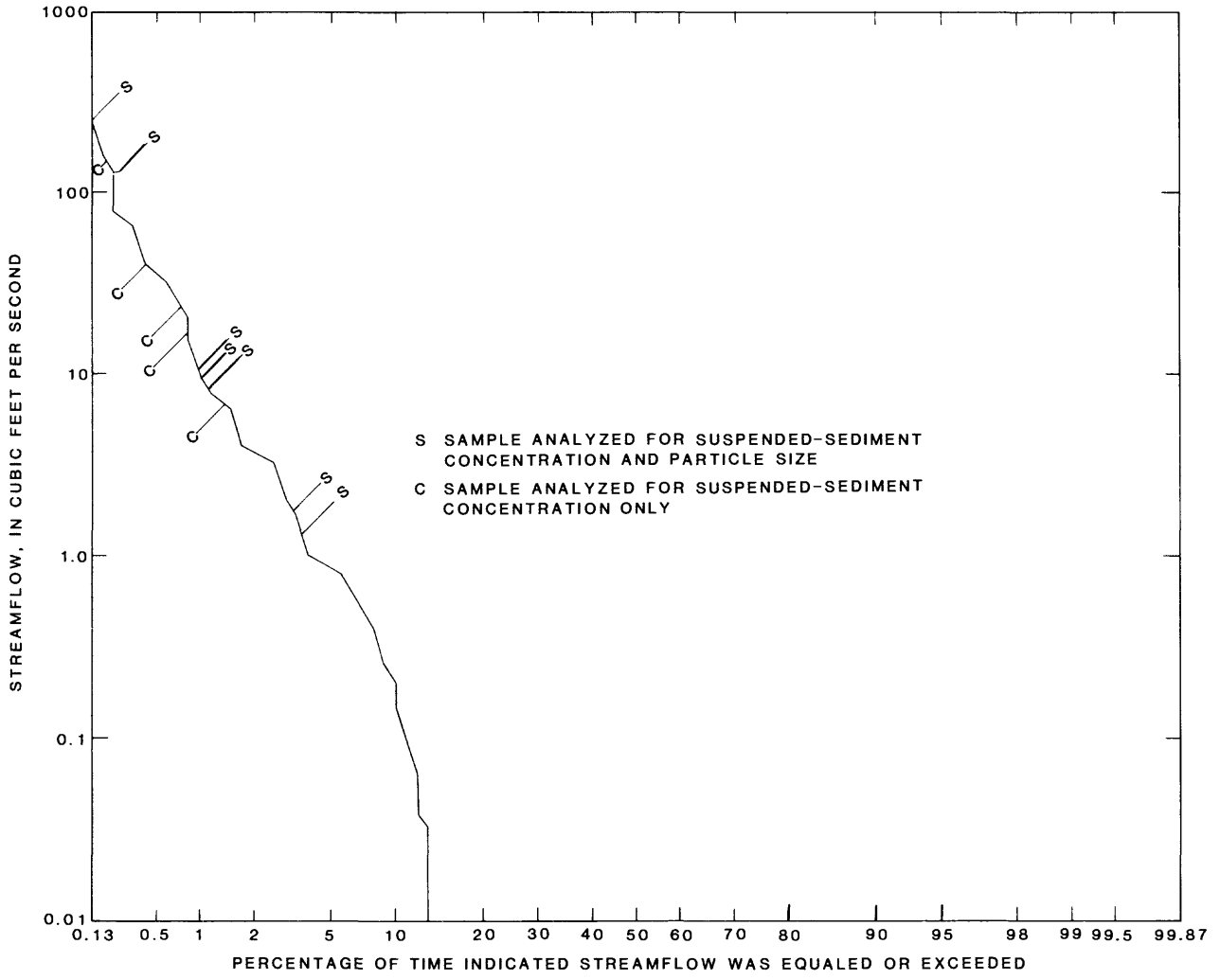

Figure 1.--Density of sample coverage in relation to streamflow percentage distribution, station 07139800, Mulberry Creek near Dodge City.

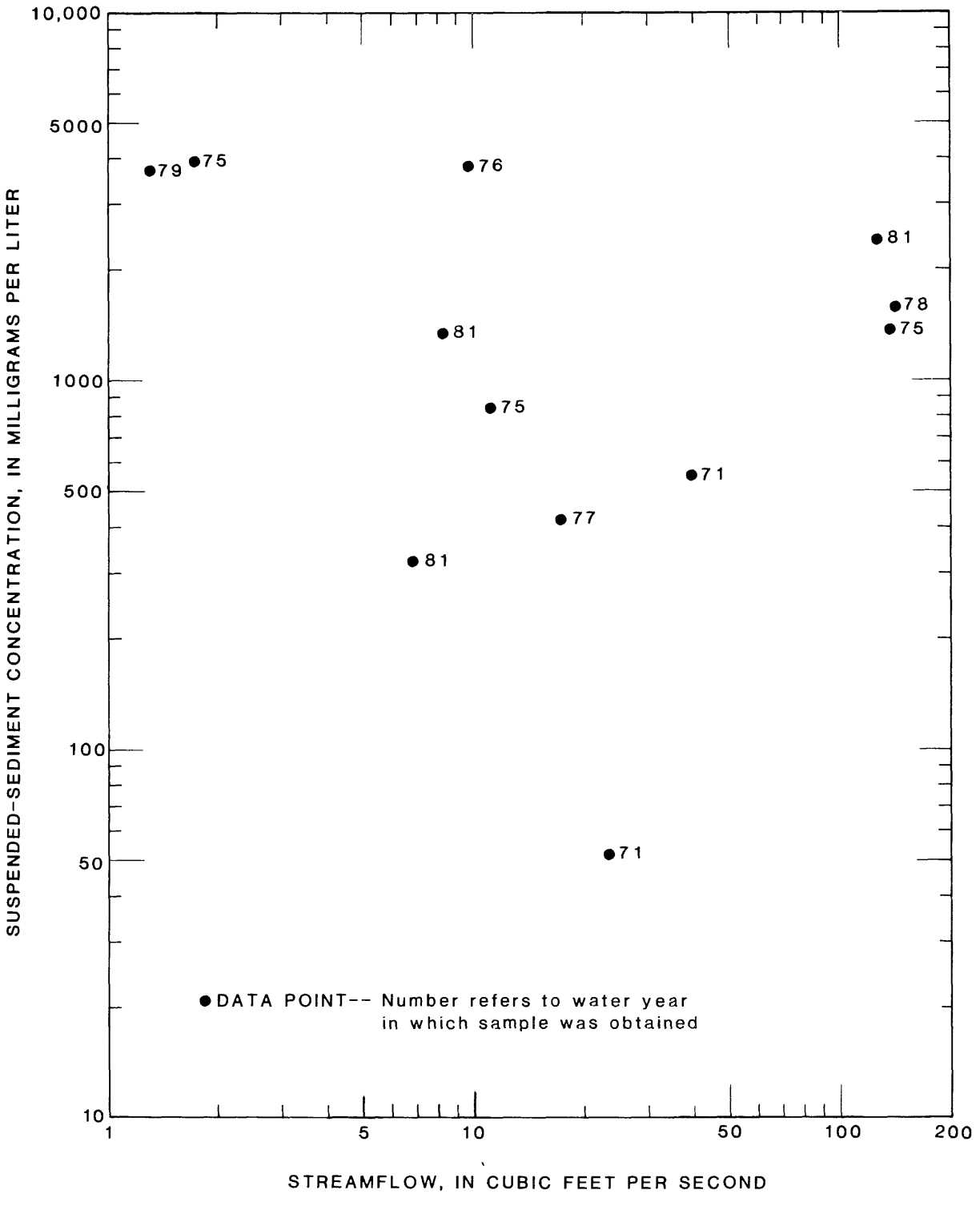

Figure 2.--Relation between suspended-sediment concentration and streamflow for station 07139800, Mulberry Creek near Dodge City.

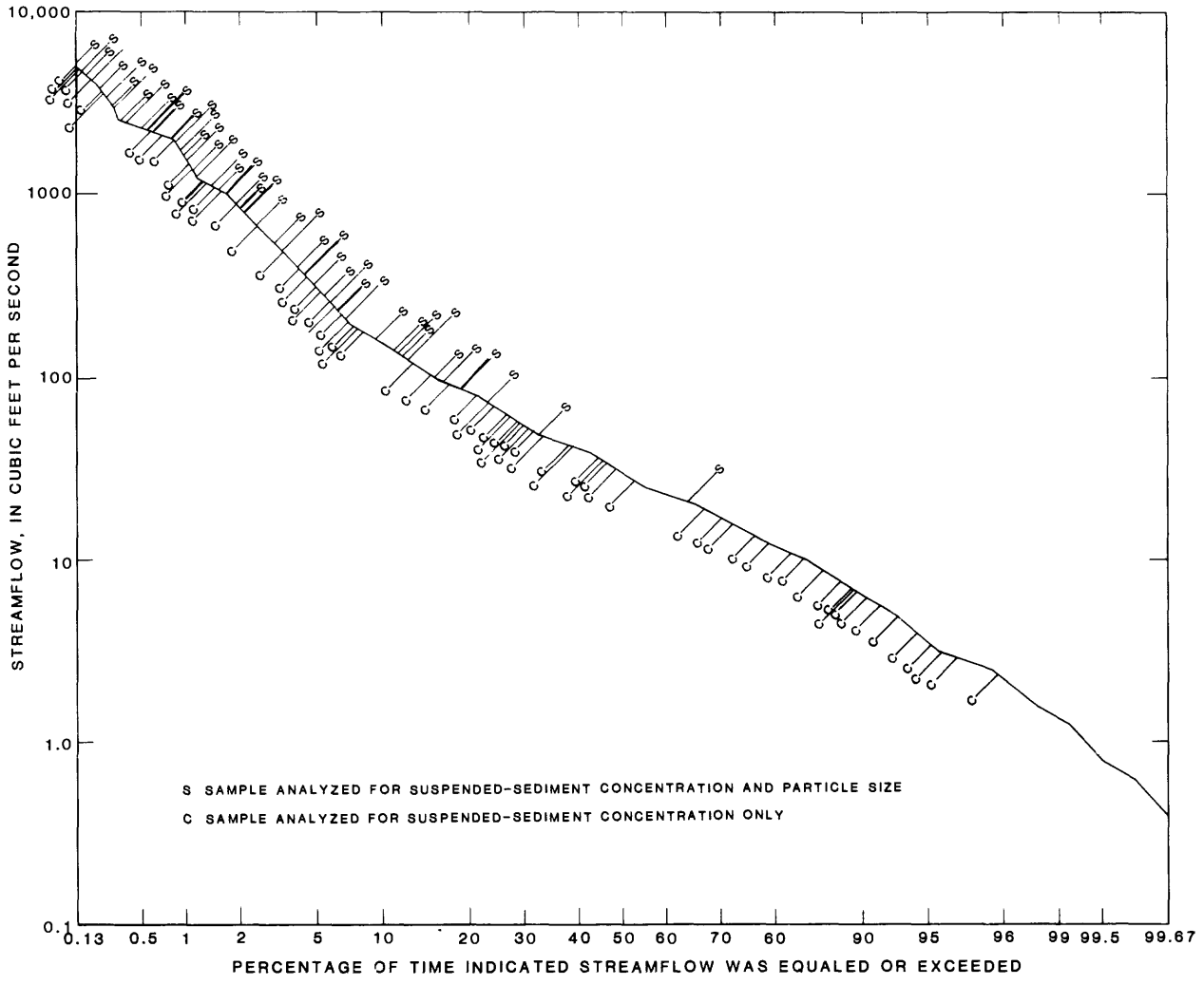

Figure 3.--Density of sample coverage in relation to streamflow percentage distribution, station 06867000, Saline River near Russell.

ADJUSTMENT OF DATA-COLLECTION PROGRAM

Adjustments in the sediment data-collection program can be made under the assumption that time trends may exist at any station. Because the seasonal tests for time trend do not require data for every month of every year, some 1984 stations can be discontinued for several years and later resumed, and some previously discontinued stations can be reactivated without detriment to future detection of time trends. Consideration also is given to the previous judgments of the adequacy of data at existing stations. An additional consideration is the need for data on sediment inflow to large flood-control and water-supply reservoirs.

Discontinuance of Stations

Twelve sediment stations have adequate data for present (1984) needs and can be discontinued until 1992 (table 3). At these stations the sample coverage is adequate for suspended-sediment concentration and particle

size until some later date when time trends may change the applicability of the data. These 12 stations can be discontinued at the end of water year 1985 after adequate consultation with other agencies to give consideration to possible special needs for continuing data collection. The candidates for discontinuance until 1992 are:

06869500 Saline River at Tescott;
06877600 Smoky Hill River at Enterprise;
06887500 Kansas River at Wamego;
06892000 Stranger Creek near Tonganoxie;
07138000 Arkansas River at Syracuse;
07140000 Arkansas River near Kinsley;
07141200 Pawnee River near Larned;
07141900 Walnut Creek at Albert;
07143330 Arkansas River near Hutchinson;
07145500 Ninnescah River near Peck;
07146500 Arkansas River at Arkansas City; and
07147800 Walnut River at Winfield.

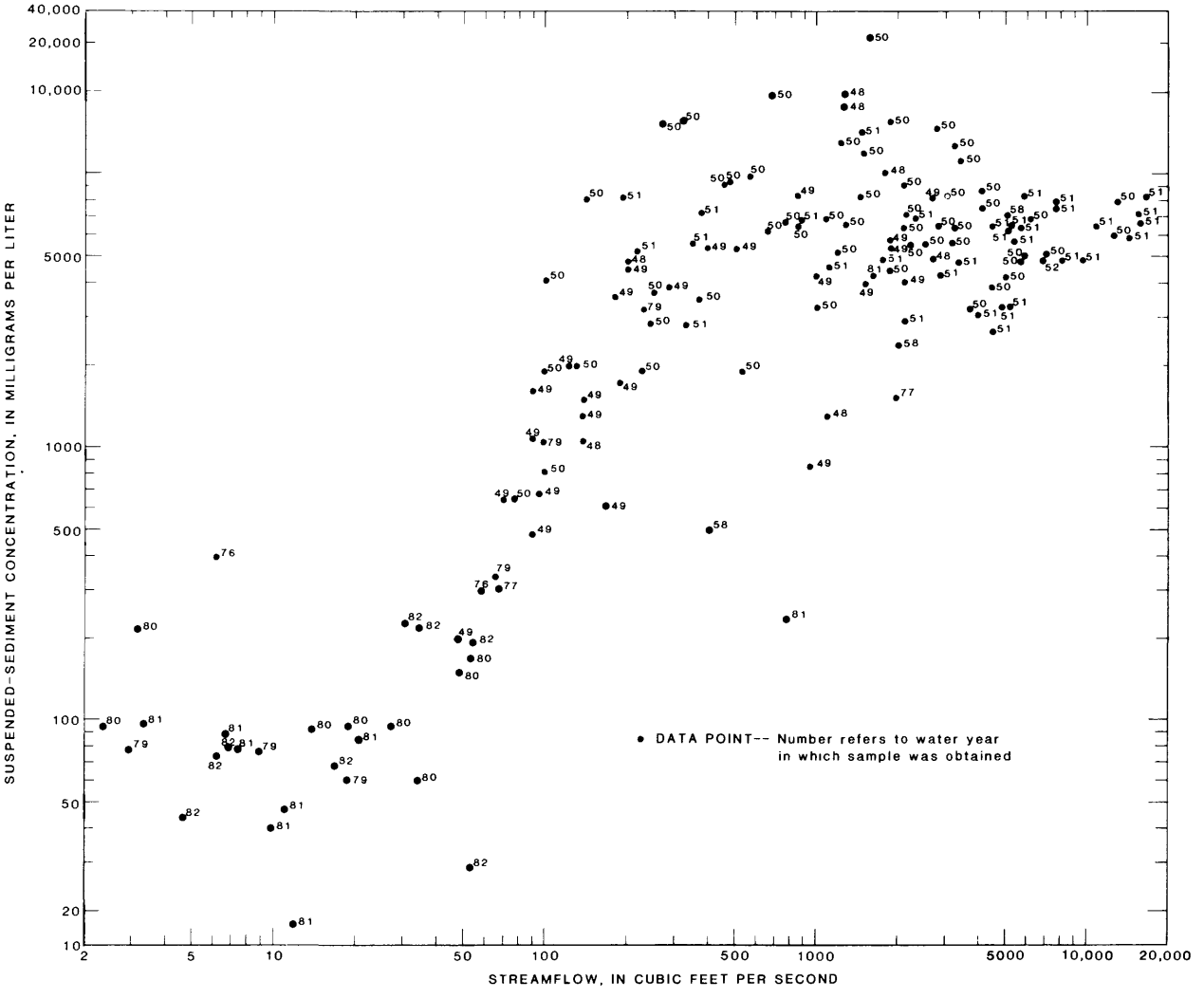

Figure 4.--Relation between suspended-sediment concentration and streamflow for station 06867000, Saline River near Russell.

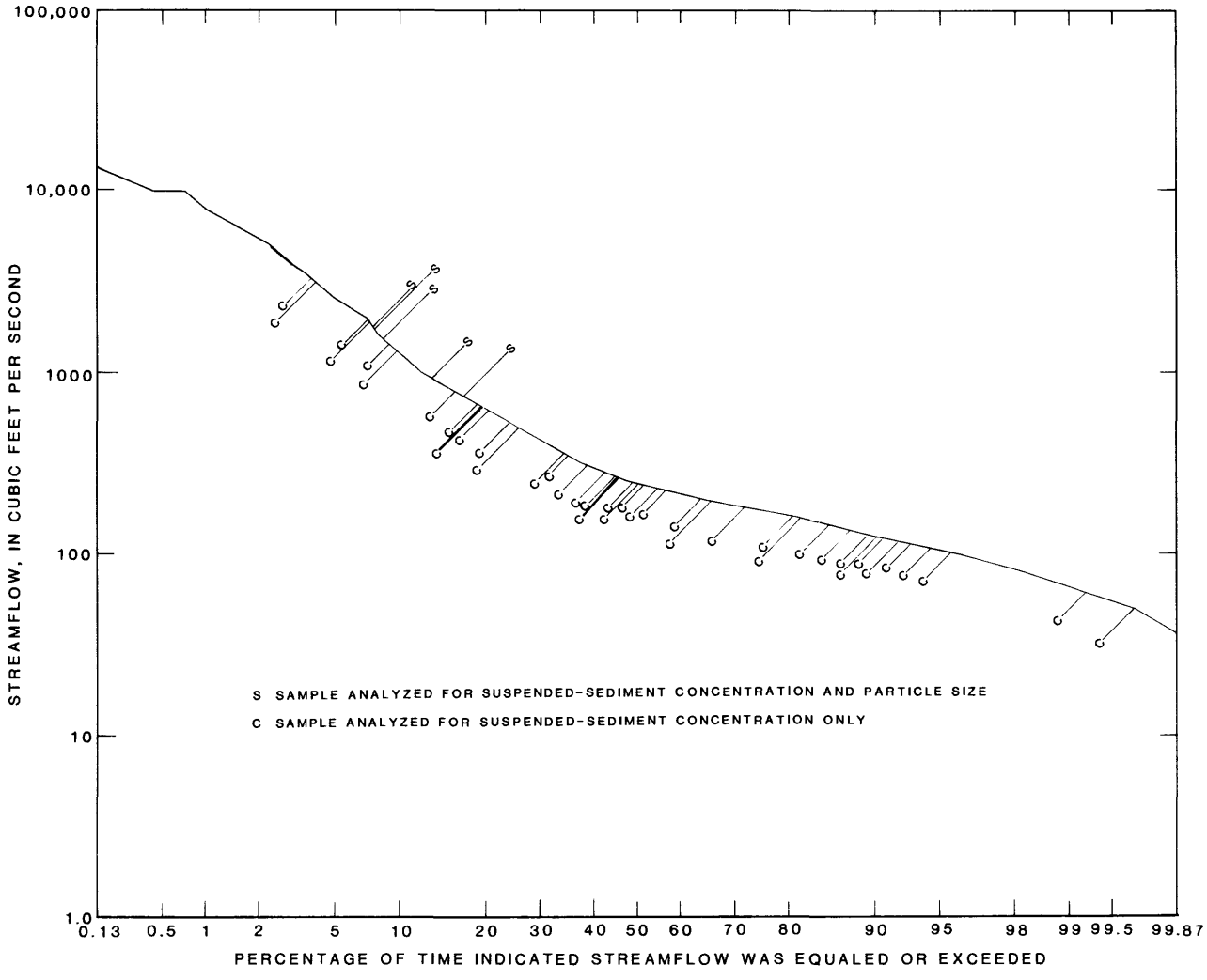

Figure 5.--Density of sample coverage in relation to streamflow percentage distribution, station 06884400, Little Blue River near Barnes.

New or Reactivated Stations

Resumption of periodic sampling is merited for eight previously discontinued stations. The new data can be used for detection of trends and computation of improved estimates of sediment yield, concentration-duration curves, and similar information. Some of the stations will provide new data on sediment inflows to large flood-control and water-supply reservoirs. The stations were selected without regard to which agencies had previously supported them. Stations that would provide the most valuable data after resumption of sampling are as follows:

06878000 Chapman Creek near Chapman (has sediment data for water years 1970-76);

06890100 Delaware River near Muscotah (upstream from Perry Lake, has sediment data for water years 1969-77);

07141300 Arkansas River at Great Bend (has sediment data for water years 1958-72);

07149000 Medicine Lodge River near Kiowa (has sediment data for water years 1961-69);

07151500 Chikaskia River near Corbin (upstream from proposed Corbin Reservoir, has sediment data for water years 1961-65);

07169800 Elk River at Elk Falls (upstream from Elk City Lake, has sediment data for water years 1964-72);

07179730 Neosho River near Americus (upstream from John Redmond Reservoir, has sediment data for water years 1964-72);

07182250 Cottonwood River near Plymouth (upstream from John Redmond Reservoir, has sediment data for water years 1963-72).

The group of stations resulting from 1984-program changes would be as shown in table 4 at the end of this report.

Operational Changes

Some of the effort no longer needed for certain sediment stations after their discontinuance could be used to obtain needed sediment data (usually during high flow) at the continued and reactivated stations. Extra data-collection trips may be needed for some stations. At other stations sampling equipment could be installed, and resident observers contracted and instructed in sampling techniques in order to obtain samples during specified ranges of flow. At a few stations it may be necessary to install automatic sampling equipment. Economy may be effected by acquiring one or two automatic pumping samplers and rotating them to different sediment stations each year. Needs for such operational changes will not be detailed in this report.

SUMMARY

Time trends can significantly affect the design of a sediment data-collection program. After adjusting suspended-sediment concentrations for their relation to streamflow rates and by using a seasonal adaptation of Kendall's nonparametric statistical test, time trends of flow-adjusted concentrations were detected for 11 of the 38 sediment records tested. Ten of the 11 trends were toward smaller concentrations; only 1 was toward larger concentrations. Of the apparent trends that were not statistically significant using the data available, nearly all were toward smaller concentrations. Because the reason for the lack of statistical significance of an apparent trend may be inadequacy of data rather than absence of trend and because of the prevalence of apparent trends in one direction, the assumption was made that a time trend may be present at any station. Sudden decreases (step trends) in flow-adjusted sediment concentrations were found at all stations that were short distances downstream from

large reservoirs and that had adequate data for a seasonal adaptation of Wilcoxon's nonparametric statistical test.

Examination of sediment records in the 1984 cooperative data-collection program with the Kansas Water Office indicate 12 stations where data are now adequate, and these stations can be discontinued until 1992 when new data may be needed because of possible time trends. New data are needed at eight previously operated stations where existing data may be inadequate or misleading because of time trends. Operational changes may be needed at some stations, such as hiring contract observers or installing automatic pumping samplers.

Results of this analysis, particularly the detection of time trends, show the importance of continuing the sediment data-collection program and periodically analyzing the results. Implementing the changes in the program could provide a substantial increase in the quantity of useful information on stream sediment for the same funding as the 1984 level.

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U.S. Geological Survey Water-Supply Papers

Each water-supply paper contains data for the year listed and may contain some data for earlier years also.

Numbers of water-supply papers (WSP) containing sediment data inventoried in this report for Kansas and adjacent areas, 1907-09 and 1947:

Year	WSP	Year	WSP	Year	WSP	Year	WSP
1907	273	1908	273	1909	273	1947	1102

Numbers of water-supply papers (WSP) containing sediment data inventoried in this report for Kansas and adjacent areas in the Missouri River basin, 1948-70:

Year	WSP	Year	WSP	Year	WSP	Year	WSP
1948	1132	1954	1351	1960	1743	1966	1993
1949	1162	1955	1401	1961	1883	1967	2013
1950	1187	1956	1451	1962	1943	1968	2095
1951	1198	1957	1521	1963	1949	1969	2145
1952	1251	1958	1572	1964	1956	1970	2155
1953	1291	1959	1643	1965	1963		

Numbers of water-supply papers (WSP) containing sediment data inventoried in this report for Kansas and adjacent areas in the Lower Mississippi (Arkansas) River basin, 1957-70:

Year	WSP	Year	WSP	Year	WSP	Year	WSP
1957	1522	1961	1884	1965	1964	1969	2146
1958	1573	1962	1944	1966	1994	1970	2156
1959	1644	1963	1950	1967	2014		
1960	1744	1964	1957	1968	2096		

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*

Period of record examined (water years)	Adequacy of suspended-sediment data: Concentration	Adequacy of suspended-sediment data: Particle size	Comments
	06844700 South Fork Sappa Creek near Brewster		
1968, 1971-72, 1975, 1979	Good (flow less than 2 percent of time)	Good	Continue station.
	06846500 Beaver Creek at Cedar Bluffs		
1962-65, 1968, 1970-75, 1977, 1979, 1981	Good	Good	Continue station, in order to obtain more information on trend.
	06847900 Prairie Dog Creek above Keith Sebelius Lake		
1975-80	Inadequate	Poor	Continue station.
	06853800 White Rock Creek near Burr Oak		
1976, 1978-82	Inadequate, need more samples when streamflow exceeds 100 cubic feet per second.	Inadequate	Continue station. Obtain samples when streamflow exceeds 100 cubic feet per second.

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*--Continued

Period of record examined (water years)	Adequacy of suspended-sediment data: Concentration	Adequacy of suspended-sediment data: Particle size	Comments
	06858500 North Fork Smoky Hill River near McAllaster		
1978-79, 1981	Inadequate, need some samples when streamflow exceeds 50 cubic feet per second.	None	Continue station. Obtain samples when streamflow exceeds 50 cubic feet per second and obtain particle-size analyses representing all flows.
	06863500 Big Creek near Hays		
1958, 1976, 1979-82	Almost adequate but large scatter in concentration versus streamflow.	Inadequate	Continue station, obtain more samples when streamflow exceeds 100 cubic feet per second and more particle-size analyses representing all flows.
	06863900 North Fork Big Creek near Victoria		
1976, 1981-82	Inadequate	Inadequate	Continue station. More data needed, but difficult to get enough samples during medium and high flows.
	06867000 Saline River near Russell		
1948-51, 1958, 1960, 1976-77, 1979-82	Good	Good	Continue station, obtain samples during high flow to check time trend.

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*--Continued

Period of record examined (water years)	Adequacy of suspended-sediment data: Concentration	Adequacy of suspended-sediment data: Particle size	Comments
	06869500 Saline River at Tescott		
1957-82	Adequate	Adequate	Discontinue, resume in 1992 for 2-3 years.
	06871000 North Fork Solomon River at Glade		
1958, 1975, 1977, 1979-82	Inadequate	Inadequate	Continue station.
	06873000 South Fork Solomon River above Webster Reservoir		
1958, 1976-77, 1979, 1981-82	Inadequate	Inadequate	Continue station.
	06877600 Smoky Hill River at Enterprise		
1957-82	Adequate	Adequate	Discontinue, resume in 1992 for 2-3 years.
	06884400 Little Blue River near Barnes		
1976-82	Inadequate during high flows.	Inadequate	Continue station, obtain more samples during high flows.

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*--Continued

Period of record examined (water years)	Adequacy of suspended-sediment data		Comments
	Concentration	Particle size	
	06887500 Kansas River at Wamego		
1957-82	Adequate	Adequate	Discontinue, resume in 1992 for 2-3 years.
	06892000 Stranger Creek near Tonganoxie		
1957-61, 1976-82	Good	Adequate	Discontinue, resume in 1992 for 2-3 years.
	06911900 Dragoon Creek near Burlingame		
1976-82	Nearly adequate, need more samples when streamflow exceeds 1,000 cubic feet per second.	Inadequate	Continue station. Obtain more samples when streamflow exceeds 1,000 cubic feet per second and more particle-size analyses representing all flows.

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*--Continued

Period of record examined (water years)	Adequacy of suspended-sediment data: Concentration	Adequacy of suspended-sediment data: Particle size	Comments
	06914000 Pottawatomie Creek near Garnett		
1976-82	Nearly adequate, need more samples when streamflow exceeds 3,000 cubic feet per second	Inadequate	Continue station. Obtain more samples when streamflow exceeds 3,000 cubic feet per second; more particle-size analyzes during all flows.
	07138000 Arkansas River at Syracuse		
1939-41, 1961, 1963-65, 1968, 1971-81	Adequate	Adequate	Discontinue, resume in 1992 for 2-3 years.
	07138650 White Woman Creek near Leoti		
1971, 1973-74, 1977-78	Adequate	Inadequate	Continue station, obtain more particle-size analyses.
	07139800 Mulberry Creek near Dodge City		
1971, 1975-81	Fairly good coverage but no relation of concentration to flow.	Good	Continue station to determine if more samples would show better relation of concentration to flow.

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*--Continued

Period of record examined (water years)	Adequacy of suspended-sediment data: Concentration	Adequacy of suspended-sediment data: Particle size	Comments
	07140000 Arkansas River near Kinsley		
1958, 1960-65, 1968, 1972, 1974-81	Good	Good	Discontinue, resume in 1992 for 2-3 years.
	07141200 Pawnee River near Larned		
1958-60, 1962-65, 1967-68, 1971-81	Good	Good	Discontinue, resume in 1992 for 2-3 years.
	07141900 Walnut Creek at Albert		
1958-65, 1971-72, 1976-82	Good	Good	Discontinue, resume in 1992 for 2-3 years.
	07142300 Rattlesnake Creek near Macksville		
1975-82	Adequate	Inadequate	Continue station.
	07142860 Cow Creek near Claflin		
1971, 1979-82	Inadequate	Inadequate	Continue station.

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*--Continued

Period of record examined (water years)	Adequacy of suspended-sediment data: Concentration	Adequacy of suspended-sediment data: Particle size	Comments
		07143300 Cow Creek near Lyons	
1939-51, 1958 1960-66, 1968, 1971-82	Good	Adequate	Continue station to check on time trend.
		07143330 Arkansas River near Hutchinson	
1959-65, 1968, 1971-82	Good	Good	Discontinue, resume in 1992 for 2-3 years.
		07143665 Little Arkansas River at Alta Mills	
1960, 1976-82	Good	Poor	Continue station until coverage is adequate for particle size, then determine if time trend exists.
		07144780 North Fork Ninnescah River above Cheney Reservoir	
1968, 1971-82	Good	Inadequate	Continue station. One more year should be enough to make particle-size coverage adequate for full range of flows.
		07144910 South Fork Ninnescah River at Pratt	
1981	Poor	None	Continue station.

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*--Continued

Period of record examined (water years)	Adequacy of suspended-sediment data: Concentration	Adequacy of suspended-sediment data: Particle size	Comments
	07145200 South Fork Ninnescah River near Murdock		
1962-65, 1968, 1971-82	Good	Good, except no analyses representing less than 200 cubic feet per second.	Continue station one more year to obtain particle-size samples representing less than 200 cubic feet per second. Then discontinue, to resume in 1992 for 2-3 years.
	07145500 Ninnescah River near Peck		
1940-52, 1954, 1958, 1960-65, 1968, 1971-82	Good	Good, except no analyses representing less than 400 cubic feet per second.	Discontinue, resume in 1992 for 2-3 years.
	07145700 Slate Creek at Wellington		
1976-77, 1979-82	Inadequate, gap in analyses from 70 to 4,000 cubic feet per second.	Poor	Continue station.
	07146500 Arkansas River at Arkansas City		
1943-45, 1958, 1961-66, 1968, 1971-82	Good	Good	Discontinue, resume in 1992 for 2-3 years.

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*--Continued

Period of record examined (water years)	Adequacy of suspended-sediment data		Comments
	Concentration	Particle size	
		07147070 Whitewater River at Towanda	
1961-65, 1967-68, 1976-82	Good	Good, except need more analyses representing discharges between 5 and 100 cubic feet per second.	Continue 1 more year to obtain particle-size analyses between 5 and 100 cubic feet per second, then discontinue. Resume in 1992 for 2-3 years.
		07147800 Walnut River at Winfield	
1943-45, 1961-65, 1968, 1972-74, 1977, 1979-82	Good	Good, except some analyses representing 100-300 cubic feet per second would be desirable.	Discontinue, resume in 1992 for 2-3 years.
		07156010 North Fork Cimarron River at Richfield	
1976-78	Inadequate	None	Continue station. Obtain particle-size analyses on all samples collected.
		07156220 Bear Creek near Johnson	
1971-72, 1977, 1979	Inadequate	None	Continue station. Obtain particle-size analyses.

Table 3.--*Adequacy of sediment data at stations in cooperative program with Kansas Water Office, 1984*--Continued

Period of record examined (water years)	Adequacy of suspended-sediment data: Concentration	Adequacy of suspended-sediment data: Particle size	Comments
		07157500 Crooked Creek near Nye	
1945, 1947-48, 1962-65, 1967-68, 1971, 1973, 1975-82	Good	Adequate	Continue station in order to determine if time trend is confirmed.
		07157900 Cavalry Creek at Coldwater	
1963, 1966-68 1971-81	Good	Inadequate. Need some analyses representing discharges between 5 and 200 cubic feet per second.	Continue station until coverage of particle size is adequate.
		07183500 Neosho River near Parsons	
1958, 1961-62, 1976-82	Good	Poor	Continue station until coverage of particle size is adequate.
		07184000 Lightning Creek near McCune	
1940-46, 1976-82	Good	None	Continue station. Obtain particle-size analyses.

Table 4.--*Stations proposed for sediment data-collection program in cooperation with Kansas Water Office beginning October 1985*

Station number	Station name	Available data for water years through 1982	Remarks
06844700	South Fork Sappa Creek near Brewster	1968, 1970-72, 1975, 1979	
06846500	Beaver Creek at Cedar Bluffs	1958, 1962-75, 1977, 1979, 1981	
06847900	Prairie Dog Creek above Keith Sebelius Lake	1970, 1976-81	Upstream from Keith Sebelius Lake
06853800	White Rock Creek near Burr Oak	1966, 1976, 1978-82	Upstream from Lovewell Reservoir
06858500	North Fork Smoky Hill River near McAllaster	1966, 1978-79, 1981	
06863500	Big Creek near Hays	1958, 1966, 1976, 1979-82	
06863900	North Fork Big Creek near Victoria	1976, 1981-82	
06867000	Saline River near Russell	1946-51, 1958, 1960, 1964, 1966, 1976-77, 1979-82	Upstream from Wilson Lake
06871000	North Fork Solomon River at Glade	1958, 1966, 1968, 1975, 1977, 1980-82	Upstream from Kirwin Reservoir
06873000	South Fork Solomon River above Webster Reservoir	1958, 1966, 1975-77, 1980-82	Upstream from Webster Reservoir
06878000	Chapman Creek near Chapman	1958-62, 1976-78	
06884400	Little Blue River near Barnes	1960-70, 1976-82	Upstream from Tuttle Creek Lake
06890100	Delaware River near Muscotah	1977-79	Upstream from Perry Lake
06911900	Dragoon Creek near Burlingame	1962-69, 1976-82	Upstream from Pomona Lake
06914000	Pottawatomie Creek near Garnett	1966, 1969, 1976-82	
07138650	White Woman Creek near Leoti	1966-67, 1971, 1973-74, 1977-78	
07139800	Mulberry Creek near Dodge City	1971, 1977-79, 1981	
07141300	Arkansas River at Great Bend	1907-08, 1944-46, 1949, 1957-76	
07142300	Rattlesnake Creek near Macksville	1977-82	
07142860	Cow Creek near Claflin	1966, 1971, 1979-82	

Table 4.--*Stations proposed for sediment data-collection program in cooperation with Kansas Water Office beginning October 1985*--Continued

Station number	Station name	Available data for water years through 1982	Remarks
07143300	Cow Creek near Lyons	1939-52, 1958, 1960-82	
07143665	Little Arkansas River at Alta Mills	1960, 1976-82	
07144780	North Fork Ninnescah River above Cheney Reservoir	1966-69, 1971-82	Upstream from Cheney Reservoir
07144910	South Fork Ninnescah River at Pratt	1981	
07145200	South Fork Ninnescah River near Murdock	1961-82	
07145700	Slate Creek at Wellington	1977, 1979-82	
07147070	Whitewater River at Towanda	1961-70, 1976-82	
07149000	Medicine Lodge River near Kiowa	1907, 1938-50, 1958, 1961-63, 1965-66, 1968-69, 1976-81	
07151500	Chikaskia River near Corbin	1962-66, 1976	Upstream from proposed Corbin Reservoir
07156010	North Fork Cimarron River at Richfield	1976-78	
07156220	Bear Creek near Johnson	1969, 1972, 1977	
07157500	Crooked Creek near Nye	1944-45, 1947-48, 1961-73, 1975-82	
07157900	Cavalry Creek at Coldwater	1967-69, 1971-81	
07169800	Elk River at Elk Falls	1967-78, 1980	Upstream from Elk City Lake
07179730	Neosho River near Americus	1964, 1966-78, 1980	Upstream from John Redmond Reservoir
07182250	Cottonwood River near Plymouth	1963-80, 1982	Upstream from John Redmond Reservoir
07183500	Neosho River near Parsons	1958, 1961, 1968, 1976-82	
07184000	Lightning Creek near McCune	1940-46, 1966, 1969, 1976-82	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	06814000 Turkey Creek near Seneca, Kansas					Drainage area = 276 square miles
	Summary or interpretive publications [3]				Col.1, Jor.2, Ost.2, Ost.4, Ost.5	
1949	[4]	59			SSMR 1949-54, USCE-KC, USCE-O	
1950	[5]	20			do.	
1951	do.				SSMR 1949-54, USCE-O	
1952	do.				do.	
1953	do.				do.	
1954	[4]				do.	
1966		1			WSP 1993	
1969	3				WSP 2145	
1976				2	USGS-L	
	06815270 Spring Creek near Fairview, Kansas					
1968	16	4			WSP 2095	
1969	5		1		WSP 2145	
1970	2				WSP 2155	
1971	1				WRD-KS, 1971, part 2	
	06815274 Walnut Creek near Fairview, Kansas					Drainage area = 27.0 square miles
1976	1	1			WRD-KS, 1976	
1977	14	3			WRD-KS, 1977	
1978	11	2			WRD-KS, 1978	
1979	4	2			WRD-KS, 1979, vol. 1	
	06815280 Mulberry Creek near Fairview, Kansas					
1968	18	9			WSP 2095	
1969	10		1		WSP 2145	
1970	3				WSP 2155	
1971	2				WRD-KS, 1971, part 2	
	06815288 Walnut Creek near Hamlin, Kansas					Drainage area = 57.0 square miles
1977	17	5			WRD-KS, 1977	
1978	12	2			WRD-KS, 1978	
1979	8	1			WRD-KS, 1979, vol. 1	
	06815290 Terrapin Creek at Hamlin, Kansas					
1968	21	13			WSP 2095	
1969	8		1		WSP 2145	
1970	2				WSP 2155	
1971	2				WRD-KS, 1971, part 2	
1972	4				WRD-KS, 1972, part 2	
	06815300 Walnut Creek at Reserve, Kansas					Drainage area = 111 square miles
1963	3				USGS-L	
1964	4				do.	
1965	5				do.	
1966	4				do.	
1967	7				do.	
1968	28	11			WSP 2095	
1969	20				WSP 2145	
1970	4	1			WSP 2155	
1971	1				WRD-KS, 1971, part 2	
1972	4				WRD-KS, 1972, part 2	
1976	1	1			WRD-KS, 1976	
1977	17	4	1		WRD-KS, 1977	
1978	11	3	1		WRD-KS, 1978	
1979	3	1			WRD-KS, 1979, vol. 1	
1980			1		WRD-KS, 1980, vol. 1	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended sediment Concentration	Suspended sediment Particle size	Bed-material size	Bank-material size	Publication[1/] or office file[2/]	Additional information
	06815570 Wolf River 3 mi southwest of Hiawatha, Kansas Summary or interpretive publications [3/]: Bev.1					Drainage area = 11.9 square miles
1978	29	5	1		WRD-KS, 1978	
1979	18	3			WRD-KS, 1979, vol. 1	
1980	21		1		WRD-KS, 1980, vol. 1	
	06815578 Wolf River at Hiawatha, Kansas Summary or interpretive publications [3/]: Bev.1					Drainage area = 29 square miles
1977	34	8			WRD-KS, 1977	
1978	35	5	1		WRD-KS, 1978	
1979	23	5			WRD-KS, 1979, vol. 1	
1980	22		1		WRD-KS, 1980, vol. 1	
	06815700 Buttermilk Creek near Willis, Kansas Summary or interpretive publications [3/]: Bev.1					Drainage area = 3.74 square miles
1977	40	6			WRD-KS, 1977	
1978	22	1			WRD-KS, 1978	
1979	19	4			WRD-KS, 1979, vol. 1	
1980	20	1			WRD-KS, 1980, vol. 1	
	06815800 Wolf River at Leona, Kansas Summary or interpretive publications [3/]: Bev.1					
1976	1	1			WRD-KS, 1976	
1977	16	7			WRD-KS, 1977	
1978	13	2			WRD-KS, 1978	
1979	23	13			WRD-KS, 1979, vol. 1	
1980	18				WRD-KS, 1980, vol. 1	
	06815880 Wolf River at Sparks, Kansas Summary or interpretive publications [3/]: Bev.1					Drainage area = 220 square miles
1976	1	1			WRD-KS, 1976	
1977	43	18	1		WRD-KS, 1977	
1978	35	16			WRD-KS, 1978	
1979	37	23			WRD-KS, 1979, vol. 1	
1980	32	1	1		WRD-KS, 1980, vol. 1	
1981	2				WRD-KS, 1981	
	06818000 Missouri River at St. Joseph, Missouri Summary or interpretive publications [3/]: Ost.2, Ost.5					Drainage area = 424,300 square miles
1948	[6/] 3				USCE-0	
1949	[5/]				SSMR 1949-54, USCE-0	
1950	do.				do.	
1951	do.				do.	
1952	do.				do.	
1953	do.				do.	
1954	do.				do.	
1955	do.				SSMR 1955-59	
1956	do.				do.	
1957	do.				do.	
1958	do.				do.	
1959	do.				do.	
1960	do.				SSMR 1960-64	
1961	do.				do.	
1962	do.				do.	
1963	do.				do.	
1964	do.				do.	
1965	do.				SSMR 1965-69	
1966	do.				do.	
1967	do.				do.	
1968	do.				do.	
1969	do.				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
Missouri River at Leavenworth, Kansas						
1929	[6] 3				HD-238	
1930	[6] 12				do.	
1931	[6] 12				do.	
1932	[6] 9				do.	
06821500 Arikaree River at Haigler, Nebraska						Drainage area = 1,460 square miles
Summary or interpretive publications [3]: Ost.5, Tas.1						
1947	[7]				WSP 1102	
1948	[8]	3			WSP 1132	
1949	13	13			WSP 1162	
1950	25	25			WSP 1187	
1951	[8]	27			WSP 1198	
1977				2	USGS-L	
06823000 North Fork Republican River near Benkelman, Nebraska						Drainage area = 1,360 square miles
Summary or interpretive publications [3]: Ost.5						
1977			1	2	WRD-NE, 1977; USGS-L	
06824500 Republican River at Benkelman, Nebraska						Drainage area = 4,830 square miles
Summary or interpretive publications [3]: Ost.2, Ost.5						
1950	3				WSP 1187	
1962	[4]				SSMR 1960-64	
1963	[5]				do.	
1964	do.				do.	
1965	do.				SSMR 1965-69	
1966	do.				do.	
1967	do.				do.	
1977	do.		1		WRD-NE, 1977	
06827000 South Fork Republican River near Colorado-Kansas State line						Drainage area = 1,860 square miles
Summary or interpretive publications [3]: Ost.3, Tas.1						
1946	6				WSP 1187	
1947	27				do.	
1948	24				do.	
1949	[8]	16			WSP 1162	
1950	12	12			WSP 1178	
06827200 South Fork Republican River at St. Francis, Kansas						
1966			1		WSP 1993	
06827500 South Fork Republican River near Benkelman, Nebraska						Drainage area = 2,740 square miles
Summary or interpretive publications [3]: Ost.2, Ost.5, Tas.1						
1950	3				WSP 1187	
1977			1		WRD-NE, 1977	
06828500 Republican River at Stratton, Nebraska						Drainage area = 8,450 square miles
Summary or interpretive publications [3]: Ost.5, Tas.1						
1951	[7]	33			WSP 1198	
1953	do.	2	2		WSP 1291	
1954	do.	16			WSP 1351	
1977			1		WRD-NE, 1977	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	06829500 Republican River at Trenton, Nebraska Summary or interpretive publications[3]: Tas.1					Drainage area = 8,620 square miles
1947	[7]	1			WSP 1132	
1948	[8]	3			do.	
1949	do.	16			WSP 1162	
1950	do.	37			WSP 1187	
1951	do.				WSP 1198	
1953	do.		2		WSP 1291	
	06836460 South Fork Driftwood Creek near Ludell, Kansas					
1966			1		WSP 1993	
	06837000 Republican River at McCook, Nebraska Summary or interpretive publications [3]: Ost.2					Drainage area = 12,310 square miles
1977			1		WRD-NE, 1977	
	Republican River above Medicine Creek at Cambridge, Nebraska					Drainage area = 13,200 square miles
1951	18	8			WSP 1198	
	06843500 Republican River at Cambridge, Nebraska					Drainage area = 14,520 square miles
1951	49				WSP 1198	
1952	42				WSP 1251	
1953	44	2			WSP 1291	
1954	6	2			WSP 1351	
1962	[4]				SSMR 1960-64	
1963	[5]				do.	
1964	do.				do.	
1965	do.				SSMR 1965-69	
1966	do.				do.	
1967	do.				do.	
1977			1		WRD-NE, 1977	
	06844500 Republican River near Orleans, Nebraska Summary or interpretive publications [3]: Ost.5, Tas.1					Drainage area = 15,640 square miles
1948	[8]	15			WSP 1132	
1949	[5]				SSMR 1949-54	
1950	do.				do.	
1951	do.				do.	
1952	do.				do.	
1953	do.				do.	
1954	do.				do.	
1955	do.				SSMR 1955-59	
1956	do.				do.	
1957	do.				do.	
1958	do.				do.	
1959	do.				do.	
1960	do.				SSMR 1960-64	
1961	do.				do.	
1962	do.				do.	
1963	do.				do.	
1964	do.				do.	
1965	do.				SSMR 1965-69	
1966	do.				do.	
1967	do.				do.	
1968	do.				do.	
1969	do.				do.	
1977			1	2	WRD-NE, 1977; USGS-L	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
06844700 South Fork Sappa Creek near Brewster, Kansas						Drainage area = 74.0 square miles
1968	2	1			WSP 2095	
1971	9				WRD-KS, 1971, part 2	
1972	1				WRD-KS, 1972, part 2	
1975	3	2			WRD-KS, 1975	
1979	2	1		2	WRD-KS, 1979, vol. 1; USGS-L	
06844800 South Fork Sappa Creek Tributary near Goodland, Kansas						Drainage area = 4.98 square miles
1968	1	1			WRD-KS, 1968, part 2	
06844900 South Fork Sappa Creek near Achilles, Kansas						Drainage area = 446 square miles
1974	1				WRD-KS, 1974, part 2	
1975	1				WRD-KS, 1975	
1979	1			2	WRD-KS, 1979, vol. 1; USGS-L	
1981	2				WRD-KS, 1981	
06844950 Middle Fork Sappa Creek near Colby, Kansas						
1966		1			WSP 1993	
06844970 North Fork Sappa Creek at Achilles, Kansas						
1966		1			WSP 1993	
Sappa Creek at Oberlin, Kansas Summary or interpretive publications[3]: Ost.4						
1907	[9] 4				WSP 273	
06845000 Sappa Creek near Oberlin, Kansas Summary or interpretive publications[3]: Ost.2, Ost.3, Ost.5, Tas.1						Drainage area = 1,040 square miles
1950	2				WSP 1187	
1958	1	1			WSP 1949	
1963	[8]	8			do.	
1964	do.	8			WSP 1956	
1965	65	5			WSP 1963	
1966	30	3		1	WSP 1993	
1967	20	4			WSP 2013	
1968	[8]	11		1	WSP 2095	
1969	[7]	7			WSP 2145	
1970	37	3		2	WSP 2155	
1971	13	2			WRD-KS, 1971, part 2	
Sappa Creek near Beaver City, Nebraska Summary or interpretive publications[3]: Col.1, Ost.2, Ost.3, Ost.5, Tas.1						Drainage area = 1,560 square miles
1947	[7]				WSP 1102	
1948	[8]	17			WSP 1132	
1949	do.	46			WSP 1162	
1950	do.	38			WSP 1187	
1951	do.	41			WSP 1198	
1952	do.	20			WSP 1251	
06846000 Beaver Creek at Ludell, Kansas						Drainage area = 1,460 square miles
1966			1		WSP 1993	
1974	2				WRD-KS, 1974, part 2	
1979	1				WRD-KS, 1979, vol. 1	
1981	1	1			WRD-KS, 1981	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	06846200 Beaver Creek tributary near Ludell, Kansas					Drainage area = 10.2 square miles
1981	2				WRD-KS, 1981	
	06846500 Beaver Creek at Cedar Bluffs, Kansas					Drainage area = 1,618 square miles
	Summary or interpretive publications [3]: Col.1, Ost.2, Ost.3, Ost.4, Ost.5, Tas.1					
1962	[8]	6			WSP 1943	
1963	do.	14			WSP 1949	
1964	do.	8	2		WSP 1956	
1965	do.	6			WSP 1963	
1966	do.	2	1		WSP 1993	
1967	33	2	1		WSP 2013	
1968	[8]	8	3		WSP 2095	
1969	do.	6			WSP 2145	
1970	17	3			WSP 2155	
1971	7	2			WRD-KS, 1971, part 2	
1972			1		WRD-KS, 1972, part 2	
1973	4				WRD-KS, 1973, part 2	
1974	7				WRD-KS, 1974, part 2	
1975	6	4			WRD-KS, 1975	
1977	3	2			WRD-KS, 1977	
1979	2	1			WRD-KS, 1979, vol. 1	
1981	3	1			WRD-KS, 1981	
1983	2	2			WRD-KS, 1983	
	06847780 Prairie Dog Creek near Gem, Kansas					
1966			1		WSP 1993	
	06847790 Prairie Dog Creek near Leoville, Kansas					
1966			1		WSP 1993	
	06847900 Prairie Dog Creek above Keith Sebelius Lake, Kansas					Drainage area = 590 square miles
	(Prior to Dec. 28, 1980, published as "above Norton Reservoir")					
	Summary or interpretive publications [3]: Ost.2, Ost.4					
1970	7				WSP 2155	
1975	3				USGS-L	
1976	2				WRD-KS, 1976	
1977	2				WRD-KS, 1977	
1978	1			2	WRD-KS, 1978; USGS-L	
1979	1				WRD-KS, 1979, vol. 1	
1980	1				WRD-KS, 1980, vol. 1	
1981	1				WRD-KS, 1981	
1983	1				WRD-KS, 1983	
	06848000 Prairie Dog Creek at Norton, Kansas					Drainage area = 684 square miles
	Summary or interpretive publications [3]: Col.1, Ost.2, Ost.3, Ost.4, Tas.1					
1947	[7]				WSP 1102	Before Keith Sebelius Lake
1948	[8]	30			WSP 1132	Do.
1949	do.	76			WSP 1162	Do.
1950	do.	93			WSP 1187	Do.
1951	do.	41			WSP 1198	Do.
1952	do.	31			WSP 1251	Do.
1956	6				WSP 1451	Do.
1958	2	2			WSP 1572	Do.
1966			1		WSP 1993	Downstream from Keith Sebelius Lake
1976	1				WRD-KS, 1976	Do.
1978				2	USGS-L	Do.
	Prairie Dog Creek at Long Island, Kansas					Drainage area = 900 square miles
1907	[9] 25				WSP 273	Before Keith Sebelius Lake
1908	[9] 5				WSP 273	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment Concentration	Suspended-sediment Particle size	Bed-material size	Bank-material size		
06848500 Prairie Dog Creek near Woodruff, Kansas						Drainage area = 1,007 square miles
Summary or interpretive publications[3]: Ost.2, Ost.4, Ost.5						
1966			1		WSP 1993	Downstream from Keith Sebelius Lake
1978				2	USGS-L	Do.
06849500 Republican River below Harlan County Dam, Nebraska						Drainage area = 20,753 square miles
Summary or interpretive publications[3]: Tas.1						
1953	[4]				SSMR 1949-54	Downstream from Harlan County Reservoir
1954	[5]				do.	Do.
1955	do.				SSMR 1955-59	Do.
1956	do.				do.	Do.
1957	do.				do.	Do.
1958	do.				do.	Do.
1959	do.				do.	Do.
1960	do.				SSMR 1960-64	Do.
1961	do.				do.	Do.
1962	do.				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
06850500 Republican River near Bloomington, Nebraska						Drainage area = 20,800 square miles
Summary or interpretive publications[3]: Tas.1						
1949	[5]				SSMR 1949-54	Before Harlan County Reservoir
1950	do.				do.	Do.
1951	do.				do.	Do.
1952	do.				do.	Downstream from Harlan County Reservoir
1953	do.				do.	Do.
1961	do.				SSMR 1960-64	Do.
1962	do.				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
1968	do.				do.	Do.
06853000 Republican River near Guide Rock, Nebraska						Drainage area = 22,060 square miles
Summary or interpretive publications[3]: Tas.1						
1961	[4]				SSMR 1960-64	Downstream from Harlan County Reservoir
1962	[5]				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
1968	do.				do.	Do.
06853500 Republican River near Hardy, Nebraska						Drainage area = 22,401 square miles
Summary or interpretive publications[3]: Ost.2, Ost.4, Ost.5, Tas.1						
1947	1				WSP 1178	Before Harlan County Reservoir
1950	1				do.	Do.
1961	[4]				SSMR 1960-64	Downstream from Harlan County Reservoir
1962	[5]				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
06853780 White Rock Creek near Salem, Kansas						
1966			1		WSP 1993	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
06853800 White Rock Creek near Burr Oak, Kansas						Drainage area = 227 square miles
1966			1		WSP 1993	
1976	1				WRD-KS, 1976	
1978	2				WRD-KS, 1978	
1979	1				WRD-KS, 1979, vol. 1	
1980	6				WRD-KS, 1980, vol. 1	
1981	5				WRD-KD, 1981	
1982	8	1			WRD-KS, 1982	
1983	7				WRD-KS, 1983	
06854000 White Rock Creek at Lovewell, Kansas						Drainage area = 345 square miles
Summary or interpretive publications[3]: Col.1, Ost.3, Tas.1						
1949	5				WSP 1162	Before Lovewell Reservoir
1950	[7]	63			WSP 1187	Do.
1951	[8]	51			WSP 1198	Do.
1952	do.	11			WSP 1251	Do.
1953	do.	17			WSP 1291	Do.
1954	[7]	3			WSP 1351	Do.
1966			1		WSP 1993	Downstream from Lovewell Reservoir
1982	1				WRD-KS, 1982	Do.
06854500 Republican River at Scandia, Kansas						Drainage area = 22,903 square miles
Summary or interpretive publications[3]: Ost.3						
1961	3	2			WSP 1883	Downstream from Harlan County and Lovewell Reservoir
1968	[8]	2	7		WSP 2095	Do.
1969	do.	1	6		WSP 2145	Do.
1970	[7]	2	1		WSP 2155	Do.
1971	14	1			WRD-KS, 1971, part 2	Do.
06855000 West Buffalo Creek near Jewell, Kansas						Drainage area = 15.2 square miles
1935	[6] 5				SCS	
1936	do. 3				do.	
1937	do. 3				do.	
1938	do. 1				do.	
06855500 West Buffalo Creek at Jewell, Kansas						Drainage area = 16.8 square miles
1935	[6] 5				SCS	
1936	do. 3				do.	
1937	do. 3				do.	
1938	do. 1				do.	
06855800 Buffalo Creek near Jamestown, Kansas						Drainage area = 330 square miles
Summary or interpretive publications[3]: Ost.2, Ost.4, Ost.5						
1977	2				WRD-KS, 1977	
06855900 Wolf Creek near Concordia, Kansas						Drainage area = 56.0 square miles
Summary or interpretive publications[3]: Ost.2, Ost.4, Ost.5						
06856000 Republican River at Concordia, Kansas						Drainage area = 23,560 square miles
Summary or interpretive publications[3]: Ost.2, Ost.3, Ost.4, Ost.5, Tas.1						
1961	[4]	3			WSP 1883, SSMR 1960-64	Downstream from Harlan County and Lovewell Reservoir
1962	[5]				SSMR 1960-64	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
1968	do.				do.	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1/] or office file[2/]	Additional information
06856100 West Creek near Talmo, Kansas						Drainage area = 42.0 square miles
1977	1				WRD-KS, 1977	
1982	1	1			WRD-KS, 1982	
06856600 Republican River at Clay Center, Kansas Summary or interpretive publications [3/]: Alb.1, Col.1, Mun.1, Ost.2, Ost.3, Ost.4, Tas.1						Drainage area = 24,570 square miles
1949	[5/]	11	4		SSMR 1949-54, USCE-KC, USCE-O	Before Harlan County Lake
1950	do.	10			do.	Do.
1951	do.	17			do.	Do.
1952	do.				SSMR 1949-54, USCE-O	Do.
1953	do.				do.	Downstream from Harlan County Lake
1954	do.				do.	Do.
1957	28	17	11		WSP 1521	Downstream from Harlan County Lake and Lovewell Reservoir
1958	[8/]	12	3		WSP 1572	Do.
1959	do.	10	4		WSP 1643	Do.
1960	do.	16	8		WSP 1743	Do.
1961	do.	21	17		WSP 1883	Do.
1962	do.	20	12		WSP 1943	Do.
1963	do.	6	2		WSP 1949	Do.
1969	3	2			WRD 2145	Do.
1970	7	2			WRD-KS, 1970	Do.
1976	1				WRD-KS, 1976	Do.
1978	1				WRD-KS, 1978	Do.
1979	1				WRD-KS, 1979, vol. 1	Do.
1980	153	139			WRD-KS, 1980, vol. 1	Do.
1981	[7/]	134			WRD-KS, 1981	Do.
1982	109	106			WRD-KS, 1982	Do.
1983	7	7	1		WRD-KS, 1983	Do.
06856990 Republican River at Wakefield, Kansas						Drainage area = 24,700 square miles
1929	[6/] 3				HD-238	Before large reservoirs
1930	[6/] 12				do.	Do.
1931	[6/] 12				do.	Do.
1932	[6/] 12				do.	Do.
06857000 Republican River at Milford, Kansas						Drainage area = 24,900 square miles
1961	5				WSP 1883	Downstream from Harlan County Lake and Lovewell Reservoir, before Milford Lake
06857100 Republican River below Milford Dam, Kansas						Drainage area = 24,880 square miles
1967	[4/]				SSMR 1965-69	Downstream from Milford Lake
1968	[5/]				do.	Do.
1969	do.				do.	Do.
Republican River near Junction City, Kansas						
1907	[9/] 25				WSP 273	Before large reservoirs
1957	1	1			USGS-LN	Downstream from Harlan County Lake and Lovewell Reservoir, before Milford Lake
Republican River at Junction City, Kansas Summary or interpretive publications [3/]: Ost.2						
06858400 North Fork Smoky Hill River near Goodland, Kansas						
1966			1		WSP 1993	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
06858500 North Fork Smoky Hill River near McAllaster, Kansas						Drainage area = 670 square miles
Summary or interpretive publications [3]: Ost.4						
1966			1		WSP 1993	
1978	1				WRD-KS, 1978	
1979	1				WRD-KS, 1979, vol. 1	
1981	4				WRD-KS, 1982	
1983	1				WRD-KS, 1983	
06859500 Ladder Creek below Chalk Creek near Scott City, Kansas						Drainage area = 1,460 square miles
Summary or interpretive publications [3]: Col.1, Ost.2, Ost.5						
1958	1				USGS-L	
1961	3				WSP 1883	
1964	5	2			WSP 1956	
1965	[5]				WSP 1963, SSMR 1965-69	
1966	do.	4	1		WSP 1993, SSMR 1965-69	
1967	do.	1	2		WSP 2013, SSMR 1965-69	
1968	do.	6	1		WSP 2095, SSMR 1965-69	
1969	do.	2	1		WSP 2145, SSMR 1965-69	
1971	5				WRD-KS, 1971, part 2	
1972	1	1			WRD-KS, 1972, part 2	
1975	6				WRD-KS, 1975	
1976	3	2			WRD-KS, 1976	
1977	3	1			WRD-KS, 1977	
1978				2	USGS-L	
1979	1				WRD-KS, 1979, vol. 1	
1980				12	USGS-L	
06860000 Smoky Hill River at Elkader, Kansas						Drainage area = 3,555 square miles
Summary or interpretive publications [3]: Ost.2, Ost.5						
1966			1		WSP 1993	
1978				2	USGS-L	
06860300 South Branch Hackberry Creek near Orion, Kansas						Drainage area = 49.6 square miles
1964	3	2			WSP 1956	
1965	6	1			WSP 1963	
1966	1	1			WSP 1993	
1967	2	2			WSP 2013	
1968	3				WSP 2095	
06860500 Hackberry Creek near Gove, Kansas						Drainage area = 426 square miles
1977	1				WRD-KS, 1977	
06861000 Smoky Hill River near Arnold, Kansas						Drainagea area = 5,220 square miles
Summary or interpretive publications [3]: Ost.5						
1966			1		WSP 1993	
1971	1				WRD-KS, 1971, part 2	
1976	1				WRD-KS, 1976	
1977	3	3			WRD-KS, 1977	
1978	1	1		2	WRD-KS, 1978; USGS-L	
1979	1				WRD-KS, 1979, vol. 1	
1980	2				WRD-KS, 1980, vol. 1	
1981	4	3			WRD-KS, 1981	
06862500 Smoky Hill River near Ellis, Kansas						Drainage area = 5,630 square miles
Summary or interpretive publications [3]: Col.1, Ost.3, Tas.1						
1945	[6] 3				USBR-D	Before Cedar Bluff Reservoir
1946	[6] 6				do.	Do.
1947	[7]				WSP 1102	Do.
1948	[8]	5			WSP 1132	Do.
1949	do.	42			WSP 1162	Do.
1950	do.	56			WSP 1187	Do.
1951	[7]				WSP 1198	Downstream from Cedar Bluff Reservoir

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	06862700 Smoky Hill River near Schoenchen, Kansas					Drainage area = 5,750 square miles
	Summary or interpretive publications [3]: Ost.2, Ost.4, Ost.5					
	06863000 Smoky Hill River at Pfeifer, Kansas					Drainage area = 6,033 square miles
1981	1				WRD-KS, 1981	Downstream from Cedar Bluff Reservoir
	06863300 Big Creek near Ogallah, Kansas					Drainage area = 297 square miles
	Summary or interpretive publications [3]: Col.1, Ost.3, Tas.1					
1956	[8]	9			WSP 1451	
1957	do.	17			WSP 1521	
1958	do.	10			WSP 1572	
1959	do.				WSP 1643	
1962	do.				WSP 1943	
1966			1		WSP 1993	
	06863500 Big Creek near Hays, Kansas					Drainage area = 594 square miles
	Summary or interpretive publications [3]: Ost.2, Ost.4, Ost.5					
1958	2	2			WSP 1572	
1966			1		WSP 1993	
1976	3	2			WRD-KS, 1976	
1979	2				WRD-KS, 1979, vol. 1	
1980	6				WRD-KS, 1980, vol. 1	
1981	10				WRD-KS, 1981	
1982	7				WRD-KS, 1982	
1983	2				WRD-KS, 1983	
	06863700 Big Creek tributary near Hays, Kansas					Drainage area = 6.19 square miles
1981	1				WRD-KS, 1981	
	06863900 North Fork Big Creek near Victoria, Kansas					Drainage area = 54 square miles
	Summary or interpretive publications [3]: Ost.2, Ost.4					
1976	1	1			WRD-KS, 1976	
1978				2	USGS-L	
1981	1				WRD-KS, 1981	
1982	1				WRD-KS, 1982	
	06864000 Smoky Hill River near Russell, Kansas					Drainage area = 6,965 square miles
	Summary or interpretive publications [3]: Ost.4,					
1941	12				USBR-D	Before Cedar Bluff Reservoir
1960	3	2			WSP 1743	Downstream from Cedar Bluff Reservoir
1965	[5]				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
1968	do.				do.	Do.
1969	do.				do.	Do.
	06864050 Smoky Hill River near Bunker Hill, Kansas					Drainage area = 7,075 square miles
	Summary or interpretive publications [3]: Ost.2, Ost.5					
1977	1	1			WRD-KS, 1977	Downstream from Cedar Bluff Reservoir
1981	2	2			WRD-KS, 1981	Do.
	06864500 Smoky Hill River at Ellsworth, Kansas					Drainage area = 7,580 square miles
	Summary or interpretive publications [3]: Alb.1, Col.1, Jor.2, Ost.2 , Ost.3, Ost.5, Tas.1					
1943	[6] 11				USCE-O	Before Cedar Bluff Reservoir
1944	[6] 12				do.	Do.
1945	[6] 12				do.	Do.
1946	[6] 12				do.	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1]/ or office file[2]/	Additional information
	06864500 Smoky Hill River at Ellsworth, Kansas--Continued					
1947	[6]/ 12				USCE-0	Before Cedar Bluff Reservoir
1948	[10]/14	14			USCE-KC, USCE-0	Do.
1949	[5]/	35			WSP 1162, SSMR 1949-54, USCE-KC, USCE-0	Do.
1950	do.	32	1		SSMR 1949-54, USCE-KC, USCE-0	Do.
1951	do.	18			do.	Downstream from Cedar Bluff Reservoir
1952	do.				SSMR 1949-54, USCE-0	Do.
1953	do.				do.	Do.
1954	do.				do.	Do.
1955	do.				SSMR 1955-59	Do.
1956	do.				SSMR 1955-59, USCE-KC	Do.
1957	do.				SSMR 1955-59	Do.
1958	do.				do.	Do.
1959	do.				do.	Do.
1960	do.	3			WSP 1743, SSMR 1960-64	Do.
1961	do.				SSMR 1960-64	Do.
1962	do.				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
1966			1		WSP 1993	Do.
1968	1				WSP 2095	Do.
1979	1				USGS-L	Do.
	06865500 Smoky Hill River near Langley, Kansas (published as "below Kanopolis Dam" in SSMR)					Drainage area = 7,857 square miles
1947	[6]/ 4				USCE-0	Before Kanopolis Lake
1948	[6]/ 12				do.	Downstream from Kanopolis Lake
1949	[5]/				SSMR 1949-54	Do.
1950	do.				do.	Do.
1951	do.				do.	Do.
1952	do.				do.	Do.
1953	do.				do.	Do.
1954	do.				do.	Do.
1955	do.				SSMR 1955-59	Do.
1956	do.				do.	Do.
1957	do.				do.	Do.
1958	do.				do.	Do.
1959	do.				do.	Do.
1960	do.				SSMR 1960-64	Do.
1961	do.				do.	Do.
1962	do.				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
1978				2	USGS-L	Do.
	06866000 Smoky Hill River at Lindsborg, Kansas Summary or interpretive publications [3]/: Col.1, Ost.3, Tas.1					Drainage area = 8,480 square miles
1907	[9]/ 26				WSP 273	Before Kanopolis Lake
1908	[9]/ 3				do.	Do.
1951	[4]/	22			USCE-KC, SSMR 1949-54, USCE-0	Downstream from Kanopolis Lake
1952	[5]/				SSMR 1949-54, USCE-0	Do.
1953	do.				do.	Do.
1954	do.				do.	Do.
1955	do.				SSMR 1955-59	Do.
1956	do.				do.	Do.
1957	do.				do.	Do.
1958	do.				do.	Do.
1959	do.				do.	Do.
1960	do.				SSMR 1960-64	Do.
1961	do.				do.	Do.
1962	do.				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material	Number of analyses: Bank-material size	Publication[1]/ or office file[2]/	Additional information
06866490 Dry Creek at Mentor, Kansas						Drainage area = 37.0 square miles
1977	1				WRD-KS, 1977	
1981	1	1			WRD-KS, 1981	
1982	1	1			WRD-KS, 1982	
06866500 Smoky Hill River near Mentor, Kansas Summary or interpretive publications [3]/: Ost.2, Ost.4, Ost.5						Drainage area = 8,358 square miles
1929	[6]/ 3				HD-238	Before Kanopolis Lake
1930	[6]/ 12				do.	Do.
1931	[6]/ 5				do.	Do.
1932	[6]/ 9				do.	Do.
1960	3				WSP 1743	Downstream from Kanopolis Lake
1975	1	1			WRD-KS, 1975	Do.
1976	1				WRD-KS, 1976	Do.
1979	1				WRD-KS, 1979, vol. 1	Do.
1981	1	1			WRD-KS, 1981	Do.
06866900 Saline River near WaKeeney, Kansas Summary or interpretive publications [3]/: Col.1, Jor.1, Ost.3, Tas.1						Drainage area = 696 square miles
1956	[7]/	14			WSP 1451	
1957	do.	7			WSP 1521	
1958	[8]/	11			do.	
1959	do.				WSP 1643	
06867000 Saline River near Russell, Kansas Summary or interpretive publications [3]/: Col.1, Jor.1, Ost.2, Ost.3, Ost.4, Ost.5, Tas.1						Drainage area = 1,502 square miles
1946	[7]/				WSP 1102	
1947	[8]/				do.	
1948	do.	5			WSP 1132	
1949	do.	27			WSP 1162	
1950	do.	60			WSP 1187	
1951	do.	32			WSP 1198	
1958	3				USGS-L	
1960	4	2			WSP 1743	
1964			1		WSP 1956	
1966			1		WSP 1993	
1976	2				WRD-KS, 1976	
1977	2				WRD-KS, 1977	
1979	2				WRD-KS, 1979, vol. 1	
1980	8				WRD-KS, 1980, vol. 1	
1981	9				WRD-KS, 1981	
1982	8	1			WRD-KS, 1982	
1983	8				WRD-KS, 1983	
06867500 Paradise Creek near Paradise, Kansas Summary or interpretive publications [3]/: Col.1, Jor.1, Ost.2, Ost.3, Ost.4, Ost.5, Tas.1						Drainage area < 212 square miles
1947	[7]/				WSP 1102	
1948	[8]/	3			WSP 1132	
1949	do.	12			WSP 1162	
1950	do.	50			WSP 1187	
1951	do.	29			WSP 1198	
1978				2	USGS-L	
06868000 Saline River near Wilson, Kansas						Drainage area = 1,900 square miles
1941	25				USBR-D	Before Wilson Lake
1942	7				do.	Do.
1946	6				do.	Do.
1948	9				USGS-L	Do.
1949	15				WSP 1162	Do.
1950	5				WSP 1187	Do.
1958	2	2			WSP 1572	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
06868500 Wolf Creek near Sylvan Grove, Kansas						**Drainage area = 261 square miles**
Summary or Interpretive Publications[3]: Col.1, Jor.1, Ost.3, Tas.1						
1907	[9] 29				WSP 273	
1908	[9] 5				do.	
1942	2				USBR-D	
1947	[7]				WSP 1102	
1948	[8]	5			WSP 1132	
1949	do.	21			WSP 1162	
1950	do.	31			WSP 1187, USBR-D	
1951	7				WSP 1198	
06868700 North Branch Spillman Creek near Ash Grove, Kansas						**Drainage area = 26.1 square miles**
1971	1	1			WRD-KS, 1971, part 2	
06869500 Saline River at Tescott, Kansas						**Drainage area = 2,820 square miles**
Summary or Interpretive Publications[3]: Col.1, Jor.1, Mun.1, Ost.2, Ost.3, Ost.4, Ost.5, Tas.1						
1929	[6] 3				HD-238	Before Wilson Lake
1930	[6] 12				do.	Do.
1931	[6] 12				do.	Do.
1932	[6] 9				do.	Do.
1957	25	14			WSP 1521	Do.
1958	11	5			WSP 1572	Do.
1959	[7]	16			WSP 1643, WSP 1743	Do.
1960	[8]	9			WSP 1743	Do.
1961	do.	38			WSP 1883	Do.
1962	do.	8			WSP 1943	Do.
1963	do.	9			WSP 1949	Do.
1964	do.	5			WSP 1956	Do.
1965	do.	5			WSP 1963	Downstream from Wilson Lake
1966	do.	3	1		WSP 1993	Do.
1967	do.	7			WSP 2013	Do.
1968	do.	7			WSP 2095	Do.
1969	[8]	13	1		WSP 2145	Do.
1970	[7]	3			WSP 2155	Do.
1971	16	3			WRD-KS, 1971, part 2	Do.
1972	3	3	2		WRD-KS, 1972, part 2	Do.
1973	13	5	2		WRD-KS, 1973, part 2	Do.
1974	12	1			WRD-KS, 1974, part 2	Do.
1975	13	3			WRD-KS, 1975	Do.
1976	4				WRD-KS, 1976	Oo.
1977	4	1	1		WRD-KS, 1977	Do.
1978	3		2		WRD-KS, 1978	Do.
1979	4	1	1		WRD-KS, 1979, vol. 1	Do.
1980	7		2		WRD-KS, 1980, vol. 1	Do.
1981	8		1		WRD-KS, 1981	Do.
1982	2		1		WRD-KS, 1982	Do.
1983	5				WRD-KS, 1983	Do.
Miscellaneous Stations in the Saline River Basin						
Summary or Interpretive Publications[3]: Jor.1						
1953			5		WSP 1651	
1957			2		do.	
1958			13		do.	
06869950 Mulberry Creek near Salina, Kansas						**Drainage area = 250 square miles**
1962	3	3			WSP 1943	
1968	1				WSP 2095	
1981	1				WRD-KS, 1981	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Suspended-sediment Particle size	Bed-material size	Bank-material size	Publication[1] or office file[2]	Additional information
	06870200 Smoky Hill River at New Cambria, Kansas					Drainage area = 11,730 square miles
	Summary or Interpretive Publications [3]: Alb.1, Ost.3, Ost.5					
1963	[8]	9	8		WSP 1949	Downstream from Kanopolis Lake
1964	do.	16	14		WSP 1956	Do.
1965	do.	7	13		WSP 1963	Downstream from Kanopolis and Wilson Lakes
1966	do.	4	4		WSP 1993	Do.
1967	do.	1	1		WSP 2013	Do.
1968	do.	3	4		WSP 2095	Do.
1977	1				WRD-KS, 1977	Do.
1979	2				WRD-KS, 1979, vol. 1	Do.
1981	2	1			WRD-KS, 1981	Do.
1982	1	1			WRD-KS, 1982	Do.
	06870300 Gypsum Creek near Gypsum, Kansas					Drainage area = 120 square miles
1982	1	1			WRD-KS, 1982	
	06871000 North Fork Solomon River at Glade, Kansas					Drainage area = 849 square miles
	Summary or Interpretive Publications [3]: Ost.2, Ost.4, Ost.5					
1958	2	2			WSP 1572	
1966			1		WSP 1993	
1968	1	1			WSP 2095	
1975	1	1			WRD-KS, 1975	
1977	2				WRD-KS, 1977	
1978				2	USGS-L	
1979	4				do.	
1980	2				WRD-KS, 1980, vol. 1	
1981	1				WRD-KS, 1981	
1982	2				WRD-KS, 1982	
	06871300 Bow Creek near Edmond, Kansas					
1966			1		WSP 1993	
	06871500 Bow Creek near Stockton, Kansas					Drainage area = 341 square miles
	Summary or Interpretive Publications [3]: Ost.2, Ost.4, Ost.5					
1966			1		WSP 1993	
	06871800 North Fork Solomon River at Kirwin, Kansas					Drainage area = 1,367 square miles
	Summary or Interpretive Publications [3]: Col.1, Ost.3, Tas.1					
1945	3				USBR-D	Before Kirwin Reservoir
1948	1				WSP 1162	Do.
1949	9				do.	Do.
1950	[7]	33			WSP 1187	Do.
1951	[8]	32			WSP 1198	Do.
1952	[7]	12			WSP 1251	Do.
	06871900 Deer Creek near Phillipsburg, Kansas					Drainage area = 65 square miles
	Summary or Interpretive Publications [3]: Ost.2, Ost.4					
1980	2				WRD-KS, 1980, vol. 1	
1981	2				WRD-KS, 1981	
	06872300 Middle Beaver Creek near Smith Center, Kansas					Drainage area = 71.0 square miles
1964	7				WSP 1956	
1965	4	2			WSP 1963	
1967	9	4			WSP 2013	
1968	4	3			WSP 2095	
1969	6				WSP 2145	
1970	7	1			WSP 2155	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	06872400 Beaver Creek near Smith Center, Kansas					Drainage area = 165.0 square miles
1963	3				WSP 1949	
	06872500 North Fork Solomon River at Portis (near Downs), Kansas Drainage area = 2,315 (2,390) square miles Summary or Interpretive Publications [3]: Ost.2, Ost.4, Ost.5, Tas.1					
1961	3	2			WSP 1883	Downstream from Kirwin Reservoir
1962	[5]				SSMR 1960-64	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.		1		SSMR 1965-69, WSP 1993	Do.
1967	do.				SSMR 1965-69	Do.
1968	do.				do.	Do.
1977	1				WRD-KS, 1977	Do.
1978				2	USGS-L	Do.
	06873000 South Fork Solomon River above Webster Reservoir Summary or Interpretive Publications [3]: Ost.2, Ost.4, Ost.5					Drainage area = 1,040 square miles
1958	3				WSP 1572	
1966			1		WSP 1993	
1975	1	1			WRD-KS, 1975	
1976	1				WRD-KS, 1976	
1977	3				WRD-KS, 1977	
1979	5				USGS-L	
1980	3				WRD-KS, 1980, vol. 1	
1981	3				WRD-KS, 1981	
1982	3				WRD-KS, 1982	
1983	1				WRD-KS, 1983	
	06873500 South Fork Solomon River at Alton, Kansas Summary or Interpretive Publications [3]: Col.1, Ost.3, Tas.1					Drainage area = 1,720 square miles
1946	[7]				WSP 1102	Before Webster Reservoir
1947	[8]				do.	Do.
1948	do.	8			WSP 1132	Do.
1949	do.	20			WSP 1162	Do.
1950	do.	46			WSP 1187	Do.
1951	do.	31			WSP 1198	Do.
1952	[7]	9			WSP 1251	Do.
1966			1		WSP 1993	Downstream from Kirwin Reservoir
	06873700 Kill Creek near Bloomington, Kansas Summary or Interpretive Publications [3]: Ost.4					Drainage area = 52 square miles
1980	1	1			WRD-KS, 1980, vol. 1	
1981	1	1			WRD-KS, 1981	
	06874000 South Fork Solomon River at Osborne, Kansas Summary or Interpretive Publications [3]: Ost.2, Ost.4, Ost.5, Tas.1					Drainage area = 2,012 square miles
1958	2	2			WSP 1572	Downstream from Webster Reservoir
1961	2	2			WSP 1883	Do.
1962	[4]				SSMR 1960-64	Do.
1963	[5]				do.	Do.
1964	do.				do.	Do.
1966	do.		1		SSMR 1965-69, WSP 1993	Do.
1967	do.				SSMR 1965-69	Do.
1968	do.				do.	Do.
1975	1	1			WRD-KS, 1975	Do.
1976	1				WRD-KS, 1976	Do.
1978				2	USGS-L	Do.
1980	1				WRD-KS, 1980, vol. 1	Do.
1982	2				WRD-KS, 1982	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
06874500 East Limestone Creek near Ionia, Kansas						Drainage area = 25.6 square miles
1935	[6] 5				SCS	
1936	do. 3				do.	
1937	do. 3				do.	
1938	do. 3				do.	
06875000 Elm Creek near Ionia, Kansas						Drainage area = 22.7 square miles
1935	[6] 5				SCS	
1936	do. 4				do.	
1937	do. 4				do.	
1938	do. 4				do.	
06875500 East Limestone Creek at Ionia, Kansas						Drainage area = 51.6 square miles
1935	[6] 2				SCS	
06875900 Solomon River near Glen Elder, Kansas Summary or Interpretive Publications [3]: Ost.2, Ost.4						Drainage area = 5,340 square miles
06876000 Solomon River at Beloit, Kansas Summary or Interpretive Publications [3]: Col.1, Ost.3, Tas.1						Drainage area = 5,430 square miles
1907	[9] 27				WSP 273	Before large reservoirs
1908	[9] 5				do.	Do.
1948	[7]	9			WSP 1132	Do.
1949	[8]	51			WSP 1162	Do.
1950	do.	76			WSP 1187	Do.
1951	do.	54			WSP 1198	Do.
1952	do.	10			WSP 1251	Do.
1960	9				USGS-L	Downstream from Kirwin and Webster Reservoirs
1961	19	5			WSP 1883	Do.
06876200 Middle Pipe Creek near Miltonvale, Kansas						Drainage area = 10.2 square miles
1963	1				WSP 2095	
1973	1				WRD-KS, 1973, part 2	
06876440 Solomon River near Minneapolis, Kansas						Drainage area = 6,060 square miles
1980	1	1			WRD-KS, 1980, vol. 1	Downstream from Waconda Lake
1981	1	1			WRD-KS, 1981	Do.
1982	1	1			WRD-KS, 1982	Do.
06876700 Salt Creek near Ada, Kansas Summary or Interpretive Publications [3]: Ost.2, Ost.4, Ost.5						Drainage area = 384 square miles
1964	17	2			WSP 1956	
1965	8	2			WSP 1963	
1967	12	2			WSP 2013	
1968	11	5			WSP 2095	
1969	13				WSP 2145	
1970	13	2			WSP 2155	
1977	2	1			WRD-KS, 1977	
1978				2	USGS-L	
1979	1				do.	
1981	1				WRD-KS, 1981	
1982	1	1			WRD-KS, 1982	
06876900 Solomon River at Niles, Kansas Summary or Interpretive Publications [3]: Alb.1, Col.1, Mun.1, Ost.2 , Ost.3, Ost.4, Ost.5						Drainage area = 6,770 square miles
1929	[6] 3				HD-238	Before large reservoirs
1930	do.12				do.	Do.
1931	do.12				do.	Do.
1932	do. 9				do.	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
06876900 Solomon River at Niles, Kansas (continued)						
1957	18	11	3		WSP 1521	Downstream from Kirwin and Webster Reservoirs
1958	17	10			WSP 1572	Do.
1959	15	2			WSP 1643	Do.
1960	18	5	2		WSP 1743	Do.
1961	35	23	3		WSP 1883	Do.
1962	14	7	2		WSP 1943	Do.
1963	17	7	2		WSP 1949	Do.
1964	17	6	5		WSP 1963	Do.
1965	17	7	12		do.	Do.
1966	15	4	9		WSP 1993	Do.
1967	19	7	4		WSP 2013	Do.
1968			1		WSP 2095	Do.
1969	8	4	4		WSP 2145	Downstream from Waconda Lake
1970	13	2	2		WSP 2155	Do.
1971	14	4	2		WRD-KS, 1971, part 2	Do.
1972	1	1	1		WRD-KS, 1972, part 2	Do.
1973	11	3	1		WRD-KS, 1973, part 2	Do.
1974	12	2	2		WRD-KS, 1974, part 2	Do.
1975	13	3	3		WRD-KS, 1975	Do.
1976	9	2	1		WRD-KS, 1976	Do.
1977	6	2			WRD-KS, 1977	Do.
1978	8	3	2	2	WRD-KS, 1978; USGS-L	Do.
1979	4				WRD-KS, 1979, vol. 1	Do.
1980	4	1			WRD-KS, 1980, vol. 1	Do.
1981	3	1	1		WRD-KS, 1981	Do.
1982	6	2	2		WRD-KS, 1982	Do.
1983	7		1		WRD-KS, 1983	Do.
06877000 Smoky Hill River at Solomon, Kansas						Drainage area = 18,830 square miles
1929	6/ 3				HD-238	Before large reservoirs
1930	do. 12				do.	Do.
1931	do. 12				do.	Do.
1932	do. 9				do.	Do.
06877120 Mud Creek at Abilene, Kansas						Drainage area = 87.0 square miles
1973	1				WRD-KS, 1971, part 2	
06877500 Turkey Creek near Abilene, Kansas						Drainage area = 143 square miles
Summary or Interpretive Publications 3/: Mun.1, Ost.3						
1959	21	8			WSP 1643	
1960	11				WSP 1743	
1961	15	5			WSP 1883	
1962	16	8			WSP 1943	
1963	13	1			WSP 1949	
1964	9	2			WSP 1956	
1965	14	3			WSP 1963	
1977	1				WRD-KS, 1977	
06877600 Smoky Hill River at Enterprise, Kansas						Drainage area = 19,200 square miles
Summary or Interpretive Publications 3/: Col.1, Jor.2, Mun.1, Ost.2, Ost.3, Ost.4, Ost.5, Tas.1						
1957	26	16			WSP 1521	Downstream from three large reservoirs
1958	8/	16			WSP 1572	Do.
1959	do.	7			WSP 1643	Do.
1960	do.	6			WSP 1743	Do.
1961	do.	23			WSP 1883	Do.
1962	do.	10			WSP 1943	Do.
1963	do.	11			WSP 1949	Do.
1964	do.	9	4		WSP 1956	Do.
1965	do.	7	8		WSP 1963	Downstream from four large reservoirs
1966	do.	3	7		WSP 1993	Do.
1967	do.	3	4		WSP 2013	Do.
1968	do.	10	6		WSP 2095	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	06877600 Smoky Hill River at Enterprise, Kansas--Continued					
1969	[8]	19	5		WSP 2145	Downstream from five large reservoirs
1970	do.	3	2		WSP 2155	Do.
1971	do.	5	2		WRD-KS, 1971, part 2	Do.
1972	do.	1	1		WRD-KS, 1972, part 2	Do.
1973	do.	5	1		WRD-KS, 1973, part 2	Do.
1974	do.	5	2		WRD-KS, 1974, part 2	Do.
1975	do.	3	2		WRD-KS, 1975	Do.
1976	12	1	2		WRD-KS, 1976	Do.
1977	9	2	2		WRD-KS, 1977	Do.
1978	7			2	WRD-KS, 1978; USGS-L	Do.
1979	13	1	1		WRD-KS, 1979, vol. 1	Do.
1980	10	1	2		WRD-KS, 1980, vol. 1	Do.
1981	12	2	2		WRD-KS, 1981	Do.
1982	4				WRD-KS, 1982	Do.
1983	8	8	3		WRD-KS, 1983	Do.
	06878000 Chapman Creek near Chapman, Kansas					Drainage area = 300 square miles
	Summary or Interpretive Publications [3]: Col.1, Mun.1, Ost.2, Ost.3, Ost.4, Ost.5					
1958	7	6			WSP 1572	
1959	7				WSP 1643	
1960	8				WSP 1743	
1961	22	12			WSP 1883	
1962	13	5			WSP 1943	
1976	1	1			WRD-KS, 1976	
1977	1				WRD-KS, 1977	
1978	1	1		2	WRD-KS, 197B; USGS-L	
	06878500 Lyon Creek near Woodbine, Kansas					Drainage area = 230 square miles
	Summary or Interpretive Publications [3]: Col.1, Mun.1, Ost.2, Ost.3, Ost.4, Ost.5					
1958	5	2			WSP 1572	
1959	14	3			WSP 1643	
1960	12				WSP 1743	
1961	15	5			WSP 1883	
1962	16	8			WSP 1943	
1963	13	1			WSP 1949	
1964	[5]				SSMR 1960-64	
1965	do.				SSMR 1965-69	
1966	do.				do.	
1967	do.				do.	
1968	do.				do.	
1969	do.				do.	
	06879100 Kansas River at Fort Riley, Kansas					Drainage area = 44,870 square miles
1969	1				WSP 2145	Downstream from large reservoirs
1979				2	USGS-L	Do.
1980	1				WRD-KS, 1980, vol. 1	Do.
	06879200 Clark Creek near Junction City, Kansas					Drainage area = 200 square miles
	Summary or Interpretive Publications [3]: Col.1, Mun.1, Ost.3					
1958	4	2			WSP 1572	
1959	9	2			WSP 1643	
1960	11				WSP 1743	
1961	16	6			WSP 1883	
1962	13	5			WSP 1943	
	06879650 Kings Creek near Manhattan, Kansas					Drainage area = 4.09 square miles
1981	3				WRD-KS, 1981	
1982	7				WRD-KS, 1982	
1983	4	1			WRD-KS, 1983	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
	06879900 Big Blue River at Surprise, Nebraska (Prior to 1966, published as North Branch Big Blue River) Summary or Interpretive Publications[3]: Ost.5					Drainage area = 345 square miles
1965	3	1			WSP 1963	
1966	16	3			WSP 1993	
1967	8	7			WSP 2013	
1968	7	3	1		WSP 2095	
1969	13	9	2		WSP 2145	
1970	10	3			WSP 2155	
1972	6	6	1		WRD-NE, 1972, part 2	
1977			1	2	WRD-NE, 1977; USGS-L	
	06880500 Big Blue River at Seward, Nebraska Summary or Interpretive Publications[3]: Ost.5					
1977			1		WRD-NE, 1977	
	06880800 West Fork Big Blue River near Dorchester, Nebraska Summary or Interpretive Publications[3]: Ost.5					Drainage area = 1,206 square miles
1963	5	5	2		WSP 1949	
1964	14	7	13		WSP 1956	
1965	23	19	11		WSP 1963	
1966	17	9	15		WSP 1993	
1967	19	10	14		WSP 2013	
1968	[5]				SSMR 1965-69	
1969	do.				do.	
1970	1				WSP 2155	
1981	12	12	12		WRD-NE, 1981	
	Big Blue River near Crete, Nebraska					
1963	6	6	2		WSP 1963	
	06881000 Big Blue River near Crete, Nebraska Summary or Interpretive Publications[3]: Ost.3, Ost.5, Tas.1					Drainage area = 2,716 square miles
1951	3	2			WSP 1198	
1960	4	3			WSP 1743	
1961	12	4	4		WSP 1883	
1962	[8]	8	3		WSP 1943	
1965	[5]				SSMR 1965-69	
1966	do.				do.	
1967	do.				do.	
1968	do.				do.	
1969	do.				do.	
1973	1	1	1		WRD-NE, 1973, part 2	
1974	2	2	2		WRD-NE, 1974, part 2	
1975	3	3	3		WRD-NE, 1975	
1976	1	1	1		WRD-NE, 1976	
1977	3	3	4		WRD-NE, 1977	
1978	2	2	2		WRD-NE, 1978	
	06881500 Big Blue River at Beatrice, Nebraska					Drainage area = 3,900 square miles
1961	8	4			WSP 1883	
1963	2	2			WSP 1949	
1979	3	3	3		WRD-NE, 1979	
1980	3	3	3		WRD-NE, 1980	
1981	1	1	1		WRD-NE, 1981	
	06882000 Big Blue River at Barneston, Nebraska Summary or interpretive publications[3]: Tas.1					Drainage area = 4,447 square miles
1957	3	3			WSP 1521	
1960	[5]				SSMR 1960-64	
1961	do.				WSP 1883, SSMR 1960-64	
1962	do.				SSMR 1960-64	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment concentration	Number of analyses: Suspended-sediment particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
06882000 Big Blue River at Barneston, Nebraska--Continued						
1963	5/	2			WSP 1949, SSMR 1960-64	
1964	do.				SSMR 1960-64	
1965	do.				SSMR 1965-69	
1966	do.				do.	
1967	do.				do.	
1968	do.				do.	
1969	do.				do.	
06883000 Little Blue River near Deweese, Nebraska Summary or interpretive Publications 3/: Ost.3, Tas.1						Drainage area = 979 square miles
1953	13	2			WSP 1291	
1955	3		3		WSP 1451	
1956	7/	10	9		do.	
1957	8/	11	5		WSP 1521	
1958	do.	14			WSP 1572	
1959	do.	14	5		WSP 1643	
1960	do.	12	12		WSP 1743	
1961	do.	7	16		WSP 1883	
06883100 Little Blue River at Angus, Nebraska						
1951	9	2			WSP 1198	
1952	7				WSP 1251	
1953	4				WSP 1291	
06883570 Little Blue River near Gilead, Nebraska						Drainage area = 1,552 square miles
1980	4	4	3		WSP 1883	
06884000 Little Blue River near Fairbury, Nebraska Summary or Interpretive Publications 3/: Ost.2, Ost.3						Drainage area = 2,350 square miles
1957	40	23	4		WSP 1521	
1959	36	23	11		WSP 1572	
1960	3	3			WSP 1743	
1961	6	4	3		WSP 1883	
1980	9	2			WRD-NE, 1980	
Little Blue River near Endicott, Nebraska Summary or Interpretive Publications 3/: Col.1,						
1951	9	2			WSP 1198	
1952	22	1			WSP 1251	
1953	15	12			WSP 1291	
1955	4	2	4		WSP 1401	
1956	48	27	17		WSP 1451	
1957	36	32	4		USGS-LN	
06884025 Little Blue River at Hollenberg, Kansas						Drainage area = 2,752 square miles
1973	1	1	1		WRD-KS, 1973, part 2	
1975	6	3	6		WRD-KS, 1975	
1977	3	3	3		WRD-NE, 1977	
1978	4	4	4		WRD-NE, 1978	
1979	3	3	3		WRD-KS, 1979, vol. 1; WRD-NE, 1979	
1980	2	2	2		WRD-KS, 1980, vol. 1; WRD-NE, 1980	
1981	2	2	2		WRD-KS, 1981, WRD-NE, 1981	
1982	3	3			WRD-KS, 1982	
06884200 Mill Creek at Washington, Kansas Summary or Interpretive Publications 3/: Ost.2, Ost.3, Ost.4, Ost.5						Drainage area = 344 square miles
1961	4	3			WSP 1883	
1976				2	USGS-L	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	06884390 Little Blue River at Hanover, Kansas					
1957	1				USGS-LN	
	06884400 Little Blue River near Barnes, Kansas					Drainage area = 3,324 square miles
	Summary or Interpretive Publications[3]: Ost.2, Ost.3, Ost.4, Ost.5					
1960	5/				SSMR 1960-64	
1961	do.				do.	
1962	do.				do.	
1963	do.				do.	
1964	do.				do.	
1965	do.				SSMR 1965-69	
1966	do.		1		SMR 1965-69, WSP 2993	
1967	do.				SSMR 1965-69	
1968	do.				do.	
1969	do.				do.	
1970	7	2			WSP 2155	
1976	5	1		2	WRD-KS, 1976; USGS-L	
1977	5				WRD-KS, 1977	
1978	6				WRD-KS, 1978	
1979	3	3	3		WRD-KS, 1979, vol. 1	
1980	9				WRD-KS, 1980, vol. 1	
1981	10	1			WRD-KS, 1981	
1982	9	2			WRD-KS, 1982	
1983	5	1			WRD-KS, 1983	
	06884500 Little Blue River at Waterville, Kansas					Drainage area = 3,509 square miles
	Summary or Interpretive Publications[3]: Col.1, Tas.1					
1961	7	5			WSP 1883	
	06884700 Big Blue River near Blue Rapids, Kansas					Drainage area = 8,342 square miles
1957	1	1			USGS-LN	
1969	4/				SSMR 1965-69	
	06885500 Black Vermillion River near Frankfort, Kansas					Drainage area = 410 square miles
	Summary or Interpretive Publications[3]: Col.1, Ost.2, Ost.4, Ost.5					
1958	4	4			WSP 1572	
1969	4/				SSMR 1965-69	
1976	1	1		2	WRD-KS, 1976; USGS-L	
1982	1	1			WRD-KS, 1982	
	06886000 Big Blue River at Randolph, Kansas					Drainage area = 9,100 square miles
	Summary or Interpretive Publications[3]: Col.1, Jor.2, Ost.3, Tas.1					
1929	6/ 3				HD-238	
1930	do.12				do.	
1931	do.12				do.	
1932	do. 9				do.	
1943	do.11				USCE-O	
1944	do.12				do.	
1945	do.12				do.	
1946	do.12				do.	
1947	do.12				do.	
1948	10/ 24	24			USCE-KC, USCE-O	
1949	5/	52			SSMR 1949-54, USCE-KC, USCE-O	
1950	do.	26			do.	
1951	do.	8			do.	
1952	do.				SSMR 1949-54, USCE-O	
1953	do.				do.	
1954	do.				do.	
1955	do.				SSMR 1955-59	
1956	3				USCE-KC	
1957	5/				SSMR 1955-59	
1958	do.				do.	
1959	do.				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	06886500 Fancy Creek at Winkler, Kansas					Drainage area = 174 square miles
1971	1	1			WRD-KS, 1971, part 2	
1977	1				WRD-KS, 1977	
	06887000 Big Blue River near Manhattan, Kansas					Drainage area = 9,640 square miles
1960	[4]				SSMR 1960-64	Downstream from Tuttle Creek Lake
1961	[5]				do.	Do.
1962	do.				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
1968	do.				do.	Do.
1969	do.				WSP 2145, SSMR 1965-69	Do.
1975	7				WRD-KS, 1975	Do.
1976	10				WRD-KS, 1976	Do.
1977	8				WRD-KS, 1977	Do.
1978	9	1			WRD-KS, 1978	Do.
1979	12				WRD-KS, 1979, vol. 1	Do.
1980	13				WRD-KS, 1980, vol. 1	Do.
1981	10				WRD-KS, 1981	Do.
1982	5				WRD-KS, 1982	Do.
1983	8	8	1		WRD-KS, 1983	Do.
	Big Blue River at Manhattan, Kansas					
1907	[9] 27				WSP 273	
1908	do. 7				WSP 273	
	06887500 Kansas River at Wamego, Kansas					Drainage area = 55,240 square miles
	Summary or Interpretive Publications [3]: Alb.1, Col.1, Mun.1, Ost.3, Ost.4, Ost.5, Tas.1					
1957	23	18	6		WSP 1521	Downstream from five large reservoirs
1958	[8]	6	2		WSP 1572	Do.
1959	do.	7	2		WSP 1643	Do.
1960	do.	14	8		WSP 1743	Downstream from six large reservoirs
1961	do.	24	8		WSP 1883	Do.
1962	do.	16	10		WSP 1943	Do.
1963	do.	7	12		WSP 1949	Do.
1964	do.	4	11		WSP 1956	Do.
1965	do.	2	10		WSP 1963	Downstream from seven large reservoirs
1966	do.	2	4		WSP 1993	Do.
1967	do.	1	7		WSP 2013	Downstream from eight large reservoirs
1968	do.	1	11		WSP 2095	Do.
1969	do.	7	12		WSP 2145	Downstream from nine large reservoirs
1970	do.	4	8		WRD-KS, 1970	Do.
1971	do.	3	3		WRD-KS, 1971, part 2	Do.
1972	do.	1	1		WRD-KS, 1972, part 2	Do.
1973	do.	3	1		WRD-KS, 1973, part 2	Do.
1974	do.	3	1		WRD-KS, 1974, part 2	Do.
1975	do.	3	1		WRD-KS, 1975	Do.
1976	9	1	2		WRD-KS, 1976	Do.
1977	5		1		WRD-KS, 1977	Do.
1978	3	1	2	1	WRD-KS, 1978; USGS-L	Do.
1979	3			2	WRD-KS, 1979, vol. 1; USGS-L	Do.
1980	9	1	2		WRD-KS, 1980, vol. 1	Do.
1981	10	1	2		WRD-KS, 1981	Do.
1982	8	3	2		WRD-KS, 1982	Do.
1983	9	1	2		WRD-KS, 1983	Do.
	06888000 Vermillion Creek near Wamego, Kansas					Drainage area = 243 square miles
	Summary or Interpretive Publications [3]: Col.1, Mun.1, Ost.2, Ost.3, Ost.5, Tas.1					
1958	[7]	3			WSP 1572	
1959	[8]	10			WSP 1643	
1960	do.	15			WSP 1743	
1961	do.	10			WSP 1843	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1/] or office file[2/]	Additional information
06888000 Vermillion Creek near Wamego, Kansas--Continued						
1962	[8/]	14			WSP 1943	
1963	do.	3			WSP 1949	
1966			1		WSP 1993	
1971	2	2			WRD-KS, 1971, part 2	
1978				2	USGS-L	
06888030 Vermillion Creek near Louisville, Kansas						Drainage areas = 297 square miles
1972	1	1			WRD-KS, 1972, part 2	
1974	3				WRD-KS, 1974, part 2	
06888500 Mill Creek near Paxico, Kansas						Drainage area = 316 square miles
Summary or Interpretive Publications [3/]: Ost.3						
1961	2				WSP 1883	
06889000 Kansas River at Topeka, Kansas						Drainage area = 56,720 square miles
Summary or Interpretive Publications [3/]: Col.1, Ost.2, Ost.5						
1969	1				WSP 2145	Downstream from large reservoirs
06889100 Soldier Creek near Goff, Kansas						Drainage area = 2.06 square miles
Summary or Interpretive Publications [3/]: Car.1, Ost.4						
1967	1	1			WSP 2013	
1968	8				WSP 2095	
1969	15				WSP 2145	
1970	17	2			WSP 2155	
1971	12	2			WRD-KS, 1971, part 2	
1972	5				WRD-KS, 1972, part 2	
1973	5				WRD-KS, 1973, part 2	
1974	11				WRD-KS, 1974, part 2	
1975	8	1			WRD-KS, 1975	
1976	3				USGS-L	
1977	5			2	WRD-KS, 1977; USGS-L	
1978	3			2	WRD-KS, 1978; USGS-L	
1979	4	1			WRD-KS, 1979, vol. 1	
1980	5				WRD-KS, 1980, vol. 1	
06889120 Soldier Creek near Bancroft, Kansas						Drainage area = 10.5 square miles
Summary or Interpretive Publications [3/]: Car.1, Ost.4						
1967	3	2			WSP 2013	
1968	8	2			WSP 2095	
1969	15				WSP 2145, WRD-KS, 1969	
1970	17	1			WSP 2155	
1971	13				WRD-KS, 1971, part 2	
1972	10				WRD-KS, 1972, part 2	
1973	10				WRD-KS, 1973, part 2	
1974	11				WRD-KS, 1974, part 2	
1975	8	1			WRD-KS, 1975	
1976	4	1			WRD-KS, 1976	
1977	6			2	WRD-KS, 1977; USGS-L	
1978	6	1		2	WRD-KS, 1978; USGS-L	
1979	7	1			WRD-KS, 1979, vol. 1	
1980	6				WRD-KS, 1980, vol. 1	
06889140 Soldier Creek near Soldier, Kansas						Drainage area = 16.9 square miles
Summary or Interpretive Publications [3/]: Car.1, Ost.2, Ost.4						
1967	2	2			WSP 2013	
1968	9				WSP 2095	
1969	18				WSP 2145	
1970	19				WSP 2155	
1971	12				WRD-KS, 1971, part 2	
1972	12				WRD-KS, 1972, part 2	
1973	8				WSP-KS, 1973, part 2	
1974	7				WRD-KS, 1974, part 2	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
06889140 Soldier Creek near Soldier, Kansas--Continued						
1975	4	1			WRD-KS, 1975	
1976	3	1			WRD-KS, 1976	
1977	3			2	WRD-KS, 1977; USGS-L	
1978	3			2	WRD-KS, 1978; USGS-L	
1979	3				WRD-KS, 1979, vol. 1	
1980	8				WRD-KS, 1980, vol. 1	
06889160 Soldier Creek near Circleville, Kansas						Drainage area = 49.3 square miles
Summary or Interpretive Publications[3]: Car.1						
1966			1		WSP 1993	
1967	4	3			WSP 2013	
1968	10	1			WSP 2095	
1969	17				WSP 2145	
1970	25	3			WSP 2155	
1971	14				WRD-KS, 1971, part 2	
1972	15				WRD-KS, 1972, part 2	
1973	12				WRD-KS, 1973, part 2	
1974	12				WRD-KS, 1974, part 2	
1975	11	2			WRD-KS, 1975	
1976	3	1			WRD-KS, 1976	
1977	2			2	WRD-KS, 1977; USGS-L	
1978	3			2	WRD-KS, 1978 USGS-L	
1979	11	4			WRD-KS, 1979, vol. 1	
1980	13	1			WRD-KS, 1980, vol. 1	
06889180 Soldier Creek near St. Clere, Kansas						Drainage area = 80.0 square miles
Summary or Interpretive Publications[3]: Car.1, Ost.4						
1967	4	4			WSP 2013	
1968	9	3			WSP 2095	
1969	20				WSP 2145; WRD-KS, 1969	
1970	19	5			WSP 2155	
1971	12	1			WRD-KS, 1971, part 2	
1972	12				WRD-KS, 1972, part 2	
1973	10				WRD-KS, 1973, part 2	
1974	6				WRD-KS, 1974, part 2	
1975	1				WRD-KS, 1975	
1977	1			2	WRD-KS, 1977; USGS-L	
1978	3			2	WRD-KS, 1978; USGS-L	
1979	6	2			WRD-KS, 1979, vol. 1	
1980	10				WRD-KS, 1980, vol. 1	
06889200 Soldier Creek near Delia, Kansas						Drainage area = 157 square miles
Summary or Interpretive Publications[3] Car.1, Ost.3						
1963	[4]				SSMR 1960-64	
1964	[5]				do.	
1965	do.				SSMR 1965-69	
1966	do.		1		WSP 1993, SSMR 1965-69	
1967	do.	3			WSP 2013, SSMR 1965-69	
1968	do.	2			WSP 2095, SSMR 1965-69	
1969	do.				WSP 2145, SSMR 1965-69	
1970	13	3			WSP 2155	
1971	10				WRD-KS, 1971, part 2	
1972	1	1			WRD-KS, 1972, part 2	
1973	8				WRD-KS, 1973, part 2	
1974	8				WRD-KS, 1974, part 2	
1975	3	3			WRD-KS, 1975	
1977				1	USGS-L	
1978	4	3		1	WRD-KS, 1978; USGS-L	
1979	5				WRD-KS, 1979, vol. 1	
1980	7	3			WRD-KS, 1980, vol. 1	
06889500 Soldier Creek near Topeka, Kansas						Drainage area = 290 square miles
Summary or Interpretive Publications[3]: Col.1, Ost.2						
1961	5	2			WSP 1883	
1966			1		WSP 1993	
1968	1	1			WSP 2095	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
06889500 Soldier Creek near Topeka, Kansas--Continued						
1969	1				WSP 2145	
1977	1				WRD-KS, 1977	
1978	5	3			WRD-KS, 1978	
06889580 Shunganunga Creek at Southwest 29th Street Topeka, Kansas						Drainage area = 14.1 square miles
1979	16	7			WRD-KS, 1979, vol. 1	
1980	41	4			WRD-KS, 1980, vol. 1	
06889610 South Branch Shunganunga Creek at Southwest 37th Street Topeka, Kansas						Drainage area = 1.3 square miles
1979	3				WRD-KS, 1979, vol. 1	
1980	35	2			WRD-KS, 1980, vol. 1	
06889630 Shunganunga Creek at Topeka, Kansas						Drainage area = 33.5 square miles
1979	1	1			WRD-KS, 1979, vol. 1	
06889635 Butcher Creek at Kansas Place Topeka, Kansas						Drainage area = 4.7 square miles
1979	8	6			WRD-KS, 1979, vol. 1	
1980	42	3			WRD-KS, 1980, vol. 1	
06889640 Shunganunga Creek at Southwest 15th Street Topeka, Kansas						Drainage area = 37.5 square miles
1979	6	4			WRD-KS, 1979, vol. 1	
1980	41	5			WRD-KS, 1980, vol. 1	
06889690 Deer Creek at Southwest 6th Street Topeka, Kansas						Drainage area = 14.3 square miles
1979	1	1			WRD-KS, 1979, vol. 1	
1980	18				WRD-KS, 1980, vol. 1	
06889700 Shunganunga Creek at Rice Road Topeka, Kansas						Drainage area = 58.7 square miles
1979	3				WRD-KS, 1979, vol. 1	
1980	96	5	1		WRD-KS, 1980, vol. 1	
06890000 Little Delaware River near Horton, Kansas						Drainage area = 19.6 square miles
Summary or Interpretive Publications[3]: Bev.1						
1976	1	1			WRD-KS, 1976	
1977	62	7	1		WRD-KS, 1977	
1978	53	8	1		WRD-KS, 1978	
06890090 Grasshopper Creek at Horton, Kansas						
1966			1		WSP 1993	
06890094 Little Grasshopper Creek near Effingham, Kansas						Drainage area = 22.0 square miles
Summary or Interpretive Publications[3]: Bev.1						
1976	1	1			WRD-KS, 1976	
1977	17	6			WRD-KS, 1977	
06890096 Little Grasshopper Creek at Muscotah, Kansas						Drainage area = 52.0 square miles
1977	24	5	1		WRD-KS, 1977	
1978	14		1		WRD-KS, 1978	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
06890100 Delaware River near Muscotah, Kansas						Drainage area = 431 square miles
Summary or Interpretive Publications [3]: Bev.1, Ost.3						
1977	2	2			WRD-KS, 1977	
1978	5	4	2		WRD-KS, 1978	
1979	2				WRD-KS, 1979, vol. 1	
06890400 Delaware River near Arrington, Kansas						Drainage area = 738 square miles
Summary or Interpretive Publications [3]:Bev.1						
1969	[4]				SSMR 1965-69	
06890460 Coal Creek near Half Mound, Kansas						Drainage area = 27.0 square miles
Summary or Interpretive Publications [3]: Bev.1						
1977	19	5			WRD-KS, 1977	
06890500 Delaware River at Valley Falls, Kansas						Drainage area = 922 square miles
Summary or Interpretive Publications [3]: Col.1, Mun.1, Ost.3, Tas.1						
1907	[9] 9				WSP 273	
1908	do. 3				do.	
1949	[5]				SSMR 1949-54, USCE-0	
1950	do.				do.	
1951	do.				do.	
1952	do.				do.	
1953	do.				do.	
1954	do.				do.	
1957	9				WSP 1521	
1958	10	5			WSP 1572	
1959	5				WSP 1643	
1960	10	3			WSP 1743	
1966			1		WSP 1993; WRD-KS, 1966	
Delaware River at Perry, Kansas						
Summary or Interpretive Publications [3]: Mun.1						
1907	[9] 15				WSP 273	Before Perry Lake
06891000 Kansas River at Lecompton, Kansas						Drainage area = 58,460 square miles
Summary or Interpretive Publications [3]: Ost.2, Ost.4, Ost.5						
1969	1				WSP 2145; WRD-KS, 1969	Downstream from many large reservoirs
1976	[11]	71	42		WRD-KS, 1977	Do.
1977	do.	52	27		WRD-KS, 1977	Do.
1978	do.	78	30		WRD-KS, 1978	Do.
1979	do.	91	46	1	WRD-KS, 1979, vol. 1; USGS-L	Do.
1980	do.	82	37		WRD-KS, 1980, vol. 1	Do.
1981	do.	52	43		WRD-KS, 1981	Do.
06891080 Kansas River at Lawrence, Kansas						Drainage area = 59,841 square miles
1977	39	39	6		WRD-KS, 1977	Downstream from many large reservoirs
1979				2	USGS-L	Do.
06891200 Wakarusa River at Wakarusa, Kansas						Drainage area = 135 square miles
1966			1		WSP 1993	
06891486 West Branch Yankee Tank Creek near Lawrence, Kansas						Drainage area = 1.85 square miles
1969	4	2			WSP 2145	
06891488 East Branch Yankee Tank Creek near Lawrence, Kansas						Drainage area = 1.35 square miles
1969	1				WSP 2145	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Suspended-sediment Particle size	Bed-material size	Bank-material size	Publication[1] or office file[2]	Additional information
	06891490 Yankee Tank Creek near Lawrence, Kansas					Drainage area = 3.9 square miles
1969	9	6			WSP 2145	
1970	5	5			WSP 2155	
	06891500 Wakarusa River near Lawrence, Kansas					Drainage area = 412 square miles
	Summary or Interpretive Publications[3]: Col.1, Mun.1, Ost.2, Ost.3, Ost.4, Ost.5					
1958	5	2			WSP 1572	Before Clinton Lake
1959	4				WSP 1643	Do.
1960	16	5			WSP 1743	Do.
1961	10	6			WSP 1883	Do.
1962	9	4			WSP 1943	Do.
1963	[4]				SSMR 1960-64	Do.
1964	[5]				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.		1		WSP 1993, SSMR 1965-69	Do.
1967	do.				SSMR 1965-69	Do.
1968	do.				do.	Do.
1969	do.				do.	Do.
1969	1				WSP 2145	Do.
	06891850 Stranger Creek at Easton, Kansas					Drainage area = 216 square miles
1978	2				WRD-KS, 1978	
	06892000 Stranger Creek near Tonganoxie, Kansas					Drainage area = 406 square miles
	Summary or Interpretive Publications[3]: Col.1, Mun.1, Ost.2, Ost.3, Ost.4, Ost.5					
1957	12				WSP 1521	
1958	9	3			WSP 1572	
1959	5	2			WSP 1643	
1960	9				USGS-L	
1961	13	5			WSP 1883	
1965	[5]				SSMR 1965-69	
1966	do.		1		WSP 1993, SSMR 1965-69	
1967	do.				SSMR 1965-69	
1968	do.				do.	
1969	do.				do.	
1976	4	1			WRD-KS, 1976	
1977	4				WRD-KS, 1977	
1978	4				WRD-KS, 1978	
1979	6	1			WRD-KS, 1979, vol. 1	
1980	10				WRD-KS, 1980, vol. 1	
1981	7	2			WRD-KS, 1981	
1982	7				WRD-KS, 1982	
1983	7	1			WRD-KS, 1983	
	06892350 Kansas River at DeSoto, Kansas					Drainage area = 59,756 square miles
	Summary or Interpretive Publications[3]: Ost.2, Ost.5					
1976	[11]	138	72		WRD-KS, 1977	Downstream from many large reservoirs
1977	do.	133	66		do.	Do.
1978	do.	152	60		WRD-KS, 1978	Do.
1979	do.	197	73	2	WRD-KS, 1979, vol. 1; USGS-L	Do.
1980	do.	170	75		WRD-KS, 1980, vol. 1	Do.
1981	do.	124	75		WRD-KS, 1981	Do.
1983	6	6	1		WRD-KS, 1983	Do.
	06892490 Cedar Creek near Cedar Junction, Kansas					Drainage area = 38.9 square miles
	Summary or Interpretive Publications[3]: Ost.3					
1966	45				WSP 1993	
1967	43	4			WSP 2013	
1968	56				WSP 2095	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
	06892500 Kansas River at Bonner Springs, Kansas Summary or Interpretive Publications [3]: Col.1, Tas.1					Drainage area = 59,928 square miles
1929	[6] 3				HD-238	Before large reservoirs
1930	do.12				do.	Do.
1931	do.12				do.	Do.
1932	do. 9				do.	Do.
1948	15	15			USCE-KC , USCE-O	Downstream from one large reservoir
1949	[5]	58			SSMR 1949-54, USCE-KC, USCE-O	Do.
1950	do.	25	16		do.	Do.
1951	do.	32			do.	Do.
1952	do.				SSMR 1949-54, USCE-O	Downstream from two large reservoirs
1953	do.				USCE-KC, SSMR 1949-54	Do.
1954	do.				do.	Do.
1955	do.				SSMR 1955-59	Do.
1956	do.				do.	Downstream from four large reservoirs
1957	do.				do.	Do.
1958	do.				do.	Do.
1959	do.				do.	Downstream from five large reservoirs
1960	do.				SSMR 1960-64	Downstream from six large reservoirs
1961	do.				do.	Do.
1962	do.				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Downstream from seven large reservoirs
1968	do.				do.	Do.
1969	do.				do.	Downstream from nine large reservoirs
1979				2	USGS-L	Do.
	Kansas River near Holliday, Kansas Summary or Interpretive Publications [3]: Mun.1					Drainage area = 61,100 square miles
1907	25				WSP 273	Before large reservoirs
1908	36				do.	Do.
1909	10				do.	Do.
	06892940 Turkey Creek at Kansas City, Kansas					Drainage area = 22.3 square miles
1974	1				WRD-KS, 1974, part 2	
	Missouri River at Kansas City, Missouri Summary or Interpretive Publications [3]: Mun.1					
1907	[6] 36				WSP 273	Before large reservoirs
1908	do. 2				do.	Do.
1929	[9] 3				HD-238	Do.
1930	do.12				do.	Do.
1931	do.12				do.	Do.
1932	do. 9				do.	Do.
1948	[6] 4				USCE-O	Downstream from large reservoirs
1949	[5]				SSMR 1949-54, USCE-O	Do.
1950	do.				do.	Do.
1951	do.				do.	Do.
1952	do.				do.	Do.
1953	do.				do.	Do.
1954	do.				SSMR 1949-54, USCE-O	Do.
1955	do.				SSMR 1955-59	Do.
1956	do.				do.	Do.
1957	do.				do.	Do.
1958	do.				do.	Do.
1959	do.				do.	Do.
1960	do.				SSMR 1960-64	Do.
1961	do.				do.	Do.
1962	do.				do.	Do.
1963	do.				do.	Do.
1964	do.				do.	Do.
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
1968	do.				do.	Do.
1969	do.				do.	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
	06910800 Marais des Cygnes River near Reading, Kansas					Drainage area = 177 square miles
1969	1				WSP 2145	
1981	1				WRD-KS, 1981	
	06911000 Marais des Cygnes River at Melvern					Drainage area = 351 square miles
1964	[5]				SSMR 1960-64	Before Melvern Lake
1965	do.				SSMR 1965-69	Do.
1966	do.		1		WSP 1993, SSMR 1965-69	Do.
1967	do.				SSMR 1965-69	Do.
1968	do.				do.	Do.
1969	do.				do.	Do.
	06911900 Dragoon Creek near Burlingame, Kansas Summary or Interpretive Publications [3]: Ost.4, Ost.5					Drainage area = 114 square miles
1962	[4]				SSMR 1960-64	
1963	[5]				do.	
1964	do.				do.	
1965	do.				SSMR 1965-69	
1966	do.				do.	
1967	do.				do.	
1968	do.				do.	
1969	do.				do.	
1976	3				WRD-KS, 1976	
1977	2	1			WRD-KS, 1977	
1978	4				WRD-KS, 1978	
1979	5	1			WRD-KS, 1979, vol. 1	
1980	4				WRD-KS, 1980, vol. 1	
1981	8				WRD-KS, 1981	
1982	7				WRD-KS, 1982	
1983	7	1			WRD-KS, 1983	
	06912500 Hundred and Ten Mile Creek near Quenemo, Kansas Summary or Interpretive Publications [3]: Col.1, Jor.2					Drainage area = 322 square miles
1949	[5]	19			SSMR 1949-54, USCE-KC, USCE-O	Before Pomona Lake
1950	do.	21			do.	Do.
1951	do.		2		do.	Do.
1952	do.				SSMR 1949-54, USCE-O	Do.
1953	do.				do.	Do.
1954	do.				do.	Do.
1964	do.				SSMR 1960-64	Downstream from Pomona Lake
1965	do.				SSMR 1965-69	Do.
1966	do.				do.	Do.
1967	do.				do.	Do.
	06913000 Marais des Cygnes River near Pomona, Kansas					Drainage area = 1,040 square miles
1966			1		WSP 1993	Downstream from Pomona Lake
	06913500 Marais des Cygnes River near Ottawa, Kansas Summary or Interpretive Publications [3]: Ost.2, Ost.4, Ost.5					Drainage area = 1,250 square miles
1961	4	3			WSP 1883	Before Pomona Lake
1966			1		WSP 1993	Downstream from Pomona Lake
1976				1	USGS-L	Do.
	06913700 Middle Creek near Princeton, Kansas					Drainage area = 52.0 square miles
1982	1				WRD-KS, 1982	
	06914000 Pottawatomie Creek near Garnett, Kansas Summary or Interpretive Publications [3]: Ost.2 ,Ost.4, Ost.5					Drainage area = 334 square miles
1966			1		WSP 1993	
1969	[5]				SSMR 1965-69	
1976	9			2	WRD-KS, 1976; USGS-L	
1977	2				WRD-KS, 1977	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1/] or office file[2/]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
06914000 Pottawatomie Creek near Garnett, Kansas--Continued						
1978	10				WRD-KS, 1978	
1979	7				WRD-KS, 1979, vol. 1	
1980	9				WRD-KS, 1980, vol. 1	
1981	6	1			WRD-KS, 1981	
1982	12	3			WRD-KS, 1982	
1983	7	2			WRD-KS, 1983	
06915000 Big Bull Creek near Hillsdale, Kansas Summary or Interpretive Publications [3/]: Col.1, Ost.2, Ost.4,						
1949	[4/]	8	8		SSMR 1949-54, USCE-KC	Before Hillsdale Lake
1950	[5/]	9			SSMR 1949-54, USCE-KC, USCE-O	Do.
1951	do.				SSMR 1949-54, USCE-O	Do.
1952	do.				do.	Do.
1953	do.				do.	Do.
1954	do.				SSMR 1949-54	Do.
06915977 North Sugar Creek below La Cygne Lake, Kansas						Drainage area = 56.67 square miles
1981	4		2		WRD-KS, 1981	
06915988 North Sugar Creek near Trading Post, Kansas						Drainage area = 73.0 square miles
1979				2	USGS-L	
1981	5		1		WRD-KS, 1981	
Osage (Marais des Cygnes) River at Boicourt, Kansas						Drainage area = 2,700 square miles
1907	[9/] 28				WSP 273	Before large reservoirs
1908	do. 5				do.	Do.
06916000 Marais des Cygnes River at Trading Post, Kansas						Drainage area = 2,880 square miles
1966			1		WSP 1993	Downstream from Pomona Lake
06916500 Big Sugar Creek at Farlinville, Kansas Summary or Interpretive Publications [3/]: Ost.4						Drainage area = 198 square miles
1966			1		WSP 1993	
06916600 Marais des Cygnes River near Kansas-Missouri State Line						Drainage area = 3,230 square miles
1961	3	2			WSP 1883	Before large reservoirs
1980	3				WRD-KS, 1980, vol. 1	Downstream from Melvern and Pomona Lakes
1981	[1/]	2			WRD-KS, 1981	Do.
1982	do.	7			WRD-KS, 1982	Do.
06917000 Little Osage River at Fulton, Kansas						Drainage area = 295 square miles
1966			1		WSP 1993	
1978	3				WRD-KS, 1978	
1980	44				WRD-KS, 1980, vol. 1	
1981	[7/]		1		WRD-KS, 1981	
1982	do.	2			WRD-KS, 1982	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Suspended-sediment Particle size	Bed-material size	Bank-material size	Publication[1] or office file[2]	Additional information
	06917500 Marmaton River near Fort Scott, Kansas					Drainage area = 408 square miles
	Summary or Interpretive Publications [3]: Col.1, Jor.2, Ost.2, Ost.4					
1907	[9] 21				WSP 273	
1908	do.12				do.	
1949	[4]	18			SSMR 1949-54, USCE-KC, USCE-O	
1950	[5]	9	4		do.	
1951	do.				SSMR 1949-54, USCE-O	
1952	do.				do.	
1953	do.				do.	
1954	[4]				do.	
1959	1				USGS-L	
1961	4	2			WSP 1883	
1966			1		do.	
	385800098291500 Saline River below Wilson Dam, Kansas					Drainage area = 1,917 square miles
1965	[7]				SSMR 1965-69	Downstream from Wilson Lake
1966	do.				do.	Do.
1967	do.				do.	Do.
1968	do.				do.	Do.
1969	do.				do.	Do.
	3936151012307 North Fork Beaver Creek near Goodland, Kansas					
1966			1		WSP 1993	
	3838581013220 Ladder Creek near Selkirk, Kansas					
1966			1		WSP 1993	
	3833461010452 Ladder Creek near Modoc, Kansas					
1966			1		WSP 1993	
	3855301012817 Smoky Hill River near Wallace, Kansas					
1966			1		WSP 1993	
	3902211002241 Big Creek near Park, Kansas					
1966			1		WSP 1993	
	3909201010357 South Fork Saline River near Monument, Kansas					
1966			1		WSP 1993	
	3906410993248 Saline River near Palco, Kansas					
1966			1		WSP 1993	
	3926411003923 North Fork Solomon River near Rexford, Kansas					
1966			1		WSP 1993	
	3937060995141 North Fork Solomon River near Edmond, Kansas					
1966			1		WSP 1993	
	3926401001333 South Bow Creek near Lucerne, Kansas					
1966			1		WSP 1993	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
3915251010354 South Fork Solomon River near Mingo, Kansas						
1966			1		WSP 1993	
3921271001123 South Fork Solomon River near Studley, Kansas						
1966			1		WSP 1993	
3950570963953 Big Blue River at Marysville, Kansas						
1966			1		WSP 1993	
3931470960455 Vermillion Creek near Havensville, Kansas						
1966			1		WSP 1993	
3929090950759 Stranger Creek at Hawthorne, Kansas						
1966			1		WSP 1993	
3839340955633 Salt Creek near Osage City, Kansas						
1966			1		WSP 1993	
3845370954141 Hundred and Ten Mile Creek near Scranton, Kansas						
1966			1		WSP 1993	
3813210950057 South Fork Sugar Creek near Centerville, Kansas						
1966			1		WSP 1993	
3801040950256 Little Osage River near Bayard, Kansas						
1966			1		WSP 1993	
3750320945851 Marmaton River at Uniontown, Kansas						
1966			1		WSP 1993	
380006094524600 Little Osage River near Mapleton, Kansas						Drainage area = 204 square miles
1980	2				WRD-KS, 1980, vol. 1	
1981	1	1	2		WRD-KS, 1981	
381807094382400 North Sugar Creek tributary 2, site A below La Cygne Lake, Kansas						Drainage area = 1.91 square miles
1981	12	1	2		WRD-KS, 1981	
1982	7				WRD-KS, 1982	
381856094403800 North Sugar Creek tributary 3, site A below La Cygne Lake, Kansas						
1981	12	1	2		WRD-KS, 1981	
1982	8	1			WRD-KS, 1982	
381916094391200 North Sugar Creek, 2 miles below La Cygne Lake, Kansas						
1981	5	2	2		WRD-KS, 1981	
381919094380900 North Sugar Creek tributary 1 below La Cygne Lake, Kansas						Drainage area = 2.06 square miles
1981	13	6	3		WRD-KS, 1981	
1982	6				WRD-KS, 1982	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1]/ or office file[2]/	Additional information
382651094474500 Marais des Cygnes River near Fontana, Kansas Drainage area = 2,600 square miles						
1980	3				WRD-KS, 1980, vol. 1	Downstream from Melvern and Pomona Lakes
1981	1				WRD-KS, 1981	Do.
385350095525300 Wakarusa River 4 miles west of Auburn, Kansas Summary or Interpretive Publications [3]/: Bev.1						
1979	5				WRD-KS, 1979, vol. 1	
1980	13				WRD-KS, 1980, vol. 1	
385351095542900 Wakarusa River 5 miles west of Auburn, Kansas Summary or Interpretive Publications [3]/: Bev.1						
1978	1				WRD-KS 1978	
1979	3				WRD-KS, 1979, vol. 1	
1980	15	1			WRD-KS, 1980, vol. 1	
385632095464000 Sixmile Creek tributary 4 miles northeast of Auburn, Kansas Summary or Interpretive Publications [3]/: Bev.1						
1978	1				WRD-KS, 1978	
1980	1	1			WRD-KS, 1980, vol. 1	
385718095464000 Sixmile Creek tributary 5 miles northeast of Auburn, Kansas Summary or Interpretive Publications [3]/: Bev.1						
1978	1				WRD-KS, 1978	
1979	5	1			WRD-KS, 1979, vol. 1	
1980	7	1			WRD-KS, 1980, vol. 1	
390000095460200 Tributary to Shunganunga Creek Southwest 37th Street Topeka, Kansas						
1980	1				WRD-KS, 1980, vol. 1	
390031095424700 South Branch Shunganunga Creek at Southwest 29th Street Topeka, Kansas						
1979	3	3			WRD-KS, 1979, vol. 1	
390053095432800 Tributary to Shunganunga Creek at Southwest 29th Street Topeka,Kansas						
1979	1				WRD-KS, 1979, vol. 1	
390127095414800 Shunganunga Creek at Washburn Street Topeka, Kansas						
1980	1		1		WRD-KS, 1980, vol. 1	
395551095471600 Pony Creek at Sabetha, Kansas Summary or Interpretive Publications [3]/: Bev.1						
1980	18	4	1		WRD-KS, 1980, vol. 1	
395710095460800 Pony Creek near Sabetha, Kansas Summary or Interpretive Publications [3]/: Bev.1						
1980	15	1	1		WRD-KS, 1980, vol. 1	
395756095413400 Pony Creek near Morrill, Kansas Summary or Interpretive Publications [3]/: Bev.1						
1980	8		1		WRD-KS, 1980, vol. 1	
400001095374000 Pony Creek near Reserve, Kansas Summary or Interpretive Publications [3]/: Bev.1						
1980	8	2	2		WRD-KS, 1980, vol. 1	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
07137500 Arkansas River near Coolidge, Kansas						Drainage area = 25,410 square miles
Summary or interpretive publications[3]: Alb.1, Col.1, Ost.1						
1958	1	1			WSP 1944	Downstream from John Martin Reservoir and diversions
1961	4	1		3	do.	Do.
1962	3	1		3	do.	Do.
1962				1	WSP 1950	Do.
1963				2	do.	Do.
1964	2			2	WSP 1957	Do.
1965	6	2		6	WSP 1964	Do.
1966	3	1		3	WSP 1994	Do.
1967	6	2		6	WSP 2014	Do.
1975	5				USGS-L	Do.
1976	17				do.	Do.
1977	15	3			WRD-KS, 1977	Do.
1978	9	1			WRD-KS, 1978	Do.
1979	13	2		1	WRD-KS, 1979, vol. 2	Do.
1980	24				WRD-KS, 1980, vol. 2	Do.
1981	14	1			WRD-KS, 1981	Do.
1982	1	2			WRD-KS, 1982	Do.
1983	4	4		1	WRD-KS, 1983	Do.
Arkansas River at Coolidge, Kansas						
1950	45				USCE-A	Downstream from John Martin Reservoir and diversions
1951	62				do.	Do.
1952	72				do.	Do.
1953	26				do.	Do.
07138000 Arkansas River at Syracuse, Kansas						Drainage area = 25,763 square miles
Summary or interpretive publications[3]: Alb.1, Ost.1						
1939	4				USBR-D	Before John Martin Reservoir
1940	7				do.	Do.
1941	6				do.	Do.
1958	1				WSP 1944	Downstream from John Martin Reservoir and diversions
1961	5	4		2	do.	Do.
1962	2				do.	Do.
1963	3	1		1	WSP 2096	Do.
1964				2	WSP 1957	Do.
1965	6	2		6	WSP 1964	Do.
1966	3	1		3	WSP 1994	Do.
1967	6	2		6	WSP 2014	Do.
1968	12	1		12	WSP 2096	Do.
1969	14	3		12	WSP 2146	Do.
1971	10			1	WRD-KS, 1971, part 2	Do.
1972	15	2		2	WRD-KS, 1972, part 2	Do.
1973	20				WRD-KS, 1973, part 2	Do.
1974	21			2	WRD-KS, 1974, part 2	Do.
1975	22	1		2	WRD-KS, 1975	Do.
1976	14	1		1	WRD-KS, 1976	Do.
1977	16	1		2	WRD-KS, 1977	Do.
1978	9				WRD-KS, 1978	Do.
1979	4				WRD-KS, 1979, vol. 2	Do.
1980	13				WRD-KS, 1980, vol. 2	Do.
1981	8	1		1	WRD-KS, 1981	Do.
1982	1				WRD-KS, 1982	Do.
1983	2	1		1	WRD-KS, 1983	Do.
07138020 Arkansas River at Kendall, Kansas						Drainage area = 26,028 square miles
Summary or interpretive publications[3]: Alb.1						
1979	1	1			WRD-KS, 1979, vol. 2	Downstream from John Martin Reservoir and diversions
1980	1				WRD-KS, 1980, vol. 2	Do.
1981	1				WRD-KS, 1981	Do.
07138060 Great Eastern Canal Diversion near Lakin, Kansas						
1940	2				USBR-D	
1941	2				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Suspended-sediment Particle size	Bed-material size	Bank-material size	Publication[1] or office file[2]	Additional information
	07138065 Arkansas River at Lakin, Kansas					Drainage area = 27,838 square miles
1982	1				WRD-KS, 1982	Downstream from John Martin Reservoir and diversions
	07138070 Arkansas River near Deerfield, Kansas					Drainage area = 25,860 square miles
1907	[9] 22				WSP 273	Before John Martin Reservoir
1908	do. 4				do.	Do.
	07138600 White Woman Creek Tributary near Selkirk, Kansas					Drainage area = 38.0 square miles
1977	2				WRD-KS, 1977	
	07138650 White Woman Creek near Leoti, Kansas					Drainage area = 750 square miles
	Summary or interpretive publications [3]: Ost.1					
1966	2	2			WSP 2014	
1967	2	2			do.	
1971	1		1		WRD-KS, 1971, part 2	
1973	1				WRD-KS, 1973, part 2	
1974	5	1	1		WRD-KS, 1974, part 2	
1977	4	1	1		WRD-KS, 1977	
1978	2				WRD-KS, 1978	
1979				2	USGS-L	
1980				16	do.	
	07138700 White Woman Creek near Modoc, Kansas					
1964	3	3			WSP 1957	
1965	5	4			WSP 1964	
1967	2	2			WSP 2096	
1968	2	1			do.	
1969	3				WSP 2146	
	07139000 Arkansas River at Garden City, Kansas					Drainage area = 27,071 square miles
1939	1				USBR-D	Before John Martin Reservoir
1940	2				do.	Do.
1941	4				do.	Do.
1958	1				WSP 1944	Downstream from John Martin Reservoir and diversions
1961	4		2		do.	Do.
1962	2		2		do.	Do.
1963	2		2		WSP 1950	Do.
1964	2		2		WSP 1957	Do.
1965	6	2	6		WSP 1964	Do.
1966	3		3		WSP 1994	Do.
1967	7	1	7		WSP 2014	Do.
1968	11		11		WSP 2096	Do.
	07139500 Arkansas River at Dodge City, Kansas					Drainage area = 30,600 square miles
	Summary or interpretive publications [3]: Alb.1, Ost.1, Ost.2, Ost.4					
1958	1	1			WSP 1944	Downstream from John Martin Reservoir and diversions
1961	5	1	2		do.	Do.
1962	4	1			WSP 1944, WSP 2096	Do.
1963	3				WSP 1950	Do.
1964	2	1	2		WSP 1957	Do.
1965	10	2	8		WSP 1964	Do.
1966	4	1	4		WSP 1994	Do.
1967	6	1	5		WSP 2014	Do.
1968	11	11			WSP 2096	Do.
1969	13	2	11		WSP 2146	Do.
1970	12	1			WSP 2156	Do.
1971	11		2		WRD-KS, 1971, part 2	Do.
1972			2		WRD-KS, 1972, part 2	Do.
1973	15		2		WRD-KS, 1973, part 2	Do.
1974	12		2		WRD-KS, 1974, part 2	Do.
1975	11		2		WRD-KS, 1975	Do.
1976	13	1			WRD-KS, 1976	Do.
1977	1		1		WRD-KS, 1977	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication or office file[1/,2/]	Additional information
	07139500 Arkansas River at Dodge City, Kansas--Continued					
1978	1				WRD-KS, 1978	Downstream from John Martin Reservoir and diversions
1979	2				WRD-KS, 1979, vol. 2	Do.
1980	3				WRD-KS, 1980, vol. 2	Do.
1981	1				WRD-KS, 1981	Do.
	07139700 Arkansas River tributary near Dodge City, Kansas					Drainage area = 8.66 square miles
1968	1				WSP 2096	
1971	1				WRD-KS, 1971, part 2	
1977	1				WRD-KS, 1977	
	07139800 Mulberry Creek near Dodge City, Kansas					Drainage area = 73.8 square miles
1971	2				WRD-KS, 1971, part 2	
1975	3				USGS-L	
1976	1				do.	
1977	1				WRD-KS, 1977	
1978	1				WRD-KS, 1978	
1979	1	1			WRD-KS, 1979, vol. 2	
1980				12	USGS-L	
1981	3	2			WRD-KS, 1981	
	07140000 Arkansas River near Kinsley, Kansas Summary or interpretive publications[3/]: Alb.1, Blu.1, Col.1, Ost.1, Ost.2					Drainage area = 31,066 square miles
1958	1				WSP 1744, Blu.1	Downstream from John Martin Reservoir and diversions
1960	6				do.	Do.
1961	[8/]	15	4		WSP 1884, Blu.1	Do.
1962	do.	5	13		WSP 1944, Blu.1	Do.
1963	do.	3	13		WSP 1950, Blu.1	Do.
1964	do.	3	13		WSP 1957, Blu.1	Do.
1965	do.	4	9		WSP 1964, Blu.1	Do.
1966	do.	1	6		WSP 1994, Blu.1	Do.
1967	do.	2	4		WSP 2014	Do.
1968	do.	2	10		WSP 2096, Blu.1	Do.
1969	do.	3	11		WSP 2146	Do.
1970	do.	25	2		WSP 2156	Do.
1971	do.		2		WRD-KS, 1971, part 2	Do.
1972	do.	4	2		WRD-KS, 1972, part 2; Blu.1	Do.
1973	do.				WRD-KS, 1973, part 2	Do.
1974	do.		1		WRD-KS, 1974, part 2	Do.
1975	3	3			WRD-KS, 1975; Blu.1	Do.
1976	11		1		WRD-KS, 1976; Blu.1	Do.
1977	7				WRD-KS, 1977; Blu.1	Do.
1978	3		1		WRD-KS, 1978; Blu.1	Do.
1979	4	1			WRD-KS, 1979, vol. 2; Blu.1	Do.
1980	6				WRD-KS, 1980, vol. 2; Blu.1	Do.
1981	5		1		WRD-KS, 1981	Do.
1982	1				WRD-KS, 1982	Do.
1983	7		1		WRD-KS, 1983	Do.
	07140300 White Woman Creek near Bellefont, Kansas					Drainage area = 14.0 square miles
1971	1				WRD-KS, 1971, part 2	
1977	1				WRD-KS, 1977	
	07140600 Pawnee River tributary near Kalvesta, Kansas					Drainage area = 6.89 square miles
1967	1				WSP 2014	
1970	2				WSP 2156	
1973	1				WRD-KS, 1973, part 2	
1977	1				WRD-KS, 1977	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Suspended-sediment Particle size	Bed-material size	Bank-material size	Publication[1/] or office file[2/]	Additional information
07140700 Guzzlers Gulch near Ness City, Kansas 58.2 square miles Summary or interpretive publications [3/]: Ost.1						
1967	11	9			WSP 2014	
1968	5	4			WSP 2096	
1969	3				WSP 2146	
1970	1	1			WSP 2156	
1971	2				WRD-KS, 1971, part 2	
1972	1	1			WRD-KS, 1972, part 2	
1973	3				WRD-KS, 1973, part 2	
1975	5				USGS-L	
1977	3				WRD-KS, 1977	
1978	3				WRD-KS, 1978	
1979	1				WRD-KS, 1979, vol. 2	
1980	2				WRD-KS, 1980, vol. 2	
07140850 Pawnee River near Burdett, Kansas						Drainage area = 1,091 square miles
1982	1	1			WRD-KS, 1982	
1983	2	1			WRD-KS, 1983	
07141200 Pawnee River near Larned, Kansas Summary or interpretive publications [3/]: Col.1, Jor.2, Ost.1, Ost.2, Ost.4						Drainage area = 2,148 square miles
1958	3				USGS-L	
1959	2				do.	
1960	6	2			WSP 1744	
1961	8				WSP 1944	
1962	7	2			do.	
1963	23	4			WSP 1950, WSP 2096	
1964	12	5			WSP 1957	
1965	9	3			WSP 1964	
1966	9		1		WSP 1994	
1967	6	5			WSP 2014	
1968	4	3			WSP 2096	
1969	1	1			WSP 2146	
1971	3				WRD-KS, 1971, part 2	
1972	2	2			WRD-KS, 1972, part 2	
1973	7				WRD-KS, 1973, part 2	
1974	1	1			WRD-KS, 1974, part 2	
1975	6	2			WRD-KS, 1975	
1976	6	3			WRD-KS, 1976	
1977	4				WRD-KS, 1977	
1978	2				WRD-KS, 1978	
1979	6	2			WRD-KS, 1979, vol. 2	
1980	3	1			WRD-KS, 1980, vol. 2	
1981	1	1			WRD-KS, 1981	
1982	1				WRD-KS, 1982	
1983	2				WRD-KS, 1983	
07141300 Arkansas River at Great Bend, Kansas Summary or interpretive publications [3/]: Alb.1, Ost.1, Ost.4						Drainage area = 34,356 square miles
1907	[9/] 28				WSP 273	
1908	do. 5				do.	
1944	3				USCE-T	
1945	12				do.	
1946	6				do.	
1949	4				do.	
1957	2	3	2		WSP 1573	
1958	17	9	3		do.	
1959	12	2	2		WSP 1644, WSP 1744	
1960	8	3	3		WSP 1744	
1961	12	3	6		WSP 1884	
1962	12		6		WSP 1944	
1963	13	3	3		WSP 1950	
1964	15	3	5		WSP 1957	
1965	13	4	4		WSP 1964	
1966	12	1	6		WSP 1994	
1967	10	2	4		WSP 2014	
1968	11		11		WSP 2096	
1969	12	1	10		WSP 2146	
1970	12		1		WSP 2156	
1971	13	1	2		WRD-KS, 1971, part 2	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1/] or office file[2/]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
	07141300 Arkansas River at Great Bend, Kansas--Continued					
1972	5	5		2	WRD-KS, 1972, part 2	
1973	12	1		1	WRD-KS, 1973, part 2	
1974	12			2	WRD-KS, 1974, part 2	
1975	13	1		2	WRD-KS, 1975	
1976	1	1			WRD-KS, 1976	
1981	1				USGS-L	
	07141400 South Fork Walnut Creek near Dighton, Kansas					Drainage area = 0.81 square mile
1967	1				WSP 2014	
1973	2				WRD-KS, 1973, part 2	
	07141600 Long Branch Creek near Ness City, Kansas					Drainage area = 28.0 square miles
1963	1	1			WSP 2096	
1968	4	2			do.	
1969	1				WSP 2146	
1972	2	1			WRD-KS, 1972, part 2	
1979	2	2			WRD-KS, 1979, vol. 2	
	07141780 Walnut Creek near Rush Center, Kansas					Drainage area = 1,256 square miles
1981	1	1			WRD-KS, 1981	
1982	1				WRD-KS, 1982	
	07141795 Walnut Creek near Rush Center, Kansas					
1958	4	3			WSP 1950	
	07141800 Otter Creek near Rush Center, Kansas					Drainage area = 17.0 square miles
1967	1	1			WSP 2014	
1972	1				WRD-KS, 1972, part 2	
1973	1				WRD-KS, 1973, part 2	
	07141900 Walnut Creek at Albert, Kansas					Drainage area = 1,410 square miles
	Summary or interpretive publications [3/]: Jor.2, Ost.1, Ost.2, Ost.4					
1958	1	1			WSP 1944	
1959	5	1			do.	
1960	3				do.	
1961	11	2			do.	
1962	12	4			do.	
1963	18	4			WSP 1950	
1964	[7/]	7			WSP 1957	
1965	[8/]	8			WSP 1964	
1966	do.	3			WSP 1994	
1967	do.	5		5	WSP 2014	
1968	do.	5			WSP 2096	
1969	do.	10			WSP 2146	
1970	do.	1			WSP 2156	
1971	do.	9		3	WRD-KS, 1971, part 2	
1972	do.			2	WRD-KS, 1972, part 2	
1973	do.				WRD-KS, 1973, part 2	
1974	do.	1			WRD-KS, 1974, part 2	
1975	do.	1			WRD-KS, 1975	
1976	4				WRD-KS, 1976	
1977	1			1	WRD-KS, 1977	
1978	2				WRD-KS, 1978	
1979	2			1	WRD-KS, 1979, vol. 2	
1980	1				WRD-KS, 1980, vol. 2	
1981	4	1		1	WRD-KS, 1981	
1982	2				WRD-KS, 1982	
	07142000 Walnut Creek near Albert, Kansas					
1981	1				WRD-KS, 1981	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07142095 Walnut Creek near Great Bend, Kansas						
1958	3	2			WSP 1950	
07142100 Rattlesnake Creek tributary near Mullinville, Kansas						Drainage area = 10.3 square miles
1977	1				WRD-KS, 1977	
07142300 Rattlesnake Creek near Macksville, Kansas						Drainage area = 784 square miles
Summary or interpretive publications[3]: Blu.1, Ost.2, Ost.4						
1975	2				Blu.1	
1976	2				do.	
1977	1				WRD-KS, 1977; Blu.1	
1978	4				WRD-KS, 1978; Blu.1	
1979	3				WRD-KS, 1979, vol. 2; Blu.1	
1980	9				WRD-KS, 1980, vol. 2; Blu.1	
1981	3				WRD-KS, 1981	
1982	3				WRD-KS, 1982	
1983	2				WRD-KS, 1983	
07142620 Rattlesnake Creek near Raymond, Kansas						Drainage area = 1,167 square miles
Summary or interpretive publications[3]: Alb.1, Ost 1, Ost.2, Ost.4						
1960	7				WSP 1744	
1962	10		5		WSP 1944	
1963			2		WSP 1950	
1964	1	1			WSP 1957	
1968	3	1			WSP 2096	
1977	1				WRD-KS, 1977	
07142800 Arkansas River at Hutchinson, Kansas						Drainage area = 37,613 square miles
Summary or interpretive publications[3]: Col.1,						
1944	2				USCE-T	
07142860 Cow Creek near Claflin, Kansas						Drainage area = 43.0 square miles
Summary or interpretive publications[3]: Blu.1						
1966			1		WSP 1994	
1971	3	3			WRD-KS, 1971, part 2; Blu.1	
1979	1				WRD-KS, 1979, vol. 2; Blu.1	
1980	3				WRD-KS, 1980, vol. 2; Blu.1	
1981	3				WRD-KS, 1981	
1982	2				WRD-KS, 1982	
1983	1				WRD-KS, 1983	
07142900 Blood Creek near Boyd, Kansas						Drainage area = 61.0 square miles
Summary or interpretive publications[3]: Blu.1, Ost.2, Ost.4						
1971	3	2			WRD-KS, 1971, part 2; Blu.1	
1976	2				Blu.1	
1977	2	1			WRD-KS, 1977; Blu.1	
1979	2				Blu.1	
1980	4				WRD-KS, 1980, vol. 2; Blu.1	
07143200 Plum Creek near Holyrood, Kansas						Drainage area = 19.0 square miles
1971	1	1			WRD-KS, 1971, part 2	
07143300 Cow Creek near Lyons, Kansas						Drainage area = 728 square miles
Summary or interpretive publications[3]: Blu.1, Col.1, Jor.2, Ost.1, Ost.4, USEng.1						
1939	1				Blu.1	
1940	8				do.	
1941	13				do.	
1942	9				do.	
1943	8				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
07143300 Cow Creek near Lyons, Kansas--Continued						
1944	10				Blu.1	
1945	10				do.	
1946	5				do.	
1947	6				do.	
1948	2				do.	
1949	7				do.	
1950	3				do.	
1951	9				do.	
1952	1				do.	
1958	1				WSP 1744, Blu.1	
1960	8	3			do.	
1961	6				WSP 1944, Blu.1	
1962	12				do.	
1963	13				Blu.1	
1964	18	7			WSP 1957, Blu.1	
1965	58	5			WSP 1964, Blu.1	
1966	56	4	1		WSP 1994, Blu.1	
1967	40	5			WSP 2014	
1968	56	2			WSP 2096; Blu.1	
1969	55	5			WSP 2146	
1970	25				WSP 2156	
1971	16	2			WRD-KS, 1971; Blu.1	
1972	12				WRD-KS, 1972, part 2; Blu.1	
1973	12				WRD-KS, 1973, part 2; Blu.1	
1974	13	1			WRD-KS, 1974, part 2; Blu.1	
1975	11	1			WRD-KS, 1975; Blu.1	
1976	6				WRD-KS, 1976; Blu.1	
1977	4				WRD-KS, 1977; Blu.1	
1978	2				WRD-KS, 1978; Blu.1	
1979	4				WRD-KS, 1979, vol. 2; Blu.1	
1980	9				WRD-KS, 1980, vol. 2; Blu.1	
1981	12	2			WRD-KS, 1981	
1982	4				WRD-KS, 1982	
1983	8				WRD-KS, 1983	
Cow Creek near Nickerson, Kansas						
1944	1				USCE-T	
07143330 Arkansas River near Hutchinson, Kansas						Drainage area = 38,910 square miles
Summary or interpretive publications[3]: Alb.1, Blu.1, Ost.1, Ost.2, Ost.4						
1959	3				WSP 1644, Blu.1	
1960	14	4	4		WSP 1744, Blu.1	
1961	8/	26	10		WSP 1884 Blu.1	
1962	do.	4	13		WSP 1944, Blu.1	
1963	do.	4	13		WSP 1950, Blu.1	
1964	do.	5	12		WSP 1957, Blu.1	
1965	do.	9	7		WSP 1964, Blu.1	
1966	do.	4	3		WSP 1994	
1967	do.	5	5		WSP 2014	
1968	do.	2	4		WSP 2096, Blu.1	
1969	do.	7	15		WSP 2146	
1970	7/	2			WSP 2156	
1971	20	2	3		WRD-KS, 1971, part 2; Blu.1	
1972	13	4	1		WRD-KS, 1972, part 2; Blu.1	
1973	12	4	1		WRD-KS, 1973, part 2; Blu.1	
1974	12		2		WRD-KS, 1974, part 2; Blu.1	
1975	13	2	2		WRD-KS, 1975; Blu.1	
1976	7	1	2		WRD-KS, 1976; Blu.1	
1977	3		2	2	WRD-KS, 1977; Blu.1; USGS-L	
1978	4	1	2		WRD-KS, 1978; Blu.1	
1979	6	2	2		WRD-KS, 1979, vol. 2; Blu.1	
1980	8		2		WRD-KS, 1980, vol. 2; Blu.1	
1981	6	4	2		WRD-KS, 1981	
1982	2				WRD-KS, 1982	
1983	5		2		WRD-KS, 1983	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1/] or office file[2/]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07143600 Little Arkansas River at Little River, Kansas						Drainage area = 71.0 square miles
1959	3				WSP 1744	
1960	5				do.	
1971	3	1			WRD-KS, 1971, part 2	
07143625 Wolf Creek near Inman, Kansas						
1958	2	2			WSP 1884	
1959	2				do.	
1960	9				do.	
1961	3				do.	
07143630 Little Arkansas River at Medora, Kansas						
1958	2	2			WSP 1744	
1960	8				do.	
1966			1		WSP 1994	
07143635 Blaze Fork Creek at Buhler, Kansas						
1961	10	4			WSP 1884	
07143641 Dry Creek at McPherson, Kansas						
1959	2				WSP 1884	
1960	9				do.	
1961	6				do.	
07143645 Dry Creek near McPherson, Kansas						
1959	1				WSP 1884	
1960	9	1			do.	
1961	10	1			do.	
07143651 Turkey Creek near Elyria, Kansas						
1960	7	1			WSP 1884	
1961	3	1			do.	
07143653 Turkey Creek near Elyria, Kansas						
1959	1				WSP 1884	
1960	3				do.	
1961	5				do.	
07143660 Turkey Creek near Buhler, Kansas						Drainage area = 180 square miles
1958	3	2			WSP 1744	
1960	8				do.	
1961	12				WSP 1884	
07143663 Crooked Creek near Buhler, Kansas						
1959	1				WSP 1744	
1960	2				do.	
07143665 Little Arkansas River at Alta Mills, Kansas						Drainage area = 736 square miles
Summary or interpretive publications[3/]: Blu.1						
1960	3				WSP 1744, Blu.1	
1976	6				WRD-KS, 1976; Blu.1	
1977	5				WRD-KS, 1977; Blu.1	
1978	5	1			WRD-KS, 1978; Blu.1	
1979	3	1			WRD-KS, 1979, vol. 2; Blu.1	
1980	9				WRD-KS, 1980, vol. 2; Blu.1	
1981	6				WRD-KS, 1981	
1982	6				WRD-KS, 1982	
1983	7	2			WRD-KS, 1983	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07143695 Black Kettle Creek near Alta Mills, Kansas						
1958	1	1			WSP 1884	
1960	9	2			do.	
1961	12				do.	
07143900 Little Arkansas River near Halstead, Kansas						Drainage area = 812 square miles
1960	3				WSP 1744	
07143915 Kisiwa Creek near Burrton, Kansas						
1960	7	1			WSP 1884	
1961	8	1			do.	
07143923 Kisiwa Creek near Patterson, Kansas						
1960	6	1			WSP 1884	
1961	8	1			do.	
07143928 Kisiwa Creek near Halstead, Kansas						
1958	4	3			WSP 1884	
1959	14	11			do.	
1960	20	1			do.	
1961	8				do.	
07143935 West Emma Creek near Canton, Kansas						
1960	3				WSP 1884	
1961	4				do.	
07143945 West Emma Creek near Moundridge, Kansas						
1959	1				WSP 1884	
1960	11	3			do.	
1961	7	1			do.	
07143955 West Emma Creek near Hesston, Kansas						
1960	4				WSP 1884	
1961	10				do.	
07143965 West Emma Creek near Halstead, Kansas						
1959	9	3			WSP 1884	
1960	14				do.	
07143975 East Emma Creek at Zimmerdale, Kansas						
1960	6				WSP 1884	
1961	6				do.	
07143985 Middle Emma Creek at Hesston, Kansas						
1959	3				WSP 1884	
1960	7				do.	
1961	11				do.	
07144000 East Emma Creek near Halstead, Kansas						Drainage area = 58.0 square miles
1958	1	1			WSP 1884	
1960	5	1			do.	
1961	10	15			do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1/] or office file[2/]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07144035 Emma Creek near Sedgwick, Kansas						
1958	3	2			WSP 1884	
1959	2				do.	
1960	13	4			do.	
1961	7				do.	
07144090 Sand Creek near Sedgwick, Kansas						
1958	2	2			WSP 1744	
1960	2				do.	
07144100 Little Arkansas River at Fry Bridge near Sedgwick, Kansas						
1961	15	3	3		WSP 1884	
1960	39	2			WSP 1744	
07144140 Jester Creek near Valley Center, Kansas						
1958	2	1			WSP 1744	
1960	4	2			do.	
07144200 Little Arkansas River at Valley Center, Kansas						Drainage area = 1,327 square miles
Summary or interpretive publications [3/]: Alb.2, Blu.1, Col.1, Ost.1, Ost.2, Ost.4						
1944	4				Blu.1	
1945	10				do.	
1946	3				do.	
1947	2				do.	
1948	2				do.	
1949	8				do.	
1950	3				do.	
1951	6				do.	
1952	3				do.	
1957	9	1	1		WSP 1522, WSP 1573, Blu.1	
1958	[8/]	4	4		WSP 1573, Blu.1	
1959	do.		2		WSP 1644, WSP 1744, Blu.1	
1960	do.	19	3		WSP 1744, Blu.1	
1961	do.	21	6		WSP 1884, Blu.1	
1962	22				WSP 1944, Blu.1	
1963	3				Blu.1	
1965	9				do.	
1966	1		1		WSP 1994, Blu.1	
1967	7	1			WSP 2014, Blu.1	
1968	4	1	1		WSP 2096, Blu.1	
1969	2				WSP 2146, Blu.1	
1970	3				WSP 2156, Blu.1	
1971	4				Blu.1	
1972	5				do.	
1973	6				do.	
1974	11				do.	
1977	4			2	Blu.1, USGS-L	
1978	3				WRD-KS, 1978; Blu.1	
1979	3		1		WRD-KS, 1979, vol. 2; Blu.1	
1980	4				WRD-KS, 1980, vol. 2; Blu.1	
1981	1	1			WRD-KS, 1981	
1982	1				WRD-KS, 1982	
1983	1				WRD-KS, 1983	
Little Arkansas River Floodway at Valley Center, Kansas						
1957	[7/]				WSP 1573	
1958	do.	4			do.	
1959	do.				WSP 1644	
1960	23				WSP 1744	
Little Arkansas River at Jacobs Bridge near Valley Center, Kansas						
1958	3	3	4		WSP 1573	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1/] or office file[2/]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07144300 Arkansas River at Wichita, Kansas						Drainage area = 40,490 square miles
1958	1	1			WSP 1884	
1960	1	1			do.	
1961	9	5	4		WSP 1884, WSP 2096	
1971	1	1			WRD-KS, 1971, part 2	
1981	1				WRD-KS, 1981	
07144400 West Fork Chisholm Creek Tributary at Valley Center, Kansas						Drainage area = 5.22 square miles
1958	2				WSP 1884	
1959	1				do.	
1961	7				do.	
07144550 Arkansas River at Derby, Kansas						Drainage area = 40,830 square miles
Summary or interpretive publications [3/]: Alb.1						
1971	1	1			WRD-KS, 1971, part 2	
1981	1	1			WRD-KS, 1981	
07144780 North Fork Ninnescah River above Cheney Reservoir, Kansas						Drainage area = 787 square miles
Summary or interpretive publications [3/]: Alb.1, Blu.1, Ost.1, Ost.4						
1966	12		6		WSP 1994	
1967	10	1	3		WSP 2014	
1968	24	1	12		WSP 2096, Blu.1	
1969	18		17		WSP 2146	
1971	24		3		WRD-KS, 1971, part 2; Blu.1	
1972	26		2		WRD-KS, 1972, part 2; Blu.1	
1973	23	2			WRD-KS, 1973, part 2; Blu.1	
1974	20	1	2		WRD-KS, 1974, part 2; Blu.1	
1975	21	1	2		WRD-KS, 1975; Blu.1	
1976	14		2		WRD-KS, 1976; Blu.1	
1977	13		2		WRD-KS, 1977; Blu.1	
1978	7		2	2	WRD-KS, 1978; Blu.1; USGS-L	
1979	8	2			WRD-KS, 1979, vol. 2; Blu.1	
1980	13		2		WRD-KS, 1980, vol. 2; Blu.1	
1981	6		2		WRD-KS, 1981	
1982	3				WRD-KS, 1982	
1983	8	1	2		WRD-KS, 1983	
07144800 North Fork Ninnescah River near Cheney, Kansas						Drainage area = 930 square miles
Summary or interpretive publications [3/]: Alb.1, Col.1						
1958	1				WSP 1744, USCE-T	Before Cheney Reservoir
1960	3		1		WSP 1744, WRD 1884	Do.
1961	16	6	7		WSP 1884	Do.
1962	11	1	8		WSP 1944, WSP 1950	Do.
1963	20	9	13		WSP 1950	Do.
07144850 South Fork South Fork Ninnescah River near Pratt, Kansas						Drainage area = 21 square miles
Summary or interpretive publications [3/]: Alb.1, Blu.1						
1964	2	2			WSP 1957, Blu.1	
1965	8	7			WSP 1964, Blu.1	
1967	2	2			WSP 2014	
1969	7	2	1		WSP 2146	
1976	2				WRD-KS, 1976; Blu.1	
1977	1				WRD-KS, 1977; Blu.1	
1979				2	USGS-L	
1981	1				WRD-KS, 1981	
07144910 South Fork Ninnescah River at Pratt, Kansas						Drainage area = 117 square miles
1981	2				WRD-KS, 1981	
1983	7	2			WRD-KS, 1983	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
07145000 South Fork Ninnescah River near Pratt, Kansas						Drainage area = 204 square miles
Summary or interpretive publications [3]: Alb.1						
1963	4	3			WSP 1950	
1964	3		2		WSP 1957	
07145130 South Fork Ninnescah River near Calista, Kansas						Drainage area = 374 square miles
1964	3		2		WSP 1957	
07145150 South Fork Ninnescah River near Kingman, Kansas						
1964	3		2		WSP 1957	
07145200 South Fork Ninnescah River near Murdock, Kansas						Drainage area = 650 square miles
Summary or interpretive publications [3]: Alb.1, Blu.1, Ost.1, Ost.4						
1961	1				WSP 1944	
1962	4	1	4		WSP 1944, WSP 1950; Blu.1	
1963	16	6	16		WSP 1950, Blu.1	
1964	[7]	2	13		WSP 1957, Blu.1	
1965	26	6	21		WSP 1964, Blu.1	
1966	12		5		WSP 1994	
1967	15	1	3		WSP 2014	
1968	13	2	6		WSP 2096, Blu.1	
1969	15	2	14		WSP 2146	
1970	9				WSP 2156	
1971	12	1	3		WRD-KS, 1971, part 2; Blu.1	
1972	14	1	2		WRD-KS, 1972, part 2; Blu.1	
1973	11	1			WRD-KS, 1973, part 2; Blu.1	
1974	14	2	2		WRD-KS, 1974, part 2; Blu.1	
1975	12	1	2		WRD-KS, 1975; Blu.1	
1976	8	1	2		WRD-KS, 1976; Blu.1	
1977	4		2	2	WRD-KS, 1977; Blu.1; USGS-L	
1978	1		2		WRD-KS, 1978; Blu.1	
1979	3		2		WRD-KS, 1979, vol. 2; Blu.1	
1980	7		2		WRD-KS, 1980, vol. 2; Blu.1	
1981	6		2		WRD-KS, 1981	
1982	3				WRD-KS, 1982	
1983	7		2		WRD-KS, 1983	
07145300 Clear Creek near Garden Plain, Kansas						Drainage area = 5.03 square miles
1977	1				WRD-KS, 1977	
07145500 Ninnescah River near Peck, Kansas						Drainage area = 2,129 square miles
Summary or interpretive publications [3]: Alb.1, Blu.1, Col.1, Ost.1, Ost.2, Ost.4, USEng.1						
1940	6				Blu.1	Before Cheney Reservoir
1941	11				do.	Do.
1942	13				do.	Do.
1943	9				do.	Do.
1944	10				do.	Do.
1945	11				do.	Do.
1946	6				do.	Do.
1947	3				do.	Do.
1948	6				do.	Do.
1949	5				do.	Do.
1950	3				do.	Do.
1951	8				do.	Do.
1952	7				do.	Do.
1954	1				do.	Do.
1958	1				WSP 1744, Blu.1	Do.
1960	4	2	1		WSP 1744, WSP 1884, Blu.1	Do.
1961	16	5	6		WSP 1884, Blu.1	Do.
1962	12	3	8		WSP 1944, Blu.1	Do.
1963	15	5	14		WSP 1950, Blu.1	Do.
1964	16	5	13		WSP 1957, Blu.1	Do.
1965	17	6	6		WSP 1964, Blu.1	Downstream from Cheney Reservoir
1966	11		4		WSP 1994	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	07145500 Ninnescah River near Peck, Kansas--Continued					
1967	15	6	2		WSP 2014	Downstream from Cheney Reservoir
1968	14	3	6		WSP 2096, Blu.1	Do.
1969	13	2	6		WSP 2146, Blu.1	Do.
1970	12	1			WSP 2156	Do.
1971	12		3		WRD-KS, 1971, part 2; Blu.1	Do.
1972	1	1	2		WRD-KS, 1972, part 2; Blu.1	Do.
1973	13	3			WRD-KS, 1973, part 2; Blu.1	Do.
1974	12	1	2		WRD-KS, 1974, part 2; Blu.1	Do.
1975	10		2		WRD-KS, 1975; Blu.1	Do.
1976	6	1	1		WRD-KS, 1976; Blu.1	Do.
1977	3	1	2	2	WRD-KS, 1977; Blu.1; USGS-L	Do.
1978	3		2	2	WRD-KS, 1978; Blu.1; USGS-L	Do.
1979	6		2		WRD-KS, 1979, vol. 2; Blu.1	Do.
1980	8	2			WRD-KS, 1980, vol. 2; Blu.1	Do.
1981	6	1	2		WRD-KS, 1981	Do.
1982	8	1	1		WRD-KS, 1982	Do.
1983	7		1		WRD-KS, 1983	Do.
	07145700 Slate Creek at Wellington, Kansas					Drainage area = 154 square miles
	Summary or interpretive publications[3]: Blu.1					
1976	3				Blu.1	
1977	3				WRD-KS, 1977; Blu.1	
1978	1				Blu.1	
1979	5				WRD-KS, 1979, vol. 2; Blu.1	
1980	8				WRD-KS, 1980, vol. 2; Blu.1	
1981	5	1			WRD-KS, 1981	
1982	2				WRD-KS, 1982	
1983	8				WRD-KS, 1983	
	07146500 Arkansas River at Arkansas City, Kansas					Drainage area = 43,713 square miles
	Summary or interpretive publications[3]: Alb.1, Blu.1, Col.1, Ost.1, Ost.2, Ost.4, USEng.1					
1907	[9] 39				WSP 273	
1943	12				Blu.1	
1944	41	3			do.	
1945	39				do.	
1958	1	1			WSP 1884, Blu.1	
1961	[7]	7	4		WSP 1884, WSP 1944, Blu.1	
1962	[8]	11	10		WSP 1944, Blu.1	
1963	do.	5	13		WSP 1950, Blu.1	
1964	do.	11	13		WSP 1957, Blu.1	
1965	do.	8	11		WSP 1964, Blu.1	
1966	do.	4	2		WSP 1994, Blu.1	
1967	do.		1		WSP 2014, Blu.1	
1968	do.	6	9		WSP 2096	
1969	do.	1	11		WSP 2146	
1970	do.	7	1		WSP 2156	
1971	do.	2	2		WRD-KS, 1971, part 2; Blu.1	
1972	do.	3	2		WRD-KS, 1972, part 2; Blu.1	
1973	do.				WRD-KS, 1973, part 2; Blu.1	
1974	do.	3	2		WRD-KS, 1974, part 2; Blu.1	
1975	do.	5	2		WRD-KS, 1975; Blu.1	
1976	7	2	1		WRD-KS, 1976; Blu.1	
1977	10	3	2	2	WRD-KS, 1977; Blu.1; USGS-L	
1978	4	1	1		WRD-KS, 1978; Blu.1	
1979	10	2	1		WRD-KS, 1979, vol. 2; Blu.1	
1980	11	1	1		WRD-KS, 1980, vol. 2; Blu.1	
1981	10	1			WRD-KS, 1981	
1982	7	1			WRD-KS, 1982	
1983	8	8	1		WRD-KS, 1983	
	07146570 Cole Creek near DeGraff, Kansas					Drainage area = 30 square miles
	Summary or interpretive publications[3]: Blu.1, Ost.4					
1962	6	5			WSP 1944, Blu.1	
1963	4	3			WSP 1950, Blu.1	
1964	5				WSP 1957, Blu.1	
1971	2				WRD-KS, 1971, part 2; Blu.1	
1976	2				WRD-KS, 1976; Blu.1	
1977	1			2	WRD-KS, 1977; Blu.1; USGS-L	
1979	2				Blu.1	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
	07146600 (East Branch) Walnut River near El Dorado, Kansas					Drainage area = 151 square miles
1963	2	2			WSP 1950	
1964	1	1			WSP 1957	
	07146800 West Branch Walnut River near El Dorado, Kansas					Drainage area = 62.0 square miles
1962	2				WSP 1944	
1963	1	1			WSP 2096	
	07146850 Walnut Creek near El Dorado, Kansas					
1962	1	1			WSP 1950	
1963	2	2			do.	
	07146900 Walnut Creek near Augusta, Kansas					
1962	1				WSP 1950	
1963	3	3			do.	
1964	3				WSP 1957	
1965	4				WSP 1964	
1966			1		WSP 1994	
1982	1				WRD-KS, 1982	
	07146986 Whitewater River 2 miles north of Potwin, Kansas					
1978	1		1		WRD-KS, 1978	
	07146990 Whitewater River 3 miles south of Potwin, Kansas (below Potwin)					Drainage area = 162 square miles
1967	2	2			WSP 2014	
1978	1		1		WRD-KS, 1978	
	07147010 Whitewater River 6 miles northwest of Towanda, Kansas					
1978	1		1		WRD-KS, 1978	
	07147040 West Branch Whitewater River at Whitewater, Kansas					
1962	4				WSP 1944	
	07147050 West Branch Whitewater River near Furley, Kansas					Drainage area = 88.0 square miles
1967	1	1			WSP 2014	
1968	1	1			WSP 2096	
	07147060 West Branch Whitewater River near Benton, Kansas					Drainage area = 177 square miles
1967	1	1			WSP 2014	
1978	1		1		WRD-KS, 1978	
	07147070 Whitewater River at Towanda, Kansas Summary or interpretive publications[3]: Blu.1, Jor.2, Ost.1, Ost.2, Ost.4					Drainage area = 426 square miles
1961	11	2	7		WSP 1884, Blu.1	
1962	16	7			WSP 1944, Blu.1	
1963	10	7			WSP 1950, Blu.1	
1964	[8]	3			WSP 1957, Blu.1	
1965	16	2			WSP 1964, Blu.1	
1966	3				WSP 1994	
1967	5	5			WSP 2014	
1968	27	6			WSP 2096, WSP 2146, Blu.1	
1969	25				WSP 2146	
1970	14	3			WSP 2156	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Suspended-sediment Particle size	Bed-material size	Bank-material size	Publication[1] or office file[2]	Additional information
	07147070 Whitewater River at Towanda, Kansas--Continued					
1976	2				WRD-KS, 1976; Blu.1	
1977	19	13	1	2	WRD-KS, 1977; Blu.1; USGS-L	
1978	7	3	1		WRD-KS, 1978; Blu.1	
1979	5				WRD-KS, 1979, vol. 2; Blu.1	
1980	6				WRD-KS, 1980, vol. 2; Blu.1	
1981	6				WRD-KS, 1981	
1982	5	1			WRD-KS, 1982	
1983	6	1			WRD-KS, 1983	
	07147100 Whitewater River at Augusta, Kansas					Drainage area = 456 square miles
1962	1	1			WSP 2096	
1963	1				do.	
1964	1	1			WSP 1957	
	07147410 Little Walnut River near Douglass, Kansas					
1962	1	1			WSP 2096	
1963	1				do.	
	07147500 Walnut River near Douglass, Kansas					
1962	2	2			WSP 1944	Before El Dorado Lake
1963	2	2			WSP 1950	Do.
1964	3	2			WSP 1957	Do.
	07147600 Timber Creek near Wilmot, Kansas					Drainage area = 63.0 square miles
1963	1	1			WSP 2096	
	07147800 Walnut River at Winfield, Kansas Summary or interpretive publications[3]: Blu.1, Col.1, Jor.2, Ost.1, Ost.2, USEng.1					Drainage area = 1,872 square miles
1907	[9] 27				WSP 273	Before El Dorado Lake
1908	do. 4				do.	Do.
1943	6				Blu.1	Do.
1944	21				do.	Do.
1945	27				do.	Do.
1961	[7]	8			WSP 1884, WSP 1944, Blu.1	Do.
1962	[8]	8			WSP 1944, Blu.1	Do.
1963	do.	7			WSP 1950, Blu.1	Do.
1964	do.	6			WSP 1957, Blu.1, USCE-T	Do.
1965	do.	8			WSP 1964, Blu.1, USCE-T	Do.
1966	do.	4	1		WSP 1994	Do.
1967	do.				WSP 2014	Do.
1968	do.	4			WSP 2096, WSP 1968, Blu.1, USCE-T	Do.
1969	do.	11			WSP 2146	Do.
1970	do.	1			WSP 2156	Do.
1971	do.				WRD-KS, 1971, part 2	Do.
1972	do.	1			WRD-KS, 1972, part 2; Blu.1	Do.
1973	do.	1			WRD-KS, 1973, part 2; Blu.1	Do.
1974	do.	2			WRD-KS, 1974, part 2; Blu.1	Do.
1975	do.				WRD-KS, 1975	Do.
1976	3				WRD-KS, 1976; Blu.1	Do.
1977	5	1		1	WRD-KS, 1977; Blu.1; USGS-L	Do.
1979	6	1			WRD-KS, 1979, vol. 2; Blu.1	Do.
1980	9				WRD-KS, 1980, vol. 2; Blu.1	Do.
1981	10				WRD-KS, 1981	Downstream from El Dorado Lake
1982	7	1			WRD-KS, 1982	Do.
1983	8				WRD-KS, 1983	Do.
	07148100 Grouse Creek near Dexter, Kansas					Drainage area = 170 square miles
1977	1				WRD-KS, 1977	
	07148300 Salt Fork River near Aetna, Kansas					Drainage area = 591 square miles
1966			1		WSP 1994	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	07148600 Medicine Lodge River at Sun City, Kansas					Drainage area = 335 square miles
1966			1		WSP 1994	
	07148790 Medicine Lodge River at Medicine Lodge, Kansas					
1958	2	2			WSP 1950	
	07149000 Medicine Lodge River near Kiowa, Kansas					Drainage area = 940 square miles
	Summary or interpretive publications[3]: Blu.1, Col.1, Ost.1, Ost.2, Ost.4, USEng.1					
1907	[9] 20				WSP 273	
1938	11				Blu.1	
1939	16				do.	
1940	18				do.	
1941	7				do.	
1942	9				do.	
1943	11				do.	
1944	30				do.	
1945	52				do.	
1946	12				do.	
1947	18				do.	
1948	17				do.	
1949	15				do.	
1950	19				do.	
1958	1	1			WSP 1944, Blu.1	
1961	4				WSP 1944	
1962	3	2			WSP 1944, Blu.1	
1963	1	1	1		WSP 2096, Blu.1	
1965	6	5			WSP 1964, Blu.1	
1966	2		1		WSP 1994	
1968	6	2	3		WSP 2096, Blu.1	
1969	7		10		WSP 2146	
1976	3				WRD-KS, 1976; Blu.1	
1977	5	1	1	2	WRD-KS, 1977; Blu.1; USGS-L	
1978	3				WRD-KS, 1978; Blu.1	
1979	10				WRD-KS, 1979, vol. 2; Blu.1	
1980	9				WRD-KS, 1980, vol. 2; Blu.1	
1981	2				WRD-KS, 1981	
	Chikaskia River at Argonia, Kansas					
1907	[9] 20				WSP 273	
	07151500 Chikaskia River near Corbin, Kansas					Drainage area = 794 square miles
	Summary or interpretive publications[3]: Alb.1, Col.1, Ost.1					
1962	[7]	2			WSP 1944, WSP 1950	
1963	[8]	4	15		WSP 1950	
1964	do.	6	13		WSP 1957	
1965	do.	9	11		WSP 1964	
1966			1		WSP 1994	
1976	1	1			WRD-KS, 1976	
	07155590 Cimarron River near Elkhart, Kansas					Drainage area = 2,899 square miles
1977	6	2			WRD-KS, 1977	
1980	2				WRD-KS, 1980, vol. 2	
1981	1	1			WRD-KS, 1981	
	07155700 Cimarron River near Ulysses, Kansas					
1961	3	2			WSP 1884	
	07155900 North Fork Cimarron River tributary near Elkhart, Kansas					Drainage area = 75.0 square miles
1971	1				WRD-KS, 1971, part 2	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	07156000 North Fork Cimarron River tributary near Richfield, Kansas					Drainage area = 103 square miles
1962	1	1			WSP 2096	
1963	4	2	1		WSP 1950, WSP 2096	
1977	1	1			WRD-KS, 1977	
	07156010 North Fork Cimarron River at Richfield, Kansas					Drainage area = 463 square miles
	Summary or interpretive publications[3]: Blu.1					
1976	2	2			WRD-KS, 1976; Blu.1	
1977	4		1		WRD-KS, 1977; Blu.1	
1978	2				WRD-KS, 1978; Blu.1	
1980				13	USGS-L	
	07156200 North Fork Cimarron River near Ulysses, Kansas					Drainage area = 1,640 square miles
1962	1				WSP 2096	
1963	1				do.	
1966	1	1	1		do.	
1968	1				do.	
1969	6	1			WSP 2146	
1970	1				WSP 2156	
1971	1				WRD-KS, 1971, part 2	
1972	5	1			WRD-KS, 1972, part 2	
1980				13	USGS-L	
	07156220 Bear Creek near Johnson, Kansas					Drainage area = 835 square miles
	Summary or interpretive publications[3]: Blu.1, Ost.1					
1969	20	15	4		WSP 2146	
1971	1				Blu.1	
1972	3	1			WRD-KS, 1972, part 2; Blu.1	
1977	1				WRD-KS, 1977; Blu.1	
1979	2			2	Blu.1, USGS-L	
1980				7	USGS-L	
	07156600 Cimarron River Tributary near Moscow, Kansas					Drainage area = 13.0 square miles
1963	1				WSP 2096	
	07156750 Cimarron River near Liberal, Kansas (Formerly published as Station Number 07156800)					Drainage area = 7,452 square miles
	Summary or interpretive publications[3]: Alb.1, Blu.1, Col.1, USEng.1					
1938	3				Blu.1	
1939	12				do.	
1940	7				do.	
1941	14				do.	
1942	14				do.	
1943	2				do.	
1961	1	1	1		WSP 1950, Blu.1	
1962	1				WSP 2096	
1963	4	2	1		WSP 1950, WSP 2096, Blu.1	
1964	3		2		WSP 1957, Blu.1	
1965	7	2	5		WSP 1964, Blu.1	
1966	4		3		WSP 1994	
1967	6	2	3		WSP 2096, Blu.1	
1968	5	3	3		do.	
1969	3		2		WSP 2146	
1970	1				Blu.1	
1971	1	1			WRD-KS, 1971, part 2; Blu.1	
1975	2				Blu.1	
	07156800 Cimarron River near Liberal, Kansas					Drainage area = 8,254 square miles
1961	4		4		WSP 1944	
1962	3				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
	07156900 Cimarron River near Forgan, Oklahoma					Drainage area = 8,536 square miles
	Summary or interpretive publications[3]: Ost.1, Ost.4					
1966	1	1	1		WSP 1994	
1967	5	2	3		WSP 2014	
1968	3	1	3		WSP 2096	
1971	2				WRD-KS, 1971, part 2	
1977				2	USGS-L	
	07157000 Cimarron River near Mocane, Oklahoma					
1964	3	1			WSP 1957	
1965	10	4	6		WSP 1964	
1966	2	1	2		WSP 2096	
	07157100 Crooked Creek near Copeland, Kansas					Drainage area = 44.0 square miles
1966			1		WSP 1994	
	07157200 Crooked Creek near Fowler, Kansas					Drainage area = 524 square miles
1966			1		WSP 1994	
	07157500 Crooked Creek near Nye, Kansas					Drainage area = 1,157 square miles
	Summary or interpretive publications[3]: Blu.1, Col.1, Ost.1, Ost.2, Ost.4, USEng.1					
1944	19				Blu.1	
1945	12				do.	
1947	3				do.	
1948	5				do.	
1961	4		3		WSP 1944	
1962	4		2		WSP 1944, WSP 2096, Blu.1	
1963	5	1	4		WSP 1950, WSP 2096, Blu.1	
1964	4	1			WSP 1957, Blu.1	
1965	10	2	5		WSP 1964, Blu.1	
1966	3		3		WSP 1994	
1967	6	1	3		WSP 2014, WSP 2096, Blu.1	
1968	9	2	2		WSP 2096	
1969	3				WSP 2146	
1970	9	1			WSP 2156	
1971	2				WRD-KS, 1971, part 2; Blu.1	
1972	3				WRD-KS, 1972, part 2; Blu.1	
1973	8				WRD-KS, 1973, part 2; Blu.1	
1975	2				WRD-KS, 1975; Blu.1	
1976	9				WRD-KS, 1976; Blu.1	
1977	8	1		2	WRD-KS, 1977; Blu.1; USGS-L	
1978	3				WRD-KS, 1978; Blu.1	
1979	1				WRD-KS, 1979, vol. 2; Blu.1	
1980	3				WRD-KS, 1980, vol. 2; Blu.1	
1981	6	2			WRD-KS, 1981	
1982	1				WRD-KS, 1982	
1983	3				WRD-KS, 1983	
	07157580 Cimarron River near Englewood, Kansas					Drainage area = 10,960 square miles
	Summary or interpretive publications[3]: Blu.1, USEng.1					
1907	[9] 26				WSP 273	
1908	do. 4				do.	
1938	5				Blu.1	
1939	18				do.	
1940	19				do.	
1941	30				do.	
1942	13				do.	
	07157700 Kiger Creek near Ashland, Kansas					Drainage area = 34.0 square miles
1973	1				WRD-KS, 1973, part 2	
1978	1				WRD-KS, 1978	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07157740 Cimarron River near Buttermilk, Kansas						Drainage area = 11,120 square miles
1977	2	2			WRD-KS, 1977	
1978	3				WRD-KS, 1978	
1979	5	1			WRD-KS, 1979, vol. 2	
07157800 Bluff Creek near Protection, Kansas						Drainage area = 303 square miles
1961	3		2		WSP 1944	
1962	2				do.	
1963	3	1	3		WSP 1950, WSP 2096	
1963			1		WSP 1950	
1963			3		do.	
1967			1		WSP 2096	
1968			1		do.	
07157900 Cavalry Creek at Coldwater, Kansas Summary or interpretive publications[3]: Blu.1, Ost.1, Ost.2						Drainage area = 39.0 square miles
1963	1				Blu.1	
1966	1				do.	
1967	2		1		WSP 2014	
1968	13	1	4		WSP 2096, Blu.1	
1969	11	1	10		WSP 2146	
1971	12		3		WRD-KS, 1971, part 2; Blu.1	
1972	14		2		WRD-KS, 1972, part 2; Blu.1	
1973	3				WRD-KS, 1973, part 2; Blu.1	
1974	3	1			WRD-KS, 1974, part 2; Blu.1	
1975	14	2	2		WRD-KS, 1975; Blu.1	
1976	10		1		WRD-KS, 1976; Blu.1	
1977	5			2	WRD-KS, 1977; Blu.1; USGS-L	
1978	1		1		WRD-KS, 1978; Blu.1	
1979	2				WRD-KS, 1979, vol. 2; Blu.1	
1980	3				WRD-KS, 1980, vol. 2; Blu.1	
1981	3				WRD-KS, 1981	
1983	2				WRD-KS, 1983	
07157940 Bluff Creek near Buttermilk, Kansas						Drainage area = 657 square miles
1977	2				WRD-KS, 1977	
1978	2				WRD-KS, 1978	
1979	2				WRD-KS, 1979, vol. 2	
07165700 Verdigris River near Madison, Kansas Summary or interpretive publications[3]: Blu.1, Ost.1						Drainage area = 181 square miles
1956	3				Blu.1	
1957	13				do.	
1958	30				do.	
1959	31				do.	
1960	29				do.	
1961	32				do.	
1962	33				do.	
1963	28				do.	
1964	29				do.	
1965	31		1		WSP 2096, Blu.1	
1966	26				Blu.1	
1967	24				do.	
1968	30				do.	
1969	29				do.	
1970	28				do.	
1971	30				do.	
1972	30				do.	
1973	31				do.	
1974	21				do.	
1975	19				do.	
1976	18				do.	
1977	3				USGS-L, Blu.1	
1980			1		WRD-KS, 1980, vol. 2	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1/] or office file[2/]	Additional information
07165900 Toronto Lake outflow near Toronto, Kansas						Drainage area = 730 square miles
Summary or interpretive publications [3/]: Blu.1						
1966	9				Blu.1	
1968	43				do.	
1969	1				do.	
1970	34				do.	
1971	50				do.	
1972	49				do.	
1973	45				do.	
1974	44				do.	
1975	44				do.	
1976	48				do.	
1977	40				do.	
1978	9				do.	
07166000 Verdigris River near Coyville, Kansas						Drainage area = 747 square miles
Summary or interpretive publications [3/]: Blu.1, Col.1, Ost.1, USEng.1						
1940	7				Blu.1	Before Toronto Lake
1941	13				do.	Do.
1942	17				do.	Do.
1943	4				do.	Do.
1944	11				do.	Do.
1945	22				do.	Do.
1946	9				do.	Do.
1947	9				do.	Do.
1948	7				do.	Do.
1949	2				do.	Do.
1950	6				do.	Do.
1951	13				do.	Do.
1952	5				do.	Do.
1953	2				do.	Do.
1954	5				do.	Do.
1955	3				do.	Do.
1956	8				do.	Do.
1957	16				do.	Do.
1958	24				do.	Do.
1959	12				do.	Do.
1960	17				do.	Downstream from Toronto Lake
1961	24				do.	Do.
1962	20				do.	Do.
1963	20				Blu.1, USGS-L	Do.
1964	9				Blu.1	Do.
1965	38				do.	Do.
1966	12				do.	Do.
1967	12				do.	Do.
1968	24				do.	Do.
1969	28				do.	Do.
1970	15				do.	Do.
1971	11				do.	Do.
1972	12				do.	Do.
1973	22				do.	Do.
1974	19				do.	Do.
1975	13				do.	Do.
1976	5				do.	Do.
1977	8				do.	Do.
1978	5			1	Blu.1, USGS-L	Do.
07166500 Verdigris River near Altoona, Kansas						Drainage area = 1,138 square miles
Summary or interpretive publications [3/]: Blu.1, Col.1, USEng.1						
1940	11				Blu.1	Before Toronto Lake
1941	15				do.	Do.
1942	16				do.	Do.
1943	4				do.	Do.
1944	12				do.	Do.
1945	27				do.	Do.
1946	8				do.	Do.
1947	12				do.	Do.
1948	10				do.	Do.
1949	2				do.	Do.
1950	6				do.	Do.
1951	15				do.	Do.
1952	7				do.	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1]/ or office file[2]/	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07166500 Verdigris River near Altoona, Kansas--Continued						
1953	1				Blu.1	Before Toronto Lake
1954	4				do.	Do.
1955	4				do.	Do.
1956	6				do.	Do.
1957	12				do.	Do.
1958	26				do.	Do.
1959	13				do.	Do.
1960	15				do.	Downstream from Toronto Lake
1961	33	2			Blu.1, WSP 1884	Do.
1962	16				Blu.1	Do.
1963	7				do.	Do.
1964	5				do.	Do.
1965	23				do.	Do.
1966	5		1		Blu.1, WSP 1994	Do.
1967	10				Blu.1	Do.
1968	12				do.	Do.
1969	20				do.	Do.
1970	11				do.	Do.
1971	13				do.	Do.
1972	14				do.	Do.
1973	19				do.	Do.
1974	9				do.	Do.
1975	15				do.	Do.
1976	5				do.	Do.
1977	10				do.	Do.
1978	5				do.	Do.
07167000 Fall River near Eureka, Kansas						Drainage area = 336 square miles
Summary or interpretive publications 3/: Blu.1, Col.1, Jor.2, Ost.1, Ost.4						
1947	9	1			Blu.1	
1948	10				do.	
1949	1				do.	
1950	4	4			do.	
1951	2				do.	
1954	2				do.	
1955	2				do.	
1956	4				do.	
1957	11				do.	
1958	5				do.	
1959	8				do.	
1960	8				do.	
1961	13				do.	
1962	9				do.	
1963	6				do.	
1964	7				do.	
1965	18				do.	
1966	5		1		WSP 1994, Blu.1	
1967	9				Blu.1	
1968	8				do.	
1969	10				do.	
1970	6				do.	
1971	6				do.	
1972	4				do.	
1973	8				do.	
1974	4				do.	
1975	8				do.	
1976	1				do.	
1980			1		WRD-KS, 1980, vol. 2	
07167500 Otter Creek at Climax, Kansas						Drainage area = 129 square miles
Summary or interpretive publications 3/: Blu.1, Col.1, Jor.2, Ost.1						
1947	4				Blu.1	
1948	13				do.	
1950	3	2			do.	
1951	4	1			do.	
1952	1				do.	
1953	1				do.	
1954	2				do.	
1955	2				do.	
1956	2				do.	
1957	7				do.	
1958	5				do.	
1959	4				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1]/ or office file[2]/	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
	07167500 Otter Creek at Climax, Kansas--Continued					
1960	9				Blu.1	
1961	9				do.	
1962	7				do.	
1963	2				do.	
1964	3				do.	
1965	15				do.	
1966	4		1		Blu.1, WSP 1994	
1967	9				Blu.1	
1968	5				do.	
1969	10				do.	
1970	5				do.	
1971	4				do.	
1972	6				do.	
1973	5				do.	
1974	7				do.	
1975	6				do.	
1976	2				do.	
1977	1				do.	
1978	2				do.	
1980	5		1		WRD-KS, 1980, vol. 2; Blu.1	
	07168000 Fall River Lake outflow near Fall River, Kansas Summary or interpretive publications [3]/: Blu.1					Drainage area = 585 square miles
1968	36				Blu.1	
1969	48				do.	
1970	22				do.	
	07168500 Fall River near Fall River, Kansas Summary or interpretive publications [3]/: Blu.1, Col.1, Ost.1, USEng.1					Drainage area = 591 square miles
1940	5				Blu.1	Before Fall River Lake
1941	8				do.	Do.
1942	8				do.	Do.
1943	1				do.	Do.
1944	11				do.	Do.
1945	30				do.	Do.
1946	6				do.	Do.
1947	7				do.	Do.
1948	11				do.	Do.
1949	3				do.	Downstream from Fall River Lake
1951	2				do.	Do.
1952	1				do.	Do.
1955	1				do.	Do.
1957	11				do.	Do.
1958	3				do.	Do.
1959	1				do.	Do.
1960	1				do.	Do.
1961	9				do.	Do.
1962	5				do.	Do.
1963	3				do.	Do.
1964	1				do.	Do.
1965	21				do.	Do.
1966	1				do.	Do.
1967	2				do.	Do.
1968	5				do.	Do.
1969	11				do.	Do.
1970	8				do.	Do.
1971	5				do.	Do.
1972	7				do.	Do.
1973	12				do.	Do.
1974	22				do.	Do.
1975	6				do.	Do.
1976	7				do.	Do.
1977	7				do.	Do.
1978	4				do.	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Suspended-sediment Particle size	Bed-material size	Bank-material size	Publication[1] or office file[2]	Additional information
	07169500 Fall River at Fredonia, Kansas					Drainage area = 827 square miles
	Summary or interpretive publications[3]: Blu.1, Col.1, USEng.1					
1939	1				Blu.1	Before Fall River Lake
1940	6				do.	Do.
1941	13				do.	Do.
1942	13				do.	Do.
1943	3				do.	Do.
1944	13				do.	Do.
1945	17				do.	Do.
1946	1				do.	Do.
1961	3	2			WSP 1884, Blu.1	Downstream from Fall River Lake
1965	1				USCE-T	Do.
1975	3				Blu.1	Do.
1976	5				do.	Do.
	Fall River at Neodesha, Kansas					Drainage area = 848 square miles
1907	[9] 7				WSP 273	Before Fall River Lake
1908	[9] 14				do.	Do.
	07169600 Elk River at Howard, Kansas					
1966			1		WSP 1994	
	07169800 Elk River at Elk Falls, Kansas					Drainage area = 220 square miles
	Summary or interpretive publications[3]: Blu.1, Ost.1					
1967	3				Blu.1	
1968	12				do.	
1969	23				do.	
1970	7				do.	
1971	4				do.	
1972	5				do.	
1973	14				do.	
1974	14				do.	
1975	13				do.	
1976	2				do.	
1977	3				do.	
1978	1				WRD-KS, 1978; Blu.1	
1980	3		1		WRD-KS, 1980, vol. 2; Blu.1	
	07170000 Elk River near Elk City, Kansas					Drainage area = 575 square miles
	Summary or interpretive publications[3]: Blu.1, Col.1, Ost.4, USEng.1					
1940	1				Blu.1	
1941	5				do.	
1942	13				do.	
1943	3				do.	
1944	9				do.	
1945	5				do.	
1946	6				do.	
1947	5				do.	
1948	5				do.	
1949	3	1			do.	
1950	2	2			do.	
1951	4				do.	
1952	1				do.	
1953	1				do.	
1954	6				do.	
1955	2				do.	
1956	2				do.	
1957	13				do.	
1958	9				do.	
1959	6				do.	
1960	15				do.	
1961	23	2			WSP 1884, Blu.1	
1962	15				Blu.1	
1963	5				do.	
1964	4				do.	
1965	18				do.	
1966	4		1		WSP 1994, Blu.1	
1967	9				Blu.1	
1968	9				do.	
1969	28				do.	
1970	7				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1]/ or office file[2]/	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07170050 Elk River Lake outflow near Independence, Kansas						Drainage area 634 square miles
Summary or interpretive publications [3]/: Blu.1						
1967	10				Blu.1	
1968	52				do.	
1969	51				do.	
1970	47				do.	
1971	47				do.	
1972	47				do.	
1973	26				do.	
1974	29				do.	
1975	43				do.	
1976	47				do.	
1977	49				do.	
1978	25				do.	
07170060 Elk River below Elk City Lake, Kansas						
Summary or interpretive publications [3]/: Ost.1						
07170500 Verdigris River at Independence, Kansas						Drainage area = 2,892 square miles
Summary or interpretive publications [3]/: Blu.1						
1945	3				Blu.1	Before large reservoirs
1957	1				do.	Downstream from Fall River Lake
1961	3	2			WSP 1884, Blu.1	Downstream from Toronto and Fall River Lakes
07170700 Big Hill Creek near Cherryvale, Kansas						Drainage area = 37 square miles
Summary or interpretive publications [3]/: Blu.1, Ost.1, Ost.4						
1958	19				Blu.1	
1959	15				do.	
1960	24				do.	
1961	25				do.	
1962	24				do.	
1963	20				do.	
1964	18				do.	
1965	28				do.	
1966	31				do.	
1967	34				do.	
1968	31				do.	
1969	31				do.	
1970	31				do.	
1971	24				do.	
1972	16				do.	
1973	28				do.	
1974	27				do.	
1975	26				do.	
1976	17				do.	
1977	23				do.	
1978	8				do.	
1980	2				do.	
07170990 Verdigris River at Coffeyville, Kansas						
1907	[9]/ 26				WSP 273	Before large reservoirs
1908	do. 5				do.	Do.
07171000 Verdigris River near Lenapah, Oklahoma						
Summary or interpretive publications [3]/: Ost.1						
1966			1		WSP 1994	
07173000 Caney River near Hulah, Oklahoma						
Summary or interpretive publications [3]/: Ost.1, USEng.1						
07172000 Caney River near Elgin, Kansas						Drainage area = 445 square miles
Summary or interpretive publications [3]/: Blu.1, Col.1, Ost.4, USEng.1						
1940	3				Blu.1	
1941	3				do.	
1942	7				do.	
1943	9				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
07172000 Caney River near Elgin, Kansas--Continued						
1944	9				Blu.1	
1945	2				do.	
1946	4				do.	
1947	7				do.	
1948	4				do.	
1949	1				do.	
1950	2				do.	
1951	3				do.	
1952	2				do.	
1953	1				do.	
1955	2				do.	
1956	4				do.	
1957	11				do.	
1958	5				do.	
1959	3				do.	
1960	6				do.	
1961	15				do.	
1962	3				do.	
1963	7				do.	
1964	6				do.	
1965	9				do.	
1966	7		1		WSP 1994, Blu.1	
1967	5				Blu.1	
1968	11				do.	
1969	16				do.	
1970	5				do.	
1971	3				do.	
1972	11				do.	
1973	13				do.	
1974	7				do.	
1975	12				do.	
1976	4				do.	
1977	3			1	Blu.1, USGS-L	
1978	1				Blu.1	
1980			1		WRD-KS, 1980, vol. 2	
07173300 Middle Caney Creek at Sedan, Kansas						Drainage area = 120 square miles
1966			1		WSP 1994	
07174000 Caney Creek near Copan, Kansas						
1980			1		WRD-KS, 1980, vol. 2	
07174200 Little Caney River below Cotton Creek near Copan, Kansas Summary or interpretive publications[3]: Ost.1						
1980			1		WRD-KS, 1980, vol. 2	
1982	1	1			WRD-KS, 1982	
1983	2				WRD-KS, 1983	
07179400 Council Grove Lake outflow near Council Grove, Kansas Summary or interpretive publications[3]: Blu.1						Drainage area = 246 square miles
1965	2				Blu.1	
1966	7				do.	
1967	1				do.	
1968	5				do.	
1969	7				do.	
1970	2				do.	
1971	2				do.	
1972	3				do.	
1973	2				do.	
1974	5				do.	
1975	8				do.	
1976	1				do.	
1978	2				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle-size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
07179500 Neosho River at Council Grove, Kansas						Drainage area = 250 square miles
Summary or interpretive publications[3]: Blu.1, Col.1, Ost.1, USEng.1						
1940	4				Blu.1	Before Council Grove Lake
1941	10				do.	Do.
1942	15				do.	Do.
1943	2				do.	Do.
1944	12				do.	Do.
1945	18				do.	Do.
1946	3				do.	Do.
1947	2				do.	Do.
1950	1				do.	Do.
1955	2				do.	Do.
1956	1				do.	Do.
1958	1				do.	Do.
1959	6				do.	Do.
1960	6				do.	Do.
1961	2				do.	Do.
1962	7				do.	Do.
1963	2				do.	Do.
1964	1				do.	Do.
1969	6				do.	Downstream from Council Grove Lake
1970	26				do.	Do.
1971	20				do.	Do.
1972	6				do.	Do.
1978	1			2	Blu.1, USGS-L	Do.
1979	1				Blu.1	Do.
1981	1				USCE-T	Do.
1982	4				do.	Do.
07179600 Four Mile Creek near Council Grove, Kansas						Drainage area = 55 square miles
Summary or interpretive publications[3]: Ost.4						
07179730 Neosho River near Americus, Kansas						Drainage area = 622 square miles
Summary or interpretive publications[3]: Blu.1, Ost.1						
1964	1	1			WSP 1957, Blu.1	Before Council Grove Lake
1966	7				Blu.1	Downstream from Council Grove Lake
1967	11				do.	Do.
1968	9				do.	Do.
1969	12				WSP 2146, Blu.1	Do.
1970	10				Blu.1	Do.
1971	10				do.	Do.
1972	11				do.	Do.
1973	10				do.	Do.
1974	11				do.	Do.
1975	12				WRD-KS, 1975; Blu.1	Do.
1976	9				Blu.1	Do.
1977	6				do.	Do.
1978	1			1	Blu.1, USGS-L	Do.
1980	1				USCE-T	Do.
Neosho River at Emporia, Kansas						Drainage area = 740 square miles
1907	[9] 29				WSP 273	Before Council Grove Lake
1908	[9] 6				do.	Do.
07179795 Cottonwood River below Marion Lake, Kansas						Drainage area = 200 square miles
Summary or interpretive publications[3]: Blu.1						
1971	2				Blu.1	Downstream from Marion Lake
1972	3				do.	Do.
1973	2				do.	Do.
1974	2				do.	Do.
1975	7				do.	Do.
1976	2				do.	Do.
1978				2	USGS-L	Do.
1979	2				Blu.1	Do.
1981	1				USGS-L	Do.
1982	3				USCE-T	Do.

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07180000 Cottonwood River near Marion, Kansas (listed as station 07179795 in Blumer, 1983)						
Summary or interpretive publications[3]: Blu.1, USEng.1						Drainage area = 329 square miles
1940	14				Blu.1	Before Marion Lake
1941	15				do.	Do.
1942	10				do.	Do.
1944	15				do.	Do.
1945	24				do.	Do.
1946	1				do.	Do.
1947	5				do.	Do.
1948	3				do.	Do.
1951	9				do.	Do.
1952	5				do.	Do.
1957	3				do.	Do.
1958	4				do.	Do.
1959	3				do.	Do.
1960	7				do.	Do.
1961	8				do.	Do.
1962	12				do.	Do.
1963	6				do.	Do.
1964	1	1			WSP 1957	Do.
1965	3				Blu.1	Do.
1966	1	1			WSP 1994, Blu.1	Do.
1967	5				Blu.1	Do.
1968	1	1			WSP 2096	Do.
07180050 Mud Creek near Marion, Kansas						Drainage area = 165 square miles
1964	1	1			WSP 1957	
Cedar Creek, Kansas NW1/4 sec. 5, T. 13 S., R. 12 W.						
1941	1				USBR-D	
07180400 Cottonwood River near Florence, Kansas						Drainage area = 754 square miles
Summary or interpretive publications[3]: Blu.1						
1961	2				Blu.1	
1962	9				do.	
1963	2				do.	
1964	1				do.	
1965	4				do.	
1966	1				do.	
1967	7				do.	
1969	6				do.	
1970	2				do.	
1971	5				do.	
1972	2				do.	
1973	1				do.	
1974	1				do.	
1975	3				do.	
1976	3				do.	
1978				2	USGS-L	
1979	1				Blu.1	
07180500 Cedar Creek near Cedar Point, Kansas						Drainage area = 110 square miles
Summary or interpretive publications[3]: Blu.1, Col.1, Jor.2, Ost.1, Ost.4, USEng.1						
1940	5				Blu.1	
1941	7				do.	
1942	8				do.	
1943	2				do.	
1944	16				do.	
1945	38				do.	
1946	4				do.	
1947	4				do.	
1948	1				do.	
1951	7				do.	
1952	4				do.	
1957	1				do.	
1958	4				do.	
1959	4				do.	
1960	5				do.	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1/] or office file[2/]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07180500 Cedar Creek near Cedar Point, Kansas--Continued						
1961	6				Blu.1	
1962	9				do.	
1963	2				do.	
1964	2				do.	
1965	3		1		Blu.1, USCE-T	
1966	3		1		WSP 1994, Blu.1	
1967	1				Blu.1	
1968	1				do.	
1969	7				do.	
1970	6				do.	
1971	11				do.	
1972	11				do.	
1973	8				do.	
1974	8				do.	
1975	10				do.	
1976	10				do.	
1977	6				do.	
1978	2				do.	
1979	2				do.	
1982	1	1			WRD-KS, 1982	
07181500 Middle Creek near Elmdale, Kansas						Drainage area = 92 square miles
Summary or interpretive publications [3/]: Blu.1, Col.1, USEng.1						
1940	3				Blu.1	
1941	9				do.	
1942	8				do.	
1944	14				do.	
1945	36				do.	
1946	5				do.	
1966			1		WSP 1994	
07182000 Cottonwood River at Cottonwood Falls, Kansas						Drainage area = 1,327 square miles
Summary or interpretive publications [3/]: Col.1						
1944	2				USCE-T	Before Marion Lake
1958	1				WSP 1884	Do.
1959	1				do.	Do.
1960	1				do.	Do.
1961	1				do.	Do.
1964	1	1			WSP 1957	Do.
1968	1				WSP 2096	Downstream from Marion Lake
1971	1	1			WRD-KS, 1971, part 2	Do.
07182250 Cottonwood River near Plymouth, Kansas						Drainage area = 1,740 square miles
Summary or interpretive publications [3/]: Blu.1, Ost.1						
1963	17				Blu.1	Before Marion Lake
1964	15	1			WSP 1957, Blu.1	Do.
1965	14				Blu.1	Do.
1966	9				do.	Do.
1967	19				do.	Do.
1968	9				do.	Downstream from Marion Lake
1969	16				do.	Do.
1970	12				do.	Do.
1971	12	1			WRD-KS, 1971; Blu.1	Do.
1972	12				Blu.1	Do.
1973	11				do.	Do.
1974	11				do.	Do.
1975	11	1			WRD-KS, 1975; Blu.1	Do.
1976	6				Blu.1	Do.
1977	5				do.	Do.
1978	2				do.	Do.
1979	1	1			WRD-KS, 1979, vol. 2; Blu.1	Do.
1980	2				USCE-T	Do.
1982	1				do.	Do.
07182260 Cottonwood River at Emporia, Kansas						Drainage area = 1,840 square miles
Summary or interpretive publications [3/]: Blu.1						
1940	1				Blu.1	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07182390 Neosho River at Neosho Rapids, Kansas						
Summary or interpretive publications[3]: Blu.1						
1942	2				Blu.1	Before Council Grove or Marion Lakes
1944	2				do.	Do.
1945	1				do.	Do.
07182400 Neosho River at Strawn, Kansas						Drainage area = 2,933 square miles
Summary or interpretive publications[3]: Blu.1						
1946	2				Blu.1	Before Council Grove or Marion Lakes
1949	4				do.	Do.
1950	7				do.	Do.
1951	9				do.	Do.
1952	6				do.	Do.
1954	1				do.	Do.
1955	1				do.	Do.
1956	1				do.	Do.
1957	3				do.	Do.
1958	2				do.	Do.
1960	2				do.	Do.
1961	2				do.	Do.
1962	7				do.	Do.
1963	1				do.	Do.
07182510 Neosho River at Burlington, Kansas						Drainage area = 3,042 square miles
Summary or interpretive publications[3]: Blu.1						
1944	2				Blu.1	Before John Redmond Reservoir
1961	3				do.	Do.
1962	16				do.	Do.
1963	10				do.	Do.
1964	10				do.	Downstream from John Redmond Reservoir
1965	9				do.	Do.
1966	10				do.	Do.
1967	14				do.	Do.
1968	11				do.	Do.
1969	7				do.	Do.
1970	10				do.	Do.
1971	11				do.	Do.
1972	16				do.	Do.
1973	21				do.	Do.
1974	6				do.	Do.
1975	12				do.	Do.
1976	11				do.	Do.
1977	9				do.	Do.
1978	4			1	Blu.1, USGS-L	Do.
1980	1				WRD-KS, 1980, vol. 2	Do.
07183000 Neosho River near Iola, Kansas						Drainage area = 3,818 square miles
Summary or interpretive publications[3]: Blu.1, Col.1,						
1940	3				Blu.1	Before large reservoirs
1944	2				do.	Do.
1945	13				do.	Do.
1946	8				do.	Do.
1947	2				do.	Do.
1948	3				do.	Do.
1949	4				do.	Do.
1951	7				do.	Do.
1952	6				do.	Do.
1958	1	1			WSP 1884, Blu.1	Do.
1961	2	2			do.	Do.
1966			1		WSP 1994, Blu.1	Downstream from John Redmond Reservoir
07183100 Owl Creek near Piqua, Kansas						Drainage area = 177 square miles
1969	3				WSP 2146	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
	07183200 Neosho River near Chanute, Kansas					Drainage area = 4,203 square miles
	Summary or interpretive publications[3]: Blu.1					
1940	12				Blu.1	Before large reservoirs
	07183400 Flat Rock Creek near St. Paul, Kansas					Drainage area = 139 square miles
	Summary or interpretive publications [3]: Blu.1					
1940	13				Blu.1	
1941	8				do.	
	07183500 Neosho River near Parsons, Kansas					Drainage area = 4,905 square miles
	Summary or interpretive publications [3]: Blu.1					
1958	1	1			WSP 1884, Blu.1	Before large reservoirs
1961	3	1			do.	Do.
1962	1				Blu.1	Do.
1968	1				WSP 2096	Downstream from John Redmond Reservoir
1976	12				WRD-KS, 1976; Blu.1	Do.
1977	10				WRD-KS, 1977; Blu.1	Do.
1978	8				WRD-KS, 1978; Blu.1	Do.
1979	11	1			WRD-KS, 1979, vol. 2; Blu.1	Do.
1980	11				WRD-KS, 1980, vol. 2; Blu.1	Do.
1981	11				WRD-KS, 1981	Do.
1982	7				WRD-KS, 1982	Do.
1983	8	8			WRD-KS, 1983	Do.
	07183600 Neosho River near Oswego, Kansas					Drainage area = 5,230 square miles
1907	[9] 22				WSP 273	Before large reservoirs
1908	do. 6				do.	Do.
	07183800 Limestone Creek near Beulah, Kansas					Drainage area = 12 square miles
1979	1				WRD-KS, 1979, vol. 2	
	07184000 Lightning Creek near McCune, Kansas					Drainage area = 197 square miles
	Summary or interpretive publications [3]: Blu.1, Col.1, Ost.1, Ost.2, Ost.4, USEng.1					
1940	10				Blu.1	
1941	8				do.	
1942	11				do.	
1943	5				do.	
1944	17				do.	
1945	12				do.	
1946	3				do.	
1966			1		WSP 1994	
1969	1				WSP 2146	
1976	6				WRD-KS, 1976; Blu.1	
1977	4				WRD-KS, 1977; Blu.1	
1978	8				WRD-KS, 1978; Blu.1	
1979	6				WRD-KS, 1979, vol. 2; Blu.1	
1980	9				WRD-KS, 1980, vol. 2; Blu.1	
1981	3				WRD-KS, 1981	
1982	6				WRD-KS, 1982	
1983	4				WRD-KS, 1983	
	07184060 Deer Creek near West Mineral, Kansas					Drainage area = 1.5 square miles
	Summary or interpretive publications[3]: Blu.1					
1977	1				WRD-KS, 1977; Blu.1	
1978	1				WRD-KS, 1978; Blu.1	
	07184070 Deer Creek near Hallowell, Kansas					Drainage area = 7.0 square miles
	Summary or interpretive publications[3]: Blu.1					
1977	5				WRD-KS, 1977; Blu.1	
1978	5				WRD-KS, 1978; Blu.1	
1979	2				WRD-KS, 1979, vol. 2; Blu.1	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment concentration	Number of analyses: Suspended-sediment particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
07184080 Deer Creek near Oswego, Kansas						Drainage area = 12 square miles
Summary or interpretive publications[3]: Blu.1						
1977	2				WRD-KS, 1977; Blu.1	
1978	4				WRD-KS, 1978; Blu.1	
07184100 Lightning Creek near Oswego, Kansas						Drainage area = 250 square miles
Summary or interpretive publications[3]: Blu.1						
1977	7				WRD-KS, 1977; Blu.1	
1978	2				WRD-KS, 1978; Blu.1	
1979	1				WRD-KS, 1979, vol. 2	
07184220 Cherry Creek near West Mineral, Kansas						Drainage area = 27 square miles
Summary or interpretive publications[3]: Blu.1						
1977	8				WRD-KS, 1977; Blu.1	
1978	11	1	1		WRD-KS, 1978; Blu.1	
1979	2				WRD-KS, 1979, vol. 2; Blu.1	
07184240 Little Cherry Creek near West Mineral, Kansas						Drainage area = 34 square miles
Summary or interpretive publications[3]: Blu.1						
1977	7				WRD-KS, 1977; Blu.1	
1978	5	1	1		WRD-KS, 1978; Blu.1	
07184300 Cherry Creek near Hallowell, Kansas						Drainage area = 90 square miles
Summary or interpretive publications[3]: Blu.1						
1977	13				WRD-KS, 1977; Blu.1	
1978	15	1			WRD-KS, 1978; Blu.1	
1979	7				WRD-KS, 1979, vol. 2; Blu.1	
1980	7				WRD-KS, 1980, vol. 2; Blu.1	
1981	3				WRD-KS, 1981	
07184500 Labette Creek near Oswego, Kansas						Drainage area = 211 square miles
Summary or interpretive publications[3]: Blu.1, Col.1, USEng.1						
1940	6				Blu.1	
1941	10				do.	
1942	12				do.	
1943	8				do.	
1944	13				do.	
1945	5				Blu.1, USCE-T	
07184590 Neosho River at Chetopa, Kansas						
Summary or interpretive publications[3]: Blu.1						
1978	1				Blu.1	
07184600 Fly Creek near Faulkner, Kansas						Drainage area = 27 square miles
Summary or interpretive publications[3]: Blu.1						
1977	1				WRD-KS, 1977; Blu.1	
07186010 Second Cow Creek at Pittsburg, Kansas						Drainage area = 60 square miles
Summary or interpretive publications[3]: Blu.1						
1977	11	2			WRD-KS, 1977; Blu.1	
1978	8	1			WRD-KS, 1978; Blu.1	
1979	1				WRD-KS, 1979, vol. 2; Blu.1	
1980	1				WRD-KS, 1980, vol. 2; Blu.1	

Table 5.-- *Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
07186020 First Cow Creek at Frontenac, Kansas Summary or interpretive publications[3]: Blu.1						Drainage area = 30 square miles
1977	2	1			WRD-KS, 1977; Blu.1	
1978	2				WRD-KS, 1978; Blu.1	
1980	1				WRD-KS, 1980, vol. 2; Blu.1	
07186025 East Cow Creek at Frontenac, Kansas Summary or interpretive publications[3]: Blu.1						Drainage area = 7.5 square miles
1977	1				WRD-KS, 1977; Blu.1	
1978	2				WRD-KS, 1978; Blu.1	
07186030 East Cow Creek near Pittsburg, Kansas Summary or interpretive publications[3]: Blu.1						Drainage area = 43 square miles
1977	7				WRD-KS, 1977; Blu.1	
1978	8				WRD-KS, 1978; Blu.1	
1979	3				WRD-KS, 1979, vol. 2; Blu.1	
1980	1				WRD-KS, 1980, vol. 2; Blu.1	
07186040 Cow Creek near Weir, Kansas Summary or interpretive publications [3]: Blu.1						Drainage area = 170 square miles
1977	13	1			WRD-KS, 1977; Blu.1	
1978	15	1			WRD-KS, 1978; Blu.1	
1979	9				WRD-KS, 1979, vol. 2; Blu.1	
1980	8				WRD-KS, 1980, vol. 2; Blu.1	
1981	2				WRD-KS, 1981	
07186050 Brush Creek near Weir, Kansas Summary or interpretive publications[3]: Blu.1						Drainage area = 30 square miles
1977	1				WRD-KS, 1977; Blu.1	
1978	3				WRD-KS, 1978; Blu.1	
1979	2				WRD-KS, 1979, vol. 2; Blu.1	
1980	1				WRD-KS, 1980, vol. 2; Blu.1	
Spring River at Baxter Springs, Kansas						Drainage area = 1,890 square miles
1907	29				WSP 273	
1908	5				do.	
370225094442600 Willow Creek at Baxter Springs, Kansas						
1979	1				WRD-KS, 1979, vol. 2	
370503094382200 Short Creek at Galena, Kansas						
1978	1				WRD-KS, 1978	
1979	1				WRD-KS, 1979, vol. 2	
1981	1				WRD-KS, 1981	
370530095025900 Cherry Creek 3 miles west of Faulkner, Kansas						
1978	1				WRD-KS, 1978	
370618095012701 Center Creek 6.5 miles southwest of Hallowell, Kansas						
1978	1				WRD-KS, 1978	
370621095024900 Cherry Creek 2 miles west of Faulkner, Kansas						
1978	1				WRD-KS, 1978	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
370802094565201 Tributary to Cherry Creek 5.5 miles northeast of Hallowell, Kansas						
1978	1				WRD-KS, 1978	
370803095013601 Cherry Creek 4.5 miles southwest of Hallowell, Kansas						
1978	1				WRD-KS, 1978	
370957095034400 Neosho River 2 miles east of Oswego, Kansas						
1978	1				WRD-KS, 1978	Downstream from John Redmond Reservoir
371020094572701 Denny Branch Creek 3 miles east of Hallowell, Kansas						
1978	1				WRD-KS, 1978	
371132094581801 Cherry Creek 2 miles northeast of Hallowell, Kansas						
1978	1				WRD-KS, 1978	
371222094573100 Cherry Creek 3 miles northeast of Hallowell, Kansas						
1979	1		1		WRD-KS, 1978	
371310094530801 Tributary to Little Cherry Creek 6.5 miles south of West Mineral, Kansas						
1978	1				WRD-KS, 1978	
371323094521201 Tributary to Little Cherry Creek 7.5 miles southeast of West Mineral, Kansas						
1978	1				WRD-KS, 1978	
371323094534101 Tributary to tributary to Little Cherry Creek 5.5 miles south of West Mineral, Kansas						
1978	1				WRD-KS, 1978	
371320094391100 Cow Creek near Lawton, Kansas						
1977	1				WRD-KS, 1977	
373747094380200 Cox Creek 1 mile south of Arcadia, Kansas						
1977	1				WRD-KS, 1977	
374109094370400 Cox Creek 2 mile north of Arcadia, Kansas						
1977	1				WRD-KS, 1977	
371414094524100 Little Cherry Creek 4 miles southeast of West Mineral, Kansas						
1978	1				WRD-KS, 1978	
371415096274100 Caney River near Cloverdale, Kansas						
1966			1		WSP 1994	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses				Publication[1] or office file[2]	Additional information
	Suspended-sediment		Bed-material size	Bank-material size		
	Concentration	Particle size				
371502094551101 Tributary to Cherry Creek 1.5 miles south of West Mineral, Kansas						
1978	1				WRD-KS, 1978	
371514094541700 Cherry Creek 2 miles southeast of West Mineral, Kansas						
1978	1				WRD-KS, 1978	
371554094544701 Tributary to Cherry Creek 2 miles south of West Mineral, Kansas						
1978	1				WRD-KS, 1978	
371600094502000 Little Cherry Creek 2 miles southwest of Scammon, Kansas						
1978	1				WRD-KS, 1978	
371652094531800 Cherry Creek 2 miles east of West Mineral, Kansas						
1978	1				WRD-KS, 1978	
371738094482801 Little Cherry Creek 1.5 miles northeast of Scammon, Kansas						
1978	1				WRD-KS, 1978	
371805094520601 Cherry Creek 4 miles northeast of West Mineral, Kansas						
1978	1				WRD-KS, 1978	
373747094380200 Cox Creek 1 mile south of Arcadia, Kansas						
1978	1				WRD-KS, 1978	
374946095580000 Verdigris River near Quincy, Kansas						
1966			1		WSP 1994	
375510096231700 East Branch Fall River near Lapland, Kansas						
1966			1		WSP 1994	
375559098243600 North Fork Ninnescah River near Sylvia, Kansas						
1966			1		WSP 1994	
380914100271300 Pawnee River near Kalvesta, Kansas						
1966			1		WSP 1994	
381000096094900 North Branch Verdigris River near Seeley Corner, Kansas						
1966			1		WSP 1994	
381606099542200 Pawnee River near Jetmore, Kansas						
1966			1		WSP 1994	
382020101041000 Whitewoman Creek near Modoc, Kansas						
1966	1	1			WSP 1994	

Table 5.--*Inventory of sediment data for streams in Kansas and adjacent areas through 1983*--Continued

Water year	Number of analyses: Suspended-sediment Concentration	Number of analyses: Suspended-sediment Particle size	Number of analyses: Bed-material size	Number of analyses: Bank-material size	Publication[1] or office file[2]	Additional information
382212097592100 Little River near Windom, Kansas						
1966			1		WSP 1994	
382423094512100 Middle Creek near Fontana, Kansas						
1981	1				WRD-KS, 1981	
382449096063500 Neosho River near Emporia, Kansas						
1966			1		WSP 1994	Downstream from Council Grove Lake

1. Publications--data:

   WRD-KS = U.S. Geological Survey, Water resources data for Kansas [year]
   WRD-NE = U.S. Geological Survey, Water resources data for Nebraska [year]
   WSP = U.S. Geological Survey Water-Supply Paper [volume number]
   SSMR = Suspended sediment in the Missouri River, 5-year data publication by U.S. Army Corps of Engineers, Omaha, Nebraska
   Blu.1 = Blumer, 1983
   HD-238 = U.S. Congress, House Document 238, 1934

2. Office files:

   SCS = U.S. Soil Conservation Service, Salina, Kansas, or Lincoln, Nebraska
   USBR-D = U.S. Bureau of Reclamation, Denver, Colorado
   USCE-A = U.S. Army Corps of Engineers, Albuquerque, New Mexico
   USCE-KC = U.S. Army Corps of Engineers, Kansas City, Missouri
   USCE-O = U.S. Army Corps of Engineers, Omaha, Nebraska
   USCE-T = U.S. Army Corps of Engineers, Tulsa, Oklahoma
   USGS-L = U.S. Geological Survey, Lawrence, Kansas
   USGS-LN = U.S. Geological Survey, Lincoln, Nebraska

3. Publications--summary or interpretive reports:

   Alb.1 = Albert, 1969
   Alb.2 = Albert and Stramel, 1966
   Bev.1 = Bevans, 1982
   Blu.1 = Blumer, 1983
   Car.1 = Carswell, 1981
   Col.1 = Collins, 1965
   Jor.1 = Jordan, Jones, and Petri, 1964
   Jor.2 = Jordan, 1979
   Mun.1 = Mundorff and Scott, 1964
   Ost.1 = Osterkamp, 1977a
   Ost.2 = Osterkamp, 1977b
   Ost.3 = Osterkamp, Curtis, and Crowther, 1982
   Ost.4 = Osterkamp, 1978
   Ost.5 = Osterkamp and Hedman, 1982
   Tas.1 = Task Force on Sedimentation, 1969
   USEng.1 = U.S. Engineer Office, 1946

4. Publication gives daily record of suspended-sediment discharge for part of year.

5. Publication gives daily record of suspended-sediment discharge for the full year.

6. Monthly weighted mean.

7. Publication includes daily record of mean suspended-sediment concentration and suspended-sediment discharge for part of the year.

8. Publication includes daily record of suspended-sediment concentration and suspended-sediment discharge for the full year.

9. Composites of samples collected at different times.

10. Surface samples.

11. Sets of point-integrated samples analyzed for suspended-sediment concentration and particle size.