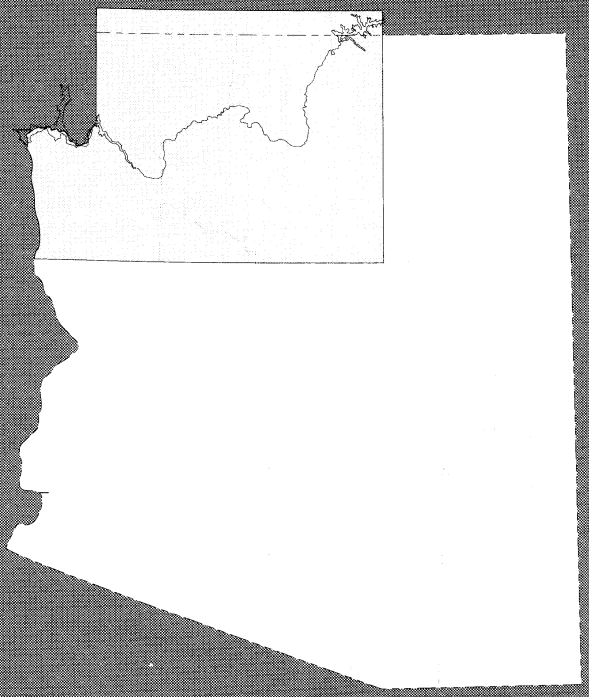
Streamflow and Sediment-Transport Data, Colorado River and Three Tributaries in Grand Canyon, Arizona, 1983 and 1985–86

U.S. GEOLOGICAL SURVEY
Open-File Report 93–174



Prepared in cooperation with the
U.S. BUREAU OF RECLAMATION

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By William B. Garrett, Ellen K. Van De Vanter, and Julia B. Graf

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Tucson, Arizona
November 1993

U.S. DEPARTMENT OF THE INTERIOR
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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	*By*	*To obtain*
inch (in.)	25.4	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
square miles (mi^2)	2.590	square kilometer
acre	0.4047	hectare
acre-foot (acre-ft)	0.001233	cubic hectometer
cubic foot per second (ft^3/s)	0.02832	cubic meter per second
ton (short)	0.972	megagram
Fahrenheit (°F)	C = 5/9 (°F-32)	degree Celsius

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called "Sea Level Datum of 1929."

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ABSTRACT

The U.S. Geological Survey collected streamflow and sediment-transport data at five streamflow-gaging stations on the Colorado River between Glen Canyon Dam and Lake Mead as a part of an interagency environmental study. The data were collected for about 6 months in 1983 and about 4 months in 1985–86; data also were collected at three sites on tributary streams in 1983. The data were used for development of unsteady flow-routing and sediment-transport models, sand-load rating curves, and evaluation of channel changes. For the 1983 sampling period, 1,076 composite cross-section suspended-sediment samples were analyzed; 809 of these samples were collected on the main stem of the Colorado River and 267 samples were from the tributaries. Bed-material samples were obtained at 1,988 verticals; 161 samples of material in transport near the bed (bedload) were collected to define the location of sand, gravel, and bedrock in the channel cross section; and 664 discharge measurements were made. For the 1985–86 sampling period, 765 composite cross-section suspended-sediment samples and 887 individual vertical samples from cross sections were analyzed. Bed-material samples were obtained at 531 verticals, 159 samples of bedload were collected, and 218 discharge measurements were made. All data are presented in tabular form. Some types of data also are presented in graphs to better show trends or variations.

INTRODUCTION

In 1983, the U.S. Geological Survey (USGS) began an intensive program of collecting streamflow and sediment data on the Colorado River as part of the Glen Canyon Environmental Studies (GCES)—an interagency study funded and directed by the Bureau of Reclamation (BOR). The goal of GCES was to determine whether dam releases at Glen Canyon Dam were adversely affecting the environmental and recreational resources in the Grand Canyon National Park (fig. 1) and whether alternative methods of releasing flow could protect or enhance those resources. From 1983–86, GCES concentrated on the river reach from Lees Ferry, Arizona, to the confluence of Diamond Creek and the Colorado River (fig. 1).

The completion of Glen Canyon Dam in 1963 and the subsequent filling of the reservoir formed by the dam—Lake Powell—in 1980 changed the behavior and characteristics of the Colorado River between Glen Canyon Dam and Lake Mead. Flow regulation for water storage and delivery and for power generation has increased the range and rate of change of discharge in a given day. Lake Powell acts as a sediment trap, and

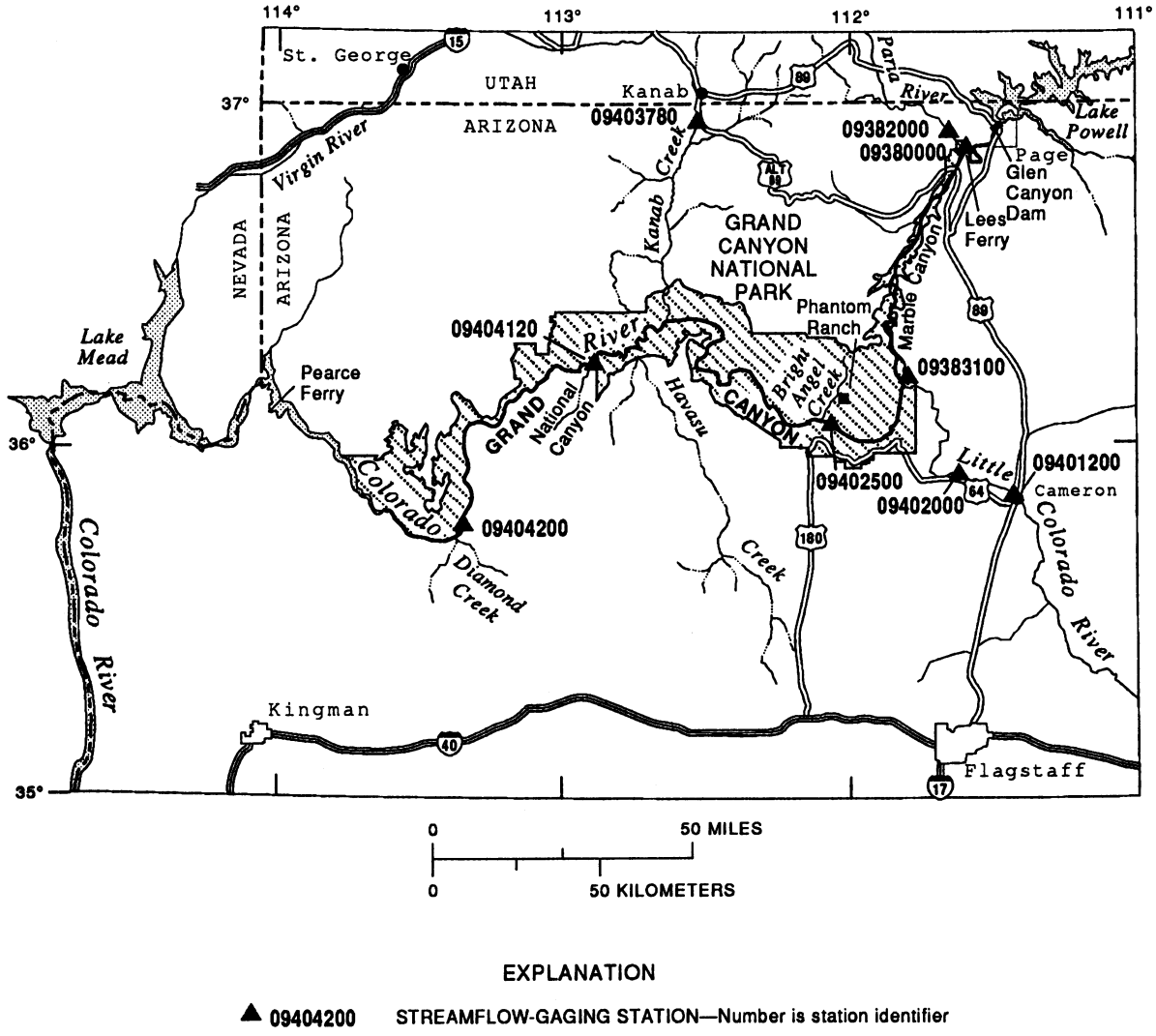

Figure 1. Colorado River through the Grand Canyon and selected streamflow-gaging stations.

sediment concentrations downstream from the dam have been greatly reduced. After 20 years of flow regulation, water managers were concerned that the increased short-term variations in flow releases from Glen Canyon Dam and the decreased sediment load were causing erosion of sand deposits along the channel margins of the Colorado River through the Grand Canyon. These sand deposits are used for camping sites for hikers and boaters and serve as a substrate for native vegetation. Sand deposits along the channel banks also form low-velocity areas that could be critical to the survival of native fish species. Downstream from the dam, sediment is contributed by major tributaries, such as the Little Colorado and Paria Rivers and Kanab Creek, and by small tributaries. Estimates of sand contributed by these streams were made from data contained in this report. These estimates show that tributaries downstream from the dam supply more sand than is transported out of the reach when flows remain within powerplant range.

The flow-measurement and sediment-sampling program was designed to provide stage and discharge data for calibration of an unsteady

flow-routing model, suspended-sediment and bed-material data for development of total sand-load rating curves and calibration of a sediment-transport model, and hydraulic data for evaluation of channel changes. Data were used to prepare GCES reports that directly address sediment transport and hydraulics (U.S. Department of the Interior, 1988; Schmidt and Graf, 1990; Burkham, 1986; Lazenby, 1987; Pemberton, 1987; Randle and Pemberton, 1987) as well as reports on other phases of the GCES. A list of all reports resulting from the first phase (1983–88) of the GCES is included in the first-phase final report (U.S. Department of the Interior, 1988).

Purpose and Scope

The purpose of this report is to present data collected for the GCES by the USGS from streamflow-gaging stations in 1983 and 1985–86. All data are presented in tabular form; some data also are presented in graphs to better illustrate particular concepts that are not readily visible from tables. Data are presented on discharge, flow velocity, size and concentration of suspended sediment, and size of bed material and bedload collected at five streamflow-gaging stations on the main stem of the Colorado River between Lake Powell and Lake Mead. Suspended-sediment and discharge data from three tributaries within the study reach also are presented.

Acknowledgments

Data could not have been collected without the help of many individuals who provided logistical support. Fred Burke, Pam Manning Whitney, and Jon Stoner of Arizona River Runners and Mark Sleight of Sleight Expeditions oversaw the equipment, personnel, and supplies for support of the field crews. Lou Steiger, Tim Whitney, Jon Stoner, Jeff Voss, and Stewart Reeder operated rafts and provided field support. Rick Irizarry and Bob Marley managed equipment, food, and logistics for the USGS. Kim Claypool, Joanne Spiess Doughman, Tracy Fraas, Julie Galton, Polly Hays, Heidi Herendeen, Diane Hoffman, Marty Hoffman, Todd Holmes, Jim Kirchvink, Bill Loughlin, Mike Lowry, Janet Marks, Karen Modesto, Mimi Murov, John Pittman, Glenn Rink, Jim Rothney, Joe Rumann, Sherrylee Schnell, Ken Thiessen, Jeff West, Steve Wilson, and Tom Wise camped at the streamflow-gaging stations and collected the data, frequently under primitive and uncomfortable conditions.

Description of the Study Area

The Colorado River originates in Colorado, has a total drainage area of about 250,000 mi^2, and flows through parts of seven western states. The river channel extends about 1,400 mi from its headwaters to the Gulf of California. Lake Powell and Lake Mead are 2 of 13 major reservoirs on the Colorado River and its tributaries. The completion of Glen Canyon Dam in 1963 and the subsequent filling of Lake Powell in 1980 changed the behavior and characteristics of the Colorado River between the dam and Lake Mead. Flow regulation for water storage and delivery and for power generation has reduced the frequency of discharges greater than the powerplant maximum of about 33,200 ft^3/s but has increased the range and rate of change of discharge in a given day. Dam releases can range from 1,000 to 33,200 ft^3/s in a day. For 1966–89, the discharge range in a given day was greater than 11,000 ft^3/s for more than 50 percent of the time (U.S. Bureau of Reclamation, Water Management Section, Denver, Colorado, Draft of report "Historic streamflows, water releases, and reservoir storage for Glen Canyon Dam and Lake Powell," written commun., 1990).

Stream temperature also has been altered since the completion of Glen Canyon Dam because water is drawn from a constant elevation in the hypolimnion of Lake Powell. Constant temperature of releases of about 10°C results in lower summer water temperatures and higher winter temperatures than during the pre-impoundment period. As a result of lower summer water temperatures and greatly reduced sediment loads, an excellent trout fishery was developed that extends 60 to 80 mi downstream from Glen Canyon Dam.

Sediment loads in the Colorado River were legend in the past. Today, Lake Powell acts as a sediment trap, and sediment concentrations downstream from the dam have been greatly reduced. Annual suspended-sediment load at Lees Ferry decreased from 65.4 million tons in 1948–62 to an estimated 0.4 million tons in 1982–86. Downstream from the dam, sediment is contributed by major tributaries draining the Colorado Plateau, mainly Kanab Creek and the Paria and Little Colorado Rivers, and by small tributaries originating within the canyon rims (Webb and others, 1989). Estimates of sand contributed by these streams were made from data contained in this report (U.S. Department of the Interior, 1988; Pemberton, 1987) and in a report by Webb and others (1989). These estimates show that tributaries downstream from the dam supply more sand than is transported out of the reach when flows remain within the powerplant range (U.S. Department of the Interior, 1988).

SAMPLING PLAN

Stage was measured continuously at all streamflow-gaging stations in the study reach for the two sampling periods—1983 and 1985–86. Discharge measurements were made and sediment samples were collected by technicians when the sites were occupied. Sediment samples were collected for the determination of suspended-sediment concentration and size distribution, bed-material size distribution, and for some sites, concentration and size distribution of the fraction transported within 3 in. of the bed (bedload). Channel cross sections were measured as a part of discharge measurements and suspended-sediment sampling. Point suspended-sediment samples were collected and point flow velocities were measured during 1985–86.

Selection of Sampling Sites

Personnel of the USGS, BOR, and the National Park Service made a reconnaissance trip down the river on April 6, 1983, to locate sites for streamflow-gaging stations and cableways to monitor stream stage, measure discharge, and sample sediment. Two long-term streamflow-gaging stations—Colorado River at Lees Ferry (09380000) and Colorado River near Grand Canyon (09402500)—were used because of their long continuous record of discharge and sediment transport. The discharge record at Colorado River at Lees Ferry began in 1895 and the suspended-sediment record began in 1928; the discharge record at Colorado River near Grand Canyon began in 1922 and the suspended-sediment record began in 1925. Three new sites were selected along the main stem. These new sites, along with two long-term gaging stations, divide the 225-mile length of the river from Lees Ferry to Diamond Creek into four reaches that served as the basis for the BOR's sediment-transport model (Randle and Pemberton, 1987) (fig. 1). Sites were selected to isolate the major sand inputs to the study reach—Kanab Creek and the Paria and Little Colorado Rivers. These sites also were selected to provide good measurement and sampling locations and to be feasible for installation of cableways. The gaging stations at the beginning and end of the study reach are accessible by road, but the three stations between Lees Ferry and Diamond Creek are accessible only by rafts that leave from Lees Ferry and are taken out at Diamond Creek, by hiking trails, or by helicopter. The gaging station near Grand Canyon also can be reached by pack mules.

Of the four study reaches, the first and most upstream reach extends from the streamflow-gaging station, Colorado River at Lees Ferry, to the streamflow-gaging station, Colorado River above Little Colorado River near Desert View (09383100), and includes the Paria River drainage (1,410 mi^2). Discharge of the Paria River was measured and samples were collected at or near the gaging station, Paria River at Lees Ferry (09382000), 1.1 mi upstream from the mouth. The second reach extends from the gaging station, Colorado River above Little Colorado River near Desert View, to the gaging station, Colorado River near Grand Canyon, and includes the Little Colorado River drainage (26,944 mi^2). The Little Colorado River is the largest tributary in the study area. Little Colorado River discharge was

measured at the gaging station, Little Colorado River near Cameron (09402000), 45 mi upstream from the mouth (26,459 mi^2); whereas, suspended sediment was measured at Little Colorado River at Cameron (09401200), 57.5 mi upstream from the mouth (24,000 mi^2). The third reach extends from the gaging station, Colorado River near Grand Canyon, to the gaging station, Colorado River above National Canyon near Supai (09404120), and includes the drainage of Kanab Creek (1,085 mi^2). Kanab Creek is the third tributary sampled in this study, and measurements were made and samples were collected at the gaging station, Kanab Creek near Fredonia (09403780). The fourth reach extends from the gaging station, Colorado River above National Canyon, to the gaging station, Colorado River above Diamond Creek near Peach Springs (09404200). For the remainder of the report, gaging station 09383100 is referred to as Colorado River above the Little Colorado River, gaging station 09404120 as Colorado River above National Canyon, and gaging station 09404200 as Colorado River above Diamond Creek.

Sampling Periods

Data were collected for about 6 months in 1983 and about 4 months in 1985–86 (tables 1–72 at the back of the report). The 1983 period covered the recession from the largest post-dam flood followed by a period of nearly steady flows at the high end of the powerplant range (fig. 2). The 1985–86 period covered releases more typical of powerplant releases before the flood of 1983 (figs. 2 and 3).

Raft trips were scheduled to leave Lees Ferry on June 30, 1983, to establish camps and begin data collection. On June 29, however, an unexpected higher-than-normal inflow from spring runoff to Lake Powell filled the lake to capacity and necessitated the release of the highest discharge—97,300 ft^3/s—since the dam was completed in 1963. Because of the danger created by the high water, the National Park Service closed the river to raft traffic. Sampling began at different times for the five main-stem streamflow-gaging stations because some stations were inaccessible at high flows.

Sampling began in 1983 as soon as the streamflow-gaging stations were accessible. The sampling periods at each station on the main stem and the tributaries were as follows:

Streamflow-gaging station	Sampling period
Main stem	
Colorado River:	
at Lees Ferry	June 29 to December 11
above Little Colorado River	July 12 to December 13
near Grand Canyon	July 1 to December 14
above National Canyon	July 15 to December 7
above Diamond Creek	August 6 to December 19
Tributaries	
Paria River at Lees Ferry	July 1 to December 3
Little Colorado River at Cameron	July 27 to November 3
Kanab Creek near Fredonia	August 2 to December 13

River discharge during the high flow of 1983 was regulated on the basis of the high inflow to Lake Powell that necessitated the release of water through river outlet works and over the spillway at Glen Canyon Dam in addition to the powerplant releases. By August 10, 1983, the daily mean discharge at Lees Ferry had decreased to 29,400 ft^3/s and remained in the range of the mid-20,000 ft^3/s through the end of the 1983 sampling period.

The 1985–86 sampling period began on October 1, 1985, and ended on February 2, 1986. During most of the period, flow was released from the dam in a manner similar to operation of the dam for power generation. The period was designed specifically for the studies because conditions prior to October 1985 had precluded the study of typical powerplant releases. Predictions of high inflow to the reservoir and low reservoir storage capacity forced the return to less variable releases at the upper end of the powerplant release range in the middle of January 1986, about 2 weeks before the scheduled end of the "fluctuating flow test period" (fig. 2). Daily mean discharge at Lees Ferry ranged from 3,690 to 23,100 ft^3/s (tables 69–72) in the 4 months from October 1985 through January 1986. Maximum and minimum instantaneous discharges during the sampling period at each of the main-stem stations were as follows:

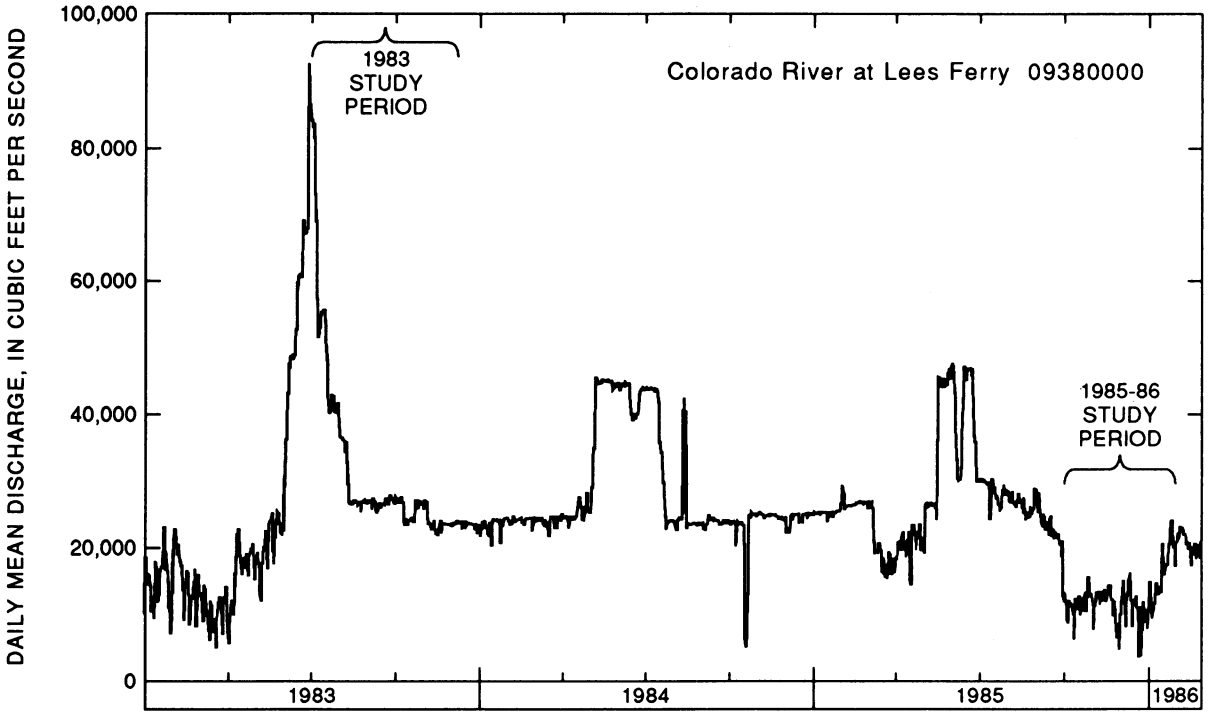

Figure 2. Daily mean discharge at Lees Ferry, 09380000, January 1983 through February 1986.

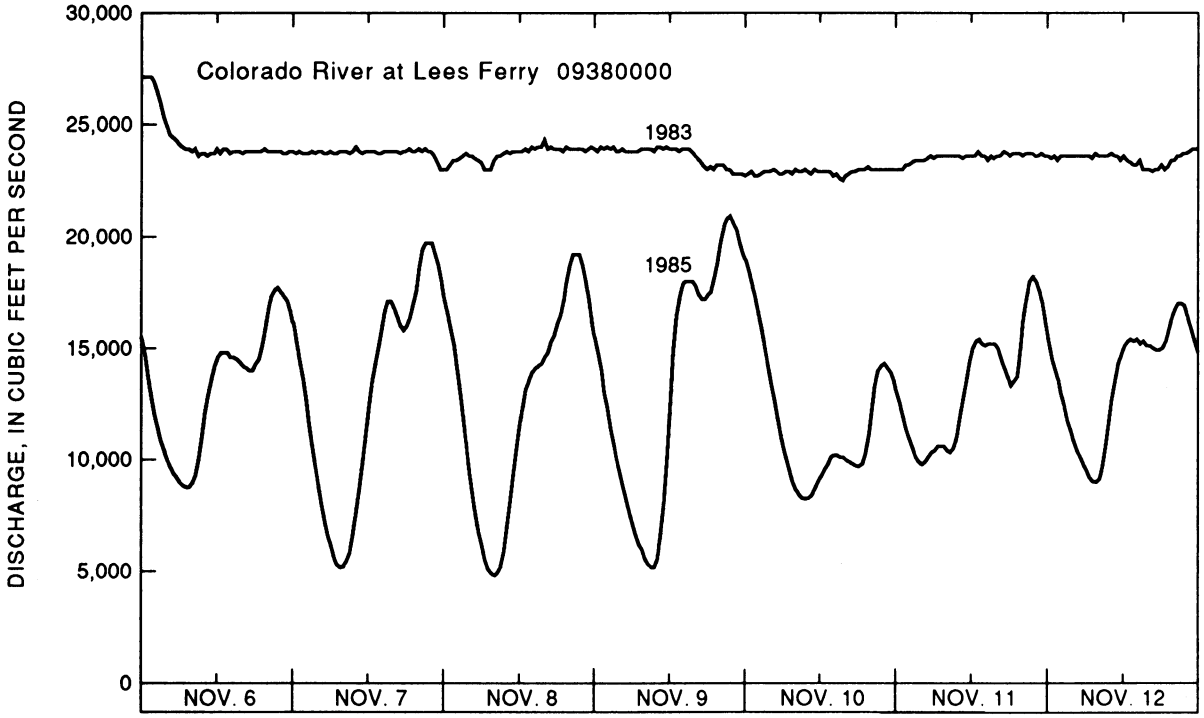

Figure 3. Typical discharge for Colorado River at Lees Ferry, 09380000, for the 1983 and 1985-86 sampling periods.

Streamflow-gaging station	Instantaneous discharge, in cubic feet per second	
	Maximum	Minimum
Colorado River:		
at Lees Ferry (09380000)	24,500	2,090
above Little Colorado River (09383100)	23,500	4,410
near Grand Canyon (09402500)	25,200	6,220
above National Canyon (09404120)	28,600	3,100
above Diamond Creek (09404200)	28,100	4,020

Hourly discharges for typical days in 1983 and 1985–86 illustrate the difference in daily discharge patterns between the 1983 and 1985–86 sampling periods (fig. 3).

During 1985–86, sediment data were not collected on the tributaries. The streamflow-gaging stations on the Paria River at Lees Ferry and on the Little Colorado River near Cameron were operated to provide daily mean discharge.

Sampling Strategy

In June 1983, a sampling strategy was agreed upon by the USGS and the BOR. The sampling strategy for data collection for the 1983 period at the five main-stem sites was as follows:

Day	Activity
1	Suspended-sediment sample with 20 to 25 verticals and a bed-material sample with 20 to 25 verticals.
2, 4, 6, 8, 10	Discharge measurement and suspended-sediment sample with 10 to 15 verticals.
3, 5, 7, 9	Two suspended-sediment samples with 10 to 15 verticals each.

The sampling strategy was modified for the 1985–86 sampling period to enable samples to be collected over the entire daily hydrograph because of the large range in discharge released from Glen Canyon Dam during each day (fig. 3). Crews spent 4 days at the sites downstream from Lees Ferry and sampled 24 hours a day. At the beginning of the program, 2 days were spent at Lees Ferry, but midway through the sampling period, the stay at Lees Ferry was reduced to 1 day. A typical 4-day-sampling schedule for the 1985–86 period is shown in figure 4. Crews occupied each site for a 10-day period and were rotated to ensure continuous occupation. Crews were rotated in such a way as to give eight sampling periods at each site.

DATA COLLECTION

Stage Measurement

Four sites—Paria River at Lees Ferry, Little Colorado River near Cameron, Colorado River at Lees Ferry, and Colorado River near Grand Canyon—were long-term USGS streamflow-gaging stations. These stations were equipped with stilling wells and a float-operated analog, digital, and satellite-recording system that recorded the river stage at 30-minute intervals (Colorado River) or at 15-minute intervals (Paria and Little Colorado Rivers). The tributary streamflow-gaging station on Kanab Creek (09403780) is a stilling well equipped with a float-operated analog recorder.

The three new main-stem sites had a gas-pressure system connected to a pressure transducer. A transducer translates the change in pressure with stage into voltage, which was recorded on a Omnidata DATAPOD[1] recorder. Voltages were converted to stage after retrieval of voltage data in the office. River-stage readings at 5-minute intervals were averaged and recorded for each hour of gage operation.

For the 1983 and 1985–86 sampling periods, discharge measurements were made using methods described in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A8 (Buchanan and Somers, 1969). Point-velocity measurements were made in 1985–86 at the points where suspended-sediment

[1]Use of brand names in this report is for identification purposes only and does not constitute endorsement by the U.S. Geological Survey.

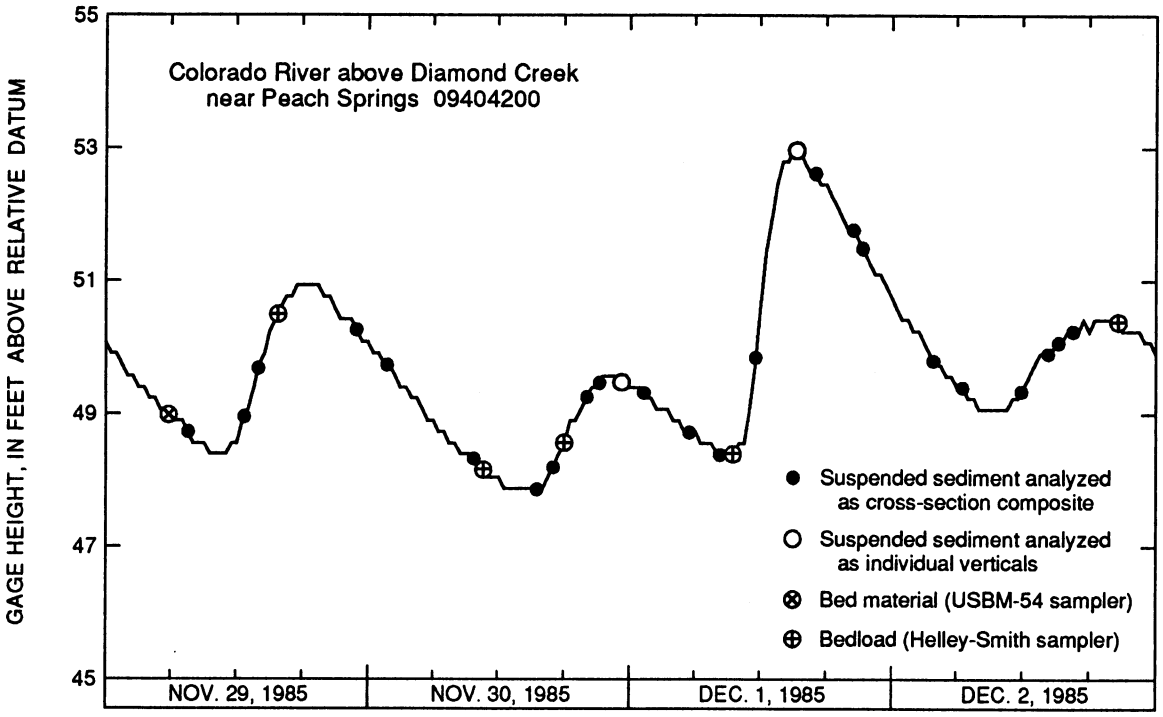

Figure 4. Typical sampling schedule for Colorado River above Diamond Creek near Peach Springs, 09404200, for the 1985-86 sampling period.

samples were collected. Velocity measurements were made with a Price AA current meter mounted above the point suspended-sediment sampler.

All discharge measurements and sediment samples at main-stem streamflow-gaging stations were collected from cable cars mounted on 7/8-inch aircraft cable. Cable cars at Colorado River sites were a modified version of the standard USGS cable car equipped with an 8-horsepower gasoline engine that drove a hydraulically controlled reel. The reel was used to suspend current meters and to provide a constant speed of lowering and raising the suspended-sediment samplers to ensure a constant and repeatable transit rate during sampling. The cable cars were further modified for the 1985–86 sampling period to include a hydraulically powered motor to move the car along the cable and electric lights for night-sampling operations. Tetherlines were not used at any of the cableways for any measurements or sampling for either of the sampling periods. Discharge measurements were made with a Price AA current meter and a standard current-meter rating (Buchanan and Somers, 1969).

Suspended-Sediment Sampling

In 1983, two types of suspended-sediment samplers were used—the USP-61A1 and the USD-77 (Guy and Norman, 1970; Edwards and Glysson, 1988, p. 14). These samplers were used to collect depth-integrated water samples for analysis of suspended-sediment concentration, size distribution, and spatial distribution of sediment in the cross section. During the early stages of the 1983 sampling period, the USD-77 sampler was utilized because of the large (3-liter) sample capacity, but high flows necessitated the addition of weights above the sampler and use of a smaller-than-standard nozzle. The USP-61A1 sampler was used in 1985–86 to collect suspended-sediment samples.

Bed Material and Bedload

A USBM-54 bed-material sampler (Federal Inter-Agency Sedimentation Project of the

Inter-Agency Committee on Water Resources, 1964) was used to collect samples of the bed material in both sampling periods. Bed-material samples for both periods were collected at 10 to 25 verticals at each site. At verticals where bed material could not be obtained, at least two attempts were made before reporting a "no return." Verticals to be sampled in 1985–86 were determined from analysis of the 1983 data to help further define cross-section variations.

A bedload sampler of the Helley-Smith type (Helley and Smith, 1971) with a 3-inch-square orifice and flare ratio of 3.22 was used to sample material in transport in the zone within 3 in. of the bed. A sample-collection bag with a mesh size of 0.25 was used on the Helley-Smith sampler. The Helley-Smith bedload sampler had not been adopted by the USGS as standard equipment at the time of the study, and provisional methods for the use of the sampler were followed. A sampler with a flare ratio of 1.4 has since been adopted as standard equipment by the USGS, but data from samplers with flare ratios of 3.22 are still being accepted (H.E. Jobson, Hydrologist, U.S. Geological Survey, written commun., 1990). During 1983, the Helley-Smith sampler was used to sample verticals at two sites—Colorado River above Little Colorado River and Colorado River above National Canyon—to determine the amount of bed material in transport near the bed. In 1985–86, the Helley-Smith sampler was used to sample the cross section at least one time during each visit at each site. The Equal-Width-Increment method (Edwards and Glysson, 1988) was used for sampling. A Helley-Smith sample consisted of at least 20 verticals sampled where the sampler remained on the bed for 30 seconds at each vertical. All verticals were sampled twice, which required two traverses of the section.

METHODS OF ANALYSIS

Discharge

Stage-discharge relations were developed for all streamflow-gaging stations using techniques described by Kennedy (1984). For four of the five main-stem streamflow-gaging stations, daily mean discharge was computed for both sampling periods using methods described by Kennedy (1983). Data were insufficient for computation of daily mean discharge for the fifth gaging station.

Suspended-Sediment Sampling

Depth-integrated water samples were collected for suspended-sediment concentration and grain-size distribution using the Equal-Width-Increment method (Edwards and Glysson, 1988). Samples were analyzed either by compositing all sample verticals into one cross-section sample or by separately analyzing samples from individual verticals. Samples to be composited were individually weighed, passed through a 0.0625-millimeter (mm) sieve, and placed into a churn splitter in the field. The material retained on the sieve was placed in a 50-milliliter (mL) plastic bottle for transport to the laboratory. The remaining silt-clay fraction (<0.0625 mm) in the churn splitter was then agitated at a uniform rate of about 9 in./s. After about 10 strokes to ensure uniform dispersion of the suspended-sediment material, three 500-mL sample bottles of the mixture were withdrawn from the churn to be sent to the laboratory. When the suspended-sediment concentration was very low, the silt-clay fraction was filtered through a 0.045-micron filter that retained the remaining sediment. The filters were weighed at the laboratory; one filter containing the sample and the second unused filter were sent to the laboratory and reweighed to check for change in original weight of the filter.

The composite samples were sent to the BOR Interregional Soils and Water Laboratory in Denver to be analyzed for suspended-sediment concentration and particle-size distribution (Guy, 1970). Particle size was determined using sieves for the sand fraction and a Leads and Northrup microtrac particle-size analyzer for the silt-clay fraction. The individual vertical samples were weighed in the field and sent to the USGS sediment laboratory in Tucson, Arizona, where they were analyzed for suspended-sediment concentration and percent finer than 0.0625 mm. A minimum of about 0.02 grams of sand is required for an accurate sieve

analysis, more is required if the sample contains particles of 1.0 mm or larger (Guy, 1970). Some of the samples may not have met this criteria.

For the initial samples in early 1983, the BOR laboratory in Denver analyzed all three 500-mL bottles individually to check the reproducibility of the churn samples. These tests showed less than a 10-percent variation between the three 500-mL bottles, which is well within the accuracy of the sample. Therefore, during the remainder of the 1983 sampling period, only one bottle was analyzed for 90 percent of the samples; all three bottles were analyzed for the remaining 10 percent of the samples.

Suspended-sediment samples were collected in 1985–86 similar to the way that samples were collected in 1983. Some suspended-sediment samples during the later period were collected with a Price AA current meter suspended above the USP-61A1 sampler to measure velocities in the sampled vertical. Generally, fewer verticals were sampled when a current meter was attached than when the standard method was used. The sampling of fewer verticals minimized the error in sampling caused by the rapid change in stage characteristic of dam releases. Two 500-mL bottles were sent to the BOR laboratory during 1985–86 and the laboratory continued to analyze one bottle.

Bed Material and Bedload

All bed-material and bedload samples collected during both periods were analyzed for particle size in the USGS sediment laboratory in Tucson. Size distribution was determined by the weight percentage of each size fraction retained on sieves that had incremental mesh-size openings differing by a factor of two.

DATA TABLES

During 1983, 1,115 composite cross-section suspended-sediment samples were collected, 1,076 of these samples were analyzed for concentration and grain-size distribution, 809 of these samples were on the main stem of the Colorado River (tables 1–5). A few samples were contaminated with bed material when the sediment-sampler nozzle was inadvertently dipped into the streambed, which caused the sample to have large concentrations of sediment and abnormal size distribution. These samples were analyzed and therefore are included in the tables of this report. In addition, 266 samples were analyzed as individual verticals to define suspended-sediment variability in 20 cross sections (tables 6–10). A total of 1,988 individual bed-material samples (313 cross-section samples) were collected and analyzed for grain-size distribution to define the location of the sand, gravel, and bedrock (tables 11–15). Weight and grain-size distribution of 161 Helley-Smith samples in 39 cross sections are given in tables 16 and 17. Tables 18–23 contain data from 664 discharge measurements made at six gaging stations in 1983. During the 1983 sampling period, concentration and grain-size distribution were determined for 250 composite cross-section suspended-sediment samples from the tributaries—82 from the Paria River (table 24), 135 from the Little Colorado River at Cameron (table 25), and 33 from Kanab Creek near Fredonia (table 26). In addition, 17 suspended-sediment were obtained at miscellaneous sites—11 at Little Colorado River at the mouth (table 27), 3 from National Canyon at the mouth, 1 from Bright Angel Creek at the mouth, and 2 from an unnamed drainage from Chuar Butte across the river from the mouth of the Little Colorado River (table 28).

During 1985–86, 826 composite cross-section suspended-sediment samples were collected, and 765 of these samples were analyzed for concentration and grain-size distribution (tables 29–33). In addition, 887 samples were analyzed as individual verticals to define velocity and suspended-sediment variability in 62 cross sections (tables 34–38). Grain-size distribution of bed material was determined at 531 verticals to define the location of the sand, gravel, and bedrock in 37 cross sections (tables 39–43), weight and grain-size distribution of 159 Helley-Smith samples were analyzed to determine bed-material transport in 96 cross sections (tables 44–48), and 218

discharge measurements were made to define flow and section geometry (tables 49–53).

Cross-section geometry measured at the time that a sediment sample was collected is given in tables 54–58 for the 1983 sampling period and in tables 59–63 for the 1985–86 sampling period. Cross-section geometry and flow velocity measured at the time of suspended-sediment sampling in 1985–86 are given in tables 64–68. Graphs of the cross sections at the maximum and minimum discharge measured at each site in 1983 and 1985–86 illustrate channel geometry at each of the five main stem streamflow-gaging stations and the large changes in bed elevation that resulted from flows above the powerplant capacity in 1983 and relative stability of the bed at the lower flow of the 1985–86 sampling period (figs. 5–9).

Daily mean discharge was computed for four of the five main-stem streamflow-gaging stations for 1983 and 1985–86 (tables 69–72). Malfunction of the stage recorder at the gaging station, Colorado River above the Little Colorado River, caused a loss of much of the stage data for that site. Operator error or equipment malfunction also caused some stage record to be lost at other gaged sites. Hourly data for the gaging station above the Little Colorado River were not sufficient to permit computation of daily mean discharge for that gaging station.

SUMMARY

In 1983, the USGS began an intensive program of collecting streamflow and sediment data on the Colorado River as part of the Glen Canyon Environmental Studies. Water managers were concerned that increased short-term variations in water releases from Glen Canyon Dam and decreased sediment load were causing erosion of sand deposits. This report presents data on discharge, flow velocity, size and concentration of suspended sediment, and size of bed material and bedload collected in 1983 and 1985–86 at five streamflow-gaging stations on the main stem of the Colorado River between Lake Powell and Lake Mead. In addition, discharge and suspended-sediment data from three streamflow-gaging stations on tributaries to the Colorado River are presented. Data were collected for calibration of computer models of flow and sediment transport in the Colorado River in Grand Canyon National Park.

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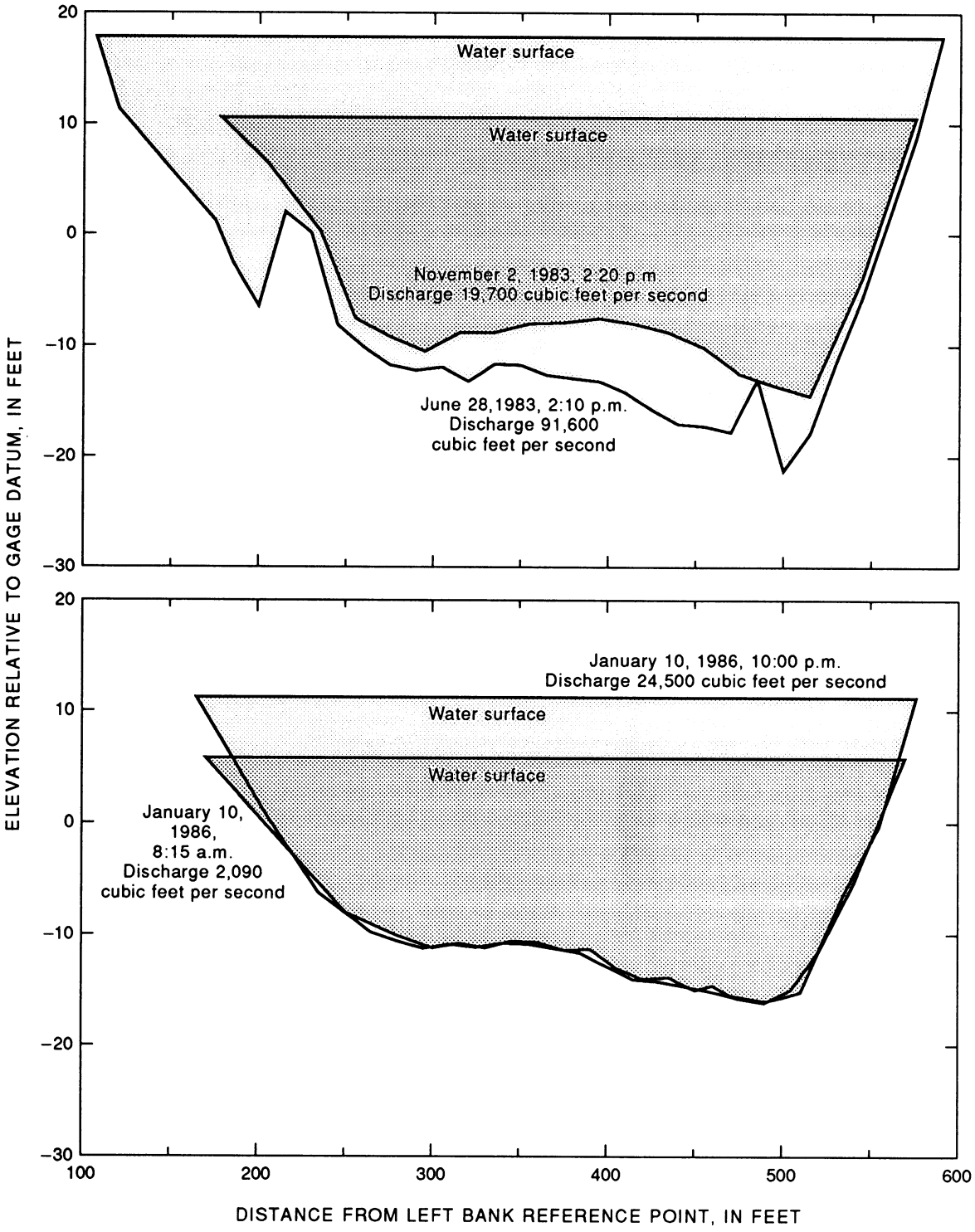

Figure 5. Cross-section geometry at maximum and minimum discharge for Colorado River at Lees Ferry, 09380000, for the 1983 and 1985–86 sampling periods.

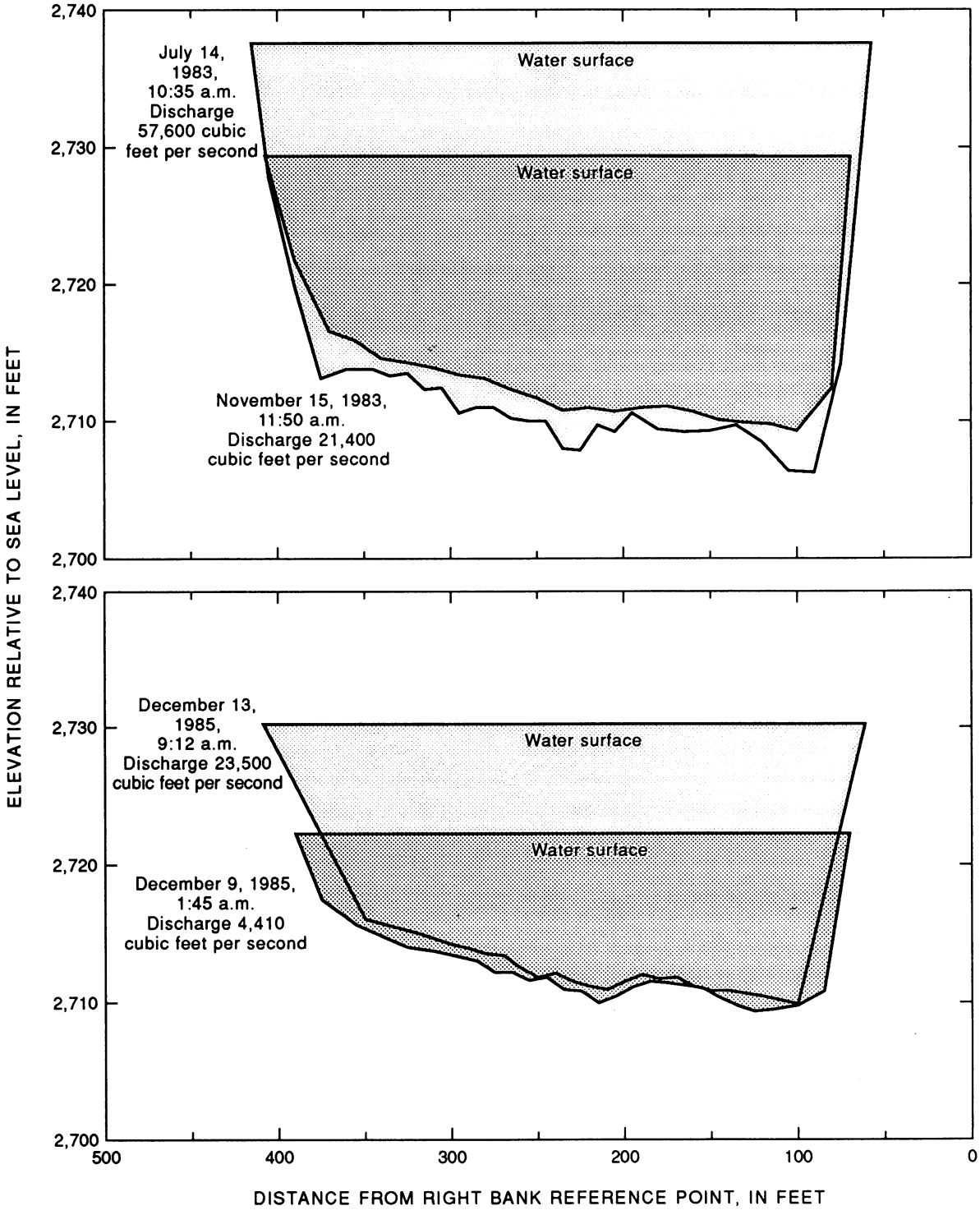

Figure 6. Cross-section geometry at maximum and minimum discharge for Colorado River above Little Colorado River, 09383100, for the 1983 and 1985–86 sampling periods.

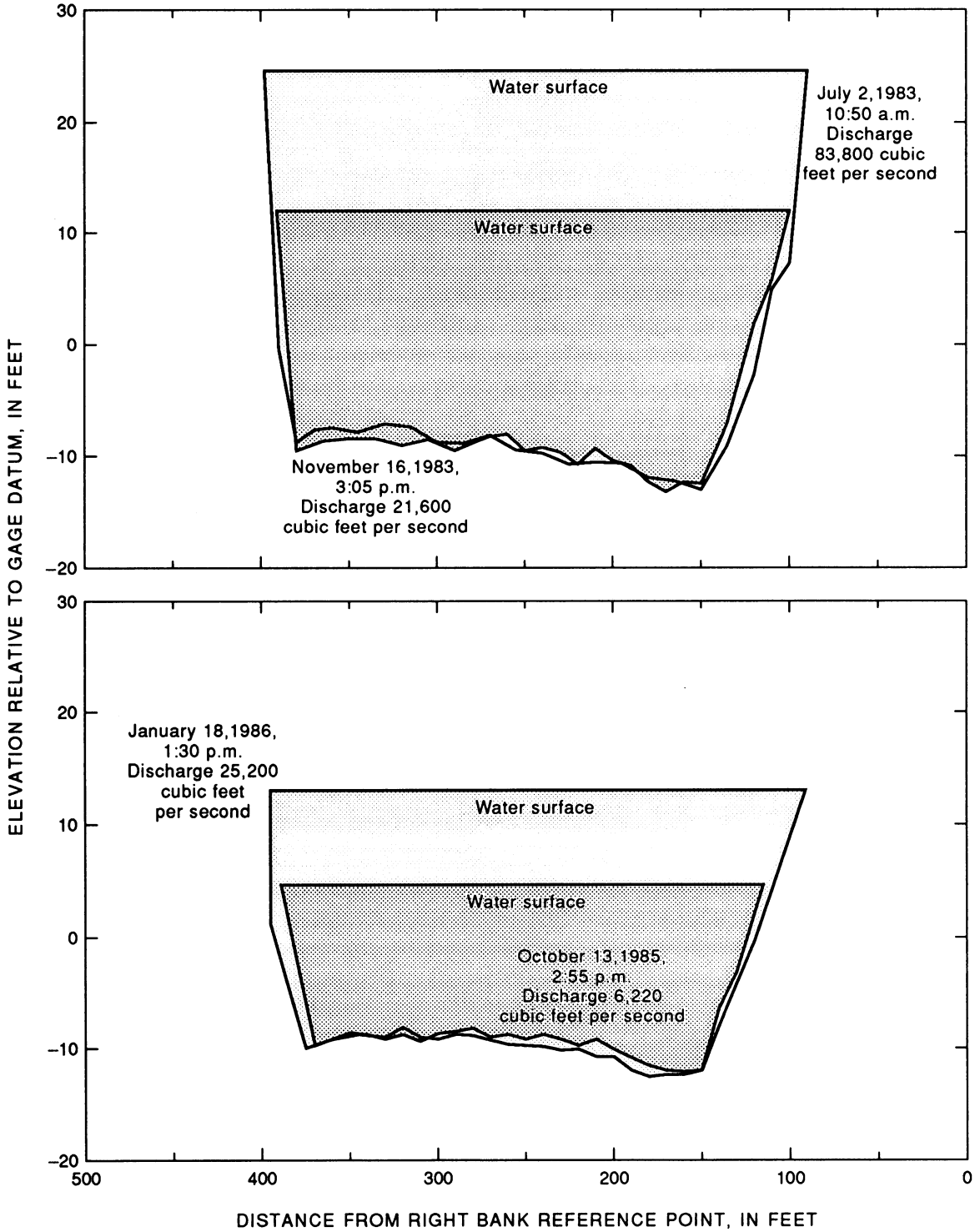

Figure 7. Cross-section geometry at maximum and minimum discharge for Colorado River near Grand Canyon, 09402500, for the 1983 and 1985–86 sampling periods.

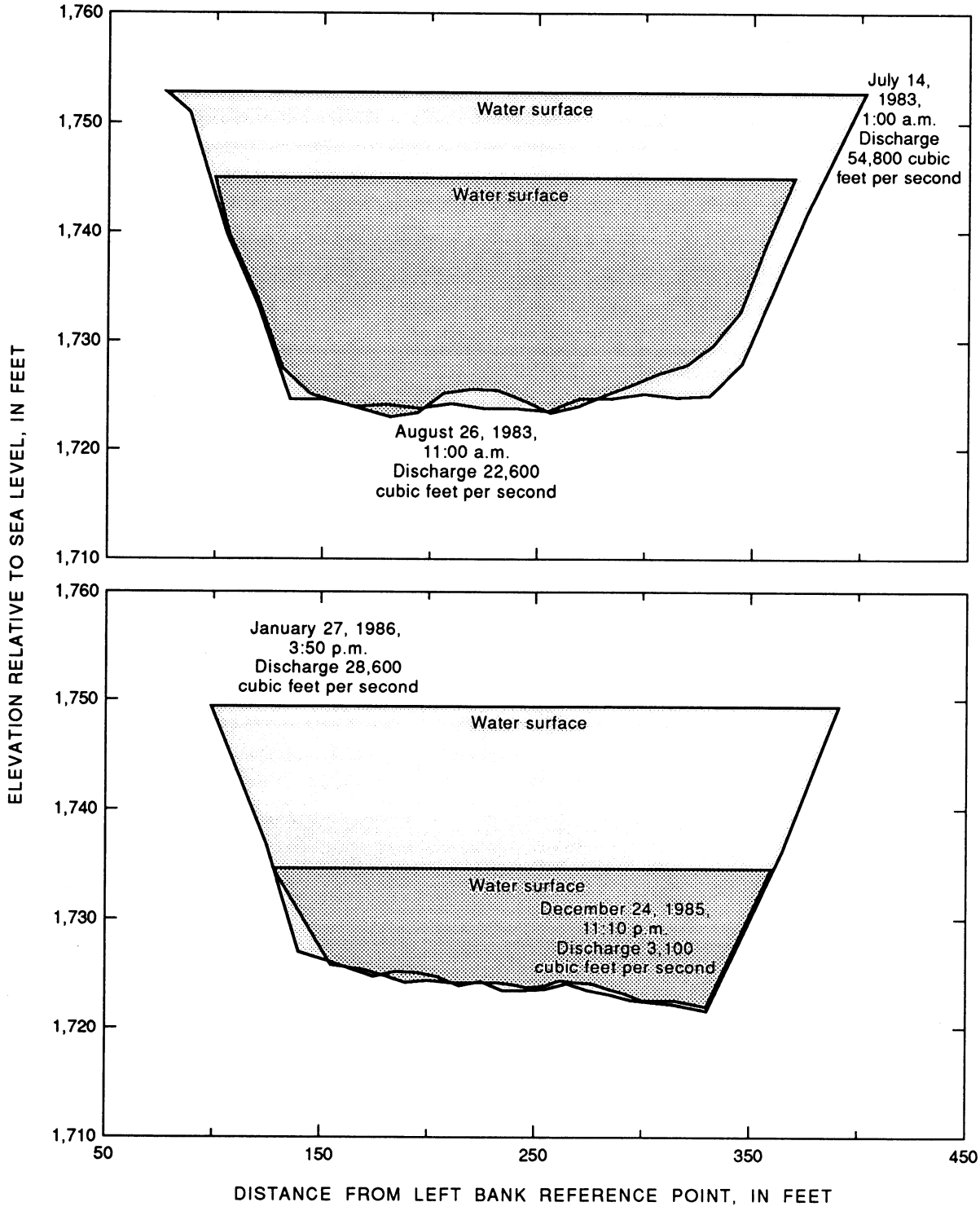

Figure 8. Cross-section geometry at maximum and minimum discharge for Colorado River above National Canyon, 09404120, for the 1983 and 1985–86 sampling periods.

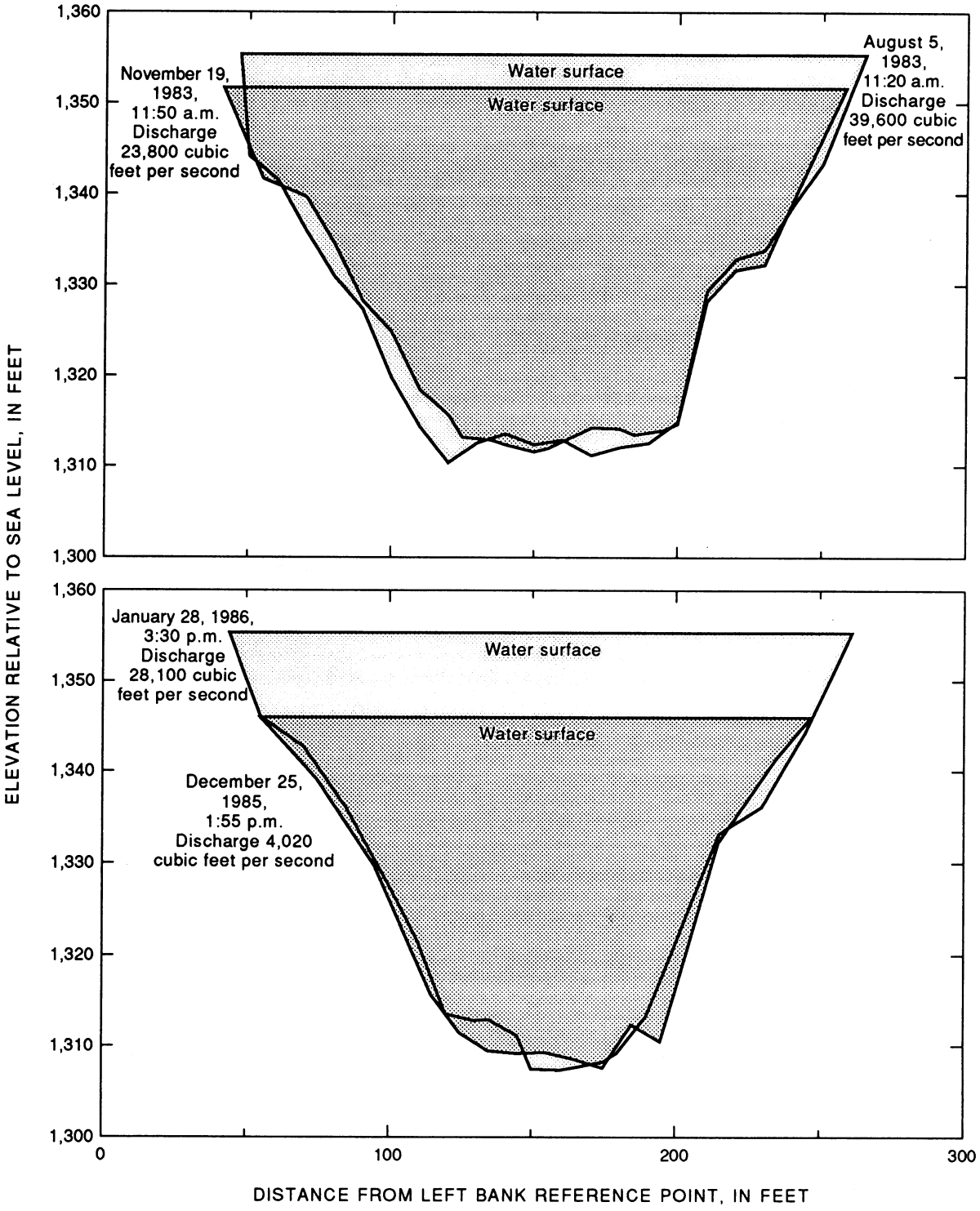

Figure 9. Cross-section geometry at maximum and minimum discharge for Colorado River above Diamond Creek, 09404200, for the 1983 and 1985–86 sampling periods.

Table 1.--Concentration and grain-size distribution of suspended sediment, Colorado River at Lees Ferry, 1983

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
06-29-83	1500	372	10.8	16.6	35.6	87.5	98.5	99.2	100.0
07-01-83	1055	903	2.5	3.9	11.9	34.3	87.1	99.1	100.0
07-02-83	1520	214	7.8	12.6	30.1	79.2	98.4	100.0	-----
07-03-83	1150	431	25.9	29.6	43.3	86.3	97.7	99.2	100.0
07-03-83	1600	292	8.9	13.7	32.8	83.5	97.1	99.0	100.0
07-04-83	1705	360	21.5	24.1	36.3	72.8	92.3	97.5	100.0
07-05-83	1015	243	8.1	12.3	29.1	69.9	92.4	99.5	100.0
07-05-83	1515	305	10.2	13.7	31.0	80.5	97.9	99.7	100.0
07-06-83	1045	205	16.6	21.3	38.5	80.1	96.1	99.2	100.0
07-06-83	1605	160	10.5	15.1	34.0	80.1	98.7	99.6	100.0
07-07-83	1035	217	5.5	9.9	28.4	59.0	78.1	96.6	100.0
07-09-83	1710	435	6.6	10.9	31.9	49.1	66.0	87.5	100.0
07-10-83	1100	99	12.0	31.0	69.3	95.5	98.7	100.0	-----
07-10-83	1515	56	14.6	23.5	55.1	95.5	100.0	-----	-----
07-11-83	1030	53	15.5	23.0	55.2	93.4	99.6	100.0	-----
07-11-83	1420	54	12.8	12.8	20.1	45.2	89.1	100.0	-----
07-12-83	0820	47	13.0	20.9	52.3	93.9	100.0	-----	-----
07-12-83	1345	168	8.4	22.4	73.1	95.3	97.6	99.8	100.0
07-13-83	0830	112	16.6	28.5	70.1	96.0	99.3	99.8	100.0
07-13-83	1350	36	8.9	10.5	43.2	87.3	100.0	-----	-----
07-14-83	1150	924	0.5	0.9	3.1	27.1	95.7	100.0	-----
07-14-83	1525	164	17.6	32.4	67.8	94.4	98.6	99.7	100.0
07-15-83	0815	280	4.1	5.4	11.5	60.3	99.6	100.0	-----
07-15-83	1720	135	5.1	25.6	70.8	96.2	99.6	100.0	-----
07-16-83	0815	185	14.6	26.7	66.1	91.9	98.2	99.5	100.0
07-17-83	0930	228	1.5	4.5	12.3	37.9	84.6	97.5	100.0
07-17-83	1320	149	2.7	7.4	43.0	73.3	76.9	99.2	100.0
07-18-83	0855	254	18.3	40.4	78.9	96.6	98.2	99.6	100.0
07-19-83	1150	130	10.0	13.1	42.5	93.3	100.0	-----	-----
07-21-83	0930	34	21.1	32.4	55.3	85.8	100.0	-----	-----
07-21-83	1500	20	5.1	16.8	43.2	78.1	100.0	-----	-----
07-22-83	1530	26	5.1	13.6	35.0	89.3	98.6	100.0	-----
07-23-83	0930	16	22.4	34.3	59.3	96.8	100.0	-----	-----
07-24-83	0830	20	18.2	29.2	55.0	93.3	100.0	-----	-----
07-24-83	0945	14	26.8	34.9	52.4	96.1	100.0	-----	-----
07-24-83	1230	67	54.0	57.1	66.3	95.4	100.0	-----	-----
07-25-83	0100	62	5.8	16.0	29.0	68.3	94.2	100.0	-----
07-25-83	1530	97	14.9	19.2	28.7	59.1	87.2	97.8	100.0
07-26-83	0845	26	19.3	29.0	54.9	95.7	100.0	-----	-----
07-26-83	1228	78	14.4	26.1	56.3	83.1	88.4	94.5	100.0
07-27-83	1020	46	20.0	25.3	41.8	88.9	100.0	-----	-----
07-28-83	0800	44	13.2	23.9	50.5	92.9	100.0	-----	-----
07-28-83	1600	21	18.1	28.8	46.2	98.8	100.0	-----	-----
07-29-83	1800	688	2.8	3.5	4.8	43.2	90.9	98.5	100.0
07-30-83	1000	124	10.0	15.2	15.3	44.2	81.2	96.6	100.0
07-30-83	1500	24	32.7	39.4	53.4	88.1	98.0	100.0	-----
07-31-83	0700	421	2.2	2.9	4.5	41.0	96.4	99.9	100.0

Table 1.--Concentratin and grain-size distribution of suspended sediment, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
08-01-83	1600	312	8.2	10.8	21.7	44.6	79.5	97.1	100.0
08-02-83	1330	27	28.6	43.4	62.1	88.2	96.5	100.0	-----
08-03-83	0900	80	12.0	14.8	21.1	66.2	91.4	97.0	100.0
08-03-83	1500	128	8.5	11.4	20.9	54.2	92.9	99.4	100.0
08-10-83	1610	19	25.7	33.8	49.0	94.1	100.0	-----	-----
08-12-83	1635	24	24.7	40.1	73.1	96.6	99.3	100.0	-----
08-13-83	1115	7	40.7	65.2	82.7	100.0	-----	-----	-----
08-13-83	1600	8	49.7	67.9	85.2	98.0	100.0	-----	-----
08-14-83	1555	5	84.8	93.2	98.1	98.9	100.0	-----	-----
08-15-83	1130	10	32.5	47.5	66.6	79.8	86.5	92.5	100.0
08-15-83	1630	7	53.0	64.5	81.1	92.6	100.0	-----	-----
08-16-83	1050	4	49.9	73.1	88.4	100.0	-----	-----	-----
08-16-83	1605	4	69.5	79.5	89.4	96.7	100.0	-----	-----
08-18-83	0800	7	50.3	68.9	79.1	95.6	100.0	-----	-----
08-19-83	1200	4	40.8	68.7	88.3	100.0	-----	-----	-----
08-19-83	1730	5	10.8	41.3	56.7	59.7	73.6	100.0	-----
08-20-83	0830	12	58.8	68.4	79.7	96.1	100.0	-----	-----
08-20-83	1545	5	63.5	81.0	96.1	100.0	-----	-----	-----
08-21-83	0730	28	19.7	37.7	77.1	94.1	100.0	-----	-----
08-21-83	1630	10	30.0	39.8	66.8	84.6	91.4	100.0	-----
08-22-83	0730	12	19.1	27.4	61.1	87.7	100.0	-----	-----
08-22-83	1800	21	21.2	37.7	71.8	88.3	98.5	100.0	-----
08-23-83	0830	14	27.9	36.7	54.7	60.2	98.2	100.0	-----
08-23-83	1815	88	3.7	22.0	69.3	94.9	98.3	99.9	100.0
08-24-83	0815	82	16.2	30.5	78.2	96.7	99.7	100.0	-----
08-25-83	1015	168	4.2	16.6	62.4	94.2	98.7	100.0	-----
08-25-83	1830	326	1.3	3.5	11.9	42.9	91.5	99.0	100.0
08-26-83	0915	206	2.3	3.2	4.6	27.0	60.8	79.7	100.0
08-27-83	1100	157	17.0	78.2	97.2	99.2	100.0	-----	-----
08-27-83	1800	9	40.4	60.0	72.7	94.5	100.0	-----	-----
08-28-83	1005	6	42.4	57.5	74.7	95.5	100.0	-----	-----
08-31-83	0905	6	27.8	42.1	62.6	94.2	100.0	-----	-----
09-01-83	0950	39	33.4	64.7	93.2	98.7	100.0	-----	-----
09-02-83	1130	6	43.2	63.9	79.2	100.0	-----	-----	-----
09-03-83	1905	9	33.5	57.9	75.9	91.0	100.0	-----	-----
09-04-83	0815	13	47.7	59.8	67.6	93.3	100.0	-----	-----
09-05-83	0815	11	64.9	78.4	91.0	100.0	-----	-----	-----
09-05-83	1530	21	76.7	88.4	95.4	100.0	-----	-----	-----
09-06-83	1350	5	59.8	76.5	90.3	100.0	-----	-----	-----
09-07-83	0900	5	47.2	67.6	85.7	100.0	-----	-----	-----
09-08-83	0820	6	29.1	44.3	67.7	89.8	100.0	-----	-----
09-08-83	1355	5	36.3	60.2	81.5	100.0	-----	-----	-----
09-09-83	0910	5	35.8	48.7	63.7	86.7	100.0	-----	-----
09-10-83	0830	14	15.6	22.4	29.5	75.6	92.5	100.0	-----
09-10-83	1140	13	16.3	22.1	30.3	79.6	100.0	-----	-----
09-11-83	0815	7	30.5	46.3	61.7	92.7	100.0	-----	-----
09-12-83	0835	4	47.2	55.8	67.7	79.9	100.0	-----	-----

Table 1.--Concentration and grain-size distribution of suspended sediment, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
09-12-83	1155	5	33.5	49.3	68.3	89.8	100.0	-----	-----
09-13-83	0825	6	26.7	34.5	51.5	84.6	100.0	-----	-----
09-14-83	0820	4	40.2	55.7	72.2	100.0	-----	-----	-----
09-14-83	1150	8	24.0	38.1	54.9	89.4	100.0	-----	-----
09-16-83	1550	14	51.6	72.4	93.6	100.0	-----	-----	-----
09-17-83	0852	6	47.8	66.7	85.9	100.0	-----	-----	-----
09-18-83	0920	5	61.1	70.3	87.9	96.6	100.0	-----	-----
09-18-83	1555	11	60.4	75.2	87.2	98.0	100.0	-----	-----
09-19-83	0905	13	82.9	88.3	93.8	98.5	100.0	-----	-----
09-20-83	0830	39	94.6	96.3	98.6	99.1	100.0	-----	-----
09-21-83	0830	6	54.0	64.0	77.5	100.0	-----	-----	-----
09-22-83	0845	7	48.8	60.2	69.2	100.0	-----	-----	-----
09-22-83	1708	10	22.6	27.8	34.5	72.1	100.0	-----	-----
09-23-83	0808	12	17.2	21.4	23.9	66.9	100.0	-----	-----
09-27-83	1240	19	21.5	42.7	66.0	90.1	100.0	-----	-----
09-28-83	0330	19	37.9	61.8	86.0	97.7	100.0	-----	-----
09-29-83	1630	13	40.1	62.2	94.1	99.3	100.0	-----	-----
09-30-83	1620	14	47.2	68.6	91.1	100.0	-----	-----	-----
10-02-83	1130	8	43.1	63.1	90.5	99.5	100.0	-----	-----
10-06-83	0930	11	20.4	43.0	71.3	93.6	100.0	-----	-----
10-07-83	1320	12	25.1	52.9	83.4	100.0	-----	-----	-----
10-08-83	1010	13	13.8	30.5	55.2	92.1	100.0	-----	-----
10-08-83	1725	11	28.3	54.3	84.9	96.5	100.0	-----	-----
10-09-83	1040	8	19.3	34.8	51.3	66.3	100.0	-----	-----
10-10-83	1705	6	29.4	51.0	77.1	90.2	100.0	-----	-----
10-11-83	1545	5	35.5	58.0	82.9	93.7	100.0	-----	-----
10-12-83	0900	7	29.3	49.1	70.4	86.2	100.0	-----	-----
10-12-83	1720	8	37.0	48.2	59.3	77.9	82.2	100.0	-----
10-13-83	1045	6	39.1	48.9	74.7	89.0	100.0	-----	-----
10-17-83	1325	14	26.7	41.2	48.3	86.0	100.0	-----	-----
10-18-83	0818	26	13.7	23.8	38.2	87.8	100.0	-----	-----
10-18-83	1558	11	14.0	44.3	70.8	95.9	100.0	-----	-----
10-19-83	1107	34	6.3	43.3	93.5	100.0	-----	-----	-----
10-20-83	0814	87	3.5	4.4	5.5	31.6	93.5	100.0	-----
10-21-83	1002	169	1.3	1.6	2.9	41.4	79.0	96.8	100.0
10-22-83	0814	4	21.7	40.5	67.2	94.8	100.0	-----	-----
10-22-83	1238	9	33.6	42.7	68.0	92.1	100.0	-----	-----
10-23-83	1020	6	35.3	59.0	79.9	92.6	100.0	-----	-----
10-24-83	0934	9	16.3	43.0	76.7	93.8	100.0	-----	-----
10-25-83	1535	8	38.3	54.1	86.9	98.2	100.0	-----	-----
10-26-83	1000	5	62.0	83.7	94.4	97.7	100.0	-----	-----
10-27-83	1000	5	37.2	63.1	79.6	96.3	100.0	-----	-----
10-27-83	1615	3	48.9	72.1	96.7	99.7	100.0	-----	-----
10-28-83	0930	6	41.1	62.4	82.6	92.7	100.0	-----	-----
10-29-83	1050	153	2.2	3.3	5.5	79.4	100.0	-----	-----
10-29-83	1550	18	13.3	20.5	27.7	89.0	100.0	-----	-----
11-03-83	0950	4	34.8	54.0	83.4	100.0	-----	-----	-----

Table 1.--Concentration and grain-size distribution of suspended sediment, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
11-05-83	1000	17	46.6	69.0	87.3	96.3	100.0	-----	-----
11-05-83	1520	36	7.4	10.2	13.5	38.2	76.6	100.0	-----
11-06-83	0924	7	29.6	40.3	46.2	57.5	100.0	-----	-----
11-07-83	1028	8	28.3	39.3	59.8	93.2	100.0	-----	-----
11-07-83	1625	10	22.2	34.8	76.8	92.3	100.0	-----	-----
11-08-83	1515	7	16.1	32.1	67.6	91.9	100.0	-----	-----
11-09-83	1525	7	10.6	18.4	42.3	88.2	100.0	-----	-----
11-10-83	1020	9	30.3	44.6	65.0	100.0	-----	-----	-----
11-10-83	1530	3	38.1	52.6	64.9	93.1	100.0	-----	-----
11-11-83	0910	3	48.5	64.8	82.4	94.4	100.0	-----	-----
11-12-83	0930	2	7.1	27.6	72.3	100.0	-----	-----	-----
11-13-83	0920	3	21.5	44.1	73.1	96.1	100.0	-----	-----
11-14-83	1620	26	14.7	25.8	82.6	98.6	100.0	-----	-----
11-15-83	0915	16	21.2	35.9	79.1	95.1	100.0	-----	-----
11-16-83	1100	47	6.1	16.5	71.9	95.0	100.0	-----	-----
11-17-83	0945	10	27.9	44.8	87.0	98.9	100.0	-----	-----
11-18-83	1045	18	40.3	51.8	81.2	95.5	100.0	-----	-----
11-18-83	1445	10	32.1	49.3	85.7	99.1	100.0	-----	-----
11-19-83	1000	5	52.1	69.1	90.6	100.0	-----	-----	-----
11-20-83	1000	14	21.0	35.6	81.5	95.8	100.0	-----	-----
11-21-83	0915	36	17.8	31.8	72.6	91.4	100.0	-----	-----
11-22-83	0915	16	21.0	39.4	74.7	90.7	100.0	-----	-----
11-22-83	1535	21	12.0	17.1	26.4	53.0	84.5	100.0	-----
11-23-83	0925	5	51.0	63.7	72.8	88.7	100.0	-----	-----
11-27-83	1530	12	40.5	67.4	85.8	93.4	100.0	-----	-----
11-28-83	0845	14	51.9	72.3	90.9	96.8	100.0	-----	-----
11-29-83	0930	103	4.0	93.0	97.0	99.2	100.0	-----	-----
11-29-83	1500	10	45.4	59.1	74.6	92.0	100.0	-----	-----
11-30-83	0905	11	22.8	32.9	63.2	87.5	100.0	-----	-----
11-30-83	0940	51	19.0	32.8	67.1	87.5	100.0	-----	-----
12-01-83	0930	2	17.6	27.4	39.7	79.3	100.0	-----	-----
12-02-83	1020	8	32.3	46.5	64.6	79.1	100.0	-----	-----
12-02-83	1125	25	12.0	25.3	74.0	96.6	100.0	-----	-----
12-03-83	1110	10	27.3	36.0	49.8	78.7	100.0	-----	-----
12-04-83	0950	8	34.5	48.7	68.4	96.3	100.0	-----	-----
12-04-83	1040	10	22.1	34.6	49.0	87.4	100.0	-----	-----
12-06-83	1000	14	17.2	28.1	56.2	88.7	100.0	-----	-----
12-06-83	1045	8	24.6	39.5	56.8	88.4	100.0	-----	-----
12-07-83	1130	5	26.6	37.5	62.8	78.6	100.0	-----	-----
12-08-83	1540	5	43.2	52.5	68.8	81.1	100.0	-----	-----
12-08-83	1615	51	82.2	84.8	90.4	98.6	100.0	-----	-----
12-09-83	1155	16	11.8	18.3	27.9	60.5	100.0	-----	-----
12-10-83	1000	5	56.2	70.0	86.9	94.1	100.0	-----	-----
12-10-83	1030	4	40.7	55.3	81.3	98.0	100.0	-----	-----
12-11-83	1015	4	60.9	69.4	82.9	95.1	100.0	-----	-----

Table 2.--Concentration and grain-size distribution of suspended sediment, Colorado River above Little Colorado River, 1983

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
07-12-83	1755	326	2.3	8.4	35.2	96.7	99.9	100.0	-----
07-13-83	1000	347	5.2	9.9	28.9	82.5	99.9	100.0	-----
07-13-83	1650	358	3.3	6.7	35.7	89.0	99.2	100.0	-----
07-14-83	0815	327	9.9	16.4	48.8	96.1	99.6	100.0	-----
07-15-83	1120	414	12.5	16.8	38.3	91.8	99.8	100.0	-----
08-01-83	0950	253	24.9	38.5	65.8	97.8	99.8	100.0	-----
08-01-83	1645	378	26.9	43.4	62.5	97.5	99.6	99.8	100.0
08-02-83	1830	279	32.8	45.9	70.4	94.4	99.1	100.0	-----
08-03-83	0930	186	23.4	36.5	57.9	96.2	99.6	99.8	100.0
08-04-83	0855	237	6.2	15.4	43.2	92.6	99.3	99.7	100.0
08-05-83	0849	215	6.0	22.3	59.1	95.7	99.3	99.7	100.0
08-06-83	1000	642	47.6	57.6	72.6	97.2	99.2	100.0	-----
08-06-83	1800	314	9.0	22.9	55.9	96.5	100.0	-----	-----
08-07-83	0917	462	29.4	41.1	68.0	97.7	100.0	-----	-----
08-07-83	1135	704	48.5	56.5	73.7	97.5	100.0	-----	-----
08-09-83	1000	499	16.7	37.9	63.4	97.4	100.0	-----	-----
08-09-83	1500	1365	40.2	48.8	63.7	95.7	100.0	-----	-----
08-10-83	1500	862	14.1	32.1	67.1	97.6	100.0	-----	-----
08-13-83	0830	276	28.8	42.9	74.1	98.4	100.0	-----	-----
08-13-83	1630	303	19.5	37.3	66.8	95.4	100.0	-----	-----
08-14-83	1300	276	27.7	36.7	66.2	92.0	100.0	-----	-----
08-15-83	0930	498	38.5	51.5	72.7	98.3	100.0	-----	-----
08-15-83	1600	425	50.7	60.7	84.6	98.7	100.0	-----	-----
08-17-83	0830	164	21.5	36.8	65.4	98.4	100.0	-----	-----
08-17-83	1630	254	20.7	38.0	68.6	97.7	100.0	-----	-----
08-18-83	1115	301	13.6	22.3	52.3	94.9	100.0	-----	-----
08-19-83	1020	330	19.1	26.3	47.3	84.1	96.1	100.0	-----
08-20-83	1630	400	69.7	77.3	86.8	98.7	99.8	100.0	-----
08-21-83	1140	204	50.8	63.6	81.2	97.4	100.0	-----	-----
08-21-83	1630	142	34.9	51.8	72.5	96.8	100.0	-----	-----
08-22-83	1720	96	29.1	45.7	69.5	96.3	99.6	100.0	-----
08-23-83	1110	159	18.8	33.6	61.6	95.9	99.3	100.0	-----
08-23-83	1530	99	26.3	44.3	73.0	97.5	100.0	-----	-----
08-24-83	1515	391	4.0	10.7	86.8	97.6	100.0	-----	-----
08-25-83	1150	210	8.6	26.1	64.2	95.4	98.8	100.0	-----
08-25-83	1630	130	10.3	32.8	71.1	97.5	100.0	-----	-----
08-26-83	1050	94	20.8	47.0	96.2	96.3	100.0	-----	-----
08-27-83	1020	141	14.6	30.6	64.4	95.6	100.0	-----	-----
08-28-83	1352	99	33.5	50.9	79.9	97.4	100.0	-----	-----
08-29-83	1129	99	17.6	37.3	67.6	95.1	100.0	-----	-----
08-29-83	1740	128	13.2	33.9	67.5	93.8	100.0	-----	-----
08-30-83	1750	161	11.6	21.3	51.1	89.5	100.0	-----	-----
08-31-83	1036	92	27.9	40.3	69.5	94.6	100.0	-----	-----
09-01-83	1040	93	13.3	26.7	67.3	93.7	100.0	-----	-----
09-02-83	1035	86	12.5	25.0	66.2	95.0	100.0	-----	-----

Table 2.--Concentration and grain-size distribution of suspended sediment, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
09-02-83	1728	114	11.6	28.8	58.2	95.3	100.0	-----	-----
09-03-83	1145	120	11.0	23.5	58.8	94.6	100.0	-----	-----
09-04-83	1220	90	9.9	25.7	66.5	97.3	100.0	-----	-----
09-04-83	1813	123	15.6	28.8	57.5	87.8	100.0	-----	-----
09-05-83	1350	110	13.8	23.2	50.1	83.6	100.0	-----	-----
09-06-83	0944	107	4.4	15.3	46.0	92.7	100.0	-----	-----
09-06-83	1624	139	4.8	17.6	54.2	94.3	100.0	-----	-----
09-08-83	0930	69	8.4	23.4	62.3	97.0	100.0	-----	-----
09-08-83	1705	1370	93.5	94.4	96.7	99.6	100.0	-----	-----
09-09-83	0900	93	0.3	15.1	54.2	95.7	100.0	-----	-----
09-10-83	1730	85	10.7	23.6	59.6	97.7	100.0	-----	-----
09-11-83	1140	58	16.3	29.5	56.6	92.6	100.0	-----	-----
09-12-83	1700	93	13.8	26.0	55.4	95.8	100.0	-----	-----
09-14-83	1135	81	9.9	24.7	61.3	94.1	100.0	-----	-----
09-15-83	0910	157	6.3	18.8	61.0	98.0	100.0	-----	-----
09-16-83	1230	88	9.8	23.7	68.6	98.8	100.0	-----	-----
09-16-83	1540	100	9.9	28.4	66.3	98.0	100.0	-----	-----
09-17-83	1020	87	29.5	39.6	66.9	94.5	100.0	-----	-----
09-18-83	0915	92	12.7	25.3	62.1	95.5	100.0	-----	-----
09-18-83	1400	109	20.5	30.3	60.6	96.7	100.0	-----	-----
09-19-83	0845	442	81.2	84.9	92.8	99.4	100.0	-----	-----
09-20-83	1010	544	82.5	88.0	94.3	99.2	99.9	100.0	-----
09-20-83	1410	402	75.5	81.4	91.5	99.6	99.9	100.0	-----
09-21-83	0845	211	58.0	67.5	84.2	99.0	99.9	100.0	-----
09-22-83	0840	148	48.7	61.8	82.0	98.1	99.9	100.0	-----
09-22-83	1210	93	26.2	44.9	79.1	98.4	99.9	100.0	-----
09-23-83	1400	95	28.4	47.7	51.6	91.3	99.8	100.0	-----
09-24-83	0845	1307	86.4	88.7	94.3	99.3	100.0	-----	-----
09-24-83	1235	1792	83.0	87.2	94.2	99.5	99.9	100.0	-----
09-25-83	1550	836	81.7	86.3	90.4	98.3	99.9	100.0	-----
09-27-83	0905	200	52.3	65.5	81.5	98.7	100.0	-----	-----
09-28-83	0855	216	35.1	52.5	77.8	98.0	100.0	-----	-----
09-28-83	1530	182	41.3	60.8	81.5	98.2	100.0	-----	-----
09-29-83	0830	196	44.5	61.6	83.5	98.5	100.0	-----	-----
10-01-83	0903	327	70.5	78.6	88.8	99.4	99.8	100.0	-----
10-02-83	0920	1304	85.2	88.4	95.0	99.8	100.0	-----	-----
10-02-83	1640	1016	86.7	89.1	94.1	99.6	100.0	-----	-----
10-03-83	1140	340	75.1	84.0	85.6	94.5	100.0	-----	-----
10-04-83	1058	335	50.8	58.7	73.3	97.2	99.4	99.8	100.0
10-05-83	0916	102	54.3	71.6	88.9	99.1	100.0	-----	-----
10-07-83	1210	152	1.8	24.3	59.0	97.6	100.0	-----	-----
10-08-83	1030	174	16.2	30.9	50.9	92.6	100.0	-----	-----
10-09-83	0930	161	8.0	23.3	52.6	94.8	100.0	-----	-----
10-10-83	0845	167	9.6	29.0	61.9	98.4	100.0	-----	-----
10-11-83	0900	136	12.8	33.9	66.0	97.0	100.0	-----	-----

Table 2.--Concentration and grain-size distribution of suspended sediment, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
10-11-83	1637	138	19.3	38.8	77.0	97.9	100.0	-----	-----
10-12-83	0925	151	8.8	26.5	53.6	93.8	100.0	-----	-----
10-13-83	0915	100	17.3	36.6	68.0	94.1	100.0	-----	-----
10-14-83	0945	172	12.0	33.5	64.3	95.3	100.0	-----	-----
10-16-83	1430	109	18.8	35.3	63.8	97.4	100.0	-----	-----
10-17-83	1335	65	14.9	32.2	71.5	97.3	100.0	-----	-----
10-19-83	1515	134	27.5	47.6	49.7	73.6	98.1	100.0	-----
10-20-83	1020	145	7.0	29.2	71.2	97.0	98.9	100.0	-----
10-21-83	1030	89	11.8	32.8	68.8	98.2	100.0	-----	-----
10-21-83	1500	91	5.0	19.5	62.5	97.3	100.0	-----	-----
10-22-83	1115	78	11.4	25.6	63.7	98.2	100.0	-----	-----
10-23-83	1210	291	9.8	20.7	66.4	96.2	98.3	100.0	-----
10-23-83	1615	133	5.6	20.7	57.1	99.5	100.0	-----	-----
10-25-83	1025	136	17.3	31.7	62.1	94.0	100.0	-----	-----
10-25-83	1425	162	6.7	22.6	49.2	98.8	99.7	100.0	-----
10-26-83	1025	183	18.6	36.3	62.1	93.0	99.2	100.0	-----
10-27-83	1020	136	10.1	33.0	72.1	98.7	100.0	-----	-----
10-28-83	1110	242	9.3	27.2	73.2	99.1	99.9	100.0	-----
10-29-83	1105	133	10.3	17.2	40.4	84.5	99.3	100.0	-----
10-29-83	1540	129	25.6	35.1	61.5	95.0	99.6	100.0	-----
10-30-83	1035	180	7.4	14.0	31.1	71.4	95.6	100.0	-----
10-31-83	0940	115	21.2	32.2	62.9	95.6	100.0	-----	-----
10-31-83	1525	127	8.8	20.4	42.0	86.3	100.0	-----	-----
11-01-83	1345	106	17.9	33.4	64.5	97.3	100.0	-----	-----
11-02-83	1055	217	14.9	21.1	41.1	89.7	100.0	-----	-----
11-02-83	1640	100	15.9	24.0	45.0	90.0	100.0	-----	-----
11-03-83	1150	127	12.3	25.6	54.1	96.7	99.8	100.0	-----
11-05-83	1605	113	69.5	78.2	90.9	99.4	100.0	-----	-----
11-06-83	1415	211	8.0	15.4	29.8	87.8	98.8	100.0	-----
11-07-83	1435	51	13.5	31.5	63.4	96.4	100.0	-----	-----
11-08-83	1525	82	18.1	29.4	63.0	98.2	100.0	-----	-----
11-09-83	1015	159	16.5	25.8	48.4	95.4	100.0	-----	-----
11-10-83	1110	355	4.5	17.2	63.1	92.3	100.0	-----	-----
11-11-83	1030	71	17.8	37.2	71.8	96.5	100.0	-----	-----
11-12-83	1015	65	23.0	38.6	65.9	95.3	100.0	-----	-----
11-12-83	1645	84	25.0	40.2	65.1	97.5	100.0	-----	-----
11-13-83	1140	452	1.5	4.2	11.8	77.1	99.7	100.0	-----
11-14-83	1050	127	21.2	29.3	53.8	98.2	100.0	-----	-----
11-14-83	1525	120	8.2	18.0	44.2	95.3	100.0	-----	-----
11-15-83	1010	512	2.7	7.4	35.4	94.1	100.0	-----	-----
11-17-83	1550	77	13.2	26.1	51.8	90.9	100.0	-----	-----
11-18-83	1135	194	7.8	17.8	54.0	94.9	100.0	-----	-----
11-19-83	1115	1625	5.9	10.8	33.5	99.0	100.0	-----	-----
11-20-83	1045	967	7.1	9.4	17.8	83.8	99.6	100.0	-----
11-21-83	1100	902	9.4	17.2	47.2	98.3	99.8	100.0	-----

Table 2.--Concentration and grain-size distribution of suspended sediment, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
11-22-83	1035	558	3.7	10.4	44.9	89.3	99.8	100.0	-----
11-22-83	1510	136	14.7	32.3	59.7	96.8	99.7	100.0	-----
11-23-83	1005	577	7.0	9.8	22.0	56.1	99.1	100.0	-----
11-27-83	1225	115	9.0	23.8	60.3	94.8	100.0	-----	-----
11-27-83	1646	69	10.8	26.3	58.0	97.1	100.0	-----	-----
11-28-83	1200	125	9.9	19.2	48.5	92.2	100.0	-----	-----
11-29-83	1107	63	30.1	43.9	74.5	96.4	100.0	-----	-----
11-30-83	1100	74	5.3	19.5	53.1	96.4	100.0	-----	-----
12-01-83	1115	54	1.3	25.5	58.5	97.9	100.0	-----	-----
12-01-83	1614	94	7.5	20.0	54.8	92.0	97.0	100.0	-----
12-02-83	1223	37	13.2	32.2	63.5	96.9	100.0	-----	-----
12-03-83	1058	85	6.7	17.1	55.5	97.7	100.0	-----	-----
12-04-83	1412	64	13.2	28.5	59.3	96.9	100.0	-----	-----
12-05-83	1115	131	7.9	19.4	53.1	97.0	100.0	-----	-----
12-05-83	1619	61	14.6	34.6	71.2	97.6	100.0	-----	-----
12-06-83	1325	125	9.7	19.3	52.8	98.5	100.0	-----	-----
12-07-83	1148	52	10.9	26.0	59.8	97.4	100.0	-----	-----
12-08-83	1258	112	6.1	14.8	45.4	96.3	100.0	-----	-----
12-09-83	1043	54	17.4	32.6	57.2	94.7	100.0	-----	-----
12-09-83	1600	107	10.4	21.9	54.7	97.2	99.6	100.0	-----
12-10-83	1204	47	15.3	34.9	67.5	97.0	100.0	-----	-----
12-11-83	1127	101	6.5	15.7	48.9	96.9	100.0	-----	-----
12-11-83	1626	50	9.7	25.6	64.7	97.9	100.0	-----	-----
12-12-83	1250	135	13.2	28.0	59.1	97.2	100.0	-----	-----
12-13-83	1141	38	17.6	37.4	72.6	96.9	100.0	-----	-----

Table 3.--Concentration and grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1983

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
07-01-83	0935	1570	24.1	25.6	35.0	80.9	99.3	99.9	100.0
07-02-83	1330	1440	16.8	19.1	26.8	54.9	98.6	99.8	100.0
07-03-83	1015	753	12.8	17.9	36.1	88.9	98.7	100.0	-----
07-03-83	1600	941	20.9	24.7	35.9	79.7	97.1	99.5	100.0
07-04-83	1100	1020	16.6	19.3	28.9	81.2	98.7	99.8	100.0
07-05-83	0900	864	22.7	28.1	47.5	88.4	98.3	99.8	100.0
07-06-83	0900	930	13.1	17.1	41.4	90.6	97.8	99.9	100.0
07-06-83	1440	1080	18.9	23.7	39.5	79.9	99.6	100.0	-----
07-07-83	1545	958	11.4	16.9	47.7	93.5	98.7	100.0	-----
07-08-83	1135	139	5.1	8.3	26.3	74.1	86.8	94.9	100.0
07-08-83	1530	715	7.4	16.4	48.8	89.7	96.7	98.8	100.0
07-09-83	1630	660	4.9	15.9	57.9	95.6	99.4	100.0	-----
07-10-83	1000	794	4.3	11.3	41.8	94.4	99.4	100.0	-----
07-10-83	1630	632	3.9	12.4	45.5	94.2	99.7	100.0	-----
07-11-83	0930	545	6.1	11.4	31.6	85.2	99.7	100.0	-----
07-12-83	0825	743	5.3	10.7	34.2	84.3	93.8	100.0	-----
07-12-83	1510	646	16.0	20.5	34.3	82.5	97.2	100.0	-----
07-13-83	1215	518	24.2	29.3	53.5	92.8	97.9	100.0	-----
07-14-83	0824	408	17.8	24.2	47.6	88.0	99.4	100.0	-----
07-14-83	1730	542	16.4	21.1	41.4	90.4	99.1	100.0	-----
07-15-83	0910	569	11.0	16.3	37.9	88.5	99.4	100.0	-----
07-16-83	0800	493	9.7	13.4	30.6	84.6	99.1	100.0	-----
07-16-83	1637	417	14.8	18.3	35.9	86.3	99.3	100.0	-----
07-17-83	1040	381	13.0	18.8	43.3	84.1	99.2	100.0	-----
07-18-83	0807	680	5.5	8.3	24.2	71.8	99.1	100.0	-----
07-18-83	1650	353	7.1	12.5	34.6	85.4	98.1	100.0	-----
07-19-83	1125	344	4.7	8.5	25.6	68.2	98.5	100.0	-----
07-21-83	0935	340	3.6	14.0	49.7	94.5	100.0	-----	-----
07-22-83	1020	530	0.7	7.3	43.3	94.8	98.1	100.0	-----
07-22-83	1730	778	0.7	4.3	19.3	84.7	99.4	100.0	-----
07-23-83	0745	260	2.8	9.2	37.4	89.9	100.0	-----	-----
07-24-83	1030	306	6.0	16.0	48.3	93.7	99.5	100.0	-----
07-24-83	1655	309	9.9	14.8	36.1	91.8	99.4	100.0	-----
07-25-83	1100	263	3.7	16.1	52.9	96.6	99.6	100.0	-----
07-26-83	0840	1540	28.3	34.5	42.9	67.6	95.2	99.1	100.0
07-27-83	1055	2120	81.5	83.1	90.7	99.0	99.9	100.0	-----
07-28-83	0840	2410	86.3	88.7	93.4	99.2	99.9	100.0	-----
07-28-83	1555	4120	90.7	92.6	95.4	99.1	99.8	100.0	-----
07-29-83	0830	2180	68.4	70.0	75.9	94.0	99.5	100.0	-----
07-30-83	1455	1950	84.9	87.1	93.8	99.4	99.9	100.0	-----
07-31-83	0945	2520	81.3	86.3	93.3	99.4	99.9	100.0	-----
07-31-83	1525	1270	71.9	79.0	88.7	98.6	100.0	-----	-----
08-01-83	0925	976	71.7	77.1	86.9	98.2	99.9	100.0	-----
08-01-83	1355	973	67.9	72.4	81.8	97.3	99.8	100.0	-----
08-02-83	0840	2110	82.1	87.2	94.9	99.5	100.0	-----	-----

Table 3.--Concentration and grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
08-02-83	1315	1620	80.4	86.0	94.6	99.5	100.0	-----	-----
08-03-83	0855	876	71.6	76.4	86.2	98.3	100.0	-----	-----
08-04-83	0855	2690	76.7	80.6	91.7	99.2	99.9	100.0	-----
08-04-83	0930	545	58.9	65.5	81.4	98.2	99.7	100.0	-----
08-05-83	1140	971	78.0	81.8	90.1	98.9	99.8	100.0	-----
08-05-83	1450	1780	83.8	87.2	93.8	99.5	99.9	100.0	-----
08-06-83	0830	2440	68.8	71.6	84.1	96.6	99.5	100.0	-----
08-06-83	1220	2560	76.7	81.3	91.4	99.4	99.8	100.0	-----
08-07-83	0855	3880	82.2	88.0	96.0	99.7	100.0	-----	-----
08-08-83	0900	2500	79.1	83.1	94.5	100.0	-----	-----	-----
08-09-83	1130	1980	74.8	82.3	91.7	99.3	100.0	-----	-----
08-10-83	0835	1860	82.2	87.0	94.3	99.7	100.0	-----	-----
08-11-83	0815	1300	83.8	86.9	94.8	99.5	100.0	-----	-----
08-11-83	1003	1870	86.2	89.9	95.3	99.5	99.9	100.0	-----
08-12-83	0750	2050	87.6	95.3	98.1	98.7	98.8	100.0	-----
08-13-83	1545	2490	87.8	91.1	97.7	99.8	99.9	100.0	-----
08-13-83	1705	2980	87.8	93.4	98.0	99.8	99.9	100.0	-----
08-14-83	0806	1280	80.4	85.2	91.8	98.6	99.9	100.0	-----
08-15-83	0855	1030	58.1	74.4	91.1	98.8	99.9	100.0	-----
08-15-83	0958	910	52.7	71.0	88.9	98.8	99.6	100.0	-----
08-16-83	0833	1040	75.5	81.4	92.6	99.1	100.0	-----	-----
08-17-83	0940	3230	93.7	95.8	98.3	99.8	100.0	-----	-----
08-17-83	1052	675	67.6	78.3	91.0	98.1	99.3	100.0	-----
08-18-83	0800	485	65.8	74.6	89.9	98.8	100.0	-----	-----
08-19-83	0930	538	64.6	71.0	83.4	98.3	99.4	100.0	-----
08-19-83	1530	524	62.3	71.6	85.6	98.2	99.0	100.0	-----
08-20-83	1030	973	85.0	89.3	95.8	99.3	99.7	100.0	-----
08-22-83	0900	871	81.2	84.7	89.6	98.2	99.5	100.0	-----
08-22-83	1700	1790	87.3	90.1	95.5	99.4	99.9	100.0	-----
08-23-83	1042	2250	61.7	63.7	67.3	83.7	98.9	100.0	-----
08-24-83	0930	1030	80.2	82.6	89.1	98.2	99.8	100.0	-----
08-24-83	1645	1280	49.0	51.8	57.8	79.5	94.7	100.0	-----
08-25-83	1030	736	83.4	87.0	90.5	98.3	99.5	100.0	-----
08-26-83	0900	543	66.8	71.9	93.8	99.4	99.7	100.0	-----
08-26-83	1630	681	32.8	39.3	64.5	98.5	99.4	100.0	-----
08-27-83	1015	330	47.0	58.4	80.0	99.3	99.9	100.0	-----
08-28-83	0645	785	21.8	26.3	46.2	88.4	99.1	99.7	100.0
08-29-83	1540	448	12.9	20.9	38.8	63.3	74.4	87.5	100.0
09-01-83	0835	127	19.0	34.9	65.0	97.3	99.7	100.0	-----
09-01-83	1645	90	17.8	34.7	68.2	96.3	99.4	99.6	100.0
09-02-83	1225	163	43.0	53.9	75.3	96.7	99.6	100.0	-----
09-03-83	0845	141	21.2	34.7	62.2	98.0	99.8	100.0	-----
09-03-83	1810	123	30.7	47.9	79.1	99.2	100.0	-----	-----
09-05-83	0930	89	11.4	26.6	59.4	96.4	99.7	100.0	-----
09-05-83	1640	171	15.1	28.1	55.2	93.1	99.5	99.8	100.0

Table 3.--Concentration and grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
09-06-83	0855	92	14.1	22.6	52.5	93.8	99.7	100.0	-----
09-08-83	1032	340	7.8	14.9	36.4	91.3	99.6	100.0	-----
09-08-83	1657	154	10.2	24.7	56.2	97.4	99.6	100.0	-----
09-09-83	1103	103	15.8	28.0	49.3	88.4	97.7	100.0	-----
09-09-83	1812	113	14.2	27.1	61.5	95.1	100.0	-----	-----
09-10-83	0903	387	2.3	8.3	20.1	59.4	95.7	99.3	100.0
09-11-83	1725	69	21.3	37.5	72.1	98.9	100.0	-----	-----
09-12-83	1115	80	14.0	28.0	50.2	90.4	100.0	-----	-----
09-13-83	0708	103	19.4	35.3	71.0	97.7	99.9	100.0	-----
09-14-83	1654	91	12.2	28.4	59.6	98.2	99.5	100.0	-----
09-15-83	1050	109	3.1	25.3	67.4	95.3	99.6	100.0	-----
09-15-83	1628	133	8.1	27.2	67.9	97.1	100.0	-----	-----
09-16-83	0941	72	10.2	25.3	55.7	95.8	99.8	100.0	-----
09-17-83	1015	62	1.4	20.4	61.7	95.2	99.2	100.0	-----
09-17-83	1715	139	12.8	28.7	60.1	96.2	99.6	100.0	-----
09-18-83	0915	179	9.7	16.4	35.4	85.2	100.0	-----	-----
09-19-83	1720	402	78.1	82.4	91.6	99.5	99.9	100.0	-----
09-21-83	0920	192	38.6	53.8	80.4	98.5	99.6	100.0	-----
09-21-83	1700	159	28.7	46.9	75.0	96.7	99.2	100.0	-----
09-23-83	1710	323	61.8	71.1	85.6	98.6	99.8	100.0	-----
09-24-83	0950	137	19.6	55.0	69.6	97.5	100.0	-----	-----
09-25-83	0930	3440	89.9	93.9	97.8	99.6	100.0	-----	-----
09-25-83	1540	1930	88.9	94.2	97.8	99.4	99.9	100.0	-----
09-27-83	1400	339	23.9	47.9	78.5	97.1	99.1	100.0	-----
09-28-83	0935	682	76.2	84.5	93.9	99.5	99.9	100.0	-----
09-28-83	1335	629	69.0	78.2	93.3	99.8	100.0	-----	-----
09-29-83	0820	468	57.3	70.4	87.1	99.1	100.0	-----	-----
09-29-83	1030	892	60.3	65.9	72.7	87.9	99.1	100.0	-----
09-30-83	0900	6780	86.4	91.4	97.6	99.5	99.9	100.0	-----
09-30-83	1300	4870	87.3	90.6	97.0	99.8	100.0	-----	-----
10-01-83	0840	9740	82.9	86.6	97.2	99.9	100.0	-----	-----
10-02-83	0850	16600	82.6	85.8	92.9	99.3	99.8	100.0	-----
10-02-83	1230	15200	85.2	92.2	97.3	99.6	99.9	100.0	-----
10-03-83	0830	6380	81.8	90.3	96.7	99.1	99.9	100.0	-----
10-04-83	1515	5650	78.7	87.9	97.0	99.7	99.9	100.0	-----
10-06-83	1410	2670	71.6	80.5	96.0	99.6	100.0	-----	-----
10-07-83	0905	4300	87.5	89.2	95.4	99.7	100.0	-----	-----
10-07-83	1155	608	14.7	40.2	76.0	97.9	99.6	100.0	-----
10-08-83	0840	1310	48.8	58.0	83.8	97.1	99.7	100.0	-----
10-09-83	0830	778	51.7	61.7	80.7	98.9	99.9	100.0	-----
10-09-83	1150	853	39.3	53.4	86.6	99.1	99.9	100.0	-----
10-11-83	0830	507	17.0	38.3	82.9	99.1	99.7	99.9	100.0
10-11-83	1052	356	34.3	69.3	76.3	94.2	98.0	100.0	-----
10-13-83	0938	516	25.0	41.9	84.0	96.5	98.5	100.0	-----
10-13-83	1130	467	25.0	46.6	88.7	98.8	99.4	100.0	-----

Table 3.--Concentration and grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
10-17-83	1130	227	16.7	40.0	92.1	99.7	100.0	-----	-----
10-18-83	0930	214	0.9	24.7	79.0	96.2	99.6	100.0	-----
10-18-83	1630	135	4.3	25.9	78.4	98.4	100.0	-----	-----
10-19-83	0900	401	5.9	30.3	67.8	98.2	99.7	100.0	-----
10-20-83	1000	474	1.1	18.6	60.3	98.1	100.0	-----	-----
10-20-83	1700	289	3.9	26.1	75.9	96.4	99.8	100.0	-----
10-21-83	0900	424	2.3	11.3	44.7	97.4	100.0	-----	-----
10-22-83	0900	294	3.2	18.3	57.0	95.5	100.0	-----	-----
10-22-83	1645	409	5.4	23.2	72.2	94.4	99.2	100.0	-----
10-23-83	1410	253	2.2	16.0	72.9	97.7	100.0	-----	-----
10-24-83	0900	356	6.8	20.3	63.1	91.3	99.8	100.0	-----
10-24-83	1700	639	11.0	22.7	67.5	96.3	99.9	100.0	-----
10-26-83	1623	234	3.8	20.9	63.0	94.5	99.6	100.0	-----
10-27-83	1220	322	1.6	19.7	58.2	83.1	99.6	100.0	-----
10-28-83	1006	271	0.2	13.4	50.6	95.8	99.7	100.0	-----
10-28-83	1610	313	4.4	24.1	74.5	98.2	99.7	100.0	-----
10-29-83	1019	288	1.9	14.0	52.5	95.9	100.0	-----	-----
10-30-83	0953	308	1.7	12.3	56.8	97.0	100.0	-----	-----
10-30-83	1601	575	1.6	7.5	29.5	75.0	98.6	100.0	-----
10-31-83	0923	275	8.5	23.1	64.2	96.8	99.7	100.0	-----
11-01-83	1146	252	2.0	17.0	65.9	86.7	99.5	100.0	-----
11-01-83	1637	185	10.7	68.7	98.4	99.7	100.0	-----	-----
11-02-83	0956	276	0.8	19.6	73.6	99.2	100.0	-----	-----
11-03-83	1124	405	3.6	11.2	40.5	81.2	99.5	100.0	-----
11-03-83	1546	259	7.9	23.0	73.3	98.2	99.8	100.0	-----
11-06-83	1100	210	8.9	26.7	77.9	96.8	100.0	-----	-----
11-07-83	1600	218	12.7	45.9	94.6	99.4	100.0	-----	-----
11-08-83	1500	210	13.8	29.2	68.5	97.5	100.0	-----	-----
11-09-83	1040	253	23.7	73.1	99.1	100.0	-----	-----	-----
11-10-83	1115	130	20.3	33.1	67.6	97.3	100.0	-----	-----
11-10-83	1600	204	20.2	31.6	71.5	98.4	100.0	-----	-----
11-11-83	1045	168	20.5	31.0	67.8	97.2	100.0	-----	-----
11-12-83	1000	175	17.7	31.8	71.4	93.1	100.0	-----	-----
11-13-83	1045	247	7.0	17.1	56.2	93.2	100.0	-----	-----
11-17-83	1000	252	5.0	14.0	57.9	94.3	100.0	-----	-----
11-17-83	1510	473	3.1	7.3	29.6	78.3	98.6	100.0	-----
11-18-83	1000	345	5.1	13.8	38.4	94.5	98.6	100.0	-----
11-19-83	1105	921	73.3	75.8	84.3	94.1	98.7	100.0	-----
11-19-83	1500	747	60.6	65.6	83.9	97.2	98.9	100.0	-----
11-20-83	1510	188	7.6	18.4	50.0	87.2	93.0	96.4	100.0
11-21-83	0930	167	6.3	26.9	64.9	94.2	96.5	100.0	-----
11-21-83	1030	203	7.4	21.0	61.3	94.9	98.3	100.0	-----
11-22-83	1000	209	11.4	21.1	42.7	90.0	96.7	100.0	-----
11-28-83	1620	548	29.7	33.1	49.3	92.9	98.5	100.0	-----
11-30-83	1445	219	27.4	38.2	66.5	97.3	99.3	100.0	-----

Table 3.--Concenration and grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
12-01-83	1025	104	33.5	46.8	72.4	89.4	100.0	-----	-----
12-02-83	1045	153	4.8	16.2	54.4	85.9	89.3	94.3	100.0
12-02-83	1425	160	10.7	24.8	62.4	90.0	94.3	100.0	-----
12-03-83	1030	123	4.2	17.0	53.9	90.9	96.7	100.0	-----
12-04-83	1130	163	9.2	20.2	53.6	95.7	99.3	100.0	-----
12-04-83	1445	317	6.7	6.7	25.8	77.6	95.1	98.4	100.0
12-05-83	1130	371	1.7	9.5	43.1	86.4	98.9	100.0	-----
12-06-83	1320	189	7.6	20.9	67.7	97.6	99.7	100.0	-----
12-07-83	1100	135	10.1	21.4	55.0	96.1	99.9	100.0	-----
12-07-83	1500	150	6.2	18.5	57.7	97.4	99.4	100.0	-----
12-08-83	1120	128	7.6	19.4	60.6	93.6	100.0	-----	-----
12-08-83	1500	155	8.4	19.6	51.0	95.2	99.8	100.0	-----
12-09-83	1440	256	5.1	9.0	19.4	88.4	99.8	100.0	-----
12-10-83	1145	110	21.8	33.1	68.2	97.3	100.0	-----	-----
12-11-83	1200	149	6.5	17.3	46.9	92.6	99.2	100.0	-----
12-11-83	1530	127	11.0	21.1	54.2	95.4	100.0	-----	-----
12-12-83	1305	374	4.6	8.2	22.5	82.0	99.0	100.0	-----
12-13-83	1105	375	5.0	9.9	27.5	82.0	99.3	100.0	-----
12-14-83	1145	133	9.8	20.4	54.8	95.9	100.0	-----	-----
12-14-83	1530	107	11.3	20.6	67.7	97.5	100.0	-----	-----

Table 4.--Concentration and grain-size distribution of suspended sediment, Colorado River above National Canyon, 1983

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
07-15-83	1045	588	7.7	14.6	53.6	97.2	99.4	100.0	-----
07-16-83	0830	577	0.1	7.7	49.5	95.4	99.3	100.0	-----
07-16-83	1555	466	2.5	11.1	45.8	93.9	99.5	99.8	100.0
07-17-83	0825	528	1.5	8.5	48.1	98.8	99.0	100.0	-----
07-18-83	0900	453	1.1	5.7	34.0	93.2	99.0	99.4	100.0
07-18-83	1630	486	0.5	8.0	48.9	91.8	99.2	100.0	-----
07-19-83	1510	319	1.8	10.7	44.4	94.4	98.3	100.0	-----
07-20-83	0830	813	0.3	5.2	26.5	81.4	100.0	-----	-----
07-24-83	1050	287	0.6	5.9	43.5	94.4	99.6	100.0	-----
07-25-83	1025	414	11.9	23.0	54.1	94.9	98.8	99.7	100.0
07-25-83	1600	451	16.1	31.3	73.4	98.7	99.6	100.0	-----
07-26-83	1125	1220	9.0	16.9	41.6	90.9	99.4	99.8	100.0
07-27-83	1020	3810	87.6	89.2	94.8	99.7	99.9	100.0	-----
07-27-83	1715	4500	91.0	92.7	96.0	99.4	99.9	100.0	-----
07-28-83	0810	1680	71.9	76.5	86.4	98.7	99.8	100.0	-----
07-29-83	0850	2500	85.7	88.7	93.7	99.6	99.9	99.9	100.0
07-29-83	1720	2520	81.9	85.7	92.7	99.6	100.0	-----	-----
07-30-83	1055	1890	81.6	85.0	92.6	98.8	99.9	100.0	-----
08-01-83	1220	2580	74.4	78.4	87.8	99.1	99.9	100.0	-----
08-02-83	1000	1670	64.5	70.0	84.2	99.6	100.0	-----	-----
08-02-83	1630	2560	84.5	86.6	92.9	99.6	100.0	-----	-----
08-03-83	1640	1780	78.1	83.5	92.7	99.3	100.0	-----	-----
08-04-83	0935	1080	68.4	75.5	88.3	99.5	100.0	-----	-----
08-04-83	1615	1040	64.3	71.3	87.9	99.6	100.0	-----	-----
08-05-83	0955	761	53.9	64.1	84.8	99.2	100.0	-----	-----
08-06-83	0905	1560	79.4	84.5	93.6	99.5	100.0	-----	-----
08-06-83	1700	2420	85.4	88.7	94.9	99.7	100.0	-----	-----
08-07-83	1030	3670	84.8	89.8	96.4	99.8	100.0	-----	-----
08-08-83	0930	4350	83.1	89.4	96.6	99.9	100.0	-----	-----
08-08-83	1700	4140	85.6	90.6	96.5	99.9	100.0	-----	-----
08-09-83	1100	2940	85.5	91.0	96.5	99.8	100.0	-----	-----
08-11-83	1000	2100	76.1	82.8	92.1	99.6	100.0	-----	-----
08-12-83	0845	1970	78.5	84.9	93.4	99.8	100.0	-----	-----
08-13-83	1005	2880	92.3	93.0	96.6	99.8	100.0	-----	-----
08-13-83	1345	2680	82.3	89.2	95.0	99.7	100.0	-----	-----
08-14-83	1450	2980	89.7	92.7	96.7	99.8	100.0	-----	-----
08-15-83	0935	1380	76.6	83.8	92.9	99.8	100.0	-----	-----
08-15-83	1315	1310	67.8	75.9	87.2	98.9	100.0	-----	-----
08-16-83	1300	2620	86.0	91.1	96.3	99.8	100.0	-----	-----
08-17-83	0830	1910	79.5	87.2	94.1	99.7	100.0	-----	-----
08-17-83	1225	1170	69.2	80.1	91.1	99.7	100.0	-----	-----
08-18-83	1355	880	49.8	68.2	87.9	98.9	100.0	-----	-----
08-19-83	1545	746	50.4	60.4	77.3	98.0	100.0	-----	-----
08-21-83	0927	1240	75.1	80.8	90.1	99.2	100.0	-----	-----
08-21-83	1658	1050	65.5	72.5	83.5	96.3	100.0	-----	-----

Table 4.--Concentration and grain-size distribution of suspended sediment, Colorado River above National Canyon, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
08-22-83	0848	569	46.3	56.9	77.7	98.0	100.0	-----	-----
08-23-83	0820	1120	75.9	81.5	90.9	99.5	100.0	-----	-----
08-23-83	1702	1600	82.7	87.0	93.5	99.1	100.0	-----	-----
08-24-38	0900	1230	78.3	83.6	90.8	99.1	100.0	-----	-----
08-25-83	0815	814	63.0	71.2	85.0	98.7	100.0	-----	-----
08-25-83	1722	770	62.8	74.5	88.3	99.4	100.0	-----	-----
08-26-83	0855	595	63.8	71.8	85.0	98.7	100.0	-----	-----
08-27-83	0832	547	38.7	50.7	73.0	97.6	100.0	-----	-----
08-27-83	1650	489	32.6	45.3	69.1	97.3	100.0	-----	-----
08-28-83	0842	357	35.3	52.0	78.8	98.5	100.0	-----	-----
08-28-83	1706	408	30.8	48.3	82.5	99.1	100.0	-----	-----
08-29-83	0845	336	24.5	41.0	74.0	98.2	100.0	-----	-----
08-30-83	0905	375	29.7	41.8	68.3	97.5	100.0	-----	-----
08-30-83	1715	303	14.6	32.7	64.9	92.3	94.5	94.9	100.0
08-31-83	0900	234	2.4	25.4	63.9	97.3	100.0	-----	-----
08-31-83	1730	302	15.4	32.0	66.1	97.3	100.0	-----	-----
09-01-83	0915	310	8.4	23.6	58.1	93.4	100.0	-----	-----
09-02-83	1218	286	16.5	30.0	59.5	94.2	100.0	-----	-----
09-03-83	0930	439	20.0	30.1	54.4	89.0	99.6	100.0	-----
09-04-83	1130	322	21.4	34.7	63.8	96.8	100.0	-----	-----
09-05-83	1815	243	5.8	20.4	60.5	97.7	100.0	-----	-----
09-06-83	0830	254	13.6	28.1	62.3	96.0	100.0	-----	-----
09-11-83	1215	307	28.3	40.0	68.8	97.1	100.0	-----	-----
09-12-83	1645	295	16.6	27.5	52.6	83.8	98.2	98.9	100.0
09-13-83	1020	482	10.1	15.8	32.0	75.8	98.3	100.0	-----
09-13-83	1705	153	25.4	37.3	67.9	97.3	99.4	100.0	-----
09-15-83	0915	243	24.0	33.0	57.3	93.5	99.4	100.0	-----
09-15-83	1705	263	11.9	24.4	53.7	93.4	99.7	100.0	-----
09-16-83	1045	226	10.4	24.7	58.5	97.5	99.9	100.0	-----
09-18-83	1348	314	42.8	52.8	73.5	97.4	100.0	-----	-----
09-19-83	1004	220	12.3	24.7	54.2	95.6	99.4	100.0	-----
09-20-83	1209	255	21.1	21.1	51.2	96.6	99.7	100.0	-----
09-20-83	1736	695	66.4	70.4	83.8	97.4	100.0	-----	-----
09-21-83	0955	777	75.0	81.2	90.8	99.1	99.8	100.0	-----
09-22-83	1144	307	37.5	47.8	68.8	97.1	100.0	-----	-----
09-23-83	1430	430	15.7	21.4	36.6	61.8	97.5	100.0	-----
09-24-83	1008	326	20.8	42.3	71.2	96.5	100.0	-----	-----
09-24-83	1814	972	44.3	53.6	67.3	84.7	98.5	100.0	-----
09-25-83	0844	679	33.3	41.2	57.2	83.3	99.3	100.0	-----
09-29-83	0945	2482	60.0	62.4	66.3	74.6	94.2	99.3	100.0
09-30-83	1135	1513	77.5	82.4	89.8	98.6	99.8	100.0	-----
10-01-83	1130	10200	81.5	83.1	84.9	86.8	98.1	100.0	-----
10-02-83	1630	23100	96.1	97.2	98.6	99.9	99.9	100.0	-----
10-03-83	1045	25800	93.8	95.0	96.6	99.5	99.9	100.0	-----
10-04-83	1245	10100	91.9	93.6	95.8	99.2	99.9	100.0	-----

Table 4.--Concentration and grain-size distribution of suspended sediment, Colorado River above National Canyon, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
10-06-83	0933	8670	89.9	93.1	97.9	99.7	99.9	100.0	-----
10-06-83	1625	9030	91.5	92.6	95.2	99.7	99.9	100.0	-----
10-07-83	0905	6050	87.5	91.2	96.7	99.7	99.9	100.0	-----
10-08-83	0912	2830	65.4	68.8	77.5	90.7	99.5	100.0	-----
10-08-83	1605	2000	72.3	76.9	87.2	99.1	99.9	100.0	-----
10-09-83	0837	2110	77.6	81.1	88.2	99.0	99.7	100.0	-----
10-10-83	1630	980	33.2	46.5	64.3	97.1	99.5	100.0	-----
10-11-83	0912	991	36.0	44.3	60.4	83.5	99.0	99.8	100.0
10-12-83	0940	796	36.6	45.3	60.1	81.8	99.4	100.0	-----
10-12-83	1523	844	30.1	38.1	54.5	79.7	99.4	99.8	100.0
10-13-83	1140	704	53.5	63.4	77.6	95.3	99.3	99.9	100.0
10-14-83	1017	1090	29.7	33.2	40.9	62.6	98.7	99.8	100.0
10-15-83	0945	841	19.2	27.8	44.4	68.3	98.0	100.0	-----
10-16-83	1202	869	6.0	7.1	33.3	69.6	100.0	-----	-----
10-17-83	0935	2810	1.5	4.4	14.5	57.4	98.2	100.0	-----
10-18-83	0915	231	20.7	47.9	75.6	96.1	98.5	100.0	-----
10-18-83	1142	267	18.1	43.1	73.8	96.5	99.0	99.7	100.0
10-19-83	0942	236	11.0	37.8	70.9	97.7	100.0	-----	-----
10-20-83	0955	358	16.8	49.5	78.7	97.6	99.7	100.0	-----
10-21-83	0910	354	10.3	37.5	68.8	97.7	100.0	-----	-----
10-22-83	0953	267	15.3	36.7	59.3	83.7	89.0	92.9	100.0
10-22-83	1105	449	11.0	30.2	55.2	81.9	89.9	94.1	100.0
10-23-83	0936	213	7.8	35.3	68.3	97.5	100.0	-----	-----
10-25-83	1450	356	18.1	46.2	78.0	96.8	99.9	100.0	-----
10-26-83	1510	1320	9.4	25.5	56.4	92.8	99.3	100.0	-----
10-27-83	1130	761	10.5	34.7	65.3	96.2	100.0	-----	-----
10-28-83	1123	322	8.2	42.7	83.4	98.4	100.0	-----	-----
10-29-83	1145	336	15.1	36.0	67.6	95.2	99.5	100.0	-----
10-30-83	0907	197	8.4	39.3	76.1	98.4	99.8	100.0	-----
10-30-83	1005	283	3.3	22.6	68.2	94.6	99.8	100.0	-----
10-31-83	0937	340	8.4	24.7	60.1	97.0	99.8	100.0	-----
11-01-83	0930	261	16.0	33.9	66.1	97.8	99.7	100.0	-----
11-02-83	0845	498	3.0	15.1	35.3	71.8	95.6	99.4	100.0
11-03-83	0957	235	0.9	18.9	60.4	97.1	99.5	100.0	-----
11-03-83	1042	258	10.5	28.2	63.9	96.5	99.6	99.9	100.0
11-05-83	1623	525	1.9	22.3	72.6	98.5	100.0	-----	-----
11-06-83	1211	245	9.0	32.8	78.2	98.9	100.0	-----	-----
11-06-83	1644	269	4.2	31.8	74.3	97.9	100.0	-----	-----
11-08-83	1040	472	7.1	18.7	41.2	75.7	98.3	100.0	-----
11-10-83	0940	1120	2.9	7.2	19.0	51.8	89.5	95.5	100.0
11-11-83	1540	220	4.9	17.4	37.4	83.6	98.2	100.0	-----
11-12-83	1144	503	6.6	16.2	43.2	65.8	73.3	80.9	100.0
11-13-83	1050	331	14.3	30.8	53.5	81.5	89.4	96.1	100.0
11-14-83	1141	501	3.9	15.5	39.1	84.6	98.3	100.0	-----
11-14-83	1706	390	10.6	22.4	51.9	73.3	79.7	87.0	100.0

Table 4.--Concentration and grain-size distribution of suspended sediment, Colorado River above National Canyon, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
11-15-83	1349	2080	0.3	3.1	9.9	33.2	90.9	99.3	100.0
11-16-83	1056	886	2.8	7.7	17.7	59.1	96.0	100.0	-----
11-16-83	1637	421	1.0	11.5	34.0	82.7	99.4	100.0	-----
11-17-83	1036	303	9.1	27.2	62.8	97.3	99.7	100.0	-----
11-19-83	1654	201	44.8	71.5	89.0	90.8	91.0	100.0	-----
11-22-83	1314	300	9.6	27.0	59.0	96.1	99.4	100.0	-----
11-28-83	1554	338	69.7	78.4	93.4	99.5	99.9	100.0	-----
11-29-83	1615	408	39.4	47.8	70.5	95.8	98.8	99.3	100.0
11-30-83	1615	284	52.3	60.4	83.7	97.7	99.6	100.0	-----
12-01-83	1230	252	42.9	52.8	74.6	94.0	98.9	100.0	-----
12-02-83	1100	57	6.3	27.0	57.9	78.7	96.0	100.0	-----
12-02-83	1642	164	22.9	38.3	72.6	97.2	99.7	100.0	-----
12-03-83	1532	122	9.4	31.0	67.3	93.0	99.2	100.0	-----
12-05-83	1110	191	23.9	38.5	71.3	92.7	96.7	100.0	-----
12-07-83	1237	282	31.8	40.0	62.8	95.5	100.0	-----	-----
12-07-83	1530	362	10.4	17.2	40.1	77.6	97.9	100.0	-----

Table 5.--Concentration and grain-size distribution of suspended sediment, Colorado River above Diamond Creek, 1983

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
08-06-83	1040	1440	28.1	36.5	64.5	98.6	99.7	100.0	-----
08-07-83	0915	3330	74.3	76.6	84.5	98.5	99.9	100.0	-----
08-08-83	0940	6240	84.0	86.3	90.8	98.9	99.9	100.0	-----
08-09-83	0905	3990	75.6	78.2	87.1	99.2	99.9	100.0	-----
08-10-83	0845	2410	65.0	69.9	84.9	99.1	100.0	-----	-----
08-12-83	1100	2720	83.4	87.2	93.6	99.6	99.9	100.0	-----
08-13-83	0915	3320	91.2	93.1	96.0	99.6	99.9	100.0	-----
08-13-83	1825	4530	94.3	96.2	98.3	99.8	99.9	100.0	-----
08-16-83	1050	878	94.2	96.1	98.4	99.7	100.0	-----	-----
08-18-83	1125	825	89.0	94.0	98.1	99.6	99.7	99.9	100.0
08-18-83	1735	1520	92.3	96.2	99.4	99.9	99.9	100.0	-----
08-19-83	1005	582	90.8	95.8	98.9	99.6	99.7	99.8	100.0
08-20-83	0945	449	88.7	95.3	98.6	99.4	99.6	99.8	100.0
08-22-83	1115	651	89.3	93.9	98.1	99.6	99.8	100.0	-----
08-24-83	1135	1180	97.7	99.1	99.7	99.9	100.0	-----	-----
08-24-83	1640	1460	96.1	98.1	99.5	99.9	100.0	-----	-----
08-26-83	1250	689	65.6	72.1	85.1	99.4	99.9	100.0	-----
08-27-83	1050	773	42.6	53.1	66.5	87.6	99.5	100.0	-----
08-28-83	1030	481	41.7	51.4	77.1	98.1	99.0	100.0	-----
08-28-83	1435	546	41.6	52.9	74.3	95.3	96.8	98.2	100.0
08-29-83	0845	432	39.9	50.0	69.2	93.2	96.0	100.0	-----
08-30-83	0940	367	26.9	29.9	63.7	96.0	98.2	100.0	-----
09-03-83	1310	347	10.0	13.3	64.1	97.9	99.5	100.0	-----
09-04-83	0930	496	11.0	25.4	60.2	90.7	92.4	100.0	-----
09-04-83	1530	352	23.8	32.6	71.0	94.8	97.3	100.0	-----
09-05-83	1005	309	15.4	27.2	58.1	95.0	97.9	100.0	-----
09-06-83	0900	295	13.3	29.7	68.1	99.0	99.6	100.0	-----
09-06-83	1710	282	14.9	29.2	64.0	95.8	96.9	100.0	-----
09-07-83	1115	337	4.6	15.6	45.3	81.9	87.4	93.0	100.0
09-08-83	0850	339	14.8	29.1	60.5	95.8	100.0	-----	-----
09-11-83	0830	197	12.2	28.1	68.1	96.4	100.0	-----	-----
09-12-83	1105	216	17.9	35.9	74.0	100.0	-----	-----	-----
09-13-83	0945	306	15.6	24.8	53.2	92.9	100.0	-----	-----
09-13-83	1745	237	14.0	28.3	64.9	90.7	95.3	100.0	-----
09-14-83	0840	243	20.0	35.3	68.9	90.6	92.7	100.0	-----
09-15-83	1635	79	31.4	49.8	74.5	97.7	100.0	-----	-----
09-16-83	1145	174	36.9	51.3	78.4	99.0	100.0	-----	-----
09-18-83	1010	59	1.5	28.5	73.5	95.9	97.7	100.0	-----
09-19-83	1045	242	13.5	24.9	56.7	97.6	99.7	100.0	-----
09-20-83	0950	128	8.2	22.7	63.6	97.6	99.6	100.0	-----
09-21-83	1425	1340	91.3	93.3	97.0	99.8	100.0	-----	-----
09-22-83	1110	422	68.5	74.6	85.4	98.7	99.6	100.0	-----
09-24-38	1210	692	75.5	81.5	91.1	99.6	100.0	-----	-----
09-25-83	1010	466	67.7	74.7	90.0	99.2	99.7	100.0	-----
09-25-83	1610	1100	85.3	90.1	95.8	99.8	99.9	100.0	-----

Table 5.--Concentration and grain-size distribution of suspended sediment, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
09-26-83	0755	721	85.8	89.8	95.4	99.7	99.9	100.0	-----
09-27-83	1742	995	83.9	88.8	94.4	99.4	99.9	100.0	-----
09-28-83	1044	449	69.6	77.6	88.1	99.3	99.9	100.0	-----
09-28-83	1748	415	60.2	67.6	81.3	98.2	100.0	-----	-----
09-29-83	0948	296	47.0	64.8	84.3	98.6	100.0	-----	-----
09-30-83	1052	593	74.9	80.8	90.9	99.2	100.0	-----	-----
10-01-83	1316	596	69.4	76.4	87.4	99.1	100.0	-----	-----
10-02-83	1155	3210	88.7	91.6	95.5	99.5	100.0	-----	-----
10-02-83	1736	12600	96.3	97.5	99.1	99.9	100.0	-----	-----
10-03-83	0908	12600	96.7	97.6	99.0	99.9	100.0	-----	-----
10-04-83	1019	9300	96.3	98.1	99.3	99.9	100.0	-----	-----
10-04-83	1420	7650	95.1	96.8	98.6	99.9	100.0	-----	-----
10-05-83	0925	4750	96.1	98.5	98.7	99.9	100.0	-----	-----
10-06-83	1106	4690	92.1	96.2	98.6	99.9	99.9	100.0	-----
10-07-83	1020	5040	95.3	97.7	99.0	99.9	100.0	-----	-----
10-08-83	1545	2040	89.3	95.2	98.0	99.8	100.0	-----	-----
10-09-83	1430	1200	81.7	90.5	97.5	99.8	100.0	-----	-----
10-10-83	1055	1060	76.7	85.5	92.7	98.9	100.0	-----	-----
10-11-83	1600	564	57.2	74.0	86.7	98.5	100.0	-----	-----
10-12-83	0930	486	59.3	77.5	91.5	99.0	100.0	-----	-----
10-14-83	1030	446	70.0	83.7	93.3	99.3	100.0	-----	-----
10-14-83	1620	395	70.3	85.4	93.7	99.2	100.0	-----	-----
10-16-83	1000	339	45.8	62.1	82.8	98.9	100.0	-----	-----
10-18-83	1630	402	19.3	46.8	76.4	98.9	99.8	100.0	-----
10-01-83	0955	402	21.2	43.5	73.3	98.2	99.8	100.0	-----
10-20-83	1455	281	26.3	43.5	69.7	98.4	99.8	100.0	-----
10-20-83	1610	291	18.9	39.5	74.3	99.0	99.9	100.0	-----
10-21-83	0945	519	38.4	66.8	89.0	99.6	99.9	100.0	-----
10-22-83	1130	328	26.7	49.0	79.3	99.2	99.7	100.0	-----
10-22-83	1348	315	21.2	40.1	74.5	99.1	100.0	-----	-----
10-23-83	0950	304	15.4	38.6	66.0	96.6	99.3	99.7	100.0
10-24-83	1100	248	21.6	29.8	71.6	99.4	100.0	-----	-----
10-25-83	1010	794	18.0	42.9	79.4	98.0	99.6	100.0	-----
10-26-83	1010	568	22.5	38.4	77.0	99.0	99.9	100.0	-----
10-27-83	1130	320	23.7	46.4	73.0	98.3	100.0	-----	-----
10-28-83	0915	423	21.8	52.5	81.9	98.9	99.8	100.0	-----
11-04-83	0600	267	19.9	42.0	70.5	98.2	99.3	100.0	-----
11-07-83	1100	288	7.5	22.7	63.1	99.4	100.0	-----	-----
11-07-83	1435	382	10.3	34.6	75.1	98.6	99.8	100.0	-----
11-08-83	1050	374	13.9	37.6	72.8	98.9	100.0	-----	-----
11-09-83	1055	308	8.6	31.6	68.1	97.9	99.2	100.0	-----
11-09-83	1215	311	11.1	37.7	73.5	99.2	99.8	100.0	-----
11-11-83	1056	283	3.0	3.1	19.5	54.1	97.3	99.4	100.0
11-11-83	1210	229	6.1	32.7	70.9	97.8	99.3	100.0	-----
11-14-83	0925	265	11.3	36.6	75.0	98.8	100.0	-----	-----

Table 5.--Concentration and grain-size distribution of suspended sediment, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size, in millimeters						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
11-18-83	1410	209	20.0	41.1	78.8	98.2	100.0	-----	-----
11-19-83	1325	318	42.5	59.4	82.8	98.9	100.0	-----	-----
11-22-83	1105	427	20.0	40.7	70.2	98.4	99.3	100.0	-----
11-22-83	1640	237	28.1	48.6	78.0	99.0	100.0	-----	-----
11-28-83	1049	529	55.4	62.0	79.0	98.2	100.0	-----	-----
11-29-83	1106	371	53.5	60.8	77.3	99.2	100.0	-----	-----
12-01-83	1130	349	37.0	53.5	76.4	99.0	100.0	-----	-----
12-02-83	1550	293	23.5	37.8	73.4	97.6	100.0	-----	-----
12-03-83	1614	271	26.4	43.5	77.5	98.7	100.0	-----	-----
12-04-83	1023	293	16.4	32.3	58.7	95.2	100.0	-----	-----
12-04-83	1425	239	11.5	27.1	62.5	94.9	100.0	-----	-----
12-05-83	1136	212	22.1	35.7	68.8	98.2	100.0	-----	-----
12-06-83	1050	257	13.7	24.4	62.1	96.8	100.0	-----	-----
12-06-83	1515	202	8.4	20.1	52.3	95.9	100.0	-----	-----
12-07-83	1102	79	30.9	30.9	30.9	97.8	100.0	-----	-----
12-08-83	1020	214	25.4	38.3	66.4	97.1	100.0	-----	-----
12-09-83	1106	323	11.2	24.0	57.4	95.5	100.0	-----	-----
12-10-83	0902	239	2.5	19.5	51.2	94.2	100.0	-----	-----
12-11-83	1612	212	16.7	29.2	57.9	94.1	100.0	-----	-----
12-12-83	0934	276	12.3	26.7	56.1	91.4	100.0	-----	-----
12-13-83	1505	242	13.9	32.0	64.8	98.2	100.0	-----	-----
12-14-83	1105	250	11.9	24.5	57.2	94.6	100.0	-----	-----
12-15-83	1040	297	19.1	35.5	62.5	97.7	100.0	-----	-----
12-15-83	1545	277	28.6	43.2	70.1	98.7	100.0	-----	-----
12-16-83	0920	215	15.7	30.3	62.2	97.7	100.0	-----	-----
12-18-83	1346	260	12.9	25.0	60.1	98.1	100.0	-----	-----
12-19-83	1120	222	17.0	28.2	58.2	97.1	100.0	-----	-----

Table 6.--Suspended-sediment concentrations at individual verticals of cross sections, Colorado River at Lees Ferry, 1983

Date	Time	Gage height, in feet	Mean concentrations, in milligrams per liter	Number of verticals	Distance from left bank reference point, in feet	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
06-17-83	1330	15.03	225	5	270	73	42.0
					340	63	32.0
					410	326	14.0
					470	280	14.0
					384	384	20.0
06-18-83	1245	15.15	212	5	270	159	16.0
					340	156	18.0
					410	342	6.0
					470	330	12.0
					535	74	31.0
06-18-83	1600	15.15	247	5	270	157	41.0
					340	250	27.0
					410	175	17.0
					470	68	50.0
					535	583	7.0
08-30-83	0805	11.98	10	19	205	52	----
					225	0	----
					245	4	----
					285	3	----
					305	2	----
					325	2	----
					345	2	----
					365	2	----
					385	2	----
					405	2	----
					425	2	----
					445	2	----
					465	3	----
					485	5	----
					505	5	----
					525	4	----
					545	4	----
					565	37	----
09-16-83	0940	11.92	46	18	210	46	64.0
					230	350	61.0
					250	97	76.0
					270	38	86.0
					290	25	65.0
					310	24	58.0
					330	22	84.0
					350	12	48.0
					370	7	69.0
					390	7	74.0
					410	24	71.0
					430	22	65.0
					450	24	86.0
					470	6	63.0
					490	19	90.0
					510	11	44.0
					530	17	73.0
					550	79	42.0

Table 6.--Suspended-sediment concentrations at individual verticals of cross sections, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Mean concentrations, in milligrams per liter	Number of verticals	Distance from left bank reference point, in feet	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
09-30-83	1125	11.91	41	19	190	327	75.0
					210	200	55.0
					230	37	69.0
					250	54	19.0
					270	6	12.0
					290	2	25.0
					310	0	----
					330	26	19.0
					350	4	12.0
					370	7	57.0
					390	4	56.0
					410	11	61.0
					430	10	12.0
					450	4	56.0
					470	3	75.0
					490	7	40.0
					510	9	43.0
					530	0	----
					550	65	94.0
10-07-83	1055	11.94	8	19	195	79	----
					215	6	----
					235	10	----
					255	6	----
					275	5	----
					295	7	----
					315	3	----
					335	4	----
					355	2	----
					375	0	----
					395	5	----
					415	3	----
					435	1	----
					455	4	----
					475	5	----
					495	3	----
					515	4	----
					535	6	----
					555	5	----
10-20-83	0748	11.50	6	17	200	1	----
					220	15	----
					240	2	----
					260	8	----
					280	7	----
					300	10	----
					320	16	----
					340	5	----
					360	2	----
					380	6	----
					400	9	----
					420	6	----
					440	4	----
					460	3	----
					480	0	----
					500	5	----
					520	2	----

Table 6.--Suspended-sediment concentrations at individual verticals of cross sections, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Mean concentrations, in milligrams per liter	Number of verticals	Distance from left bank reference point, in feet	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
11-02-83	1020	11.58	6	18	190	50	----
					210	7	----
					230	2	----
					250	3	----
					270	0	----
					290	3	----
					310	8	----
					330	3	----
					350	3	----
					370	6	----
					390	5	----
					410	4	----
					430	6	----
					450	8	----
					490	2	----
					510	0	----
					530	0	----
					550	0	----
11-12-83	0930	11.43	5	15	190	6	56.0
					210	6	56.0
					230	6	56.0
					250	6	56.0
					270	7	75.0
					290	4	73.0
					310	1	0
					330	5	15.0
					350	1	50.0
					370	1	67.0
					390	2	40.0
					410	2	100.0
					430	3	50.0
					450	2	75.0
					470	3	44.0
					490	11	48.0
					510	4	70.0
					530	11	83.0
					550	11	83.0

Table 7.--Suspended-sediment concentrations at individual verticals of cross sections, Colorado River above Little Colorado River, 1983

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Number of verticals	Distance from right bank reference point, in feet	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
08-31-83	1134	2,785.16	95	13	120	77	12.0
					140	84	29.0
					160	69	25.0
					180	127	18.0
					200	82	17.0
					220	60	27.0
					240	110	16.0
					260	124	13.0
					280	93	19.0
					300	82	20.0
					320	100	21.0
					340	122	9.0
					360	100	18.0
09-13-83	0758	2,714.78	103	6	130	99	19.0
					150	100	16.0
					170	84	22.0
					190	81	23.0
					210	123	16.0
					230	129	15.0
09-13-83	0940	2,784.92	17	15	75	11	----
					95	46	----
					115	8	----
					135	12	----
					155	64	----
					175	13	----
					195	9	----
					215	10	----
					235	11	----
					255	15	----
					275	9	----
					295	12	----
					315	11	----
					335	12	----
					355	6	----
					375	11	----
					395	9	----

Table 8.--Suspended-sediment concentrations at individual verticals of cross sections, Colorado River near Grand Canyon, 1983

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Number of verticals	Distance from right bank reference point, in feet	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
09-13-83	0758	14.78	131	7	250	122	16.0
					270	45	77.0
					290	102	14.0
					310	140	15.0
					330	101	13.0
					350	108	17.0
					370	298	7.0
09-22-83	0900	13.20	250	14	110	830	----
					130	300	----
					150	175	----
					170	160	----
					190	204	----
					210	298	----
					230	210	----
					250	234	----
					270	204	----
					290	207	----
					310	191	----
					330	169	----
					360	156	----
					370	158	----
11-06-83	1415	13.54	235	18	115	316	----
					130	89	----
					145	91	----
					160	386	----
					175	245	----
					190	165	----
					205	155	----
					220	149	----
					235	126	----
					250	459	----
					265	512	----
					280	205	----
					295	805	----
					310	116	----
					325	183	----
					340	101	----
					355	52	----
					370	83	----

Table 9.--Suspended-sediment concentrations at individual verticals of cross sections, Colorado River above National Canyon, 1983

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Number of verticals	Distance from left bank reference point, in feet	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
09-05-83	1000	1,747.80	422	13	120	786	12.0
					140	170	16.0
					160	217	12.0
					180	280	14.0
					200	247	14.0
					220	351	10.0
					240	284	10.0
					260	179	24.0
					280	481	6.0
					300	380	14.0
					320	753	5.0
					340	913	34.0
					360	4580	33.0
09-11-83	1720	1,747.28	327	13	120	119	21.0
					140	89	33.0
					160	94	14.0
					180	195	14.0
					200	139	11.0
					220	426	33.0
					240	120	18.0
					260	151	19.0
					280	206	14.0
					300	154	11.0
					320	150	22.0
					340	372	24.0
					360	2030	22.0

Table 10.--Suspended-sediment concentrations at individual verticals of cross sections, Colorado River above Diamond Creek, 1983

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Number of verticals	Distance from left bank reference point, in feet	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
09-21-83	1015	1,352.93	296	13	60	122	15.0
					75	224	13.0
					90	328	27.0
					105	457	40.0
					120	317	26.0
					135	336	31.0
					150	286	28.0
					165	300	32.0
					180	269	36.0
					195	251	29.0
					210	236	33.0
					225	296	52.0
					240	427	60.0
10-15-83	1130	1,352.22	457	14	50	1220	30.0
					65	400	31.0
					80	512	41.0
					95	500	48.0
					110	433	39.0
					125	451	44.0
					140	464	47.0
					155	404	41.0
					170	460	46.0
					185	366	37.0
					200	330	32.0
					215	371	49.0
					230	394	40.0
					245	284	0.0

Table 11.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1983

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
06-30-83	250	129.8	42.0	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
06-30-83	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
06-30-83	330	151.5	23.3	-----	100.0	89.2	82.6	64.4	43.8	18.6	6.7	0.7	0.2	0.1
06-30-83	380	193.1	4.7	-----	-----	-----	100.0	99.9	99.6	96.7	47.6	1.3	0.1	0.0
06-30-83	435	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
06-30-83	455	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
06-30-83	475	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	245	26.1	25.3	0.0	100.0	25.3	25.3	25.3	24.9	24.1	21.4	8.8	0.8	0.0
07-01-83	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	325	25.0	11.7	-----	-----	100.0	88.4	68.4	44.4	17.2	5.2	0.8	0.0	0.0
07-01-83	345	201.2	28.3	-----	100.0	51.4	36.0	20.3	11.2	4.7	2.1	0.3	0.0	0.0
07-01-83	365	9.5	11.3	-----	100.0	84.2	48.4	34.7	24.2	10.5	3.2	1.1	0.0	0.0
07-01-83	385	173.4	3.3	-----	-----	-----	100.0	99.9	98.1	61.9	4.1	0.5	0.2	0.0
07-01-83	405	186.1	3.0	-----	-----	-----	-----	100.0	99.9	99.0	78.2	5.2	0.4	0.0
07-01-83	425	163.4	1.2	-----	-----	-----	-----	-----	100.0	99.9	85.4	4.8	0.2	0.0
07-01-83	445	141.0	3.0	-----	-----	-----	-----	100.0	99.9	99.6	73.0	1.8	0.0	0.0
07-01-83	465	135.0	1.2	-----	-----	-----	-----	-----	100.0	99.6	70.9	2.5	0.0	0.0
07-01-83	485	167.9	1.2	-----	-----	-----	-----	-----	100.0	90.2	6.6	0.1	0.0	0.0
07-01-83	505	165.6	1.8	-----	-----	-----	-----	-----	100.0	99.9	98.2	14.3	0.5	0.1
07-01-83	525	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	545	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	565	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-03-83	250	15.1	22.3	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-03-83	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-03-83	360	107.8	4.7	-----	-----	-----	-----	100.0	97.3	84.2	35.3	1.7	0.1	0.0
07-03-83	470	199.9	8.0	-----	-----	-----	-----	100.0	99.2	98.3	76.6	1.6	0.0	0.0
07-03-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-04-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-04-83	340	377.1	26.1	-----	100.0	53.1	39.6	27.4	15.2	7.3	1.6	0.42	0.0	0.0
07-04-83	360	110.8	5.0	-----	-----	-----	100.0	99.5	96.2	67.8	13.5	0.7	0.0	0.0
07-04-83	470	96.5	1.8	-----	-----	-----	-----	-----	100.0	99.9	87.8	3.8	0.1	0.0
07-04-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-05-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-05-83	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-05-83	420	199.0	1.2	-----	-----	-----	100.0	99.8	79.2	3.5	0.1	0.0	0.0	0.0
07-05-83	480	198.2	0.8	-----	-----	-----	100.0	99.9	78.4	2.0	0.1	0.0	0.0	0.0
07-05-83	525	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-07-83	250	5.7	12.7	-----	100.0	52.6	52.6	31.6	17.5	12.3	8.8	3.5	0.0	0.0
07-07-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-07-83	340	159.3	22.0	-----	100.0	67.9	47.7	20.7	8.3	1.4	0.4	0.1	0.1	0.0
07-07-83	370	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-07-83	450	204.0	0.7	-----	-----	-----	-----	-----	------	100.0	79.5	2.4	0.0	0.0
07-07-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-09-83	250	248.9	48.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-09-83	340	67.8	24.3	-----	100.0	17.7	2.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0
07-09-83	370	143.3	15.3	-----	100.0	88.6	72.4	54.2	38.0	17.2	3.6	0.8	0.1	0.0
07-09-83	450	171.9	13.7	-----	100.0	97.8	97.8	97.4	97.2	96.5	59.7	2.9	0.1	0.0
07-09-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-11-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-11-83	300	179.3	10.0	-----	-----	100.0	98.7	96.2	91.1	70.3	14.0	0.5	0.0	0.0
07-11-83	370	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-11-83	420	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-11-83	450	186.4	4.3	-----	-----	-----	-----	100.0	99.4	97.7	69.0	2.8	0.1	0.0
07-11-83	490	192.0	0.8	-----	-----	-----	-----	-----	100.0	99.9	88.4	4.6	0.1	0.0

Table 11.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
07-13-83	250	39.5	27.0	-----	100.0	14.4	14.4	5.8	3.0	1.8	1.5	0.5	0.0	0.0
07-13-83	300	45.6	18.3	-----	100.0	55.7	28.7	14.7	7.9	5.0	3.3	0.4	0.0	0.0
07-13-83	340	42.3	27.0	-----	100.0	16.1	7.8	1.2	1.2	1.2	0.9	0.0	0.0	0.0
07-13-83	370	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-13-83	450	106.9	0.8	-----	-----	-----	-----	-----	100.0	99.7	87.3	9.7	0.5	0.0
07-13-83	530	131.6	23.3	-----	100.0	37.0	16.8	2.5	0.4	0.2	0.1	0.0	0.0	0.0
07-15-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-15-83	300	9.1	11.3	-----	100.0	70.3	41.8	20.9	15.4	11.0	5.5	0.0	0.0	0.0
07-15-83	350	78.3	51.7	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-15-83	430	163.7	6.0	-----	-----	-----	100.0	98.8	96.9	79.4	22.5	1.1	0.1	0.0
07-15-83	470	158.3	0.7	-----	-----	-----	-----	-----	------	100.0	98.0	5.5	0.1	0.0
07-15-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-16-83	200	24.2	8.0	-----	-----	100.0	97.1	74.8	53.3	29.8	21.5	5.8	0.4	0.0
07-16-83	300	97.4	42.3	-----	100.0	9.9	8.6	3.1	1.3	0.7	0.3	0.0	0.0	0.0
07-16-83	320	16.7	21.0	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-16-83	400	118.4	10.7	-----	100.0	98.3	95.5	91.4	85.4	54.3	12.0	0.8	0.0	0.0
07-16-83	470	104.9	3.7	-----	-----	-----	-----	100.0	99.8	98.9	61.2	2.1	0.0	0.0
07-16-83	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-19-83	200	132.0	33.3	-----	100.0	28.2	25.2	14.8	10.2	6.5	4.5	1.1	0.1	0.0
07-19-83	250	161.5	54.7	-----	100.0	1.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
07-19-83	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-19-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-19-83	410	162.0	4.3	-----	-----	-----	100.0	99.1	93.6	57.2	8.5	0.4	0.1	0.0
07-19-83	470	151.0	5.0	-----	-----	100.0	95.8	95.4	95.0	92.9	62.1	2.0	0.1	0.0
07-19-83	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-23-83	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-23-83	215	183.0	10.7	-----	100.0	99.2	99.2	98.8	98.5	97.0	95.2	69.2	17.3	1.9
07-23-83	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-23-83	340	166.4	41.0	-----	100.0	11.2	8.5	4.8	2.6	1.1	0.9	0.2	0.1	0.0
07-23-83	370	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-23-83	450	147.1	2.0	-----	-----	-----	-----	100.0	99.9	98.0	53.8	1.0	0.0	0.0
07-23-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-25-83	220	57.3	17.7	-----	100.0	51.3	27.6	16.8	12.6	9.9	9.1	4.0	1.0	0.2
07-25-83	300	105.2	29.0	-----	100.0	8.2	2.0	0.7	0.4	0.2	0.0	0.0	0.0	0.0
07-25-83	350	152.3	36.7	-----	100.0	2.5	1.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0
07-25-83	400	42.5	5.7	-----	-----	-----	100.0	95.5	80.2	31.3	6.4	0.5	0.2	0.0
07-25-83	450	171.6	2.0	-----	-----	-----	-----	100.0	99.7	92.8	24.6	0.1	0.0	0.0
07-25-83	540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-27-83	215	190.5	18.0	-----	100.0	93.2	92.7	92.0	91.0	89.3	87.5	49.6	10.1	1.3
07-27-83	280	376.3	65.0	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-27-83	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-27-83	370	69.5	31.7	-----	100.0	19.1	16.3	7.8	5.8	4.5	4.0	0.6	0.0	0.0
07-27-83	450	112.2	0.8	-----	-----	-----	-----	100.0	99.9	98.8	65.0	1.2	0.0	0.0
07-27-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-29-83	220	195.6	22.3	-----	100.0	54.2	41.6	32.1	23.8	18.0	16.2	7.1	1.2	0.2
07-29-83	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-29-83	380	178.4	20.0	-----	100.0	88.4	85.7	72.1	42.2	15.6	7.2	0.1	0.0	0.0
07-29-83	460	194.9	4.3	-----	-----	-----	100.0	99.9	99.8	99.0	69.8	1.2	0.1	0.0
07-29-83	520	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-31-83	250	108.8	11.3	-----	-----	100.0	84.7	72.5	61.7	39.4	19.9	2.6	0.1	0.0
07-31-83	310	103.0	7.3	-----	-----	-----	100.0	99.0	95.1	80.8	43.7	2.7	0.1	0.0
07-31-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-31-83	400	188.5	11.7	-----	100.0	99.2	98.9	92.6	73.0	43.0	17.5	0.3	0.0	0.0
07-31-83	450	187.4	2.7	-----	-----	-----	-----	-----	100.0	99.4	84.3	2.2	0.1	0.0
07-31-83	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-31-83	550	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	190	6.4	----	-----	-----	-----	-----	-----	------	-----	-----	----	----	100.0
08-02-83	230	340.6	----	-----	-----	-----	-----	-----	------	-----	-----	----	----	100.0
08-02-83	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 11.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
08-02-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	390	101.0	9.0	-----	-----	100.0	99.1	93.2	76.8	43.3	21.1	0.3	0.0	0.0
08-02-83	430	144.8	11.0	-----	100.0	98.4	97.9	97.5	97.4	93.3	48.5	0.8	0.1	0.1
08-02-83	470	187.3	0.7	-----	-----	-----	-----	-----	100.0	99.9	99.5	5.1	0.2	0.1
08-02-83	510	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	550	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-04-83	200	94.1	14.3	-----	100.0	94.9	90.2	76.8	72.7	68.5	63.4	23.1	6.5	1.7
08-04-83	250	69.3	29.0	-----	100.0	4.8	4.8	3.2	2.9	2.6	2.2	1.2	0.7	0.6
08-04-83	300	83.0	36.3	-----	1100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-04-83	350	65.4	36.0	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-04-83	400	172.3	16.3	-----	100.0	93.8	91.0	79.2	63.1	41.8	23.9	0.6	0.1	0.1
08-04-83	450	184.1	5.7	-----	------	100.0	99.8	99.8	99.8	99.0	71.8	0.7	0.0	0.0
08-04-83	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-04-83	550	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-06-83	240	119.5	20.3	-----	100.0	55.6	44.8	28.0	16.9	11.2	8.9	4.3	0.8	0.2
08-06-83	340	51.0	26.3	-----	100.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-06-83	360	195.1	16.3	-----	100.0	74.6	54.9	16.6	2.8	0.6	0.5	0.2	0.1	0.1
08-06-83	420	114.6	13.0	-----	100.0	96.9	96.4	96.4	94.3	82.2	43.6	0.6	0.0	0.0
08-06-83	480	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-06-83	540	53.6	0.7	-----	------	-----	-----	100.0	99.8	99.6	99.3	71.1	4.7	0.2
08-08-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-08-83	300	135.7	34.7	-----	100.0	16.1	12.7	3.8	1.8	1.0	0.7	0.3	0.1	0.1
08-08-83	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-08-83	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-08-83	370	184.5	10.0	-----	100.0	99.6	95.3	62.1	20.8	2.3	1.0	0.3	0.1	0.1
08-08-83	450	198.6	8.0	-----	------	-----	100.0	98.8	98.5	97.4	71.6	0.7	0.1	0.1
08-08-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	440	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	480	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	520	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-11-83	560	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-14-83	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-14-83	300	5.2	5.3	-----	------	-----	100.0	78.8	67.3	55.8	34.6	1.9	0.0	0.0
08-14-83	340	99.4	34.0	-----	100.0	3.1	2.9	2.5	2.1	1.5	0.5	0.3	0.1	0.0
08-14-83	370	64.7	9.0	-----	------	100.0	93.5	58.0	24.7	9.0	4.0	0.0	0.0	0.0
08-14-83	400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-14-83	410	122.3	7.7	-----	------	100.0	99.5	95.0	86.5	57.0	22.5	1.0	0.4	0.1
08-14-83	450	105.5	6.0	-----	------	-----	100.0	99.4	98.8	95.5	61.8	0.5	0.1	0.1
08-14-83	490	192.2	0.8	-----	------	-----	-----	-----	100.0	99.9	98.2	3.3	0.1	0.1
08-14-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-16-83	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-16-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-16-83	300	15.4	20.7	-----	100.0	2.6	2.6	1.9	0.6	0.0	0.0	0.0	0.0	0.0
08-16-83	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-16-83	370	12.4	4.7	-----	------	100.0	99.2	99.2	85.5	61.3	33.1	0.8	0.0	0.0
08-16-83	400	100.1	5.3	-----	------	-----	100.0	99.2	92.6	60.1	26.3	0.2	0.0	0.0
08-16-83	410	109.7	7.7	-----	------	100.0	99.4	97.1	89.0	47.7	15.6	0.4	0.2	0.1
08-16-83	480	180.8	3.0	-----	------	-----	-----	100.0	99.9	99.7	91.5	1.4	0.0	0.0
08-16-83	540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-18-83	300	153.2	48.7	-----	100.0	9.5	8.0	4.0	2.9	2.0	1.4	0.4	0.1	0.0
08-18-83	330	116.0	39.0	-----	100.0	4.2	2.6	2.1	1.8	1.6	0.9	0.3	0.2	0.1
08-18-83	400	104.8	6.0	-----	------	-----	100.0	98.7	96.9	89.0	55.0	0.4	0.1	0.0
08-18-83	470	183.7	11.0	-----	------	100.0	99.0	99.0	99.0	98.9	91.6	1.7	0.0	0.0
08-20-83	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 11.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
08-20-83	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-20-83	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-20-83	360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-20-83	460	192.0	6.7	-----	------	-----	100.0	99.6	99.2	97.4	69.6	0.6	0.0	0.0
08-22-83	330	171.3	37.7	-----	100.0	13.8	12.6	8.5	5.1	3.4	3.0	1.2	0.4	0.1
08-22-83	395	22.3	4.7	-----	------	-----	100.0	98.7	91.5	69.1	38.6	0.4	0.0	0.0
08-22-83	430	194.6	0.8	-----	------	-----	-----	-----	100.0	99.9	96.8	2.7	0.1	0.1
08-22-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-24-83	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-24-83	330	26.0	21.3	-----	100.0	19.6	19.6	9.6	8.1	6.2	5.0	3.1	1.5	0.4
08-24-83	400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-24-83	470	182.0	4.3	-----	------	-----	100.0	99.9	99.9	99.7	95.5	2.0	0.1	0.0
08-26-83	250	3.4	12.3	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-26-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-26-83	450	187.2	7.7	-----	------	100.0	99.7	99.6	98.8	93.5	73.1	0.9	0.1	0.1
08-26-83	550	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-28-83	220	187.0	23.7	-----	100.0	60.0	53.0	46.3	43.7	41.8	40.6	34.4	17.9	4.3
08-28-83	270-320-370	9.7	8.3	-----	------	100.0	94.8	94.8	91.8	78.4	49.5	4.1	1.0	0.0
08-28-83	420	116.1	0.0	-----	------	-----	100.0	98.7	96.4	73.5	32.1	0.4	0.1	0.0
08-28-83	470	107.0	0.0	-----	------	-----	100.0	99.8	99.7	99.6	93.1	1.9	0.1	0.0
08-28-83	520-570	14.1	0.0	-----	------	-----	-----	-----	100.0	99.3	96.5	85.8	45.4	12.8
09-01-83	200	71.5	----	-----	------	-----	100.0	97.5	94.55	92.7	83.9	62.1	22.9	0.0
09-01-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-01-83	275	412.4	70.3	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-01-83	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-01-83	350	117.3	39.0	-----	100.0	26.5	21.6	13.0	5.5	3.1	2.8	1.2	0.3	0.0
09-01-83	400	191.5	10.2	-----	------	100.0	99.5	97.8	87.2	55.9	20.6	0.3	0.1	0.1
09-01-83	450	104.0	----	-----	------	-----	100.0	99.8	99.2	96.6	76.4	0.8	0.0	0.0
09-01-83	500	20.6	----	-----	------	-----	-----	100.0	99.5	98.5	90.3	13.1	0.5	0.0
09-04-83	550	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-04-83	225	294.2	55.0	-----	100.0	17.6	15.6	11.3	8.6	7.5	7.2	5.4	2.6	0.9
09-04-83	325	13.9	19.0	-----	100.0	26.6	26.6	20.1	12.2	8.6	5.8	1.4	0.7	0.0
09-04-83	425	179.3	----	-----	------	-----	100.0	99.6	98.8	95.0	59.5	0.4	0.1	0.1
09-04-83	525	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	230	360.1	----	-----	------	-----	-----	-----	------	-----	-----	----	----	100.0
09-06-83	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	320	176.9	41.6	-----	100.0	2.9	2.1	1.6	1.1	0.8	0.7	0.3	0.1	0.1
09-06-83	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	340	89.6	33.3	-----	100.0	22.3	16.2	8.8	5.8	4.1	3.5	1.1	0.2	0.0
09-06-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	370	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	380	181.1	9.0	-----	------	100.0	97.5	73.5	33.6	5.0	1.8	0.3	0.2	0.1
09-06-83	390	35.7	20.3	-----	100.0	34.2	29.7	21.3	14.6	10.9	7.8	0.3	0.0	0.0
09-06-83	400	104.1	13.0	-----	100.0	95.5	95.5	91.3	81.9	52.3	19.1	0.3	0.0	0.0
09-06-83	410	104.6	4.3	-----	------	-----	100.0	99.9	99.5	94.6	49.1	0.5	0.2	0.1
09-06-83	470	122.0	1.7	-----	------	-----	-----	100.0	99.8	99.6	92.3	1.4	0.1	0.0
09-06-83	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-07-83	290	6.4	13.7	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-07-83	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-07-83	410	185.0	5.3	-----	------	-----	100.0	99.1	97.0	80.8	37.8	0.4	0.0	0.0
09-07-83	450	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-09-83	240	119.9	12.3	-----	------	100.0	86.4	77.1	70.6	64.1	56.7	20.0	5.8	1.4
09-09-83	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-09-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-09-83	400	198.7	5.7	-----	------	-----	100.0	99.2	96.8	77.0	26.8	0.2	0.1	0.0
09-09-83	470	112.4	1.7	-----	------	-----	-----	-----	100.0	99.6	88.3	1.4	0.1	0.0

Table 11.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
09-11-83	240	180.0	6.3	-----	------	100.0	99.8	99.4	99.0	98.2	94.8	63.7	21.1	4.6
09-11-83	400	130.5	5.3	-----	------	-----	100.0	95.5	94.0	71.8	37.2	0.5	0.2	0.1
09-11-83	470	176.9	1.7	-----	------	-----	-----	100.0	99.9	99.5	86.5	1.0	0.1	0.0
09-11-83	490	110.5	1.3	-----	------	-----	-----	-----	100.0	99.9	95.7	2.2	0.0	0.0
09-13-83	240	128.4	4.3	-----	------	-----	100.0	99.9	99.1	97.2	90.3	56.7	20.6	5.4
09-13-83	320	71.1	25.3	-----	100.0	19.4	12.4	7.7	6.2	5.2	4.5	1.8	0.6	0.1
09-13-83	380	112.1	22.0	-----	100.0	54.3	48.9	35.5	24.0	14.4	8.7	1.0	0.4	0.2
09-13-83	400	157.8	9.0	-----	------	100.0	99.6	91.8	72.2	36.6	14.2	0.4	0.1	0.1
09-13-83	450	180.7	3.0	-----	------	-----	-----	100.0	99.9	98.9	82.3	0.4	0.0	0.0
09-13-83	500	10.2	13.0	-----	100.0	64.7	47.1	42.2	40.2	39.2	34.3	4.9	0.0	0.0
09-16-83	450	189.4	4.0	-----	100.0	99.9	99.6	94.8	65.8	0.6	0.0	0.0	0.0	0.0
09-17-83	230	291.0	----	-----	------	-----	-----	-----	------	-----	-----	----	----	100.0
09-17-83	300	53.7	20.7	-----	100.0	38.9	31.1	13.8	8.0	3.9	3.2	1.1	0.4	0.2
09-17-83	400	102.8	6.7	-----	------	100.0	99.3	95.6	86.9	55.6	21.0	0.3	0.0	0.0
09-17-83	500	11.5	2.7	-----	------	-----	-----	100.0	99.1	93.9	80.9	15.7	0.9	0.0
09-19-83	200	123.1	5.3	-----	------	-----	100.0	99.5	99.1	98.1	95.9	73.8	45.6	14.6
09-19-83	320	200.0	49.0	-----	100.0	11.7	9.8	4.9	3.2	1.4	1.1	0.3	0.0	0.0
09-19-83	420	194.5	6.0	-----	------	-----	100.0	98.8	96.7	86.1	50.8	0.4	0.1	0.1
09-19-83	480	181.2	5.0	-----	------	-----	100.0	99.8	99.8	99.6	93.2	2.5	0.1	0.0
09-21-83	220	80.6	9.7	-----	------	100.0	96.7	92.9	91.9	90.7	87.2	78.3	43.2	11.5
09-21-83	300	19.2	7.3	-----	------	100.0	95.8	85.9	76.6	71.4	66.7	48.4	22.9	3.6
09-21-83	400	102.2	11.3	-----	100.0	98.7	97.7	96.8	92.7	71.6	29.7	0.2	0.0	0.0
09-21-83	450	114.1	9.3	-----	------	-----	100.0	99.2	99.0	95.1	65.0	0.4	0.0	0.0
09-23-83	200	155.2	1.3	-----	------	-----	-----	100.0	99.5	98.6	96.6	88.5	57.3	18.4
09-23-83	300	32.8	14.7	-----	100.0	47.9	44.5	20.4	10.7	5.8	4.0	1.2	0.6	0.3
09-23-83	400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-23-83	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-27-83	305	26.8	27.3	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-27-83	455	193.2	3.3	-----	------	-----	-----	100.0	99.5	95.4	72.6	0.8	0.1	0.0
09-27-83	485	199.6	2.3	-----	------	-----	-----	-----	100.0	99.7	90.2	3.5	0.3	0.0
09-27-83	515	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	385	167.0	9.7	-----	------	100.0	98.0	88.6	65.1	33.9	12.2	0.5	0.1	0.1
09-29-83	445	156.5	11.7	-----	100.0	98.1	98.1	96.7	95.9	93.3	77.1	1.7	0.1	0.0
09-29-83	475	188.1	3.7	-----	------	-----	-----	100.0	99.9	99.9	96.0	2.3	0.3	0.2
09-29-83	510	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-02-83	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-02-83	435	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-02-83	505	7.4	4.7	-----	------	-----	100.0	93.2	83.8	66.2	44.6	4.1	0.0	0.0
10-02-83	535	133.8	3.3	-----	------	-----	-----	100.0	99.9	99.4	98.9	95.1	47.1	3.8
10-07-83	195	137.8	0.8	-----	------	-----	-----	-----	100.0	99.8	99.1	90.5	49.3	13.0
10-07-83	215	162.0	0.8	-----	------	-----	-----	-----	100.0	99.9	99.7	93.4	47.8	9.1
10-07-83	235	359.1	56.0	-----	100.0	2.9	2.9	1.1	0.8	0.6	0.3	0.2	0.1	0.0
10-07-83	255	4.4	5.0	-----	------	-----	100.0	79.5	72.7	63.6	52.3	34.1	9.1	0.0
10-07-83	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-07-83	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-07-83	315	91.2	29.0	-----	100.0	10.0	5.9	3.6	2.1	1.6	0.8	0.2	0.0	0.0
10-07-83	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-07-83	355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-07-83	375	179.3	17.3	-----	100.0	93.9	83.8	38.4	13.1	3.0	1.2	0.8	0.2	0.0
10-07-83	395	1.9	5.3	-----	------	-----	100.0	73.7	36.8	5.3	0.0	0.0	0.0	0.0
10-07-83	415	4.0	0.8	-----	------	-----	-----	-----	100.0	97.5	77.5	0.0	0.0	0.0
10-07-83	435	183.2	8.3	-----	------	-----	100.0	97.3	93.2	72.9	42.5	1.2	0.1	0.1
10-07-83	455	197.8	6.3	-----	------	-----	100.0	99.5	98.7	96.3	82.9	2.1	0.2	0.1
10-07-83	475	107.6	0.8	-----	------	-----	-----	-----	100.0	99.8	95.0	4.7	0.4	0.1
10-07-83	495	4.9	0.8	-----	------	-----	-----	-----	100.0	98.0	87.8	2.0	0.0	0.0
10-07-83	515	3.3	4.3	-----	------	-----	100.0	93.9	93.9	90.9	81.8	3.0	0.0	0.0
10-07-83	535	180.6	0.8	-----	------	-----	-----	-----	100.0	99.8	99.1	95.9	47.3	4.3
10-07-83	555	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-09-83	235	128.1	----	-----	------	-----	-----	-----	------	------	----	----	----	100.0
10-09-83	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 11.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-09-83	375	179.0	11.7	-----	100.0	91.2	82.1	37.9	10.0	2.5	1.6	1.0	0.2	0.0
10-09-83	455	103.8	5.3	-----	------	-----	100.0	99.3	98.0	88.6	57.4	1.3	0.1	0.0
10-09-83	515	9.1	1.7	-----	------	-----	-----	100.0	96.7	87.9	61.5	17.6	1.1	0.0
10-01-83	245	3.0	4.7	-----	------	-----	100.0	93.3	93.3	80.0	40.0	3.3	3.3	3.3
10-11-83	300	180.9	42.7	-----	100.0	19.5	14.6	12.7	11.4	11.1	9.0	4.5	0.5	0.0
10-11-83	365	15.2	15.3	-----	100.0	30.9	5.3	4.6	3.3	1.3	0.0	0.0	0.0	0.0
10-11-83	410	196.5	10.3	-----	------	100.0	99.3	94.1	84.1	67.2	38.4	0.4	0.0	0.0
10-11-83	470	112.8	3.7	-----	------	-----	100.0	99.9	99.4	96.6	75.2	1.2	0.0	0.0
10-13-83	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-13-83	310	2.0	1.0	-----	------	-----	-----	-----	100.0	80.0	55.0	5.0	0.0	0.0
10-13-83	400	4.7	4.3	-----	------	-----	100.0	97.9	89.4	74.5	53.2	0.0	0.0	0.0
10-13-83	480	112.3	1.7	-----	------	-----	-----	100.0	99.9	99.6	90.2	3.0	0.1	0.0
10-13-83	540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	250	6.4	3.7	-----	------	-----	100.0	96.9	95.3	92.2	78.1	48.4	23.4	3.1
10-17-83	350	19.6	26.3	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	450	191.2	12.7	-----	100.0	96.4	96.4	95.4	95.0	92.9	81.4	2.4	0.2	0.0
10-17-83	550	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	220	83.8	0.8	-----	------	-----	-----	-----	100.0	99.6	98.4	89.6	43.7	7.6
10-19-83	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	320	11.4	14.3	-----	------	100.0	45.6	30.7	25.4	21.1	14.9	2.6	0.9	0.0
10-19-83	340	40.8	25.0	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	380	182.9	16.3	-----	100.0	97.3	91.4	60.6	22.7	5.1	2.0	0.5	0.2	0.1
10-19-83	400	113.0	6.0	-----	------	-----	100.0	96.7	90.1	72.0	33.5	0.2	0.0	0.0
10-19-83	420	104.1	3.7	-----	------	-----	-----	100.0	99.3	96.4	76.3	0.6	0.0	0.0
10-19-83	440	101.6	5.3	-----	------	-----	100.0	99.5	99.3	99.0	86.8	0.6	0.0	0.0
10-19-83	460	163.8	6.0	-----	------	-----	100.0	99.8	99.2	96.4	71.2	0.9	0.0	0.0
10-19-83	480	110.6	1.7	-----	------	-----	-----	100.0	99.9	99.2	80.3	2.0	0.1	0.1
10-19-83	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	520	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-21-83	220	168.6	2.3	-----	------	-----	-----	100.0	99.9	99.8	99.2	83.3	29.0	4.2
10-21-83	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-21-83	400	115.1	8.7	-----	------	100.0	98.8	92.9	75.4	52.8	24.8	0.3	0.0	0.0
10-21-83	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-83	230	166.9	4.0	-----	------	-----	100.0	99.5	99.0	95.5	69.3	14.7	3.4	1.0
10-23-83	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-83	410	113.8	5.0	-----	------	-----	100.0	94.7	85.2	73.9	44.0	0.5	0.2	0.1
10-23-83	520	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-26-83	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-26-83	375	189.8	14.0	-----	100.0	92.5	82.0	36.0	8.9	1.2	0.9	0.6	0.2	0.0
10-26-83	475	114.4	1.7	-----	------	-----	-----	100.0	99.8	99.7	95.5	3.1	0.0	0.0
10-28-83	250	2.7	5.3	-----	------	-----	100.0	88.9	74.1	70.4	66.7	44.4	25.9	3.7
10-28-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-28-83	450	107.5	1.7	-----	------	-----	-----	100.0	99.9	99.8	89.1	0.7	0.0	0.0
11-06-83	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-83	330	138.0	35.3	-----	100.0	39.6	28.5	17.6	11.4	7.1	6.0	2.7	0.8	0.1
11-06-83	390	189.8	9.3	-----	------	100.0	99.1	90.7	72.5	46.2	20.2	0.1	0.0	0.0
11-06-83	450	115.2	1.7	-----	------	-----	-----	100.0	99.9	99.7	94.1	0.9	0.1	0.0
11-06-83	510	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-09-83	230	272.8	-----	-----	------	-----	-----	-----	------	-----	-----	----	----	100.0
11-09-83	270	103.2	43.0	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-09-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-09-83	450	190.8	2.0	-----	------	-----	-----	100.0	99.9	99.7	90.6	1.7	0.1	0.0
11-11-83	190	99.8	1.7	-----	------	-----	-----	100.0	99.9	99.2	98.1	91.3	56.8	15.5
11-11-83	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-11-83	230	293.0	-----	-----	------	-----	-----	-----	------	-----	-----	----	----	100.0

Table 11.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-11-83	250	26.8	1.7	-----	------	-----	-----	100.0	99.6	98.9	91.4	80.6	40.3	4.9
11-11-83	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-11-83	290	7.2	16.7	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-11-83	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-11-83	330	112.3	32.0	-----	100.0	18.3	9.2	4.2	2.7	2.0	1.7	0.9	0.3	0.0
11-11-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-11-83	370	82.9	22.7	-----	100.0	34.6	30.0	16.2	11.2	4.2	2.8	1.4	0.2	0.0
11-11-83	390	89.7	11.7	-----	------	100.0	94.5	82.4	60.1	35.2	11.1	0.2	0.0	0.0
11-11-83	410	177.4	7.3	-----	------	-----	100.0	98.0	93.1	80.6	49.1	0.4	0.1	0.0
11-11-83	430	112.5	6.0	-----	------	-----	100.0	98.8	96.7	86.3	52.7	0.4	0.1	0.0
11-11-83	450	105.3	1.7	-----	------	-----	-----	-----	100.0	73.9	44.7	22.9	14.5	5.2
11-11-83	470	176.3	1.7	-----	------	-----	-----	100.0	99.9	99.6	92.6	3.2	0.1	0.0
11-11-83	490	182.6	0.8	-----	------	-----	-----	-----	100.0	99.9	98.5	13.4	0.4	0.1
11-11-83	510	9.6	9.3	-----	------	100.0	74.0	35.4	28.1	19.8	15.6	8.3	2.1	1.0
11-11-83	540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-13-83	300	8.6	8.7	-----	------	100.0	86.0	80.2	79.1	76.7	74.4	53.5	20.9	1.2
11-13-83	390	191.0	9.3	-----	------	100.0	99.0	95.5	89.7	73.2	27.7	0.4	0.1	0.1
11-13-83	430	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-13-83	480	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-13-83	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-13-83	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-13-83	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-13-83	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	320	74.9	29.0	-----	100.0	38.3	29.0	19.5	15.0	10.9	9.3	5.2	1.3	0.3
11-15-83	340	61.3	26.7	-----	100.0	36.4	17.6	9.8	6.2	4.1	3.4	1.8	0.7	0.2
11-15-83	360	53.8	21.0	-----	100.0	73.4	47.4	23.6	17.5	9.5	8.0	4.1	0.7	0.0
11-15-83	380	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	420	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	440	114.6	4.7	-----	------	-----	100.0	99.7	98.9	91.5	61.6	0.5	0.0	0.0
11-15-83	460	103.5	2.0	-----	------	-----	-----	-----	100.0	99.1	80.6	1.2	0.0	0.0
11-15-83	480	100.2	1.7	-----	------	-----	-----	-----	100.0	99.5	89.7	2.2	0.2	0.1
11-15-83	500	116.3	1.7	-----	------	-----	-----	100.0	99.9	99.6	95.7	22.0	1.8	0.1
11-15-83	520	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	560	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	240	152.8	1.7	-----	------	-----	-----	100.0	99.3	98.2	95.7	74.5	39.5	5.4
11-17-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	390	142.6	4.7	-----	------	-----	100.0	99.9	99.6	94.6	50.6	0.3	0.0	0.0
11-17-83	450	108.3	1.7	-----	------	-----	-----	-----	100.0	99.5	84.9	1.0	0.0	0.0
11-17-83	510	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	535	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	545	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-19-83	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-19-83	385	215.2	44.3	-----	100.0	9.6	2.6	1.8	1.4	1.1	1.0	0.7	0.3	0.1
11-19-83	455	115.4	1.7	-----	------	-----	-----	100.0	99.6	84.6	2.0	0.0	0.0	0.0
11-19-83	515	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-19-83	540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-21-83	240	196.6	0.7	-----	------	-----	-----	-----	------	100.0	99.9	97.6	66.7	14.1
11-21-83	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-21-83	390	102.2	12.0	-----	------	100.0	91.0	74.9	54.3	36.3	22.1	1.1	0.1	0.0
11-21-83	510	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	390	23.3	6.7	-----	100.0	87.1	66.1	48.5	26.2	1.7	0.0	0.0	0.0	0.0

Table 11.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-23-83	500	7.7	10.7	-----	100.0	37.7	24.7	14.3	10.4	1.3	0.0	0.0	0.0	0.0
11-23-83	510	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-27-83	250	24.4	25.7	-----	100.0	8.6	8.6	8.6	7.8	7.4	6.6	5.7	3.3	0.8
11-27-83	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-27-83	370	176.8	23.7	-----	100.0	71.3	50.5	17.9	8.7	4.5	3.7	2.3	0.6	0.1
11-27-83	490	194.0	2.0	-----	------	-----	-----	100.0	99.7	99.2	90.6	5.7	0.2	0.1
11-29-83	190	17.6	1.0	-----	------	-----	-----	-----	------	100.0	99.4	98.9	76.1	46.0
11-29-83	210	173.4	2.7	-----	------	-----	-----	100.0	99.9	97.9	95.6	90.5	63.4	21.4
11-29-83	230	311.5	-----	-----	------	-----	-----	-----	------	-----	-----	----	----	100.0
11-29-83	250	23.1	2.3	-----	------	-----	-----	100.0	99.6	99.1	98.3	96.5	56.7	8.7
11-29-83	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-83	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-83	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-83	330	61.6	32.3	-----	100.0	14.1	14.1	11.5	9.7	6.3	5.4	2.6	0.8	0.2
11-29-83	350	27.7	14.7	-----	------	100.0	74.0	27.8	4.7	4.0	3.6	2.5	0.7	0.0
11-29-83	370	62.9	2.7	-----	------	-----	-----	-----	100.0	99.5	92.1	10.8	0.8	0.0
11-29-83	390	703.2	84.0	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-83	410	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-83	430	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-83	450	96.2	5.0	-----	------	-----	100.0	99.9	99.3	93.5	48.2	0.7	0.0	0.0
11-29-83	470	183.0	2.0	-----	------	-----	-----	100.0	99.9	99.1	76.8	1.3	0.1	0.0
11-29-83	490	180.5	1.7	-----	------	-----	-----	-----	100.0	99.8	90.5	5.0	0.2	0.1
11-29-83	510	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-83	550	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-01-83	320	36.4	21.3	-----	100.0	31.0	19.8	19.5	17.9	15.9	14.6	9.3	3.8	0.5
12-01-83	380	62.0	7.0	-----	------	100.0	89.4	64.8	31.3	10.2	3.4	0.2	0.0	0.0
12-01-83	440	191.0	5.7	-----	------	-----	100.0	99.8	99.7	98.7	83.4	1.1	0.1	0.0
12-01-83	500	9.7	7.0	-----	------	-----	100.0	90.7	88.7	84.5	76.3	26.8	1.0	0.0
12-03-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-03-83	325	271.6	41.0	-----	100.0	20.9	13.6	8.9	6.5	5.1	4.6	2.5	1.0	0.1
12-03-83	375	154.6	21.3	-----	100.0	92.6	76.2	37.9	21.2	13.5	11.9	5.4	1.1	0.1
12-03-83	425	184.0	2.3	-----	------	-----	-----	100.0	99.8	99.5	83.5	0.5	0.0	0.0
12-03-83	495	38.6	2.0	-----	------	-----	-----	100.0	99.7	98.4	88.1	10.1	0.3	0.0
12-07-83	325	38.6	17.7	-----	100.0	50.8	16.6	11.9	9.8	7.8	7.3	4.4	1.8	0.0
12-07-83	375	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-07-83	455	109.1	2.3	-----	------	-----	-----	100.0	99.9	98.5	81.6	0.9	0.0	0.0
12-07-83	495	173.1	5.0	-----	------	-----	100.0	99.9	99.9	99.4	87.7	8.4	0.4	0.1
12-09-83	190	19.9	2.0	-----	------	-----	-----	100.0	99.0	97.0	94.0	85.9	56.8	20.6
12-09-83	210	5.6	1.7	-----	------	-----	-----	-----	100.0	96.4	87.5	76.8	58.9	19.6
12-09-83	230	300.0	----	-----	------	-----	-----	-----	------	-----	-----	----	----	100.0
12-09-83	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-09-83	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-09-83	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-09-83	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-09-83	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-09-83	350	148.7	51.3	-----	100.0	12.6	7.4	3.4	0.5	0.2	0.2	0.1	0.0	0.0
12-09-83	370	292.7	49.7	-----	100.0	7.8	6.0	3.7	2.6	1.7	1.0	0.3	0.0	0.0
12-09-83	375	116.7	22.0	-----	100.0	88.1	58.1	30.8	16.1	9.4	7.5	2.7	0.2	0.0
12-09-83	390	107.5	10.3	-----	------	100.0	96.7	86.8	70.8	49.4	21.9	0.5	0.0	0.0
12-09-83	410	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-09-83	430	167.6	2.0	-----	------	-----	-----	100.0	99.9	98.4	79.0	0.7	0.1	0.0
12-09-83	450	163.2	2.0	-----	------	-----	-----	100.0	99.9	99.1	85.3	0.9	0.1	0.0
12-09-83	470	196.2	1.0	-----	------	-----	-----	-----	100.0	99.6	89.7	2.0	0.0	0.0
12-09-83	490	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-09-83	510	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-09-83	530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-09-83	550	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-11-83	325	82.0	38.0	-----	100.0	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-11-83	380	64.1	15.3	-----	------	100.0	81.6	45.2	26.2	18.6	12.2	2.7	0.6	0.2

Table 11.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
12-11-83	410	23.8	2.0	-----	------	-----	-----	100.0	99.2	97.5	86.6	5.5	1.3	0.8
12-11-83	465	184.0	1.0	-----	------	-----	-----	-----	------	100.0	96.2	3.0	0.0	0.0
12-11-83	505	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-13-83	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-13-83	350	67.9	19.0	-----	100.0	62.9	14.6	2.1	0.9	0.6	0.3	0.0	0.0	0.0
12-13-83	415	45.2	1.7	-----	------	-----	-----	-----	100.0	99.8	90.9	9.3	0.4	0.0
12-13-83	430	189.2	6.0	-----	------	-----	100.0	99.7	99.5	96.7	78.8	0.8	0.1	0.0
12-13-83	500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 12.--Grain-size distribution of bed material, Colorado River above Little Colorado River, 1983

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
07-12-83	125	80.4	14.3	-----	------	100.0	84.7	82.2	79.7	74.1	42.4	5.3	0.2	0.0
07-12-83	145	4.8	----	-----	------	-----	----	----	100.0	95.8	81.2	14.6	0.0	---
07-12-83	165	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-12-83	185	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-12-83	205	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-12-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-12-83	245	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-12-83	265	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-12-83	285	2.7	10.7	-----	------	100.0	48.1	48.1	37.0	25.9	18.5	3.7	0.0	---
07-12-83	305	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-12-83	325	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-12-83	345	95.8	41.7	-----	------	100.0	0.5	0.1	0.0	----	----	----	---	---
07-12-83	365	160.8	10.0	-----	------	100.0	98.6	96.2	94.5	85.9	55.0	6.3	0.4	0.1
07-12-83	385	178.8	2.7	-----	------	-----	----	100.0	99.9	99.9	99.4	75.7	8.6	0.3
07-12-83	405	168.3	----	-----	------	-----	----	-----	-----	100.0	99.6	65.7	14.9	2.6
07-14-83	112	10.3	1.3	-----	------	-----	----	-----	100.0	99.0	86.4	15.5	0.0	---
07-14-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-14-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-14-83	350	46.9	18.7	-----	------	100.0	58.6	38.2	27.1	18.8	12.8	2.3	0.2	0.0
08-02-83	100	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	280	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	370	112.8	----	-----	------	-----	-----	----	-----	100.0	97.6	21.5	0.9	0.2
08-04-83	100	164.8	----	-----	------	-----	-----	----	-----	100.0	97.4	27.8	4.6	0.5
08-04-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-04-83	370	114.7	1.7	-----	------	-----	-----	-----	00.0	99.9	92.5	11.9	0.4	0.0
08-06-83	100	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-06-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-06-83	370	167.7	9.3	-----	------	100.0	99.5	97.3	93.2	84.4	53.7	2.5	0.1	0.0
08-10-83	120	102.5	1.0	-----	------	-----	-----	-----	-----	100.0	94.0	10.3	0.4	0.0
08-10-83	240	4.4	----	-----	------	-----	100.0	77.3	75.0	72.7	59.1	13.6	4.5	0.0
08-10-83	360	194.2	1.7	-----	------	-----	-----	-----	100.0	99.9	95.7	8.1	0.5	0.1
08-12-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-12-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-12-83	360	113.8	----	-----	------	-----	-----	-----	-----	100.0	99.1	26.9	1.3	0.0
08-12-83	360	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-14-83	100	117.4	1.0	-----	------	-----	-----	-----	-----	100.0	98.6	19.5	1.0	0.0
08-14-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-14-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-20-83	140	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-20-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-20-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-22-83	120	206.5	----	-----	------	-----	-----	-----	-----	100.0	91.9	10.5	0.3	0.0
08-22-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-22-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-22-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-22-83	360	225.6	----	-----	------	-----	-----	-----	-----	100.0	98.1	14.4	2.6	0.3
08-24-83	120	102.9	----	-----	------	-----	-----	-----	-----	100.0	98.3	17.9	0.9	0.1
08-24-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-24-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-26-83	120	162.1	14.3	-----	1100.0	98.6	98.0	97.0	95.8	94.6	78.5	5.2	0.2	0.0
08-26-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-26-83	340	82.4	18.0	-----	100.0	82.6	77.1	72.1	71.8	71.7	65.9	9.6	0.4	0.0
08-28-83	110	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-28-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-28-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-28-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-28-83	260	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 12.--Grain-size distribution of bed material, Colorado River above Little Colorado River, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
08-28-83	290	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-28-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-28-83	350	133.0	----	-----	------	-----	-----	-----	-----	100.0	92.7	9.4	0.2	0.0
08-28-83	380	100.1	1.0	-----	------	-----	-----	-----	-----	100.0	99.2	65.3	10.1	0.8
08-30-83	140	1.1	----	-----	------	-----	-----	-----	-----	100.0	81.8	9.1	0.0	---
08-30-83	220	0.1	----	-----	------	-----	-----	-----	-----	-----	100.0	0.0	----	---
08-30-83	300	210.2	----	-----	------	-----	-----	-----	-----	100.0	99.7	42.0	0.9	0.1
08-30-83	380	157.8	----	-----	------	-----	-----	-----	-----	100.0	99.5	66.1	7.4	0.4
09-01-83	100	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-01-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-01-83	260	173.7	8.0	-----	------	100.0	98.8	98.3	97.8	96.2	76.8	7.8	0.1	0.0
09-01-83	340	112.5	1.0	-----	------	-----	-----	-----	-----	100.0	99.8	33.6	0.8	0.0
09-05-83	100	221.3	26.3	-----	100.0	92.3	87.1	84.3	83.8	83.4	82.2	13.3	0.6	0.2
09-05-83	115	198.2	----	-----	------	-----	100.0	99.8	99.8	99.6	93.6	12.2	0.5	0.2
09-05-83	130	2.2	----	-----	------	-----	-----	-----	100.0	95.5	86.4	18.2	0.0	---
09-05-83	305	2.0	----	-----	------	-----	-----	-----	-----	100.0	10.0	0.0	----	---
09-05-83	320	4.5	10.7	-----	------	100.0	66.7	66.7	66.7	66.7	55.6	8.9	0.0	---
09-05-83	330	11.3	12.0	-----	------	100.0	71.7	69.9	68.1	51.3	6.2	1.8	0.0	---
09-05-83	340	111.4	30.3	-----	100.0	75.9	56.9	50.3	46.9	43.6	34.8	5.6	0.2	0.0
09-05-83	355	182.9	----	-----	------	-----	-----	-----	-----	100.0	96.0	13.3	0.2	0.0
09-05-83	370	172.6	----	-----	------	-----	-----	-----	-----	100.0	97.3	34.5	0.0	---
09-05-83	385	268.0	----	-----	------	-----	-----	-----	-----	100.0	99.7	64.3	6.4	0.4
09-09-83	100	111.9	1.0	-----	------	-----	-----	-----	-----	100.0	98.7	18.2	0.3	0.0
09-09-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-09-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-09-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-09-83	250	3.1	2.7	-----	------	-----	-----	100.0	93.5	71.0	45.2	3.2	0.0	---
09-09-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-09-83	350	105.9	----	-----	------	-----	-----	-----	-----	100.0	95.1	12.0	0.2	0.0
09-11-83	75	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-11-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-11-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-11-83	375	100.5	1.0	-----	------	-----	-----	-----	-----	100.0	99.3	49.7	1.5	0.0
09-13-83	125	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-13-83	275	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-13-83	350	156.0	24.0	-----	100.0	86.3	86.3	86.2	86.1	85.6	74.4	2.6	0.1	0.0
09-13-83	400	97.9	----	-----	------	-----	-----	-----	-----	100.0	99.7	89.9	39.5	5.2
09-15-83	80	5.8	1.7	-----	------	-----	-----	-----	100.0	98.3	87.9	39.7	1.7	0.0
09-15-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-15-83	280	14.4	14.3	-----	------	100.0	67.4	67.4	65.3	57.6	36.8	6.2	0.0	---
09-15-83	380	195.9	1.0	-----	------	-----	-----	-----	-----	100.0	99.5	64.5	7.0	0.4
09-17-83	100	109.5	1.7	-----	------	-----	-----	-----	100.0	99.9	99.2	23.7	0.5	0.0
09-17-83	110	96.9	1.7	-----	------	-----	-----	-----	100.0	99.9	96.1	17.0	0.6	0.1
09-17-83	120	83.2	2.0	-----	------	-----	-----	100.0	99.8	99.5	95.9	20.4	0.4	0.0
09-17-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-17-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-17-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-17-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-17-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-17-83	330	10.7	10.0	-----	------	100.0	83.2	73.8	66.4	59.8	49.5	7.5	0.0	---
09-17-83	340	87.2	37.3	-----	100.0	37.4	13.2	6.1	5.0	4.8	4.6	0.6	0.0	---
09-17-83	350	101.2	1.0	-----	------	-----	-----	-----	-----	100.0	98.0	14.8	0.2	0.0
09-17-83	360	90.5	1.0	-----	------	-----	-----	-----	-----	100.0	96.8	14.4	0.2	0.0
09-17-83	370	104.8	1.0	-----	------	-----	-----	-----	-----	100.0	99.3	42.1	1.3	0.0
09-19-83	90	113.4	1.0	-----	------	-----	-----	-----	-----	100.0	99.8	45.7	0.7	0.1
09-19-83	120	47.2	2.7	-----	------	-----	-----	100.0	99.4	98.9	92.8	18.2	0.4	0.0
09-19-83	340	161.4	8.3	-----	------	100.0	99.3	97.8	97.0	95.3	86.9	11.3	1.0	0.4
09-19-83	380	187.1	----	-----	------	-----	-----	-----	-----	100.0	99.7	61.8	4.8	0.4
09-21-83	115	231.8	----	-----	------	-----	-----	-----	-----	100.0	94.1	13.2	0.9	0.0
09-21-83	125	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 12.--Grain-size distribution of bed material, Colorado River above Little Colorado River, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
09-21-83	195	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-21-83	270	330.0	66.7	100.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	----	---
09-21-83	325	440.3	70.3	100.0	4.6	2.2	0.3	0.0	-----	-----	-----	-----	----	---
09-21-83	340	182.0	3.7	-----	------	-----	100.0	99.5	99.0	98.4	83.0	4.1	0.2	0.1
09-23-83	95	113.6	----	-----	------	-----	-----	-----	-----	100.0	99.8	32.7	0.8	0.1
09-23-83	120	101.4	7.3	-----	------	100.0	99.2	98.9	98.7	98.5	91.8	17.3	1.2	0.1
09-23-83	335	127.0	22.3	-----	100.0	53.0	41.0	33.9	29.8	23.7	16.0	1.2	0.0	---
09-23-83	345	6.8	8.3	-----	------	100.0	82.4	82.4	82.4	80.9	72.1	5.9	0.0	---
09-23-83	400	112.0	5.0	-----	------	-----	100.0	99.4	99.2	95.4	51.6	0.3	0.0	---
09-25-83	70	151.6	1.0	-----	------	-----	-----	-----	-----	100.0	99.7	71.8	19.8	4.6
09-25-83	120	103.2	----	-----	------	-----	-----	-----	-----	100.0	95.8	11.3	0.6	0.0
09-25-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-25-83	270	2.2	12.0	-----	------	100.0	36.4	36.4	31.8	31.8	22.7	0.0	----	---
09-25-83	325	10.4	15.7	-----	100.0	39.4	39.4	23.1	21.2	17.3	13.5	1.9	0.0	---
09-25-83	340	33.6	5.3	-----	------	-----	100.0	97.6	96.1	92.6	71.4	4.2	0.6	0.0
09-27-83	90	107.0	1.0	-----	------	-----	-----	-----	-----	100.0	99.3	39.3	2.1	0.2
09-27-83	115	104.7	1.0	-----	------	-----	-----	-----	-----	100.0	96.5	16.6	0.3	0.0
09-27-83	220	24.8	15.0	-----	100.0	25.4	25.4	17.7	10.5	6.9	5.2	3.6	0.4	0.0
09-29-83	100	112.3	1.0	-----	------	-----	-----	-----	-----	100.0	99.4	24.8	0.9	0.1
09-29-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	350	106.4	----	-----	------	-----	-----	-----	-----	100.0	99.7	16.4	0.4	0.0
10-01-83	375	181.0	----	-----	------	-----	-----	-----	-----	100.0	99.4	54.9	5.8	0.4
10-03-83	250	8.0	1.7	-----	------	-----	-----	-----	100.0	83.7	48.7	1.2	0.0	---
10-03-83	350	151.3	1.7	-----	------	-----	-----	-----	100.0	99.9	92.8	11.0	0.5	0.0
10-08-83	80	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-08-83	100	103.2	1.0	-----	------	-----	-----	-----	-----	100.0	99.0	19.3	0.7	0.0
10-08-83	110	104.9	1.0	-----	------	-----	-----	-----	-----	100.0	99.6	31.9	1.1	0.0
10-08-83	115	111.7	1.0	-----	------	-----	-----	-----	-----	100.0	97.0	16.7	0.9	0.0
10-08-83	120	7.0	1.0	-----	------	-----	-----	-----	-----	100.0	88.6	2.9	0.0	---
10-08-83	140	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-08-83	160	11.9	1.7	-----	------	-----	-----	-----	100.0	99.2	80.7	7.6	0.0	---
10-08-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-08-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-08-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-08-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-08-83	260	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-08-83	280	175.8	7.3	-----	------	100.0	99.4	99.3	98.9	97.4	75.8	3.1	0.2	0.0
10-08-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-08-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-08-83	340	175.1	36.3	-----	100.0	58.0	56.4	56.2	56.1	55.9	49.1	2.4	0.1	0.0
10-08-83	360	192.4	1.0	-----	------	-----	-----	-----	-----	100.0	99.1	21.3	0.8	0.1
10-08-83	380	97.9	1.0	-----	------	-----	-----	-----	-----	100.0	99.9	66.1	8.5	0.1
10-10-83	105	195.3	1.0	-----	------	-----	-----	-----	-----	100.0	96.9	10.1	0.2	0.0
10-10-83	205	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-83	255	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-83	355	86.3	27.7	-----	100.0	38.6	37.4	37.2	37.2	37.2	36.7	8.2	0.2	0.0
10-12-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-12-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-12-83	330	67.1	25.3	-----	100.0	43.8	25.6	17.9	16.4	15.1	12.1	2.1	0.3	0.0
10-14-83	115	106.8	1.0	-----	------	-----	-----	-----	-----	100.0	99.1	27.2	0.9	0.0
10-14-83	215	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-14-83	315	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	85	193.2	----	-----	------	-----	-----	-----	-----	100.0	98.4	16.8	0.5	0.0
10-18-83	105	186.7	----	-----	------	-----	-----	-----	-----	100.0	98.6	11.2	0.2	0.1
10-18-83	125	306.3	----	-----	------	-----	-----	-----	100.0	99.9	96.9	12.1	0.7	0.0
10-18-83	145	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	165	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	185	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	205	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 12.--Grain-size distribution of bed material, Colorado River above Little Colorado River, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-18-83	245	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	265	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	285	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	305	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	325	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-83	345	200.5	----	-----	------	-----	-----	-----	100.0	99.9	95.4	9.3	0.3	0.1
10-18-83	365	193.4	----	-----	------	-----	-----	-----	-----	100.0	98.6	23.8	0.6	0.0
10-18-83	385	209.1	----	-----	------	-----	-----	-----	-----	100.0	99.9	90.0	34.2	3.4
10-20-83	140	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-20-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-20-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-20-83	300	2.7	10.0	-----	------	100.0	63.0	59.3	59.3	59.3	59.3	3.7	0.0	---
10-20-83	340	86.5	----	-----	------	-----	-----	100.0	98.8	97.3	80.0	7.4	0.0	---
10-22-83	100	202.0	----	-----	------	-----	-----	-----	-----	100.0	98.9	20.2	0.6	0.2
10-22-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-22-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-22-83	290	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-22-83	330	24.4	25.7	-----	100.0	29.9	9.4	5.3	4.5	4.5	3.7	0.8	0.0	---
10-26-83	90	196.4	----	-----	------	-----	-----	-----	-----	100.0	97.7	30.0	1.0	0.0
10-26-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-26-83	210	7.8	15.7	-----	------	100.0	39.7	39.7	39.7	39.7	35.9	10.3	3.8	1.3
10-26-83	270	1.8	----	-----	------	-----	-----	-----	-----	100.0	83.3	5.6	0.0	---
10-26-83	300	5.8	----	-----	------	-----	-----	-----	-----	100.0	89.7	5.2	0.0	---
10-26-83	340	217.9	----	-----	------	-----	100.0	99.6	99.5	99.4	89.9	5.8	0.3	0.1
10-26-83	370	210.8	----	-----	------	-----	-----	-----	-----	100.0	98.8	33.3	1.8	0.1
10-28-83	110	216.0	----	-----	------	-----	-----	-----	-----	100.0	98.2	15.9	0.6	0.2
10-28-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-28-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-28-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-28-83	350	63.0	25.0	-----	100.0	72.9	27.3	14.1	11.1	10.8	10.5	3.5	0.3	0.2
10-30-83	100	225.8	-----	-----	------	-----	-----	-----	-----	100.0	99.4	17.8	0.3	0.1
10-30-83	200	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-30-83	270	7.8	-----	-----	------	-----	-----	-----	-----	100.0	93.6	10.3	0.0	---
10-30-83	340	228.4	9.3	-----	------	100.0	99.6	99.6	99.6	99.6	94.4	5.9	0.1	0.1
10-30-83	360	200.7	-----	-----	------	-----	-----	-----	-----	100.0	98.6	19.1	0.3	0.0
11-01-83	90	215.8	-----	-----	------	-----	-----	-----	-----	100.0	99.6	50.1	1.2	0.0
11-01-83	140	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-01-83	200	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-01-83	250	2.7	-----	-----	------	-----	-----	-----	-----	100.0	88.9	40.7	7.4	0.0
11-01-83	310	8.2	-----	-----	------	-----	100.0	93.1	92.7	89.8	79.2	15.8	1.2	0.0
11-01-83	370	231.9	-----	-----	------	-----	-----	-----	-----	100.0	99.3	35.7	1.5	0.6
11-03-83	90	224.3	-----	-----	------	-----	-----	-----	-----	100.0	99.5	32.0	0.8	0.4
11-03-83	150	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-03-83	210	5.5	-----	-----	------	-----	-----	-----	-----	100.0	81.8	12.7	0.0	---
11-03-83	280	41.4	-----	-----	------	-----	-----	-----	100.0	98.3	67.6	4.1	0.0	---
11-03-83	340	298.9	-----	-----	------	-----	-----	100.0	99.8	99.5	85.0	4.1	0.1	0.0
11-06-83	100	107.9	-----	-----	------	-----	-----	-----	-----	100.0	98.0	16.4	0.5	0.0
11-06-83	200	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-83	300	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-09-83	150	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-09-83	250	6.9	16.0	-----	100.0	20.3	0.0	-----	-----	-----	-----	-----	----	---
11-09-83	350	177.8	1.0	-----	------	-----	-----	-----	-----	100.0	95.6	11.1	0.4	0.1
11-11-83	125	107.7	1.7	-----	------	-----	-----	-----	100.0	99.9	93.6	11.9	0.6	0.0
11-11-83	225	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-11-83	325	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-13-83	175	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-13-83	275	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-13-83	375	115.9	-----	-----	------	-----	-----	-----	-----	100.0	99.6	50.6	2.9	0.1
11-15-83	110	105.1	1.0	-----	------	-----	-----	-----	-----	100.0	96.2	22.6	0.9	0.0
11-15-83	210	10.4	10.3	-----	------	100.0	69.2	68.3	68.3	67.3	61.5	10.6	0.0	---

Table 12.--Grain-size distribution of bed material, Colorado River above Little Colorado River, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-15-83	310	11.1	17.3	-----	100.0	18.9	18.9	13.5	13.5	12.6	10.8	1.8	0.0	---
11-17-83	90	105.3	1.0	-----	------	-----	-----	-----	-----	100.0	99.8	42.8	0.9	0.0
11-17-83	110	190.0	1.0	-----	------	-----	-----	-----	-----	100.0	97.4	12.5	0.2	0.0
11-17-83	130	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	150	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	170	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	190	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	210	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	230	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	250	6.6	1.0	-----	------	-----	-----	-----	-----	100.0	86.4	3.0	0.0	---
11-17-83	270	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	290	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	310	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-83	350	115.8	1.7	-----	------	-----	-----	-----	100.0	99.9	98.5	10.3	0.2	0.0
11-17-83	370	100.3	1.0	-----	------	-----	-----	-----	-----	100.0	99.6	39.1	1.2	0.0
11-17-83	390	104.3	1.0	-----	------	-----	-----	-----	-----	100.0	99.9	91.7	41.8	6.1
11-19-83	125	116.1	1.3	-----	------	-----	-----	-----	100.0	99.8	92.9	11.1	0.3	0.0
11-19-83	225	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-19-83	325	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-21-83	90	98.8	1.0	-----	------	-----	-----	-----	-----	100.0	99.9	54.7	1.5	0.0
11-21-83	190	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-21-83	290	208.5	53.3	-----	100.0	6.0	6.0	5.4	5.3	5.2	4.1	0.4	0.0	---
11-23-83	115	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	215	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	315	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	375	98.6	1.0	-----	------	-----	-----	-----	-----	100.0	99.9	63.1	5.6	0.1
11-28-83	90	196.4	1.0	-----	------	-----	-----	-----	-----	100.0	99.6	42.6	1.1	0.0
11-28-83	110	102.5	1.7	-----	------	-----	-----	-----	100.0	99.9	97.1	12.1	0.2	0.0
11-28-83	130	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	150	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	170	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	190	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	210	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	230	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	250	192.1	9.0	-----	------	100.0	99.5	99.4	99.1	97.4	72.7	5.3	0.1	0.0
11-28-83	270	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	290	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	310	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	330	113.6	35.7	-----	100.0	10.8	10.8	7.1	6.5	6.3	5.9	0.9	0.0	---
11-28-83	350	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	370	189.3	1.0	-----	------	-----	-----	-----	-----	100.0	99.6	41.8	1.5	0.1
11-28-83	390	199.0	-----	-----	------	-----	-----	-----	-----	-----	100.0	94.6	45.2	4.4
11-30-83	110	108.6	-----	-----	------	-----	-----	-----	-----	100.0	98.9	16.0	0.3	0.0
11-30-83	170	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-30-83	230	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-30-83	350	99.7	1.0	-----	------	-----	-----	-----	100.0	99.9	98.9	19.9	0.2	0.0
12-02-83	120	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-02-83	160	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-02-83	240	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-02-83	320	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-04-83	80	132.4	1.0	-----	------	-----	-----	-----	-----	100.0	99.8	60.1	8.3	0.5
12-04-83	140	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-04-83	230	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-04-83	330	35.6	15.7	-----	100.0	71.9	30.3	8.4	7.6	7.3	6.7	0.8	0.0	---
12-06-83	160	71.8	2.7	-----	------	-----	-----	100.0	99.7	98.9	87.5	8.4	0.4	0.1
12-06-83	190	100.6	1.0	-----	------	-----	-----	-----	-----	100.0	99.5	44.3	0.9	0.0
12-06-83	230	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-83	325	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-08-83	85	97.4	1.0	-----	------	-----	-----	-----	-----	100.0	99.8	48.3	2.1	0.1
12-08-83	115	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 12.--Grain-size distribution of bed material, Colorado River above Little Colorado River, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
12-08-83	300	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-08-83	330	93.8	4.7	-----	------	-----	100.0	99.7	99.7	99.5	87.3	5.2	0.0	---
12-10-83	80	156.7	-----	-----	------	-----	-----	-----	-----	100.0	99.7	56.7	9.4	1.1
12-10-83	150	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-10-83	250	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-10-83	320	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-83	90	98.3	-----	-----	------	-----	-----	-----	-----	100.0	99.8	36.6	1.0	0.0
12-12-83	170	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-83	250	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-83	335	167.9	4.3	-----	------	-----	100.0	99.8	99.8	99.6	89.9	5.5	0.1	0.0

Table 13.--Grain-size distribution of bed material, Colorado River near Grand Canyon, 1983

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
06-24-83	180	135.1	4.3	-----	-----	-----	100.0	99.8	99.5	93.2	51.4	5.7	0.4	0.1
06-24-83	310	141.7	2.3	-----	-----	-----	-----	100.0	99.9	99.4	77.3	10.6	0.6	0.0
06-25-83	180	144.8	8.7	-----	-----	-----	100.0	95.9	91.2	60.9	17.1	1.0	0.1	0.1
06-25-83	310	151.2	6.0	-----	-----	-----	100.0	99.9	99.7	88.8	33.3	2.7	0.1	0.0
07-01-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	275	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	350	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-01-83	375	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-02-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-02-83	175	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-02-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-02-83	325	35.5	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	100.0
07-04-83	175	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-04-83	250	53.9	17.7	-----	100.0	81.3	52.9	38.6	23.2	12.4	6.5	1.1	0.2	0.0
07-04-83	325	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-06-83	150,250,350	11.1	----	-----	-----	-----	100.0	95.5	89.2	82.0	69.4	25.2	4.5	0.9
07-09-83	200	164.8	11.3	-----	-----	100.0	94.2	89.7	83.1	61.1	27.2	2.7	0.1	0.0
07-09-83	250	133.5	10.7	-----	-----	100.0	95.7	88.6	75.4	56.1	28.3	3.3	0.1	0.0
07-09-83	280	107.3	2.3	-----	-----	-----	-----	100.0	99.9	98.3	71.3	5.1	0.2	0.0
07-09-83	375	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-11-83	150	76.7	1.0	-----	-----	-----	-----	-----	100.0	99.0	76.3	13.7	0.3	0.0
07-11-83	250	188.1	1.7	-----	-----	-----	-----	100.0	99.8	98.7	74.4	7.2	0.3	0.1
07-11-83	350	4.8	1.0	-----	-----	-----	-----	-----	100.0	97.9	77.1	14.6	0.0	0.0
07-13-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-13-83	140	61.0	2.3	-----	-----	-----	-----	100.0	99.7	96.4	76.4	16.1	1.3	0.0
07-13-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-13-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-13-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-13-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-13-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-13-83	260	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-13-83	280	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-13-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-15-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-15-83	250	146.4	33.3	-----	100.0	37.6	23.2	15.8	11.7	7.9	3.8	0.3	0.0	0.0
07-15-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-17-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-17-83	250	50.8	24.0	-----	100.0	24.2	4.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0
07-17-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-19-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-19-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-19-83	310	102.4	1.0	-----	-----	-----	-----	-----	100.0	98.9	76.7	4.1	0.1	0.0
07-21-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-21-83	250	115.8	5.7	-----	-----	-----	100.0	97.2	93.8	88.6	64.0	4.2	0.1	0.0
07-21-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-23-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-23-83	250	105.6	10.3	-----	-----	100.0	96.4	89.5	84.9	79.5	57.7	5.1	0.2	0.0
07-23-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-26-83	130	5.4	7.3	-----	-----	-----	100.0	96.3	96.3	96.3	90.7	24.1	1.9	0.0
07-26-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-26-83	210	105.5	1.0	-----	-----	-----	-----	-----	100.0	99.8	88.7	13.7	0.8	0.2
07-26-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-26-83	280	188.3	1.0	-----	-----	-----	-----	-----	100.0	99.8	94.9	11.7	0.6	0.2
07-26-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-26-83	360	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-27-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-27-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-27-83	260	112.5	2.3	-----	-----	-----	-----	100.0	99.8	99.5	89.0	8.5	0.2	0.0
07-27-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-27-83	370	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 13.--Grain-size distribution of bed material, Colorado River near Grand Canyon, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
07-29-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-29-83	250	100.4	1.0	-----	-----	-----	-----	-----	100.0	99.9	89.0	14.1	0.2	0.0
07-29-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-31-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-31-83	210	6.7	5.0	-----	-----	-----	100.0	83.6	71.6	53.7	31.3	3.0	0.0	0.0
07-31-83	370	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	140	132.6	1.0	-----	-----	-----	-----	-----	100.0	99.7	83.4	13.8	0.8	0.0
08-02-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	250	160.3	14.3	-----	-----	100.0	94.9	91.3	87.3	72.3	41.7	2.7	0.1	0.0
08-02-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-02-83	370	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-03-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-03-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-03-83	250	96.8	2.0	-----	-----	-----	-----	100.0	99.9	99.3	88.8	6.4	0.2	0.0
08-03-83	280	188.3	4.7	-----	-----	-----	100.0	98.9	97.6	96.4	87.3	9.8	0.2	0.0
08-03-83	310	198.4	2.0	-----	-----	-----	-----	100.0	99.6	98.7	83.4	5.7	0.1	0.1
08-05-83	150	15.2	----	-----	-----	-----	-----	-----	-----	100.0	90.8	28.9	2.6	0.0
08-05-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-05-83	250	117.3	2.0	-----	-----	-----	-----	100.0	99.7	98.7	76.4	7.1	0.2	0.0
08-05-83	270	12.0	5.0	-----	-----	-----	100.0	74.2	57.5	49.2	38.3	6.7	0.0	0.0
08-05-83	310	112.3	----	-----	-----	-----	-----	-----	-----	100.0	90.2	11.0	0.3	0.0
08-07-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-07-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-07-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-07-83	280	190.0	1.0	-----	-----	-----	-----	-----	100.0	99.9	98.3	18.2	1.8	0.4
08-07-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-10-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-10-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-10-83	310	229.7	----	-----	-----	-----	100.0	99.2	98.7	96.6	77.0	6.4	0.3	0.1
08-12-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-12-83	250	245.5	----	-----	-----	100.0	99.1	97.8	97.4	94.0	71.4	10.6	0.0	0.0
08-12-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-14-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-14-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-14-83	310	240.3	----	-----	-----	-----	-----	-----	-----	100.0	98.3	14.7	0.5	0.0
08-16-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-16-83	310	184.0	----	-----	-----	-----	-----	-----	-----	100.0	98.6	21.9	0.9	0.2
08-18-83	250	236.7	----	-----	-----	-----	100.0	99.9	99.9	99.9	90.2	10.7	0.7	0.1
08-18-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-23-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-23-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-23-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-23-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-23-83	360	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-25-83	150	145.4	2.3	-----	-----	-----	-----	100.0	99.9	99.8	96.2	35.1	5.4	0.6
08-25-83	225	111.8	4.7	-----	-----	-----	100.0	98.7	95.7	85.6	53.0	7.9	0.2	0.0
08-25-83	300	100.2	1.0	-----	-----	-----	-----	-----	100.0	99.9	93.7	11.0	0.5	0.1
08-25-83	375	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-27-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-27-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-27-83	300	11.4	2.0	-----	-----	-----	-----	100.0	98.2	90.4	72.8	8.8	0.0	0.0
08-27-83	360	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-29-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-29-83	230	23.4	24.0	-----	100.0	12.0	9.0	9.0	6.4	5.6	4.3	0.9	0.0	0.0
08-29-83	260	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-29-83	300	107.5	1.0	-----	-----	-----	-----	-----	100.0	99.9	96.2	14.3	0.7	0.0
08-29-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-02-83	120	40.9	----	-----	-----	-----	-----	-----	-----	100.0	98.0	34.2	3.7	0.0
09-02-83	145	181.3	----	-----	-----	-----	-----	-----	-----	100.0	96.1	24.3	2.5	0.2
09-02-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-02-83	195	6.0	4.0	-----	-----	-----	100.0	98.3	98.3	93.3	60.0	5.0	0.0	0.0

Table 13.--Grain-size distribution of bed material, Colorado River near Grand Canyon, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
09-02-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-02-83	245	4.8	3.0	-----	-----	-----	100.0	97.9	97.9	91.7	72.9	6.2	0.0	0.0
09-02-83	270	95.8	7.0	-----	-----	100.0	99.7	97.9	95.0	89.6	54.3	4.5	0.2	0.0
09-02-83	295	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-02-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-02-83	345	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-02-83	370	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-04-83	145	197.0	2.0	-----	-----	-----	-----	100.0	99.9	99.8	96.3	27.1	3.0	0.4
09-04-83	195	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-04-83	245	109.2	9.0	-----	-----	100.0	98.1	95.1	85.3	68.0	42.1	6.4	0.4	0.1
09-04-83	270	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-04-83	335	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	145	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	195	11.1	2.0	-----	-----	-----	-----	100.0	99.1	95.5	72.1	7.2	0.0	0.0
09-06-83	245	187.2	5.3	-----	-----	-----	100.0	98.0	95.9	90.3	60.1	5.1	0.2	0.1
09-06-83	290	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-06-83	335	10.5	----	-----	-----	-----	-----	-----	-----	100.0	88.6	16.2	0.0	0.0
09-08-83	60	0.5	----	-----	-----	-----	-----	-----	-----	-----	100.0	20.0	0.0	0.0
09-08-83	60	3.9	----	-----	-----	-----	-----	-----	-----	100.0	87.2	12.8	0.0	0.0
09-08-83	60	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-08-83	110	1.2	----	-----	-----	-----	-----	-----	-----	100.0	83.3	16.7	0.0	0.0
09-08-83	110	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-08-83	210	210.1	----	-----	-----	-----	-----	100.0	99.8	98.9	80.6	6.7	0.0	0.0
09-08-83	250	46.6	----	-----	-----	-----	100.0	99.6	99.6	99.4	91.4	15.7	0.4	0.2
09-10-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-10-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-10-83	230	104.0	10.3	-----	-----	100.0	99.3	98.4	94.4	87.0	60.6	4.0	0.1	0.0
09-10-83	300	104.3	1.0	-----	-----	-----	-----	-----	100.0	99.2	82.3	6.3	0.2	0.0
09-10-83	350	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	125	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	145	179.6	----	-----	-----	-----	-----	-----	-----	100.0	97.2	29.6	4.5	0.6
09-12-83	165	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	185	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	205	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	235	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	245	99.4	4.0	-----	-----	-----	100.0	99.2	97.1	90.2	63.4	8.0	0.2	0.0
09-12-83	255	112.5	1.0	-----	-----	-----	-----	-----	100.0	99.9	88.2	8.8	0.2	0.0
09-12-83	265	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	285	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	295	100.0	1.0	-----	-----	-----	-----	-----	100.0	99.9	87.6	10.1	0.1	0.0
09-12-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	315	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	335	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	355	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	370	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	380	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	385	199.3	2.0	-----	-----	-----	-----	100.0	99.8	98.9	81.8	16.7	1.4	0.1
09-12-83	405	103.9	1.0	-----	-----	-----	-----	-----	100.0	98.6	65.1	4.6	0.0	0.0
09-14-83	138	2.0	3.7	-----	-----	-----	100.0	90.0	85.0	70.0	55.0	5.0	0.0	0.0
09-14-83	138	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-14-83	240	179.9	2.0	-----	-----	-----	-----	100.0	99.9	99.8	95.8	11.2	0.2	0.0
09-14-83	260	113.2	11.7	-----	-----	100.0	96.6	91.6	86.5	75.2	51.1	1.9	0.0	0.0
09-14-83	290	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-14-83	308	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-14-83	382	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-18-83	100	99.5	----	-----	-----	-----	-----	-----	-----	100.0	99.9	84.8	29.2	4.9
09-18-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-18-83	150	115.1	----	-----	-----	-----	-----	-----	-----	100.0	91.1	14.6	0.8	0.1
09-18-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-18-83	200	16.1	20.3	-----	100.0	16.1	16.1	14.3	10.6	8.7	6.2	1.2	0.0	0.0

Table 13.--Grain-size distribution of bed material, Colorado River near Grand Canyon, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
09-18-83	230	33.0	8.9	-----	-----	100.0	97.9	95.5	87.9	78.5	49.1	4.5	0.0	0.0
09-18-83	260	109.3	8.7	-----	-----	100.0	98.4	93.0	80.1	56.9	30.1	2.5	0.0	0.0
09-18-83	290	197.0	2.0	-----	-----	-----	-----	100.0	99.9	99.8	89.6	5.7	0.2	0.1
09-18-83	290	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-18-83	350	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-18-83	380	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-20-83	115	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-20-83	215	116.6	1.0	-----	-----	-----	-----	-----	100.0	99.7	82.7	5.8	0.3	0.1
09-20-83	315	106.2	----	-----	-----	-----	-----	-----	-----	100.0	93.9	9.7	0.2	0.0
09-22-83	150	108.2	1.0	-----	-----	-----	-----	-----	100.0	99.9	91.8	13.5	0.7	0.1
09-22-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-22-83	350	10.6	1.0	-----	-----	-----	-----	-----	100.0	99.1	84.0	8.5	0.0	0.0
09-24-83	125	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-24-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-24-83	325	112.2	1.0	-----	-----	-----	-----	-----	100.0	99.9	90.9	10.7	0.2	0.0
09-27-83	150	150.3	----	-----	-----	-----	-----	-----	-----	100.0	99.2	54.7	8.2	0.7
09-27-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-27-83	250	116.1	4.0	-----	-----	-----	100.0	99.1	96.8	91.6	51.9	6.5	0.6	0.2
09-27-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-27-83	340	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	140	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	175	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	185	101.6	----	-----	-----	-----	-----	-----	-----	100.0	86.3	20.9	2.2	0.2
09-29-83	190	114.6	----	-----	-----	-----	-----	-----	-----	100.0	91.2	12.7	0.7	0.0
09-29-83	200	47.0	26.3	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	210	103.8	1.0	-----	-----	-----	-----	-----	100.0	98.9	78.9	7.4	0.3	0.0
09-29-83	220	112.0	----	-----	-----	-----	-----	-----	-----	100.0	99.4	28.7	1.2	0.0
09-29-83	240	105.5	4.7	-----	-----	-----	100.0	99.4	98.2	95.5	70.4	4.7	0.0	0.0
09-29-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	260	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	270	390.0	50.0	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	280	107.0	4.7	-----	-----	-----	100.0	99.2	98.9	98.6	88.7	11.8	0.5	0.0
09-29-83	290	110.6	----	-----	-----	-----	-----	-----	-----	100.0	98.9	24.3	0.8	0.0
09-29-83	300	174.8	5.7	-----	-----	-----	100.0	98.1	97.8	96.8	76.9	7.5	0.2	0.0
09-29-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	350	106.8	2.0	-----	-----	-----	-----	100.0	99.9	99.8	94.4	17.0	0.7	0.0
09-29-83	360	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-01-83	195	98.9	2.0	-----	-----	-----	-----	100.0	99.9	98.9	86.1	28.4	7.2	1.3
10-01-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-01-83	305	185.9	2.0	-----	-----	-----	-----	100.0	99.9	99.9	98.3	22.1	3.2	0.5
10-01-83	350	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-83	150	88.0	----	-----	-----	-----	-----	-----	-----	100.0	98.7	64.3	19.9	2.2
10-03-83	185	149.4	----	-----	-----	-----	-----	-----	-----	100.0	98.8	36.2	8.1	1.4
10-03-83	210	113.9	4.0	-----	-----	-----	100.0	99.1	98.5	95.6	69.3	17.9	3.0	0.3
10-03-83	240	97.0	1.7	-----	-----	-----	-----	100.0	99.7	98.9	86.5	10.4	1.1	0.1
10-03-83	275	109.1	1.0	-----	-----	-----	-----	-----	100.0	99.9	94.0	20.1	2.3	0.3
10-03-83	305	112.1	2.0	-----	-----	-----	-----	100.0	99.9	99.6	91.2	24.0	3.6	0.6
10-03-83	350	175.6	2.0	-----	-----	-----	-----	100.0	99.5	98.9	93.5	20.3	3.1	0.5
10-08-83	200	122.4	----	-----	-----	-----	-----	-----	-----	100.0	98.0	26.3	2.1	0.1
10-08-83	350	109.2	1.0	-----	-----	-----	-----	-----	100.0	99.8	92.7	13.2	1.1	0.0
10-08-83	400	132.4	1.0	-----	-----	-----	-----	-----	100.0	99.9	96.0	20.2	2.3	0.2
10-10-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-83	150	118.1	----	-----	-----	-----	-----	-----	-----	100.0	98.4	48.3	6.7	0.3
10-10-83	180	166.3	1.0	-----	-----	-----	-----	-----	100.0	99.9	88.8	15.2	2.0	0.1
10-10-83	210	105.0	----	-----	-----	-----	-----	-----	-----	100.0	98.9	41.5	4.2	0.2
10-10-83	240	106.9	4.0	-----	-----	-----	100.0	99.7	99.2	97.3	65.5	9.5	0.9	0.0
10-10-83	270	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 13.--Grain-size distribution of bed material, Colorado River near Grand Canyon, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-10-83	330	22.0	1.0	-----	-----	-----	-----	-----	100.0	99.5	91.4	25.0	1.4	0.0
10-10-83	360	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-13-83	150	105.0	----	-----	-----	-----	-----	-----	-----	100.0	97.1	35.0	4.8	0.3
10-13-83	200	110.6	44.7	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-13-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-13-83	300	135.9	4.7	-----	-----	-----	100.0	98.7	93.4	79.2	57.7	16.0	1.5	0.0
10-17-83	120	23.7	1.0	-----	-----	-----	-----	-----	100.0	99.6	98.3	66.2	12.2	0.4
10-17-83	140	64.4	----	-----	-----	-----	-----	-----	-----	100.0	98.4	58.2	10.4	0.6
10-17-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	200	165.7	2.0	-----	-----	-----	-----	100.0	99.8	99.3	86.8	15.0	1.3	0.1
10-17-83	220	193.5	1.0	-----	-----	-----	-----	-----	100.0	99.8	92.0	15.6	0.9	0.1
10-17-83	240	4.3	9.7	-----	-----	100.0	30.2	30.2	30.2	27.9	23.3	4.7	0.0	0.0
10-17-83	260	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	280	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	300	191.1	1.0	-----	-----	-----	-----	-----	100.0	99.2	84.1	9.1	0.6	0.1
10-17-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	340	44.1	2.0	-----	-----	-----	-----	100.0	99.5	98.9	88.2	27.0	1.6	0.0
10-17-83	360	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	380	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	175	8.8	4.3	-----	-----	-----	100.0	97.7	96.6	88.6	51.1	6.8	0.0	0.0
10-19-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	350	163.5	2.0	-----	-----	-----	-----	100.0	99.9	99.8	97.3	22.9	1.8	0.1
10-21-83	195	124.0	17.3	-----	100.0	90.7	90.7	90.7	90.6	90.5	81.4	15.6	0.5	0.0
10-21-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-21-83	335	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-21-83	345	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-83	255	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-83	295	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-83	325	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-27-83	105	156.1	----	-----	-----	-----	-----	-----	-----	100.0	99.9	96.0	50.7	12.0
10-27-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-27-83	135	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-27-83	150	104.7	----	-----	-----	-----	-----	-----	-----	100.0	97.3	38.3	3.7	0.3
10-27-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-27-83	185	172.1	1.0	-----	-----	-----	-----	-----	100.0	99.9	96.9	28.8	1.5	0.1
10-27-83	200	105.1	4.0	-----	-----	-----	100.0	99.8	99.8	99.4	89.2	15.3	0.3	0.0
10-27-83	215	101.9	----	-----	-----	-----	-----	-----	-----	100.0	96.9	28.9	1.0	0.0
10-27-83	230	106.6	10.3	-----	-----	100.0	98.0	96.2	96.0	95.9	88.8	12.3	0.2	0.0
10-27-83	245	107.1	8.3	-----	-----	100.0	99.3	97.8	96.6	94.8	75.2	9.7	0.3	0.0
10-27-83	260	191.6	4.0	-----	-----	-----	100.0	99.9	99.8	99.4	91.2	16.1	0.6	0.0
10-27-83	275	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-27-83	290	17.8	1.0	-----	-----	-----	-----	-----	100.0	99.4	82.6	26.4	0.0	0.0
10-27-83	305	105.9	1.7	-----	-----	-----	-----	100.0	99.8	98.9	84.7	14.7	0.8	0.1
10-27-83	320	191.3	----	-----	-----	-----	-----	-----	-----	100.0	95.3	22.1	1.2	0.1
10-27-83	335	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-27-83	350	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-27-83	365	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-29-83	135	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-29-83	200	166.5	1.0	-----	-----	-----	-----	-----	100.0	99.9	99.2	48.3	2.3	0.1
10-29-83	260	100.8	9.3	-----	-----	100.0	98.9	98.3	98.1	97.6	73.6	6.2	0.1	0.0
10-29-83	320	151.4	----	-----	-----	-----	-----	-----	-----	100.0	99.5	47.4	1.6	0.0
10-29-83	365	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-31-83	150	213.2	----	-----	-----	-----	-----	-----	-----	100.0	99.6	62.1	5.7	1.0
10-31-83	200	0.5	----	-----	-----	-----	-----	-----	-----	-----	100.0	0.0	0.0	0.0
10-31-83	250	2.5	----	-----	-----	-----	-----	-----	-----	-----	100.0	24.0	0.0	0.0
10-31-83	290	0.1	----	-----	-----	-----	-----	-----	-----	-----	100.0	0.0	0.0	0.0
10-31-83	360	1.0	----	-----	-----	-----	-----	-----	-----	100.0	90.0	20.0	0.0	0.0
11-02-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 13.--Grain-size distribution of bed material, Colorado River near Grand Canyon, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-02-83	300	154.3	----	-----	-----	-----	-----	-----	-----	100.0	99.5	50.3	1.8	0.0
11-02-83	370	152.2	1.0	-----	-----	-----	-----	-----	100.0	99.9	91.4	28.8	2.0	0.1
11-07-83	115	100.7	----	-----	-----	-----	-----	-----	-----	100.0	99.9	79.2	9.2	0.5
11-07-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	145	155.4	----	-----	-----	-----	-----	-----	-----	100.0	98.1	50.3	7.8	0.7
11-07-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	175	6.5	2.0	-----	-----	-----	-----	100.0	98.5	96.9	69.2	7.7	0.0	0.0
11-07-83	190	108.9	5.7	-----	-----	-----	100.0	99.5	99.3	98.6	87.5	12.2	0.3	0.1
11-07-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	235	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	265	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	295	110.9	8.3	-----	-----	100.0	99.0	98.8	98.6	97.0	76.5	17.4	1.2	0.1
11-07-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	325	4.4	----	-----	-----	-----	-----	-----	-----	100.0	77.3	6.8	0.0	0.0
11-07-83	340	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	355	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	370	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-09-83	150	101.2	----	-----	-----	-----	-----	-----	-----	100.0	98.8	41.5	2.2	0.1
11-09-83	180	167.8	1.7	-----	-----	-----	-----	100.0	99.9	99.8	95.3	30.3	1.7	0.1
11-09-83	230	43.0	2.0	-----	-----	-----	-----	100.0	99.1	75.1	38.8	16.0	0.7	0.0
11-09-83	280	116.1	----	-----	-----	-----	-----	-----	-----	100.0	99.6	45.6	0.9	0.0
11-09-83	325	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-11-83	145	7.3	1.7	-----	-----	-----	-----	100.0	98.6	97.3	69.9	8.2	0.0	0.0
11-11-83	185	105.4	3.0	-----	-----	-----	100.0	99.9	99.0	97.4	78.0	10.0	0.3	0.1
11-11-83	205	91.6	7.7	-----	-----	100.0	99.1	98.3	97.2	94.3	63.6	8.1	0.3	0.0
11-11-83	225	8.6	1.0	-----	-----	-----	-----	-----	100.0	97.7	74.4	14.0	0.0	0.0
11-11-83	270	109.5	3.7	-----	-----	-----	100.0	99.7	99.4	95.8	67.8	8.9	0.1	0.0
11-11-83	320	110.4	----	-----	-----	-----	-----	-----	-----	100.0	98.9	38.2	0.6	0.0
11-13-83	120	152.3	5.3	-----	-----	-----	100.0	99.5	99.5	99.5	99.2	78.9	25.0	2.8
11-13-83	150	111.9	1.0	-----	-----	-----	-----	-----	100.0	99.9	95.5	23.4	0.8	0.0
11-13-83	190	10.0	3.7	-----	-----	-----	100.0	92.0	87.0	82.0	69.0	12.0	0.0	0.0
11-13-83	240	11.3	9.7	-----	-----	100.0	85.0	82.3	82.3	80.5	67.3	8.8	0.0	0.0
11-13-83	260	132.9	----	-----	-----	-----	-----	-----	-----	100.0	98.4	9.8	0.4	0.0
11-13-83	290	103.3	1.7	-----	-----	-----	-----	100.0	99.9	99.6	86.5	13.2	0.2	0.0
11-13-83	335	194.8	1.0	-----	-----	-----	-----	-----	100.0	99.9	99.7	63.4	5.6	0.4
11-13-83	350	189.9	1.0	-----	-----	-----	-----	-----	100.0	99.7	87.7	13.3	0.4	0.0
11-16-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-16-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-16-83	275	101.3	1.7	-----	-----	-----	-----	100.0	99.9	99.9	95.9	18.8	0.2	0.0
11-16-83	305	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-16-83	350	48.0	1.0	-----	-----	-----	-----	-----	100.0	99.6	93.3	31.9	0.6	0.0
11-18-83	175	164.0	2.0	-----	-----	-----	-----	100.0	99.6	99.0	85.5	22.0	1.8	0.1
11-18-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-18-83	270	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-18-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-20-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-20-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-20-83	310	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-20-83	360	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-01-83	100	183.0	----	-----	-----	-----	-----	-----	-----	-----	100.0	91.2	19.5	1.3
12-01-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-01-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-03-83	150	9.3	----	-----	-----	-----	-----	-----	-----	100.0	93.5	17.2	0.0	0.0
12-03-83	250	195.9	3.3	-----	-----	-----	100.0	99.6	98.9	93.7	75.5	11.7	0.4	0.0
12-03-83	350	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-05-83	120	111.9	1.0	-----	-----	-----	-----	-----	100.0	99.9	99.2	46.5	4.6	0.3
12-05-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-05-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-10-83	140	153.6	----	-----	-----	-----	-----	-----	-----	100.0	99.4	55.1	10.4	0.8
12-10-83	240	179.9	----	-----	-----	-----	-----	-----	-----	100.0	96.3	13.6	0.2	0.0

Table 13.--Grain-size distribution of bed material, Colorado River near Grand Canyon, 1983--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
12-10-83	340	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-13-83	100	192.9	----	-----	-----	-----	-----	-----	-----	100.0	99.8	80.6	17.2	2.1
12-13-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-13-83	300	33.1	1.0	-----	-----	-----	-----	-----	100.0	99.4	85.5	7.6	0.0	0.0

Table 14.--Grain-size distribution of bed material, Colorado River above National Canyon, 1983

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
07-15-83	120	123.6	1.3	-----	-----	-----	-----	-----	100.0	99.8	96.2	33.6	3.8	0.2
07-15-83	150	204.5	25.7	-----	-----	100.0	41.0	11.1	6.6	5.8	5.2	1.1	0.1	0.0
07-15-83	200	19.0	1.7	-----	-----	-----	-----	-----	-----	100.0	93.7	12.1	1.1	0.0
07-15-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-15-83	300	194.4	4.3	-----	-----	-----	-----	-----	-----	100.0	97.9	14.0	0.7	0.1
07-15-83	350	108.8	----	-----	-----	-----	-----	-----	-----	100.0	99.8	73.3	11.2	0.5
07-17-83	150	284.3	30.3	-----	-----	100.0	48.8	28.8	14.9	5.1	2.1	0.4	0.0	0.0
07-17-83	175	188.0	1.3	-----	-----	-----	-----	-----	100.0	99.8	89.1	10.7	1.0	0.1
07-17-83	190	107.2	1.7	-----	-----	-----	-----	100.0	99.8	99.7	89.1	8.9	0.7	0.0
07-17-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-17-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-17-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-17-83	300	112.0	----	-----	-----	-----	-----	-----	-----	100.0	98.6	18.3	1.3	0.1
07-19-83	150	140.7	9.1	-----	-----	100.0	36.7	25.3	18.1	11.1	4.3	0.6	0.1	0.0
07-19-83	225	183.1	1.3	-----	-----	-----	-----	100.0	99.9	99.8	96.3	10.2	0.7	0.1
07-19-83	300	7.4	1.0	-----	-----	-----	-----	-----	100.0	95.9	89.2	8.1	0.0	0.0
07-20-83	200	142.9	----	-----	-----	-----	-----	-----	-----	100.0	94.0	6.9	0.4	0.1
07-20-83	300	98.1	----	-----	-----	-----	-----	-----	-----	100.0	97.6	12.9	0.3	0.0
07-24-83	150	104.5	11.7	-----	-----	100.0	98.5	95.9	93.7	89.2	59.5	7.6	0.5	0.0
07-24-83	210	181.9	5.0	-----	-----	-----	100.0	99.9	99.9	99.8	89.9	12.0	0.7	0.0
07-24-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07-24-83	300	183.7	----	-----	-----	-----	-----	-----	-----	100.0	99.5	23.5	1.0	0.1
07-26-83	320	102.4	----	-----	-----	-----	-----	-----	-----	100.0	97.5	24.9	2.0	0.1
08-01-83	130	6.8	----	-----	-----	-----	-----	-----	100.0	98.5	88.2	35.3	4.4	0.0
08-01-83	170	153.4	----	-----	-----	-----	-----	-----	100.0	99.8	96.4	16.0	2.0	0.2
08-01-83	210	162.5	2.3	-----	-----	-----	-----	100.0	99.9	99.8	77.4	7.8	0.6	0.1
08-01-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-01-83	290	63.5	2.0	-----	-----	-----	-----	-----	100.0	99.7	98.7	21.7	1.1	0.2
08-01-83	330	98.5	----	-----	-----	-----	-----	-----	-----	100.0	99.9	62.0	7.6	0.4
08-03-83	150	137.5	17.7	-----	-----	100.0	96.9	95.1	93.8	90.0	59.3	2.8	0.1	0.1
08-03-83	200	161.1	4.3	-----	-----	-----	-----	100.0	99.9	99.8	86.8	7.8	0.5	0.1
08-03-83	250	127.3	5.0	-----	-----	-----	100.0	99.8	99.6	99.4	95.0	10.4	0.5	0.1
08-03-83	300	163.2	----	-----	-----	-----	-----	-----	-----	100.0	99.8	29.8	1.6	0.1
08-05-83	175	62.8	2.3	-----	-----	-----	-----	100.0	99.8	99.7	98.6	20.9	1.4	0.2
08-05-83	230	0.5	----	-----	-----	-----	-----	-----	-----	-----	100.0	40.0	0.0	0.0
08-05-83	285	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-07-83	160	133.0	----	-----	-----	-----	-----	-----	-----	100.0	97.6	17.7	2.0	0.2
08-07-83	220	167.3	----	-----	-----	-----	-----	-----	100.0	99.9	96.5	18.9	2.0	0.2
08-07-83	280	135.8	----	-----	-----	-----	-----	-----	100.0	99.9	99.5	22.8	1.1	0.1
08-07-83	340	124.0	----	-----	-----	-----	-----	-----	-----	100.0	99.9	66.5	7.3	0.8
08-09-83	175	124.5	----	-----	-----	-----	-----	-----	-----	100.0	96.8	14.5	0.8	0.2
08-09-83	225	170.3	6.3	-----	-----	-----	100.0	99.6	99.5	99.4	76.6	3.7	0.3	0.1
08-09-83	275	96.1	6.0	-----	-----	-----	100.0	99.9	99.8	99.7	92.5	17.8	0.6	0.1
08-09-83	325	137.1	----	-----	-----	-----	-----	-----	100.0	99.9	99.6	42.5	3.5	0.4
08-12-83	140	91.8	----	-----	-----	-----	-----	-----	-----	100.0	96.5	11.9	0.7	0.1
08-12-83	200	73.3	----	-----	-----	-----	-----	-----	-----	100.0	94.0	16.0	1.5	0.1
08-12-83	250	175.4	11.7	-----	-----	100.0	98.9	98.3	98.0	92.0	14.1	0.7	0.1	0.1
08-12-83	300	190.0	----	-----	-----	-----	-----	-----	-----	100.0	99.7	16.7	0.4	0.1
08-12-83	340	154.9	----	-----	-----	-----	-----	-----	-----	-----	100.0	81.3	15.9	1.2
08-14-83	160	123.9	----	-----	-----	-----	-----	-----	-----	100.0	98.5	11.3	0.2	0.0
08-14-83	220	51.7	----	-----	-----	-----	-----	-----	-----	100.0	96.9	16.8	0.4	0.0
08-14-83	260	180.7	----	-----	-----	-----	-----	-----	-----	100.0	95.6	20.8	0.9	0.1
08-14-83	320	140.5	----	-----	-----	-----	-----	-----	-----	-----	100.0	43.4	2.6	0.4
08-16-83	160	42.9	26.6	-----	-----	100.0	17.7	16.1	16.1	15.9	11.9	1.2	0.5	0.2
08-16-83	220	82.0	12.0	-----	-----	100.0	98.2	97.7	97.3	96.7	81.6	6.2	0.6	0.2
08-16-83	320	153.9	----	-----	-----	-----	-----	-----	-----	100.0	99.9	34.8	3.9	0.3
08-18-83	160	211.4	12.7	-----	-----	100.0	97.5	96.4	95.6	95.4	74.4	1.7	0.0	0.0
08-18-83	240	24.2	----	-----	-----	-----	-----	100.0	99.6	99.2	93.4	13.2	0.4	0.0
08-18-83	280	24.4	----	-----	-----	-----	-----	-----	-----	100.0	99.2	9.0	0.0	0.0
08-18-83	320	156.1	----	-----	-----	-----	-----	-----	-----	100.0	99.7	54.1	4.3	0.2
08-20-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 14.--Grain-size distribution of bed material, Colorado River above National Canyon, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
08-22-83	150	186.4	16.0	-----	-----	100.0	97.6	97.4	96.9	96.5	67.4	1.9	0.1	0.0
08-22-83	225	115.7	----	-----	-----	-----	-----	-----	-----	100.0	95.5	8.6	0.1	0.0
08-22-83	275	105.2	----	-----	-----	-----	-----	-----	100.0	99.9	99.4	16.9	0.5	0.0
08-22-83	325	100.6	----	-----	-----	-----	-----	-----	-----	100.0	99.9	58.2	3.3	0.1
08-24-83	175	142.8	----	-----	-----	-----	-----	-----	100.0	96.2	6.7	0.2	0.0	0.0
08-24-83	225	172.0	----	-----	-----	-----	-----	100.0	99.9	99.9	81.2	5.0	0.2	0.1
08-24-83	275	183.5	----	-----	-----	-----	100.0	99.8	99.7	99.6	90.8	5.5	0.2	0.1
08-24-83	350	180.4	----	-----	-----	-----	-----	-----	-----	100.0	99.9	85.1	22.2	2.4
08-26-83	150	150.5	9.3	-----	-----	100.0	99.5	97.3	96.5	95.3	64.4	2.1	0.2	0.1
08-26-83	200	143.7	12.7	-----	-----	100.0	99.2	99.2	99.0	98.9	74.7	2.2	0.3	0.1
08-26-83	250	115.6	----	-----	-----	-----	-----	-----	-----	100.0	95.9	9.3	0.4	0.1
08-26-83	300	155.0	----	-----	-----	-----	-----	-----	-----	100.0	99.4	23.4	0.6	0.1
08-28-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-28-83	225	138.3	----	-----	-----	-----	-----	-----	-----	100.0	98.6	15.0	0.3	0.0
08-28-83	275	124.3	----	-----	-----	-----	-----	-----	100.0	99.9	92.1	9.7	0.3	0.0
08-28-83	350	196.1	----	-----	-----	-----	-----	-----	-----	100.0	99.9	85.8	22.8	2.0
08-30-83	160	41.2	32.3	-----	100.0	14.6	9.7	8.3	8.0	8.0	5.3	0.2	0.0	0.0
08-30-83	230	273.2	----	-----	-----	-----	-----	-----	-----	100.0	95.2	8.2	0.2	0.0
08-30-83	300	172.3	----	-----	-----	-----	-----	-----	-----	100.0	99.8	23.2	0.5	0.1
09-01-83	110	193.8	----	-----	-----	-----	-----	-----	-----	-----	100.0	84.7	30.2	11.2
09-01-83	180	205.1	10.7	-----	-----	100.0	99.2	96.3	94.8	91.5	48.1	1.3	0.0	0.0
09-01-83	250	173.6	----	-----	-----	-----	-----	-----	-----	100.0	90.8	7.2	0.2	0.1
09-01-83	320	163.5	----	-----	-----	-----	-----	-----	-----	-----	100.0	52.9	4.6	0.1
09-04-83	150	1.0	----	-----	-----	-----	-----	-----	-----	100.0	80.0	0.0	0.0	0.0
09-04-83	225	299.4	----	-----	-----	-----	-----	-----	-----	100.0	97.3	18.3	0.5	0.0
09-04-83	300	245.6	----	-----	-----	-----	-----	-----	-----	100.0	99.7	21.9	0.5	0.0
09-05-83	100	237.9	----	-----	-----	-----	-----	-----	-----	100.0	98.8	28.2	2.1	0.2
09-06-83	125	235.2	-----	-----	-----	-----	-----	-----	-----	100.0	97.8	37.8	5.5	0.5
09-06-83	200	201.5	12.7	-----	-----	100.0	99.0	98.5	98.0	96.8	58.1	1.7	0.2	0.1
09-06-83	275	146.0	----	-----	-----	-----	-----	-----	-----	100.0	97.9	13.6	0.2	0.0
09-06-83	350	191.5	----	-----	-----	-----	-----	-----	-----	100.0	99.9	74.2	11.4	0.9
09-12-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	140	2.7	3.7	-----	-----	-----	100.0	63.0	59.3	55.6	44.4	3.7	0.0	0.0
09-12-83	160	61.0	29.3	-----	100.0	21.6	11.3	11.1	11.1	11.1	9.7	2.0	0.0	0.0
09-12-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	200	197.7	----	-----	-----	-----	-----	-----	-----	100.0	86.7	6.7	0.2	0.0
09-12-83	220	205.9	----	-----	-----	-----	-----	-----	-----	100.0	82.0	3.2	0.1	0.0
09-12-83	240	200.2	----	-----	-----	-----	-----	-----	-----	100.0	85.2	4.3	0.1	0.0
09-12-83	260	292.4	----	-----	-----	-----	100.0	99.0	98.5	98.0	79.3	3.8	0.1	0.0
09-12-83	280	195.7	----	-----	-----	-----	-----	-----	-----	100.0	95.1	7.3	0.1	0.0
09-12-83	300	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-12-83	320	178.7	----	-----	-----	-----	-----	-----	-----	100.0	98.2	22.7	1.2	0.0
09-12-83	340	142.0	----	-----	-----	-----	-----	-----	-----	100.0	99.7	57.6	7.9	0.6
09-12-83	360	174.2	----	-----	-----	-----	-----	-----	-----	100.0	99.9	72.6	14.6	1.4
09-16-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-16-83	260	182.1	----	-----	-----	-----	-----	-----	-----	100.0	97.0	9.6	0.3	0.0
09-16-83	300	171.5	----	-----	-----	-----	-----	-----	-----	100.0	99.9	33.7	1.0	0.0
09-16-83	340	188.6	----	-----	-----	-----	-----	-----	-----	100.0	99.8	63.7	9.4	0.5
09-18-83	105	200.1	----	-----	-----	-----	-----	-----	100.0	99.9	99.7	89.5	35.5	7.4
09-18-83	115	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-18-83	145	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-18-83	245	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-18-83	260	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-19-83	160	1.9	----	-----	-----	-----	-----	-----	-----	-----	100.0	21.1	0.0	0.0
09-19-83	180	205.7	----	-----	-----	-----	-----	-----	-----	100.0	96.1	10.5	0.1	0.0
09-19-83	240	1.3	----	-----	-----	-----	-----	-----	-----	100.0	76.9	30.8	0.0	0.0
09-19-83	300	179.3	----	-----	-----	-----	-----	-----	-----	100.0	99.9	24.1	1.2	0.0
09-19-83	355	185.2	----	-----	-----	-----	-----	-----	-----	-----	100.0	90.1	27.5	11.4
09-21-83	130	249.6	14.3	-----	-----	100.0	96.4	95.1	93.9	92.7	82.1	21.0	2.0	0.2
09-21-83	170	207.4	----	-----	-----	-----	-----	-----	-----	100.0	96.7	10.2	0.5	0.2
09-21-83	250	215.6	----	-----	-----	-----	100.0	99.8	99.7	99.4	73.7	3.7	0.0	0.0

Table 14.--Grain-size distribution of bed material, Colorado River above National Canyon, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
09-21-83	325	177.5	----	-----	-----	-----	-----	-----	-----	100.0	92.1	20.6	0.6	0.0
09-21-83	375	182.6	----	-----	-----	-----	-----	-----	-----	-----	100.0	81.3	17.7	5.4
09-23-83	145	274.4	62.3	100.0	28.1	2.1	1.0	0.5	0.4	0.4	0.4	0.2	0.0	0.0
09-23-83	220	130.4	----	-----	-----	-----	-----	-----	-----	100.0	92.3	8.7	0.2	0.0
09-23-83	290	183.9	----	-----	-----	-----	-----	-----	-----	100.0	95.5	9.0	0.5	0.1
09-23-83	350	241.0	----	-----	-----	-----	-----	-----	-----	100.0	99.9	63.7	8.9	2.4
09-27-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-27-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-27-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-27-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-27-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-02-83	125	50.5	----	-----	-----	-----	-----	-----	-----	100.0	99.8	88.3	48.9	18.6
10-02-83	225	250.9	----	-----	-----	-----	-----	-----	-----	100.0	92.4	9.4	0.6	0.0
10-02-83	325	294.8	----	-----	-----	-----	-----	-----	-----	100.0	99.3	53.4	6.9	3.2
10-04-83	175	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-04-83	275	169.9	----	-----	-----	-----	-----	-----	-----	100.0	96.5	20.6	0.8	0.1
10-04-83	375	159.0	----	-----	-----	-----	-----	-----	-----	-----	100.0	97.4	72.0	31.1
10-07-83	110	184.4	----	-----	-----	-----	-----	-----	-----	100.0	99.8	91.7	63.3	23.3
10-07-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-07-83	150	319.0	66.3	100.0	2.5	2.5	2.2	1.7	1.7	1.7	1.1	0.1	0.0	0.0
10-07-83	170	19.7	23.0	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-07-83	180	56.7	9.7	-----	-----	100.0	87.1	85.2	82.7	81.0	51.1	3.9	0.9	0.4
10-07-83	190	30.1	16.0	-----	100.0	27.2	15.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0
10-07-83	200	191.7	8.7	-----	-----	100.0	96.7	95.4	94.9	93.0	53.6	1.1	0.1	0.0
10-07-83	210	173.5	----	-----	-----	-----	-----	-----	-----	100.0	95.7	7.9	0.7	0.1
10-07-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-07-83	250	106.0	----	-----	-----	-----	-----	-----	-----	100.0	95.8	10.8	1.1	0.2
10-07-83	270	149.0	----	-----	-----	-----	-----	-----	-----	100.0	98.7	15.8	0.7	0.1
10-07-83	290	184.9	----	-----	-----	-----	-----	-----	-----	100.0	98.9	28.4	3.5	0.8
10-07-83	310	112.4	----	-----	-----	-----	-----	-----	-----	100.0	99.9	57.2	12.3	2.5
10-07-83	330	140.3	----	-----	-----	-----	-----	-----	-----	100.0	99.7	64.9	10.8	1.3
10-07-83	350	113.8	----	-----	-----	-----	-----	-----	-----	100.0	99.9	88.0	40.1	4.7
10-07-83	370	131.9	----	-----	-----	-----	-----	-----	-----	-----	100.0	97.3	71.6	18.7
10-09-83	180	169.3	1.0	-----	-----	-----	-----	-----	100.0	99.8	67.5	3.0	0.4	0.0
10-09-83	200	156.4	----	-----	-----	-----	-----	-----	-----	100.0	70.8	3.6	0.6	0.1
10-09-83	240	100.9	----	-----	-----	-----	-----	-----	-----	100.0	98.1	14.3	0.8	0.0
10-09-83	260	61.4	----	-----	-----	-----	-----	-----	-----	100.0	98.0	16.6	0.7	0.0
10-09-83	330	133.9	----	-----	-----	-----	-----	-----	-----	100.0	99.8	80.2	26.9	3.6
10-11-83	125	22.4	----	-----	-----	-----	-----	-----	-----	100.0	96.4	47.3	8.5	0.0
10-11-83	175	197.6	20.7	-----	100.0	82.2	79.1	77.5	76.9	76.1	44.4	2.3	0.1	0.0
10-11-83	195	100.1	9.7	-----	-----	100.0	88.9	84.7	81.8	70.6	19.1	0.9	0.0	0.0
10-11-83	215	103.8	10.7	-----	-----	100.0	94.8	93.8	93.3	91.9	55.5	2.3	0.2	0.0
10-11-83	235	117.5	----	-----	-----	-----	-----	-----	-----	100.0	96.7	15.3	0.9	0.1
10-11-83	310	197.6	----	-----	-----	-----	-----	-----	-----	100.0	99.3	30.0	3.2	0.3
10-13-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-13-83	160	21.8	18.7	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-13-83	195	130.8	9.7	-----	-----	100.0	93.9	90.8	86.6	80.0	38.8	3.8	0.2	0.0
10-13-83	230	4.9	14.0	-----	-----	100.0	38.8	30.6	28.6	26.5	22.4	2.0	0.0	0.0
10-15-83	140	151.9	----	-----	-----	-----	-----	-----	-----	100.0	97.6	28.6	4.3	0.2
10-15-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-15-83	195	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-15-83	235	41.7	----	-----	-----	-----	-----	-----	-----	100.0	95.4	26.6	2.2	0.2
10-17-83	110	179.8	----	-----	-----	-----	-----	-----	-----	-----	100.0	98.3	79.4	29.9
10-17-83	135	175.8	36.7	100.0	52.4	33.1	15.5	8.4	6.6	6.5	6.3	1.6	0.3	0.0
10-17-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	185	121.3	19.7	-----	100.0	87.0	84.5	81.0	80.8	80.0	46.2	2.0	0.1	0.0
10-17-83	210	130.3	10.3	-----	-----	100.0	91.6	90.9	90.8	90.3	57.6	2.1	0.0	0.0
10-17-83	235	113.9	1.3	-----	-----	-----	-----	100.0	99.7	98.0	73.4	7.4	0.4	0.0
10-17-83	260	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	285	190.3	1.7	-----	-----	-----	-----	100.0	99.9	99.9	92.6	10.2	0.4	0.0
10-17-83	310	184.2	----	-----	-----	-----	-----	-----	-----	100.0	99.6	54.4	6.9	0.4

Table 14.--Grain-size distribution of bed material, Colorado River above National Canyon, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-17-83	335	256.1	----	-----	-----	-----	-----	-----	-----	-----	100.0	82.8	19.8	1.4
10-17-83	360	135.0	----	-----	-----	-----	-----	-----	-----	-----	100.0	92.6	36.4	4.6
10-21-83	140	107.0	42.0	100.0	30.6	22.8	6.9	2.7	2.2	2.2	2.1	0.8	0.3	0.2
10-21-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-21-83	250	152.0	----	-----	-----	-----	-----	-----	-----	100.0	98.7	23.0	0.8	0.0
10-21-83	330	141.5	----	-----	-----	-----	-----	-----	-----	100.0	99.8	53.0	6.9	0.6
10-23-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-83	250	174.4	----	-----	-----	-----	-----	-----	-----	100.0	93.4	8.9	0.3	0.0
10-23-83	350	116.0	----	-----	-----	-----	-----	-----	-----	100.0	99.7	88.5	38.5	4.8
10-25-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-25-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-25-83	280	134.8	----	-----	-----	-----	-----	-----	-----	100.0	99.3	38.9	3.4	0.1
10-25-83	340	137.6	----	-----	-----	-----	-----	-----	-----	-----	100.0	88.6	39.3	5.8
10-27-83	120	39.0	----	-----	-----	-----	-----	-----	-----	100.0	99.5	67.4	12.3	0.5
10-27-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-27-83	350	248.1	----	-----	-----	-----	-----	-----	-----	100.0	99.9	93.4	47.9	21.4
10-29-83	115	176.2	----	-----	-----	-----	-----	-----	100.0	99.9	99.2	92.3	50.3	24.9
10-29-83	225	6.8	16.3	-----	-----	100.0	29.4	29.4	29.4	29.4	27.9	14.7	1.5	0.0
10-29-83	275	237.9	----	-----	-----	-----	-----	-----	-----	100.0	99.9	37.4	2.7	0.8
10-29-83	305	171.7	----	-----	-----	-----	-----	-----	-----	100.0	99.9	53.4	5.7	1.3
10-31-83	205	102.5	9.3	-----	-----	100.0	92.6	87.9	82.6	68.9	28.8	1.0	0.0	0.0
10-31-83	215	139.4	18.0	-----	-----	100.0	90.5	88.6	84.1	66.9	26.3	1.5	0.1	0.0
10-31-83	285	196.1	----	-----	-----	-----	-----	-----	-----	100.0	99.6	27.2	1.6	0.1
10-31-83	345	213.9	----	-----	-----	-----	-----	-----	-----	-----	100.0	96.2	40.2	19.6
11-02-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-02-83	160	8.1	16.7	-----	-----	100.0	46.9	22.2	22.2	22.2	19.8	4.9	0.0	0.0
11-02-83	240	192.6	3.0	-----	-----	-----	100.0	99.9	99.6	98.1	60.8	3.7	0.2	0.1
11-02-83	290	67.0	----	-----	-----	-----	-----	-----	-----	100.0	99.7	26.6	1.2	0.0
11-05-83	115	161.3	----	-----	-----	-----	-----	-----	-----	-----	100.0	92.7	48.8	8.2
11-05-83	130	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-05-83	145	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-05-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-05-83	175	203.9	----	-----	-----	-----	-----	-----	-----	100.0	96.0	11.7	0.5	0.2
11-05-83	190	189.4	----	-----	-----	-----	100.0	99.9	99.8	99.5	75.4	2.7	0.1	0.1
11-05-83	205	183.8	----	-----	-----	-----	-----	-----	-----	100.0	84.8	4.9	0.1	0.0
11-05-83	220	142.5	----	-----	-----	-----	-----	-----	-----	100.0	95.8	6.7	0.2	0.1
11-05-83	235	254.5	27.7	-----	100.0	85.3	85.3	83.5	83.0	81.1	47.2	3.2	0.2	0.0
11-05-83	250	2.1	----	-----	-----	-----	-----	-----	-----	100.0	90.5	9.5	0.0	0.0
11-05-83	255	272.9	----	-----	-----	-----	-----	-----	-----	100.0	99.9	95.6	42.0	24.6
11-05-83	265	15.4	15.0	-----	-----	100.0	62.3	55.8	54.5	54.5	53.2	13.6	0.0	0.0
11-05-83	280	159.6	----	-----	-----	-----	-----	-----	-----	100.0	99.8	25.6	1.2	0.4
11-05-83	295	168.1	----	-----	-----	-----	-----	-----	-----	-----	100.0	30.8	1.2	0.0
11-05-83	310	196.8	----	-----	-----	-----	-----	-----	-----	100.0	99.5	39.2	3.3	0.2
11-05-83	325	85.7	----	-----	-----	-----	-----	-----	-----	100.0	98.8	25.6	0.7	0.1
11-05-83	340	1.1	----	-----	-----	-----	-----	-----	-----	-----	100.0	45.5	9.1	0.0
11-05-83	370	283.1	----	-----	-----	-----	-----	-----	-----	-----	100.0	94.3	22.5	1.4
11-07-83	140	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	250	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-07-83	300	179.3	27.0	100.0	41.8	35.3	35.0	34.9	34.8	33.1	4.8	0.1	0.0	0.0
11-07-83	350	165.9	----	-----	-----	-----	-----	-----	-----	-----	100.0	94.7	35.3	3.5
11-09-83	140	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-09-83	210	27.7	13.7	-----	100.0	53.1	36.5	30.3	26.0	24.5	16.6	1.8	0.0	0.0
11-09-83	290	114.4	----	-----	-----	-----	-----	-----	-----	100.0	99.7	21.3	1.0	0.1
11-09-83	355	144.3	----	-----	-----	-----	-----	-----	-----	-----	100.0	91.0	30.0	2.9
11-11-83	125	7.8	----	-----	-----	-----	-----	-----	-----	100.0	97.4	48.7	5.1	0.0
11-11-83	210	95.4	7.0	-----	-----	100.0	99.6	96.6	95.6	94.7	62.9	2.1	0.0	0.0
11-11-83	280	165.8	----	-----	-----	-----	-----	-----	-----	100.0	99.3	13.6	0.4	0.0
11-11-83	350	158.1	----	-----	-----	-----	-----	-----	-----	-----	100.0	92.0	30.4	3.2
11-15-83	190	110.0	5.0	-----	-----	-----	100.0	97.2	93.6	86.7	51.1	2.5	0.1	0.0
11-15-83	245	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 14.--Particle-size distribution of bed material, Colorado River above National Canyon, 1983--Continued

Date	Cross-section location	Total weight, in grams	Tri-axial size	Percent finer than size indicated, in millimeters										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-15-83	260	132.7	8.0	-----	-----	100.0	98.6	98.3	98.3	98.0	94.0	8.8	0.5	0.0
11-15-83	275	145.8	----	-----	-----	-----	-----	-----	-----	100.0	99.9	26.3	1.7	0.0
11-15-83	290	140.0	----	-----	-----	-----	-----	-----	-----	100.0	99.7	24.0	0.9	0.0
11-15-83	305	196.1	----	-----	-----	-----	-----	-----	-----	100.0	99.4	27.1	2.5	0.1
11-15-83	320	33.1	31.7	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-15-83	335	121.3	----	-----	-----	-----	-----	-----	-----	100.0	99.8	79.8	23.7	3.1
11-15-83	350	175.8	----	-----	-----	-----	-----	-----	-----	100.0	99.9	91.4	26.1	2.3
11-19-83	155	4.2	5.0	-----	-----	-----	100.0	76.2	71.4	69.0	54.8	4.8	0.0	0.0
11-19-83	215	90.4	1.0	-----	-----	-----	-----	-----	100.0	99.2	74.6	4.2	0.0	0.0
11-19-83	260	172.3	----	-----	-----	-----	-----	-----	-----	100.0	98.6	17.4	0.9	0.0
11-19-83	310	8.0	13.7	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	135	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	205	5.0	4.3	-----	-----	-----	100.0	92.0	86.0	84.0	60.0	4.0	0.0	0.0
11-23-83	270	118.8	----	-----	-----	-----	-----	-----	-----	100.0	98.4	17.4	0.6	0.0
11-23-83	320	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	125	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	135	54.3	20.7	-----	100.0	82.3	46.2	41.4	40.3	40.1	39.2	10.9	0.2	0.0
11-28-83	145	187.6	38.0	100.0	62.0	18.9	12.3	9.6	8.8	8.7	8.0	2.8	0.4	0.1
11-28-83	155	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	165	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	175	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	185	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-28-83	195	302.3	10.7	-----	-----	100.0	99.6	97.3	92.4	83.9	38.8	1.5	0.1	0.0
11-30-83	340	121.7	----	-----	-----	-----	-----	-----	-----	-----	100.0	91.1	15.5	0.9
11-30-83	350	114.8	----	-----	-----	-----	-----	-----	-----	-----	100.0	94.1	28.0	2.8
11-30-83	360	114.4	----	-----	-----	-----	-----	-----	-----	100.0	99.7	83.2	11.3	0.6
12-03-83	155	25.2	20.7	-----	100.0	11.9	7.5	5.2	5.2	5.2	4.0	1.2	0.0	0.0
12-03-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-05-83	160	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-83	335	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-83	340	118.5	----	-----	-----	-----	-----	-----	-----	-----	100.0	97.0	8.6	5.1

Table 15.--Grain-size distribution of bed material, Colorado River above Diamond Creek, 1983

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
08-07-83	50	97.6	----	---	-----	-----	-----	-----	-----	-----	100.0	98.7	44.6	5.4
08-07-83	70	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-07-83	90	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-07-83	110	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-07-83	130	187.0	----	---	-----	-----	-----	-----	-----	100.0	97.8	22.8	0.5	0.1
08-07-83	150	133.4	----	---	-----	-----	-----	-----	100.0	99.9	98.7	28.7	1.6	0.2
08-07-83	170	192.0	----	---	-----	-----	-----	-----	-----	100.0	97.4	15.7	0.6	0.1
08-07-83	190	169.2	36.0	---	100.0	46.0	43.4	29.8	20.4	12.1	7.0	1.1	0.2	0.1
08-07-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-07-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-07-83	250	103.6	----	---	-----	-----	-----	-----	-----	-----	100.0	87.9	27.3	5.1
08-10-83	80	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-10-83	110	214.2	----	---	-----	-----	-----	100.0	99.7	97.7	84.0	13.4	1.4	0.4
08-10-83	150	293.5	----	---	-----	-----	-----	-----	-----	100.0	99.7	31.6	1.8	0.2
08-10-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-10-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-10-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-16-83	75	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-16-83	125	188.6	----	---	-----	-----	100.0	99.2	99.2	99.1	97.1	24.3	1.5	0.1
08-16-83	175	132.0	----	---	-----	-----	-----	100.0	98.2	94.8	86.7	17.8	0.6	0.1
08-16-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-19-83	65	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-19-83	95	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-19-83	125	102.5	----	---	-----	-----	-----	-----	-----	100.0	99.3	23.4	0.6	0.0
08-19-83	155	104.4	----	---	-----	-----	-----	-----	-----	100.0	99.8	37.6	0.7	0.1
08-19-83	185	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-19-83	215	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-19-83	245	158.4	----	---	-----	-----	-----	-----	-----	100.0	99.9	89.5	45.6	18.4
08-21-83	110	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-21-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-21-83	190	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-21-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-21-83	250	211.1	----	---	-----	-----	-----	-----	-----	100.0	99.9	87.5	25.7	4.7
08-23-83	120	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-23-83	140	229.6	13.3	---	-----	100.0	98.7	98.3	98.0	97.5	90.9	12.0	0.5	0.1
08-23-83	170	233.4	----	---	-----	-----	-----	-----	100.0	99.9	98.5	14.7	0.8	0.2
08-23-83	195	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-23-83	205	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-23-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-23-83	255	211.7	----	---	-----	-----	-----	-----	-----	-----	100.0	87.0	24.1	10.8
08-25-83	60	180.9	----	---	-----	-----	-----	-----	-----	100.0	99.9	97.1	51.2	12.7
08-25-83	80	52.4	----	---	-----	-----	-----	-----	-----	100.0	65.3	13.7	1.9	0.0
08-25-83	100	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-25-83	120	233.7	----	---	-----	-----	-----	100.0	99.9	99.4	90.6	11.1	0.6	0.1
08-25-83	140	285.3	----	---	-----	-----	-----	-----	-----	100.0	94.8	10.7	0.2	0.0
08-25-83	160	180.4	----	---	-----	-----	-----	-----	-----	100.0	99.6	34.8	0.8	0.0
08-25-83	180	225.3	----	---	-----	-----	-----	-----	-----	100.0	99.5	18.7	0.7	0.0
08-25-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-25-83	220	108.7	----	---	-----	-----	-----	-----	-----	100.0	98.3	27.4	1.8	0.6
08-25-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-27-83	75	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-27-83	95	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-27-83	110	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-27-83	135	156.1	----	---	-----	-----	-----	-----	-----	100.0	99.6	32.3	1.3	0.4
08-27-83	150	206.5	----	---	-----	-----	-----	-----	-----	100.0	99.5	22.5	0.6	0.1
08-27-83	175	172.2	----	---	-----	-----	-----	-----	100.0	99.9	98.1	25.0	1.2	0.1
08-27-83	190	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-27-83	195	6.5	16.7	---	-----	100.0	15.4	15.4	13.8	12.3	12.3	6.2	1.5	0.0
08-27-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-27-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-29-83	50	184.9	----	---	-----	-----	-----	-----	100.0	99.7	99.2	98.3	81.1	53.1

Table 15.--Grain-size distribution of bed material, Colorado River above Diamond Creek, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
08-29-83	85	223.4	----	---	-----	-----	-----	-----	-----	100.0	99.9	84.2	34.9	20.3
08-29-83	95	213.0	----	---	-----	-----	-----	-----	-----	100.0	99.5	49.3	5.0	0.6
08-29-83	115	220.4	----	---	-----	-----	-----	-----	-----	100.0	98.1	28.2	2.8	0.3
08-29-83	140	177.4	----	---	-----	-----	-----	-----	-----	100.0	99.0	24.6	0.8	0.0
08-29-83	170	234.0	23.7	---	100.0	93.8	87.5	85.2	82.5	80.2	66.2	6.8	0.3	0.1
08-29-83	190	216.7	----	---	-----	-----	100.0	99.5	99.3	99.2	93.7	25.2	4.9	0.9
08-29-83	205	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-29-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
08-29-83	230	7.2	----	---	-----	-----	-----	-----	-----	100.0	98.6	29.2	1.4	0.0
08-29-83	255	208.8	----	---	-----	-----	-----	-----	-----	-----	100.0	91.7	35.4	8.2
08-31-83	150	169.2	----	---	-----	-----	-----	-----	-----	100.0	99.9	27.9	0.7	0.3
08-31-83	200	177.4	26.0	---	100.0	87.9	75.6	64.2	59.8	55.9	47.4	8.6	0.5	0.0
09-02-83	100	185.0	----	---	-----	-----	-----	-----	-----	100.0	99.5	55.8	9.7	0.5
09-02-83	150	206.7	----	---	-----	-----	-----	-----	-----	100.0	99.5	19.9	0.5	0.0
09-02-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-02-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-03-83	100	227.1	----	---	-----	-----	-----	-----	-----	100.0	99.0	39.7	4.1	1.8
09-03-83	150	205.7	----	---	-----	-----	-----	-----	-----	-----	100.0	33.9	0.7	0.0
09-03-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-05-83	100	237.9	----	---	-----	-----	-----	-----	-----	100.0	98.9	28.3	2.2	0.2
09-05-83	150	226.0	----	---	-----	-----	-----	-----	-----	100.0	98.8	12.4	0.1	0.0
09-05-83	200	4.1	----	---	-----	-----	-----	100.0	95.1	90.2	75.6	14.6	2.4	2.4
09-07-83	100	9.5	----	---	-----	-----	-----	-----	-----	100.0	97.9	43.2	3.2	0.0
09-07-83	150	232.1	----	---	-----	100.0	99.3	98.5	98.5	98.4	94.4	12.5	0.4	0.0
09-07-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-07-83	250	169.4	----	---	-----	-----	-----	-----	-----	-----	100.0	87.5	34.1	9.6
09-09-83	100	155.9	----	---	-----	-----	-----	-----	-----	100.0	99.0	42.3	5.1	1.2
09-09-83	150	223.6	----	---	-----	-----	-----	-----	-----	100.0	98.7	16.9	0.1	0.0
09-09-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-09-83	250	222.6	----	---	-----	-----	-----	-----	-----	-----	100.0	82.1	23.6	11.8
09-11-83	165	221.5	----	---	-----	-----	-----	-----	-----	-----	100.0	20.3	0.3	0.1
09-11-83	185	200.9	----	---	-----	-----	100.0	98.9	98.9	98.9	97.3	19.3	0.6	0.0
09-11-83	195	200.2	----	---	-----	-----	100.0	98.9	98.4	98.2	94.7	16.8	1.1	0.2
09-11-83	205	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-11-83	215	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-14-83	120	200.5	----	---	-----	-----	-----	-----	100.0	99.8	93.1	17.9	0.7	0.0
09-14-83	135	221.0	----	---	-----	-----	-----	-----	-----	100.0	99.5	21.7	0.6	0.0
09-18-83	107	166.7	18.0	---	-----	100.0	98.6	97.5	96.9	96.9	94.7	29.9	2.3	0.1
09-18-83	165	216.8	----	---	-----	-----	-----	100.0	99.7	99.3	93.7	13.6	0.2	0.0
09-18-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-20-83	60	181.5	----	---	-----	-----	-----	-----	-----	100.0	99.8	96.3	49.8	12.3
09-20-83	75	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-20-83	90	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-20-83	105	45.5	----	---	-----	-----	-----	-----	-----	100.0	98.7	65.7	10.1	0.4
09-20-83	120	225.9	10.7	---	-----	100.0	99.6	99.2	98.7	97.9	88.4	12.7	1.0	0.4
09-20-83	135	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-20-83	150	216.2	10.3	---	-----	100.0	99.4	98.5	97.6	96.0	74.2	8.7	0.4	0.3
09-20-83	165	209.2	14.7	---	-----	100.0	98.2	98.2	98.1	97.9	92.1	21.4	1.2	0.2
09-20-83	180	235.7	10.0	---	-----	100.0	99.6	99.0	98.3	97.4	88.2	14.1	0.7	0.4
09-20-83	195	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-20-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-20-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-20-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-24-83	75	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-24-83	105	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-24-83	150	187.0	----	---	-----	-----	-----	-----	-----	-----	100.0	43.4	0.6	0.0
09-24-83	180	242.4	----	---	-----	-----	-----	-----	-----	100.0	98.8	43.7	2.3	0.2
09-24-83	225	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-26-83	60	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-26-83	100	195.9	----	---	-----	-----	-----	-----	-----	100.0	99.4	46.4	4.7	0.6

Table 15.--Grain-size distribution of bed material, Colorado River above Diamond Creek, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
09-26-83	140	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-26-83	180	149.1	----	---	-----	-----	-----	-----	-----	100.0	96.6	18.8	1.7	0.8
09-26-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
09-29-83	90	252.8	----	---	-----	-----	-----	-----	-----	100.0	90.0	42.6	0.8	0.0
09-29-83	150	147.6	----	---	-----	-----	-----	-----	-----	100.0	99.0	34.6	1.5	0.1
09-29-83	190	222.7	----	---	-----	-----	-----	100.0	99.6	99.5	97.4	12.1	0.3	0.1
10-01-83	90	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-01-83	180	212.0	----	---	-----	-----	-----	-----	-----	100.0	99.6	18.8	0.9	0.0
10-01-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-83	150	173.9	----	---	-----	-----	-----	-----	100.0	99.9	99.7	45.0	2.1	0.9
10-03-83	160	194.2	----	---	-----	-----	-----	-----	-----	100.0	99.2	23.5	1.0	0.0
10-03-83	170	181.2	----	---	-----	-----	-----	-----	-----	100.0	97.8	17.4	1.2	0.0
10-03-83	180	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-83	190	139.7	----	---	-----	-----	-----	-----	-----	100.0	98.5	21.8	1.6	0.9
10-03-83	200	1.7	----	---	-----	-----	-----	-----	-----	-----	100.0	29.4	0.0	0.0
10-03-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-83	230	10.2	----	---	-----	-----	-----	-----	-----	-----	100.0	78.4	38.2	19.6
10-03-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-83	250	178.8	----	---	-----	-----	-----	-----	-----	100.0	99.9	89.6	38.8	18.4
10-05-83	65	58.1	----	---	-----	-----	-----	-----	-----	-----	100.0	91.0	51.8	26.0
10-05-83	90	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-05-83	110	253.6	----	---	-----	-----	-----	-----	-----	100.0	96.2	28.0	3.2	0.6
10-05-83	130	192.6	----	---	-----	-----	-----	-----	100.0	99.9	97.5	18.0	0.6	0.0
10-05-83	150	247.2	----	---	-----	-----	-----	-----	-----	100.0	99.5	38.6	2.1	0.9
10-05-83	170	164.9	----	---	-----	-----	-----	-----	-----	100.0	99.1	19.6	1.9	0.8
10-05-83	190	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-05-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-05-83	230	223.7	----	---	-----	-----	-----	-----	-----	100.0	98.7	41.8	8.0	2.1
10-05-83	250	221.6	----	---	-----	-----	-----	-----	100.0	99.9	99.8	82.3	34.6	17.9
10-07-83	100	200.1	----	---	-----	-----	-----	-----	-----	100.0	99.5	57.7	13.2	5.5
10-07-83	150	286.6	----	---	-----	-----	-----	-----	-----	100.0	99.1	29.6	2.2	0.5
10-07-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-83	50	171.0	----	---	-----	-----	-----	-----	100.0	99.9	99.8	98.7	87.3	54.3
10-10-83	65	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-83	80	67.2	----	---	-----	-----	-----	-----	-----	100.0	99.3	66.5	20.4	8.5
10-10-83	95	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-83	110	3.7	----	---	-----	-----	-----	-----	-----	-----	100.0	18.9	0.0	0.0
10-10-83	125	162.6	----	---	-----	-----	-----	-----	-----	100.0	99.4	18.5	0.4	0.1
10-10-83	140	262.6	----	---	-----	-----	-----	-----	-----	100.0	98.3	16.0	0.4	0.0
10-10-83	170	292.8	----	---	-----	-----	-----	-----	-----	100.0	99.8	26.4	1.4	0.0
10-10-83	185	221.6	----	---	-----	-----	-----	-----	-----	100.0	97.7	14.9	0.7	0.3
10-10-83	200	228.8	9.7	---	-----	100.0	99.3	98.5	98.2	97.9	89.9	63.0	3.5	0.7
10-10-83	215	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-83	230	1.6	----	---	-----	-----	-----	-----	-----	100.0	87.5	18.7	0.0	0.0
10-10-83	245	10.8	----	---	-----	-----	-----	-----	-----	100.0	99.1	75.9	20.4	4.6
10-13-83	80	194.5	----	---	-----	-----	-----	-----	100.0	99.9	99.8	83.3	37.0	9.7
10-13-83	160	208.9	----	---	-----	-----	-----	-----	-----	100.0	99.2	11.9	0.3	0.0
10-13-83	240	201.8	----	---	-----	-----	-----	-----	-----	100.0	99.5	41.3	3.9	0.4
10-15-83	80	179.7	----	---	-----	-----	-----	-----	-----	-----	100.0	63.8	34.2	0.0
10-15-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-15-83	220	247.2	----	---	-----	-----	-----	-----	-----	100.0	97.3	22.1	2.2	0.8
10-17-83	50	191.3	----	---	-----	-----	-----	-----	-----	100.0	99.9	99.0	84.7	29.6
10-17-83	80	222.9	----	---	-----	-----	-----	-----	-----	-----	100.0	84.4	46.2	19.6
10-17-83	95	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	110	240.2	----	---	-----	-----	-----	-----	100.0	99.8	96.3	18.5	1.4	0.5
10-17-83	125	172.9	----	---	-----	-----	-----	-----	100.0	99.9	97.2	20.1	0.9	0.1
10-17-83	140	223.8	----	---	-----	-----	-----	100.0	99.8	99.0	76.2	4.5	0.1	0.0
10-17-83	155	228.9	11.7	---	-----	-----	100.0	96.9	93.6	89.2	70.2	7.3	0.3	0.0
10-17-83	170	298.9	----	---	-----	-----	-----	100.0	99.7	99.4	93.2	8.2	0.3	0.0

Table 15.--Grain-size distribution of bed material, Colorado River above Diamond Creek, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-17-83	185	235.6	16.0	---	-----	100.0	93.4	90.1	87.5	84.5	70.8	6.6	0.6	0.3
10-17-83	200	165.4	10.0	---	-----	100.0	99.5	98.0	97.1	95.8	87.3	18.3	0.8	0.0
10-17-83	215	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-83	230	227.2	----	---	-----	-----	-----	-----	-----	100.0	96.0	52.0	10.1	0.4
10-17-83	245	214.3	----	---	-----	-----	-----	-----	-----	-----	100.0	93.0	49.5	13.7
10-19-83	90	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-19-83	120	211.7	----	---	-----	-----	-----	-----	100.0	99.9	97.1	15.4	0.9	0.0
10-19-83	170	162.7	----	---	-----	-----	-----	-----	100.0	99.9	99.0	29.3	1.0	0.2
10-19-83	190	215.6	----	---	-----	-----	100.0	99.5	99.2	98.8	91.6	14.2	0.7	0.1
10-19-83	220	82.9	----	---	-----	-----	-----	-----	-----	100.0	99.9	45.5	2.4	0.0
10-21-83	85	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-21-83	105	244.7	----	---	-----	-----	-----	-----	-----	100.0	99.7	65.4	17.3	5.1
10-21-83	155	195.2	----	---	-----	-----	-----	-----	-----	100.0	74.2	6.2	0.9	0.1
10-21-83	185	308.1	24.6	0.0	100.0	87.8	72.9	59.8	53.9	51.8	45.9	6.3	0.0	0.0
10-21-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-83	80	183.7	----	---	-----	-----	-----	-----	-----	100.0	99.6	86.0	32.6	5.4
10-23-83	100	222.0	----	---	-----	-----	-----	-----	-----	100.0	99.5	45.0	7.4	1.9
10-23-83	130	233.3	----	---	-----	-----	-----	100.0	99.5	98.9	89.5	21.4	1.4	0.4
10-23-83	170	225.4	----	---	-----	-----	-----	100.0	99.9	99.0	87.3	6.9	0.2	0.0
10-23-83	185	225.3	14.3	---	-----	100.0	97.7	97.3	97.1	96.5	89.8	13.4	0.1	0.0
10-23-83	205	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-25-83	80	164.4	----	---	-----	-----	-----	-----	-----	-----	100.0	92.6	51.6	13.4
10-25-83	100	227.7	----	---	-----	-----	-----	-----	-----	100.0	99.5	49.9	7.3	0.7
10-25-83	135	185.2	----	---	-----	-----	-----	-----	100.0	99.9	97.9	27.6	1.8	0.2
10-25-83	185	213.8	9.7	---	-----	100.0	99.5	98.4	97.3	96.8	91.9	16.5	1.2	0.2
10-25-83	220	90.9	----	---	-----	-----	-----	-----	-----	100.0	97.2	35.1	6.5	2.2
10-29-83	60	41.6	----	---	-----	-----	-----	-----	-----	100.0	99.5	93.0	54.8	25.5
10-29-83	70	284.4	----	---	-----	-----	-----	-----	-----	100.0	99.7	34.6	3.6	0.4
10-29-83	70	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-29-83	80	249.6	----	---	-----	-----	-----	-----	-----	100.0	99.8	73.9	24.6	4.0
10-29-83	90	208.2	----	---	-----	-----	-----	-----	-----	-----	100.0	82.2	25.9	10.6
10-29-83	100	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-29-83	110	114.9	----	---	-----	-----	-----	-----	-----	100.0	98.7	35.2	2.8	0.0
10-29-83	120	221.3	----	---	-----	-----	-----	-----	-----	100.0	94.5	8.7	0.5	0.1
10-29-83	130	206.2	----	---	-----	-----	100.0	99.6	99.6	99.3	91.0	10.9	0.2	0.0
10-29-83	140	193.3	----	---	-----	-----	-----	-----	100.0	99.9	96.8	12.9	0.4	0.2
10-29-83	150	215.0	----	---	-----	-----	-----	-----	-----	100.0	99.2	21.5	0.0	0.0
10-29-83	160	196.1	----	---	-----	-----	-----	-----	-----	100.0	99.4	33.2	2.1	0.1
10-29-83	180	176.4	----	---	-----	-----	-----	-----	-----	100.0	96.5	21.7	0.1	0.0
10-29-83	190	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-29-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-29-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-29-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-29-83	230	233.7	----	---	-----	-----	-----	-----	-----	100.0	99.5	39.5	7.5	0.8
10-29-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-29-83	250	228.9	----	---	-----	-----	-----	-----	-----	-----	100.0	89.4	40.5	7.6
11-08-83	50	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-83	65	6.9	----	---	-----	-----	-----	-----	-----	-----	-----	100.0	49.3	1.4
11-08-83	80	204.9	----	---	-----	-----	-----	-----	-----	100.0	99.9	79.4	29.3	4.4
11-08-83	95	231.6	----	---	-----	-----	-----	-----	-----	100.0	99.9	70.6	17.4	1.8
11-08-83	110	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-83	125	218.4	----	---	-----	-----	-----	-----	-----	100.0	98.2	14.8	0.5	0.0
11-08-83	140	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-83	155	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-83	170	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-83	185	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-83	215	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-83	230	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-83	245	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 15.--Grain-size distribution of bed material, Colorado River above Diamond Creek, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-18-83	210	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-18-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-19-83	150	227.4	----	---	-----	-----	100.0	99.6	98.7	98.0	86.6	11.8	0.5	0.0
11-19-83	167	218.1	----	---	-----	-----	-----	-----	-----	100.0	99.0	19.7	0.5	0.0
11-19-83	185	216.3	----	---	-----	-----	-----	-----	-----	100.0	98.2	20.9	1.3	0.5
11-21-83	50	56.7	----	---	-----	-----	100.0	98.9	98.4	98.2	98.2	95.1	61.2	21.2
11-21-83	60	15.4	----	---	-----	-----	-----	-----	-----	-----	100.0	93.5	46.1	3.9
11-21-83	70	152.9	----	---	-----	-----	-----	-----	-----	100.0	99.8	80.8	29.2	3.3
11-21-83	80	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-21-83	90	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-21-83	100	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-83	130	198.9	----	---	-----	-----	-----	-----	-----	100.0	99.4	30.0	2.8	0.6
11-23-83	140	203.4	----	---	-----	-----	100.0	99.8	99.5	99.4	91.1	9.9	0.6	0.0
11-23-83	140	193.1	----	---	-----	-----	100.0	99.3	99.1	99.0	93.3	13.8	0.8	0.0
11-29-83	50	242.2	----	---	-----	-----	-----	-----	-----	-----	100.0	99.3	77.9	41.7
11-29-83	65	157.6	----	---	-----	-----	-----	-----	-----	100.0	99.7	92.8	34.5	3.6
11-29-83	80	6.2	----	---	-----	-----	-----	-----	-----	-----	100.0	87.1	3.2	0.0
11-29-83	95	17.1	----	---	-----	-----	-----	-----	-----	100.0	98.8	33.3	5.8	2.3
11-29-83	110	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-83	125	198.6	----	---	-----	-----	-----	-----	100.0	99.7	96.2	17.9	0.7	0.0
11-29-83	155	217.9	----	---	-----	-----	100.0	99.9	99.8	99.6	93.7	12.0	0.5	0.0
11-29-83	170	222.9	----	---	-----	-----	100.0	98.4	95.3	85.4	63.1	9.3	0.2	0.0
11-29-83	185	225.3	8.3	---	-----	100.0	98.0	97.1	95.7	94.0	85.3	13.3	0.0	0.0
11-29-83	200	213.3	12.3	---	-----	100.0	98.1	95.5	94.4	94.0	91.3	21.2	1.2	0.1
11-29-83	215	2.5	----	---	-----	-----	-----	-----	-----	-----	100.0	60.0	0.0	0.0
11-29-83	230	221.3	----	---	-----	-----	-----	-----	-----	100.0	99.9	64.7	7.3	0.5
11-29-83	245	208.8	----	---	-----	-----	-----	-----	-----	-----	100.0	92.1	31.5	2.3
12-01-83	100	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-01-83	150	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-01-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-01-83	250	217.7	----	---	-----	-----	-----	-----	-----	100.0	99.8	91.0	44.2	16.1
12-05-83	90	4.1	----	---	-----	-----	-----	-----	-----	-----	100.0	80.5	12.2	0.0
12-05-83	90	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-05-83	125	200.2	----	---	-----	-----	-----	-----	-----	100.0	98.9	17.1	0.5	0.0
12-05-83	175	223.0	----	---	-----	-----	100.0	99.6	98.7	95.6	77.0	4.7	0.1	0.0
12-05-83	225	216.4	----	---	-----	-----	-----	-----	100.0	99.9	97.7	21.1	1.4	0.5
12-07-83	70	201.3	----	---	-----	-----	-----	-----	-----	-----	100.0	96.8	50.6	7.9
12-07-83	130	189.3	----	---	-----	-----	-----	-----	-----	100.0	99.4	17.5	0.3	0.1
12-07-83	175	219.5	----	---	-----	-----	-----	-----	-----	100.0	95.0	6.6	0.1	0.0
12-07-83	235	216.8	----	---	-----	-----	-----	-----	-----	100.0	99.9	70.8	12.2	2.3
12-12-83	50	280.4	----	---	-----	-----	-----	-----	-----	100.0	99.9	99.2	78.7	40.9
12-12-83	65	5.2	----	---	-----	-----	-----	-----	-----	100.0	96.2	84.6	42.3	3.8
12-12-83	65	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-83	80	165.7	----	---	-----	-----	-----	-----	-----	100.0	99.9	95.4	55.0	15.4
12-12-83	95	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-83	110	197.9	----	---	-----	-----	-----	-----	-----	100.0	96.6	16.7	1.1	0.0
12-12-83	125	210.4	----	---	-----	-----	-----	-----	-----	100.0	99.5	17.0	0.6	0.1
12-12-83	140	206.6	----	---	-----	-----	-----	100.0	99.1	97.5	79.1	4.9	0.1	0.0
12-12-83	155	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-83	170	172.1	----	---	-----	-----	100.0	99.8	99.4	98.8	94.5	9.4	0.2	0.1
12-12-83	185	243.3	----	---	-----	-----	-----	-----	-----	100.0	97.1	17.4	0.7	0.0
12-12-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-83	215	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-83	230	203.3	----	---	-----	-----	-----	-----	-----	100.0	99.8	49.8	6.6	0.4
12-12-83	245	283.0	----	---	-----	-----	-----	-----	-----	100.0	99.9	91.1	43.9	10.2
12-14-83	90	218.6	----	---	-----	-----	-----	-----	-----	-----	100.0	72.0	14.4	2.6
12-14-83	160	207.6	----	---	-----	-----	-----	-----	-----	100.0	99.8	19.3	0.7	0.2
12-14-83	190	156.2	----	---	-----	-----	-----	-----	-----	100.0	98.7	18.7	0.6	0.4
12-14-83	220	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-16-83	100	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 15.--Grain-size distribution of bed material, Colorado River above Diamond Creek, 1983--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
12-16-83	200	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-16-83	230	297.0	----	---	-----	-----	-----	-----	-----	-----	100.0	49.4	8.0	0.9
12-18-83	75	238.7	----	---	-----	-----	-----	-----	-----	-----	100.0	84.7	30.7	3.4
12-18-83	135	221.7	----	---	-----	-----	-----	-----	100.0	99.9	94.3	12.9	0.5	0.2
12-18-83	180	219.8	----	---	-----	-----	-----	-----	-----	-----	100.0	13.5	0.1	0.0
12-18-83	240	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 16.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River above Little Colorado River, 1983

Date	Time	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-16-83	1145	90,110,130	169.7	----	--	-----	----	-----	-----	-----	100.0	96.2	6.5	0.1	0.0
11-16-83	1145	150,170	52.1	----	--	-----	----	-----	-----	-----	100.0	95.8	7.7	0.0	---
11-16-83	1145	190,210	126.6	----	--	-----	----	-----	-----	-----	100.0	94.4	6.2	0.0	---
11-16-83	1145	230,250	302.6	----	--	-----	----	-----	-----	100.0	99.8	90.3	3.1	0.0	---
11-16-83	1145	270,290	43.5	----	--	-----	----	-----	-----	-----	100.0	94.0	6.7	0.0	---
11-16-83	1145	310,330	93.9	----	--	-----	----	-----	-----	-----	100.0	96.8	7.3	0.0	---
11-16-83	1145	350,370,390	381.5	----	--	-----	----	-----	-----	-----	100.0	99.0	26.3	9.8	1.0
11-16-83	1230	390,370,350	267.5	----	--	-----	----	-----	-----	-----	100.0	99.4	11.2	0.0	---
11-16-83	1230	330,310	90.4	27.3	--	100.0	55.8	49.7	49.7	49.7	49.7	48.3	6.0	0.0	---
11-16-83	1230	290,270	110.5	----	--	-----	----	-----	-----	-----	100.0	95.7	7.7	0.0	---
11-16-83	1230	250,230	111.4	----	--	-----	----	-----	-----	100.0	99.5	91.0	6.0	0.0	---
11-16-83	1230	210,190	186.2	----	--	-----	----	-----	-----	-----	100.0	94.6	5.4	0.0	---
11-16-83	1230	170,150	68.6	----	--	-----	----	-----	-----	-----	100.0	96.5	10.5	0.0	---
11-16-83	1230	130,110,90	226.3	----	--	-----	----	-----	-----	-----	100.0	97.5	6.9	0.3	0.0
11-29-83	1015	95 - 355	946.9	----	--	-----	----	100.0	99.7	99.1	98.4	92.0	8.5	0.6	0.0
11-29-83	1030	355 - 95	2270.0	----	--	-----	----	-----	-----	100.0	99.8	91.1	6.5	0.7	0.0
12-03-83	1000	95 - 375	961.8	----	--	-----	----	100.0	99.6	99.2	98.3	88.6	9.6	3.1	0.0
12-03-83	1030	375 - 95	1072.9	----	--	-----	----	-----	100.0	99.9	99.7	94.1	6.7	0.3	0.0
12-07-83	1000	375 - 95	989.2	----	--	-----	----	-----	100.0	99.9	99.6	94.4	8.0	0.4	0.0
12-07-83	1030	95 - 375	1270.0	----	--	-----	----	-----	-----	100.0	99.7	94.0	6.2	0.3	0.0
12-13-83	1045	375 - 95	923.5	----	--	-----	----	-----	-----	100.0	99.6	92.7	8.5	0.6	0.0
12-13-83	1100	95 - 375	755.9	----	--	-----	----	-----	100.0	99.8	98.4	88.8	4.8	0.1	0.0

Table 17.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River above National Canyon, 1983

Date	Time	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
09-02-83	1830	120-190	662.9	----	-----	-----	-----	-----	-----	100.0	99.9	86.3	5.7	0.4	0.1
09-02-83	1830	200-230	499.6	----	-----	-----	-----	-----	-----	-----	100.0	83.6	4.5	0.4	0.0
09-02-83	1830	240-375	305.0	12.7	-----	-----	100.0	98.9	98.4	98.1	97.3	83.5	6.4	0.5	0.0
09-02-83	1900	375-240	580.0	20.3	-----	-----	100.0	95.5	95.5	95.3	94.9	82.2	6.4	1.3	0.0
09-02-83	1900	230-200	738.9	----	-----	-----	-----	-----	100.0	100.0	99.9	87.7	7.2	0.8	0.0
09-02-83	1900	190-120	1425.0	----	-----	-----	-----	-----	-----	100.0	99.7	87.6	6.5	0.1	0.0
09-07-83	0900	360-120-360	5330.0	15.7	-----	-----	100.0	98.3	97.9	97.6	97.2	80.3	6.6	0.3	0.0
09-14-83	1630	110-140	312.4	----	-----	-----	-----	-----	-----	100.0	99.9	99.3	31.3	1.1	0.1
09-14-83	1630	155-200	596.4	----	-----	-----	-----	100.0	99.6	99.5	99.4	88.8	13.3	1.3	0.0
09-14-83	1630	185-170	762.0	----	-----	-----	-----	-----	100.0	99.9	99.8	86.3	5.9	0.1	0.0
09-14-83	1630	190	601.2	----	-----	-----	-----	-----	-----	-----	100.0	98.3	16.7	1.4	0.2
09-14-83	1630	200	2650.0	----	-----	-----	-----	-----	-----	-----	100.0	83.3	4.0	0.5	0.0
09-14-83	1630	215-230-245	1180.2	----	-----	-----	100.0	99.4	98.2	97.2	95.2	67.9	9.1	1.7	0.6
09-14-83	1630	260	785.0	----	-----	-----	-----	-----	100.0	99.9	95.4	15.8	1.3	0.3	0.0
09-14-83	1630	305	673.9	----	-----	-----	-----	-----	-----	100.0	99.7	16.7	1.1	0.0	0.0
09-14-83	1630	365-320	268.3	----	-----	-----	-----	-----	100.0	99.8	98.8	11.0	0.2	0.1	0.0
09-14-83	1705	155-110	295.0	----	-----	-----	-----	-----	-----	100.0	92.2	8.1	0.2	0.0	0.0
09-14-83	1705	170-188	769.8	----	-----	-----	-----	-----	-----	-----	100.0	88.6	5.0	0.0	---
09-14-83	1705	215	2970.0	----	-----	-----	-----	-----	100.0	99.8	99.4	80.6	4.2	0.5	0.0
09-14-83	1705	230	1581.3	----	-----	-----	-----	-----	100.0	97.1	89.6	5.8	0.6	0.1	0.0
09-14-83	1705	245	2011.7	----	-----	-----	100.0	98.1	97.6	97.3	96.3	39.0	6.2	0.2	0.0
09-14-83	1705	260-275	1841.7	----	-----	-----	-----	-----	100.0	99.5	99.1	85.9	8.5	0.4	0.0
09-14-83	1705	290	534.0	----	-----	-----	-----	-----	-----	100.0	99.1	23.0	1.6	0.2	0.0
09-14-83	1705	305	593.2	----	-----	-----	-----	-----	100.0	99.8	99.4	15.8	1.3	0.5	0.0
09-14-83	1705	320-365	241.4	----	-----	-----	-----	-----	100.0	99.9	99.3	13.7	0.9	0.2	0.0
09-22-83	1240	120-340	719.2	----	-----	-----	-----	-----	-----	-----	100.0	90.9	12.1	0.4	0.0
09-22-83	1250	340-140	5260.0	16.3	-----	-----	100.0	89.8	85.6	82.9	78.7	42.1	2.7	0.0	---
09-29-83	1430	105	172.9	----	-----	-----	-----	-----	-----	-----	100.0	99.0	74.7	16.3	1.3
09-29-83	1430	150-135-120	45.9	----	-----	-----	-----	-----	-----	-----	100.0	92.5	9.4	0.0	---
09-29-83	1430	165	332.4	----	-----	-----	-----	-----	-----	-----	100.0	85.1	0.7	0.1	0.0
09-29-83	1430	180	2240.0	----	-----	-----	-----	100.0	99.7	99.2	97.5	63.1	3.1	0.0	---
09-29-83	1430	195	870.0	----	-----	-----	-----	-----	-----	-----	100.0	83.9	8.0	0.6	0.0
09-29-83	1430	210	4945.0	47.7	100.0	65.8	63.9	63.9	63.1	62.4	60.0	32.4	2.0	0.1	0.0
09-29-83	1430	225	1475.0	----	-----	-----	-----	-----	100.0	99.3	97.3	66.8	6.2	0.0	---
09-29-83	1430	240	1265.5	13.0	-----	-----	100.0	99.3	99.3	99.2	98.7	80.4	7.7	0.5	0.0
09-29-83	1430	255	562.0	----	-----	-----	-----	100.0	99.7	99.3	98.7	86.5	12.3	0.6	0.0
09-29-83	1430	270	414.0	20.0	-----	100.0	96.6	96.6	96.6	96.6	96.6	91.1	18.0	1.7	0.0
09-29-83	1430	285	887.3	----	-----	-----	-----	-----	-----	-----	100.0	93.6	8.9	0.3	0.0
09-29-83	1430	300	555.1	----	-----	-----	-----	-----	-----	-----	100.0	97.2	20.2	1.9	0.3
09-29-83	1430	315-375	259.0	----	-----	-----	-----	-----	-----	-----	100.0	98.9	14.1	0.2	0.0
09-29-83	1600	105	605.1	----	-----	-----	-----	-----	-----	-----	100.0	99.8	89.0	31.9	6.4
09-29-83	1600	120-150	49.1	----	-----	-----	-----	-----	-----	-----	100.0	96.1	18.6	0.6	0.0
09-29-83	1600	165	640.5	----	-----	-----	-----	-----	-----	-----	100.0	95.5	13.3	1.0	0.2
09-29-83	1600	180	862.4	----	-----	-----	-----	-----	-----	100.0	99.8	83.2	6.0	0.1	0.0
09-29-83	1600	195	1585.0	----	-----	-----	-----	-----	-----	-----	100.0	75.5	4.8	0.1	0.0
09-29-83	1600	210	531.1	----	-----	-----	100.0	99.3	97.4	96.3	64.5	76.9	5.3	0.1	0.0
09-29-83	1600	225	1410.0	----	-----	-----	-----	-----	-----	-----	100.0	91.7	8.2	0.3	0.0
09-29-83	1600	240	617.4	----	-----	-----	-----	-----	100.0	99.9	90.3	5.5	0.3	0.0	---
09-29-83	1600	255	357.1	----	-----	-----	-----	-----	-----	-----	100.0	90.9	5.2	0.0	---
09-29-83	1600	270	383.2	----	-----	-----	-----	-----	-----	-----	100.0	94.4	7.9	0.0	---
09-29-83	1600	285	361.5	----	-----	-----	-----	-----	-----	-----	100.0	97.4	17.3	1.2	0.1
09-29-83	1600	300	217.4	----	-----	-----	-----	-----	-----	-----	100.0	99.3	24.8	3.5	0.5
09-29-83	1600	315-375	45.0	----	-----	-----	-----	-----	-----	-----	100.0	99.3	49.1	6.3	1.1
10-03-83	1200	110-140	562.4	----	-----	-----	-----	-----	-----	-----	100.0	99.3	76.5	30.2	7.6
10-03-83	1200	155	147.5	----	-----	-----	-----	-----	-----	-----	100.0	94.0	12.9	0.7	0.4
10-03-83	1200	170	345.8	----	-----	-----	-----	-----	-----	-----	100.0	88.7	17.6	4.4	1.3
10-03-83	1200	185	957.4	----	-----	-----	-----	-----	-----	100.0	99.9	72.4	8.8	2.0	0.8
10-03-83	1200	200	197.5	12.7	-----	-----	100.0	98.8	98.5	98.0	95.9	75.6	20.9	6.4	2.0
10-03-83	1200	215	582.9	----	-----	-----	-----	-----	-----	100.0	98.9	68.6	15.4	3.5	1.1
10-03-83	1200	230	236.7	----	-----	-----	-----	-----	100.0	99.6	99.2	90.9	23.2	6.1	2.0

Table 17.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River above National Canyon, 1983--Continued

Date	Time	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters. 64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-03-83	1200	245	1095.0	----	-----	-----	-----	-----	-----	-----	100.0	95.7	22.1	3.4	1.0
10-03-83	1200	260	306.2	----	-----	-----	-----	-----	-----	-----	100.0	97.7	34.5	8.3	2.7
10-03-83	1200	275	552.0	----	-----	-----	-----	-----	-----	-----	100.0	97.3	29.3	5.3	1.6
10-03-83	1200	290	642.5	----	-----	-----	-----	-----	-----	-----	100.0	99.2	36.2	5.1	1.8
10-03-83	1200	305	132.1	----	-----	-----	-----	-----	-----	-----	-----	100.0	44.9	12.4	3.9
10-03-83	1200	320-365	389.5	----	-----	-----	-----	-----	-----	-----	100.0	99.7	60.6	13.8	3.7
10-03-83	1230	110-140	157.8	----	-----	-----	-----	-----	-----	-----	100.0	96.8	20.3	2.1	1.4
10-03-83	1230	155	48.8	----	-----	-----	-----	-----	-----	-----	100.0	89.8	20.5	2.1	0.6
10-03-83	1230	170	189.9	16.3	-----	-----	-----	-----	-----	-----	100.0	92.7	24.5	7.6	2.6
10-03-83	1230	185	986.3	----	-----	-----	-----	-----	-----	100.0	99.5	62.3	11.5	2.8	1.0
10-03-83	1230	200	215.0	----	-----	-----	-----	-----	-----	-----	100.0	99.0	43.3	11.7	4.2
10-03-83	1230	215	826.3	----	-----	-----	-----	-----	-----	100.0	99.2	83.4	15.4	3.2	1.0
10-03-83	1230	230	272.3	----	-----	-----	-----	-----	-----	-----	100.0	92.5	24.2	7.2	2.2
10-03-83	1230	245	2120.0	----	-----	-----	100.0	96.8	95.2	93.8	91.8	71.5	10.3	1.4	0.6
10-03-83	1230	260	36.0	----	-----	-----	-----	-----	-----	-----	100.0	95.8	36.2	11.0	3.5
10-03-83	1230	275	261.9	----	-----	-----	-----	-----	-----	-----	100.0	96.9	28.9	7.3	2.4
10-03-83	1230	290	229.3	----	-----	-----	-----	-----	-----	-----	100.0	99.0	41.8	12.7	4.4
10-03-83	1230	305	1120.0	----	-----	-----	-----	-----	-----	-----	100.0	79.7	111.0	2.3	0.7
10-03-83	1230	320-365	45.3	----	-----	-----	-----	-----	-----	-----	100.0	97.3	25.6	2.4	0.0
10-10-83	0845	370-330	124.9	----	-----	-----	-----	-----	-----	-----	100.0	99.2	33.2	1.2	0.0
10-10-83	0845	310-270	1052.7	----	-----	-----	-----	-----	-----	-----	100.0	97.7	22.5	4.9	0.8
10-10-83	0845	250-210	383.3	----	-----	-----	-----	-----	-----	-----	100.0	97.3	32.7	10.7	2.1
10-10-83	0845	190-110	1201.9	13.7	-----	-----	-----	100.0	98.9	98.8	97.7	80.8	19.5	5.6	0.6
10-10-83	0920	110-190	598.5	----	-----	-----	-----	-----	100.0	99.2	97.1	82.1	11.8	2.0	0.3
10-10-83	0920	210-250	433.3	----	-----	-----	-----	-----	-----	100.0	99.7	90.3	20.0	4.7	0.9
10-10-83	0920	270-310	1159.0	----	-----	-----	-----	-----	-----	-----	100.0	89.7	16.9	2.1	0.4
10-10-83	0920	330-370	52.2	----	-----	-----	-----	-----	-----	-----	100.0	98.4	34.2	1.7	0.0
10-14-83	0840	110-190	698.5	19.0	-----	100.0	95.1	95.1	95.1	95.1	94.7	81.8	6.3	0.1	0.0
10-14-83	0840	210-250	501.2	18.7	-----	100.0	96.5	96.5	96.5	96.5	96.1	89.3	15.8	3.1	0.4
10-14-83	0840	270-310	597.5	----	-----	-----	----	-----	100.0	99.9	99.7	97.3	24.4	4.0	0.6
10-14-83	0840	330-370	97.5	----	-----	-----	----	-----	-----	100.0	99.9	99.2	39.6	1.5	0.0
10-14-83	0945	370-330	69.6	----	-----	-----	----	-----	-----	-----	100.0	99.7	40.9	0.3	0.0
10-14-83	0945	310-270	566.8	----	-----	-----	----	-----	-----	-----	100.0	98.5	20.8	3.1	0.4
10-14-83	0945	250-210	541.2	20.7	-----	100.0	95.7	95.7	95.7	95.6	95.3	86.6	15.7	1.8	0.1
10-14-83	0945	190-110	276.7	10.0	-----	-----	100.0	99.1	97.5	96.8	96.4	87.5	9.6	1.5	0.6
10-20-83	1040	110-190	183.2	----	-----	-----	-----	-----	100.0	99.9	99.2	83.7	10.2	0.8	0.0
10-20-83	1040	210-250	364.3	----	-----	-----	-----	100.0	99.8	99.6	99.0	86.0	19.2	4.7	0.6
10-20-83	1040	270-310	540.8	----	-----	-----	-----	-----	-----	-----	100.0	97.9	30.9	5.9	0.6
10-20-83	1040	330-370	4.0	----	-----	-----	-----	-----	-----	-----	100.0	92.7	17.1	0.0	---
10-20-83	1120	110-190	710.8	----	-----	-----	-----	-----	-----	-----	100.0	87.4	8.8	2.2	0.3
10-20-83	1120	210-250	1030.3	22.3	-----	100.0	97.0	95.5	95.4	95.3	94.7	77.4	10.8	1.8	0.2
10-20-83	1120	270-310	1026.0	18.7	-----	-----	100.0	98.9	92.4	98.3	94.1	85.0	12.6	1.2	0.1
10-20-83	1120	330-370	121.3	17.0	-----	-----	100.0	94.3	93.8	93.6	93.2	85.9	22.0	2.2	0.1
10-24-83	0915	110-190	338.2	30.7	-----	100.0	86.1	85.8	85.4	85.1	84.7	75.0	5.3	0.1	0.0
10-24-83	0915	210-250	767.5	13.3	-----	-----	100.0	98.4	97.8	97.4	97.1	88.4	10.8	0.7	0.0
10-24-83	0915	270-310	534.5	10.0	-----	-----	100.0	99.4	97.9	96.7	95.8	87.5	15.3	0.5	0.0
10-24-83	0915	330-370	147.6	----	-----	-----	-----	100.0	98.6	98.1	97.8	95.2	49.9	5.3	0.0
10-24-83	0950	370-330	74.0	----	-----	-----	-----	-----	-----	-----	100.0	98.6	33.0	0.3	0.0
10-24-83	0950	310-270	310.0	18.7	-----	-----	100.0	98.2	98.1	98.0	97.9	95.4	21.5	2.2	0.3
10-24-83	0950	250-210	509.5	----	-----	-----	-----	-----	-----	100.0	99.8	91.5	14.6	1.9	0.1
10-24-83	0950	190-110	1290.9	12.7	-----	-----	100.0	97.6	95.5	94.4	91.3	51.3	4.9	0.7	0.0
10-28-83	0920	110-190	345.2	13.7	-----	-----	100.0	98.3	97.6	97.0	96.4	86.3	9.1	0.1	0.0
10-28-83	0920	210-250	706.0	----	-----	-----	-----	-----	100.0	99.9	99.6	86.9	19.1	2.8	0.1
10-28-83	0920	270-310	827.5	13.0	-----	-----	100.0	99.1	99.1	99.0	98.9	96.5	38.7	4.0	0.1
10-28-83	0920	330-370	46.0	----	-----	-----	-----	-----	-----	-----	100.0	97.8	41.3	1.7	0.0
10-28-83	1000	110-190	152.3	----	-----	-----	-----	-----	-----	-----	100.0	93.3	16.5	1.3	0.0
10-28-83	1000	210-250	571.0	----	-----	-----	-----	-----	-----	-----	100.0	94.0	17.4	2.5	0.1
10-28-83	1000	270-310	458.5	----	-----	-----	-----	-----	-----	100.0	99.7	96.0	31.1	4.5	0.2
10-28-83	1000	330-370	18.9	----	-----	-----	-----	-----	-----	-----	100.0	99.5	33.9	0.0	---
11-01-83	0950	110-190	2194.5	29.7	-----	100.0	88.0	78.0	70.0	62.2	48.8	29.5	1.9	0.0	---

Table 17.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River above National Canyon, 1983--Continued

Date	Time	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-01-83	0950	210-250	909.7	36.3	100.0	91.4	90.4	89.9	88.3	87.3	84.2	68.3	12.7	2.2	0.2
11-01-83	0950	270-310	360.6	----	-----	-----	-----	-----	100.0	99.7	99.4	97.7	19.2	1.4	0.1
11-01-83	0950	330-370	24.0	----	-----	-----	-----	-----	-----	-----	100.0	97.4	29.6	0.8	0.0
11-01-83	1030	370-330	4.8	----	-----	-----	-----	-----	-----	-----	100.0	95.6	20.0	0.0	---
11-01-83	1030	310-270	244.8	----	-----	-----	-----	-----	-----	-----	100.0	98.6	31.9	5.3	0.3
11-01-83	1030	250-210	1165.9	29.3	-----	100.0	95.3	94.7	94.2	93.7	92.0	71.5	18.3	1.4	0.1
11-01-83	1030	190-110	292.3	13.7	-----	-----	100.0	98.9	98.5	98.1	97.1	84.0	12.6	2.1	0.0
11-08-83	0920	125-345	2700.0	----	-----	-----	-----	100.0	99.0	98.4	97.2	84.9	10.2	0.3	0.0
11-08-83	0945	345-125	2190.0	17.0	-----	-----	100.0	95.3	93.1	91.7	90.2	72.0	7.4	0.4	0.0
11-10-83	1015	125-350	1825.0	----	-----	-----	-----	-----	100.0	97.7	91.1	15.0	5.2	0.2	0.0
11-10-83	1045	350-125	5600.0	15.0	-----	-----	100.0	94.3	90.0	85.9	78.8	42.2	3.3	0.2	0.0
11-18-83	1615	130-340	3675.0	15.3	-----	-----	100.0	98.2	97.7	97.5	96.1	69.4	5.0	0.4	0.0
11-18-83	1630	340-130	1160.0	----	-----	-----	-----	-----	-----	-----	100.0	95.6	5.6	0.2	0.0
11-22-83	1215	140-350	2480.0	13.3	-----	-----	100.0	98.5	98.5	98.1	97.3	74.7	8.4	0.5	0.0
11-22-83	1250	350-140	1150.0	12.0	-----	-----	100.0	99.4	99.4	99.4	99.2	93.4	31.2	6.6	0.4
12-05-83	1215	120-225	1585.0	15.7	-----	-----	100.0	99.4	98.1	96.4	93.4	68.9	3.2	0.1	0.0
12-05-83	1215	240-360	2020.0	63.0	100.0	50.7	50.7	46.9	46.0	45.5	44.9	35.3	2.8	0.3	0.0
12-05-83	1245	360-240	2755.0	29.7	-----	100.0	75.8	65.6	56.7	52.6	48.4	29.5	3.3	0.2	0.0
12-05-83	1245	225-120	2490.0	10.7	-----	-----	100.0	98.9	97.6	97.2	96.1	71.4	5.9	0.4	0.0

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
06-27-83	1645	217	----	15.70	66,400	9,984	514	6.75	584	0.0	0.00
									570	8.8	4.37
									555	15.3	6.45
									540	21.0	7.52
									525	28.3	7.46
									510	29.3	7.74
									495	27.4	7.90
									480	24.0	7.99
									465	23.3	7.90
									450	23.1	7.70
									435	23.1	8.44
									420	23.3	8.71
									405	23.2	9.01
									390	23.7	8.08
									375	23.4	7.76
									360	24.1	7.38
									345	25.0	7.94
									330	27.4	7.54
									315	27.0	7.46
									295	25.9	8.08
									275	27.2	7.16
									255	24.6	6.02
									235	17.9	6.48
									215	12.4	6.11
									195	21.5	4.89
									175	14.0	0.25
									70	0.0	0.00
06-28-83	1410	218	13.0	17.79	91,600	12,100	483	7.53	590	0.0	0.00
									575	9.0	6.05
									560	16.3	6.62
									545	23.3	7.68
									530	29.3	7.68
									515	35.7	8.56
									500	39.1	8.46
									485	30.9	8.50
									470	35.6	7.99
									455	35.1	8.42
									440	34.9	8.09
									425	33.6	7.76
									410	32.1	8.24
									395	31.1	8.07
									380	30.8	8.43
									365	30.5	8.63
									350	29.6	8.55
									335	29.5	7.90
									320	31.1	7.96
									305	29.8	8.49
									290	30.1	8.66
									275	29.6	7.76
									260	28.0	7.58
									245	26.0	7.29
									230	17.7	7.70
									215	15.8	7.26
									200	24.3	5.93
									185	20.4	5.41
									175	16.6	2.48
									120	6.5	2.00
									107	0.0	0.00

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
06-30-83	850	219	14.0	17.37	80,900	10,630	500	7.63	120	6.0	0.42
									170	18.1	1.34
									190	22.6	5.24
									210	17.3	5.96
									230	17.7	6.85
									250	24.9	7.04
									270	27.2	7.51
									290	28.3	8.62
									310	27.8	8.11
									330	27.8	8.26
									350	28.0	8.43
									370	28.9	8.04
									390	24.7	9.25
									410	22.9	9.57
									430	23.3	10.13
									450	23.2	9.46
									470	26.1	9.48
									490	28.8	9.46
									510	31.7	8.25
									530	26.5	7.33
									550	19.9	8.26
									570	11.0	6.78
									585	0.0	0.00
07-02-83	1115	220	13.0	17.26	84,200	11,100	478	7.60	588	0.0	0.00
									565	13.8	6.65
									545	22.0	7.51
									525	31.6	6.07
									505	33.9	8.65
									485	33.2	9.18
									465	30.3	9.48
									445	26.7	9.37
									425	25.8	8.94
									405	27.3	8.43
									385	30.2	8.34
									365	27.2	8.09
									345	28.1	8.04
									325	27.9	8.72
									305	30.0	9.18
									285	29.2	8.58
									265	28.6	7.56
									245	26.6	7.14
									225	17.0	6.85
									205	23.7	5.20
									185	16.7	3.21
									172	16.8	0.06
									110	0.0	0.00
07-04-83	1100	221	14.0	17.10	84,600	10,800	482	7.83	587	0.0	0.00
									577	6.0	4.62
									560	14.6	7.08
									545	22.0	8.62
									530	26.9	9.00
									515	31.9	8.72
									500	29.1	8.46
									485	28.2	8.80
									470	26.4	9.16
									455	25.2	9.18
									440	25.2	9.37

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-04-83	1100	221	(Continued)						425	25.6	9.38
									410	24.9	9.28
									395	24.5	9.56
									380	25.1	8.93
									365	27.1	8.63
									350	28.5	8.97
									335	27.3	8.97
									320	27.5	9.02
									305	28.6	9.10
									290	29.1	8.72
									275	28.5	7.80
									260	28.1	8.42
									245	26.1	7.26
									230	23.9	6.57
									215	16.4	6.16
									200	24.0	5.36
									185	24.3	3.55
									175	17.3	1.33
									119	5.7	0.33
									105	0.0	0.00
07-06-83	1330	222	13.5	16.34	71,000	11,100	479	6.40	584	0.0	0.00
									575	7.4	5.00
									555	16.0	6.07
									535	24.1	7.17
									520	30.2	7.62
									505	30.4	7.70
									490	29.9	7.11
									475	29.4	7.44
									460	30.6	7.46
									445	32.1	6.27
									430	32.5	7.17
									415	31.2	7.19
									400	29.7	7.07
									385	28.6	7.23
									370	27.9	7.34
									350	27.8	7.60
									330	27.9	7.82
									310	27.7	8.08
									290	28.1	7.75
									270	27.4	6.49
									250	25.2	5.78
									230	23.1	5.00
									210	15.2	4.52
									190	22.3	1.12
									105	0.0	0.00
07-09-83	1130	223	10.0	14.58	53,500	10,300	475	5.22	580	0.0	0.00
									570	6.9	5.62
									555	14.7	4.53
									540	21.6	5.00
									525	28.0	5.28
									510	30.1	5.68
									495	30.4	5.74
									480	28.7	5.68
									465	27.3	6.14
									450	29.2	6.00
									435	29.7	5.64
									420	27.9	6.14
									400	27.3	6.27

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-09-83	1130	223	(Continued)						380	25.9	6.29
									360	25.8	6.20
									340	25.7	6.46
									320	25.8	6.24
									300	26.3	6.38
									280	25.5	5.80
									260	24.2	4.46
									240	22.2	4.36
									220	19.9	2.47
									200	20.7	2.48
									180	14.8	1.51
									105	0.0	0.00
07-16-83	1400	224	11.0	14.96	55,500	10,100	421	5.48	581	0.0	0.00
									570	13.3	4.52
									555	15.1	4.95
									540	21.0	5.15
									525	28.6	5.48
									510	30.9	5.92
									495	31.3	6.08
									480	30.2	5.98
									465	30.3	6.00
									450	30.5	6.13
									435	29.9	5.82
									420	28.6	6.14
									405	28.2	5.98
									390	27.0	6.30
									370	26.3	6.10
									350	26.0	6.69
									330	26.5	6.42
									310	26.5	6.10
									290	26.1	6.28
									270	25.7	5.42
									250	23.5	4.60
									230	21.4	3.81
									210	14.4	2.54
									190	20.4	2.82
									175	15.5	0.50
									160	0.0	0.00
07-20-83	1100	225	9.5	13.71	43,500	9,540	418	4.56	578	0.0	0.00
									570	5.1	4.70
									550	13.4	4.96
									530	23.8	4.67
									510	30.4	5.11
									495	28.9	5.21
									480	30.5	4.74
									465	31.4	5.34
									450	31.3	4.86
									435	28.3	5.10
									420	27.8	5.11
									405	26.8	5.24
									395	25.2	5.27
									365	24.9	5.35
									345	24.5	5.56
									325	25.0	5.45
									305	25.0	5.46
									285	24.4	5.22
									265	23.4	3.63
									245	21.4	3.49

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-20-83	1100	225	(Continued)						220	19.3	1.57
									195	20.1	1.47
									180	13.5	0.54
									160	0.0	0.00
07-22-83	945	226	10.0	13.37	41,000	9,324	420	4.39	580	0.0	0.00
									570	5.0	4.17
									550	13.0	4.66
									530	23.3	4.48
									510	29.0	4.67
									495	29.9	4.73
									480	29.6	4.68
									465	29.7	4.81
									450	29.4	4.67
									435	28.5	4.97
									420	27.8	4.68
									405	26.4	4.99
									390	25.3	5.30
									375	24.8	5.30
									360	24.3	5.35
									345	24.3	5.15
									330	24.8	5.16
									315	25.4	5.24
									300	25.1	5.41
									285	24.4	4.83
									270	23.7	3.75
									250	21.6	3.61
									230	19.6	2.56
									205	17.7	1.08
									189	16.4	0.94
									160	0.0	0.00
08-02-83	1130	227	11.5	12.96	36,400	9,275	422	3.72	157	0.0	0.00
									175	12.8	0.50
									190	18.6	0.61
									205	17.7	0.92
									220	18.7	1.02
									235	19.7	2.75
									250	21.0	3.01
									265	23.8	3.57
									280	23.9	4.32
									295	24.7	4.49
									310	23.9	4.72
									325	24.6	4.10
									340	24.4	4.50
									355	23.8	4.77
									370	24.2	4.89
									385	24.5	4.74
									400	25.8	4.35
									415	26.8	4.38
									430	27.8	4.73
									445	28.0	4.73
									460	29.8	4.26
									475	29.1	4.47
									490	29.3	4.40
									505	28.3	4.56
									520	26.9	4.30
									535	19.8	4.02
									550	16.1	3.24
									565	8.8	2.94
									579	0.0	0.00

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-09-83	1130	228	10.0	12.98	35,500	9,039	409	3.42	579	0.0	0.00
									570	4.2	3.95
									550	16.7	2.94
									530	24.3	3.84
									510	28.5	4.30
									495	28.7	4.80
									480	29.7	4.42
									465	30.6	4.10
									450	28.6	4.46
									435	26.5	4.30
									420	26.3	4.14
									405	26.1	4.25
									390	24.9	4.35
									375	24.3	4.62
									355	23.9	4.73
									335	23.9	4.68
									315	24.5	4.48
									295	24.2	4.75
									275	23.4	4.19
									255	21.6	2.91
									235	19.3	2.58
									215	13.4	1.02
									195	18.5	1.00
									180	16.4	0.59
									170	0.0	0.00
08-12-83	1200	229	10.5	11.81	26,800	8,490	410	3.16	580	0.0	0.00
									570	3.6	2.99
									550	15.4	2.30
									530	22.3	3.29
									510	27.3	3.60
									495	27.9	3.96
									480	28.1	3.76
									465	27.2	3.74
									450	26.8	3.60
									435	25.9	3.52
									420	25.0	3.57
									405	24.3	3.75
									390	23.5	3.73
									375	22.8	3.99
									360	22.5	3.86
									345	22.4	3.88
									330	23.4	3.52
									310	22.2	3.64
									290	22.5	3.51
									270	22.0	2.74
									250	19.7	1.96
									230	17.5	1.18
									210	11.8	0.28
									190	16.8	0.20
									170	0.0	0.00
08-14-83	925	230	10.0	11.80	26,600	8,550	410	3.11	580	0.0	0.00
									570	3.0	2.58
									550	12.0	3.15
									530	22.5	3.06
									515	26.5	3.53
									500	27.3	3.68
									485	28.6	3.63
									470	28.2	3.48

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-14-83	925	230	(Continued)						455	26.6	3.63
									440	25.7	3.64
									425	25.3	3.73
									410	24.3	3.66
									395	23.8	3.59
									380	22.8	3.66
									365	22.6	3.74
									350	22.6	3.84
									335	22.7	3.70
									320	22.8	3.58
									305	23.0	3.74
									290	22.9	3.46
									275	22.2	3.09
									260	20.8	2.42
									240	19.8	1.64
									220	16.4	0.62
									200	17.0	0.30
									180	11.4	0.34
									170	0.0	0.00
08-24-83	945	231	----	11.97	26,700	8,760	412	3.05	577	0.0	0.00
									570	5.7	2.10
									550	13.4	2.99
									530	21.7	2.90
									515	26.9	3.34
									500	27.6	3.68
									485	29.0	3.65
									470	28.7	3.65
									455	27.4	3.56
									440	26.3	3.65
									425	25.4	3.57
									410	24.9	3.55
									395	24.4	3.68
									380	23.4	3.92
									365	22.6	3.71
									350	22.6	3.71
									335	22.4	3.57
									320	22.9	3.61
									305	23.0	3.58
									290	23.0	3.50
									275	22.3	2.78
									260	21.3	2.28
									240	20.1	1.76
									220	17.4	0.68
									200	17.3	0.28
									180	12.8	0.09
									165	0.0	0.00
08-30-83	1240	232	10.0	12.05	26,500	8,757	412	3.03	577	0.0	0.00
									560	9.9	2.11
									540	18.0	2.86
									520	24.4	3.40
									500	28.2	3.60
									480	29.1	3.58
									460	27.6	3.42
									445	27.1	3.56
									430	26.8	3.64
									415	26.4	3.52
									400	24.4	3.67

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-30-83	1240	232	(Continued)						385	23.9	3.70
									370	23.2	4.14
									355	23.0	3.56
									340	23.0	3.46
									325	23.5	3.44
									310	22.9	3.80
									295	23.4	3.57
									280	22.9	3.30
									265	21.4	2.29
									245	20.3	1.22
									225	18.4	0.71
									205	16.4	0.48
									185	14.8	0.27
									165	0.0	0.00
09-02-83	930	233	10.0	12.07	27,400	8,556	412	3.20	577	0.0	0.00
									565	7.4	3.15
									545	14.5	3.19
									525	25.1	3.31
									505	26.1	3.94
									485	28.8	3.75
									465	28.5	3.72
									445	26.2	3.56
									425	25.0	3.56
									405	24.8	3.56
									385	23.6	3.75
									365	23.1	3.76
									345	22.8	3.75
									325	23.5	3.78
									305	23.4	3.77
									285	22.9	3.67
									265	21.6	2.33
									245	19.9	1.88
									225	18.1	0.75
									205	16.0	0.42
									165	0.0	0.00
09-04-83	1000	234	10.0	12.04	27,100	8,648	412	3.13	165	0.0	0.00
									205	16.5	0.52
									225	18.5	0.60
									245	20.1	1.70
									265	22.2	2.27
									285	23.1	3.18
									305	23.5	3.90
									325	23.4	3.73
									345	22.9	3.76
									365	23.3	4.08
									385	23.6	3.68
									405	25.0	3.64
									425	25.1	3.92
									445	25.8	3.66
									465	28.2	3.45
									485	28.5	3.51
									505	27.4	3.51
									525	24.9	3.26
									545	16.3	3.16
									565	7.3	2.68
									577	0.0	0.00

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-07-83	1120	235	10.0	12.06	27,200	8,480	417	3.21	579	0.0	0.00
									560	9.7	2.26
									540	18.4	2.66
									525	25.1	3.42
									510	27.4	3.68
									495	28.3	3.60
									480	28.7	3.68
									465	27.4	3.75
									450	26.9	3.72
									435	25.6	3.66
									420	25.0	3.51
									405	24.6	3.64
									390	24.8	3.70
									375	23.5	3.88
									360	23.2	3.86
									345	22.8	3.78
									330	23.3	3.61
									315	23.2	3.70
									300	23.4	3.82
									280	22.7	2.90
									260	21.2	2.14
									240	20.3	1.79
									210	12.2	0.60
									162	0.0	0.00
09-09-83	1145	236	10.0	12.10	27,300	8,400	417	3.25	579	0.0	0.00
									560	9.7	2.26
									545	14.2	3.39
									535	18.4	3.75
									525	24.8	3.27
									515	27.1	3.45
									500	27.5	3.72
									485	28.0	3.72
									470	27.8	3.53
									455	27.4	3.48
									440	26.0	3.49
									425	25.3	3.56
									410	25.0	3.62
									395	24.1	3.68
									380	23.2	3.92
									370	23.2	3.86
									360	23.0	3.96
									350	23.0	3.92
									340	23.1	3.93
									325	23.5	3.68
									310	22.8	3.96
									290	23.0	3.68
									270	22.3	2.42
									240	20.3	1.75
									210	12.0	0.65
									162	0.0	0.00
09-11-83	1030	237	10.0	11.88	25,400	8,370	417	3.04	579	0.0	0.00
									560	9.3	2.12
									540	17.3	2.61
									520	23.7	3.36
									510	27.3	3.36
									500	27.4	3.43
									490	27.8	3.55
									480	28.0	3.58

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-11-83	1030	237	(Continued)						470	28.3	3.44
									455	27.5	3.43
									440	26.7	3.40
									425	26.1	3.50
									410	25.4	3.48
									395	24.1	3.42
									380	23.2	3.64
									365	22.8	3.82
									350	22.7	3.60
									335	22.7	3.60
									320	23.1	3.50
									305	23.3	3.44
									290	22.9	3.42
									270	22.3	2.28
									240	20.0	1.55
									210	11.7	0.39
									162	0.0	0.00
09-13-83	1045	238	10.0	12.09	27,000	8,650	418	3.12	578	0.0	0.00
									560	9.4	2.22
									540	17.4	2.84
									520	23.6	3.64
									510	26.8	3.63
									500	27.7	3.64
									490	29.2	3.68
									480	29.2	3.75
									470	28.9	3.482
									460	27.6	3.58
									445	26.0	3.82
									430	24.8	3.63
									415	25.2	3.94
									400	24.2	3.64
									385	23.5	3.68
									370	23.1	3.76
									355	22.7	3.88
									340	23.0	3.84
									325	23.2	3.82
									310	22.7	3.74
									295	23.4	3.83
									280	22.5	3.21
									260	21.3	2.00
									230	18.0	0.97
									200	17.6	0.36
									160	0.0	0.00
09-19-83	1445	239	11.0	11.98	26,200	8,622	412	3.04	576	0.0	0.00
									560	10.0	2.07
									540	18.4	2.62
									520	23.3	3.44
									510	27.4	3.32
									500	27.3	3.72
									490	28.3	3.41
									480	28.2	3.63
									470	28.4	3.44
									460	27.3	3.36
									445	26.6	3.61
									430	26.4	3.66
									415	25.5	3.53
									400	24.2	3.67
									385	23.3	3.41

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-19-83	1445	239	(Continued)						370	23.2	3.90
									355	22.4	3.94
									340	23.0	3.74
									325	23.2	3.57
									310	22.4	3.53
									295	23.4	3.50
									280	22.7	3.17
									260	20.9	2.08
									230	17.8	1.03
									200	17.4	0.58
									164	0.0	0.00
09-21-83	1000	240	11.0	12.01	27,300	8,665	412	3.15	164	0.0	0.00
									200	17.6	1.17
									230	18.2	1.04
									260	21.3	2.15
									280	24.1	3.00
									295	23.2	3.64
									310	23.7	3.60
									325	23.4	3.66
									340	22.9	3.83
									355	22.8	3.92
									370	23.2	3.99
									385	23.6	3.86
									400	23.4	3.56
									415	24.5	3.46
									430	24.8	3.50
									445	26.3	3.75
									460	27.7	3.60
									470	28.6	3.60
									480	28.6	3.72
									490	28.6	3.60
									500	27.6	3.68
									510	27.5	3.55
									520	25.4	3.48
									540	17.1	2.72
									560	9.8	2.62
									576	0.0	0.00
09-23-83	1045	241	11.0	11.94	26,400	8,640	412	3.06	164	0.0	0.00
									200	17.4	0.13
									230	18.1	1.10
									260	21.3	2.20
									280	22.9	3.03
									295	23.5	3.60
									310	22.3	3.86
									325	23.0	3.64
									340	23.0	3.68
									355	22.6	3.58
									370	23.0	3.83
									385	23.4	3.77
									400	24.4	3.64
									415	25.2	3.45
									430	25.0	3.48
									445	26.7	3.50
									460	28.2	3.63
									470	28.6	3.60
									480	28.6	3.72
									490	28.6	3.60
									500	27.6	3.68

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-23-83	1045	241	(Continued)						510	27.5	3.55
									520	25.4	3.48
									540	17.1	2.72
									560	9.8	2.62
									576	0.0	0.00
10-02-83	1345	242	11.0	11.90	26,800	8,514	413	3.15	577	0.0	0.00
									555	12.7	2.62
									540	17.5	2.88
									525	25.1	3.40
									510	27.2	3.60
									495	27.5	3.83
									480	27.1	3.72
									465	26.4	3.74
									450	25.2	3.94
									435	24.2	3.64
									420	24.0	3.92
									405	23.4	3.66
									390	23.0	3.68
									375	23.0	3.88
									360	22.9	3.68
									345	22.5	3.64
									330	23.3	3.75
									315	23.2	3.84
									300	23.2	3.66
									285	22.7	3.50
									270	22.0	2.68
									255	20.5	2.06
									240	20.0	1.38
									220	16.8	0.52
									200	17.3	0.50
									164	0.0	0.00
10-09-83	1215	243	12.5	11.99	25,600	8,028	410	3.20	578	0.0	0.00
									560	9.9	2.38
									540	18.3	3.48
									525	23.8	3.17
									510	26.2	3.60
									495	26.7	3.72
									480	27.4	3.78
									465	26.1	3.66
									450	25.6	3.64
									435	24.0	3.87
									420	22.5	3.63
									405	21.5	3.66
									390	21.5	3.80
									375	21.6	3.73
									360	21.4	4.08
									345	21.2	3.73
									330	21.7	3.64
									315	21.4	3.58
									300	22.0	3.56
									285	21.3	3.54
									270	20.2	2.78
									250	18.2	1.98
									230	16.4	1.14
									210	11.4	0.88
									190	14.6	-0.22
									168	0.0	0.00

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-11-83	1100	244	12.5	11.44	23,000	8,076	410	2.85	578	0.0	0.00
									560	8.7	2.10
									540	16.7	2.54
									525	23.4	3.11
									510	26.5	3.33
									500	26.7	3.28
									490	27.2	3.42
									480	27.0	3.50
									465	26.0	3.52
									455	24.6	3.43
									440	22.8	3.50
									425	22.8	3.32
									410	22.4	2.99
									395	22.2	3.12
									380	22.6	3.63
									365	22.3	3.75
									350	22.2	3.82
									335	22.2	3.36
									320	22.4	3.64
									305	22.1	3.20
									290	22.3	3.00
									270	21.4	1.94
									250	19.0	1.43
									230	17.1	0.76
									210	11.0	0.54
									190	14.6	0.20
									168	0.0	0.00
10-13-83	1545	245	----	11.46	23,700	8,216	410	2.88	168	0.0	0.00
									195	16.2	0.45
									215	14.2	0.39
									235	17.8	0.97
									255	20.1	1.70
									275	21.8	2.59
									285	22.0	2.84
									305	22.5	3.16
									315	22.5	3.20
									335	22.3	3.36
									345	22.0	3.40
									365	22.3	3.70
									375	22.5	3.63
									395	23.0	3.50
									405	23.0	3.50
									425	23.6	3.50
									435	23.7	3.36
									455	25.9	3.68
									465	27.2	3.43
									480	28.1	3.54
									490	27.8	3.46
									505	26.7	3.46
									520	23.2	3.17
									540	16.0	2.65
									560	9.0	2.00
									578	0.0	0.00
10-17-83	1045	246	11.5	11.48	23,800	8,420	413	2.82	165	0.0	0.00
									185	14.3	0.00
									205	15.6	0.14
									225	17.3	0.68
									245	19.0	1.46

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-17-83	1045	246	(Continued)						265	20.8	2.08
									285	22.1	2.90
									305	22.4	3.50
									320	22.5	3.56
									335	22.0	3.34
									350	22.4	3.46
									365	22.5	3.56
									380	22.8	3.54
									395	23.5	3.51
									410	24.8	3.27
									425	26.3	3.20
									440	26.8	3.36
									450	27.9	3.32
									465	27.6	3.20
									480	27.4	3.40
									490	27.6	3.26
									505	26.6	3.36
									520	23.2	3.28
									535	17.8	2.78
									578	0.0	0.00
10-19-83	1310	247	11.5	11.51	22,800	8,050	413	2.83	578	0.0	0.00
									535	17.2	2.58
									515	26.0	3.29
									500	26.7	3.39
									485	26.7	3.46
									470	27.0	3.32
									455	26.0	3.43
									440	25.3	3.06
									425	24.7	3.10
									410	24.6	2.76
									395	23.4	3.08
									380	22.9	3.42
									360	22.2	3.08
									345	22.3	3.46
									325	22.4	3.48
									310	22.3	3.55
									290	21.8	3.18
									270	21.4	2.02
									250	19.2	1.83
									225	17.2	0.56
									165	0.0	0.00
10-21-83	1120	248	11.5	11.52	23,800	8,123	413	2.93	165	0.0	0.00
									215	14.3	0.27
									245	19.1	1.67
									270	21.5	2.31
									285	21.4	3.25
									300	22.6	3.14
									320	22.4	3.50
									330	22.8	3.43
									345	22.1	3.63
									360	22.4	3.58
									375	22.8	3.50
									390	22.4	3.43
									405	22.7	3.51
									420	23.3	3.52
									435	25.2	3.42
									450	26.2	3.36
									460	27.2	3.04

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-21-83	1120	248	(Continued)						475	27.7	2.64
									490	27.7	3.46
									500	27.0	3.36
									515	26.4	3.23
									530	21.6	3.00
									578	0.0	0.00
10-26-83	1115	249	----	11.88	27,000	8,440	410	3.20	165	0.0	0.00
									190	14.9	0.26
									210	11.4	0.63
									230	17.6	1.23
									250	19.6	1.99
									270	22.0	2.62
									290	23.1	3.55
									310	22.4	3.77
									330	23.4	3.45
									350	22.9	3.92
									370	23.3	3.74
									390	23.5	3.84
									410	24.3	3.68
									430	25.0	3.90
									450	25.0	3.96
									470	27.0	3.64
									490	28.3	3.76
									510	27.4	3.74
									530	22.5	3.23
									550	14.9	2.38
									575	0.0	0.00
10-28-83	1115	250	11.0	11.98	27,300	8,620	410	3.17	575	0.0	0.00
									555	12.5	2.73
									535	19.1	2.97
									515	27.0	3.64
									495	28.0	3.82
									475	28.8	3.63
									455	27.5	3.63
									435	25.5	3.86
									415	24.4	3.77
									395	24.1	3.54
									375	23.4	4.02
									355	23.0	3.83
									335	23.2	3.82
									315	23.4	3.64
									295	23.3	3.60
									275	22.7	2.66
									255	20.6	2.04
									235	18.4	1.50
									215	15.1	0.92
									195	16.9	0.21
									165	0.0	0.00
11-02-83	1420	251	9.0	10.56	19,700	6,620	397	2.98	575	0.0	0.00
									545	14.4	2.74
									515	25.1	3.10
									495	24.2	3.39
									475	23.1	3.12
									455	20.8	3.27
									435	19.4	3.32
									415	18.6	3.56
									395	18.1	3.58

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-02-83	1420	251	(Continued)						375	18.5	3.61
									355	18.6	3.65
									335	19.4	3.04
									315	19.4	3.56
									295	21.1	3.25
									275	19.8	1.85
									255	18.1	1.77
									235	10.3	0.99
									205	4.1	0.30
									178	0.0	0.00
11-06-83	1115	252	11.0	11.44	23,300	8,360	410	2.78	166	0.0	0.00
									200	16.6	0.26
									230	17.5	0.95
									260	20.1	1.87
									280	22.2	2.68
									295	23.0	3.13
									310	22.1	3.16
									325	22.7	3.14
									340	22.4	3.14
									355	22.2	3.46
									370	22.4	3.52
									385	23.1	3.40
									400	23.4	3.68
									415	24.3	3.10
									430	25.0	3.26
									445	25.9	3.20
									460	27.3	3.26
									470	28.2	3.08
									480	28.4	3.17
									490	28.0	3.43
									500	26.9	3.23
									510	26.5	3.39
									520	23.8	3.20
									540	17.6	2.61
									560	7.8	2.50
									576	0.0	0.00
11-09-83	1645	253	11.0	11.41	23,700	8,380	410	2.83	166	0.0	0.00
									200	16.8	0.46
									230	17.4	0.81
									260	20.5	1.88
									280	22.2	2.52
									295	22.7	3.43
									310	22.5	3.40
									325	22.7	3.51
									340	22.3	3.58
									355	22.4	3.46
									370	22.6	3.42
									385	22.9	3.48
									400	23.5	3.40
									415	23.8	3.32
									430	25.1	3.42
									445	26.3	3.16
									460	27.2	3.39
									470	28.1	3.18
									480	27.8	3.22
									490	27.8	3.48
									500	27.0	3.15
									510	26.7	3.39

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-09-83	1645	253	(Continued)						520	22.9	3.22
									540	17.9	2.44
									560	8.6	2.01
									576	0.0	0.00
11-11-83	1030	254	12.0	11.41	23,900	8,370	410	2.85	166	0.0	0.00
									200	16.4	0.22
									230	17.3	0.86
									260	20.8	1.85
									280	22.1	2.90
									295	22.7	3.18
									310	22.2	3.63
									325	22.5	3.58
									340	22.3	3.32
									355	22.1	3.84
									370	22.7	3.46
									385	22.7	3.51
									400	23.8	3.36
									415	24.3	3.43
									430	24.1	3.32
									445	26.1	3.27
									460	27.5	3.24
									470	28.4	3.50
									480	28.1	3.28
									490	28.2	3.24
									500	26.8	3.50
									510	26.8	3.50
									520	23.0	3.28
									540	17.6	2.28
									560	8.9	2.42
									576	0.0	0.00
11-13-83	1040	255	11.5	11.50	24,300	8,340	410	2.91	166	0.0	0.00
									200	16.4	0.35
									230	17.4	0.88
									260	20.7	2.12
									280	22.0	2.91
									295	22.7	3.17
									310	22.1	3.54
									325	22.8	3.40
									340	22.5	3.40
									355	22.5	3.58
									370	22.5	3.60
									385	23.1	3.57
									400	23.7	3.58
									415	24.2	3.48
									430	25.2	3.34
									445	24.9	3.46
									460	25.8	3.50
									470	26.8	3.44
									480	28.0	3.42
									490	28.2	3.28
									500	27.1	3.51
									510	26.7	3.07
									520	23.0	3.26
									540	17.8	2.58
									560	8.7	2.13
									576	0.0	0.00

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-15-83	1100	256	11.0	11.22	22,220	8,277	411	2.68	167	0.0	0.00
									180	10.9	0.00
									200	16.2	0.17
									220	16.3	0.32
									240	18.9	0.99
									260	20.3	1.75
									280	21.6	2.62
									300	22.3	3.27
									315	22.6	3.13
									330	22.6	3.32
									345	21.9	3.42
									360	22.0	3.33
									375	22.4	3.29
									390	23.1	3.32
									405	23.3	3.18
									420	23.3	3.32
									435	24.4	3.32
									450	24.4	3.19
									465	26.0	3.26
									480	27.4	3.14
									495	27.1	3.28
									510	26.5	3.08
									525	23.8	2.68
									545	13.4	2.84
									565	6.2	2.05
									578	0.0	0.00
11-17-83	1115	257	11.5	11.22	22,300	8,347	411	2.67	167	0.0	0.00
									200	16.7	0.00
									250	19.2	1.44
									270	21.5	2.23
									290	22.3	3.09
									305	22.5	3.19
									320	22.5	3.13
									335	22.3	3.00
									350	22.2	3.32
									360	22.2	3.28
									375	22.4	3.42
									385	22.7	3.20
									400	23.4	3.16
									410	24.2	3.28
									425	24.8	3.36
									435	24.9	3.42
									450	25.2	3.15
									460	26.2	3.08
									475	27.2	3.02
									485	27.6	3.08
									500	26.9	3.28
									510	26.3	3.10
									525	24.1	2.75
									535	17.4	2.66
									555	12.2	2.11
									578	0.0	0.00
11-19-83	1115	258	11.0	11.40	23,200	8,229	411	2.82	167	0.0	0.00
									220	16.3	0.37
									260	20.5	1.80
									280	21.7	2.66
									295	22.7	3.18
									310	21.9	3.00

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-19-83	1115	258	(Continued)						325	22.7	3.15
									340	22.1	3.68
									355	22.3	3.50
									365	22.3	3.32
									380	22.6	3.30
									390	23.0	3.40
									405	23.2	3.36
									415	23.8	3.22
									430	24.8	3.46
									440	26.2	3.24
									455	27.2	2.98
									465	28.2	3.36
									480	27.9	3.39
									490	27.8	3.21
									505	26.4	3.43
									515	26.1	3.00
									530	22.1	2.94
									550	14.6	2.26
									578	0.0	0.00
11-21-83	1030	259	10.5	11.48	23,700	8,168	411	2.90	167	0.0	0.00
									220	16.2	0.43
									260	20.3	1.70
									280	21.7	2.69
									295	22.7	3.17
									310	22.0	3.58
									325	22.8	3.24
									340	22.3	3.54
									355	22.2	3.44
									365	22.1	3.44
									380	22.8	3.60
									390	23.1	3.42
									405	23.7	3.48
									415	23.8	3.56
									430	23.9	3.46
									440	25.2	3.42
									455	26.7	3.40
									465	27.1	3.46
									480	27.0	3.43
									490	27.2	3.32
									505	26.7	3.39
									515	26.1	3.14
									530	21.9	2.69
									550	14.6	2.38
									578	0.0	0.00
11-29-83	1045	260	12.0	11.46	24,200	8,390	415	2.89	164	0.0	0.00
									220	16.5	0.37
									260	20.2	1.89
									280	22.2	2.96
									295	22.9	3.27
									310	22.3	3.45
									325	22.8	3.10
									340	22.2	3.48
									355	22.5	3.63
									365	22.5	3.63
									380	22.8	3.63
									390	23.2	3.54
									405	24.5	3.36
									415	25.7	3.24

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-29-83	1045	260	(Continued)						430	26.8	3.45
									440	27.8	3.14
									455	28.1	3.16
									465	28.0	3.22
									480	27.5	3.39
									490	28.1	3.36
									505	26.2	3.50
									515	26.2	3.27
									530	22.3	2.87
									550	14.9	2.26
									579	0.0	0.00
12-01-83	1045	261	12.5	11.44	24,200	8,400	415	2.88	164	0.0	0.00
									220	16.4	0.28
									260	20.6	2.08
									280	21.9	2.77
									295	22.8	3.28
									310	22.4	3.18
									325	23.0	3.45
									340	22.5	3.12
									355	22.0	3.50
									365	22.4	3.54
									380	22.7	3.58
									390	23.3	3.38
									405	24.1	3.36
									415	24.5	3.24
									430	25.6	3.26
									440	27.3	3.42
									455	28.6	3.56
									465	29.3	3.28
									480	28.8	3.36
									490	28.6	3.42
									505	26.0	3.32
									515	26.2	3.29
									530	22.3	2.95
									550	14.8	2.12
									579	0.0	0.00
12-07-83	1000	262	12.0	11.45	23,100	7,630	414	3.02	165	0.0	0.00
									230	17.7	0.72
									260	20.4	2.13
									285	20.3	3.18
									300	21.0	3.32
									315	21.1	3.42
									330	21.5	3.45
									345	20.5	3.48
									355	20.6	3.60
									370	21.0	3.78
									380	21.0	3.72
									395	21.1	3.48
									405	21.1	3.44
									420	21.2	3.51
									430	22.4	3.64
									445	24.1	3.36
									455	25.4	3.58
									470	26.5	3.15
									480	26.0	3.39
									495	25.8	3.48
									505	25.1	3.50
									520	21.4	3.43

Table 18.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-07-83	1000	262	(Continued)						535	17.6	3.01
									550	12.0	2.95
									579	0.0	0.00
12-09-83	1410	263	12.0	11.49	22,800	8,030	414	2.84	165	0.0	0.00
									200	16.7	0.34
									230	17.6	0.67
									250	19.6	1.75
									270	20.0	2.34
									290	21.0	3.02
									305	21.2	3.51
									320	21.0	3.15
									335	20.7	3.42
									345	20.8	3.56
									360	20.9	3.52
									370	21.0	3.66
									385	21.5	3.60
									395	22.0	3.18
									410	21.4	3.58
									420	21.4	3.50
									435	23.0	3.42
									445	24.4	3.39
									460	26.3	3.46
									470	26.8	3.60
									485	27.0	3.48
									495	26.2	3.51
									510	25.4	3.40
									530	20.5	2.80
									550	14.4	2.07
									579	0.0	0.00
12-11-83	1115	264	12.0	11.47	23,300	8,082	414	2.88	164	0.0	0.00
									230	17.6	0.48
									250	19.2	1.33
									270	21.6	2.47
									285	22.2	3.01
									300	22.6	3.36
									315	22.3	3.40
									330	22.7	3.45
									345	22.2	3.60
									355	22.2	3.40
									370	22.5	3.58
									380	22.8	3.36
									395	23.7	3.56
									405	24.4	3.18
									420	24.4	3.33
									430	24.5	3.33
									445	25.0	3.32
									455	25.2	3.36
									470	28.0	3.22
									480	28.3	3.18
									495	27.2	3.32
									505	26.3	3.23
									520	23.3	3.36
									535	19.1	2.44
									550	11.5	2.70
									578	0.0	0.00

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-11-83	1140	1	----	2,736.78	55,900	8,622	354	6.49	415	0.0	0.00
									405	7.5	0.50
									390	17.1	1.94
									375	22.5	2.28
									360	22.4	4.36
									345	23.4	5.98
									330	24.0	6.20
									315	24.2	6.94
									300	24.9	7.49
									285	25.6	7.34
									270	25.0	8.16
									255	26.1	8.16
									240	27.8	8.62
									225	28.1	8.82
									210	27.0	8.55
									195	27.6	8.02
									180	26.3	7.84
									165	26.8	7.98
									150	28.6	7.22
									135	29.0	6.56
									120	29.5	6.14
									105	30.0	5.25
									90	30.9	4.23
									75	22.4	3.22
									61	0.0	0.00
07-14-83	1035	2	12.0	2,737.58	57,600	8,975	358	6.42	415	0.0	0.00
									405	9.8	0.00
									390	17.7	1.52
									375	24.5	2.61
									360	23.8	3.98
									345	23.8	6.24
									335	24.3	6.64
									325	24.1	6.84
									315	25.3	6.92
									305	25.2	7.82
									295	27.0	8.16
									285	26.6	7.78
									275	26.6	8.02
									265	27.4	8.07
									255	27.6	8.92
									245	27.6	7.78
									235	29.6	8.62
									225	29.7	8.26
									215	27.9	8.53
									205	28.4	8.28
									195	27.0	8.28
									180	28.2	7.62
									165	28.4	6.96
									150	28.3	7.23
									135	27.9	6.53
									120	29.1	6.06
									105	31.2	5.10
									90	31.3	4.06
									75	23.5	3.44
									57	0.0	0.00
07-31-83	1805	3	12.0	2,733.58	39,800	6,905	352	5.76	413	0.0	0.00
									405	4.5	0.49
									390	12.0	1.18

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-31-83	1805	3	(Continued)						415	0.0	0.00
									375	16.2	2.60
									360	17.2	3.92
									345	18.1	4.73
									330	18.8	5.46
									315	19.4	6.06
									300	20.2	6.35
									285	20.5	6.62
									270	20.8	7.04
									255	21.3	7.36
									245	22.0	7.40
									235	22.2	7.23
									225	23.1	7.40
									215	23.1	7.49
									205	22.6	7.10
									195	22.3	7.23
									185	22.6	7.39
									175	21.9	7.46
									165	22.3	7.36
									155	23.0	6.94
									145	23.2	6.81
									130	23.5	5.46
									115	24.1	4.59
									100	24.8	4.38
									85	24.8	3.33
									70	11.7	2.60
									61	0.0	0.00
08-02-83	0915	4	12.0	2,732.98	35,600	6,457	342	5.51	409	0.0	0.00
									400	6.5	0.66
									390	11.7	1.32
									370	15.5	3.01
									360	16.8	3.50
									340	17.5	4.98
									330	17.8	4.96
									315	18.5	5.70
									300	19.1	6.29
									285	19.6	6.28
									270	19.9	6.74
									255	20.9	6.69
									240	21.5	7.05
									230	21.8	6.96
									220	21.4	7.39
									210	21.3	6.86
									200	20.6	7.23
									190	21.5	7.00
									180	21.2	6.77
									170	20.6	6.67
									160	21.6	6.88
									150	21.8	6.54
									140	21.7	5.46
									125	22.3	5.12
									110	22.9	4.41
									95	24.4	3.58
									80	18.4	2.79
									67	0.0	0.00
08-04-83	1050	5	11.0	2,732.78	35,100	6,372	340	5.51	409	0.0	0.00
									400	5.7	0.86

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-04-83	1050	5	(Continued)						385	12.6	1.40
									370	15.6	2.49
									355	16.0	3.78
									340	16.9	5.00
									325	17.4	5.30
									305	18.2	6.22
									290	18.7	6.29
									280	19.0	6.48
									270	19.5	6.35
									260	20.5	6.80
									250	20.5	6.55
									240	21.1	6.55
									230	21.5	6.96
									220	21.3	7.26
									210	21.4	6.96
									200	21.0	7.00
									190	21.3	7.10
									180	20.9	6.76
									170	20.3	6.98
									160	21.5	6.58
									150	22.0	6.60
									140	21.3	5.87
									125	22.7	5.30
									110	23.1	4.39
									95	23.6	3.46
									80	19.6	2.68
									70	10.0	2.12
									69	0.0	0.00
08-06-83	1140	6	11.0	2,732.88	35,000	6,420	341	5.44	408	0.0	0.00
									400	5.4	0.20
									385	12.5	1.61
									370	16.0	2.32
									355	16.4	3.89
									340	17.1	4.82
									325	18.0	5.28
									310	18.5	5.75
									295	18.8	6.02
									280	19.7	6.26
									265	20.3	6.58
									250	20.5	6.83
									240	21.2	6.57
									230	21.7	6.83
									220	21.7	7.16
									210	21.6	7.32
									200	21.0	7.37
									190	22.3	6.44
									180	21.3	6.96
									170	20.5	6.74
									160	21.2	6.52
									150	21.8	6.29
									140	22.3	5.94
									130	21.7	5.30
									115	21.8	4.63
									100	23.7	3.90
									85	21.4	3.39
									70	11.2	2.00
									67	0.0	0.00

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-08-83	1140	7	----	2,732.78	32,800	6,196	346	5.30	64	0.0	0.00
									75	15.5	2.16
									85	21.3	3.28
									100	21.8	3.89
									115	22.6	4.14
									130	22.3	5.27
									140	21.2	5.76
									150	21.9	6.21
									160	21.1	6.64
									170	20.5	6.86
									180	21.2	6.96
									190	21.4	6.76
									200	20.7	6.66
									210	21.4	7.26
									220	21.2	6.72
									230	21.5	6.86
									240	21.3	6.30
									250	20.3	6.60
									265	19.2	6.38
									280	19.6	5.88
									295	15.0	5.50
									310	18.2	5.88
									325	12.8	5.06
									340	17.1	4.50
									355	15.9	3.68
									370	15.1	2.64
									385	11.4	1.59
									400	5.7	0.53
									410	0.0	0.00
08-10-83	920	8	----	2,732.93	37,000	6,697	346	5.52	410	0.0	0.00
									400	4.8	0.76
									385	13.1	1.90
									370	16.6	2.92
									355	17.2	3.86
									340	18.5	4.32
									325	19.1	5.00
									310	19.6	5.94
									295	20.1	6.48
									280	20.5	6.17
									265	21.0	6.74
									250	21.6	6.31
									240	21.7	6.62
									230	22.2	7.00
									220	22.4	7.13
									210	22.7	7.26
									200	22.3	6.81
									190	22.2	6.73
									180	22.0	6.92
									170	21.5	7.04
									160	22.4	6.64
									150	23.2	6.64
									140	22.9	6.08
									130	23.0	5.57
									115	22.8	5.06
									100	23.2	4.12
									85	22.6	3.14
									70	10.3	2.31
									64	0.0	0.00

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-12-83	0905	9	----	2,730.41	26,800	5,975	340	4.48	402	0.0	0.00
									385	10.5	1.45
									370	14.3	2.50
									355	15.5	2.88
									340	16.5	3.64
									325	16.9	4.32
									310	17.3	4.89
									295	18.2	5.41
									280	18.3	5.16
									265	18.7	5.20
									250	19.7	5.25
									240	20.0	5.68
									230	20.3	5.71
									220	20.5	5.76
									210	20.6	6.08
									200	20.1	6.00
									190	20.9	5.58
									180	19.5	5.64
									170	19.5	5.62
									160	19.9	5.81
									150	21.2	5.01
									140	20.6	4.88
									130	21.1	4.28
									115	21.0	3.40
									100	21.2	2.99
									85	20.3	1.94
									70	8.2	1.48
									62	0.0	0.00
08-14-83	1010	10	----	2,730.10	27,800	5,866	340	4.74	404	0.0	0.00
									385	10.3	1.46
									370	14.5	2.50
									355	15.3	3.08
									340	16.0	4.02
									325	16.5	4.75
									310	17.0	5.40
									295	17.2	5.20
									280	17.9	5.25
									265	18.5	5.62
									250	19.1	5.73
									240	19.7	5.88
									230	20.1	6.20
									220	20.3	6.24
									210	20.3	6.02
									200	19.8	5.76
									190	19.8	6.08
									180	19.6	6.26
									170	19.3	5.82
									160	19.9	5.96
									150	20.5	5.23
									140	20.1	5.34
									130	20.8	4.67
									115	21.1	3.93
									100	21.3	3.10
									85	20.4	2.03
									64	0.0	0.00
08-30-83	1200	16	----	2,730.10	26,300	5,870	346	4.48	409	0.0	0.00
									395	5.5	2.08

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-30-83	1200	16	(Continued)						380	12.5	1.90
									365	14.4	2.52
									350	14.9	3.30
									335	16.1	4.12
									320	16.5	4.34
									305	17.1	4.28
									290	17.5	5.20
									275	17.9	4.96
									260	18.6	5.27
									245	19.5	5.56
									230	21.0	5.94
									215	20.3	6.00
									200	19.5	6.00
									185	19.3	5.88
									170	19.1	5.74
									155	19.6	5.46
									140	20.9	4.61
									125	20.6	3.99
									110	20.6	3.14
									95	20.7	3.04
									80	18.4	1.90
									63	0.0	0.00
09-01-83	1400	17	----	2,730.72	27,300	5,810	347	4.69	410	0.0	0.00
									385	11.0	1.50
									370	14.0	2.44
									355	14.7	3.58
									340	15.4	3.94
									325	16.2	4.70
									310	16.8	5.41
									295	17.1	5.54
									280	17.7	5.74
									270	18.4	5.16
									255	19.0	5.52
									245	19.3	5.41
									230	20.4	6.06
									220	20.0	6.24
									210	20.3	6.06
									200	20.3	6.28
									190	19.3	5.78
									175	19.1	4.80
									160	20.0	5.96
									145	20.0	5.26
									130	20.9	4.46
									110	20.9	3.84
									90	20.4	2.27
									63	0.0	0.00
09-03-83	1340	18	----	2,730.61	27,100	5,694	345	4.76	408	0.0	0.00
									380	12.4	2.20
									360	14.6	3.12
									345	15.1	3.70
									330	15.8	4.42
									315	16.1	4.73
									300	16.3	5.00
									285	17.4	5.70
									275	17.7	5.21
									260	18.4	6.41
									250	18.2	5.64

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-03-83	1340	18	(Continued)						235	19.7	5.91
									225	19.8	5.98
									215	20.2	6.38
									205	19.6	6.04
									195	19.7	6.10
									185	19.3	5.88
									175	19.4	5.76
									165	19.8	5.66
									150	20.3	5.24
									135	19.9	4.52
									115	21.1	3.74
									95	21.0	2.83
									63	0.0	0.00
09-05-83	1020	19	----	2,730.64	25,400	5,904	344	4.30	65	0.0	0.00
									80	16.7	2.49
									100	21.2	2.72
									115	21.5	2.94
									130	21.5	4.50
									145	20.9	5.14
									160	19.6	5.27
									175	19.4	5.63
									190	19.7	5.68
									205	20.6	6.02
									220	20.5	5.46
									235	20.2	5.52
									250	19.2	5.18
									265	17.8	4.96
									280	17.7	3.92
									295	17.6	3.86
									310	17.6	5.04
									325	16.3	4.32
									340	16.1	3.84
									360	15.3	2.80
									380	12.3	1.14
									409	0.0	0.00
09-07-83	1500	20	----	2,730.74	27,900	5,908	350	4.73	410	0.0	0.00
									395	5.9	0.90
									380	12.4	2.06
									365	14.5	3.10
									350	15.4	3.46
									335	16.0	3.82
									320	15.8	4.61
									305	17.0	5.05
									290	17.6	5.41
									275	18.3	5.46
									260	18.7	5.80
									245	19.9	5.86
									230	20.4	5.96
									215	20.2	6.00
									200	19.9	6.44
									185	19.8	6.31
									170	19.0	5.68
									155	20.3	5.86
									140	20.6	4.72
									125	21.1	4.40
									110	20.8	3.77
									95	20.9	3.24

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-07-83	1500	20	(Continued)						80	16.8	1.89
									70	8.4	1.54
									60	0.0	0.00
09-09-83	1100	21	----	2,730.60	26,100	5,840	350	4.47	410	0.0	0.00
									395	6.4	0.83
									380	12.8	1.84
									365	14.7	2.44
									350	15.2	3.18
									335	15.8	4.03
									320	16.8	4.41
									305	17.0	5.51
									290	17.2	5.30
									275	17.7	5.24
									260	18.8	5.46
									245	19.3	5.74
									230	20.1	5.53
									215	20.0	5.82
									200	19.4	5.88
									185	19.6	5.53
									170	19.0	5.68
									155	19.6	5.16
									140	19.8	4.75
									125	19.9	3.98
									110	20.0	3.39
									95	20.6	3.10
									80	16.6	1.82
									60	0.0	0.00
09-13-83	1130	22	12.0	2,730.50	26,200	5,860	349	4.47	409	0.0	0.00
									395	5.9	0.75
									380	12.4	1.74
									365	14.3	2.32
									350	15.0	3.32
									335	15.9	4.16
									320	16.3	4.46
									305	16.6	4.79
									290	17.1	5.52
									275	18.0	5.06
									260	18.6	5.36
									245	19.1	5.68
									230	19.8	5.60
									215	20.0	6.08
									200	19.4	5.90
									185	19.4	5.90
									170	19.1	5.94
									155	20.1	5.56
									140	20.4	4.84
									125	20.9	3.98
									110	21.0	3.00
									95	20.9	2.59
									80	17.8	2.00
									60	0.0	0.00
09-15-83	1050	23	11.5	2,730.75	26,700	5,920	350	4.51	410	0.0	0.00
									395	6.4	0.63
									380	12.9	1.64
									365	14.6	2.46
									350	15.4	3.50

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-15-83	1050	23	(Continued)						335	15.9	4.06
									320	16.0	4.50
									305	16.9	5.04
									290	17.5	5.30
									275	18.8	5.69
									260	19.0	5.58
									245	19.3	5.47
									230	20.0	6.00
									215	20.0	6.00
									200	19.8	6.21
									185	19.5	5.94
									170	19.3	5.94
									155	20.5	5.22
									140	20.1	4.79
									125	20.5	3.82
									110	20.6	3.14
									95	21.0	2.52
									80	17.5	1.82
									60	0.0	0.00
09-17-83	1525	24	12.0	2,730.62	27,100	5,910	344	4.58	404	0.0	0.00
									390	9.0	0.94
									375	13.2	1.97
									360	14.9	2.61
									345	15.4	3.50
									330	15.8	4.41
									315	16.4	4.92
									300	17.2	5.46
									285	17.7	5.62
									270	18.3	5.10
									255	18.9	5.94
									240	19.6	5.70
									225	20.2	5.62
									210	20.4	5.69
									195	19.5	6.14
									180	19.5	6.38
									165	19.5	5.58
									150	20.4	5.52
									135	21.0	4.46
									120	21.6	3.80
									105	20.6	3.38
									90	20.8	2.40
									75	14.7	1.82
									60	0.0	0.00
09-19-83	1140	25	12.0	2,730.61	26,200	5,750	348	4.56	408	0.0	0.00
									390	8.4	0.96
									360	14.3	3.14
									330	15.9	4.42
									315	16.8	4.78
									300	16.8	4.64
									290	17.6	4.81
									280	17.6	5.52
									270	18.1	5.45
									260	18.7	5.62
									250	19.0	5.40
									240	19.2	5.53
									230	20.0	5.88
									220	19.7	6.08

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-19-83	1140	25	(Continued)						210	19.6	6.21
									200	19.1	5.94
									190	19.3	5.94
									180	19.4	5.93
									170	19.2	5.87
									160	19.6	5.50
									150	20.4	5.24
									140	20.3	5.14
									130	20.7	4.22
									120	20.8	3.83
									100	21.5	2.54
									70	8.6	1.16
									60	0.0	0.00
09-21-83	1125	26	11.0	2,730.53	25,800	5,780	349	4.46	409	0.0	0.00
									390	8.9	1.20
									360	14.8	2.68
									330	15.8	4.22
									315	16.8	4.88
									300	16.9	4.92
									290	17.4	5.05
									280	17.6	5.52
									270	17.8	5.25
									260	18.7	5.36
									250	19.1	5.58
									240	19.3	5.70
									230	19.7	5.62
									220	19.8	5.18
									210	20.0	5.81
									200	19.3	5.63
									190	19.3	5.94
									180	19.4	5.88
									170	19.2	5.80
									160	19.2	5.45
									150	20.3	5.11
									140	20.3	4.53
									125	20.5	4.07
									110	20.8	3.32
									90	20.6	2.20
									60	0.0	0.00
09-23-83	1550	27	11.0	2,730.54	25,500	5,770	348	4.42	408	0.0	0.00
									390	8.6	1.15
									360	14.7	2.90
									330	15.9	4.27
									315	16.3	4.56
									300	16.7	5.15
									290	17.1	5.10
									280	17.2	5.46
									270	18.7	5.34
									260	18.4	5.51
									250	18.8	5.41
									240	19.2	5.39
									230	19.6	4.96
									220	19.8	5.94
									210	20.1	5.93
									200	19.4	5.93
									190	19.5	5.40
									180	19.5	5.54

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-23-83	1550	27	(Continued)						170	18.8	5.68
									160	19.8	5.51
									150	20.3	5.46
									140	20.1	4.53
									125	21.1	3.73
									110	20.4	2.99
									90	20.4	2.36
									70	7.9	1.22
									60	0.0	0.00
10-05-83	1615	32	11.0	2,731.16	25,700	5,996	345	4.28	409	0.0	0.00
									390	8.8	1.12
									370	13.8	2.29
									350	16.2	3.17
									330	16.2	4.08
									310	17.0	4.47
									295	17.5	4.56
									280	17.9	4.56
									265	18.3	5.20
									250	19.4	5.35
									235	20.5	5.62
									220	20.5	5.57
									205	20.4	5.62
									190	20.0	5.28
									175	19.9	5.36
									160	20.0	5.59
									145	20.8	4.47
									130	21.2	4.24
									115	21.4	3.31
									100	22.5	2.83
									80	19.0	2.48
									64	0.0	0.00
10-10-83	1040	33	11.5	2,730.82	26,800	5,851	347	4.58	409	0.0	0.00
									390	8.9	1.22
									370	13.8	2.16
									350	14.9	3.42
									330	15.8	4.26
									315	16.7	4.74
									300	16.7	5.46
									285	17.7	4.86
									270	17.7	5.68
									255	18.6	5.74
									245	18.9	5.46
									235	19.5	5.81
									225	20.6	6.16
									215	19.5	6.28
									205	19.5	6.14
									195	19.5	5.88
									185	19.2	5.94
									175	19.3	6.06
									160	20.0	5.68
									145	20.3	5.00
									130	20.8	4.07
									115	21.0	3.72
									100	21.6	2.99
									80	18.2	2.06
									62	0.0	0.00

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-12-83	1115	34	11.0	2,729.88	23,700	5,531	345	4.29	407	0.0	0.00
									390	7.8	1.20
									370	13.3	2.18
									350	14.2	3.21
									330	15.2	4.04
									315	15.6	4.76
									300	16.2	4.80
									285	16.7	4.74
									270	17.3	5.21
									255	17.7	5.30
									245	18.4	5.25
									235	18.8	5.57
									225	19.2	5.41
									215	18.6	5.80
									205	18.7	5.76
									195	18.7	5.45
									185	18.4	5.46
									175	18.0	5.31
									160	18.7	5.30
									145	19.5	4.56
									130	19.7	4.41
									115	20.0	3.01
									100	20.1	2.86
									80	16.3	1.81
									62	0.0	0.00
10-14-83	1115	35	12.0	2,730.16	24,500	5,656	346	4.33	408	0.0	0.00
									390	8.0	1.13
									370	13.5	2.18
									350	14.4	3.39
									330	15.5	3.99
									315	16.2	4.66
									300	16.6	4.86
									285	17.0	4.86
									270	17.7	5.14
									255	18.4	5.36
									245	18.4	5.29
									235	18.8	5.47
									225	19.3	5.80
									215	19.3	5.94
									205	19.4	5.74
									195	19.2	5.69
									185	18.9	5.56
									175	18.8	5.74
									160	19.2	5.14
									145	19.9	4.64
									130	20.2	4.01
									115	20.2	3.10
									100	20.6	2.92
									80	16.4	1.69
									62	0.0	0.00
10-18-83	1615	36	12.0	2,729.92	23,800	5,508	341	4.31	408	0.0	0.00
									390	7.4	0.98
									370	13.1	1.86
									350	14.1	3.39
									330	15.3	4.13
									320	15.7	3.94
									300	16.4	4.74
									290	17.0	4.78

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-18-83	1650	36	(Continued)						270	17.2	5.00
									260	17.8	4.96
									245	18.5	5.30
									235	18.8	5.58
									225	19.1	5.68
									215	19.0	5.46
									205	19.1	5.74
									195	19.0	5.68
									185	18.5	5.60
									170	18.4	5.76
									160	19.1	5.20
									140	19.3	4.72
									130	19.7	3.96
									110	19.8	3.21
									100	20.3	2.89
									80	15.8	1.81
									67	0.0	0.00
10-20-83	1155	37	12.0	2,730.29	25,500	5,642	342	4.53	408	0.0	0.00
									390	8.4	1.18
									370	13.6	2.59
									350	14.5	3.39
									330	15.5	4.56
									315	16.2	4.73
									300	16.4	4.96
									285	17.1	4.84
									270	17.7	5.40
									255	18.4	4.96
									240	19.0	5.15
									230	19.5	5.88
									215	19.3	6.14
									205	19.5	5.94
									195	19.4	5.76
									185	19.0	5.80
									175	19.3	5.70
									165	18.7	5.94
									155	19.7	5.51
									140	20.0	4.84
									130	20.1	4.37
									110	20.3	3.24
									100	20.3	2.81
									80	16.1	2.04
									66	0.0	0.00
10-22-83	1550	38	12.0	2,729.91	23,200	5,567	342	4.17	408	0.0	0.00
									390	8.3	1.23
									370	13.4	1.96
									350	14.3	3.03
									330	15.3	4.02
									315	16.1	4.47
									300	16.6	5.08
									285	16.8	5.02
									270	17.7	5.06
									255	18.0	4.76
									240	18.8	5.02
									230	19.2	5.51
									215	18.7	5.62
									205	19.3	5.39
									195	18.8	5.57
									185	18.4	5.68

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-22-83	1550	38	(Continued)						175	18.4	5.27
									165	18.3	5.41
									155	19.6	4.68
									140	19.0	4.26
									130	20.0	3.68
									110	20.5	2.71
									100	20.6	2.83
									80	15.7	1.52
									66	0.0	0.00
10-24-83	1150	39	11.5	2,730.88	26,200	5,821	343	4.49	409	0.0	0.00
									390	9.1	1.26
									370	13.5	2.20
									350	14.9	3.29
									330	16.0	4.42
									315	16.6	4.72
									300	17.3	4.95
									285	17.7	4.95
									270	18.1	5.47
									255	18.6	5.47
									240	19.3	5.81
									230	20.1	6.20
									220	20.1	6.06
									210	20.3	6.00
									200	19.5	6.00
									190	19.5	5.94
									180	19.3	6.02
									165	19.7	5.94
									155	20.4	5.01
									140	20.1	4.67
									130	21.0	3.82
									110	21.3	3.08
									100	20.4	2.59
									80	17.6	1.91
									66	0.0	0.00
10-26-83	1540	40	23,800	2,629.92	5,527	342	4.30	12.0	408	0.0	0.00
									390	7.8	1.19
									370	12.9	2.28
									350	14.3	3.13
									330	15.3	4.00
									315	15.6	4.83
									300	16.0	4.78
									285	17.1	4.78
									275	17.0	5.00
									260	18.0	5.20
									250	18.0	5.46
									235	18.2	5.41
									225	19.3	5.88
									215	19.0	5.80
									205	19.1	5.70
									195	18.8	5.57
									185	18.4	5.62
									175	18.9	5.30
									160	19.0	5.36
									150	19.6	4.76
									135	19.9	3.82
									120	20.0	3.25

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-26-83	1540	40	(Continued)						105	20.0	2.92
									85	19.3	2.11
									66	0.0	0.00
10-28-83	1525	41	12.0	2,730.72	26,700	5,841	343	4.58	409	0.0	0.00
									390	8.8	1.06
									370	14.0	2.42
									350	15.3	3.34
									330	15.9	4.18
									315	16.4	5.04
									300	17.1	5.42
									285	17.5	5.39
									270	18.6	4.92
									260	18.7	5.22
									245	19.3	5.74
									235	20.0	5.81
									225	20.1	6.14
									215	20.2	6.14
									205	19.9	6.06
									195	19.6	5.78
									185	19.0	5.87
									175	19.1	5.88
									160	20.1	5.69
									150	20.5	5.40
									135	21.0	4.56
									120	21.5	3.94
									105	21.1	3.14
									85	20.2	1.88
									66	0.0	0.00
11-01-83	1125	42	12.0	2,730.60	26,000	5,714	344	4.55	410	0.0	0.00
									390	8.9	1.13
									370	14.0	2.56
									350	14.9	3.34
									330	16.0	4.47
									315	16.4	4.85
									300	17.0	5.06
									285	17.3	5.10
									275	17.8	5.10
									260	18.7	5.15
									250	18.8	5.33
									235	19.5	5.76
									225	20.0	6.08
									215	19.7	6.06
									205	20.0	5.70
									195	19.5	5.94
									185	19.4	5.93
									175	19.0	5.61
									165	19.0	5.68
									150	20.0	5.40
									140	20.0	4.90
									125	21.0	4.28
									110	20.2	3.47
									90	19.9	2.18
									80	16.3	1.82
									66	0.0	0.00
11-06-83	1555	43	12.0	2,730.28	24,500	5,620	339	4.36	69	0.0	0.00
									90	20.5	2.32
									110	20.6	3.36

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-06-83	1555	43	(Continued)						125	20.3	3.98
									140	19.8	4.58
									155	19.9	5.25
									170	19.0	5.62
									185	19.3	5.93
									200	19.4	5.42
									215	20.0	5.76
									230	19.6	5.63
									245	19.1	5.01
									260	18.4	5.30
									275	17.5	5.36
									290	17.8	4.78
									305	16.5	4.78
									320	16.3	4.16
									335	15.2	3.53
									350	13.0	2.86
									370	13.8	2.00
									390	8.9	0.98
									408	0.0	0.00
11-09-83	1210	44	11.0	2,730.02	24,300	5,644	338	4.31	407	0.0	0.00
									390	9.0	1.06
									370	13.4	2.24
									355	14.1	2.82
									340	15.0	3.76
									325	15.5	4.46
									310	16.6	4.68
									295	17.1	4.74
									280	17.4	4.82
									265	17.5	5.20
									250	18.5	5.10
									235	19.2	5.53
									220	19.6	5.58
									205	19.6	5.88
									190	18.9	5.62
									175	19.1	5.68
									160	19.4	5.63
									145	19.9	4.71
									130	20.1	3.90
									115	20.3	3.23
									100	20.4	2.54
									80	17.4	1.55
									69	0.0	0.00
11-11-83	1145	45	11.5	2,729.83	24,100	5,586	338	4.32	69	0.0	0.00
									80	17.2	1.80
									100	20.3	2.94
									115	20.1	3.42
									130	20.2	3.88
									145	19.9	4.83
									160	19.0	5.27
									175	19.2	5.83
									190	19.1	5.27
									205	19.7	5.68
									220	19.6	5.40
									235	18.8	5.74
									250	18.4	5.00
									265	17.6	4.98
									280	17.0	5.10
									295	16.6	5.20

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-11-83	1145	45	(Continued)						310	16.1	4.62
									325	15.5	4.13
									340	15.0	3.55
									355	14.2	2.83
									370	13.1	1.98
									390	7.7	1.06
									407	0.0	0.00
11-13-83	1305	46	11.5	2,730.00	24,000	5,592	340	4.30	409	0.0	0.00
									390	7.7	1.18
									370	13.5	2.08
									355	14.4	2.83
									340	15.1	3.72
									325	15.8	4.12
									310	16.4	4.56
									295	16.8	4.82
									280	17.2	5.10
									265	17.6	5.05
									250	18.4	4.86
									235	19.1	5.56
									220	19.4	5.80
									205	19.5	5.68
									190	19.1	5.74
									175	18.6	5.57
									160	18.9	5.46
									145	19.7	4.78
									130	20.0	4.02
									115	20.2	3.17
									100	20.5	2.34
									80	16.4	1.94
									69	0.0	0.00
11-15-83	1150	47	11.0	2,729.38	21,400	5,410	338	3.95	407	0.0	0.00
									390	7.6	1.11
									370	12.8	2.02
									355	13.5	2.68
									340	14.8	3.57
									325	15.1	3.68
									310	15.5	4.46
									295	16.0	5.08
									280	16.3	4.92
									265	17.1	4.56
									250	17.7	4.82
									235	18.6	4.84
									220	18.4	5.46
									205	18.7	5.36
									190	18.4	5.34
									175	18.3	5.00
									160	18.7	4.96
									145	19.3	4.66
									130	19.5	3.76
									115	19.6	2.99
									100	20.1	2.47
									80	17.0	1.57
									69	0.0	0.00
11-19-83	1325	48	11.5	2,729.84	23,600	5,600	338	4.21	407	0.0	0.00
									390	9.0	1.01
									370	13.1	2.15
									355	14.2	3.02

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-19-83	1325	48	(Continued))						340	14.8	3.68
									325	15.4	4.12
									310	16.3	4.72
									295	16.7	5.00
									280	17.2	4.76
									265	17.3	5.06
									250	18.2	5.20
									235	18.9	4.86
									220	19.4	5.53
									205	19.0	5.42
									190	19.8	5.24
									175	18.6	5.40
									160	19.2	5.30
									145	20.0	4.31
									130	20.0	3.80
									115	20.5	3.38
									100	20.4	2.80
									80	17.3	2.06
									69	0.0	0.00
11-21-83	1250	49	11.5	2,730.02	24,100	5,640	338	4.28	407	0.0	0.00
									390	8.6	1.14
									370	13.1	2.18
									355	14.8	2.76
									340	15.4	3.54
									325	15.9	4.32
									310	16.4	4.32
									295	16.9	4.87
									280	17.1	4.92
									265	17.7	4.95
									250	18.5	5.22
									235	19.4	5.52
									220	20.0	5.36
									205	19.6	5.53
									190	19.2	5.18
									175	18.7	5.86
									160	19.1	5.46
									145	19.9	4.92
									130	20.5	3.82
									115	20.8	3.28
									100	20.5	2.65
									80	16.5	2.04
									69	0.0	0.00
11-23-83	1130	50	11.0	2,729.98	24,100	5,600	338	4.30	407	0.0	0.00
									390	8.1	0.94
									370	12.9	2.10
									355	14.5	2.90
									340	15.0	3.43
									325	15.7	3.86
									310	16.4	4.34
									295	16.6	4.84
									280	17.3	4.92
									265	17.7	5.34
									250	18.4	5.42
									235	19.4	5.38
									220	19.7	5.74
									205	19.6	5.86
									190	18.8	5.32
									175	18.7	5.40

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-23-83	1130	50	(Continued)						160	19.7	5.30
									145	19.9	4.73
									130	20.2	4.22
									115	20.5	3.44
									100	20.1	2.51
									80	16.2	2.04
									69	0.0	0.00
12-02-83	1340	51	13.0	2,729.87	24,000	5,495	343	4.36	406	0.0	0.00
									380	11.4	1.96
									350	14.2	3.61
									330	14.9	3.97
									315	15.8	4.36
									300	16.1	4.86
									285	16.6	5.00
									270	17.3	5.02
									255	17.8	5.30
									240	18.1	5.68
									225	19.1	5.75
									210	18.6	5.86
									195	18.0	5.40
									180	18.5	5.35
									165	18.4	4.76
									150	19.2	4.84
									135	19.7	4.32
									120	20.2	4.01
									105	20.0	3.02
									80	17.0	1.84
									63	0.0	0.00
12-04-83	1315	52	13.0	2,792.96	23,400	5,420	343	4.32	406	0.0	0.00
									380	11.3	1.75
									350	14.5	2.94
									330	13.3	4.22
									315	15.7	4.74
									300	16.2	4.72
									285	16.4	4.94
									270	17.0	5.00
									260	17.4	5.30
									245	18.1	5.51
									235	18.7	5.46
									220	19.1	5.81
									210	18.7	5.80
									195	18.4	5.60
									185	17.6	5.93
									170	18.1	5.40
									160	18.8	5.14
									145	18.8	5.06
									130	19.5	3.39
									115	19.8	3.24
									100	19.6	2.64
									80	16.0	1.75
									63	0.0	0.00
12-06-83	1220	53	11.0	2,730.00	23,700	5,476	343	4.33	406	0.0	0.00
									380	11.4	1.76
									350	14.3	3.18
									330	15.2	4.08
									315	15.4	4.51
									300	16.2	4.78

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-06-83	1220	53	(Continued)						285	16.4	4.81
									270	17.1	4.90
									260	17.7	5.24
									245	17.8	5.57
									235	18.7	5.10
									220	19.1	5.30
									210	19.1	5.75
									195	18.6	5.74
									185	18.4	5.63
									170	18.4	5.46
									160	18.6	5.46
									145	19.1	5.10
									130	19.6	3.98
									115	20.1	3.52
									100	19.8	2.47
									80	15.8	1.86
									63	0.0	0.00
12-08-83	1150	54	12.5	2,730.09	23,900	5,461	343	4.38	406	0.0	0.00
									380	11.4	1.64
									350	13.7	3.22
									330	15.2	4.22
									315	15.9	4.36
									300	16.1	4.86
									285	16.7	5.14
									270	17.2	4.95
									260	17.7	5.15
									245	17.8	5.25
									235	18.7	5.46
									220	18.8	5.87
									210	18.6	5.93
									195	18.1	5.74
									185	18.5	5.46
									170	18.0	5.47
									160	18.8	5.62
									145	19.8	4.87
									130	19.2	4.26
									115	20.3	3.32
									100	20.0	2.74
									80	15.6	1.77
									63	0.0	0.00
12-10-83	1105	55	12.0	2,729.98	23,800	5,481	343	4.34	406	0.0	0.00
									380	11.4	1.51
									350	14.3	3.20
									330	15.1	4.08
									315	15.6	4.18
									300	15.9	4.82
									285	16.2	4.74
									270	17.0	5.30
									260	17.5	5.30
									245	18.4	5.46
									235	18.6	5.47
									220	19.0	5.61
									210	18.9	6.00
									195	18.5	5.74
									185	18.3	5.70
									170	18.3	5.87
									160	18.5	5.16
									145	19.7	4.92

Table 19.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-10-83	1105	55	(Continued)						130	19.3	4.08
									115	20.3	3.20
									100	20.2	2.45
									80	15.9	2.13
									63	0.0	0.00
12-12-83	1150	56	12.5	2,730.08	24,600	5,545	343	4.43	406	0.0	0.00
									380	12.4	2.30
									350	14.8	3.55
									330	15.4	4.18
									315	15.6	4.60
									300	15.8	4.70
									285	16.5	4.92
									270	17.3	5.24
									260	17.4	5.60
									245	18.0	5.30
									235	18.7	5.74
									220	18.3	5.74
									210	18.7	6.06
									195	18.7	5.54
									185	19.0	5.58
									170	18.4	5.53
									160	18.7	5.26
									145	19.8	5.08
									130	19.7	4.02
									115	20.3	3.28
									100	20.2	2.40
									80	16.0	2.15
									63	0.0	0.00

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
06-08-83	1315	913	10.5	19.43	48,700	6,800	300	7.16	395	0.0	0.00
									380	23.0	4.16
									365	21.9	5.93
									350	21.7	6.70
									335	22.3	7.20
									320	21.8	7.28
									305	21.2	7.88
									290	21.5	7.64
									275	23.7	7.40
									260	28.9	7.59
									245	29.1	7.72
									230	22.2	7.51
									215	22.0	8.82
									200	22.4	8.80
									185	23.3	8.80
									170	25.2	8.02
									155	27.1	7.54
									140	28.6	7.19
									125	23.1	5.97
									110	14.6	5.06
									100	12.5	-1.22
									95	0.0	0.00
06-16-83	1645	914	----	21.41	57,600	7,653	300	7.52	395	0.0	0.00
									390	21.1	4.10
									375	24.4	5.02
									360	24.8	6.35
									345	24.9	7.19
									330	23.9	7.88
									315	24.5	8.92
									300	23.6	8.89
									285	24.3	9.47
									270	25.8	8.90
									255	26.7	9.10
									240	26.6	9.81
									225	29.0	7.75
									210	28.8	8.01
									195	29.1	7.60
									180	34.2	7.02
									160	32.8	6.90
									150	31.3	8.16
									135	27.9	7.25
									120	21.8	6.17
									105	14.1	2.48
									95	0.0	0.00
06-17-83	1155	915	12.5	21.03	59,700	7,590	300	7.88	395	0.0	0.00
									385	25.4	4.14
									370	25.1	5.33
									355	24.7	6.80
									340	25.6	6.72
									330	24.8	7.60
									320	24.4	7.91
									310	23.6	8.44
									300	24.2	8.72
									290	25.7	7.84
									280	26.8	8.44
									270	28.8	8.52
									260	30.1	8.53

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
06-17-83	1155	915	(Continued)						250	29.7	9.00
									240	27.8	9.30
									230	27.8	9.16
									220	26.4	9.46
									210	26.5	9.50
									200	27.0	9.26
									190	27.4	9.10
									180	28.0	8.46
									170	28.6	8.72
									160	30.0	9.18
									150	29.9	8.70
									140	29.1	7.46
									130	25.7	6.96
									115	17.7	6.76
									100	15.3	1.77
									95	0.0	0.00
06-18-83	1045	916	11.5	20.90	62,300	7,890	300	7.89	395	0.0	0.00
									390	25.1	4.03
									375	23.7	4.87
									360	25.2	7.18
									350	25.4	7.20
									340	24.2	7.74
									330	24.7	7.44
									320	24.8	8.00
									310	24.4	8.25
									300	25.2	8.16
									290	27.6	8.16
									280	27.7	8.40
									270	30.2	8.00
									260	29.6	8.82
									250	30.7	8.44
									240	29.7	8.78
									230	32.6	8.44
									220	31.9	8.95
									210	31.6	8.95
									200	28.4	9.68
									190	27.8	9.58
									180	27.8	9.46
									170	28.6	9.39
									160	30.0	8.82
									150	23.0	8.24
									140	29.6	7.91
									130	26.6	6.55
									115	17.8	6.62
									100	12.0	0.90
									95	0.0	0.00
06-24-83	1115	917	12.0	22.05	70,000	8,930	300	7.84	395	0.0	0.00
									390	30.5	2.74
									375	31.5	4.67
									360	31.2	6.82
									350	30.0	6.81
									340	30.7	7.38
									330	30.6	8.24
									320	29.8	8.43
									310	29.0	9.07
									300	29.2	9.16
									290	29.4	8.98

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
06-24-83	1115	917	(Continued)						280	29.6	9.02
									270	30.9	8.42
									260	31.6	7.62
									250	32.9	9.33
									240	33.0	8.82
									230	33.4	9.28
									220	33.6	8.72
									210	33.2	9.56
									200	30.9	9.46
									190	32.0	9.58
									180	32.4	9.00
									170	34.1	8.62
									160	33.8	8.62
									150	33.7	7.62
									140	31.5	7.40
									130	28.3	6.74
									115	20.2	6.46
									100	14.9	1.04
									95	0.0	0.00
06-25-83	1045	918	----	21.94	71,500	8,990	300	7.95	395	0.0	0.00
									390	31.7	3.48
									375	31.2	5.63
									360	30.0	6.98
									350	30.3	7.39
									340	30.2	7.56
									330	30.2	7.64
									320	30.4	8.24
									310	30.8	9.00
									300	31.6	9.56
									290	29.0	9.46
									280	28.6	9.79
									270	31.8	9.28
									260	32.0	9.46
									250	30.9	9.46
									240	30.1	9.30
									230	37.6	9.25
									220	33.3	8.98
									210	34.5	8.69
									200	32.8	8.64
									190	32.8	8.72
									180	34.3	8.43
									170	35.0	8.72
									160	34.7	8.16
									150	35.1	7.84
									140	32.1	1.48
									130	28.0	6.55
									115	20.0	6.32
									100	15.0	1.73
									95	0.0	0.00
06-30-83	1515	919	----	24.65	83,700	9,690	313	8.64	400	0.0	0.00
									390	27.4	2.03
									380	33.0	2.50
									370	29.9	6.42
									360	31.8	9.40
									350	31.9	8.71
									335	31.8	8.95
									320	32.8	8.52

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
06-30-83	1515	919	(Continued)						305	34.5	9.26
									290	33.7	9.58
									275	32.6	10.02
									260	34.0	10.17
									245	34.0	10.24
									230	34.2	10.38
									215	34.5	9.66
									200	34.4	10.26
									185	35.0	9.03
									170	36.4	9.58
									155	37.6	9.16
									140	33.1	8.10
									125	28.9	6.87
									110	20.0	7.69
									100	17.6	4.08
									87	0.0	0.00
07-02-83	1050	920	13.8	24.54	83,800	9,700	308	8.64	398	0.0	0.00
									390	25.0	3.53
									380	33.3	4.73
									370	32.2	6.68
									360	32.0	7.78
									345	32.4	7.62
									330	31.7	8.82
									315	31.9	9.08
									300	33.3	9.48
									285	33.4	9.46
									270	32.7	9.89
									255	34.0	9.50
									240	34.3	10.24
									225	35.3	10.24
									210	35.1	9.50
									195	35.2	9.69
									180	36.5	9.26
									165	36.8	9.42
									150	37.6	8.46
									135	33.6	8.04
									120	27.3	6.20
									110	19.7	7.72
									100	17.3	3.77
									90	0.0	0.00
07-07-83	1110	921	13.5	22.87	71,300	8,920	305	7.99	395	0.0	0.00
									380	31.8	4.02
									370	30.5	6.60
									360	30.5	7.36
									350	30.6	7.70
									340	30.2	7.78
									330	29.9	8.16
									320	30.4	8.07
									310	30.5	8.54
									300	30.7	8.16
									290	30.8	8.62
									280	31.1	8.98
									270	30.5	8.82
									260	32.6	9.39
									250	31.6	9.46
									240	32.0	9.18
									230	32.3	9.19

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-07-83	1110	921	(Continued)						220	31.9	8.72
									210	32.8	9.18
									200	32.6	8.80
									190	34.5	7.94
									180	35.3	8.92
									170	34.7	8.34
									160	35.2	7.82
									150	33.2	8.09
									140	31.3	7.82
									130	28.4	6.77
									120	24.4	6.50
									110	17.6	6.50
									100	16.1	4.00
									95	0.0	0.00
07-09-83	1100	922	11.5	19.40	52,600	8,140	300	6.46	395	0.0	0.00
									390	23.4	3.07
									380	29.4	3.60
									370	29.3	4.96
									360	27.8	6.06
									345	27.9	6.56
									330	27.4	6.56
									315	27.4	6.61
									300	28.1	6.86
									285	27.8	7.16
									270	28.4	7.05
									255	28.7	7.39
									240	29.3	7.30
									225	29.3	7.44
									210	29.2	6.76
									195	30.8	6.84
									180	32.0	7.37
									165	32.1	6.90
									150	31.8	6.64
									135	26.8	6.28
									125	22.2	5.60
									115	18.0	4.88
									105	14.0	2.63
									95	0.0	0.00
07-11-83	1715	923	----	19.40	52,100	7,850	300	6.64	395	0.0	0.00
									385	28.4	2.90
									370	28.9	5.80
									355	27.4	6.75
									345	27.2	6.75
									335	26.8	6.82
									320	25.8	7.43
									310	24.8	7.12
									295	27.0	7.20
									285	25.9	7.43
									270	28.4	7.22
									260	28.8	7.60
									245	28.9	7.28
									235	28.8	7.04
									220	29.2	6.70
									210	29.2	7.27
									195	30.1	6.98
									185	31.3	6.62
									170	31.9	6.90

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-11-83	1715	923	(Continued)						160	33.8	6.58
									145	28.3	6.58
									135	26.1	6.54
									120	18.2	5.17
									110	12.7	4.40
									95	0.0	0.00
07-13-83	1000	924	----	20.03	57,000	8,380	300	6.80	395	0.0	0.00
									385	29.5	3.20
									370	30.5	5.00
									360	29.2	6.12
									345	28.3	6.96
									335	27.5	6.86
									320	28.5	7.88
									310	30.0	7.34
									295	30.0	7.28
									285	29.5	7.43
									270	30.5	7.78
									260	30.5	7.70
									245	30.0	7.60
									235	29.6	7.56
									220	31.1	7.54
									210	30.9	7.19
									195	32.5	7.49
									185	32.4	7.20
									170	33.7	7.44
									160	33.8	6.98
									145	30.9	6.04
									135	26.8	5.57
									120	20.4	5.38
									110	14.6	5.01
									95	0.0	0.00
07-14-83	1115	925	13.0	19.98	56,200	8,200	300	6.86	395	0.0	0.00
									380	28.8	3.96
									370	28.2	5.47
									355	28.1	6.75
									345	29.0	6.68
									330	28.4	6.56
									320	28.5	7.11
									305	29.0	7.18
									295	29.0	7.46
									280	29.2	7.30
									270	29.1	7.42
									255	29.3	7.69
									245	30.0	7.62
									230	29.8	7.70
									220	30.2	7.69
									205	30.8	7.36
									195	31.9	7.10
									180	32.4	7.90
									170	32.8	7.20
									155	32.8	7.16
									145	30.4	6.66
									130	25.7	5.91
									120	19.2	5.94
									105	13.6	3.10
									95	0.0	0.00

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-17-83	0930	926	13.0	20.12	54,800	8,230	300	6.65	395	0.0	0.00
									380	28.5	3.33
									370	29.3	5.32
									355	29.0	6.60
									345	29.0	6.89
									330	28.5	6.75
									320	28.3	6.76
									305	28.2	7.22
									295	29.0	6.84
									280	28.8	7.60
									270	29.0	7.69
									255	28.7	7.78
									245	30.0	7.43
									230	30.4	7.70
									220	31.0	7.42
									205	30.5	7.12
									195	31.6	7.09
									180	32.8	7.07
									170	33.4	7.04
									155	31.9	6.38
									145	30.3	6.30
									130	25.4	5.64
									120	21.4	5.17
									105	13.8	3.25
									95	0.0	0.00
07-19-83	1000	927	13.0	18.92	49,700	7,900	300	6.26	395	0.0	0.00
									380	28.0	3.33
									370	28.5	4.68
									355	27.5	6.14
									345	27.0	6.44
									330	27.3	6.54
									320	27.0	6.26
									305	27.8	6.62
									295	28.3	7.05
									280	28.5	6.72
									270	28.2	7.69
									255	28.7	7.14
									245	28.4	7.27
									230	28.9	7.27
									220	29.0	7.07
									205	29.1	6.46
									195	30.1	6.72
									180	31.0	6.90
									170	31.7	6.68
									155	31.4	6.24
									145	29.7	5.68
									130	24.1	5.26
									120	20.4	5.22
									105	11.4	2.46
									95	0.0	0.00
07-21-83	1110	928	11.0	16.85	39,300	7,440	302	5.28	396	0.0	0.00
									385	25.7	2.88
									370	26.3	4.04
									355	25.8	5.26
									345	25.4	5.15
									330	25.5	5.20
									320	25.3	5.26

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-21-83	1110	928	(Continued)						305	26.3	5.64
									295	26.1	5.68
									280	26.5	5.64
									270	26.3	6.14
									255	26.8	6.02
									245	27.1	5.70
									230	27.3	5.76
									220	27.2	5.80
									205	27.5	5.68
									195	29.5	5.68
									180	29.9	6.02
									170	30.2	5.82
									155	29.5	5.70
									145	27.5	4.90
									130	22.3	4.20
									120	17.1	3.88
									110	10.8	3.04
									94	0.0	0.00
07-23-83	0915	929	10.5	16.86	39,100	7,380	300	5.31	395	0.0	0.00
									385	25.9	2.94
									370	26.4	3.87
									360	25.7	5.46
									345	25.8	5.58
									335	25.0	5.63
									320	25.8	5.58
									310	26.0	5.30
									295	26.4	5.64
									285	25.3	5.84
									270	26.4	5.75
									260	25.9	5.88
									245	26.2	5.90
									235	26.9	6.00
									220	27.8	5.76
									210	27.9	5.94
									195	28.4	5.57
									185	29.4	5.41
									170	30.2	5.46
									160	30.4	5.84
									145	27.3	4.90
									135	23.7	4.56
									120	15.7	4.22
									110	11.5	3.17
									95	0.0	0.00
07-25-83	1215	930	10.5	16.55	36,600	7,240	299	5.06	393	0.0	0.00
									380	25.3	2.94
									365	26.2	4.97
									355	25.5	5.03
									340	25.4	5.15
									330	25.3	5.40
									315	25.4	5.58
									305	26.0	5.58
									290	26.2	5.62
									280	26.4	5.69
									265	26.4	5.55
									255	26.3	5.56
									240	25.8	5.52
									230	27.2	5.51

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-25-83	1215	930	(Continued)						215	27.1	5.64
									205	27.4	5.46
									190	28.4	5.51
									180	29.2	5.30
									165	29.6	4.76
									155	29.3	4.63
									140	25.8	4.28
									130	21.6	4.26
									115	14.1	2.90
									94	0.0	0.00
07-27-83	1430	931	10.5	17.46	42,600	7,410	300	5.74	393	0.0	0.00
									380	26.2	3.75
									370	27.2	4.67
									355	26.1	6.08
									345	25.3	5.84
									330	25.1	5.88
									320	26.0	6.40
									305	26.0	6.26
									295	26.5	6.06
									280	26.6	6.11
									270	25.9	6.68
									255	26.8	6.42
									245	27.0	6.35
									230	27.5	6.49
									220	27.5	6.56
									205	28.0	6.44
									195	29.2	6.49
									180	30.2	5.74
									170	29.8	4.99
									155	29.2	5.78
									145	28.1	5.16
									130	22.2	4.90
									120	17.3	4.18
									105	10.6	1.75
									93	0.0	0.00
07-29-83	1030	932	11.0	17.16	41,300	7,510	301	5.50	395	0.0	0.00
									380	26.8	2.72
									370	26.1	4.38
									355	26.4	5.47
									345	26.3	5.58
									330	25.9	5.34
									320	25.9	5.82
									305	26.6	6.48
									295	26.8	5.92
									280	26.8	6.16
									270	26.5	6.36
									255	26.9	6.26
									245	27.1	6.00
									230	27.5	6.24
									220	27.6	6.16
									205	28.0	6.00
									195	29.6	6.06
									180	30.1	5.68
									170	29.7	5.74
									155	30.0	5.47
									145	27.8	5.28
									130	22.6	4.68

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-29-83	1030	932	(Continued)						120	17.8	4.24
									105	11.2	1.63
									94	0.0	0.00
08-03-83	1415	933	11.0	15.91	34,600	6,960	300	4.97	395	0.0	0.00
									380	25.7	2.52
									370	25.4	3.14
									355	24.7	5.20
									345	24.2	5.27
									330	24.1	5.14
									320	24.2	5.46
									305	24.6	5.64
									295	24.6	5.30
									280	24.7	5.58
									270	24.9	5.30
									255	24.9	5.58
									245	24.9	5.40
									230	25.6	5.68
									220	25.7	5.69
									205	25.6	5.60
									195	26.8	5.30
									180	28.1	5.40
									170	27.9	5.70
									155	28.3	4.70
									145	25.8	4.76
									130	20.7	4.11
									120	16.0	3.42
									105	9.4	1.43
									95	0.0	0.00
08-07-83	1400	934	12.0	16.08	36,900	6,930	300	5.33	395	0.0	0.00
									380	25.2	2.96
									370	25.4	3.94
									355	24.8	5.22
									345	24.6	5.19
									330	24.2	5.46
									320	24.0	5.22
									305	24.3	5.74
									295	23.7	5.82
									280	23.0	6.00
									270	23.4	6.18
									255	25.0	5.92
									245	25.4	5.80
									230	25.6	6.00
									220	25.8	5.80
									205	25.4	5.96
									195	27.2	5.58
									180	28.1	5.57
									170	27.9	5.82
									155	27.9	5.47
									145	26.3	5.35
									130	20.8	5.16
									120	16.2	4.12
									105	9.8	1.70
									95	0.0	0.00
08-10-83	1030	935	----	16.04	36,000	6,960	300	5.17	395	0.0	0.00
									380	25.3	2.17
									370	25.5	3.14

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-10-83	1030	935	(Continued)						355	24.8	5.16
									345	24.1	5.29
									330	24.0	4.85
									320	24.0	5.57
									305	24.8	5.30
									295	25.0	5.63
									280	24.3	5.69
									270	24.7	5.75
									255	25.2	5.90
									245	24.6	6.12
									230	24.4	6.23
									220	24.6	6.12
									205	26.0	5.91
									195	27.6	5.52
									180	28.7	5.57
									170	28.6	5.71
									155	28.2	5.35
									145	26.2	4.77
									130	20.5	4.46
									120	15.8	4.45
									105	9.6	1.56
									95	0.0	0.00
08-12-83	1015	936	----	13.54	25,100	6,000	300	4.19	395	0.0	0.00
									380	22.3	1.05
									370	22.5	3.19
									355	21.6	4.32
									345	20.8	4.19
									330	21.1	4.27
									320	20.5	4.51
									305	21.5	4.50
									295	20.8	4.62
									280	20.4	4.59
									270	21.3	4.77
									255	21.6	4.62
									245	22.0	4.38
									230	22.3	4.84
									220	22.3	4.74
									205	22.0	4.32
									195	23.4	4.86
									180	24.8	4.70
									170	24.7	5.08
									155	25.0	4.34
									145	22.7	4.11
									130	17.2	3.82
									120	12.4	2.62
									105	6.9	0.56
									95	0.0	0.00
08-14-83	0930	937	----	13.38	24,700	5,890	295	4.20	390	0.0	0.00
									380	22.2	1.42
									365	21.6	3.15
									355	21.5	3.28
									340	20.7	4.37
									330	20.8	4.31
									315	21.1	4.24
									305	20.8	4.67
									290	19.6	4.92
									280	20.6	4.56

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-14-83	0930	937	(Continued)						265	21.6	4.98
									255	21.8	4.44
									240	22.0	4.83
									220	23.1	4.79
									215	22.3	5.09
									205	22.7	4.96
									190	23.8	4.76
									180	24.6	4.44
									165	25.0	4.46
									155	25.2	4.65
									140	20.0	3.68
									130	17.2	3.87
									105	11.0	1.48
									105	4.8	0.68
									95	0.0	0.00
08-16-83	0915	938	----	13.36	23,900	5,950	298	4.01	395	0.0	0.00
									380	22.3	0.99
									370	22.3	2.57
									355	21.4	3.79
									345	21.2	3.93
									330	21.8	4.16
									320	20.3	4.41
									305	21.4	4.20
									295	21.6	4.37
									280	20.0	4.46
									270	20.1	4.61
									255	22.1	4.31
									245	22.3	4.13
									230	21.7	4.42
									220	22.3	4.78
									205	22.0	4.91
									195	22.6	4.77
									180	24.4	4.96
									170	24.3	4.56
									155	25.3	4.14
									145	22.7	3.76
									130	17.1	3.61
									120	12.6	2.56
									105	5.3	0.50
									97	0.0	0.00
08-18-83	0920	939	----	13.49	26,400	6,240	300	4.23	395	0.0	0.00
									380	22.6	1.02
									370	22.9	2.89
									355	22.5	4.09
									345	21.6	4.28
									330	21.6	4.27
									320	21.0	4.32
									305	22.4	4.50
									295	22.8	4.35
									280	22.6	4.66
									270	22.1	4.86
									255	22.2	4.78
									245	23.3	4.83
									230	23.3	4.77
									220	23.4	4.89
									205	23.0	4.71
									195	23.5	4.92

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-18-83	0920	939	(Continued)						180	25.8	4.90
									170	25.6	5.22
									155	26.5	4.48
									145	24.0	3.60
									130	18.0	3.72
									120	12.8	2.71
									105	6.0	1.24
									95	0.0	0.00
08-20-83	0900	940	----	13.50	27,500	6,460	301	4.26	395	0.0	0.00
									390	22.8	1.84
									375	23.4	3.06
									365	23.4	4.18
									350	22.4	4.32
									340	22.4	4.52
									325	22.0	4.61
									315	22.0	4.66
									300	22.1	4.48
									290	22.8	4.48
									275	22.8	4.36
									265	22.7	4.68
									250	23.3	4.74
									240	23.3	4.66
									225	22.7	5.08
									215	23.8	4.84
									200	24.2	4.53
									190	25.0	4.67
									175	26.1	4.78
									165	26.0	4.92
									150	26.2	3.89
									140	22.1	3.99
									125	14.7	3.71
									115	10.9	1.48
									100	4.8	0.22
									94	0.0	0.00
08-23-83	0930	941	12.5	13.49	27,000	6,350	299	4.25	393	0.0	0.00
									385	23.3	2.30
									370	23.4	3.36
									360	22.8	4.14
									345	22.3	4.42
									335	21.9	4.32
									320	21.9	4.14
									310	22.4	4.46
									295	22.9	4.32
									285	22.8	4.62
									275	22.7	4.54
									265	22.8	4.66
									255	23.0	4.84
									245	23.4	4.70
									235	22.9	4.88
									225	23.2	4.73
									215	23.4	4.92
									205	24.1	4.60
									195	24.5	4.46
									185	25.4	4.84
									170	25.8	4.59
									165	25.9	4.79
									155	26.3	4.41

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-23-83	0930	942	(Continued)						145	23.5	3.86
									130	18.2	3.50
									115	10.0	1.88
									94	0.0	0.00
08-25-83	0900	942	13.0	13.48	27,200	6,260	297	4.35	395	0.0	0.00
									380	22.8	2.52
									365	23.0	4.04
									355	22.4	4.14
									340	22.3	4.43
									330	21.9	4.40
									315	21.7	4.92
									310	22.3	4.66
									300	22.5	4.32
									290	22.7	4.47
									280	23.0	4.67
									270	22.8	4.82
									260	22.4	4.88
									250	23.0	4.98
									240	23.1	4.98
									230	23.3	4.70
									220	23.8	4.54
									210	23.3	4.53
									200	24.2	5.08
									190	25.3	4.73
									180	25.8	4.96
									170	26.1	4.66
									160	26.1	4.61
									150	25.9	3.99
									140	21.6	3.89
									125	14.7	3.56
									115	11.0	1.33
									110	5.5	0.53
									98	0.0	0.00
08-27-83	0840	943	----	13.43	27,100	6,260	300	4.33	393	0.0	0.00
									380	23.4	2.62
									370	23.2	3.41
									355	22.5	4.12
									345	22.3	4.37
									330	21.8	4.47
									320	21.1	4.28
									305	22.4	4.53
									295	22.7	4.72
									285	22.4	4.50
									275	22.6	4.82
									265	22.7	4.92
									255	22.2	4.85
									245	21.9	4.98
									235	22.0	5.08
									225	23.2	4.88
									215	23.7	4.84
									205	23.6	4.68
									195	24.6	4.88
									185	25.5	4.84
									175	25.8	4.90
									165	25.9	4.72
									155	26.2	4.48
									145	23.9	3.60

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-27-83	0840	943	(Continued)						130	18.4	3.72
									115	10.7	1.78
									105	5.7	0.64
									93	0.0	0.00
08-29-83	1135	944	13.5	13.46	26,800	6,150	298	4.35	393	0.0	0.00
									375	23.4	2.38
									360	22.8	4.18
									350	21.8	4.36
									335	22.0	4.32
									325	22.1	4.37
									310	22.1	4.61
									300	22.3	4.53
									285	21.4	4.92
									275	21.6	4.68
									260	22.9	4.78
									250	23.0	4.72
									235	22.8	5.16
									225	22.5	5.06
									210	23.8	5.04
									200	24.0	4.94
									185	25.5	4.59
									175	25.6	4.50
									160	26.0	4.64
									150	25.2	3.86
									135	20.2	4.01
									125	14.4	3.52
									110	7.8	1.08
									95	0.0	0.00
08-31-83	1545	945	12.5	13.44	26,900	6,190	298	4.34	393	0.0	0.00
									380	23.3	3.17
									365	21.6	4.12
									355	21.0	4.04
									340	22.3	4.40
									330	21.5	4.56
									315	22.0	4.66
									305	22.3	4.61
									290	22.8	4.53
									280	22.6	4.47
									265	22.7	4.92
									255	23.0	4.74
									240	23.0	4.46
									230	22.6	5.20
									220	23.6	4.86
									210	23.8	4.61
									200	24.1	4.86
									190	24.9	4.48
									180	25.4	4.66
									170	25.6	4.61
									160	25.7	4.46
									150	25.0	3.72
									135	20.0	3.68
									125	14.6	3.50
									110	7.1	1.10
									95	0.0	0.00
09-02-83	1100	946	13.0	13.42	26,700	6,230	298	4.29	393	0.0	0.00
									380	23.2	2.07

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-02-83	1100	946	(Continued)						365	22.8	4.31
									355	22.2	4.04
									340	22.1	4.46
									330	21.8	4.41
									315	22.2	4.61
									305	22.3	4.42
									290	21.8	4.28
									280	22.0	4.61
									265	22.7	4.86
									255	22.9	4.78
									240	23.3	4.86
									230	23.2	4.80
									220	23.4	4.73
									210	23.7	4.92
									200	24.0	4.92
									190	25.2	4.08
									180	25.9	4.78
									170	25.2	4.84
									160	25.9	4.53
									150	25.4	3.82
									135	20.2	3.86
									125	14.6	3.50
									110	7.6	1.17
									95	0.0	0.00
09-04-83	1125	947	13.0	13.24	26,500	6,200	298	4.28	393	0.0	0.00
									380	22.6	2.16
									365	22.0	3.74
									355	22.3	4.26
									340	21.8	4.46
									330	21.8	4.61
									315	21.6	4.52
									305	22.5	4.56
									290	22.7	4.50
									280	22.6	4.47
									265	22.7	4.72
									255	22.4	4.86
									240	22.9	4.56
									230	23.4	4.96
									220	23.0	4.96
									210	23.8	4.73
									200	23.9	4.70
									190	24.8	4.52
									180	25.8	4.61
									170	25.2	4.60
									160	25.8	4.32
									150	24.9	4.10
									135	20.1	3.82
									125	14.3	3.36
									110	8.1	1.03
									95	0.0	0.00
09-06-83	1015	948	12.5	13.45	26,700	6,230	298	4.28	393	0.0	0.00
									380	23.4	2.27
									365	22.3	3.94
									355	22.1	4.32
									340	22.0	4.10
									330	21.7	4.46
									315	22.2	4.61

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-06-83	1015	948	(Continued)						305	22.4	4.36
									295	22.9	4.50
									280	22.4	4.75
									265	22.8	4.73
									255	23.0	4.78
									240	23.4	4.67
									230	23.1	4.86
									220	23.4	4.72
									210	23.3	4.82
									200	24.2	4.42
									190	25.3	4.90
									180	26.0	4.34
									170	25.4	4.70
									160	25.6	4.66
									150	25.8	3.87
									135	18.8	4.07
									125	14.4	3.44
									110	7.3	0.94
									95	0.0	0.00
09-08-83	1240	949	13.0	13.50	26,300	6,150	297	4.28	390	0.0	0.00
									375	22.3	3.11
									365	22.7	3.84
									350	22.3	4.08
									340	22.3	3.98
									325	22.3	4.36
									315	22.1	4.27
									300	22.7	4.76
									290	21.9	4.56
									275	22.6	4.56
									265	22.7	4.67
									250	22.6	4.71
									240	23.4	4.72
									225	23.4	4.84
									215	24.0	4.50
									200	24.1	4.66
									190	25.1	4.14
									175	25.5	4.66
									165	25.7	4.67
									150	25.1	3.84
									135	19.6	3.75
									120	12.4	3.04
									93	0.0	0.00
09-10-83	1050	950	12.0	13.12	25,400	6,140	299	4.14	393	0.0	0.00
									380	22.4	2.26
									370	22.4	3.22
									355	23.0	3.94
									345	21.6	4.40
									330	21.3	4.36
									320	21.3	4.22
									305	21.8	4.42
									295	22.5	4.56
									280	21.4	4.46
									270	21.8	4.47
									255	22.4	4.42
									245	22.5	4.52
									230	23.4	4.50
									215	22.8	4.66

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-10-83	1050	950	(Continued)						205	23.3	4.50
									190	25.1	4.61
									180	25.8	4.46
									165	25.7	4.36
									155	25.6	3.93
									130	17.9	3.80
									110	6.9	1.11
									94	0.0	0.00
09-12-83	0940	951	12.0	13.16	26,000	6,190	299	4.20	393	0.0	0.00
									375	22.3	2.86
									360	22.2	3.94
									350	22.6	4.44
									335	21.5	4.18
									325	21.3	4.36
									310	22.1	4.56
									300	21.7	4.65
									285	23.0	4.56
									275	22.4	4.36
									260	22.5	4.70
									250	22.4	4.65
									235	23.0	4.61
									225	23.4	4.46
									210	23.7	4.50
									200	23.8	4.72
									185	26.1	4.42
									175	26.5	4.42
									160	26.2	4.50
									150	25.7	3.54
									135	19.9	3.68
									120	13.4	2.42
									94	0.0	0.00
09-14-83	1500	952	13.0	12.85	24,800	5,960	299	4.17	393	0.0	0.00
									370	22.5	3.33
									360	21.7	3.99
									345	21.3	4.22
									335	20.9	4.27
									320	20.5	4.26
									310	21.4	4.50
									295	21.5	4.56
									285	21.2	4.52
									270	21.8	4.52
									260	22.2	4.56
									245	22.4	4.56
									235	22.3	4.24
									220	23.1	4.52
									210	22.2	4.50
									195	24.3	4.53
									185	25.2	4.32
									170	25.2	4.50
									160	25.4	4.27
									145	22.8	3.51
									135	19.1	3.64
									120	13.7	2.40
									94	0.0	0.00
09-18-83	1030	953	12.0	13.32	25,900	6,180	303	4.19	395	0.0	0.00
									380	22.4	1.82

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-18-83	1030	953	(Continued)						365	22.4	3.84
									350	21.9	4.46
									335	21.5	4.27
									320	21.4	4.40
									305	22.3	4.60
									290	22.3	4.56
									275	22.6	4.67
									260	21.8	4.82
									245	20.4	4.56
									230	22.9	4.72
									215	22.9	4.61
									200	24.0	4.53
									190	24.8	4.56
									180	25.4	4.62
									170	25.3	4.62
									160	25.5	4.50
									150	25.0	3.66
									135	20.2	3.72
									120	13.0	2.38
									92	0.0	0.00
09-20-83	1220	954	12.0	13.26	26,000	6,210	303	4.19	397	0.0	0.00
									375	22.7	3.12
									360	22.0	4.14
									345	22.0	4.24
									330	21.6	4.32
									315	22.1	4.22
									305	22.4	4.36
									295	22.5	4.36
									285	22.6	4.42
									275	22.5	4.37
									265	22.5	4.41
									255	22.8	4.28
									245	22.9	4.52
									235	22.9	4.76
									225	23.0	4.62
									215	23.4	4.92
									205	23.8	4.58
									195	24.8	4.56
									185	25.6	4.40
									175	25.6	4.68
									160	25.7	4.46
									145	23.4	3.77
									130	18.0	3.74
									115	10.4	1.38
									94	0.0	0.00
09-22-83	1400	955	12.5	13.32	26,300	6,220	303	4.22	93	0.0	0.00
									110	8.4	0.81
									125	16.4	4.12
									135	20.5	3.77
									145	23.6	3.85
									155	26.3	4.64
									165	25.9	4.78
									175	25.8	4.86
									185	25.6	4.26
									195	24.8	4.25

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-22-83	1400	955	(Continued)						205	23.8	4.64
									220	23.4	4.42
									235	22.8	4.92
									250	22.8	4.56
									265	22.6	4.72
									280	22.6	4.32
									295	23.0	4.37
									310	22.4	4.20
									325	22.0	4.40
									340	21.7	4.22
									355	22.2	4.04
									370	23.1	3.06
									396	0.0	0.00
09-24-83	1125	956	12.5	13.71	27,900	6,360	300	4.39	394	0.0	0.00
									380	23.2	2.36
									365	23.1	4.18
									350	22.6	4.40
									335	22.2	4.67
									320	21.8	4.50
									305	23.0	4.83
									290	23.3	4.59
									275	23.2	4.78
									265	22.9	4.78
									255	22.4	4.84
									245	22.4	4.84
									235	22.9	4.70
									225	23.8	4.72
									215	24.3	5.04
									205	24.0	4.89
									195	25.2	4.81
									185	25.7	4.78
									175	26.3	4.72
									160	26.4	4.79
									145	24.0	3.76
									130	18.4	3.61
									115	11.1	1.98
									94	0.0	0.00
09-27-83	1635	957	13.0	13.31	27,100	6,280	300	4.31	398	0.0	0.00
									380	23.4	2.45
									365	23.0	3.94
									350	22.3	4.36
									335	21.5	4.57
									320	21.8	4.56
									305	22.4	4.58
									290	22.0	4.52
									275	22.7	4.66
									260	22.4	4.74
									250	22.9	4.78
									240	22.8	4.56
									230	22.6	4.92
									220	23.3	4.78
									210	23.2	4.88
									200	23.5	4.92
									190	24.5	4.68
									180	25.8	4.48
									170	25.9	4.61
									160	25.7	4.66

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-27-83	1635	957	(Continued)						150	24.6	4.26
									135	20.7	3.99
									120	13.7	2.44
									105	4.7	0.42
									98	0.0	0.00
09-29-83	1510	958	12.5	13.41	27,000	6,240	300	4.33	398	0.0	0.00
									380	23.0	2.12
									370	23.4	3.11
									360	22.5	4.22
									350	22.3	4.40
									340	21.9	4.21
									330	21.8	4.41
									320	21.5	4.60
									310	21.3	4.70
									300	21.7	4.72
									290	21.7	4.66
									280	21.3	4.86
									270	21.3	5.02
									255	23.0	4.62
									240	23.0	4.94
									225	23.2	4.94
									210	22.5	4.78
									195	24.8	4.66
									180	25.9	4.73
									165	26.4	4.56
									150	25.4	4.02
									135	20.4	4.14
									120	15.7	2.26
									105	5.6	0.54
									98	0.0	0.00
10-01-83	1045	959	13.0	14.65	30,400	6,600	306	4.61	398	0.0	0.00
									380	23.9	2.66
									365	23.4	4.27
									350	22.7	4.88
									335	22.7	4.70
									320	22.9	4.86
									305	22.0	5.01
									290	23.8	4.84
									280	23.7	5.16
									270	23.7	4.94
									260	23.9	4.94
									250	24.2	5.32
									240	24.0	5.30
									230	24.3	4.83
									220	24.1	5.36
									210	23.4	5.14
									200	24.6	5.34
									190	25.2	5.01
									180	26.6	4.92
									170	26.8	5.14
									160	26.5	4.92
									150	26.3	4.22
									135	22.7	3.96
									120	14.4	3.17
									105	8.0	0.71
									92	0.0	0.00

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-03-83	1040	960	12.0	14.21	30,300	6,520	305	4.64	398	0.0	0.00
									380	24.1	2.56
									365	23.6	3.88
									350	23.0	4.68
									335	23.6	4.62
									320	21.4	5.14
									305	23.2	4.89
									290	23.0	5.14
									280	23.4	4.74
									270	23.8	5.05
									260	23.8	5.21
									250	23.1	5.06
									240	22.3	5.44
									230	23.0	5.26
									220	23.7	5.32
									210	24.8	5.15
									200	24.8	5.30
									190	25.2	5.16
									180	26.2	5.30
									170	26.4	5.14
									160	26.4	4.92
									150	25.6	4.38
									135	20.7	4.18
									120	14.7	3.06
									105	6.9	0.80
									93	0.0	0.00
10-06-83	1540	961	12.0	13.62	28,140	6,300	300	4.47	398	0.0	0.00
									380	23.7	2.48
									365	22.0	4.22
									350	22.3	4.51
									335	22.1	4.61
									320	21.9	4.56
									305	22.6	4.73
									290	23.0	4.73
									280	22.8	4.84
									270	22.9	4.73
									260	23.1	4.92
									250	23.3	5.21
									240	22.9	5.16
									230	22.2	5.15
									220	23.0	5.00
									210	22.9	4.95
									200	23.0	5.14
									190	23.6	4.76
									180	25.7	5.02
									170	25.6	5.08
									160	26.1	4.59
									150	25.1	4.10
									135	20.7	3.96
									120	14.1	2.78
									105	6.2	0.41
									98	0.0	0.00
10-08-83	1020	962	12.0	13.73	28,500	6,214	300	4.59	398	0.0	0.00
									380	23.7	2.36
									365	22.9	4.22
									350	22.6	4.46
									335	22.0	4.44

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-08-83	1020	962	(Continued)						320	21.3	4.92
									305	21.0	5.10
									290	20.9	5.33
									280	21.1	5.10
									270	21.3	4.92
									260	21.3	5.16
									250	21.7	5.27
									240	22.1	5.00
									230	22.4	5.16
									220	22.4	5.50
									210	22.5	5.14
									200	24.1	5.10
									190	24.4	5.04
									180	25.6	4.92
									170	26.0	5.08
									160	26.3	4.98
									150	24.9	4.36
									135	20.5	3.92
									120	14.0	2.98
									105	6.5	0.72
									98	0.0	0.00
10-10-83	0940	963	12.0	13.58	27,500	6,300	300	4.35	398	0.0	0.00
									380	23.2	2.19
									365	22.8	4.03
									350	22.5	4.18
									335	21.6	4.31
									320	21.5	4.23
									305	22.7	4.61
									290	22.9	4.58
									280	22.8	4.74
									270	23.0	4.96
									260	22.4	4.94
									250	21.5	5.27
									240	21.6	4.73
									230	22.3	5.04
									220	23.4	4.77
									210	23.2	4.88
									200	24.1	4.79
									190	24.5	4.67
									180	25.7	4.88
									170	25.6	5.02
									160	26.1	4.37
									150	25.0	4.26
									135	20.5	4.26
									120	13.6	2.78
									105	5.5	0.39
									98	0.0	0.00
10-14-83	1015	964	12.0	13.02	25,700	6,100	298	4.21	398	0.0	0.00
									380	23.0	2.06
									365	22.2	3.82
									350	22.1	4.32
									335	21.2	4.41
									320	21.0	4.41
									305	21.4	4.50
									290	22.4	4.62
									280	21.3	4.70
									270	21.5	4.66

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-14-83	1015	964	(Continued)						260	22.2	4.52
									250	21.1	4.86
									240	21.0	4.73
									230	21.8	4.68
									220	23.6	4.66
									210	23.6	4.75
									200	23.2	4.75
									190	23.4	4.53
									180	25.2	4.86
									170	25.2	4.56
									160	25.7	4.22
									150	24.2	3.84
									135	20.0	3.72
									120	13.4	2.26
									100	0.0	0.00
10-17-83	0915	965	12.0	12.52	24,600	6,030	300	4.07	398	0.0	0.00
									380	22.6	2.09
									365	22.0	3.59
									350	21.4	3.99
									335	20.7	4.22
									320	20.5	4.28
									305	21.4	4.26
									290	22.0	4.20
									280	21.8	4.46
									270	21.1	4.46
									260	21.2	4.50
									250	22.2	4.42
									240	22.3	4.61
									230	22.4	4.86
									220	22.3	4.60
									210	22.9	4.56
									200	22.9	4.40
									190	24.2	4.47
									180	25.1	4.33
									170	24.3	4.75
									160	25.2	4.16
									150	24.7	3.96
									135	18.7	3.64
									120	12.3	2.32
									98	0.0	0.00
10-19-83	1020	966	12.0	12.54	24,000	5,930	294	4.04	393	0.0	0.00
									380	22.0	2.36
									365	21.6	3.90
									350	20.9	3.71
									335	20.8	4.27
									320	21.2	3.97
									310	20.6	4.26
									300	21.8	4.18
									290	20.6	4.21
									280	21.4	4.32
									270	21.7	4.56
									260	21.3	4.56
									250	21.2	4.56
									240	20.7	4.41
									230	21.9	4.80
									220	22.4	4.36
									210	22.8	4.40

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-19-83	1020	966	(Continued)						200	23.1	4.16
									190	23.9	4.56
									180	24.9	4.18
									170	24.6	4.66
									160	25.2	4.32
									150	23.8	3.72
									135	19.1	3.60
									120	13.3	2.16
									99	0.0	0.00
10-21-83	1030	967	12.0	12.58	24,300	5,980	294	4.06	393	0.0	0.00
									380	22.7	2.32
									365	21.9	3.61
									350	21.4	4.18
									335	20.8	4.32
									320	21.3	4.32
									310	20.6	4.32
									300	21.7	4.22
									290	21.4	4.32
									280	21.7	4.24
									270	21.8	4.32
									260	21.2	4.56
									250	21.2	4.46
									240	22.0	4.66
									230	22.4	4.42
									220	22.8	4.32
									210	23.0	4.32
									200	23.3	4.20
									190	23.9	4.50
									180	24.7	4.50
									170	24.8	4.61
									160	25.2	4.32
									150	24.0	3.72
									135	19.8	3.63
									120	12.1	2.04
									99	0.0	0.00
10-23-83	1530	968	13.0	12.60	24,200	5,960	294	4.05	393	0.0	0.00
									380	22.3	1.94
									365	21.8	3.61
									350	21.2	4.08
									335	21.1	3.94
									320	20.9	4.31
									310	21.4	4.01
									300	21.8	3.87
									290	21.9	4.13
									280	21.8	4.24
									270	21.9	4.25
									260	22.1	4.18
									250	22.3	4.46
									240	22.4	4.53
									230	22.0	4.86
									220	21.4	4.42
									210	22.3	4.59
									200	23.4	4.52
									190	23.0	4.56
									180	24.7	4.61
									170	25.1	4.56
									160	24.8	4.50

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-23-83	1530	968	(Continued)						150	24.0	3.96
									135	19.4	3.94
									120	11.9	1.98
									99	0.0	0.00
10-27-83	1540	969	----	13.60	27,300	6,240	305	4.37	398	0.0	0.00
									375	22.8	2.76
									360	22.3	4.46
									350	22.0	4.28
									335	21.5	4.36
									325	22.0	4.46
									310	22.1	4.28
									300	22.5	4.66
									285	23.1	4.77
									275	22.0	4.77
									260	21.9	5.27
									250	23.1	4.89
									235	23.5	4.68
									225	23.5	4.65
									210	24.0	5.04
									200	22.8	5.14
									185	24.5	4.68
									175	25.3	4.66
									165	26.0	4.66
									155	25.6	4.37
									145	23.4	3.60
									130	18.1	4.22
									110	9.2	1.13
									93	0.0	0.00
10-29-83	1200	970	12.5	13.64	27,200	6,200	305	4.39	398	0.0	0.00
									380	23.2	2.24
									370	22.9	3.40
									355	22.3	4.13
									345	21.6	4.40
									330	20.9	4.72
									320	20.7	4.88
									305	22.5	4.68
									295	22.2	4.78
									280	22.2	4.68
									270	22.6	4.72
									255	22.6	4.92
									245	21.9	4.86
									230	21.7	5.16
									220	22.5	5.16
									205	23.0	4.86
									195	23.9	4.86
									180	25.2	4.76
									170	25.5	4.98
									155	25.5	4.61
									145	23.6	3.91
									130	18.0	3.77
									115	10.2	1.46
									93	0.0	0.00
10-31-83	1045	971	12.5	13.63	27,800	6,270	305	4.43	398	0.0	0.00
									380	22.7	2.33
									365	23.0	3.89
									350	22.3	4.66

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-31-83	1045	971	(Continued)						340	21.6	4.46
									325	21.7	4.61
									315	22.4	4.80
									300	22.5	4.67
									290	22.5	4.89
									275	22.5	4.74
									265	22.6	4.81
									250	22.8	4.76
									240	23.2	4.72
									225	23.0	4.47
									215	23.5	4.80
									200	22.9	4.50
									190	23.0	5.27
									175	25.5	5.04
									165	25.8	4.92
									150	24.4	4.18
									140	21.8	4.02
									125	16.1	3.40
									93	0.0	0.00
11-07-83	1100	972	12.5	12.60	23,900	5,810	296	4.11	387	0.0	0.00
									370	22.2	2.20
									355	21.7	4.09
									340	21.5	4.10
									325	21.1	4.18
									315	21.3	4.33
									300	21.8	4.28
									290	21.8	4.46
									275	21.5	4.38
									265	22.3	4.25
									255	22.3	4.56
									245	21.5	4.36
									235	22.0	4.35
									225	22.6	4.56
									215	22.6	4.42
									205	22.2	4.67
									195	23.5	4.61
									185	24.1	4.37
									175	24.3	4.50
									165	25.1	4.52
									155	24.8	4.46
									140	20.8	3.99
									125	14.0	3.20
									110	6.4	0.48
									91	0.0	0.00
11-09-83	1505	973	11.5	12.64	24,200	5,770	292	4.19	387	0.0	0.00
									370	22.3	3.44
									355	21.5	4.05
									340	21.4	4.18
									325	21.2	4.32
									315	21.7	4.18
									300	20.9	4.56
									290	20.9	4.56
									275	20.4	4.42
									265	21.4	4.50
									255	21.4	4.46
									245	22.3	4.59
									235	22.4	4.42

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-09-83	1505	973	(Continued)						225	22.4	4.36
									215	22.7	4.67
									205	23.0	4.27
									195	22.8	4.65
									185	23.5	4.68
									175	25.0	4.37
									165	25.3	4.41
									155	24.9	4.08
									140	20.3	4.06
									125	13.8	3.04
									110	6.4	0.80
									95	0.0	0.00
11-13-83	1200	974	12.5	12.54	24,100	5,840	291	4.13	390	0.0	0.00
									375	22.1	2.50
									360	21.6	3.82
									350	21.3	3.94
									335	20.5	4.15
									325	20.9	4.26
									310	21.2	4.36
									300	21.5	4.02
									285	21.8	4.41
									275	21.5	4.47
									260	20.5	4.92
									250	22.1	4.68
									240	22.2	4.66
									230	22.5	4.51
									220	22.5	4.56
									210	22.6	4.61
									200	23.0	4.66
									190	23.9	4.32
									180	24.5	4.65
									170	25.0	4.37
									160	25.3	4.32
									150	24.2	3.64
									135	18.2	3.63
									120	12.0	2.14
									99	0.0	0.00
11-16-83	1505	975	12.0	11.92	21,600	5,760	291	3.76	391	0.0	0.00
									380	21.5	2.25
									365	20.6	3.40
									350	20.4	3.90
									335	20.4	3.90
									320	21.0	4.08
									305	20.5	4.01
									290	21.5	4.03
									280	20.8	4.20
									270	20.2	4.18
									260	20.0	3.99
									250	21.5	3.93
									240	21.2	3.98
									230	21.6	4.26
									220	22.7	3.96
									210	21.3	4.02
									200	22.4	3.87
									190	22.8	3.82
									180	24.3	4.22
									170	25.2	4.26

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-16-83	1505	975	(Continued)						160	24.3	4.09
									150	24.4	3.36
									135	19.0	3.42
									120	10.2	1.62
									110	6.3	0.55
									100	0.0	0.00
11-18-83	1555	976	12.0	12.03	21,800	5,860	291	3.71	391	0.0	0.00
									380	21.9	1.92
									365	21.2	3.51
									350	20.8	3.72
									335	20.2	3.70
									320	20.9	3.82
									305	21.2	3.83
									290	20.3	4.02
									280	21.0	3.87
									270	21.6	4.26
									260	21.7	4.09
									250	21.5	4.18
									240	20.8	4.18
									230	21.2	4.36
									220	22.5	3.83
									210	22.2	3.98
									200	22.9	4.18
									190	23.7	3.96
									180	24.5	4.27
									170	24.2	4.22
									160	24.9	4.02
									150	23.7	3.61
									135	19.6	3.38
									120	13.2	1.46
									110	7.0	0.94
									100	0.0	0.00
11-20-83	0945	977	12.0	12.66	24,300	5,920	291	4.11	391	0.0	0.00
									380	23.8	3.39
									365	21.5	3.94
									350	21.5	4.12
									335	21.0	4.13
									320	20.5	4.27
									305	21.5	3.97
									290	21.7	4.22
									280	21.5	4.56
									270	21.0	4.46
									260	21.7	4.28
									250	22.3	4.60
									240	22.5	4.24
									230	22.4	4.40
									220	23.0	4.51
									210	23.0	4.53
									200	23.0	4.61
									190	23.4	4.48
									180	25.0	4.36
									170	25.4	4.46
									160	24.7	4.18
									150	24.2	3.62
									135	17.8	3.68
									120	10.4	1.89

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-20-83	0945	977	(Continued)						110	5.8	0.95
									100	0.0	0.00
11-22-83	1430	978	11.0	12.38	23,500	5,880	292	3.99	391	0.0	0.00
									380	22.2	2.20
									365	21.6	3.44
									350	21.2	4.10
									335	20.8	3.98
									320	21.2	4.22
									305	21.6	4.28
									290	21.4	4.13
									280	21.8	4.06
									270	21.4	4.36
									260	21.0	4.40
									250	20.8	4.61
									240	20.7	4.67
									230	20.7	4.59
									220	21.3	4.76
									210	21.8	4.80
									200	22.8	4.22
									190	23.4	4.47
									180	24.3	4.09
									170	24.7	4.42
									160	24.9	4.46
									150	24.3	3.58
									135	19.2	3.51
									120	13.8	1.70
									110	6.5	0.91
									99	0.0	0.00
12-01-83	1155	979	----	12.56	23,500	5,720	295	4.10	94	0.0	0.00
									115	9.5	1.01
									130	17.5	3.68
									145	23.4	3.34
									160	25.1	4.02
									175	24.9	4.70
									185	24.0	4.50
									200	23.4	4.82
									210	21.8	4.70
									225	22.7	4.58
									235	22.2	4.29
									250	21.9	4.18
									260	22.0	4.30
									275	21.1	4.44
									290	20.5	4.24
									305	20.4	4.56
									320	19.9	4.26
									335	20.7	4.13
									350	21.4	3.80
									365	21.5	3.65
									389	0.0	0.00
12-03-83	1140	980	13.0	12.28	23,100	5,750	295	4.00	94	0.0	0.00
									115	9.0	0.96
									135	18.6	3.39
									150	23.8	3.41
									160	25.2	4.27
									175	24.8	4.56
									185	24.2	4.46

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-03-83	1140	980	(Continued)						200	23.3	4.46
									210	21.7	4.42
									225	21.5	4.61
									235	22.3	4.66
									250	21.6	4.37
									260	20.7	4.28
									275	21.1	4.32
									285	21.3	4.37
									300	21.4	4.32
									310	21.3	4.01
									325	20.7	4.26
									335	20.1	3.97
									350	21.1	3.90
									370	22.2	2.93
									389	0.0	0.00
12-06-83	1305	981	----	12.63	23,700	5,900	295	4.02	389	0.0	0.00
									375	22.3	2.05
									365	21.5	3.59
									350	21.3	4.14
									340	21.3	3.92
									325	20.8	4.18
									315	21.8	3.98
									300	21.9	4.08
									290	20.8	4.42
									275	20.9	4.53
									265	22.2	4.42
									250	22.3	4.37
									240	22.0	4.47
									225	22.8	4.50
									215	23.0	4.61
									200	22.0	4.46
									190	22.8	4.58
									175	24.8	4.66
									165	25.1	4.46
									150	23.6	3.80
									140	21.5	3.20
									120	12.9	1.98
									94	0.0	0.00
12-10-83	1305	982	12.5	12.52	23,800	5,720	295	4.16	94	0.0	0.00
									115	9.0	1.18
									135	19.3	3.51
									150	24.2	4.00
									160	25.2	4.24
									175	25.0	4.60
									185	23.9	4.32
									200	22.0	4.96
									210	21.6	4.86
									225	22.4	4.56
									235	22.1	4.26
									250	21.9	4.42
									260	22.0	4.36
									275	21.3	4.32
									285	20.5	4.32
									300	21.6	4.41
									310	21.2	4.32
									325	21.1	4.08
									335	20.6	4.18

Table 20.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-10-83	1305	982	(Continued)						350	21.0	4.10
									365	21.7	3.58
									389	0.0	0.00
12-13-83	1225	983	12.5	12.72	23,900	5,680	295	4.21	94	0.0	0.00
									115	8.8	0.93
									130	13.5	3.52
									145	22.5	3.69
									155	24.9	4.27
									170	24.6	4.65
									180	24.4	4.66
									195	23.5	4.86
									205	21.9	4.61
									220	22.3	4.56
									230	22.3	4.64
									245	20.4	4.16
									255	20.5	5.08
									270	20.6	4.44
									280	20.4	4.67
									295	21.5	4.24
									305	20.5	4.42
									320	20.0	4.32
									330	22.8	3.92
									345	20.9	3.85
									355	21.3	4.12
									370	22.0	3.46
									389	0.0	0.00

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-14-83	100	1	14.0	1,752.80	54,800	7,390	325	7.42	402	0.0	0.00
									375	11.0	-0.74
									360	18.1	0.93
									345	24.9	2.72
									330	27.9	5.09
									315	28.0	6.95
									300	27.7	9.10
									285	28.1	9.46
									270	28.1	10.02
									255	29.3	10.07
									240	29.0	10.50
									225	29.0	10.40
									210	28.6	10.72
									195	29.0	10.14
									180	28.7	9.76
									165	28.9	8.42
									150	28.2	7.78
									135	28.2	4.82
									120	19.7	2.36
									105	13.0	1.32
									88	1.9	-0.51
									77	0.0	0.00
07-19-83	835	2	14.5	1,751.95	50,400	6,962	321	7.24	400	0.0	0.00
									370	11.6	0.58
									355	16.6	1.52
									345	23.8	2.87
									330	25.9	4.66
									320	26.3	5.90
									305	26.0	8.14
									295	26.3	8.54
									280	26.4	9.26
									270	26.8	9.79
									255	27.0	10.38
									245	27.7	10.18
									230	26.9	10.17
									220	27.5	10.38
									205	27.1	9.81
									195	27.3	9.67
									180	27.3	9.00
									170	27.2	8.52
									155	28.1	7.88
									145	27.5	6.90
									130	23.9	4.18
									120	18.7	2.80
									105	13.0	0.86
									79	0.0	0.00
07-22-83	1110	3	14.0	1,749.84	41,400	6,047	300	6.85	390	0.0	0.00
									370	7.4	0.95
									360	11.7	1.29
									345	18.0	2.58
									335	20.5	4.15
									320	22.0	6.06
									310	22.3	6.51
									295	23.3	7.28
									285	24.2	8.58
									270	25.0	8.82
									260	25.7	9.26
									245	26.4	9.58

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-22-83	1110	3	(Continued)						235	27.2	9.79
									220	26.3	9.39
									210	25.7	9.30
									195	24.6	8.16
									185	24.8	8.36
									170	24.9	7.36
									160	24.2	7.34
									145	23.6	5.46
									135	23.2	4.12
									120	16.3	1.79
									110	12.6	0.90
									90	0.0	0.00
07-26-83	930	4	12.0	1,751.16	48,900	6,928	312	7.06	395	0.0	0.00
									370	9.5	0.78
									360	13.0	0.97
									345	19.8	1.94
									335	22.8	3.20
									320	26.3	5.27
									310	27.0	5.80
									295	26.8	7.97
									285	28.7	8.46
									270	29.1	9.26
									260	28.8	9.81
									245	29.5	9.72
									235	29.8	10.17
									220	29.7	9.98
									210	29.0	9.66
									195	29.3	9.19
									185	28.9	8.62
									170	28.6	7.98
									160	28.4	7.78
									145	27.0	5.93
									135	26.1	4.46
									120	18.0	2.42
									110	14.3	1.30
									83	0.0	0.00
07-30-83	935	5	13.5	1,750.29	45,200	6,073	305	7.44	390	0.0	0.00
									370	7.3	0.79
									360	13.4	1.78
									345	18.5	2.86
									335	20.5	5.04
									320	22.2	6.23
									310	22.8	7.28
									295	23.0	8.64
									285	22.8	9.36
									270	23.3	9.69
									260	23.2	10.38
									245	24.0	10.26
									235	24.3	10.68
									220	25.0	10.37
									210	25.4	9.91
									195	25.3	9.58
									185	25.0	9.00
									170	25.2	8.80
									160	25.4	7.98
									145	25.5	6.11
									135	25.2	4.54
									120	17.1	2.38

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
07-30-83	935	5	(Continued)						110	14.2	1.30
									85	0.0	0.00
08-03-83	1500	6	13.5	1,748.97	37,100	5,489	291	7.76	387	0.0	0.00
									370	5.6	0.36
									360	10.0	1.27
									345	16.8	2.96
									335	19.5	3.48
									320	21.4	4.80
									310	21.6	6.36
									295	20.8	7.70
									285	21.5	8.17
									270	21.7	8.71
									260	22.1	9.08
									245	22.3	9.48
									235	22.6	9.48
									220	23.5	9.39
									210	23.5	9.08
									195	23.6	8.48
									185	23.4	7.88
									170	23.2	7.43
									160	23.8	6.82
									145	24.0	5.59
									135	22.9	4.61
									120	15.9	2.12
									96	0.0	0.00
08-12-83	1440	7	13.5	1,747.68	30,000	5,050	288	5.94	385	0.0	0.00
									360	9.3	0.71
									340	17.0	1.67
									330	18.4	3.22
									320	19.3	4.86
									310	20.4	5.29
									300	20.9	5.88
									290	22.2	6.75
									280	22.4	7.22
									270	22.3	7.54
									260	21.6	8.16
									250	21.3	8.22
									240	20.8	8.34
									230	20.6	8.38
									220	20.2	8.64
									210	20.3	8.39
									200	20.6	8.08
									190	21.1	7.52
									180	21.2	7.18
									170	21.4	6.41
									160	22.0	5.96
									150	21.3	5.46
									140	21.3	3.99
									120	13.3	1.67
									97	0.0	0.00
08-14-83	1020	8	13.0	1,748.00	28,000	4,870	270	5.75	370	0.0	0.00
									360	6.5	1.11
									340	15.1	3.18
									330	17.0	3.99
									320	18.1	4.70
									310	17.4	6.12
									300	18.1	6.60

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-14-83	1020	8	(Continued)						290	18.6	6.90
									280	19.3	7.20
									270	19.5	7.56
									260	20.4	7.52
									250	21.3	7.54
									240	21.7	7.32
									230	22.0	7.32
									220	22.8	7.27
									210	24.3	7.10
									200	24.8	6.98
									190	24.4	6.08
									180	22.8	6.44
									170	23.2	6.18
									160	22.0	5.64
									150	20.7	4.75
									140	20.5	3.14
									120	12.7	0.80
									100	0.0	0.00
08-16-83	920	9	13.0	1,747.96	27,700	5,160	274	5.38	372	0.0	0.00
									360	6.8	0.96
									340	15.2	2.28
									330	17.5	3.25
									320	18.5	4.18
									310	18.3	5.06
									300	19.2	5.30
									290	20.5	6.00
									280	21.6	6.48
									270	22.5	6.92
									260	24.7	7.05
									250	25.0	6.89
									240	25.3	6.84
									230	25.6	6.90
									220	25.5	7.04
									210	25.3	6.70
									200	24.1	6.62
									190	23.1	6.55
									180	23.0	6.14
									170	21.8	5.63
									160	22.2	5.65
									150	21.2	4.46
									140	20.5	3.17
									120	12.9	0.77
									98	0.0	0.00
08-18-83	1010	10	13.0	1,748.04	28,000	4,750	274	5.90	372	0.0	0.00
									360	6.1	1.07
									340	15.4	2.65
									330	17.9	3.65
									320	18.4	4.82
									310	18.0	5.93
									300	18.3	6.30
									290	18.9	6.88
									280	19.0	7.43
									270	19.5	7.52
									260	20.1	7.88
									250	20.9	7.90
									240	21.3	7.78
									230	21.5	7.80
									220	21.5	7.54

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-18-83	1010	10	(Continued)						210	21.4	7.22
									200	21.0	7.28
									190	20.2	7.04
									180	20.8	7.11
									170	21.8	6.36
									160	21.7	5.90
									150	20.9	5.09
									140	20.7	3.66
									120	13.2	1.17
									98	0.0	0.00
08-21-83	1205	11	12.0	1,746.30	25,900	5,230	276	4.95	98	0.0	0.00
									105	7.2	0.66
									120	12.8	0.38
									135	20.3	2.56
									145	21.4	3.96
									155	21.5	4.28
									165	21.9	4.61
									175	23.3	5.70
									185	23.6	6.26
									195	23.1	6.13
									205	23.9	6.20
									215	24.9	6.48
									225	25.2	6.00
									235	25.4	5.88
									245	24.3	5.90
									255	24.2	6.80
									265	25.1	6.70
									275	23.6	6.90
									285	21.8	5.88
									295	20.8	5.76
									305	19.7	5.46
									315	18.6	3.36
									325	17.0	3.92
									335	15.5	2.97
									345	12.7	1.60
									360	6.6	4.31
									374	0.0	0.00
08-22-83	1120	12	12.5	1,746.32	27,400	4,850	276	5.66	98	0.0	0.00
									110	8.5	0.82
									130	18.5	2.10
									150	21.2	4.99
									170	22.6	6.18
									180	20.8	6.28
									190	21.8	6.86
									200	22.0	7.05
									210	21.8	7.36
									220	21.6	7.27
									230	21.3	7.64
									240	21.2	7.64
									250	20.7	7.72
									260	20.4	7.62
									265	20.3	7.29
									270	20.3	6.71
									275	20.2	6.92
									280	20.4	7.06
									290	21.5	6.36
									300	21.0	6.02
									310	18.7	5.55

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-22-83	1120	12	(Continued)						325	16.5	4.09
									350	11.0	1.16
									360	6.3	1.13
									374	0.0	0.00
08-24-83	1030	13	13.0	1,746.38	27,400	5,240	276	5.23	98	0.0	0.00
									110	10.4	0.34
									135	19.7	2.61
									150	22.2	4.93
									165	22.4	5.71
									180	22.4	6.08
									195	23.8	6.38
									200	24.4	6.70
									210	24.3	6.15
									220	25.3	6.43
									230	24.3	6.38
									235	23.6	6.72
									240	23.4	6.59
									245	23.9	6.92
									250	23.6	7.36
									260	22.6	7.22
									270	24.1	6.78
									280	22.5	6.55
									290	22.0	6.30
									305	20.6	5.40
									320	18.9	3.75
									340	15.3	1.78
									360	6.4	0.67
									374	0.0	0.00
08-26-83	1100	14	13.0	1,744.97	22,600	4,600	270	4.91	370	0.0	0.00
									357	6.0	0.77
									345	12.3	1.70
									332	15.4	3.06
									320	17.2	4.17
									307	18.0	4.85
									295	19.0	5.30
									282	20.0	6.19
									270	21.0	6.14
									257	21.6	6.12
									245	20.5	6.29
									232	19.5	6.54
									220	19.4	6.44
									207	19.8	6.06
									195	21.6	6.14
									182	22.0	5.46
									170	21.3	5.52
									157	20.6	4.68
									145	19.9	3.65
									132	17.5	2.18
									120	11.0	0.81
									107	5.2	0.27
									100	0.0	0.00
09-02-83	955	15	13.0	1,746.33	28,000	5,340	278	5.24	375	0.0	0.00
									360	5.2	0.64
									345	13.2	1.63
									330	18.9	3.53
									320	19.6	3.99
									310	20.5	4.74

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-02-83	955	15	(Continued)						300	21.1	5.30
									290	22.0	6.12
									280	23.3	6.47
									270	24.4	6.77
									260	25.2	6.20
									250	25.8	6.55
									240	25.0	6.71
									230	25.0	6.93
									220	25.4	6.02
									210	23.7	6.22
									200	23.8	6.10
									190	24.3	6.51
									180	24.3	6.28
									170	23.2	6.00
									160	22.7	5.94
									150	22.2	4.91
									140	21.0	3.30
									125	15.6	1.74
									110	8.2	0.76
									97	0.0	0.00
09-04-83	940	16	13.0	1,746.36	27,900	5,300	278	5.27	375	0.0	0.00
									360	5.5	0.80
									345	13.5	1.46
									330	20.2	2.76
									315	20.9	4.50
									300	22.3	5.79
									290	22.2	6.18
									280	22.5	6.76
									270	22.6	6.82
									260	23.1	6.98
									250	23.2	7.00
									240	23.9	7.00
									230	23.7	6.93
									220	23.5	6.98
									210	22.9	7.13
									200	22.5	6.90
									185	24.6	6.32
									170	23.7	5.88
									155	22.4	5.28
									140	22.3	3.56
									125	16.4	1.32
									110	8.4	0.75
									97	0.0	0.00
09-06-83	1010	17	13.0	1,746.10	27,900	5,430	286	5.13	384	0.0	0.00
									370	7.9	-0.26
									355	10.6	0.87
									340	15.8	1.98
									325	20.0	3.58
									310	22.1	4.85
									300	23.0	5.35
									290	23.5	6.17
									280	23.5	5.70
									270	25.5	6.00
									260	24.6	6.71
									250	23.1	6.93
									240	23.1	7.14
									230	23.8	6.65
									220	22.8	6.40

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-06-83	1010	17	(Continued)						210	22.9	6.86
									200	22.2	7.18
									190	22.0	6.75
									180	22.5	6.61
									170	23.6	5.94
									155	22.7	5.49
									140	22.6	3.49
									125	15.9	1.54
									110	8.1	0.55
									98	0.0	0.00
09-07-83	1540	18	13.0	1,745.02	24,000	5,102	283	4.70	382	0.0	0.00
									360	8.4	-0.56
									345	13.1	1.19
									330	17.8	2.50
									315	20.4	3.60
									300	21.6	5.06
									290	22.0	5.74
									280	20.6	6.42
									270	23.0	6.06
									260	23.3	6.30
									250	22.8	6.55
									240	23.2	6.16
									230	22.8	6.75
									220	22.1	5.94
									210	21.8	6.14
									200	21.1	5.54
									185	23.0	5.80
									170	22.7	5.90
									155	21.3	4.96
									140	20.8	2.94
									125	14.0	0.97
									110	7.8	0.41
									99	0.0	0.00
09-12-83	1110	19	12.5	1,745.86	25,600	5,380	283	4.76	382	0.0	0.00
									365	6.9	0.34
									355	9.6	0.90
									340	17.2	1.99
									330	20.2	2.64
									315	21.7	3.77
									305	22.7	5.20
									290	25.0	5.51
									280	25.0	5.27
									265	22.1	6.21
									255	21.8	6.51
									245	22.1	6.64
									235	22.3	6.21
									220	22.9	6.48
									210	24.0	5.71
									195	23.1	5.96
									185	22.8	5.88
									170	23.3	5.70
									160	22.7	5.42
									145	22.1	4.18
									135	21.3	2.32
									120	12.7	1.09
									110	8.2	0.37
									99	0.0	0.00

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-16-83	1220	20	13.0	1,746.26	27,400	5,560	284	4.93	383	0.0	0.00
									360	7.0	0.69
									350	14.0	0.63
									330	21.9	2.90
									320	22.8	3.03
									305	22.5	4.97
									295	23.7	5.28
									280	25.0	6.14
									270	25.1	6.60
									255	24.6	6.58
									245	25.1	5.94
									235	25.2	6.96
									225	24.0	6.14
									215	24.2	6.76
									205	24.4	6.21
									195	24.1	6.53
									180	23.8	6.00
									170	23.4	5.64
									155	22.5	5.02
									145	22.4	3.80
									130	18.5	1.98
									120	13.1	1.04
									99	0.0	0.00
09-19-83	1210	21	13.0	1,746.33	29,000	5,710	292	5.08	387	0.0	0.00
									360	8.5	0.80
									335	21.4	1.38
									315	22.5	4.02
									295	23.6	5.57
									285	24.1	6.18
									275	24.7	6.58
									265	24.6	6.90
									255	24.8	6.92
									245	25.4	7.27
									240	25.7	7.00
									230	27.1	6.86
									225	26.2	6.54
									215	24.6	6.84
									210	24.7	7.07
									200	24.7	6.56
									195	25.3	6.61
									180	24.4	6.54
									175	24.5	6.00
									165	24.1	5.52
									155	22.9	5.14
									140	21.4	3.26
									120	13.4	0.91
									95	0.0	0.00
09-21-83	1130	22	13.0	1,746.24	27,600	5,750	290	4.80	386	0.0	0.00
									360	11.9	0.55
									340	19.9	1.42
									325	23.3	3.00
									315	22.9	3.63
									300	23.5	5.64
									290	22.4	5.84
									280	23.3	6.24
									270	23.8	6.23
									265	24.5	5.83
									255	24.6	6.08

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-21-83	1130	22	(Continued)						245	25.8	6.21
									240	25.0	6.50
									230	26.0	6.26
									225	25.9	6.66
									215	25.8	6.16
									210	24.9	6.29
									200	24.2	6.22
									190	24.6	6.76
									185	24.3	6.06
									175	23.6	5.68
									165	23.3	5.64
									155	21.4	5.53
									140	23.1	3.54
									125	15.8	1.18
									96	0.0	0.00
09-27-83	1455	23	13.0	1,746.38	27,800	5,760	288	4.83	95	0.0	0.00
									110	9.5	0.57
									125	15.6	1.03
									140	22.3	3.68
									155	22.6	5.04
									170	23.4	5.70
									180	24.0	5.94
									190	24.3	6.24
									200	24.9	6.35
									210	25.3	6.16
									220	25.5	6.60
									230	24.9	6.53
									240	24.3	6.74
									250	23.5	6.74
									260	22.9	6.90
									270	23.3	6.62
									280	23.2	6.42
									290	24.4	6.35
									300	23.6	5.08
									315	23.6	3.57
									330	23.5	2.61
									345	19.7	0.81
									360	11.4	0.95
									383	0.0	0.00
09-30-83	1620	24	30,100	1,747.10	6,160	291	4.88	13.0	384	0.0	0.00
									370	10.0	0.70
									360	14.4	0.62
									345	21.6	1.04
									335	24.3	2.00
									320	24.4	3.52
									310	23.8	4.58
									295	25.0	5.90
									285	26.2	6.35
									270	26.5	6.21
									260	26.4	6.82
									245	26.8	6.86
									235	26.0	6.83
									220	24.4	7.10
									210	26.1	6.62
									195	25.5	6.44
									185	25.3	6.02
									170	24.1	5.56
									160	23.5	5.74

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-30-83	1620	24	(Continued)						145	23.4	4.19
									135	22.1	2.45
									120	13.5	1.05
									110	9.0	0.57
									93	0.0	0.00
10-04-83	1115	25	12.5	1,747.32	30,000	6,160	291	4.87	385	0.0	0.00
									370	13.5	0.50
									360	15.9	0.51
									345	21.0	1.36
									335	23.0	2.18
									320	23.5	3.54
									310	22.9	4.32
									295	23.7	5.79
									285	24.2	6.12
									270	27.0	6.21
									260	25.6	7.10
									245	26.9	6.98
									235	26.5	7.19
									220	25.5	6.80
									210	26.0	6.64
									195	24.5	6.76
									185	24.8	6.06
									170	24.7	5.59
									160	23.8	5.58
									145	23.4	4.08
									135	22.5	2.60
									120	14.2	1.20
									110	9.5	0.72
									94	0.0	0.00
10-07-83	1140	26	13.0	1,746.56	28,400	5,710	288	4.98	383	0.0	0.00
									370	12.3	0.44
									350	17.4	0.47
									330	22.0	2.74
									315	22.3	3.81
									300	23.1	5.28
									285	23.1	6.22
									270	22.6	7.14
									260	22.6	6.86
									250	22.8	7.36
									240	24.2	7.44
									230	24.3	7.07
									220	23.0	7.07
									210	23.3	6.78
									200	23.3	6.89
									190	23.9	6.28
									180	24.3	6.14
									170	24.2	5.76
									160	23.2	5.80
									150	22.4	4.97
									130	19.2	2.01
									110	8.7	0.84
									95	0.0	0.00
10-09-83	1035	27	12.0	1,746.67	29,100	5,700	290	5.11	384	0.0	0.00
									370	11.2	0.76
									340	20.3	1.47
									310	23.0	4.32
									290	23.0	6.48

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-09-83	1100	27	(Continued)						280	23.1	6.26
									270	23.1	6.88
									260	23.5	7.69
									255	23.5	7.20
									245	23.4	7.04
									240	24.2	6.80
									230	23.4	6.83
									225	23.4	7.04
									215	22.9	7.16
									205	22.2	7.30
									195	22.2	7.04
									185	22.3	7.05
									175	22.6	6.75
									165	23.5	6.14
									155	22.6	5.69
									135	21.2	3.35
									120	15.7	1.18
									105	7.7	-0.41
									94	0.0	0.00
10-11-83	1100	28	13.0	1,746.48	29,200	5,770	288	5.06	383	0.0	0.00
									370	9.3	0.72
									340	20.7	1.91
									310	22.0	4.42
									300	22.7	5.28
									290	23.3	6.02
									280	23.7	6.26
									270	23.9	6.74
									260	24.5	6.98
									255	24.2	7.10
									245	24.3	7.14
									240	25.1	6.74
									230	25.6	6.72
									225	25.6	6.74
									215	24.5	6.80
									210	24.2	6.22
									200	24.8	6.20
									195	24.9	6.44
									185	24.4	6.16
									180	24.4	5.94
									170	24.2	5.68
									160	22.9	5.71
									150	22.3	5.20
									140	22.5	3.81
									115	11.4	0.63
									95	0.0	0.00
10-13-83	1700	29	12.5	1,745.25	25,100	5,407	286	4.65	382	0.0	0.00
									370	8.3	1.01
									340	19.8	1.27
									310	22.2	4.18
									300	22.5	4.96
									290	23.0	5.54
									280	22.9	6.00
									270	23.2	6.36
									260	23.4	6.26
									255	24.0	6.46
									245	23.9	6.26
									240	22.9	6.21
									230	22.3	6.44

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-13-83	1700	29	(Continued)						225	21.7	6.49
									215	21.9	6.32
									210	22.7	6.35
									200	22.8	6.28
									195	23.2	6.32
									185	22.0	6.02
									180	22.1	5.68
									170	21.5	5.23
									160	21.5	5.16
									150	21.4	4.36
									140	21.3	2.82
									120	12.2	0.83
									96	0.0	0.00
10-17-83	1135	30	13.0	1,745.24	24,000	5,500	281	4.37	379	0.0	0.00
									370	11.1	0.67
									340	19.2	1.10
									310	22.4	4.29
									300	23.3	4.76
									290	23.3	5.82
									280	24.3	5.39
									270	23.9	5.47
									260	23.3	5.87
									255	23.4	5.87
									245	24.1	5.81
									240	23.5	5.57
									230	22.9	6.07
									225	22.8	5.81
									215	23.2	5.33
									210	23.9	5.58
									200	23.7	5.65
									195	23.7	6.00
									185	22.5	5.41
									180	23.1	5.02
									170	22.7	5.51
									160	21.8	5.09
									150	21.3	4.18
									140	20.3	2.75
									120	12.0	1.08
									98	0.0	0.00
10-21-83	1045	31	13.0	1,745.35	24,900	5,500	281	4.52	379	0.0	0.00
									370	10.2	1.43
									340	21.0	1.11
									310	23.8	3.84
									300	23.2	5.10
									290	23.1	5.42
									280	23.4	5.76
									270	24.7	5.93
									260	24.2	6.06
									255	24.0	5.93
									245	22.8	6.06
									240	22.3	6.36
									230	22.5	6.38
									225	22.8	6.29
									215	22.5	6.32
									210	22.3	6.32
									200	23.1	6.26
									195	23.2	6.14
									185	23.6	5.46

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-21-83	1045	31	(Continued)						180	22.7	5.16
									170	23.2	5.36
									160	22.1	5.33
									150	21.4	4.75
									140	20.8	3.13
									120	12.4	0.70
									98	0.0	0.00
10-23-83	1100	32	13.0	1,745.10	24,000	5,460	281	4.39	379	0.0	0.00
									370	10.6	1.03
									340	21.4	1.28
									310	22.5	3.58
									300	22.9	4.40
									290	24.2	5.35
									280	23.3	5.81
									270	23.0	5.76
									260	22.5	5.33
									255	23.7	5.63
									245	23.4	6.00
									240	23.2	6.00
									230	22.3	6.20
									225	22.2	5.32
									215	21.9	5.87
									210	21.5	6.07
									200	21.3	6.43
									195	21.3	5.96
									185	22.8	5.81
									180	23.0	5.27
									170	22.5	5.69
									160	21.4	5.44
									150	20.7	4.56
									140	21.3	3.04
									120	11.7	1.02
									98	0.0	0.00
10-25-83	1125	33	13.0	1,746.46	28,800	5,940	288	4.85	95	0.0	0.00
									120	13.5	1.05
									140	22.7	3.46
									150	22.6	5.02
									160	23.1	5.30
									170	24.3	5.74
									180	24.7	5.98
									185	24.7	6.11
									195	24.2	6.51
									200	23.8	6.60
									210	25.6	6.64
									215	25.8	6.36
									225	25.9	6.58
									230	24.5	6.86
									240	24.1	6.80
									245	24.1	6.55
									255	24.7	6.69
									260	24.2	6.69
									270	24.0	6.91
									280	24.4	6.36
									290	24.3	5.90
									300	25.1	5.20
									310	25.0	4.28
									340	22.0	1.05

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-25-83	1125	33	(Continued)						370	10.7	1.08
									383	0.0	0.00
10-27-83	1255	34	13.0	1,746.32	27,800	5,740	286	4.85	96	0.0	0.00
									120	13.8	1.19
									140	21.8	3.89
									150	22.2	5.21
									160	23.0	5.51
									170	23.0	5.76
									180	24.1	5.88
									185	24.1	6.00
									195	24.7	6.40
									200	24.7	6.23
									210	24.7	6.64
									215	23.5	6.75
									225	23.1	6.70
									230	23.1	7.12
									240	23.5	6.83
									245	23.5	6.92
									255	23.2	6.86
									260	23.1	6.78
									270	24.6	6.55
									280	24.0	5.89
									290	23.3	6.12
									300	22.1	5.15
									310	23.6	3.82
									340	22.1	1.26
									370	10.3	0.62
									382	0.0	0.00
10-29-83	1040	35	13.0	1,746.50	29,100	5,928	286	4.94	382	0.0	0.00
									370	10.0	1.10
									340	22.7	1.39
									310	26.0	4.22
									300	25.2	5.32
									290	24.6	6.18
									280	24.6	6.40
									270	24.4	6.58
									260	24.3	6.64
									255	24.2	6.70
									245	24.3	7.34
									240	24.1	7.00
									230	24.1	6.90
									225	24.2	6.84
									215	24.4	6.84
									210	25.3	6.64
									200	25.4	6.42
									195	24.9	6.30
									185	24.1	5.74
									180	24.0	5.87
									170	24.2	5.30
									160	23.3	5.64
									150	22.4	5.02
									140	22.4	3.36
									120	13.3	0.98
									96	0.0	0.00
10-31-83	1130	36	13.0	1,746.53	28,100	5,870	286	4.79	382	0.0	0.00
									370	9.6	0.76
									340	22.3	1.12

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-31-83	1130	36	(Continued)						310	23.6	4.22
									300	22.8	5.14
									290	24.3	6.07
									280	24.2	5.94
									270	23.3	6.78
									260	24.2	6.83
									255	25.2	6.78
									245	25.5	6.66
									240	25.8	6.43
									230	26.0	6.48
									225	25.4	6.66
									215	25.2	6.53
									210	24.4	6.45
									200	24.8	6.38
									195	24.9	6.01
									185	24.9	6.05
									180	23.6	6.02
									170	23.7	5.57
									160	23.3	5.42
									150	22.3	4.70
									140	21.4	3.59
									120	14.2	0.83
									96	0.0	0.00
11-01-83	1010	37	13.0	1,746.09	27,500	5,750	284	4.79	381	0.0	0.00
									370	8.8	1.16
									340	21.5	1.44
									310	23.6	3.60
									300	23.8	5.20
									290	23.9	5.85
									280	24.5	6.00
									270	24.9	6.28
									260	24.7	6.28
									255	24.8	6.58
									245	25.1	6.40
									240	25.2	6.30
									230	25.4	6.55
									225	23.8	7.04
									215	23.6	6.58
									210	23.5	6.51
									200	24.4	6.21
									195	24.0	6.18
									185	24.1	5.57
									180	24.2	5.80
									170	23.8	5.88
									160	22.7	5.27
									150	22.0	4.65
									140	21.6	3.73
									120	12.8	1.13
									97	0.0	0.00
11-07-83	1430	38	13.0	1,745.44	24,800	5,480	287	4.53	385	0.0	0.00
									350	16.6	0.42
									325	23.7	2.52
									300	24.7	4.86
									290	23.6	5.82
									280	22.8	5.93
									270	23.0	6.16
									260	22.9	5.81
									250	22.2	6.51

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-07-83	1430	38	(Continued)						240	22.2	6.75
									230	22.2	6.70
									220	22.5	6.06
									210	22.8	6.02
									200	23.9	5.74
									190	23.0	5.78
									180	22.2	5.60
									170	22.4	5.52
									160	21.6	5.04
									145	21.3	3.70
									130	17.4	1.55
									98	0.0	0.00
11-09-83	1615	39	13.0	1,745.40	24,500	5,511	287	4.45	385	0.0	0.00
									350	16.6	0.94
									335	22.6	1.72
									325	23.9	3.20
									305	23.3	4.21
									295	23.0	5.36
									285	23.5	5.06
									275	23.8	5.41
									265	22.9	6.14
									255	22.4	6.14
									245	22.7	6.16
									235	23.4	5.81
									225	23.8	5.83
									215	23.7	5.83
									205	22.8	5.70
									195	22.4	5.74
									185	22.7	5.86
									175	22.9	5.58
									165	21.9	5.24
									155	21.3	5.02
									140	21.3	3.12
									120	11.8	0.70
									98	0.0	0.00
11-11-83	1335	40	12.0	1,745.05	24,100	5,509	287	4.37	385	0.0	0.00
									340	20.8	0.99
									325	23.1	2.86
									310	24.4	3.63
									295	23.1	5.14
									285	22.6	5.90
									275	22.6	5.90
									265	22.3	6.06
									255	23.7	6.36
									245	24.0	5.60
									235	23.9	5.73
									225	23.9	5.82
									215	23.8	5.78
									205	23.7	5.94
									195	23.5	5.74
									185	22.4	5.46
									175	22.6	4.59
									165	21.6	4.94
									150	20.8	4.65
									140	20.7	3.04
									120	12.1	0.68
									98	0.0	0.00

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-13-83	1235	41	13.0	1,745.28	24,300	5,438	287	4.47	385	0.0	0.00
									340	20.7	1.16
									325	23.3	2.81
									310	24.2	3.66
									300	23.2	4.40
									290	22.8	5.14
									280	23.5	5.76
									270	22.7	5.76
									260	23.1	6.20
									250	21.9	6.06
									240	23.3	6.16
									230	22.7	6.44
									220	22.4	6.61
									210	21.9	6.19
									200	22.4	6.08
									190	22.9	5.56
									180	22.7	5.56
									170	22.7	5.40
									160	21.5	4.88
									150	21.0	4.21
									135	19.3	2.28
									120	11.7	0.90
									98	0.0	0.00
11-15-83	1550	42	13.0	1,744.90	23,500	5,469	287	4.30	385	0.0	0.00
									340	21.0	1.13
									325	23.1	1.64
									310	24.4	3.64
									300	24.2	4.28
									290	24.2	5.50
									280	23.3	5.80
									270	22.2	6.08
									260	22.7	5.61
									250	23.9	5.68
									240	23.1	5.63
									230	22.4	6.02
									220	22.7	6.24
									210	22.2	6.08
									200	21.9	5.86
									190	22.9	5.58
									180	22.6	5.52
									170	22.3	5.30
									160	21.0	5.26
									150	20.4	4.22
									135	20.3	2.18
									120	11.3	0.89
									98	0.0	0.00
11-19-83	1105	43	12.0	1,745.16	23,800	5,461	287	4.35	385	0.0	0.00
									340	19.7	0.76
									320	23.6	2.80
									305	24.5	3.84
									290	23.8	5.33
									280	24.7	5.63
									270	23.7	5.94
									260	23.3	5.80
									250	22.1	6.12
									240	22.1	6.30
									230	23.9	6.28
									220	22.8	6.14

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-19-83	1105	43	(Continued)						210	22.7	5.82
									200	22.2	6.08
									190	21.9	6.17
									180	21.9	5.52
									170	22.3	5.06
									160	21.4	4.92
									150	20.8	4.21
									135	20.5	2.17
									120	12.1	0.72
									98	0.0	0.00
11-23-83	1455	44	12.0	1,745.38	24,400	5,494	287	4.44	385	0.0	0.00
									350	16.0	0.75
									330	22.9	1.96
									315	24.5	3.37
									300	23.5	4.18
									290	23.7	5.27
									280	23.9	5.65
									270	23.8	6.09
									260	23.0	6.55
									250	22.6	6.82
									240	22.5	6.53
									230	22.9	6.32
									220	23.4	6.36
									210	22.9	6.26
									200	22.5	5.52
									190	23.5	5.51
									180	23.4	5.30
									170	22.4	5.00
									160	21.3	4.88
									150	21.0	4.22
									135	19.0	2.10
									120	12.2	1.01
									98	0.0	0.00
11-28-83	1225	45	11.0	1,745.41	25,600	5,639	289	4.45	384	0.0	0.00
									370	8.5	-0.70
									355	12.7	0.64
									340	21.3	1.00
									330	23.2	2.27
									315	25.0	3.75
									305	24.2	4.32
									290	24.4	5.26
									280	25.2	5.96
									265	23.9	6.14
									255	23.7	6.28
									240	24.2	5.88
									230	23.9	5.98
									215	23.8	5.94
									205	23.8	5.94
									190	23.8	6.06
									180	23.5	5.57
									165	22.4	5.58
									155	21.3	5.14
									140	20.2	2.80
									130	18.2	2.07
									115	9.8	0.43
									95	0.0	0.00

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-01-83	1415	46	12.0	1,745.38	26,100	5,699	289	4.58	384	0.0	0.00
									370	8.6	0.70
									345	19.2	1.02
									320	24.7	3.43
									310	25.2	3.69
									305	25.3	4.25
									295	25.0	4.56
									290	24.6	5.88
									280	24.3	6.09
									275	24.3	6.14
									265	23.8	6.30
									260	23.4	6.54
									250	24.2	6.00
									245	24.7	5.88
									235	24.4	6.13
									230	23.9	6.06
									220	23.4	6.38
									215	23.7	5.88
									205	23.3	5.70
									200	23.7	5.76
									190	23.2	5.63
									185	22.8	5.81
									175	22.6	5.30
									170	22.8	5.40
									160	21.9	5.46
									145	21.6	4.14
									120	12.9	1.36
									95	0.0	0.00
12-03-83	1645	47	12.0	1,745.30	25,000	5,578	289	4.48	384	0.0	0.00
									360	10.5	0.76
									330	23.4	2.30
									320	24.5	3.12
									310	25.0	3.63
									300	25.2	4.47
									290	24.2	5.52
									280	24.0	5.70
									270	23.7	6.30
									260	23.7	6.36
									250	23.4	6.13
									240	23.1	6.22
									230	24.0	6.00
									220	23.6	5.94
									210	23.6	5.96
									200	23.2	5.81
									190	23.8	5.46
									180	23.7	5.57
									170	23.3	4.92
									160	22.0	4.92
									150	21.2	4.22
									140	20.0	2.92
									130	15.4	1.63
									120	12.6	0.70
									95	0.0	0.00
12-06-83	1430	48	12.0	1,745,38	26,300	6,105	712	4.60	385	0.0	0.00
									330	23.3	2.47
									310	25.3	3.32
									305	25.7	4.03
									295	25.6	4.85

Table 21.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-06-83	1430	48	(Continued)						290	24.8	5.27
									280	24.2	5.74
									275	24.4	5.54
									265	24.6	5.76
									260	24.4	5.78
									250	23.8	6.55
									245	23.8	6.36
									235	24.7	6.14
									230	23.9	6.21
									220	24.9	5.89
									215	24.8	5.81
									205	24.2	5.75
									200	24.4	5.88
									190	24.0	5.85
									185	23.8	5.87
									175	23.5	5.33
									170	23.7	5.21
									165	22.3	5.39
									155	21.7	4.75
									145	21.6	3.95
									120	13.7	0.74
									95	0.0	0.00

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-05-83	1120	1	13.5	1,355.32	39,600	6,568	218	6.03	265	0.0	0.00
									250	12.0	0.60
									240	16.5	2.02
									230	21.5	1.99
									220	22.5	3.82
									210	26.0	4.98
									200	40.5	5.90
									190	42.8	6.74
									180	43.3	8.07
									170	44.2	8.04
									160	42.5	8.44
									150	43.0	8.07
									140	41.8	7.62
									130	42.8	6.75
									120	45.0	7.60
									110	41.0	7.03
									100	35.5	6.00
									90	28.0	4.62
									80	24.4	3.81
									70	19.4	1.96
									60	13.8	0.38
									50	11.2	0.39
									47	0.0	0.00
08-10-83	1130	2	14.0	1,355.30	38,900	6,550	218	5.94	265	0.0	0.00
									250	12.5	0.73
									240	18.5	1.92
									230	22.2	1.43
									220	25.8	3.43
									210	24.6	4.76
									200	41.5	4.08
									190	42.5	6.36
									180	44.4	7.75
									170	45.3	8.24
									160	43.9	8.43
									150	42.8	8.25
									140	42.9	8.16
									130	43.4	7.60
									120	44.2	7.91
									110	40.3	7.06
									100	36.0	5.16
									90	28.2	4.18
									80	23.0	3.10
									70	18.9	1.51
									60	11.0	0.49
									45	0.0	0.00
08-12-83	845	3	14.0	1,354.50	34,700	6,304	218	5.50	43	0.0	0.00
									55	12.2	0.25
									65	13.3	0.53
									75	17.8	2.92
									85	22.5	2.95
									95	30.7	4.81
									105	36.2	5.99
									115	40.8	6.22
									125	42.9	7.06
									135	42.4	7.46
									145	42.0	7.60
									155	41.3	7.67

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-12-83	845	3	(Continued)						165	41.5	7.46
									175	42.4	7.36
									185	44.5	6.70
									195	41.4	4.59
									205	35.9	4.81
									215	25.5	3.46
									225	22.5	2.42
									235	16.4	1.66
									245	13.1	0.91
									261	0.0	0.00
08-14-83	1025	4	14.0	1,353.14	29,700	5,950	219	4.99	262	0.0	0.00
									250	10.0	1.30
									240	13.7	1.36
									230	19.8	1.67
									220	23.7	2.96
									210	24.3	4.19
									200	38.3	3.52
									190	39.9	5.56
									180	40.0	6.20
									170	39.8	6.64
									160	40.6	6.98
									150	43.1	7.20
									140	42.8	6.86
									130	41.7	6.76
									120	41.5	5.94
									110	35.1	4.72
									100	32.2	3.74
									90	22.3	3.58
									80	20.0	2.85
									70	13.8	1.46
									60	8.7	0.29
									43	0.0	0.00
08-17-83	1300	5	14.5	1,353.13	28,400	6,020	219	4.71	43	0.0	0.00
									55	12.4	0.14
									65	13.8	0.40
									75	17.2	1.86
									85	20.6	3.14
									95	29.3	3.76
									105	33.2	5.48
									110	35.3	4.98
									120	41.9	5.94
									125	41.5	6.06
									130	41.5	6.32
									135	40.8	6.58
									140	41.1	6.58
									145	41.1	6.56
									150	41.0	6.60
									155	41.0	6.62
									160	40.4	6.21
									170	40.4	6.21
									175	40.6	6.31
									185	40.7	5.47
									190	39.7	5.14
									200	39.5	3.54
									210	23.9	3.36
									225	22.5	2.24

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-17-83	1300	(Continued)							240	14.4	1.22
									262	0.0	0.00
08-19-83	1155	6	14.5	1,353.08	29,000	5,820	217	4.97	260	0.0	0.00
									240	13.8	1.26
									230	20.3	1.37
									220	21.4	2.42
									210	23.6	4.17
									200	39.3	3.51
									190	40.0	5.46
									185	40.8	5.91
									180	40.4	6.40
									175	40.0	6.70
									170	39.8	6.44
									165	39.9	6.96
									160	39.6	7.04
									155	39.6	6.97
									150	39.7	6.78
									145	39.4	6.60
									140	39.7	6.40
									135	40.2	6.42
									130	40.1	6.42
									125	41.0	6.21
									120	40.9	5.87
									110	34.8	5.36
									100	31.8	4.43
									90	25.3	3.42
									75	16.2	2.69
									60	8.6	0.32
									43	0.0	0.00
08-21-83	1745	7	15.0	1,353.17	26,700	5,910	222	4.52	41	0.0	0.00
									60	13.3	0.20
									75	16.5	0.72
									85	21.7	2.62
									95	27.0	3.74
									100	28.4	4.42
									110	34.6	5.51
									115	33.1	5.76
									125	41.4	5.91
									130	40.1	6.02
									140	39.1	6.30
									145	38.9	6.14
									155	39.9	6.46
									160	40.1	6.44
									170	41.1	6.30
									175	41.2	6.26
									185	41.2	5.46
									190	41.6	5.26
									200	38.6	2.90
									210	23.9	3.90
									220	21.7	2.40
									235	18.0	1.05
									250	9.5	0.44
									263	0.0	0.00
08-23-83	1515	8	14.0	1,352.96	27,200	5,790	221	4.70	42	0.0	0.00
									55	10.5	0.16
									70	13.4	0.41

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-23-83	815	8	(Continued)						85	19.4	3.08
									95	27.0	4.10
									105	32.7	4.88
									110	35.0	5.06
									120	40.7	5.60
									125	40.5	6.06
									135	38.9	6.22
									140	38.0	6.56
									150	38.8	6.82
									155	39.3	6.60
									165	41.4	6.24
									170	41.5	6.14
									180	40.4	6.00
									185	40.3	5.88
									195	40.4	4.06
									205	25.4	3.77
									215	23.2	3.18
									225	21.7	2.24
									240	13.3	1.38
									250	8.7	0.46
									263	0.0	0.00
08-25-83	1725	9	-1.0	1,353.03	28,200	5,930	220	4.75	262	0.0	0.00
									250	11.5	0.17
									230	20.4	1.79
									210	23.6	3.78
									200	38.3	3.89
									195	39.3	5.52
									185	38.8	6.09
									180	39.1	6.54
									170	40.5	6.66
									165	38.8	6.67
									155	40.2	6.38
									150	40.6	6.30
									140	41.7	6.30
									135	40.9	5.61
									125	39.7	5.94
									120	39.6	5.60
									110	34.6	5.33
									105	32.8	4.90
									95	26.1	4.57
									85	22.4	2.57
									75	15.3	1.88
									65	13.2	0.29
									50	8.1	0.08
									42	0.0	0.00
08-27-83	1435	10	-1.0	1,353.02	28,300	5,704	220	4.95	262	0.0	0.00
									250	9.2	0.46
									220	21.3	3.16
									200	32.4	4.19
									185	39.3	5.98
									175	39.8	6.42
									170	39.2	6.49
									160	38.3	6.84
									155	37.9	6.72
									150	37.9	6.98
									145	38.3	7.04
									140	37.8	6.75

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-27-83	1435	10	(Continued)						130	38.7	6.82
									125	40.2	6.22
									115	34.1	5.82
									110	34.7	5.12
									95	27.0	3.94
									80	19.5	2.29
									55	10.3	0.14
									42	0.0	0.00
08-29-83	1140	11	-1.0	1,353.00	28,000	5,985	220	4.68	262	0.0	0.00
									250	9.9	0.41
									230	21.5	1.49
									210	23.8	3.77
									205	37.7	2.64
									195	38.9	5.14
									190	38.9	5.52
									180	39.1	6.29
									175	38.9	6.26
									165	39.1	6.56
									160	39.7	6.28
									150	41.1	6.70
									145	41.5	6.35
									135	40.2	6.44
									130	39.4	6.36
									120	41.2	6.00
									115	41.6	4.86
									105	33.1	4.32
									100	31.6	4.32
									95	25.5	4.10
									85	19.8	2.98
									75	17.1	1.89
									55	10.1	0.25
									42	0.0	0.00
09-05-83	1310	12	13.0	1,352.90	38,300	5,860	218	4.83	260	0.0	0.00
									250	9.6	0.70
									230	20.2	1.82
									210	22.7	3.98
									205	25.0	4.32
									195	40.7	4.18
									190	41.7	5.19
									180	39.6	6.22
									175	39.6	6.72
									165	40.1	6.63
									160	39.3	6.43
									150	40.0	6.58
									145	39.3	6.53
									135	39.7	6.51
									130	39.1	6.21
									120	41.0	5.59
									115	40.0	5.68
									105	32.8	4.83
									100	31.7	4.15
									95	28.5	3.98
									85	20.8	3.10
									75	16.4	1.78
									55	10.0	0.38
									42	0.0	0.00

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-07-83	1320	13	-1.0	1,352.99	28,000	5,794	218	4.86	260	0.0	0.00
									250	10.0	0.88
									230	20.3	1.71
									210	22.7	4.02
									205	25.3	4.39
									195	38.0	4.60
									190	38.0	5.70
									180	38.7	5.96
									175	38.5	5.96
									165	38.7	6.61
									160	40.3	6.94
									150	39.8	6.88
									145	39.8	7.18
									135	39.7	6.68
									130	39.1	6.02
									120	40.6	5.37
									115	32.0	5.41
									105	32.5	5.01
									100	31.8	4.48
									95	26.3	4.06
									85	20.0	2.52
									75	16.4	1.80
									55	10.0	0.29
									42	0.0	0.00
09-12-83	945	14	14.5	1,352.20	25,300	5,470	216	4.63	260	0.0	0.00
									250	10.0	0.62
									230	18.4	1.54
									210	22.0	3.38
									205	24.3	3.54
									195	36.9	4.59
									190	37.8	4.94
									180	39.6	5.94
									175	40.6	5.87
									165	38.8	6.35
									160	38.4	6.42
									150	37.0	6.48
									145	37.1	6.00
									135	37.0	6.29
									130	38.0	5.88
									120	37.6	5.46
									115	32.0	5.30
									105	25.7	4.44
									95	24.5	4.08
									85	19.7	3.00
									75	14.7	1.82
									55	8.6	0.00
									44	0.0	0.00
09-14-83	1010	15	14.0	1,353.47	29,300	5,920	216	4.96	260	0.0	0.00
									250	8.8	0.34
									230	22.3	3.61
									210	37.7	5.30
									205	37.8	4.65
									190	37.5	5.27
									180	37.4	5.82
									175	37.4	6.36
									165	37.0	6.21
									160	37.8	6.66

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-14-83	1010	15	(Continued)						150	38.6	6.10
									145	39.8	6.53
									135	38.9	6.46
									130	38.7	5.94
									120	39.5	5.82
									115	31.5	5.93
									105	32.7	4.52
									95	26.4	3.92
									85	21.5	2.58
									75	16.4	1.58
									55	9.5	0.24
									44	0.0	0.00
09-20-83	1610	16	14.0	1,352.95	28,000	5,848	215	4.79	259	0.0	0.00
									245	11.6	1.70
									235	17.6	1.36
									225	21.8	2.63
									215	23.1	3.18
									205	25.4	4.42
									195	39.4	4.86
									190	42.3	5.30
									180	40.6	6.32
									175	40.0	6.48
									165	39.4	6.86
									160	38.4	6.86
									150	38.6	6.78
									145	38.9	6.38
									135	39.2	6.28
									130	40.0	6.00
									120	41.3	5.94
									115	41.5	4.89
									100	32.0	3.84
									95	26.5	3.28
									80	19.7	2.11
									70	13.7	0.76
									55	9.7	0.14
									44	0.0	0.00
09-22-83	1525	17	14.5	1,352.94	28,000	5,940	215	4.70	259	0.0	0.00
									245	11.8	0.62
									230	19.8	1.16
									215	22.9	3.04
									200	38.9	3.16
									190	42.7	5.30
									180	41.5	6.11
									175	42.0	6.31
									170	42.1	6.21
									165	41.9	6.72
									160	42.3	6.64
									155	42.8	6.40
									150	42.3	6.53
									145	41.4	6.14
									140	40.8	6.48
									135	41.4	5.87
									130	40.5	6.00
									125	41.0	5.86
									120	37.5	5.57
									115	37.5	5.04
									105	32.9	4.60

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
09-22-83	1525	(Continued)							95	25.8	4.12
									80	19.6	2.91
									60	8.4	0.25
									44	0.0	0.00
09-24-83	1005	18	15.0	1,353.18	29,400	5,990	215	4.97	259	0.0	0.00
									245	12.1	0.66
									225	22.0	2.60
									210	23.4	3.50
									200	38.6	3.60
									195	38.6	5.68
									190	42.3	5.57
									185	42.0	6.35
									180	41.6	6.42
									175	42.3	6.51
									170	41.8	6.66
									165	42.3	6.78
									160	42.7	6.42
									155	43.1	6.50
									150	44.0	6.55
									145	44.4	6.36
									140	44.0	6.36
									135	42.6	6.14
									125	42.5	5.80
									115	34.0	5.86
									105	33.3	4.36
									90	25.5	3.54
									75	16.7	1.60
									60	8.8	0.18
									44	0.0	0.00
09-29-83	1145	19	14.0	1,353.03	27,800	5,643	218	4.93	260	0.0	0.00
									240	14.7	1.42
									225	21.7	2.14
									210	23.4	4.16
									200	42.1	4.53
									185	38.6	4.72
									175	38.2	6.19
									170	37.8	6.51
									165	36.7	6.89
									160	35.5	7.43
									155	36.0	6.75
									150	35.9	7.20
									145	36.3	6.96
									140	37.2	7.43
									135	37.4	6.84
									130	39.0	6.55
									125	39.5	6.31
									120	39.6	5.94
									115	33.4	6.06
									105	32.2	4.68
									95	25.0	4.30
									80	19.7	2.34
									65	12.5	0.50
									42	0.0	0.00
10-01-83	1515	20	14.0	1,353.66	32,300	5,790	218	5.58	260	0.0	0.00
									240	14.4	1.92
									215	23.6	3.75

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-01-83	1515	(Continued)							205	31.9	4.95
									200	38.8	4.30
									190	38.6	6.53
									185	38.3	6.64
									180	38.6	7.12
									175	38.6	7.05
									170	38.5	7.70
									165	38.1	7.44
									160	38.4	7.60
									155	37.4	7.36
									150	37.5	7.49
									145	38.2	7.19
									140	37.6	7.44
									135	38.7	7.36
									130	38.2	7.28
									125	37.6	6.92
									120	37.9	6.72
									115	37.8	6.72
									110	35.9	5.84
									100	33.2	4.89
									95	29.7	5.32
									85	22.6	3.29
									65	13.7	0.50
									42	0.0	0.00
10-04-83	1215	21	14.0	1,353.68	29,400	5,750	221	5.11	263	0.0	0.00
									240	14.8	1.23
									220	22.9	3.06
									210	23.8	4.00
									200	33.1	4.82
									190	38.2	5.82
									185	38.4	6.12
									180	38.9	6.21
									175	38.9	6.92
									170	39.1	6.74
									165	39.0	7.04
									160	39.1	6.94
									155	38.6	7.30
									150	38.0	6.46
									145	38.2	6.92
									140	38.3	6.94
									135	39.2	6.36
									130	39.9	6.19
									125	40.6	6.44
									120	40.6	6.17
									115	38.3	6.44
									110	35.3	5.80
									100	29.1	4.08
									85	22.7	3.08
									65	13.0	0.42
									42	0.0	0.00
10-08-83	1710	22	15.0	1,353.24	29,300	5,615	218	5.21	260	0.0	0.00
									245	12.4	0.68
									235	17.4	1.28
									225	22.0	2.94
									215	24.2	3.34
									205	32.0	4.20
									195	38.6	5.42

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-08-83	1710	(Continued)							185	37.7	6.14
									175	38.0	6.64
									165	38.2	7.26
									155	37.3	6.68
									145	36.6	7.00
									135	36.2	7.20
									125	36.0	6.84
									115	35.4	6.31
									105	32.9	5.33
									95	25.8	4.72
									85	20.9	3.50
									75	17.0	1.88
									65	12.0	0.28
									42	0.0	0.00
10-11-83	1335	23	15.0	1,353.08	29,800	5,730	218	5.20	42	0.0	0.00
									55	10.0	0.22
									70	14.2	1.37
									80	19.5	2.67
									95	27.3	4.30
									105	33.0	5.05
									115	36.4	6.00
									125	37.5	6.51
									135	36.4	7.05
									140	36.7	6.90
									150	37.0	6.86
									155	37.2	6.94
									165	38.0	6.88
									170	38.5	6.86
									180	38.3	6.78
									185	37.9	6.60
									195	38.0	5.68
									200	37.6	3.61
									210	24.8	3.80
									225	22.5	3.35
									235	18.0	2.12
									250	10.0	1.35
									260	0.0	0.00
10-13-83	945	24	14.0	1,352.10	25,000	5,502	217	4.54	259	0.0	0.00
									245	11.4	1.12
									230	19.0	1.48
									220	21.2	2.96
									210	24.3	3.50
									200	36.5	3.32
									190	35.4	5.65
									185	35.1	5.76
									175	35.2	6.19
									170	36.1	5.87
									160	38.6	6.51
									155	37.2	6.02
									145	36.2	6.18
									140	35.8	6.55
									130	36.5	6.19
									125	37.6	5.87
									115	39.3	4.88
									105	32.0	4.64
									95	26.3	3.38
									85	18.1	2.59

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-13-83	945	(Continued)							75	15.4	1.60
									55	9.8	0.18
									42	0.0	0.00
10-15-83	1330	25	14.0	1,352.22	25,000	5,640	217	4.43	259	0.0	0.00
									245	12.5	0.81
									230	20.0	1.19
									220	21.5	2.74
									210	23.8	3.70
									200	36.5	3.22
									195	37.3	4.78
									185	37.3	5.62
									180	37.0	5.63
									170	39.0	6.00
									165	37.5	6.14
									155	37.6	6.06
									150	37.7	6.14
									140	39.7	6.30
									135	40.3	5.86
									125	39.2	5.58
									120	37.8	4.84
									110	34.1	5.10
									100	25.5	4.16
									90	23.9	3.08
									80	18.8	2.06
									60	10.9	0.17
									42	0.0	0.00
10-17-83	1130	26	13.0	1,352.04	24,200	5,644	217	4.29	259	0.0	0.00
									245	11.3	0.74
									225	20.6	2.42
									210	23.5	3.33
									200	37.5	2.86
									190	38.4	4.65
									180	38.6	5.24
									175	38.0	5.36
									165	39.3	5.66
									160	40.5	6.00
									150	42.1	5.87
									145	42.3	5.74
									135	41.0	5.87
									130	39.8	5.74
									120	39.2	4.86
									115	33.3	5.20
									105	31.8	4.06
									95	24.5	3.44
									85	18.4	2.40
									65	11.3	0.44
									42	0.0	0.00
10-19-83	1220	27	13.0	1,352.17	25,400	5,430	217	4.67	42	0.0	0.00
									75	14.9	1.15
									95	24.1	4.50
									105	31.8	4.12
									115	33.0	5.11
									120	39.4	5.20
									125	38.0	5.57
									130	37.1	5.93
									135	37.3	5.87

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-19-83	1220	(Continued)							140	36.8	6.36
									145	36.7	6.56
									150	36.9	6.38
									155	37.1	6.55
									160	36.5	6.38
									165	36.9	6.75
									170	37.8	6.55
									175	37.5	6.16
									180	37.6	5.74
									185	37.3	5.76
									190	38.2	5.25
									200	36.6	3.37
									210	23.7	3.47
									230	19.6	1.53
									259	0.0	0.00
10-21-83	1145	28	13.0	1,352.58	25,600	5,650	216	4.53	42	0.0	0.00
									75	15.6	0.60
									90	24.1	2.72
									100	27.4	4.41
									110	33.6	4.80
									115	32.3	5.27
									120	40.2	5.16
									125	39.4	5.86
									130	39.3	5.88
									135	39.7	5.87
									140	40.3	6.10
									145	39.8	5.63
									150	39.8	6.21
									155	40.4	6.14
									160	40.4	6.58
									165	40.2	6.28
									170	41.1	6.40
									175	40.5	6.21
									180	40.4	5.93
									185	40.2	5.68
									190	39.3	5.51
									200	37.2	3.33
									210	22.7	3.47
									230	19.4	0.84
									258	0.0	0.00
10-23-83	1245	29	14.0	1,352.25	25,000	-----	219	4.47	42	0.0	0.00
									75	15.4	1.63
									90	24.4	3.15
									100	27.4	4.18
									110	33.7	4.45
									115	32.0	5.41
									120	39.5	5.06
									125	38.5	5.68
									130	38.0	5.80
									135	38.2	5.90
									140	39.1	5.92
									145	39.5	6.18
									150	39.5	6.14
									155	39.7	6.14
									160	39.5	5.94
									165	39.2	5.94
									170	39.1	5.94

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-23-83	1245	(Continued)							175	39.3	5.42
									180	39.7	5.63
									185	39.9	5.30
									190	41.1	4.86
									200	33.2	3.74
									210	22.6	2.93
									230	19.4	1.34
									261	0.0	0.00
10-25-83	1315	30	15.0	1,353.13	29,100	5,840	218	4.99	260	0.0	0.00
									230	20.1	2.08
									210	23.3	3.42
									200	38.3	4.63
									190	41.8	5.81
									185	42.2	6.08
									180	41.4	6.55
									175	41.9	6.81
									170	41.4	6.78
									165	40.8	6.10
									160	40.6	6.50
									155	40.2	6.42
									150	40.1	6.36
									145	40.2	6.60
									140	39.8	6.36
									135	39.8	6.28
									130	40.1	5.46
									125	40.6	6.21
									120	40.9	5.88
									115	37.0	5.17
									110	35.0	5.45
									100	28.3	4.27
									90	26.0	3.61
									75	16.0	1.35
									42	0.0	0.00
10-27-83	1630	31	15.0	1,352.32	25,700	5,600	220	4.59	261	0.0	0.00
									230	20.5	0.79
									210	24.3	3.51
									206	37.7	3.35
									190	38.3	5.16
									185	40.1	5.68
									180	39.4	5.88
									175	37.5	6.60
									170	38.1	6.26
									165	37.6	6.36
									160	37.3	6.26
									155	37.2	6.48
									150	37.2	6.49
									145	36.7	6.36
									140	37.4	6.54
									135	37.5	6.28
									130	38.5	5.74
									125	39.3	5.74
									120	40.0	5.46
									115	31.7	5.30
									110	33.9	4.96
									100	27.6	4.34
									90	24.8	3.14
									75	15.5	1.55

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-27-83	1630	(Continued)							41	0.0	0.00
10-30-83	1255	32	14.0	1,352.96	29,000	5,879	220	4.93	261	0.0	0.00
									230	20.5	1.68
									210	23.2	4.09
									200	37.6	5.11
									190	38.6	5.57
									185	38.6	5.94
									180	38.8	6.18
									175	39.4	6.28
									170	39.2	6.74
									165	40.8	6.38
									160	41.3	6.16
									155	41.8	6.32
									150	43.4	6.36
									145	43.7	6.22
									140	44.1	6.21
									135	42.7	5.68
									130	41.2	5.76
									125	38.7	5.78
									120	39.4	5.77
									115	37.3	6.00
									110	34.9	5.39
									100	31.3	4.19
									90	24.8	3.20
									75	16.4	1.78
									41	0.0	0.00
11-10-83	1225	33	14.0	1,352.08	25,100	5,279	217	4.76	259	0.0	0.00
									230	18.9	1.48
									210	23.4	3.47
									200	36.2	3.71
									190	35.5	5.27
									185	35.6	5.87
									180	35.2	6.18
									175	35.4	6.21
									170	35.8	6.49
									165	36.0	6.30
									160	34.9	6.21
									155	35.0	6.74
									150	35.3	6.63
									145	35.5	6.61
									140	35.5	6.49
									135	35.6	6.36
									130	35.4	6.28
									125	36.0	5.91
									120	37.2	6.05
									115	31.2	5.05
									110	33.0	4.98
									100	26.3	4.44
									90	24.1	3.14
									75	15.5	1.57
									42	0.0	0.00
11-12-83	1545	34	14.0	1,351.98	24,900	5,291	217	4.70	259	0.0	0.00
									230	18.8	1.45
									210	23.0	3.75
									200	36.2	3.72
									190	36.3	5.86

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-12-83	1545	(Continued)							185	35.9	5.75
									180	36.4	6.18
									175	35.8	6.30
									170	36.1	6.30
									165	35.7	6.42
									160	35.0	6.20
									155	35.0	6.36
									150	34.5	6.49
									145	34.6	6.48
									140	34.8	6.48
									135	35.1	6.36
									130	35.5	6.42
									125	36.4	6.02
									120	36.9	5.34
									115	37.6	5.02
									110	33.3	5.10
									100	26.2	4.03
									90	23.8	2.98
									75	15.2	0.94
									42	0.0	0.00
11-14-83	1045	35	14.0	1,352.10	24,500	5,340	217	4.60	259	0.0	0.00
									230	19.2	1.17
									210	23.0	3.54
									200	35.7	3.36
									190	35.2	5.21
									185	35.3	5.46
									180	34.7	5.81
									175	34.8	6.23
									170	35.0	6.48
									165	34.7	6.33
									160	35.1	6.75
									155	35.4	6.72
									150	35.7	6.21
									145	36.1	6.26
									140	36.9	6.06
									135	36.7	6.00
									130	37.3	5.81
									125	37.4	5.58
									120	39.2	5.33
									115	35.4	4.91
									110	33.0	5.11
									100	26.3	4.61
									90	24.0	2.88
									75	16.2	1.71
									42	0.0	0.00
11-19-83	1150	36	13.0	1,351.66	23,800	5,538	217	4.30	258	0.0	0.00
									240	12.2	1.29
									230	19.4	0.96
									220	20.0	2.44
									210	23.4	3.02
									200	37.0	2.99
									195	37.7	4.58
									185	38.2	5.26
									180	37.5	5.58
									170	37.4	6.00
									165	38.2	6.00
									155	39.7	6.14

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-19-83	1150	(Continued)							150	40.1	5.69
									140	39.3	5.88
									135	38.8	5.62
									125	38.5	5.33
									120	36.0	5.33
									110	33.2	4.56
									100	26.8	4.11
									90	23.4	2.87
									80	17.2	2.10
									70	12.0	0.37
									55	10.0	0.29
									41	0.0	0.00
11-23-83	1020	37	12.0	1,351.92	24,400	5,662	217	4.31	258	0.0	0.00
									240	12.5	1.04
									230	17.4	1.09
									220	20.6	2.39
									210	23.2	3.60
									200	37.9	3.05
									195	40.2	4.52
									185	38.8	5.57
									180	38.7	5.46
									170	39.5	5.75
									165	39.4	5.71
									155	40.6	5.60
									150	41.2	5.68
									140	41.0	6.00
									135	40.0	5.42
									125	38.8	5.51
									120	40.5	5.26
									110	32.9	4.56
									100	26.8	3.77
									90	24.3	2.66
									80	17.6	2.48
									70	12.3	0.67
									60	11.1	0.29
									41	0.0	0.00
11-29-83	1330	38	13.0	1,352.30	25,600	5,500	219	4.66	259	0.0	0.00
									230	18.7	1.50
									210	23.2	3.44
									200	36.3	2.98
									190	37.5	5.57
									185	39.0	5.82
									180	39.3	5.75
									175	39.0	6.18
									170	40.0	5.94
									165	38.3	6.31
									160	38.6	6.49
									155	38.0	6.28
									150	38.2	6.55
									145	37.7	6.37
									140	38.5	6.16
									135	37.2	6.21
									130	37.0	6.00
									125	37.2	5.81
									120	38.0	5.62
									110	33.4	4.88
									100	24.7	4.21

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-29-83	1330	(Continued)							90	23.8	2.98
									75	15.7	1.52
									40	0.0	0.00
12-01-83	1510	39	12.0	1,352.12	26,200	5,670	219	4.61	259	0.0	0.00
									230	18.7	1.34
									210	23.0	3.76
									200	37.3	3.42
									190	37.9	5.33
									185	38.5	5.63
									180	38.7	5.57
									175	39.3	5.94
									170	39.3	6.18
									165	39.5	6.32
									160	40.5	6.00
									155	41.2	6.14
									150	42.0	5.88
									145	42.2	6.14
									140	42.0	6.00
									135	40.6	5.74
									130	38.8	5.82
									125	38.3	5.51
									120	39.0	5.40
									115	39.0	5.36
									105	32.2	4.63
									95	25.2	3.86
									75	15.3	1.16
									40	0.0	0.00
12-05-83	1310	40	12.0	1,352.14	25,000	5,384	219	4.64	259	0.0	0.00
									230	18.3	1.24
									210	22.8	3.61
									200	36.5	3.22
									190	37.3	5.20
									185	37.7	5.82
									180	38.3	5.69
									175	38.0	6.31
									170	38.8	6.08
									165	37.4	5.93
									160	36.7	6.49
									155	36.5	6.32
									150	36.2	6.20
									145	36.1	6.24
									140	36.1	6.24
									135	36.1	6.29
									130	36.6	5.88
									125	37.5	5.97
									120	37.0	5.52
									110	33.1	5.11
									100	27.0	4.11
									90	23.3	3.29
									75	14.8	1.56
									40	0.0	0.00
12-07-83	1220	41	13.0	1,352.10	25,600	5,464	219	4.36	40	0.0	0.00
									75	14.1	0.72
									90	23.7	2.69
									105	32.1	4.57
									115	32.5	5.62

Table 22.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-07-83	1220	(Continued)							120	39.7	5.94
									125	39.1	5.88
									130	38.2	6.12
									135	36.8	6.29
									140	37.3	6.06
									145	37.3	6.26
									150	38.0	6.44
									155	38.0	6.14
									160	38.4	6.38
									165	39.5	6.24
									170	39.5	6.18
									175	39.5	6.30
									180	39.2	5.74
									185	38.7	5.74
									190	39.0	5.26
									195	39.2	4.60
									205	24.4	3.82
									220	21.9	2.69
									235	15.0	1.01
									259	0.0	0.00

Table 23.--Hydraulic and physical characteristics of cross section during discharge measurements, Kanab Creek near Fredonia, 1983

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-02-83	1710	88	25.5	1.02	4.2	6.36	17	0.67	6	0.0	0.00
									8	0.3	0.10
									9	0.4	0.43
									10	0.4	0.62
									11	0.3	0.68
									12	0.3	0.64
									13	0.4	0.66
									14	0.4	0.76
									15	0.3	0.81
									16	0.5	0.76
									17	0.5	0.84
									18	0.6	0.76
									19	0.6	0.81
									20	0.5	0.99
									21	0.4	0.59
									22	0.4	0.50
									23	0.0	0.00
08-02-83	1730	89	25.5	1.02	3.2	6.43	17	0.50	6	0.0	0.00
									8	0.4	0.22
									9	0.4	0.40
									10	0.4	0.52
									11	0.2	0.63
									12	0.4	0.43
									13	0.4	0.48
									14	0.4	0.64
									15	0.4	0.64
									16	0.5	0.53
									17	0.6	0.40
									18	0.5	0.53
									19	0.5	0.57
									20	0.5	0.62
									21	0.4	0.55
									22	0.3	0.47
									23	0.0	0.00
08-09-83	1045	90	24.0	1.14	4.3	4.59	13	0.94	2	0.0	0.00
									4	0.2	0.58
									5	0.3	0.77
									6	0.4	0.53
									7	0.3	0.72
									8	0.4	0.84
									9	0.5	1.19
									10	0.5	1.11
									11	0.4	0.99
									12	0.5	1.19
									13	0.5	1.03
									14	0.4	0.88
									15	0.2	0.79
08-12-83	1545	91	25.0	1.91	34	17.2	16	1.95	2	0.0	0.00
									3	0.5	0.72
									4	1.2	2.05
									5	1.8	2.08
									6	1.7	2.29
									7	1.2	2.10
									8	1.1	2.10
									9	1.2	2.39
									10	1.3	2.20
									11	1.4	1.88

Table 23.--Hydraulic and physical characteristics of cross section during discharge measurements, Kanab Creek near Fredonia, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
08-12-83	1545	91	(Continued)						12	1.2	2.04
									13	1.2	2.00
									14	1.2	1.73
									15	1.0	1.52
									16	0.7	1.23
									17	0.5	1.13
									18	0.0	0.00
08-13-83	1045	92	22.0	1.50	11	9.95	17	1.10	3	0.0	0.00
									4	0.6	0.82
									5	0.8	1.06
									6	0.6	1.11
									7	0.7	1.06
									8	0.5	1.25
									9	0.5	1.30
									10	0.5	1.23
									11	0.6	1.25
									12	0.8	1.28
									13	0.8	1.19
									14	0.7	1.15
									15	0.7	1.17
									16	0.6	1.15
									17	0.6	1.06
									18	0.5	0.86
									19	0.4	0.55
									20	0.0	0.00
10-03-83	1345	94	9.0	1.37	5.7	6.87	17.5	0.83	2	0.0	0.00
									3	0.6	0.72
									4	0.4	0.64
									5	0.4	0.80
									6	0.4	0.78
									7	0.4	0.82
									8	0.4	0.88
									9	0.4	1.03
									10	0.4	1.03
									11	0.4	0.86
									12	0.4	0.84
									13	0.5	0.76
									14	0.5	0.88
									15	0.5	0.86
									16	0.5	0.89
									17	0.4	0.91
									18	0.4	0.73
									19	0.3	0.80
									20	0.2	0.59
									21	0.0	0.00
11-22-83	1145	95	3.0	1.50	12	9.23	17	1.32	0	0.0	0.00
									1	0.5	1.03
									2	0.9	0.99
									3	0.7	1.25
									4	0.6	1.20
									5	0.6	1.44
									6	0.5	1.54
									7	0.5	1.54
									8	0.5	1.51
									9	0.8	1.32
									10	0.9	1.18

Table 23.--Hydraulic and physical characteristics of cross section during discharge measurements, Kanab Creek near Fredonia, 1983--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-22-83	1145	95	(Continued)						11	0.8	1.38
									12	0.5	1.38
									13	0.5	1.47
									14	0.5	1.44
									15	0.4	1.38
									16	0.3	1.35
									17	0.0	0.00
12-01-83	1245	96	2.0	1.34	5.6	6.25	16.5	0.90	0	0.0	0.00
									1	0.6	0.89
									2	0.5	0.84
									3	0.4	1.08
									4	0.4	0.82
									5	0.4	1.13
									6	0.4	1.11
									7	0.3	1.08
									8	0.4	1.06
									9	0.4	0.80
									10	0.5	0.78
									11	0.5	0.72
									12	0.5	0.91
									13	0.4	0.84
									14	0.4	0.86
									15	0.3	0.95
									16	0.1	0.53
									17	0.0	0.00
12-08-83	1345	97	----	1.49	13	10	18.5	1.35	0	0.0	0.00
									1	0.3	0.89
									2	0.5	0.84
									3	0.5	1.15
									4	0.5	1.38
									5	0.6	1.35
									6	0.5	1.23
									7	0.5	1.44
									8	0.6	1.62
									9	0.5	1.62
									10	0.5	1.76
									11	0.6	1.44
									12	0.8	1.38
									13	0.8	1.51
									14	0.7	1.51
									15	0.6	1.44
									16	0.6	1.26
									17	0.5	1.06
									18	0.4	0.95
									19	0.2	0.49
12-13-83	1530	98	4.5	1.54	9.9	8.1	19	1.23	0	0.0	0.00
									1	0.3	0.92
									2	0.3	1.07
									3	0.4	1.30
									4	0.4	1.11
									5	0.5	1.25
									6	0.6	1.22
									7	0.7	1.49
									8	0.7	1.49
									9	0.7	1.39
									10	0.6	1.33

Table 23.--Hydraulic and physical characteristics of cross section during discharge measurements, Kanab Creek near Fredonia, 1983--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-13-83	1530	98	(Continued)						11	0.5	1.09
									12	0.5	1.25
									13	0.5	1.25
									14	0.4	1.36
									15	0.4	1.07
									16	0.3	1.00
									17	0.3	0.69
									18	0.2	0.40
									19	0.0	0.00

Table 24.--Grain-size distribution of suspended sediment, Paria River at Lees Ferry, 1983

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
07-01-83	0850	323	87.4	93.5	100.0	-----	-----	-----	-----
07-23-83	1045	166	90.0	90.0	100.0	-----	-----	-----	-----
07-24-83	1730	65,200	52.0	-----	-----	-----	-----	-----	-----
07-25-83	1150	156,000	76.5	82.2	97.8	99.9	100.0	-----	-----
07-27-83	1730	65,900	53.6	-----	-----	-----	-----	-----	-----
07-28-83	1907	16,100	83.2	-----	-----	-----	-----	-----	-----
07-29-83	0830	13,000	87.1	-----	-----	-----	-----	-----	-----
07-30-83	1830	2,860	64.4	-----	-----	-----	-----	-----	-----
07-31-83	1930	486,000	19.7	-----	-----	-----	-----	-----	-----
08-01-83	1235	101,000	75.4	-----	-----	-----	-----	-----	-----
08-01-83	1635	41,100	85.1	-----	-----	-----	-----	-----	-----
08-05-83	0945	197,000	68.1	68.5	72.1	79.5	98.1	99.9	100.0
08-05-83	1400	101,000	58.7	86.0	91.1	99.7	100.0	-----	-----
08-06-83	0750	60,700	72.9	74.8	78.4	96.6	99.9	100.0	-----
08-06-83	1330	88,400	95.5	95.9	98.7	99.9	100.0	-----	-----
08-07-83	0800	91,400	99.8	100.0	-----	-----	-----	-----	-----
08-07-83	----	84,000	87.3	89.7	97.1	99.9	100.0	-----	-----
08-08-83	1150	96,000	89.5	90.1	92.7	97.4	99.7	99.8	100.0
08-09-83	1910	63,200	79.6	-----	-----	-----	-----	-----	-----
08-10-83	1100	55,900	92.7	-----	-----	-----	-----	-----	-----
08-10-83	1550	130,000	87.6	-----	-----	-----	-----	-----	-----
08-11-83	1010	53,400	94.4	-----	-----	-----	-----	-----	-----
08-11-83	1430	60,200	79.6	-----	-----	-----	-----	-----	-----
08-12-83	1105	29,300	89.7	-----	-----	-----	-----	-----	-----
08-12-83	1555	25,400	93.5	98.0	99.8	100.0	-----	-----	-----
08-13-83	0800	72,300	89.5	94.7	99.6	99.9	100.0	-----	-----
08-13-83	1740	68,800	82.3	89.6	99.3	99.8	99.9	100.0	-----
08-14-83	1705	77,200	91.9	94.6	99.3	99.9	100.0	-----	-----
08-15-83	0755	68,800	94.5	-----	-----	-----	-----	-----	-----
08-15-83	1400	51,500	96.3	-----	-----	-----	-----	-----	-----
08-16-83	0820	30,600	95.3	97.3	99.4	99.8	100.0	-----	-----
08-16-83	1725	53,100	94.9	98.1	99.6	99.9	100.0	-----	-----
08-17-83	1736	185,000	86.8	91.2	98.0	99.0	99.6	99.9	100.0
08-19-83	0800	151,000	66.4	82.6	98.4	99.5	99.5	100.0	-----
08-20-83	0718	82,700	90.1	92.8	98.1	99.8	99.9	100.0	-----
08-20-83	1645	57,800	92.0	96.5	99.3	99.9	100.0	-----	-----
08-21-83	0834	45,800	93.3	96.7	99.4	99.9	100.0	-----	-----
08-21-83	1730	19,800	90.5	95.7	99.0	99.6	100.0	-----	-----
08-22-83	0848	9,280	83.3	92.9	99.5	99.9	100.0	-----	-----
08-22-83	1845	6,980	85.9	92.1	97.2	99.6	99.9	100.0	-----
08-23-83	0937	4,470	95.3	98.4	99.2	100.0	-----	-----	-----
08-23-83	1902	5,680	74.6	87.9	95.7	99.8	100.0	-----	-----
08-24-83	1150	3,920	70.1	86.2	96.9	100.0	-----	-----	-----
08-25-83	1112	4,340	70.9	86.1	95.4	99.2	99.7	100.0	-----
08-25-83	1911	3,070	77.6	93.2	98.6	99.7	100.0	-----	-----

Table 24.--Grain-size distribution of suspended sediment, Paria River at Lees Ferry, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
08-26-83	1050	12,600	89.4	96.2	99.3	99.9	100.0	-----	-----
08-26-83	1815	17,700	95.0	97.5	99.3	99.9	100.0	-----	-----
08-31-83	----	7,190	93.7	-----	-----	-----	-----	-----	-----
09-03-83	0930	2,790	80.9	-----	-----	-----	-----	-----	-----
09-18-83	1215	1,170,000	11.7	19.0	39.9	86.5	96.2	99.2	100.0
09-24-83	0838	78,800	81.9	82.2	97.3	98.0	98.7	99.9	100.0
09-25-83	0920	40,500	88.2	89.5	95.7	99.4	99.5	100.0	-----
09-27-83	0908	9,300	74.8	93.1	99.4	100.0	-----	-----	-----
09-28-83	0523	2,940	75.1	90.2	98.6	99.8	100.0	-----	-----
09-28-83	0810	6,390	46.4	64.4	89.8	99.5	100.0	-----	-----
09-29-83	0513	8,420	71.8	-----	-----	-----	-----	-----	-----
09-30-83	0956	20,200	82.3	82.3	95.4	99.7	100.0	-----	-----
09-30-83	1713	24,800	86.7	86.8	96.5	99.8	100.0	-----	-----
10-01-83	0806	147,000	73.6	80.7	91.2	99.4	100.0	-----	-----
10-01-83	1835	93,500	86.2	89.1	98.0	99.9	100.0	-----	-----
10-02-83	1007	48,800	68.0	70.6	81.1	99.9	100.0	-----	-----
10-03-83	0936	60,900	87.7	90.6	97.6	99.8	99.9	100.0	-----
10-03-83	1600	43,000	92.2	94.9	99.3	100.0	-----	-----	-----
10-04-83	0920	23,600	94.2	96.1	99.2	100.0	-----	-----	-----
10-04-83	1815	18,600	93.3	-----	-----	-----	-----	-----	-----
10-05-83	1130	10,000	77.4	80.3	85.3	97.5	99.7	99.8	100.0
10-06-83	1340	2,380	80.5	87.3	97.8	100.0	-----	-----	-----
10-07-83	1525	2,280	62.4	77.2	96.2	99.9	100.0	-----	-----
10-08-83	1130	1,770	69.0	84.6	98.7	99.8	100.0	-----	-----
10-09-83	0850	2,720	67.4	82.7	96.6	99.5	100.0	-----	-----
10-10-83	1155	1,990	48.9	70.8	93.4	99.8	100.0	-----	-----
10-11-83	1440	1,270	52.2	74.8	96.2	99.8	100.0	-----	-----
10-12-83	1000	3,100	59.1	68.3	82.4	88.6	93.0	96.9	100.0
10-13-83	0920	1,420	48.7	72.2	93.8	99.4	100.0	-----	-----
10-14-83	0810	1,610	37.1	59.3	91.4	98.6	100.0	-----	-----
10-19-83	1500	1,110	40.5	70.1	97.8	100.0	-----	-----	-----
10-23-83	1320	950	19.6	54.6	93.1	99.6	100.0	-----	-----
10-27-83	1000	1,130	20.0	44.3	84.0	98.8	100.0	-----	-----
10-30-83	1115	711	31.4	56.9	95.8	99.5	100.0	-----	-----
11-18-83	0945	17,100	47.8	72.8	92.0	99.5	100.0	-----	-----
11-22-83	1615	5,720	47.6	64.6	88.3	99.1	99.5	100.0	-----
11-29-83	1541	2,740	37.1	65.5	95.3	100.0	-----	-----	-----
12-03-83	1450	1,930	43.3	73.7	95.9	100.0	-----	-----	-----

Table 25.--Grain-size distribution of suspended sediment, Little Colorado River at Cameron, 1983

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.0625	0.125	0.250	0.500	1.00	2.00
07-27-83	1515	118,000	88.4	89.4	94.4	99.9	100.0	-----
07-27-83	1945	71,300	88.3	89.6	92.9	99.1	100.0	-----
07-28-83	0720	66,200	93.2	94.2	97.7	99.8	100.0	-----
07-28-83	1935	67,300	92.6	93.8	97.6	99.8	99.9	100.0
07-29-83	0635	97,000	85.5	86.8	93.2	99.9	100.0	-----
07-29-83	1040	107,000	82.5	83.7	89.8	98.4	100.0	-----
07-29-83	1655	89,600	89.0	90.0	94.4	99.6	100.0	-----
07-30-83	0635	100,000	93.9	94.2	95.0	99.8	100.0	-----
07-30-83	1915	83,800	89.3	90.6	95.9	99.7	100.0	-----
07-31-83	0650	86,600	90.1	91.1	94.1	99.7	100.0	-----
07-31-83	1820	86,900	95.9	96.7	98.4	99.9	100.0	-----
08-01-83	0600	78,800	96.4	96.9	98.6	99.9	100.0	-----
08-01-83	1915	78,800	96.4	96.9	98.6	99.9	100.0	-----
08-02-83	0805	77,600	96.5	97.2	98.6	99.7	100.0	-----
08-02-83	1920	182,000	98.3	98.5	99.2	99.9	100.0	-----
08-03-83	0820	127,000	97.1	97.4	98.6	99.8	100.0	-----
08-03-83	1910	116,000	97.4	97.7	98.9	99.9	100.0	-----
08-04-83	0600	94,700	98.0	98.2	99.2	100.0	-----	-----
08-04-83	1920	175,000	96.8	97.3	98.9	99.4	100.0	-----
08-05-83	0720	217,000	88.9	89.2	93.0	96.1	100.0	-----
08-05-83	1900	137,000	93.8	94.2	97.1	99.8	100.0	-----
08-06-83	0720	129,000	88.1	88.7	91.9	99.1	100.0	-----
08-06-83	1905	103,000	89.7	90.8	97.0	99.8	100.0	-----
08-07-83	0730	99,000	91.8	93.0	94.6	99.9	100.0	-----
08-07-83	1855	92,000	93.4	95.0	98.9	100.0	-----	-----
08-08-83	0715	85,800	94.0	94.8	98.5	99.9	100.0	-----
08-08-83	1925	76,800	96.0	96.8	99.0	99.9	100.0	-----
08-09-83	0720	123,000	94.7	95.4	97.2	99.9	100.0	-----
08-09-83	1910	168,000	85.0	85.6	89.3	98.5	99.9	100.0
08-10-83	0725	109,000	95.0	95.6	98.1	99.9	100.0	-----
08-10-83	1830	88,500	97.8	98.4	99.6	100.0	-----	-----
08-11-83	0650	51,200	96.1	97.7	99.2	99.9	100.0	-----
08-11-83	1915	84,600	84.2	85.9	91.4	99.8	100.0	-----
08-12-83	0715	100,000	96.9	97.4	98.8	99.9	100.0	-----
08-12-83	1750	81,800	96.6	97.1	99.4	99.9	100.0	-----
08-13-83	0600	47,600	98.4	----	-----	-----	-----	-----
08-13-83	0600	92,200	96.7	97.7	99.4	100.0	-----	-----
08-13-83	1930	64,600	99.6	99.7	99.9	100.0	-----	-----
08-14-83	0730	80,000	90.4	92.8	98.3	99.9	100.0	-----
08-14-83	1920	67,900	94.1	95.6	99.1	99.9	100.0	-----
08-15-83	0710	66,700	95.4	96.4	99.7	100.0	-----	-----
08-15-83	1915	65,000	97.9	98.7	99.7	100.0	-----	-----
08-16-83	0720	61,600	99.3	99.7	99.9	100.0	-----	-----
08-16-83	1515	64,500	97.5	98.3	99.8	100.0	-----	-----
08-17-83	0830	80,900	96.9	97.7	99.9	100.0	-----	-----

Table 25.--Grain-size distribution of suspended sediment, Little Colorado River at Cameron, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.0625	0.125	0.250	0.500	1.00	2.00
08-17-83	1840	72,500	97.7	98.2	99.8	100.0	-----	-----
08-18-83	0735	60,200	97.5	98.2	99.6	100.0	-----	-----
08-18-83	1840	60,700	96.4	97.9	99.8	99.9	100.0	-----
08-19-83	0645	47,000	99.3	99.6	99.9	100.0	-----	-----
08-19-83	1820	47,700	98.4	99.2	99.8	100.0	-----	-----
08-20-83	0725	54,100	99.4	99.7	99.9	100.0	-----	-----
08-20-83	1915	65,400	93.7	95.8	99.5	100.0	-----	-----
08-21-83	0715	73,500	100.0	----	-----	-----	-----	-----
08-21-83	1905	79,300	92.1	93.8	98.4	99.9	100.0	-----
08-22-83	0830	70,400	100.0	----	-----	-----	-----	-----
08-22-83	1900	80,100	100.0	----	-----	-----	-----	-----
08-23-83	0830	88,000	100.0	----	-----	-----	-----	-----
08-23-83	1900	88,400	100.0	----	-----	-----	-----	-----
08-24-83	1135	36,300	92.6	----	-----	-----	-----	-----
08-24-83	1155	84,300	100.0	----	-----	-----	-----	-----
08-24-83	1920	81,800	100.0	----	-----	-----	-----	-----
08-25-83	0655	77,300	100.0	----	-----	-----	-----	-----
08-25-83	1710	20,800	100.0	----	-----	-----	-----	-----
08-25-83	1910	73,400	100.0	----	-----	-----	-----	-----
08-26-83	0730	86,100	100.0	----	-----	-----	-----	-----
09-04-83	1100	43,500	68.8	----	-----	-----	-----	-----
09-24-83	1840	27,000	97.3	----	-----	-----	-----	-----
09-25-83	0900	12,400	98.3	----	-----	-----	-----	-----
09-26-83	0900	20,700	99.7	----	-----	-----	-----	-----
09-26-83	1815	37,200	96.9	----	-----	-----	-----	-----
09-27-83	0945	62,100	93.7	----	-----	-----	-----	-----
09-27-83	1830	47,500	96.6	----	-----	-----	-----	-----
09-28-83	0789	38,600	96.5	----	-----	-----	-----	-----
09-28-83	1725	78,900	99.6	----	-----	-----	-----	-----
09-29-83	0730	58,300	91.0	----	-----	-----	-----	-----
09-29-83	2100	46,500	91.6	----	-----	-----	-----	-----
09-30-83	0700	43,600	68.5	----	-----	-----	-----	-----
09-30-83	1500	81,900	81.0	----	-----	-----	-----	-----
10-01-83	1145	61,700	55.1	----	-----	-----	-----	-----
10-01-83	1825	90,500	68.6	----	-----	-----	-----	-----
10-02-83	0715	71,800	77.6	----	-----	-----	-----	-----
10-02-83	1830	41,500	46.1	----	-----	-----	-----	-----
10-03-83	0645	40,900	68.1	----	-----	-----	-----	-----
10-03-83	1815	39,800	70.1	70.1	100.0	-----	-----	-----
10-04-83	1845	39,600	69.0	76.1	88.5	99.3	99.9	100.0
10-05-83	0700	42,800	66.4	----	-----	-----	-----	-----
10-05-83	1830	4,130	78.4	----	-----	-----	-----	-----
10-06-83	0700	32,000	50.2	----	-----	-----	-----	-----
10-06-83	1500	25,700	77.2	----	-----	-----	-----	-----
10-07-83	0745	22,900	77.9	----	-----	-----	-----	-----

Table 25.--Grain-size distribution of suspended sediment, Little Colorado River at Cameron, 1983--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.0625	0.125	0.250	0.500	1.00	2.00
10-09-83	1820	21,000	95.6	----	-----	-----	-----	-----
10-10-83	0715	22,100	88.7	----	-----	-----	-----	-----
10-10-83	1650	22,200	93.1	96.0	99.5	100.0	-----	-----
10-11-83	1100	17,700	94.6	----	-----	-----	-----	-----
10-11-83	1815	15,100	92.8	----	-----	-----	-----	-----
10-12-83	0830	17,600	95.7	----	-----	-----	-----	-----
10-12-83	2100	18,900	96.9	----	-----	-----	-----	-----
10-13-83	1030	9,560	94.5	----	-----	-----	-----	-----
10-13-83	2100	16,300	98.8	----	-----	-----	-----	-----
10-14-83	0835	13,200	99.2	99.5	99.9	100.0	-----	-----
10-14-83	1825	12,200	98.2	----	-----	-----	-----	-----
10-15-83	0635	10,400	98.3	----	-----	-----	-----	-----
10-15-83	1815	10,400	98.3	----	-----	-----	-----	-----
10-16-83	0750	13,700	99.2	----	-----	-----	-----	-----
10-16-83	1505	13,700	98.9	----	-----	-----	-----	-----
10-17-83	0900	10,800	99.2	----	-----	-----	-----	-----
10-17-83	1830	12,300	99.1	----	-----	-----	-----	-----
10-18-83	1100	12,900	99.5	----	-----	-----	-----	-----
10-18-83	1815	12,200	99.4	----	-----	-----	-----	-----
10-19-83	0715	12,400	99.1	----	-----	-----	-----	-----
10-19-83	1515	12,900	99.3	----	-----	-----	-----	-----
10-20-83	0815	10,500	99.2	----	-----	-----	-----	-----
10-20-83	1845	8,290	98.6	----	-----	-----	-----	-----
10-21-83	0815	5,720	98.0	----	-----	-----	-----	-----
10-21-83	1655	4,760	96.4	----	-----	-----	-----	-----
10-22-83	0630	4,130	97.5	----	-----	-----	-----	-----
10-22-83	1800	4,210	94.7	----	-----	-----	-----	-----
10-23-83	0945	3,540	99.1	----	-----	-----	-----	-----
10-23-83	1940	3,160	97.6	----	-----	-----	-----	-----
11-23-83	2200	30,900	83.3	----	-----	-----	-----	-----
11-24-83	0940	36,500	87.8	----	-----	-----	-----	-----
11-24-83	1720	37,700	91.9	----	-----	-----	-----	-----
11-25-83	0925	32,100	94.7	----	-----	-----	-----	-----
11-25-83	1825	33,800	96.8	----	-----	-----	-----	-----
11-26-83	1015	22,700	98.2	----	-----	-----	-----	-----
11-26-83	1800	30,400	98.2	----	-----	-----	-----	-----
11-27-83	0930	29,500	99.3	----	-----	-----	-----	-----
11-27-83	1720	30,100	97.9	----	-----	-----	-----	-----
11-28-83	0755	28,600	97.4	----	-----	-----	-----	-----
11-28-83	1720	22,400	97.9	----	-----	-----	-----	-----
11-30-83	----	13,800	99.0	99.3	99.9	100.0	-----	-----
10-07-83	1930	25,000	87.7	----	-----	-----	-----	-----
10-08-83	0600	24,900	83.7	----	-----	-----	-----	-----
10-08-83	1810	19,900	89.8	----	-----	-----	-----	-----
10-09-83	0900	18,900	91.6	----	-----	-----	-----	-----

Table 26.--Grain-size distribution of suspended sediment, Kanab Creek near Fredonia, 1983

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.0625	0.125	0.250	0.500	1.00	2.00
08-02-83	1810	664,000	99.5	99.7	99.9	100.0	-----	-----
08-09-83	1015	132,000	99.7	99.8	99.9	100.0	-----	-----
08-12-83	1430	84,400	97.0	----	----	-----	-----	-----
08-13-83	1030	29,300	99.9	----	----	-----	-----	-----
08-13-83	1830	11,700	99.3	99.5	99.9	100.0	-----	-----
09-06-83	1530	29,400	98.7	----	----	-----	-----	-----
09-30-83	0700	31,900	94.2	98.6	99.5	99.9	100.0	-----
09-30-83	0715	33,500	93.6	98.4	99.7	99.9	100.0	-----
09-30-84	0730	31,500	95.2	99.0	99.8	100.0	-----	-----
09-30-83	0745	16,300	94.8	98.8	99.7	100.0	-----	-----
09-30-83	0800	26,900	95.5	99.0	99.8	99.9	100.0	-----
09-30-83	0815	26,800	95.4	98.9	99.8	100.0	-----	-----
09-30-83	0830	30,300	96.1	99.0	99.8	99.9	100.0	-----
09-30-83	0845	30,100	96.2	99.0	99.8	100.0	-----	-----
09-30-83	0900	28,200	95.9	98.7	99.7	100.0	-----	-----
09-30-83	0915	30,100	96.1	99.0	99.8	100.0	-----	-----
09-30-83	0930	27,500	95.8	99.2	99.9	100.0	-----	-----
09-30-83	0945	27,100	95.2	99.2	99.9	100.0	-----	-----
09-30-83	1000	24,600	95.3	99.1	99.9	100.0	-----	-----
09-30-83	1015	25,600	94.3	98.7	99.8	100.0	-----	-----
09-30-83	1030	27,000	91.8	98.6	99.7	99.9	100.0	-----
09-30-83	1045	32,000	87.4	97.5	99.6	99.9	100.0	-----
09-30-83	1100	39,000	85.5	97.5	99.5	99.9	100.0	-----
09-30-83	1115	39,200	85.8	97.5	99.5	99.9	100.0	-----
09-30-83	1130	38,600	87.4	96.3	99.3	99.9	100.0	-----
09-30-83	1145	41,000	88.4	97.4	99.3	99.9	100.0	-----
10-03-83	1330	14,100	99.4	99.5	99.8	100.0	-----	-----
10-04-83	1335	11,000	96.4	----	----	-----	-----	-----
11-19-83	1128	4,310	97.4	----	----	-----	-----	-----
11-22-83	1121	3,530	98.5	99.5	99.9	100.0	-----	-----
12-01-83	1130	1,710	97.7	99.5	99.7	100.0	-----	-----
12-08-83	0220	26,600	94.2	----	----	-----	-----	-----
12-13-83	1600	16,500	87.1	95.9	99.0	99.9	100.0	-----

Table 27.--Grain-size distribution of suspended sediment, Little Colorado River at mouth, 1983

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.				
			0.0625	0.125	0.250	0.500	1.00
07-28-83	0900	814	77.4	88.2	97.4	100.0	-----
07-29-83	0930	227	19.2	----	----	-----	-----
08-06-83	1300	176,355	82.1	----	----	-----	-----
08-14-83	1130	41,898	96.5	----	----	-----	-----
08-23-83	1000	41,945	97.3	----	----	-----	-----
09-22-83	1800	550	95.1	----	----	-----	-----
09-24-83	----	64,947	80.1	----	----	-----	-----
09-24-83	1545	63,908	77.7	92.7	99.8	100.0	-----
10-10-83	1351	10,832	98.9	----	----	-----	-----
10-14-83	1530	5,320	97.9	98.1	98.5	99.2	100.0
10-23-83	1500	2,644	99.3	----	----	-----	-----

Table 28.--Grain-size distribution of suspended sediment, miscellaneous tributary flows, 1983

Location	Date	Time	Discharge, in cubic feet per second	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
Drainage off east side Char Butte	07-25-83	1050	*E* 3.5-4	32,900	--
	07-26-83	1715	*E* 2-3	10,100	--
Little Colorado River at mouth	07-28-83	0900	--------	815	77
	07-29-83	0930	--------	227	19
	08-06-83	1300	--------	192,000	84
	08-14-83	1130	--------	43,000	97
	08-23-83	1000	--------	43,000	97
	09-22-83	1800	--------	550	95
	09-24-83	----	--------	66,800	81
	09-24-83	1545	--------	65,600	79
	10-10-83	1350	--------	10,900	99
	10-14-83	1530	--------	5,340	98
	10-23-83	1500	--------	2,650	99
Bright Angel Creek near mouth	08-06 83	0730	*E* 85	480	13
National Canyon at mouth	08-11-83	1830	*E* 21	9,840	3
	08-15-83	1830	*E*590	46,100	19
	08-17-83	1600	*E* 50	2,240	1

E - Estimated.

Table 29.--Grain-size distribution of suspended sediment, Colorado River at Lees Ferry, 1985-86

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
10-01-85	1540	8	81.0	----	----	-----	-----	-----	-----
10-01-85	1850	11	13.0	----	----	-----	-----	-----	-----
10-08-85	1430	11	43.3	66.2	77.5	90.4	100.0	-----	-----
11-01-85	1350	17	49.1	73.4	95.5	100.0	-----	-----	-----
11-01-85	1540	17	63.0	72.0	85.5	96.9	100.0	-----	-----
11-01-85	1920	10	45.3	53.1	74.4	100.0	-----	-----	-----
11-01-85	2245	9	62.5	71.0	84.3	92.5	100.0	-----	-----
11-02-85	0235	12	63.2	72.0	78.7	82.7	100.0	-----	-----
11-02-85	1815	20	68.5	77.1	90.0	96.7	100.0	-----	-----
11-03-85	0200	9	45.2	67.1	85.7	94.8	100.0	-----	-----
11-08-85	1225	9	78.6	92.1	98.5	98.8	100.0	-----	-----
11-08-85	1717	11	59.5	72.5	83.8	91.4	96.5	100.0	-----
11-08-85	1758	103	17.2	52.4	84.9	98.5	100.0	-----	-----
11-08-85	2315	18	52.9	65.9	84.4	99.3	100.0	-----	-----
11-09-85	0155	10	77.9	87.9	93.2	95.0	100.0	-----	-----
11-09-85	0450	37	17.5	34.0	82.7	94.1	100.0	-----	-----
11-09-85	1205	8	79.0	83.7	88.6	92.1	100.0	-----	-----
11-09-85	1235	38	31.5	39.8	60.2	86.2	100.0	-----	-----
11-09-85	1340	10	80.3	85.5	90.2	96.6	100.0	-----	-----
11-09-85	1840	10	69.4	79.4	85.0	90.5	94.6	100.0	-----
11-09-85	2037	13	52.7	73.3	89.5	97.7	100.0	-----	-----
11-09-85	2220	14	67.7	81.4	94.1	98.5	100.0	-----	-----
11-10-85	0500	9	64.1	78.4	91.2	97.0	100.0	-----	-----
12-03-85	1600	120	23.9	27.0	31.2	49.8	100.0	-----	-----
12-03-85	2052	25	50.7	69.7	87.1	95.3	100.0	-----	-----
12-03-85	2215	58	8.7	13.5	21.2	39.1	100.0	-----	-----
01-04-86	1150	23	67.9	80.7	91.0	98.1	100.0	-----	-----
01-04-86	1302	12	56.7	78.5	93.6	100.0	-----	-----	-----
01-04-86	1432	31	28.2	44.9	69.7	78.0	100.0	-----	-----
01-04-86	1838	31	47.2	60.5	85.4	97.6	100.0	-----	-----
01-04-86	2225	21	57.2	63.0	83.3	97.1	100.0	-----	-----
01-05-86	0200	78	6.3	11.6	20.5	27.1	29.6	43.7	100.0
01-05-86	0300	11	44.5	66.6	90.0	100.0	-----	-----	-----
01-05-86	0505	45	37.1	50.6	65.2	100.0	-----	-----	-----
01-05-86	0620	12	23.6	45.8	66.1	100.0	-----	-----	-----
01-05-86	1048	7	35.2	53.3	71.7	86.5	100.0	-----	-----
01-05-86	1112	6	55.4	73.9	89.5	100.0	-----	-----	-----
01-05-86	1259	11	22.7	34.6	60.8	100.0	-----	-----	-----
01-05-86	1705	14	72.6	73.3	82.6	94.6	100.0	-----	-----
01-05-86	1828	26	25.6	62.9	94.5	100.0	-----	-----	-----
01-05-86	1945	13	55.1	66.4	93.0	100.0	-----	-----	-----
01-05-86	2135	14	29.4	53.0	90.4	100.0	-----	-----	-----
01-05-86	2222	8	57.7	63.8	82.6	100.0	-----	-----	-----
01-09-86	1550	11	32.4	53.2	77.7	86.0	100.0	-----	-----
01-09-86	2100	10	31.2	53.1	78.9	93.8	100.0	-----	-----
01-10-86	0200	6	48.8	65.0	86.2	100.0	-----	-----	-----

Table 29.--Grain-size distribution of suspended sediment, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
01-10-86	0525	7	47.0	57.6	66.1	100.0	-----	-----	-----
01-10-86	1140	4	38.9	61.9	86.7	99.0	100.0	-----	-----
01-10-86	1710	6	42.6	51.4	91.5	100.0	-----	-----	-----
01-10-86	2045	14	16.2	23.4	60.3	86.3	100.0	-----	-----
01-10-86	2310	10	28.1	44.3	79.2	91.5	100.0	-----	-----

Table 30.--Grain-size distribution of suspended sediment, Colorado River above Little Colorado River, 1985-86

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
10-05-85	1505	15	34.6	57.3	74.9	84.2	89.5	93.3	100.0
10-05-85	2200	14	71.2	80.3	86.2	93.3	97.6	-----	-----
10-06-85	0620	31	57.8	80.2	93.1	97.9	100.0	-----	-----
10-07-85	0130	12	60.9	74.2	86.9	98.0	100.0	-----	-----
10-07-85	2155	19	84.0	92.6	100.0	-----	-----	-----	-----
10-08-85	0130	29	71.4	87.2	97.1	99.9	100.0	-----	-----
10-08-85	1035	33	30.7	54.9	86.5	97.8	99.9	100.0	-----
10-08-85	1735	30	76.6	87.6	94.4	98.6	100.0	-----	-----
10-08-85	2220	19	40.6	61.8	89.3	96.7	97.8	100.0	-----
10-09-85	0240	23	19.4	72.3	94.6	95.2	99.7	100.0	-----
10-12-85	0600	635	95.5	95.9	96.7	99.9	100.0	-----	-----
10-12-85	1415	4,520	99.8	99.9	100.0	-----	-----	-----	-----
10-12-85	1845	5,950	99.7	99.8	100.0	-----	-----	-----	-----
10-13-85	1810	677	99.5	99.8	99.9	100.0	-----	-----	-----
10-14-85	0700	537	99.0	99.3	99.5	99.8	99.9	100.0	-----
10-14-85	1440	177	99.0	99.5	99.9	100.0	-----	-----	-----
10-15-85	0630	447	96.9	98.8	99.6	99.9	100.0	-----	-----
10-15-85	1455	248	97.2	99.2	99.6	99.9	100.0	-----	-----
10-15-85	1710	194	99.7	99.8	99.9	99.9	100.0	-----	-----
11-05-85	1405	29	66.1	85.9	93.9	98.2	100.0	-----	-----
11-05-85	2135	27	43.0	59.1	69.8	74.8	100.0	-----	-----
11-06-85	0540	19	63.0	85.7	96.7	100.0	-----	-----	-----
11-06-85	1432	18	62.5	83.1	93.9	98.5	100.0	-----	-----
11-06-85	1640	16	71.8	86.2	90.3	99.6	100.0	-----	-----
11-06-85	2205	9	79.4	95.1	97.8	99.9	100.0	-----	-----
11-07-85	0255	24	59.1	78.8	91.3	98.1	100.0	-----	-----
11-07-85	0425	19	57.6	79.3	98.4	99.9	100.0	-----	-----
11-07-85	1525	24	53.9	76.2	95.8	98.8	100.0	-----	-----
11-07-85	1605	18	57.2	85.1	94.1	97.5	100.0	-----	-----
11-07-85	2010	16	51.8	67.5	84.3	99.9	100.0	-----	-----
11-07-85	2205	12	73.1	87.8	91.9	94.1	100.0	-----	-----
11-08-85	0305	22	49.6	76.3	93.1	99.5	100.0	-----	-----
11-08-85	0445	22	62.3	86.3	94.6	98.6	100.0	-----	-----
11-08-85	0625	22	58.0	83.6	92.1	96.3	100.0	-----	-----
11-08-85	1105	52	51.0	75.4	89.7	98.5	100.0	-----	-----
11-08-85	1435	42	64.2	74.9	85.0	96.8	100.0	-----	-----
11-08-85	1555	40	41.8	66.6	83.1	92.1	100.0	-----	-----
11-08-85	2000	31	56.4	77.4	88.1	94.7	100.0	-----	-----
11-12-85	1805	11	80.6	89.4	98.3	100.0	-----	-----	-----
11-12-85	2150	19	61.4	69.9	96.3	100.0	-----	-----	-----
11-12-85	2350	36	43.3	54.7	82.9	100.0	-----	-----	-----
11-13-85	0243	25	75.2	90.8	98.3	100.0	-----	-----	-----
11-13-85	0410	48	75.7	87.2	96.5	100.0	-----	-----	-----
11-13-85	0602	40	45.3	64.2	100.0	-----	-----	-----	-----
11-13-85	0900	51	83.4	94.7	98.2	100.0	-----	-----	-----
11-13-85	1715	99	89.7	93.6	98.4	100.0	-----	-----	-----
11-14-85	0139	66	81.6	90.9	97.2	100.0	-----	-----	-----

Table 30.--Grain-size distribution of suspended sediment, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
11-14-85	0535	45	91.9	97.7	100.0	-----	-----	-----	-----
11-14-85	0612	34	73.6	88.8	97.6	100.0	-----	-----	-----
11-14-85	1140	36	69.8	85.9	97.6	100.0	-----	-----	-----
11-14-85	1410	34	62.3	79.1	100.0	-----	-----	-----	-----
11-14-85	1535	32	81.8	93.3	98.1	100.0	-----	-----	-----
11-14-85	1810	28	76.9	86.8	96.4	100.0	-----	-----	-----
11-14-85	2305	16	77.2	91.9	100.0	-----	-----	-----	-----
11-15-85	0133	32	62.6	81.9	96.2	100.0	-----	-----	-----
11-15-85	0710	34	81.8	89.6	96.9	100.0	-----	-----	-----
11-15-85	0850	15	57.2	81.0	92.7	100.0	-----	-----	-----
11-15-85	1455	28	81.8	92.0	97.5	100.0	-----	-----	-----
11-15-85	2115	10	56.1	74.5	91.4	100.0	-----	-----	-----
11-15-85	2225	358	62.7	69.9	99.5	100.0	-----	-----	-----
11-16-85	0100	19	66.8	78.9	85.8	90.8	100.0	-----	-----
11-16-85	0145	15	61.0	80.3	95.6	100.0	-----	-----	-----
12-03-85	2325	33	63.2	74.0	87.0	100.0	-----	-----	-----
12-06-85	1110	141	37.4	55.4	86.1	96.6	100.0	-----	-----
12-06-85	1412	55	65.1	80.3	94.6	99.1	100.0	-----	-----
12-07-85	0155	43	52.3	77.1	93.6	98.8	100.0	-----	-----
12-07-85	0445	47	41.6	56.0	82.4	98.9	100.0	-----	-----
12-07-85	1015	56	45.3	65.5	85.3	98.3	100.0	-----	-----
12-07-85	1140	37	42.6	65.3	91.3	98.6	100.0	-----	-----
12-07-85	1340	28	43.8	73.6	90.0	97.2	100.0	-----	-----
12-07-85	1455	27	63.3	81.8	96.1	100.0	-----	-----	-----
12-07-85	2308	23	38.3	60.5	86.8	100.0	-----	-----	-----
12-07-85	2332	13	72.2	81.5	95.2	100.0	-----	-----	-----
12-08-85	0320	15	25.5	44.3	84.0	94.1	100.0	-----	-----
12-08-85	0515	25	57.2	68.7	92.3	100.0	-----	-----	-----
12-08-85	0808	36	48.4	75.4	94.0	100.0	-----	-----	-----
12-08-85	0952	37	46.0	58.9	86.0	98.2	100.0	-----	-----
12-08-85	1142	30	64.0	80.7	91.6	100.0	-----	-----	-----
12-08-85	1335	28	63.1	81.7	95.0	100.0	-----	-----	-----
12-08-85	1500	26	66.9	83.3	95.5	100.0	-----	-----	-----
12-08-85	2055	38	65.7	72.8	90.4	100.0	-----	-----	-----
12-08-85	2220	44	65.7	74.2	91.4	100.0	-----	-----	-----
12-09-85	0405	29	80.2	86.4	93.6	100.0	-----	-----	-----
12-09-85	0538	21	65.6	71.3	88.1	96.8	100.0	-----	-----
12-09-85	0820	27	77.8	87.5	96.1	100.0	-----	-----	-----
12-09-85	1128	28	62.9	82.7	94.7	100.0	-----	-----	-----
12-09-85	1648	28	78.5	89.0	97.7	100.0	-----	-----	-----
12-09-85	2015	24	38.1	63.5	89.4	100.0	-----	-----	-----
12-12-85	1340	75	50.1	62.7	86.4	99.1	100.0	-----	-----
12-12-85	1540	68	37.0	56.9	85.3	99.0	100.0	-----	-----
12-12-85	1715	28	74.3	83.4	95.5	100.0	-----	-----	-----
12-12-85	2035	15	70.7	74.1	81.9	99.3	100.0	-----	-----
12-12-85	2130	6	79.9	89.8	100.0	-----	-----	-----	-----
12-13-85	0215	42	56.8	86.2	96.8	99.4	100.0	-----	-----

Table 30.--Grain-size distribution of suspended sediment, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
12-13-85	0715	127	39.0	77.0	93.0	98.6	100.0	-----	-----
12-13-85	1315	94	59.5	79.9	93.5	99.6	100.0	-----	-----
12-13-85	1520	95	48.9	76.2	90.8	99.1	99.6	100.0	-----
12-14-85	0220	91	50.1	72.4	88.5	98.3	100.0	-----	-----
12-14-85	0450	112	47.6	70.8	89.5	98.8	100.0	-----	-----
12-14-85	0700	120	39.6	71.8	91.7	99.4	100.0	-----	-----
12-14-85	1015	141	38.6	60.6	83.4	98.5	100.0	-----	-----
12-14-85	1420	47	66.5	81.8	93.6	98.3	100.0	-----	-----
12-14-85	1600	61	57.5	78.8	92.4	100.0	-----	-----	-----
12-14-85	2350	29	57.9	72.7	92.8	100.0	-----	-----	-----
12-15-85	0330	67	26.4	56.2	79.7	98.3	100.0	-----	-----
12-15-85	0645	82	48.3	73.2	90.4	99.0	100.0	-----	-----
12-15-85	1015	23	61.5	84.6	96.9	100.0	-----	-----	-----
12-15-85	1305	39	52.6	77.1	91.2	100.0	-----	-----	-----
12-15-85	1755	18	39.3	61.1	73.7	95.6	100.0	-----	-----
12-15-85	2055	20	24.6	38.7	59.2	91.3	100.0	-----	-----
01-08-86	0112	11	16.4	46.5	84.4	100.0	-----	-----	-----
01-08-86	0240	11	40.4	61.9	89.2	100.0	-----	-----	-----
01-08-86	0422	17	34.9	67.7	96.1	100.0	-----	-----	-----
01-08-86	0718	36	26.3	51.5	81.1	100.0	-----	-----	-----
01-08-86	0910	32	31.7	55.8	84.0	97.2	100.0	-----	-----
01-08-86	1320	15	12.0	48.2	76.7	84.8	100.0	-----	-----
01-08-86	1500	8	71.8	71.9	92.1	100.0	-----	-----	-----
01-08-86	1955	12	70.2	81.4	89.9	100.0	-----	-----	-----
01-08-86	2245	22	30.5	52.6	84.0	100.0	-----	-----	-----
01-09-86	0112	12	29.8	54.7	90.6	100.0	-----	-----	-----
01-09-86	0152	6	38.3	62.8	84.5	100.0	-----	-----	-----
01-09-86	0248	17	43.9	73.5	94.2	100.0	-----	-----	-----
01-09-86	0330	16	35.1	69.5	93.3	99.4	100.0	-----	-----
01-09-86	0517	37	33.6	62.1	87.8	100.0	-----	-----	-----
01-09-86	1020	29	31.6	55.1	82.6	97.6	100.0	-----	-----
01-09-86	1351	14	30.0	50.0	80.1	100.0	-----	-----	-----
01-09-86	1610	23	26.1	47.6	69.5	100.0	-----	-----	-----
01-09-86	1915	8	48.9	68.5	85.1	99.0	100.0	-----	-----
01-10-86	0245	17	42.1	72.3	93.6	100.0	-----	-----	-----
01-10-86	1225	36	22.3	61.8	90.4	98.5	100.0	-----	-----
01-10-86	1400	24	12.1	62.9	92.4	98.6	100.0	-----	-----
01-10-86	1955	17	51.3	68.7	87.8	96.9	100.0	-----	-----
01-10-86	2220	25	36.2	56.8	86.9	100.0	-----	-----	-----
01-11-86	0042	19	26.6	51.3	81.9	100.0	-----	-----	-----
01-11-86	0147	26	20.3	36.6	53.6	100.0	-----	-----	-----
01-11-86	1105	70	15.9	49.6	67.4	96.2	100.0	-----	-----
01-11-86	1322	50	22.3	42.8	74.9	97.2	100.0	-----	-----
01-11-86	1640	31	61.6	81.0	95.7	100.0	-----	-----	-----
01-11-86	2030	16	67.1	80.5	92.2	100.0	-----	-----	-----
01-13-86	0900	64	36.4	65.5	89.1	100.0	-----	-----	-----
01-13-86	1310	34	37.5	62.0	83.0	100.0	-----	-----	-----

Table 30.--Grain-size distribution of suspended sediment, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.						
			0.062	0.125	0.250	0.500	1.00	2.00	4.00
01-13-86	1505	20	53.6	75.2	89.3	100.0	-----	-----	-----
01-13-86	2030	9	56.2	69.8	87.9	100.0	-----	-----	-----
01-13-86	2350	6	50.9	58.8	77.4	100.0	-----	-----	-----
01-14-86	0200	13	52.1	68.1	90.9	100.0	-----	-----	-----
01-14-86	0245	10	61.3	85.7	91.9	100.0	-----	-----	-----
01-14-86	0415	31	45.4	82.6	99.4	100.0	-----	-----	-----
01-14-86	1025	16	10.1	63.5	90.4	100.0	-----	-----	-----
01-14-86	1330	45	86.2	94.5	98.0	99.0	100.0	-----	-----
01-14-86	1620	21	62.1	76.2	90.4	95.3	100.0	-----	-----
01-14-86	2110	15	57.9	76.6	93.3	100.0	-----	-----	-----
01-15-86	0220	31	42.5	74.9	90.4	97.9	100.0	-----	-----
01-15-86	0330	42	40.3	63.8	87.0	100.0	-----	-----	-----
01-15-86	0730	31	13.7	61.6	89.2	96.2	100.0	-----	-----
01-15-86	1035	30	21.5	45.7	68.5	100.0	-----	-----	-----
01-15-86	1435	18	42.2	59.0	79.6	100.0	-----	-----	-----
01-15-86	2040	4	56.9	78.5	89.4	100.0	-----	-----	-----
01-15-86	2230	8	69.1	81.9	90.8	100.0	-----	-----	-----
01-16-86	0130	12	51.4	77.5	94.6	100.0	-----	-----	-----
01-16-86	0240	15	32.2	71.8	92.3	97.0	100.0	-----	-----
01-16-86	0340	16	26.5	65.0	88.0	100.0	-----	-----	-----
01-16-86	0440	24	26.7	68.9	90.4	100.0	-----	-----	-----
01-16-86	0610	31	39.8	75.5	94.0	100.0	-----	-----	-----
01-16-86	0720	59	18.9	48.3	78.5	100.0	-----	-----	-----
01-16-86	1130	25	27.6	72.3	93.7	100.0	-----	-----	-----
01-16-86	1230	116	95.4	96.5	97.9	100.0	-----	-----	-----
01-16-86	1520	41	44.2	59.7	80.1	100.0	-----	-----	-----
01-16-86	1725	10	29.4	53.9	81.3	100.0	-----	-----	-----
01-16-86	1945	18	23.1	57.9	87.8	97.3	100.0	-----	-----
01-16-86	2110	32	26.3	47.7	73.8	95.5	100.0	-----	-----
01-16-86	2235	24	35.0	60.9	86.4	100.0	-----	-----	-----

Table 31.--Grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1985-86

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.062	0.125	0.500	1.00	2.00	4.00
10-11-85	1335	310	87.0	90.9	97.1	99.8	99.9	100.0
10-11-85	2215	386	88.7	95.8	99.4	99.8	100.0	-----
10-12-85	0205	249	98.2	99.1	99.6	99.8	99.9	100.0
10-12-85	0525	238	97.5	98.7	99.6	100.0	-----	-----
10-12-85	2105	926	99.1	99.5	99.8	99.9	100.0	-----
10-12-85	2255	1,410	98.8	99.1	99.6	99.8	99.9	100.0
10-13-85	0150	2,500	99.8	99.8	99.9	100.0	-----	-----
10-13-85	0440	3,400	99.4	99.5	99.6	100.0	-----	-----
10-13-85	1730	2,750	99.0	99.5	99.7	99.9	100.0	-----
10-13-85	2155	164	94.7	97.1	98.8	99.6	99.8	100.0
10-14-85	0200	127	93.6	96.1	98.4	99.7	100.0	-----
10-17-85	1745	423	99.1	99.8	100.0	-----	-----	-----
10-17-85	2240	359	98.7	99.6	99.8	99.9	100.0	-----
10-18-85	0245	344	91.6	93.9	96.5	98.4	98.8	100.0
10-18-85	0800	343	97.9	99.0	99.6	99.9	100.0	-----
10-18-85	1340	347	98.1	99.2	99.6	99.9	99.9	100.0
10-18-85	1715	270	97.3	98.6	99.2	99.9	100.0	-----
10-18-85	2120	259	95.3	97.6	99.5	99.8	99.9	100.0
10-19-85	0550	249	96.4	98.1	99.5	99.9	100.0	-----
10-19-85	0935	337	97.2	99.3	99.8	100.0	-----	-----
10-19-85	1115	317	94.7	97.7	99.3	99.7	99.8	100.0
10-19-85	1470	242	96.0	98.5	99.3	99.8	99.9	-----
10-20-85	0135	171	95.4	97.7	99.3	99.8	99.9	100.0
10-20-85	0525	162	98.5	99.3	99.8	99.9	100.0	-----
10-20-85	0910	159	98.7	99.6	99.9	100.0	-----	-----
10-20-85	1100	184	98.7	99.5	99.7	99.8	99.9	100.0
10-20-85	1405	232	96.8	97.9	98.7	99.9	100.0	-----
10-20-85	1640	244	95.6	98.2	99.6	100.0	-----	-----
10-20-85	2230	139	95.0	97.7	99.1	100.0	-----	-----
11-10-85	0925	65	54.1	79.1	96.1	99.4	100.0	-----
11-10-85	1635	110	59.4	81.6	95.3	99.2	100.0	-----
11-10-85	2030	84	56.9	80.0	93.8	98.1	100.0	-----
11-11-85	0530	52	73.8	92.3	98.3	99.5	100.0	-----
11-11-85	1050	47	56.4	78.0	92.3	98.0	100.0	-----
11-11-85	1135	22	75.3	88.5	96.7	99.3	100.0	-----
11-11-85	1500	38	62.8	79.5	91.0	98.0	100.0	-----
11-11-85	2015	34	58.2	76.2	90.7	96.9	100.0	-----
11-11-85	2135	29	74.7	91.6	98.2	99.2	100.0	-----
11-12-85	0952	42	63.5	82.7	96.0	99.8	100.0	-----
11-12-85	1400	51	51.5	73.5	91.7	99.0	100.0	-----
11-12-85	1535	35	54.2	87.3	99.5	99.9	100.0	-----
11-12-85	1725	49	51.5	75.3	92.2	98.6	100.0	-----
11-12-85	2200	32	61.3	84.7	97.2	99.3	100.0	-----
11-13-85	0310	65	78.2	86.5	95.0	99.3	100.0	-----
11-13-85	0550	50	66.4	81.7	93.8	96.8	100.0	-----
11-13-85	0645	70	77.9	88.2	96.9	99.6	100.0	-----
11-13-85	1452	65	32.0	58.7	89.8	98.6	100.0	-----

Table 31.--Grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.062	0.125	0.500	1.00	2.00	4.00
11-13-85	1935	55	78.6	90.0	97.9	99.7	100.0	-----
11-17-85	1145	26	89.0	95.1	98.7	100.0	-----	-----
11-17-85	2245	21	78.7	92.6	99.1	99.9	100.0	-----
11-18-85	0645	20	62.5	75.1	90.1	94.8	100.0	-----
11-18-85	0725	14	75.2	84.4	92.6	96.9	100.0	-----
11-18-85	1045	23	71.7	82.7	93.8	97.7	100.0	-----
11-18-85	1115	21	68.7	80.7	97.0	99.3	100.0	-----
11-19-85	1030	26	60.6	86.1	98.4	100.0	-----	-----
11-19-85	1100	42	69.0	82.9	97.4	100.0	-----	-----
11-19-85	1655	22	58.8	85.0	94.4	97.5	100.0	-----
11-19-85	1810	35	65.3	82.7	98.1	100.0	-----	-----
11-19-85	2255	20	65.6	86.6	96.0	98.5	100.0	-----
11-20-85	0110	16	52.6	75.9	90.7	95.9	100.0	-----
11-20-85	0505	22	54.4	71.1	89.8	98.3	100.0	-----
11-20-85	0635	37	55.0	70.8	92.9	99.2	100.0	-----
11-20-85	0735	36	46.9	69.9	89.3	96.7	100.0	-----
11-20-85	0942	28	47.7	75.4	95.4	98.7	100.0	-----
11-20-85	1130	37	49.0	68.9	94.7	100.0	-----	-----
11-20-85	1150	27	30.6	61.8	93.5	98.4	100.0	-----
11-20-85	1800	30	52.9	83.6	97.7	100.0	-----	-----
11-20-85	2115	31	71.3	88.1	95.5	97.6	100.0	-----
11-21-85	0135	18	70.9	88.3	97.9	100.0	-----	-----
12-11-85	0800	227	57.7	81.5	96.1	99.9	100.0	-----
12-11-85	1655	307	52.4	86.3	98.8	100.0	-----	-----
12-11-85	2100	183	63.0	87.0	97.3	100.0	-----	-----
12-11-85	2315	84	69.7	90.5	98.3	100.0	-----	-----
12-12-85	0335	122	65.5	87.6	98.7	100.0	-----	-----
12-12-85	0505	189	53.1	80.8	96.4	100.0	-----	-----
12-12-85	0930	205	42.2	76.0	95.9	100.0	-----	-----
12-12-85	1010	274	49.1	67.2	90.9	99.7	100.0	-----
12-12-85	1535	182	56.3	82.5	97.0	100.0	-----	-----
12-12-85	1650	115	53.3	86.8	98.8	100.0	-----	-----
12-12-85	2040	88	63.6	86.6	95.3	99.7	100.0	-----
12-13-85	0140	79	71.7	84.4	95.4	100.0	-----	-----
12-13-85	0235	79	78.9	90.3	98.0	100.0	-----	-----
12-13-85	0420	102	56.3	83.4	97.5	100.0	-----	-----
12-13-85	0450	141	45.1	71.7	92.9	99.7	100.0	-----
12-13-85	0610	188	41.0	66.5	90.4	99.4	100.0	-----
12-13-85	1050	470	26.1	65.1	92.9	100.0	-----	-----
12-13-85	1130	507	25.1	62.7	93.9	99.8	100.0	-----
12-13-85	1418	697	41.7	79.5	96.2	100.0	-----	-----
12-13-85	1518	703	48.8	84.7	98.4	100.0	-----	-----
12-13-85	2345	150	75.0	91.6	98.6	100.0	-----	-----
12-14-85	0135	131	62.9	90.1	99.0	100.0	-----	-----
12-14-85	0945	364	34.6	64.2	94.2	99.8	100.0	-----
12-14-85	1025	330	29.2	67.6	93.4	99.7	100.0	-----
12-14-85	1140	413	30.9	65.3	91.2	99.7	100.0	-----

Table 31.--Grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.062	0.125	0.500	1.00	2.00	4.00
12-14-85	1545	312	47.0	66.4	93.8	99.8	100.0	-----
12-14-85	1620	266	49.2	81.0	96.2	98.9	100.0	-----
12-14-85	2105	88	68.0	93.2	100.0	-----	-----	-----
12-14-85	2215	84	75.0	95.8	99.8	100.0	-----	-----
12-17-85	1145	112	32.3	59.6	87.1	98.1	100.0	-----
12-17-85	1330	169	34.8	75.9	96.9	100.0	-----	-----
12-17-85	2020	60	64.6	82.6	94.0	100.0	-----	-----
12-17-85	2205	48	74.0	88.1	97.8	100.0	-----	-----
12-18-85	0120	30	78.3	93.1	98.4	100.0	-----	-----
12-18-85	0240	25	89.6	97.0	100.0	-----	-----	-----
12-18-85	0550	22	87.4	93.3	97.8	100.0	-----	-----
12-18-85	0735	42	52.4	78.7	93.9	100.0	-----	-----
12-18-85	0925	67	36.1	58.5	84.9	98.2	100.0	-----
12-18-85	1135	85	42.1	63.7	89.1	100.0	-----	-----
12-18-85	1310	83	39.0	67.6	94.1	100.0	-----	-----
12-18-85	1340	118	29.4	62.0	90.3	100.0	-----	-----
12-18-85	1600	105	29.4	61.8	91.6	99.7	100.0	-----
12-18-85	1715	85	42.9	74.7	95.3	100.0	-----	-----
12-18-85	2025	59	49.9	72.7	89.9	99.0	100.0	-----
12-19-85	0435	10	79.7	93.7	99.2	100.0	-----	-----
12-19-85	0800	30	48.5	81.4	96.5	100.0	-----	-----
12-19-85	1130	51	40.9	68.9	92.3	99.0	100.0	-----
12-19-85	1340	73	31.6	65.8	90.1	100.0	-----	-----
12-19-85	1710	55	38.3	70.9	95.6	100.0	-----	-----
12-19-85	2020	23	64.9	91.4	99.6	100.0	-----	-----
12-19-85	2345	19	70.1	85.7	96.4	99.7	100.0	-----
12-20-85	0145	16	62.0	84.0	97.1	100.0	-----	-----
12-20-85	0350	19	57.6	75.7	93.9	100.0	-----	-----
12-20-85	0600	44	41.8	62.4	84.7	89.9	93.3	100.0
12-20-85	1000	29	54.1	74.1	92.0	97.0	100.0	-----
12-20-85	1400	52	31.7	61.5	91.5	98.9	100.0	-----
12-20-85	1510	45	24.3	59.5	90.1	99.3	100.0	-----
12-20-85	1740	30	44.4	74.8	93.1	100.0	-----	-----
12-20-85	2000	18	47.8	78.3	95.0	99.2	100.0	-----
12-20-85	2145	28	56.0	76.6	94.5	100.0	-----	-----
01-13-86	0745	73	27.3	32.8	47.2	92.3	95.3	100.0
01-13-86	0815	91	22.3	48.4	86.5	97.9	100.0	-----
01-13-86	0948	126	18.2	36.3	75.2	97.6	100.0	-----
01-13-86	1020	122	17.3	19.6	27.5	96.7	100.0	-----
01-13-86	1105	137	19.3	43.1	80.5	99.1	100.0	-----
01-13-86	1150	128	19.9	34.0	77.6	96.2	99.5	100.0
01-13-86	1307	121	21.9	51.9	88.7	98.6	100.0	-----
01-13-86	1345	116	29.5	48.9	86.0	98.3	100.0	-----
01-13-86	1415	119	21.0	44.2	79.3	95.6	100.0	-----
01-13-86	1935	184	18.0	58.7	88.7	95.7	100.0	-----
01-13-86	2015	239	18.4	55.3	89.1	96.9	100.0	-----
01-13-86	2235	263	39.3	78.2	97.4	99.6	100.0	-----

Table 31.--Grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.062	0.125	0.500	1.00	2.00	4.00
01-13-86	2315	185	38.3	71.7	89.8	98.9	100.0	-----
01-14-86	0405	25	42.2	64.4	87.0	94.7	100.0	-----
01-14-86	0445	19	45.1	72.0	91.7	95.3	100.0	-----
01-14-86	0602	12	45.3	63.4	78.1	94.2	100.0	-----
01-14-86	0749	126	9.4	36.9	89.0	99.1	100.0	-----
01-14-86	0914	134	11.9	22.6	44.6	98.1	100.0	-----
01-14-86	1135	144	17.0	26.7	41.4	98.9	100.0	-----
01-14-86	1305	141	15.5	21.7	75.2	98.7	100.0	-----
01-14-86	1342	144	20.6	37.5	74.0	98.3	100.0	-----
01-14-86	1515	106	22.6	25.9	71.0	98.6	100.0	-----
01-14-86	1555	82	23.2	49.4	83.5	100.0	-----	-----
01-14-86	1715	73	31.4	52.3	84.4	98.8	100.0	-----
01-14-86	1945	46	42.3	61.5	87.2	97.9	100.0	-----
01-14-86	2015	58	38.8	50.6	70.3	97.6	100.0	-----
01-14-86	2258	20	66.4	86.5	96.9	99.5	100.0	-----
01-15-86	0125	19	64.0	72.5	86.6	98.6	100.0	-----
01-15-86	0147	25	50.4	55.0	79.6	97.9	100.0	-----
01-15-86	0253	22	59.7	72.2	87.7	100.0	-----	-----
01-15-86	0645	88	16.1	25.5	73.5	98.1	100.0	-----
01-15-86	1050	78	26.7	47.1	67.6	100.0	-----	-----
01-15-86	1330	84	35.2	81.4	98.5	100.0	-----	-----
01-15-86	1548	71	30.4	44.5	71.6	96.7	100.0	-----
01-15-86	2006	53	32.7	52.2	69.4	100.0	-----	-----
01-15-86	2226	14	34.7	70.9	87.5	100.0	-----	-----
01-16-86	0215	21	38.3	58.1	77.1	100.0	-----	-----
01-16-86	0430	18	31.4	51.3	71.1	100.0	-----	-----
01-16-86	0615	23	26.6	57.0	87.8	100.0	-----	-----
01-16-86	0642	36	35.6	65.0	88.7	100.0	-----	-----
01-16-86	0722	59	38.4	61.1	87.4	100.0	-----	-----
01-16-86	0748	56	18.3	42.9	79.9	100.0	-----	-----
01-16-86	1430	111	12.2	42.1	83.4	97.1	100.0	-----
01-16-86	1742	109	29.8	52.3	78.2	97.1	100.0	-----
01-16-86	2030	50	35.7	60.0	83.4	97.1	100.0	-----
01-18-86	1040	248	2.1	38.1	84.1	97.7	100.0	-----
01-18-86	1600	238	33.9	71.8	84.4	99.1	100.0	-----
01-18-86	1750	162	23.3	79.5	97.0	99.9	100.0	-----
01-18-86	2200	60	38.8	72.2	96.0	98.9	100.0	-----
01-18-86	2335	59	27.4	78.1	96.6	100.0	-----	-----
01-19-86	0145	106	26.5	53.3	81.4	97.6	100.0	-----
01-19-86	0330	84	23.1	56.1	86.3	96.6	100.0	-----
01-19-86	0450	108	21.9	44.7	69.3	98.3	100.0	-----
01-19-86	0645	116	10.2	34.9	90.8	98.6	100.0	-----
01-19-86	0930	167	14.0	25.9	75.3	96.6	100.0	-----
01-19-86	1100	230	5.9	26.9	72.3	98.8	100.0	-----
01-19-86	1430	137	21.0	44.1	86.5	97.3	100.0	-----
01-19-86	1745	109	42.2	59.4	88.5	100.0	-----	-----
01-19-86	2000	117	28.2	54.4	82.5	98.1	100.0	-----

Table 31.--Grain-size distribution of suspended sediment, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.062	0.125	0.500	1.00	2.00	4.00
01-19-86	2340	68	32.6	59.6	91.1	100.0	-----	-----
01-20-86	0350	18	25.4	65.9	92.9	100.0	-----	-----
01-20-86	0615	29	27.2	64.0	93.0	100.0	-----	-----
01-20-86	0915	31	10.8	52.3	88.2	98.0	100.0	-----
01-20-86	1130	53	31.3	66.1	91.2	100.0	-----	-----
01-20-86	1320	61	4.0	30.9	68.0	97.3	100.0	-----
01-20-86	1650	85	29.9	55.5	85.5	98.8	100.0	-----
01-20-86	2020	33	29.0	64.1	81.3	100.0	-----	-----
01-20-86	2235	34	34.2	61.2	86.9	100.0	-----	-----
01-21-86	0110	50	9.1	41.1	80.4	100.0	-----	-----
01-21-86	0610	92	9.1	51.1	89.8	98.9	100.0	-----
01-21-86	0730	86	9.5	40.1	82.1	98.2	100.0	-----
01-21-86	0930	80	13.8	27.7	50.6	100.0	-----	-----
01-21-86	1040	49	21.1	40.6	80.9	100.0	-----	-----
01-21-86	1250	44	14.8	43.5	80.2	100.0	-----	-----
01-21-86	1620	21	6.8	57.6	90.7	100.0	-----	-----
01-21-86	1800	18	19.3	61.8	93.3	100.0	-----	-----
01-21-86	2035	11	38.0	71.5	91.1	100.0	-----	-----

Table 32.--Grain-size distribution of suspended sediment, Colorado River above National Canyon, 1985-86

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.0625	0.125	0.250	0.500	1.00	2.00
10-17-85	0545	1,430	97.1	98.4	99.5	99.9	100.0	-----
10-17-85	1515	1,170	98.8	99.2	99.7	99.9	100.0	-----
10-17-85	1710	1,100	99.3	99.7	99.9	99.9	100.0	-----
10-17-85	2350	1,180	99.9	99.5	99.8	99.9	100.0	-----
10-18-85	0640	1,090	98.7	99.4	99.8	100.0	-----	-----
10-18-85	1435	588	99.2	99.2	99.5	99.7	100.0	-----
10-18-85	2325	944	69.0	77.2	94.6	99.3	100.0	-----
10-19-85	1120	453	98.6	99.4	99.8	100.0	-----	-----
10-19-85	2045	339	93.2	95.3	97.2	99.4	100.0	-----
10-20-85	0125	408	96.9	98.3	99.1	99.8	100.0	-----
10-23-85	2015	842	99.5	99.8	99.9	100.0	-----	-----
10-24-85	0705	439	98.7	99.6	99.8	99.8	100.0	-----
10-24-85	0940	366	98.9	99.4	99.5	99.8	100.0	-----
10-24-85	1405	337	97.5	98.4	99.4	99.8	100.0	-----
10-24-85	1515	316	98.3	99.0	99.6	99.9	100.0	-----
10-24-85	2235	324	97.1	98.5	99.4	99.8	100.0	-----
10-25-85	0115	492	97.4	98.9	99.6	100.0	-----	-----
10-25-85	0352	520	98.3	99.4	99.9	100.0	-----	-----
10-25-85	0622	475	89.9	91.2	92.1	99.8	100.0	-----
10-25-85	0940	353	94.7	96.8	98.5	99.4	100.0	-----
10-25-85	1115	288	97.5	98.5	99.4	99.8	100.0	-----
10-25-85	1505	273	91.3	93.3	95.4	98.6	100.0	-----
10-25-85	1830	249	98.4	99.3	99.6	99.9	100.0	-----
10-25-85	2210	262	95.3	97.3	99.1	99.7	100.0	-----
10-25-85	2315	304	91.3	95.0	96.9	98.7	100.0	-----
10-26-85	0255	377	94.4	97.2	98.8	99.7	100.0	-----
10-26-85	0510	329	95.6	97.5	98.4	99.9	100.0	-----
10-26-85	0615	254	95.6	97.1	98.3	99.8	100.0	-----
10-26-85	1120	180	96.2	97.7	98.7	99.1	100.0	-----
10-26-85	1345	179	94.3	96.7	98.9	99.6	100.0	-----
10-26-85	2030	223	99.7	99.7	99.7	99.7	100.0	-----
10-26-85	2205	285	93.2	96.8	99.2	99.8	100.0	-----
11-16-85	1020	246	93.1	96.7	99.1	100.0	-----	-----
11-16-85	1500	215	86.9	93.0	98.3	99.7	100.0	-----
11-16-85	2100	201	92.0	96.1	98.6	99.5	100.0	-----
11-16-85	2205	151	90.7	95.5	98.9	99.8	100.0	-----
11-16-85	2350	206	70.7	83.0	92.5	99.3	100.0	-----
11-17-85	0147	191	62.0	77.8	92.7	99.1	100.0	-----
11-17-85	0515	168	51.3	71.3	93.9	99.6	100.0	-----
11-17-85	0615	161	51.9	75.6	94.0	99.2	100.0	-----
11-17-85	0950	94	66.8	86.1	96.9	99.9	100.0	-----
11-17-85	1430	73	71.8	81.2	95.1	99.4	100.0	-----
11-18-85	0555	68	61.5	74.9	95.6	99.7	100.0	-----
11-18-85	0730	100	50.1	68.9	89.7	99.4	100.0	-----
11-18-85	1005	77	59.2	74.8	87.5	97.7	100.0	-----
11-18-85	1442	67	49.4	64.9	80.9	90.3	100.0	-----
11-18-85	1935	84	45.2	56.3	71.4	81.1	100.0	-----

Table 32.--Grain-size distribution of suspended sediment, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.0625	0.125	0.250	0.500	1.00	2.00
11-18-85	2110	64	52.9	68.2	82.5	89.6	97.1	100.0
11-19-85	0245	89	34.3	50.8	71.9	92.9	95.6	100.0
11-19-85	0736	70	33.4	46.3	64.3	79.6	90.2	100.0
11-19-85	1100	40	58.8	72.2	85.7	95.0	100.0	-----
11-19-85	1345	66	48.7	64.0	85.8	94.8	100.0	-----
11-19-85	1550	47	38.1	48.5	59.4	73.9	82.7	100.0
11-19-85	2105	62	34.8	50.6	65.7	76.3	86.6	100.0
11-19-85	2205	100	19.5	31.0	46.3	67.9	90.0	100.0
11-23-85	1350	23	61.6	85.4	96.7	99.1	100.0	-----
11-24-85	1055	47	57.0	67.5	82.9	98.0	100.0	-----
11-24-85	1400	21	51.3	64.2	87.0	98.5	100.0	-----
11-24-85	1530	25	59.8	73.4	88.7	100.0	-----	-----
11-24-85	1740	16	72.9	88.7	97.2	100.0	-----	-----
11-24-85	2235	28	45.2	71.8	92.7	100.0	-----	-----
11-25-85	0130	16	55.1	81.4	94.6	97.9	100.0	-----
11-25-85	0655	27	32.7	56.5	83.0	96.0	100.0	-----
11-25-85	0925	53	32.3	43.0	64.9	95.4	100.0	-----
11-25-85	1105	9	5.7	43.6	81.1	93.3	100.0	-----
11-26-85	2025	23	65.1	77.8	88.4	100.0	-----	-----
11-26-85	2150	40	60.3	76.8	91.8	100.0	-----	-----
12-18-85	1315	60	58.3	76.3	94.3	100.0	-----	-----
12-18-85	2210	83	40.9	60.8	79.9	86.9	100.0	-----
12-18-85	2240	72	52.1	66.2	97.2	100.0	-----	-----
12-19-85	1800	18	76.4	82.1	94.0	100.0	-----	-----
12-20-85	0520	84	42.1	60.3	80.3	99.2	100.0	-----
12-20-85	1130	76	48.3	62.8	81.7	100.0	-----	-----
12-20-85	2210	75	43.3	63.1	83.3	97.1	100.0	-----
12-21-85	0125	74	40.8	61.7	86.1	99.3	100.0	-----
12-21-85	0525	77	50.6	69.2	87.7	100.0	-----	-----
12-21-85	0718	55	56.6	76.2	93.6	99.7	100.0	-----
12-21-85	1108	63	59.0	67.4	76.9	99.9	100.0	-----
12-21-85	1247	24	52.0	68.2	87.9	100.0	-----	-----
12-21-85	1447	22	21.9	41.9	80.4	100.0	-----	-----
12-21-85	2014	58	35.2	52.4	89.4	100.0	-----	-----
12-21-85	2130	30	43.2	66.3	86.7	100.0	-----	-----
12-24-85	0530	19	77.4	84.1	94.5	100.0	-----	-----
12-24-85	0930	19	79.6	85.1	95.3	100.0	-----	-----
12-24-85	1140	16	89.7	94.5	98.0	100.0	-----	-----
12-24-85	1530	26	88.6	93.5	99.1	100.0	-----	-----
12-24-85	2100	60	24.3	44.4	91.8	100.0	-----	-----
12-25-85	0135	89	50.1	66.0	87.7	98.6	100.0	-----
12-25-85	0255	105	37.2	65.1	86.5	98.5	100.0	-----
12-25-85	0500	74	57.8	57.8	92.4	98.5	100.0	-----
12-25-85	0620	68	51.1	75.7	95.7	100.0	-----	-----
12-25-85	2300	105	38.8	67.7	90.3	99.0	100.0	-----
12-26-85	0200	113	44.4	58.9	81.8	96.0	100.0	-----
12-26-85	0945	123	40.7	48.6	65.4	86.1	100.0	-----

Table 32.--Grain-size distribution of suspended sediment, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.0625	0.125	0.250	0.500	1.00	2.00
12-26-85	1615	29	82.7	90.7	96.3	100.0	-----	-----
12-26-85	2035	27	63.1	69.4	83.5	100.0	-----	-----
12-26-85	2315	23	64.7	71.2	80.8	92.7	100.0	-----
12-27-85	0120	20	74.5	81.7	93.4	100.0	-----	-----
12-27-85	0350	17	78.1	81.2	88.8	99.7	100.0	-----
12-27-85	0940	16	48.9	64.7	90.3	100.0	-----	-----
12-27-85	1650	25	77.2	79.1	93.5	100.0	-----	-----
12-27-85	2125	23	66.9	70.4	84.7	100.0	-----	-----
01-20-86	1115	146	31.8	49.4	75.1	97.5	100.0	-----
01-20-86	1305	113	51.7	64.7	81.7	97.2	100.0	-----
01-20-86	2050	133	36.2	60.1	78.5	97.9	100.0	-----
01-21-86	0330	170	26.4	46.8	74.4	94.8	100.0	-----
01-21-86	0430	126	28.0	49.4	76.7	97.0	100.0	-----
01-21-86	0510	137	22.1	41.6	71.8	97.4	100.0	-----
01-21-86	0605	142	23.9	42.0	66.1	93.2	100.0	-----
01-21-86	0940	94	20.5	41.0	71.4	93.6	100.0	-----
01-21-86	1140	72	19.8	40.6	71.3	96.6	100.0	-----
01-21-86	1312	176	15.4	21.5	32.1	65.4	100.0	-----
01-21-86	1528	115	18.9	36.7	68.6	94.5	100.0	-----
01-21-86	1610	132	19.4	34.6	55.7	86.6	100.0	-----
01-21-86	1947	115	25.0	44.2	74.7	97.3	100.0	-----
01-21-86	2150	108	20.5	38.2	60.7	76.7	92.9	100.0
01-21-86	2240	109	20.7	40.1	67.2	90.8	95.6	100.0
01-22-86	0045	95	25.1	43.8	68.7	100.0	-----	-----
01-22-86	0202	68	21.5	42.0	73.3	97.2	100.0	-----
01-22-86	0312	83	8.5	24.7	61.5	96.5	100.0	-----
01-22-86	0428	50	32.5	59.6	86.0	97.4	100.0	-----
01-22-86	0528	98	15.6	29.5	62.4	96.1	100.0	-----
01-22-86	0712	105	21.8	35.5	56.3	87.0	100.0	-----
01-22-86	1000	78	26.2	47.4	71.5	92.8	100.0	-----
01-22-86	1325	306	3.6	87.5	92.8	98.9	100.0	-----
01-22-86	1400	71	11.7	35.2	66.8	95.0	100.0	-----
01-22-86	1854	143	14.8	35.2	61.2	94.5	100.0	-----
01-22-86	2245	166	23.0	43.8	64.7	96.4	100.0	-----
01-23-86	0158	161	17.0	37.8	73.5	95.9	100.0	-----
01-23-86	0328	170	17.8	32.8	57.5	92.8	100.0	-----
01-23-86	0544	100	23.7	43.3	69.7	92.6	100.0	-----
01-23-86	0656	98	20.6	38.8	58.8	94.2	100.0	-----
01-23-86	1252	83	20.4	35.9	54.9	80.6	100.0	-----
01-23-86	1328	63	29.1	43.4	68.4	91.5	100.0	-----
01-23-86	1500	76	27.8	41.8	64.9	87.9	92.4	100.0
01-23-86	1556	83	19.5	36.9	65.1	97.5	100.0	-----
01-23-86	1915	61	25.6	41.8	67.1	94.2	100.0	-----
01-23-86	2018	48	2.0	23.7	55.5	96.3	100.0	-----
01-25-86	1110	59	31.4	50.6	69.5	100.0	-----	-----
01-25-86	1545	152	17.0	41.4	71.2	96.8	100.0	-----
01-25-86	2320	263	8.0	34.2	66.1	97.5	100.0	-----

Table 32.--Grain-size distribution of suspended sediment, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.0625	0.125	0.250	0.500	1.00	2.00
12-26-85	1615	29	82.7	90.7	96.3	100.0	-----	-----
01-26-86	0130	299	20.3	48.0	83.0	98.5	100.0	-----
01-26-86	0345	145	34.3	63.3	87.6	98.9	100.0	-----
01-26-86	1040	149	32.5	53.0	84.9	98.2	100.0	-----
01-26-86	1145	503	10.1	18.6	37.5	82.9	98.2	100.0
01-26-86	1320	186	26.7	50.1	73.2	97.3	100.0	-----
01-26-86	1410	225	22.9	47.7	80.1	94.6	100.0	-----
01-26-86	1710	135	12.3	47.2	79.3	97.1	100.0	-----
01-26-86	2000	140	16.1	34.5	56.9	95.2	100.0	-----
01-26-86	0740	130	30.8	61.6	85.0	98.2	100.0	-----
01-26-86	0915	289	17.0	34.6	60.8	93.5	100.0	-----
01-26-86	2300	235	11.0	31.8	74.8	96.4	100.0	-----
01-27-86	0140	593	5.7	30.5	62.7	82.5	100.0	-----
01-27-86	0350	347	15.5	30.1	77.3	91.9	100.0	-----
01-27-86	0715	253	27.4	51.7	82.1	97.1	100.0	-----
01-27-86	1110	253	20.0	44.3	79.4	97.7	100.0	-----

Table 33.--Grain-size distribution of suspended sediment, Colorado River above Diamond Creek, 1985-86

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.062	0.125	0.250	0.500	1.00	2.00
10-22-85	2155	225	92.4	94.9	98.2	99.7	100.0	-----
10-23-85	0615	217	88.2	91.0	96.3	99.8	100.0	-----
10-23-85	1125	212	79.3	85.0	92.8	99.4	100.0	-----
10-23-85	2150	198	84.1	90.7	96.7	99.6	100.0	-----
10-24-85	0215	226	97.2	98.0	98.4	98.9	99.1	100.0
10-24-85	1740	990	95.9	97.4	98.8	99.9	100.0	-----
10-24-85	2135	872	97.4	98.5	99.6	100.0	-----	-----
10-25-85	0210	801	97.8	98.6	99.5	99.9	100.0	-----
10-25-85	0520	802	99.0	99.4	99.7	100.0	-----	-----
10-25-85	1025	625	97.9	99.0	99.7	100.0	-----	-----
10-28-85	1800	194	76.3	85.7	94.1	97.3	97.7	100.0
10-28-85	2105	155	86.8	92.5	96.4	99.2	100.0	-----
10-29-85	0140	214	92.2	94.9	97.8	99.1	100.0	-----
10-29-85	0615	162	82.2	88.4	94.6	100.0	-----	-----
10-29-85	1055	118	97.3	99.0	99.8	100.0	-----	-----
10-29-85	1715	125	88.0	96.0	98.7	99.4	100.0	-----
10-29-85	2000	114	89.6	94.4	98.8	99.4	100.0	-----
10-29-85	2335	110	85.5	93.6	98.1	99.2	100.0	-----
10-30-85	0130	91	79.8	90.0	97.3	100.0	-----	-----
10-30-85	0505	229	47.5	61.7	75.4	92.7	97.8	100.0
10-30-85	1210	144	76.0	93.4	99.3	99.8	100.0	-----
10-30-85	1525	132	85.1	94.9	98.5	99.8	100.0	-----
10-30-85	1740	132	90.4	97.2	99.7	100.0	-----	-----
10-30-85	2220	174	76.1	89.0	99.0	99.7	100.0	-----
10-31-85	0110	190	77.1	88.9	96.3	99.3	99.6	100.0
10-31-85	1400	195	78.6	90.8	97.4	99.2	99.6	100.0
10-31-85	1705	143	64.3	85.3	97.7	99.7	100.0	-----
10-31-85	2000	195	74.6	86.3	93.5	98.9	100.0	-----
10-31-85	2210	184	74.8	88.0	96.1	97.1	97.7	100.0
10-31-85	2300	159	79.3	88.2	94.3	99.3	100.0	-----
11-01-85	0440	143	64.7	78.1	92.8	99.7	99.8	100.0
11-01-85	0610	132	67.8	83.7	96.0	99.8	100.0	-----
11-01-85	1000	127	57.9	78.7	96.1	98.9	100.0	-----
11-01-85	1145	106	98.0	99.0	99.0	99.0	99.0	100.0
11-22-85	0925	81	28.9	45.9	83.3	91.8	100.0	-----
11-22-85	1100	103	29.6	43.3	78.0	98.6	100.0	-----
11-22-85	1535	47	47.9	70.3	91.7	98.5	100.0	-----
11-22-85	1640	92	16.9	26.5	40.5	94.3	100.0	-----
11-22-85	2105	40	16.2	38.9	61.4	96.7	100.0	-----
11-22-85	2310	44	51.8	65.7	88.0	93.6	100.0	-----
11-23-85	0310	49	42.6	61.2	76.5	93.8	98.2	100.0
11-23-85	0430	48	37.8	57.3	81.3	98.9	100.0	-----
11-23-85	0650	76	30.8	45.8	73.6	95.5	98.4	100.0
11-23-85	0728	83	25.0	48.0	82.0	98.4	100.0	-----
11-23-85	1030	119	23.2	46.8	81.7	98.9	100.0	-----
11-23-85	1322	120	46.7	70.9	89.5	98.5	99.3	100.0
11-23-85	1555	86	36.5	68.7	89.4	98.3	100.0	-----

Table 33.--Grain-size distribution of suspended sediment, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.062	0.125	0.250	0.500	1.00	2.00
11-23-85	2005	97	28.4	44.4	74.6	96.7	100.0	-----
11-23-85	2330	41	52.7	75.4	88.1	99.0	100.0	-----
11-24-85	1650	61	29.9	49.8	73.2	94.4	100.0	-----
11-24-85	1730	88	25.9	40.7	64.5	97.9	100.0	-----
11-24-85	2220	39	39.5	61.3	78.9	95.5	100.0	-----
11-25-85	0150	49	39.3	49.4	74.0	98.8	100.0	-----
11-25-85	0755	35	44.1	66.5	84.0	92.4	100.0	-----
11-25-85	0902	43	49.6	68.7	88.4	98.6	100.0	-----
11-29-85	0715	30	60.1	77.0	93.4	100.0	-----	-----
11-29-85	1205	76	88.8	94.2	98.4	100.0	-----	-----
11-29-85	1355	38	50.5	68.2	78.6	93.9	97.9	100.0
11-29-85	2255	32	63.9	80.6	92.9	96.9	100.0	-----
11-30-85	0210	21	69.0	83.2	92.3	94.7	100.0	-----
11-30-85	0930	17	82.6	91.2	99.0	100.0	-----	-----
11-30-85	1430	77	96.3	98.3	99.5	99.7	100.0	-----
11-30-85	1650	201	98.2	99.0	99.6	99.8	100.0	-----
11-30-85	2005	781	95.3	96.2	97.6	98.9	100.0	-----
11-30-85	2155	1100	98.5	99.0	99.6	99.8	100.0	-----
12-01-85	0125	1580	99.5	99.8	99.9	100.0	-----	-----
12-01-85	0555	1340	99.5	99.7	99.9	100.0	-----	-----
12-01-85	0700	1250	99.5	99.7	99.9	100.0	-----	-----
12-01-85	1115	1020	99.0	99.5	99.8	99.9	100.0	-----
12-01-85	1715	1050	96.9	98.8	99.8	99.9	100.0	-----
12-01-85	2015	128	37.0	61.7	89.3	97.9	100.0	-----
12-01-85	2155	870	96.7	98.6	99.5	99.9	100.0	-----
12-02-85	0325	462	93.5	96.1	99.3	99.9	100.0	-----
12-02-85	0610	396	95.2	97.2	98.6	99.9	100.0	-----
12-02-85	1130	290	95.9	97.9	99.2	99.7	100.0	-----
12-02-85	1405	343	94.9	96.3	98.7	99.7	100.0	-----
12-02-85	1515	412	73.7	79.3	87.7	98.5	100.0	-----
12-02-85	1630	377	91.4	93.1	96.6	100.0	-----	-----
12-02-85	2225	594	94.2	95.6	97.9	99.5	100.0	-----
12-24-85	1135	35	73.0	88.0	97.5	100.0	-----	-----
12-24-85	1328	46	76.1	92.7	98.4	100.0	-----	-----
12-24-85	1638	46	59.2	86.7	98.1	100.0	-----	-----
12-25-85	330	91	32.1	50.0	84.4	100.0	-----	-----
12-25-85	835	98	45.2	67.1	82.4	99.5	100.0	-----
12-25-85	1140	83	39.6	59.0	82.5	98.4	100.0	-----
12-25-85	1342	80	52.5	76.3	95.5	100.0	-----	-----
12-25-85	1417	113	43.9	72.0	93.2	100.0	-----	-----
12-26-85	0440	79	64.2	79.2	94.0	100.0	-----	-----
12-26-85	1100	128	38.0	60.6	88.7	99.5	100.0	-----
12-26-85	1532	118	46.3	73.5	94.2	99.6	100.0	-----
12-26-85	1705	119	46.0	65.9	88.0	100.0	-----	-----
12-26-85	1950	80	52.7	74.6	92.0	99.0	100.0	-----
12-26-85	2200	60	60.0	86.0	96.2	100.0	-----	-----
12-27-85	0130	70	63.9	76.7	92.1	99.1	100.0	-----

Table 33.--Grain-size distribution of suspended sediment, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.062	0.125	0.250	0.500	1.00	2.00
12-27-85	0300	73	43.4	54.6	74.7	98.3	100.0	-----
12-27-85	0450	34	83.1	89.4	95.7	100.0	-----	-----
12-27-85	0655	24	71.4	84.5	94.6	100.0	-----	-----
12-27-85	0940	40	75.2	83.1	94.0	100.0	-----	-----
12-27-85	1220	87	33.8	39.4	69.9	98.7	100.0	-----
12-27-85	1448	21	76.6	89.7	97.7	100.0	-----	-----
12-31-85	1145	35	90.9	95.8	100.0	-----	-----	-----
12-31-85	1500	73	24.4	42.7	72.3	96.4	100.0	-----
12-31-85	1630	43	64.9	87.7	98.4	100.0	-----	-----
01-01-86	800	21	78.0	89.5	98.1	100.0	-----	-----
01-01-86	1030	25	46.3	77.9	98.1	100.0	-----	-----
01-01-86	1115	80	27.7	51.6	84.9	99.3	100.0	-----
01-01-86	1305	78	44.2	68.9	96.6	100.0	-----	-----
01-01-86	1640	112	46.1	68.3	91.6	99.2	100.0	-----
01-01-86	1950	62	38.6	59.4	85.0	99.3	100.0	-----
01-01-86	2245	40	53.5	70.6	90.4	98.9	100.0	-----
01-02-86	0220	26	75.7	89.4	95.5	99.4	100.0	-----
01-02-86	0435	20	83.8	90.0	95.1	99.8	100.0	-----
01-02-86	0725	16	62.2	80.6	96.9	99.7	100.0	-----
01-02-86	0950	13	73.4	88.4	96.6	99.9	100.0	-----
01-02-86	1140	21	52.8	77.1	93.2	99.4	100.0	-----
01-02-86	1320	97	29.3	61.3	92.4	99.9	100.0	-----
01-02-86	1540	90	34.9	60.5	89.5	99.8	100.0	-----
01-02-86	1715	91	40.4	67.1	89.6	99.4	100.0	-----
01-02-86	2010	56	62.0	71.6	80.9	100.0	-----	-----
01-03-86	0335	38	46.0	62.5	82.6	100.0	-----	-----
01-03-86	0820	133	18.9	26.0	58.4	98.8	100.0	-----
01-03-86	1140	51	23.1	43.9	82.0	100.0	-----	-----
01-03-86	1330	34	35.8	55.1	81.9	98.9	100.0	-----
01-03-86	1710	12	72.8	77.5	88.2	100.0	-----	-----
01-03-86	1805	69	73.3	79.9	90.2	99.7	100.0	-----
01-03-86	2005	44	33.0	55.3	73.1	99.4	100.0	-----
01-26-86	0415	325	14.2	20.5	29.5	97.2	100.0	-----
01-26-86	0643	349	19.5	37.6	62.1	96.9	100.0	-----
01-26-86	1325	331	28.5	42.6	76.6	97.6	100.0	-----
01-26-86	1540	395	25.9	39.9	71.4	98.1	100.0	-----
01-26-86	2245	298	23.9	43.0	72.6	99.0	100.0	-----
01-26-86	2400	207	20.8	34.4	64.7	94.3	100.0	-----
01-27-86	0128	371	20.3	35.5	65.8	97.9	100.0	-----
01-27-86	0255	331	18.0	25.0	62.7	97.6	100.0	-----
01-27-86	0427	299	23.8	28.4	67.6	97.8	100.0	-----
01-27-86	0539	325	22.0	32.3	72.0	97.7	100.0	-----
01-27-86	0702	469	20.3	45.0	73.5	94.2	100.0	-----
01-27-86	1100	441	27.5	32.7	64.2	98.0	100.0	-----
01-27-86	1314	317	24.4	29.5	63.8	96.9	100.0	-----
01-27-86	1555	231	34.1	38.4	68.6	98.6	100.0	-----
01-27-86	2000	233	28.7	38.7	66.2	97.7	100.0	-----

Table 33.--Grain-size distribution of suspended sediment, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Concentration, in milligrams per liter	Percent finer than indicated grain size. Grain size is in millimeters.					
			0.062	0.125	0.250	0.500	1.00	2.00
01-27-86	2115	313	23.8	40.4	66.8	98.1	100.0	-----
01-27-86	2210	171	38.3	55.8	90.2	97.3	100.0	-----
01-28-86	0050	413	21.9	23.7	28.0	87.4	100.0	-----
01-28-86	0612	334	4.6	32.9	71.6	96.4	100.0	-----
01-28-86	1005	484	6.1	30.8	72.7	97.6	100.0	-----
01-28-86	1135	511	21.6	36.9	70.7	90.9	100.0	-----
01-28-86	1245	308	44.4	69.7	75.9	98.5	100.0	-----
01-28-86	1430	388	30.5	45.7	78.3	99.2	100.0	-----
01-28-86	1610	393	31.8	47.4	75.5	97.8	100.0	-----
01-28-86	2035	294	10.0	31.7	70.1	98.5	100.0	-----
01-28-86	2250	302	30.1	47.7	78.3	99.1	100.0	-----
01-29-86	0159	356	24.0	40.0	71.6	97.6	100.0	-----
01-29-86	0445	303	31.3	50.0	80.5	98.9	100.0	-----
01-29-86	1328	290	30.5	45.5	72.4	98.1	100.0	-----
01-29-86	1535	245	35.9	51.8	77.0	98.0	100.0	-----
01-30-86	1435	115	22.7	51.2	75.6	97.3	100.0	-----
01-30-86	1720	233	38.4	53.4	77.3	98.3	100.0	-----
01-30-86	2120	212	40.1	62.1	83.7	98.1	100.0	-----
01-30-86	2300	145	26.8	55.6	82.2	100.0	-----	-----
01-31-86	0150	203	14.3	37.3	68.1	94.6	99.7	100.0
01-31-86	0345	271	16.3	29.9	57.0	97.9	100.0	-----
01-31-86	1025	250	8.0	27.6	63.6	97.7	100.0	-----
01-31-86	1325	76	26.6	56.0	83.1	97.5	100.0	-----
01-31-86	1730	66	19.8	48.0	80.2	97.9	100.0	-----
01-31-86	2210	222	10.7	23.2	42.8	61.5	87.0	100.0
01-31-86	2340	138	15.7	34.3	69.8	94.9	100.0	-----
02-01-86	0130	253	5.1	23.0	59.9	97.5	100.0	-----
02-01-86	0310	115	17.0	17.0	17.0	91.9	100.0	-----
02-01-86	0635	319	3.1	24.3	57.7	97.7	100.0	-----
02-01-86	1010	359	13.3	34.9	66.5	98.1	100.0	-----
02-01-86	1400	192	5.1	27.4	59.0	100.0	-----	-----
02-01-86	1635	174	27.6	40.6	64.1	97.5	100.0	-----
02-01-86	1740	127	21.6	37.5	65.3	97.2	100.0	-----
02-01-86	2240	147	11.3	26.3	55.8	96.1	100.0	-----
02-01-86	2335	137	16.2	24.3	51.0	100.0	-----	-----
02-02-86	0105	36	24.0	68.0	91.4	100.0	-----	-----
02-02-86	0510	154	16.9	33.4	65.5	100.0	-----	-----
02-02-86	0740	89	25.5	54.4	85.5	100.0	-----	-----
02-02-86	1150	257	8.4	73.2	88.7	98.8	100.0	-----
02-02-86	1440	117	12.4	26.3	57.2	92.8	100.0	-----

Table 34.--Velocity and suspended-sediment concentration at individual verticals, Colorado River at Lees Ferry, 1985-86

Date	Time	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
			0.6	0.2	0.8			
10-08-85	1115	167	---	----	----	0.0	-----	-----
		240	---	----	----	16.6	4	67.0
		310	---	----	----	19.7	1	68.0
		380	---	----	----	20.1	1	100.0
		450	---	----	----	24.6	1	100.0
		520	---	----	----	20.9	1	79.0
		570	---	----	----	0.0	-----	-----
11-02-85	1255	571	---	----	----	0.0	-----	-----
		550	---	1.51	0.46	12.2	70	36.0
		530	---	1.83	1.18	19.9	6,790	81.0
		510	---	1.96	1.51	24.3	6	42.0
		490	---	1.96	1.73	26.5	6	35.0
		470	---	2.10	1.51	26.5	2	25.0
		450	---	2.05	1.47	26.5	5	26.0
		430	---	2.29	1.96	23.3	115	5.0
		410	---	2.39	1.96	20.6	16	21.0
		390	---	2.44	2.00	20.2	92	1.0
		370	---	2.34	1.96	20.3	23	72.0
		350	---	2.44	2.05	20.0	6	82.0
		330	---	2.50	1.80	20.6	2	50.0
		310	---	2.31	1.76	20.1	5	57.0
		290	---	1.96	1.88	20.2	7	50.0
		270	---	1.20	1.29	19.3	11	35.0
		250	---	0.72	0.86	17.1	4	64.0
		230	---	0.26	0.15	15.2	7	64.0
		210	---	0.21	0.22	8.6	206	34.0
		190	---	0.29	0.18	10.3	20	52.0
		166	---	----	----	0.0	-----	-----
11-08-85	1450	574	---	----	----	0.0	-----	-----
		550	---	----	----	12.4	14	46.0
		535	---	----	----	15.8	0	0.0
		520	---	----	----	20.8	20	11.0
		505	---	----	----	25.0	4	15.0
		490	---	----	----	26.7	0	0.0
		475	---	----	----	27.3	0	0.0
		460	---	----	----	27.4	0	0.0
		445	---	----	----	26.7	0	0.0
		430	---	----	----	22.9	7	47.0
		415	---	----	----	21.6	7	47.0
		400	---	----	----	20.4	12	73.0
		385	---	----	----	20.4	18	54.0
		370	---	----	----	20.2	17	53.0
		355	---	----	----	20.0	18	45.0
		340	---	----	----	20.2	17	48.0
		325	---	----	----	20.7	14	47.0
		310	---	----	----	20.3	17	50.0
		295	---	----	----	20.7	14	51.0
		280	---	----	----	19.8	17	44.0
		265	---	----	----	18.8	19	53.0
		165	---	----	----	0.0	-----	-----
01-05-85	1338	164	---	----	----	0.0	-----	-----
		180	---	----	----	8.9	129	29.0
		205	---	----	----	8.9	125	38.0
		230	---	----	----	14.7	47	10.0
		255	---	----	----	17.4	4	60.0
		280	---	----	----	19.6	7	82.0
		305	---	----	----	20.4	4	85.0

Table 34.--Velocity and suspended-sediment concentration at individual verticals, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
			0.6	0.2	0.8			
01-05-85	1338	330	---	----	----	20.4	6	59.0
		355	---	----	----	19.7	1	100.0
		380	---	----	----	20.2	10	74.0
		405	---	----	----	22.4	19	63.0
		430	---	----	----	22.7	17	64.0
		455	---	----	----	23.3	15	42.0
		480	---	----	----	24.8	10	66.0
		505	---	----	----	24.1	13	63.0
		530	---	----	----	18.7	16	54.0
		555	---	----	----	9.9	50	40.0
		570	---	----	----	0.0	-----	-----
01-10-85	1500	575	---	----	----	0.0	-----	-----
		520	---	2.92	2.99	22.3	10	58.0
		490	---	3.28	2.74	26.8	63	88.0
		460	---	3.21	2.86	25.7	22	61.0
		430	---	3.31	2.55	24.6	13	93.0
		400	---	3.43	2.74	23.0	18	58.0
		370	---	3.50	2.50	21.8	35	76.0
		340	---	3.21	2.92	21.5	20	40.0
		310	---	3.28	3.06	21.7	4	0.0
		280	---	2.74	2.20	21.0	9	52.0
		250	---	1.51	1.54	18.6	13	29.0
		220	---	0.37	0.18	14.9	43	0.0
		165	---	----	----	0.0	-----	-----

Table 35.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above Little Colorado River, 1985-86

Date	Time	Distance from right bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
			0.6	0.2	0.8			
10-07-85	1215	403	----	----	----	0.0	-----	-----
		385	----	----	----	7.6	3	0.0
		365	----	----	----	11.4	29	3.0
		345	----	----	----	12.2	10	11.0
		325	----	----	----	13.0	3	20.0
		305	----	----	----	13.7	3	26.0
		285	----	----	----	14.1	9	35.0
		265	----	----	----	15.0	2	35.0
		245	----	----	----	15.3	4	32.0
		225	----	----	----	16.0	2	50.0
		205	----	----	----	16.0	2	43.0
		185	----	----	----	15.4	2	43.0
		165	----	----	----	15.5	2	44.0
		145	----	----	----	16.0	2	50.0
		125	----	----	----	16.4	3	31.0
		105	----	----	----	16.6	3	52.0
		85	----	----	----	16.3	10	82.0
		69	----	----	----	0.0	-----	-----
10-08-85	0730	403	----	----	----	0.0	-----	-----
		385	----	1.03	1.06	7.8	4	49.0
		365	----	1.92	1.51	12.2	3	40.0
		345	----	2.80	2.68	13.2	5	35.0
		325	----	3.80	2.74	14.0	5	30.0
		305	----	4.37	2.99	14.5	6	29.0
		285	----	4.37	3.28	15.6	6	24.0
		265	----	4.75	3.24	15.6	6	30.0
		245	----	5.32	3.98	17.0	11	34.0
		225	----	5.46	3.65	17.5	5	27.0
		205	----	5.32	4.26	17.5	3	29.0
		185	----	5.32	4.07	16.9	5	22.0
		165	----	5.20	4.07	16.9	3	27.0
		145	----	4.16	3.89	17.7	4	24.0
		125	----	3.13	2.74	17.8	5	26.0
		105	----	2.50	2.05	18.1	5	26.0
		85	----	0.55	0.93	17.6	3	32.0
		69	----	----	----	0.0	-----	-----
10-13-85	0245	65	----	----	----	0.0	-----	-----
		120	----	----	----	15.7	4,120	99.0
		175	----	----	----	14.7	4,080	98.0
		230	----	----	----	15.5	4,150	99.0
		285	----	----	----	13.4	4,080	98.0
		340	----	----	----	11.2	4,210	98.0
		395	----	----	----	0.0	-----	-----
10-13-85	1420	60	----	----	----	0.0	-----	-----
		95	----	----	----	16.0	810	99.0
		110	----	----	----	16.2	928	96.0
		125	----	----	----	16.4	989	98.0
		140	----	----	----	15.4	1,040	99.0
		155	----	----	----	15.4	914	98.0
		170	----	----	----	14.7	275	95.0
		185	----	----	----	14.7	933	99.0
		200	----	----	----	15.4	938	97.0
		215	----	----	----	15.4	1,000	98.0
		230	----	----	----	15.5	777	98.0
		245	----	----	----	15.0	1,000	97.0
		260	----	----	----	14.7	1,000	98.0
		275	----	----	----	14.2	1,040	98.0

Table 35.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Distance from right bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
			0.6	0.2	0.8			
10-13-85	1420	290	----	----	----	13.6	1,670	98.0
		305	----	----	----	13.0	730	98.0
		320	----	----	----	12.2	1,110	99.0
		335	----	----	----	11.7	1,100	98.0
		350	----	----	----	11.2	1,060	98.0
		365	----	----	----	10.0	1,280	99.0
		380	----	----	----	8.4	875	95.0
		402	----	----	----	0.0	-----	-----
10-13-85	2205	68	----	----	----	0.0	-----	-----
		115	----	1.35	1.29	13.3	627	97.0
		170	----	3.89	2.05	12.0	822	94.0
		225	----	2.68	2.20	12.4	781	95.0
		280	----	1.92	1.84	10.9	804	95.0
		335	----	1.80	1.67	8.7	715	99.0
		393	----	----	----	0.0	-----	-----
10-14-85	0225	71	----	----	----	0.0	-----	-----
		110	----	0.80	0.89	12.3	867	99.0
		150	----	2.05	1.51	11.6	746	98.0
		190	----	2.24	1.80	11.6	617	98.0
		230	----	2.15	1.94	11.1	569	99.0
		270	----	2.10	1.58	9.8	769	99.0
		310	----	1.80	1.58	8.5	907	99.0
		350	----	1.41	1.06	7.3	1,170	99.0
		390	----	----	----	0.0	-1	-----
11-06-85	0940	65	----	----	----	0.0	-----	-----
		80	----	0.56	0.38	13.2	17	100.0
		100	----	1.92	1.19	17.6	42	38.0
		120	----	2.39	2.29	17.4	16	70.0
		140	----	3.89	3.21	16.8	51	34.0
		160	----	4.37	4.07	16.3	38	37.0
		180	----	4.96	4.16	16.2	31	47.0
		200	----	5.20	4.16	16.4	28	60.0
		220	----	5.08	3.89	16.6	27	54.0
		240	----	4.65	3.43	16.1	27	47.0
		260	----	4.75	3.43	15.3	42	36.0
		280	----	4.37	3.37	14.4	38	42.0
		300	----	3.89	3.65	13.6	38	46.0
		320	----	3.98	2.86	13.3	33	41.0
		340	----	3.37	2.68	12.4	48	34.0
		360	----	2.10	1.80	11.4	54	39.0
		407	----	----	----	0.0	-1	-----
11-13-85	1000	65	----	----	----	0.0	-----	-----
		90	----	----	----	17.0	157	57.0
		110	----	----	----	17.6	69	100.0
		130	----	----	----	17.3	46	94.0
		150	----	----	----	17.0	62	89.0
		170	----	----	----	16.4	106	88.0
		190	----	----	----	16.5	59	99.0
		210	----	----	----	17.1	77	78.0
		230	----	----	----	16.8	65	100.0
		250	----	----	----	15.9	84	76.0
		270	----	----	----	14.5	84	90.0
		290	----	----	----	14.3	95	83.0
		310	----	----	----	13.6	84	95.0
		330	----	----	----	12.6	107	87.0
		350	----	----	----	12.2	90	87.0

Table 35.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Distance from right bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
			0.6	0.2	0.8			
11-13-85	1100	370	----	----	----	10.5	77	96.0
		402	----	----	----	0.0	-----	-----
11-14-85	0302	66	----	----	----	0.0	-----	-----
		80	----	0.49	0.99	13.3	34	0.0
		110	----	1.70	1.84	16.9	19	94.0
		140	----	2.99	3.28	16.1	18	73.0
		170	----	3.89	4.46	15.3	32	68.0
		200	----	4.07	4.75	15.6	31	67.0
		230	----	3.89	2.99	15.9	28	69.0
		260	----	4.26	3.28	14.8	28	51.0
		290	----	3.24	3.89	13.7	33	72.0
		320	----	3.13	3.37	12.5	32	64.0
		350	----	2.24	2.74	11.6	28	47.0
		402	----	----	----	0.0	-----	-----
12-07-85	0325	69	----	----	----	0.0	-----	-----
		90	----	----	----	16.8	42	60.0
		110	----	----	----	17.7	43	43.0
		130	----	----	----	17.5	40	51.0
		150	----	----	----	17.0	38	61.0
		170	----	----	----	15.8	45	41.0
		190	----	----	----	16.3	34	62.0
		210	----	----	----	17.0	44	47.0
		230	----	----	----	16.5	37	41.0
		250	----	----	----	15.6	33	62.0
		270	----	----	----	15.0	42	40.0
		290	----	----	----	14.4	46	50.0
		310	----	----	----	13.5	50	41.0
		330	----	----	----	13.0	36	63.0
		350	----	----	----	12.2	29	79.0
		370	----	----	----	10.9	40	36.0
		390	----	----	----	4.9	34	27.0
		404	----	----	----	0.0	-----	-----
12-13-85	0410	61	----	----	----	0.0	-----	-----
		80	----	----	----	15.9	279	40.0
		110	----	----	----	20.0	128	38.0
		140	----	----	----	18.6	117	43.0
		170	----	----	----	17.4	153	37.0
		200	----	----	----	17.9	124	34.0
		230	----	----	----	19.7	105	43.0
		260	----	----	----	17.5	116	32.0
		290	----	----	----	16.3	173	30.0
		320	----	----	----	15.3	135	37.0
		350	----	----	----	14.0	131	26.0
		407	----	----	----	0.0	-----	-----
12-15-85	1450	401	----	----	----	0.0	-----	-----
		350	----	2.24	2.29	11.9	28	55.0
		320	----	3.65	2.99	12.8	47	43.0
		290	----	4.16	3.21	14.2	103	34.0
		260	----	4.75	3.57	14.8	55	56.0
		230	----	4.75	3.80	16.2	111	29.0
		200	----	4.55	3.57	15.6	42	51.0
		170	----	4.37	3.28	15.3	51	48.0
		140	----	3.06	2.99	16.2	41	54.0
		110	----	1.63	1.58	16.8	46	46.0
		80	----	1.08	0.35	13.1	157	59.0
		65	----	----	----	0.0	-----	-----

Table 35.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Distance from right bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
			0.6	0.2	0.8			
01-08-85	1642	71	----	----	----	0.0	-----	-----
		85	----	0.88	0.26	14.8	172	64.0
		110	----	1.66	1.38	15.8	59	26.0
		135	----	2.55	2.39	15.5	23	50.0
		160	----	3.50	2.86	14.7	12	56.0
		185	----	4.07	2.86	14.0	16	50.0
		210	----	3.98	3.21	15.2	15	60.0
		235	----	3.72	2.99	14.5	14	54.0
		260	----	3.43	2.55	13.6	14	63.0
		285	----	3.37	2.29	12.7	15	51.0
		310	----	2.61	2.29	11.8	19	60.0
		335	----	2.15	1.84	10.7	18	53.0
		360	----	1.44	1.20	9.5	31	51.0
		385	0.75	----	----	5.3	176	78.0
		398	----	----	----	0.0	-----	-----
01-11-85	0430	68	----	----	----	0.0	-----	-----
		80	----	----	----	14.9	343	41.0
		105	----	----	----	18.8	95	25.0
		130	----	----	----	18.6	54	35.0
		155	----	----	----	18.4	80	21.0
		180	----	----	----	17.3	82	19.0
		205	----	----	----	17.8	72	23.0
		230	----	----	----	17.9	96	28.0
		255	----	----	----	16.9	59	36.0
		280	----	----	----	16.0	64	37.0
		305	----	----	----	14.9	81	33.0
		330	----	----	----	14.2	121	43.0
		355	----	----	----	12.9	59	40.0
		380	----	----	----	9.8	56	46.0
		428	----	----	----	0.0	-----	-----
01-14-85	0620	65	----	----	----	0.0	-----	-----
		100	----	----	----	18.9	172	18.0
		130	----	----	----	19.0	79	37.0
		160	----	----	----	17.9	69	21.0
		190	----	----	----	17.7	90	13.0
		220	----	----	----	18.4	40	41.0
		250	----	----	----	17.5	84	23.0
		280	----	----	----	16.3	71	24.0
		310	----	----	----	15.1	92	28.0
		340	----	----	----	14.0	69	34.0
		370	----	----	----	12.4	77	47.0
		408	----	----	----	0.0	-----	-----
01-16-86	1310	407	----	----	----	0.0	-----	-----
		355	----	2.29	2.44	12.8	59	34.0
		330	----	3.28	3.06	13.4	33	34.0
		305	----	4.16	3.06	14.5	56	24.0
		280	----	4.55	3.37	15.7	37	35.0
		255	----	5.08	3.89	16.8	57	25.0
		230	----	5.20	4.37	17.7	42	34.0
		205	----	5.46	4.55	17.9	36	31.0
		180	----	5.20	4.07	17.3	42	26.0
		155	----	4.46	3.80	17.9	57	37.0
		130	----	3.28	3.13	17.9	43	29.0
		105	----	2.34	2.05	18.0	52	27.0
		61	----	----	----	0.0	-----	-----

Table 36.--Velocity and suspended-sediment concentration at individual verticals, Colorado River near Grand Canyon, 1985-86

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from right bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
10-13-85	1005	8.60	5,720	105	----	----	----	0.0	-----	-----
				115	----	----	----	5.7	5,960	99.0
				135	----	----	----	16.0	468	90.0
				155	----	----	----	20.3	5,950	99.0
				175	----	----	----	20.6	5,910	100.0
				195	----	----	----	19.5	5,940	99.0
				215	----	----	----	18.0	5,830	99.0
				235	----	----	----	18.3	3,070	99.0
				255	----	----	----	18.1	9,710	100.0
				275	----	----	----	17.9	6,630	99.0
				295	----	----	----	18.1	6,110	99.0
				315	----	----	----	17.6	6,120	99.0
				335	----	----	----	17.5	6,290	100.0
				355	----	----	----	17.8	6,060	99.0
				375	----	----	----	18.4	6,020	99.0
				394	----	----	----	0.0	-----	-----
10-19-85	125	6.24	208	393	----	----	----	0.0	-----	-----
				365	----	1.92	1.73	15.8	226	98.0
				340	----	2.20	2.10	14.8	167	97.0
				315	----	2.24	1.88	15.2	205	96.0
				290	----	2.39	2.10	15.5	208	100.0
				265	----	2.50	2.24	15.2	238	96.0
				240	----	2.68	2.20	15.8	223	99.0
				215	----	2.50	2.15	16.2	202	96.0
				190	----	2.50	1.88	17.4	180	96.0
				165	----	2.44	2.44	17.8	196	97.0
				140	----	1.76	1.35	14.8	235	99.0
				111	----	----	----	0.0	-----	-----
11-12-85	1100	9.39	211	101	----	----	----	0.0	-----	-----
				110	----	----	----	3.1	1,900	50.0
				130	----	----	----	14.2	143	36.0
				150	----	----	----	21.2	125	29.0
				170	----	----	----	22.0	56	49.0
				190	----	----	----	21.7	64	44.0
				210	----	----	----	19.6	58	50.0
				230	----	----	----	19.4	54	49.0
				250	----	----	----	18.1	48	45.0
				270	----	----	----	18.8	53	46.0
				290	----	----	----	18.6	181	24.0
				310	----	----	----	18.5	75	33.0
				330	----	----	----	18.4	48	44.0
				350	----	----	----	18.7	97	51.0
				370	----	----	----	19.7	58	42.0
				390	----	----	----	0.0	-----	-----
11-17-85	1412	8.82	28	393	----	----	----	0.0	-----	-----
				360	----	----	----	18.6	41	54.0
				335	----	----	----	18.2	20	67.0
				310	----	----	----	18.4	15	54.0
				285	----	----	----	18.7	31	68.0
				260	----	----	----	18.4	25	71.0
				235	----	----	----	19.2	20	94.0
				210	----	----	----	19.8	27	59.0
				185	----	----	----	21.4	29	79.0
				160	----	----	----	21.8	22	60.0
				135	----	----	----	14.9	55	57.0
				130	----	----	----	0.0	-----	-----

Table 36.--Velocity and suspended-sediment concentration at individual verticals, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from right bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
11-19-85	1350	10.13	42	393	----	----	----	0.0	-----	-----
				360	----	3.06	2.63	18.9	13	59.0
				335	----	3.43	3.28	18.4	45	49.0
				310	----	3.65	2.74	18.7	46	45.0
				285	----	3.72	3.28	18.9	40	60.0
				260	----	3.89	3.28	19.4	25	47.0
				235	----	3.72	3.28	19.5	58	32.0
				210	----	3.80	3.13	20.4	39	45.0
				185	----	3.89	3.06	21.8	49	54.0
				160	----	3.89	2.92	22.6	51	46.0
				135	----	3.28	2.86	15.8	54	55.0
				101	----	----	----	0.0	-----	-----
12-12-85	705	10.48	218	102	----	----	----	0.0	-----	-----
				110	----	----	----	4.1	200	44.0
				130	----	----	----	14.9	168	78.0
				150	----	----	----	22.6	168	72.0
				170	----	----	----	23.0	194	62.0
				190	----	----	----	22.4	175	64.0
				210	----	----	----	20.8	243	51.0
				230	----	----	----	20.4	255	47.0
				250	----	----	----	20.4	210	56.0
				270	----	----	----	20.2	231	49.0
				290	----	----	----	20.0	294	46.0
				310	----	----	----	20.1	177	56.0
				330	----	----	----	19.5	239	54.0
				350	----	----	----	19.6	256	54.0
				370	----	----	----	21.0	235	54.0
				389	----	----	----	0.0	-----	-----
12-13-85	2245	7.16	170	109	----	----	----	0.0	-----	-----
				120	----	----	----	6.0	168	70.0
				140	----	----	----	14.6	183	72.0
				160	----	----	----	20.0	173	69.0
				180	----	----	----	19.3	161	71.0
				200	----	----	----	18.2	172	73.0
				220	----	----	----	17.4	183	70.0
				240	----	----	----	16.8	169	71.0
				260	----	----	----	16.3	175	65.0
				280	----	----	----	16.2	156	73.0
				300	----	----	----	16.7	184	67.0
				320	----	----	----	15.9	176	68.0
				340	----	----	----	16.0	171	63.0
				360	----	----	----	16.7	163	70.0
				380	----	----	----	16.7	144	75.0
				389	----	----	----	0.0	-----	-----
12-17-85	1415	11.50	220	393	----	----	----	0.0	-----	-----
				380	----	----	----	21.2	205	40.0
				360	----	----	----	20.4	206	39.0
				340	----	----	----	19.9	264	24.0
				320	----	----	----	19.7	219	35.0
				300	----	----	----	20.4	244	33.0
				280	----	----	----	20.6	203	32.0
				260	----	----	----	20.7	190	31.0
				240	----	----	----	21.0	238	28.0
				220	----	----	----	21.4	350	27.0
				200	----	----	----	22.1	174	32.0
				180	----	----	----	23.5	160	28.0
				160	----	----	----	24.1	196	29.0

Table 36.--Velocity and suspended-sediment concentration at individual verticals, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from right bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
12-17-85	1415	(Continued)		140	----	----	----	19.9	178	30.0
				120	----	----	----	11.7	253	43.0
				98	----	----	----	0.0	-----	-----
12-19-85	1045	9.18	58	105	----	----	----	0.0	-----	-----
				135	----	2.74	2.68	16.1	71	33.0
				160	----	3.57	3.21	21.3	42	45.0
				185	----	3.65	2.74	21.5	76	28.0
				210	----	3.50	3.06	19.7	63	34.0
				235	----	3.65	2.74	18.7	49	48.0
				260	----	3.43	3.21	18.8	61	32.0
				285	----	3.57	3.13	18.3	61	37.0
				310	----	3.28	2.86	18.5	53	36.0
				335	----	3.06	2.68	18.0	59	45.0
				360	----	2.74	2.44	18.5	40	50.0
				393	----	----	----	0.0	-----	-----
01-14-86	948	11.18	271	393	----	----	----	0.0	-----	-----
				380	----	----	----	20.4	144	18.0
				360	----	----	----	20.2	61	28.0
				340	----	----	----	19.9	171	12.0
				320	----	----	----	20.0	161	11.0
				300	----	----	----	20.1	96	18.0
				280	----	----	----	20.1	217	12.0
				260	----	----	----	20.4	154	9.0
				240	----	----	----	20.4	212	22.0
				220	----	----	----	21.3	172	9.0
				200	----	----	----	21.7	166	0.0
				180	----	----	----	23.1	172	11.0
				160	----	----	----	23.2	1,760	1.0
				140	----	----	----	18.8	140	42.0
				120	----	----	----	10.8	166	0.0
				100	----	----	----	0.0	-----	-----
01-18-86	1145	12.52	328	95	----	----	----	0.0	-----	-----
				135	----	----	----	19.5	346	17.0
				160	----	----	----	25.6	304	18.0
				185	----	----	----	25.2	325	17.0
				210	----	----	----	23.5	329	15.0
				235	----	----	----	22.8	401	15.0
				260	----	----	----	22.7	404	16.0
				285	----	----	----	22.5	210	29.0
				310	----	----	----	22.2	343	23.0
				335	----	----	----	21.4	317	24.0
				360	----	----	----	22.0	300	20.0
				393	----	----	----	0.0	-----	-----
01-20-86	500	9.22	38	106	----	----	----	0.0	-----	-----
				160	----	3.21	3.28	21.4	61	45.0
				180	----	3.43	2.68	21.7	36	39.0
				200	----	3.43	2.92	19.8	28	33.0
				220	----	3.57	3.21	19.3	45	23.0
				240	----	3.50	3.13	19.0	41	33.0
				260	----	3.43	3.31	18.5	25	45.0
				280	----	3.50	3.28	18.8	41	24.0
				300	----	3.43	3.06	18.5	30	39.0
				320	----	3.21	2.86	18.5	53	29.0
				340	----	3.13	2.99	18.3	33	26.0
				360	----	3.06	2.50	18.9	24	37.0
				393	----	----	----	0.0	-----	-----

Table 36.--Velocity and suspended-sediment concentration at individual verticals, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from right bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentration, in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
01-21-86	300	10.70	64	103	----	----	----	0.0	-----	-----
				140	----	3.21	3.21	17.9	68	30.0
				165	----	3.65	3.57	22.2	55	29.0
				190	----	3.98	3.57	22.0	75	20.0
				215	----	4.26	3.89	20.9	64	25.0
				240	----	4.16	3.43	20.0	83	24.0
				265	----	4.16	3.72	19.8	66	27.0
				290	----	3.89	3.28	19.3	50	38.0
				315	----	4.07	3.13	19.5	71	36.0
				340	----	3.65	3.43	19.2	70	25.0
				365	----	3.21	2.86	20.0	37	35.0
				393	---	----	----	0.0	-----	-----

Table 37.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above National Canyon, 1985-86

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentrations in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
10-19-85	0210	1,743.89	1,150	110	-----	-----	-----	0.0	-----	-----
				120	-0.59	-----	-----	4.6	1,390	64.0
				140	-----	0.84	1.20	16.9	1,130	94.0
				160	-----	2.49	3.28	17.2	1,780	47.0
				180	-----	4.26	4.26	18.4	-----	-----
				200	-----	4.85	3.21	19.3	660	96.0
				220	-----	4.96	3.43	19.6	860	93.0
				240	-----	4.75	3.72	19.7	1,410	96.0
				260	-----	4.46	3.57	19.5	1,530	97.0
				280	-----	4.75	3.50	19.6	1,380	97.0
				300	-----	3.98	3.21	20.1	1,410	96.0
				320	-----	2.99	1.84	20.4	1,380	98.0
				340	-----	1.54	0.76	19.2	710	91.0
				360	-----	-0.27	-0.47	10.2	680	99.0
				380	-0.27	-----	-----	3.9	610	86.0
				388	-----	-----	-----	0.0	-----	-----
10-24-85	0216	1,745.10	1,070	387	-----	-----	-----	0.0	-----	-----
				355	-----	-----	-----	13.7	947	99.0
				340	-----	-----	-----	20.3	1,020	92.0
				325	-----	-----	-----	22.6	907	98.0
				310	-----	-----	-----	22.6	919	97.0
				295	-----	-----	-----	21.9	870	98.0
				280	-----	-----	-----	21.4	840	100.0
				265	-----	-----	-----	21.0	838	97.0
				250	-----	-----	-----	21.0	855	97.0
				235	-----	-----	-----	21.1	869	98.0
				220	-----	-----	-----	20.5	853	96.0
				205	-----	-----	-----	20.5	1,000	97.0
				190	-----	-----	-----	19.5	3,570	97.0
				175	-----	-----	-----	19.5	801	97.0
				160	-----	-----	-----	18.5	834	97.0
				145	-----	-----	-----	16.5	948	92.0
				106	-----	-----	-----	0.0	-----	-----
11-17-85	2335	1,743.61	122	385	-----	-----	-----	0.0	-----	-----
				375	-----	-----	-----	4.3	640	56.0
				355	-----	-----	-----	12.4	82	56.0
				335	-----	-----	-----	20.0	82	54.0
				315	-----	-----	-----	20.5	78	65.0
				295	-----	-----	-----	20.1	62	58.0
				275	-----	-----	-----	19.3	80	54.0
				255	-----	-----	-----	19.5	93	49.0
				235	-----	-----	-----	19.0	84	50.0
				215	-----	-----	-----	19.4	70	58.0
				195	-----	-----	-----	18.8	80	57.0
				175	-----	-----	-----	17.8	69	69.0
				155	-----	-----	-----	16.4	73	67.0
				135	-----	-----	-----	12.6	90	62.0
				112	-----	-----	-----	0.0	-----	-----
11-24-85	2045	1,744.08	75	385	-----	-----	-----	0.0	-----	-----
				350	-----	0.44	0.53	15.6	52	40.0
				330	-----	1.66	1.35	21.7	31	41.0
				310	-----	3.21	2.74	22.5	26	50.0
				290	-----	3.50	3.72	20.4	33	39.0
				270	-----	3.80	4.75	20.0	37	32.0
				250	-----	4.26	5.08	20.1	27	20.0
				230	-----	4.16	5.08	19.2	31	31.0
				210	-----	3.65	5.20	19.8	82	39.0

Table 37.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth 0.6	0.2	0.8	Depth, in feet below the water surface	Concentrations in milligrams per liter	Percent finer than 0.0625 millimeters
11-24-85	2045	(Continued)		190	-----	3.72	4.65	19.2	37	47.0
				170	-----	4.07	3.65	17.6	327	24.0
				150	-----	2.44	1.11	17.0	140	19.0
				113	-----	-----	-----	0.0	-----	-----
11-25-85	0215	1,747.70	51	109	-----	-----	-----	0.0	-----	-----
				140	-----	-----	-----	15.8	150	57.0
				155	-----	-----	-----	17.9	210	67.0
				170	-----	-----	-----	18.3	19	67.0
				185	-----	-----	-----	19.2	16	55.0
				200	-----	-----	-----	19.8	17	48.0
				215	-----	-----	-----	20.1	31	18.0
				230	-----	-----	-----	20.0	11	55.0
				245	-----	-----	-----	20.4	34	39.0
				260	-----	-----	-----	20.1	15	61.0
				275	-----	-----	-----	21.0	8	65.0
				290	-----	-----	-----	21.1	15	47.0
				305	-----	-----	-----	21.7	46	42.0
				320	-----	-----	-----	21.6	33	32.0
				335	-----	-----	-----	21.3	33	38.0
				350	-----	-----	-----	16.1	125	15.0
				390	-----	-----	-----	0.0	-----	-----
12-19-85	0322	1,746.07	332	107	-----	-----	-----	0.0	-----	-----
				130	-----	-----	-----	13.0	771	37.0
				150	-----	-----	-----	18.9	209	34.0
				170	-----	-----	-----	20.3	174	40.0
				190	-----	-----	-----	21.3	119	47.0
				210	-----	-----	-----	21.8	131	50.0
				230	-----	-----	-----	22.2	136	39.0
				250	-----	-----	-----	22.3	130	43.0
				270	-----	-----	-----	21.9	279	22.0
				290	-----	-----	-----	22.5	140	46.0
				310	-----	-----	-----	23.7	219	31.0
				330	-----	-----	-----	23.7	308	33.0
				350	-----	-----	-----	17.6	359	36.0
				370	-----	-----	-----	8.4	1,340	11.0
				389	-----	-----	-----	0.0	-----	-----
12-20-85	2130	1,744.61	87	109	-----	-----	-----	0.0	-----	-----
				120	-----	-----	-----	5.2	190	96.0
				140	-----	-----	-----	15.1	27	100.0
				160	-----	-----	-----	17.7	52	48.0
				180	-----	-----	-----	19.1	55	60.0
				200	-----	-----	-----	19.8	63	65.0
				220	-----	-----	-----	20.2	60	54.0
				240	-----	-----	-----	20.1	89	41.0
				260	-----	-----	-----	20.3	61	32.0
				280	-----	-----	-----	20.5	95	41.0
				300	-----	-----	-----	21.3	61	47.0
				320	-----	-----	-----	21.6	56	43.0
				340	-----	-----	-----	20.0	105	43.0
				360	-----	-----	-----	11.2	214	51.0
				389	-----	-----	-----	0.0	-----	-----
12-27-85	1150	1,736.12	23	364	-----	-----	-----	0.0	-----	-----
				340	-----	0.22	0.08	11.5	17	76.0
				320	-----	0.93	0.73	13.2	27	86.0
				300	-----	1.76	1.32	13.3	36	55.0
				280	-----	2.34	1.80	12.2	29	61.0

Table 37.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentrations in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
12-27-85	1150	(Continued)		260	-----	2.55	1.88	11.8	19	75.0
				240	-----	2.55	1.76	12.0	16	88.0
				220	-----	2.50	2.15	11.5	20	74.0
				200	-----	2.44	2.00	11.3	24	62.0
				180	-----	2.00	1.62	10.5	21	66.0
				160	-----	0.99	0.99	9.8	25	44.0
				128	-----	-----	-----	0.0	-----	-----
12-27-85	2300	1,736.65		366	-----	-----	-----	0.0	-----	-----
				330	-----	0.29	0.16	14.1	38	62.0
				310	-----	1.54	1.03	13.6	14	100.0
				290	-----	1.76	2.39	12.8	11	100.0
				270	-----	2.68	2.05	12.1	8	97.0
				250	-----	2.74	1.76	12.2	8	100.0
				230	-----	2.50	2.10	11.8	11	80.0
				210	-----	2.61	1.96	11.8	10	100.0
				190	-----	2.20	1.58	11.5	32	96.0
				170	-----	1.54	1.76	10.8	11	100.0
				125	-----	----	-----	0.0	-----	-----
12-28-85	0745	1,743.80	53	110	-----	-----	-----	0.0	-----	-----
				135	-----	-----	-----	11.5	45	58.0
				160	-----	-----	-----	17.5	37	45.0
				185	-----	-----	-----	18.4	70	49.0
				210	-----	-----	-----	19.3	66	44.0
				235	-----	-----	-----	19.9	44	52.0
				260	-----	-----	-----	19.2	46	53.0
				285	-----	-----	-----	19.8	67	56.0
				310	-----	-----	-----	21.3	49	50.0
				335	-----	-----	-----	20.8	69	42.0
				360	-----	-----	-----	9.6	41	51.0
				389	-----	-----	-----	0.0	-----	-----
01-22-86	1535	1,746.82	161	104	-----	-----	-----	0.0	-----	-----
				120	-----	-----	-----	7.8	215	79.0
				140	-----	-----	-----	18.6	201	79.0
				160	-----	-----	-----	21.6	82	78.0
				180	-----	-----	-----	21.6	113	74.0
				200	-----	-----	-----	21.3	117	76.0
				220	-----	-----	-----	22.1	182	88.0
				240	-----	-----	-----	22.8	121	78.0
				260	-----	-----	-----	21.8	135	80.0
				280	-----	-----	-----	23.6	151	85.0
				300	-----	-----	-----	24.1	125	79.0
				320	-----	-----	-----	23.9	100	72.0
				340	-----	-----	-----	24.2	254	83.0
				360	-----	-----	-----	22.9	305	75.0
				389	-----	-----	-----	0.0	-----	-----
01-23-86	1035	1,745.03	118	109	-----	-----	-----	0.0	-----	-----
				120	-----	-----	-----	5.9	144	67.0
				140	-----	-----	-----	15.4	93	32.0
				160	-----	-----	-----	18.5	14	0.0
				180	-----	-----	-----	19.8	15	22.0
				200	-----	-----	-----	20.1	57	13.0
				220	-----	-----	-----	20.7	85	12.0
				240	-----	-----	-----	21.0	40	27.0
				260	-----	-----	-----	21.1	91	19.0
				280	-----	-----	-----	21.0	57	9.0
				300	-----	-----	-----	22.1	40	24.0

Table 37.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentrations in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
01-23-86	1035	(Continued)		320	-----	-----	-----	22.1	63	8.0
				340	-----	-----	-----	20.7	83	3.0
				360	-----	-----	-----	11.2	388	6.0
				380	-----	-----	-----	4.7	489	0.0
				390	-----	-----	-----	0.0	-----	-----
01-25-86	1400	1,747.19	106	103	-----	-----	-----	0.0	-----	-----
				135	-----	1.16	1.29	16.4	96	80.0
				160	-----	3.89	3.98	21.4	56	66.0
				185	-----	5.95	4.20	22.6	109	80.0
				210	-----	6.17	4.85	23.3	177	87.0
				235	-----	5.84	5.08	23.6	192	84.0
				260	-----	5.64	4.55	23.5	230	91.0
				285	-----	6.06	4.75	23.8	118	85.0
				310	-----	4.37	2.50	25.0	40	83.0
				335	-----	1.92	1.08	24.2	31	91.0
				360	-----	0.73	0.34	13.2	12	0.0
				390	-----	------	-----	0.0	-----	-----
01-25-86	2100	1,749.22	228	390	-----	-----	-----	0.0	-----	0.0
				345	-----	-----	-----	21.3	190	60.0
				330	-----	-----	-----	26.7	264	71.0
				315	-----	-----	-----	26.4	156	40.0
				300	-----	-----	-----	26.2	286	30.0
				285	-----	-----	-----	25.8	291	30.0
				270	-----	-----	-----	24.8	161	42.0
				255	-----	-----	-----	24.8	290	26.0
				240	-----	-----	-----	25.4	380	22.0
				225	-----	-----	-----	24.5	238	32.0
				210	-----	-----	-----	24.5	189	24.0
				195	-----	-----	-----	24.8	203	27.0
				180	-----	-----	-----	23.9	169	31.0
				165	-----	-----	-----	23.5	204	26.0
				150	-----	-----	-----	21.8	180	43.0
				100	-----	-----	-----	0.0	-----	0.0

Table 38.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above Diamond Creek, 1985-86

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth 0.6	0.2	0.8	Depth, in feet below the water surface	Concentrations in milligrams per liter	Percent finer than 0.0625 millimeters
10-23-85	1710	1,351.71	237	259	-----	-----	-----	0.0	-----	-----
				245	-----	-----	-----	5.4	66	100.0
				235	-----	-----	-----	9.0	32	100.0
				225	-----	-----	-----	16.0	206	90.0
				215	-----	-----	-----	19.8	239	89.0
				205	-----	-----	-----	21.6	377	88.0
				195	-----	-----	-----	36.5	322	85.0
				185	-----	-----	-----	41.5	341	84.0
				175	-----	-----	-----	43.2	302	83.0
				165	-----	-----	-----	42.3	298	86.0
				155	-----	-----	-----	40.8	315	78.0
				145	-----	-----	-----	40.7	184	83.0
				135	-----	-----	-----	41.5	323	81.0
				125	-----	-----	-----	41.7	253	77.0
				115	-----	-----	-----	28.6	221	80.0
				105	-----	-----	-----	28.4	205	73.0
				95	-----	-----	-----	20.6	214	72.0
				85	-----	-----	-----	14.9	193	80.0
				75	-----	-----	-----	11.4	184	71.0
				65	-----	-----	-----	9.1	237	67.0
				46	-----	-----	-----	0.0	-----	-----
10-24-85	1350	1,351.75	1,327	44	-----	-----	-----	0.0	-----	-----
				65	-----	-----	-----	12.1	3230	65.0
				80	-----	-----	-----	15.7	1180	94.0
				95	-----	-----	-----	21.5	1270	95.0
				110	-----	-----	-----	31.8	1320	93.0
				125	-----	-----	-----	42.4	1270	93.0
				140	-----	-----	-----	41.5	1230	96.0
				155	-----	-----	-----	43.1	1270	94.0
				170	-----	-----	-----	42.9	1210	98.0
				185	-----	-----	-----	41.8	1220	96.0
				200	-----	-----	-----	35.1	1220	97.0
				215	-----	-----	-----	19.5	1200	98.0
				230	-----	-----	-----	12.8	924	98.0
				245	-----	-----	-----	5.0	709	99.0
				251	-----	-----	-----	0.0	-----	-----
10-29-85	1430	1,352.06	235	43	-----	-----	-----	0.0	-----	-----
				90	-----	-----	-----	21.4	211	55.0
				100	-----	-----	-----	23.7	226	68.0
				110	-----	-----	-----	30.8	228	82.0
				120	-----	-----	-----	34.6	227	78.0
				130	-----	-----	-----	41.8	151	93.0
				140	-----	-----	-----	31.4	229	75.0
				150	-----	-----	-----	41.6	134	90.0
				160	-----	-----	-----	42.4	153	86.0
				170	-----	-----	-----	43.6	153	89.0
				180	-----	-----	-----	43.2	184	82.0
				190	-----	-----	-----	41.5	204	82.0
				200	-----	-----	-----	32.0	212	72.0
				210	-----	-----	-----	21.1	749	45.0
				248	-----	-----	-----	0.0	-----	-----
10-31-85	1020	1,353.11	308	44	-----	-----	-----	0.0	-----	-----
				65	-----	0.38	0.29	9.6	445	47.0
				90	-----	3.28	1.28	22.7	135	78.0
				115	-----	4.16	2.68	31.5	235	69.0
				140	-----	4.85	3.98	43.2	304	64.0
				165	-----	5.20	4.37	44.3	346	62.0

Table 38.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentrations in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
10-31-85	1020	(Continued)		190	-----	3.98	3.98	43.7	450	64.0
				215	-----	2.10	1.96	21.4	272	53.0
				240	-----	-----	-----	8.0	277	33.0
				259	-----	-----	-----	0.0	-----	-----
11-24-85	1025	1,351.21	109	255	-----	-----	-----	0.0	-----	-----
				240	-----	-----	-----	6.7	336	31.0
				220	-----	-----	-----	17.2	70	38.0
				200	-----	-----	-----	35.1	61	37.0
				180	-----	-----	-----	43.1	56	38.0
				160	-----	-----	-----	42.4	53	35.0
				140	-----	-----	-----	41.9	71	27.0
				120	-----	-----	-----	31.5	49	38.0
				100	-----	-----	-----	23.8	71	24.0
				80	-----	-----	-----	14.9	103	30.0
				60	-----	-----	-----	7.8	223	31.0
				44	-----	-----	-----	0.0	-----	-----
11-30-85	2315	1,349.40	1,360.	51	-----	-----	-----	0.0	-----	-----
				80	-----	-----	-----	13.9	1,470	94.0
				90	-----	-----	-----	15.6	1,360	96.0
				100	-----	-----	-----	22.2	1,440	97.0
				110	-----	-----	-----	28.9	1,360	98.0
				120	-----	-----	-----	36.4	1,420	97.0
				130	-----	-----	-----	39.5	1,020	98.0
				140	-----	-----	-----	40.0	1,360	98.0
				150	-----	-----	-----	40.0	1,400	98.0
				160	-----	-----	-----	40.9	1,460	98.0
				170	-----	-----	-----	41.2	1,460	98.0
				180	-----	-----	-----	41.2	1,520	98.0
				190	-----	-----	-----	38.4	1,530	96.0
				200	-----	-----	-----	32.9	1,550	99.0
				210	-----	-----	-----	17.8	1,600	98.0
				220	-----	-----	-----	15.5	450	76.0
				251	-----	-----	-----	0.0	-----	-----
12-01-85	1410	1,352.70	1,158	44	-----	-----	-----	0.0	-----	-----
				80	-----	1.92	0.84	16.8	1,440	89.0
				95	-----	3.65	2.10	22.4	1,080	91.0
				110	-----	3.98	2.74	31.4	1,210	85.0
				125	-----	4.65	3.37	44.3	1,130	87.0
				140	-----	4.85	3.65	44.5	1,110	88.0
				155	-----	5.46	3.89	44.8	1,080	90.0
				170	-----	5.08	4.75	45.9	1,120	89.0
				185	-----	4.16	3.65	44.2	1,090	90.0
				200	-----	2.44	0.48	36.4	1,140	88.0
				215	-----	1.18	1.84	20.5	1,180	92.0
				261	-----	-----	-----	0.0	-----	-----
12-25-85	1608	1,351.56	254	258	-----	-----	-----	0.0	-----	-----
				245	-----	-----	-----	5.2	126	32.0
				230	-----	-----	-----	12.0	216	54.0
				215	-----	-----	-----	19.0	208	49.0
				200	-----	-----	-----	32.4	231	46.0
				185	-----	-----	-----	40.9	224	54.0
				170	-----	-----	-----	43.8	131	59.0
				155	-----	-----	-----	43.0	155	54.0
				140	-----	-----	-----	41.9	140	61.0
				125	-----	-----	-----	41.9	145	61.0
				110	-----	-----	-----	31.9	170	56.0

Table 38.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentrations in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
12-25-85	1608	(Continued)		95	-----	-----	-----	21.4	143	67.0
				80	-----	-----	-----	15.2	306	25.0
				65	-----	-----	-----	8.4	1,110	50.0
				44	-----	-----	-----	0.0	-----	-----
12-27-85	1910	1,346.77	70	242	-----	-----	-----	0.0	-----	-----
				230	-----	-----	-----	7.9	178	63.0
				215	-----	-----	-----	14.5	55	60.0
				200	-----	-----	-----	29.0	101	63.0
				185	-----	-----	-----	37.3	62	58.0
				170	-----	-----	-----	38.4	46	62.0
				155	-----	-----	-----	37.4	58	47.0
				140	-----	-----	-----	37.3	41	72.0
				125	-----	-----	-----	35.5	33	80.0
				110	-----	-----	-----	27.9	27	84.0
				95	-----	-----	-----	17.4	23	83.0
				80	-----	-----	-----	11.5	76	60.0
				65	-----	-----	-----	3.7	137	27.0
				54	-----	-----	-----	0.0	-----	-----
12-31-85	1750	1,350.80	117	45	-----	-----	-----	0.0	-----	-----
				80	-----	-----	-----	14.9	193	60.0
				90	-----	-----	-----	17.7	46	59.0
				100	-----	-----	-----	23.2	209	12.0
				110	-----	-----	-----	31.3	92	44.0
				120	-----	-----	-----	33.3	80	49.0
				130	-----	-----	-----	41.2	68	46.0
				140	-----	-----	-----	41.2	39	45.0
				150	-----	-----	-----	41.0	43	56.0
				160	-----	-----	-----	41.8	60	41.0
				170	-----	-----	-----	42.7	76	45.0
				180	-----	-----	-----	42.6	55	62.0
				190	-----	-----	-----	39.8	71	49.0
				200	-----	-----	-----	29.9	82	41.0
				210	-----	-----	-----	18.9	496	13.0
				220	-----	-----	-----	17.1	142	30.0
				260	-----	-----	-----	0.0	-----	-----
01-03-86	2325	1,349.80	46	45	-----	-----	-----	0.0	-----	-----
				85	-----	1.73	0.38	13.7	-----	-----
				100	-----	2.20	1.13	22.6	27	69.0
				115	-----	2.39	2.50	27.2	43	60.0
				130	-----	3.28	2.61	40.0	34	52.0
				145	-----	3.57	2.20	40.0	37	51.0
				160	-----	3.06	3.06	40.7	44	43.0
				175	-----	2.86	2.99	41.4	70	43.0
				190	-----	1.23	2.39	38.3	61	51.0
				205	-----	0.69	1.66	20.1	41	52.0
				220	-----	0.76	0.64	15.4	61	35.0
				258	-----	-----	-----	0.0	-----	-----
01-27-86	0842	1,355.00	564	42	-----	-----	-----	0.0	-----	-----
				55	-----	-----	-----	10.4	-----	-----
				70	-----	-----	-----	13.2	-----	-----
				85	-----	-----	-----	19.4	179	31.0
				100	-----	-----	-----	28.2	435	22.0
				115	-----	-----	-----	34.0	570	17.0
				130	-----	-----	-----	41.7	553	16.0
				145	-----	-----	-----	43.7	458	20.0
				160	-----	-----	-----	43.2	445	19.0

Table 38.--Velocity and suspended-sediment concentration at individual verticals, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Mean concentration, in milligrams per liter	Distance from left bank reference point, in feet	Velocity, in feet per second at indicated fraction of depth			Depth, in feet below the water surface	Concentrations in milligrams per liter	Percent finer than 0.0625 millimeters
					0.6	0.2	0.8			
01-27-86	0842	(Continued)		175	-----	-----	-----	45.4	306	29.0
				190	-----	-----	-----	45.3	518	18.0
				205	-----	-----	-----	31.7	363	27.0
				220	-----	-----	-----	20.9	399	22.0
				235	-----	-----	-----	13.1	1,760	8.0
				250	-----	-----	-----	9.4	780	77.0
				260	-----	-----	-----	0.0	-----	-----
01-31-86	0715	1,354.30	393	45	-----	-----	-----	0.0	-----	-----
				85	-----	-----	-----	17.5	657	11.0
				100	-----	-----	-----	26.6	607	14.0
				115	-----	-----	-----	32.9	296	15.0
				130	-----	-----	-----	42.9	482	9.0
				145	-----	-----	-----	45.0	339	13.0
				160	-----	-----	-----	46.0	311	14.0
				175	-----	-----	-----	45.5	366	19.0
				190	-----	-----	-----	38.0	191	23.0
				205	-----	-----	-----	23.1	289	20.0
				262	-----	-----	-----	0.0	-----	-----
02-02-86	0250	1,353.18	212	43	-----	-----	-----	0.0	-----	-----
				85	-----	2.68	0.86	17.3	378	11.0
				100	-----	3.89	1.73	28.2	234	14.0
				115	-----	4.37	3.65	29.3	201	19.0
				130	-----	5.37	4.85	40.4	173	20.0
				145	-----	5.55	3.98	39.9	187	19.0
				160	-----	5.32	4.75	41.4	120	28.0
				175	-----	4.96	4.85	42.9	100	30.0
				190	-----	4.37	3.89	42.5	283	12.0
				205	-----	2.05	2.55	22.7	176	30.0
				220	-----	1.06	1.92	18.8	273	15.0
				262	-----	-----	-----	0.0	-----	-----

Table 39.--Grain-size distribution of bed material, Colorado River at Lees Ferry, 1985-86

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-03-85	200	116.9	17.3	-----	100.0	95.9	81.8	67.9	55.1	44.1	30.9	16.4	6.6	1.2
10-03-85	220	244.5	23.0	-----	100.0	94.1	86.1	72.5	68.4	58.6	50.8	32.0	10.2	1.2
10-03-85	240	58.0	16.0	-----	-----	100.0	87.8	82.1	78.6	77.2	70.9	42.9	17.4	2.9
10-03-85	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-85	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-85	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-85	320	51.2	36.0	100.0	24.6	24.6	5.1	3.9	3.3	2.9	2.5	1.8	0.6	0.0
10-03-85	340	105.1	34.7	100.0	56.7	38.4	19.2	14.8	9.4	6.4	4.3	2.6	0.9	0.1
10-03-85	360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-85	380	210.0	-----	-----	-----	-----	100.0	97.8	82.0	39.0	2.6	0.2	0.1	0.0
10-03-85	400	67.3	-----	-----	-----	-----	-----	-----	100.0	99.6	72.7	12.0	1.8	0.1
10-03-85	420	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-85	440	193.4	-----	-----	-----	-----	-----	100.0	99.9	99.7	44.0	0.4	0.1	0.1
10-03-85	460	202.4	-----	-----	-----	-----	-----	-----	100.0	99.8	64.2	0.7	0.0	0.0
10-03-85	480	193.2	-----	-----	-----	-----	-----	100.0	99.9	99.9	82.8	0.9	0.1	0.1
10-03-85	500	150.9	-----	-----	-----	-----	-----	100.0	99.9	99.9	99.6	42.1	2.6	0.1
10-03-85	520	0.3	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-03-85	540	29.4	-----	-----	-----	-----	-----	-----	100.0	99.7	99.3	98.0	47.3	6.8
11-08-85	200	142.7	17.0	-----	-----	100.0	78.6	59.8	44.8	33.9	23.8	13.7	6.9	2.5
11-08-85	220	129.9	37.0	-----	100.0	64.2	55.5	49.2	41.1	35.3	30.9	22.5	9.9	2.1
11-08-85	240	10.2	6.3	-----	-----	-----	100.0	95.1	92.2	89.2	82.4	68.6	47.1	18.6
11-08-85	260	31.6	18.7	-----	-----	100.0	82.0	82.0	80.1	77.5	74.4	70.3	53.2	16.5
11-08-85	280	8.3	-----	-----	-----	-----	-----	-----	-----	100.0	98.8	95.2	63.9	15.7
11-08-85	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-85	320	414.5	61.7	100.0	23.4	10.7	9.5	8.9	8.2	7.7	7.4	6.6	4.5	1.4
11-08-85	340	80.7	37.0	-----	100.0	50.1	15.9	12.5	9.9	9.3	8.8	8.2	5.7	1.9
11-08-85	360	9.3	-----	-----	-----	-----	-----	100.0	95.7	90.3	87.1	83.9	69.9	15.1
11-08-85	380	216.6	12.7	-----	-----	100.0	99.3	97.9	90.2	52.1	5.0	0.4	0.2	0.0
11-08-85	400	196.4	-----	-----	-----	-----	100.0	99.9	98.1	83.9	11.5	0.3	0.1	0.1
11-08-85	420	223.8	-----	-----	-----	-----	-----	100.0	99.9	98.8	21.9	0.3	0.1	0.0
11-08-85	440	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-85	460	232.0	-----	-----	-----	-----	-----	100.0	99.9	77.3	1.1	0.2	0.0	0.0
11-08-85	480	224.8	-----	-----	-----	-----	-----	-----	100.0	99.9	87.9	1.9	0.2	0.0
11-08-85	500	154.3	-----	-----	-----	-----	-----	-----	100.0	99.9	98.9	29.2	4.7	1.0
11-08-85	520	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-08-85	540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-05-86	200	54.8	15.0	-----	-----	100.0	83.9	80.8	78.1	75.9	73.0	70.3	62.4	25.7
01-05-86	220	240.6	-----	-----	-----	-----	-----	100.0	99.9	99.5	98.1	81.3	29.1	7.4
01-05-86	240	151.7	-----	-----	-----	-----	100.0	99.9	99.8	99.2	97.7	82.1	24.9	3.6
01-05-86	260	22.9	21.0	-----	-----	100.0	64.6	51.1	50.2	49.8	48.0	44.1	26.6	5.2
01-05-86	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-05-86	300	35.6	28.3	--	100.0	43.0	43.0	43.0	42.7	42.4	42.1	41.0	31.2	10.1
01-05-86	320	168.4	38.3	100.0	67.3	52.9	45.5	41.4	36.0	33.4	32.5	28.8	17.1	4.1
01-05-86	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-05-86	360	22.1	-----	-----	-----	-----	-----	100.0	97.7	95.9	93.2	89.1	55.7	9.5
01-05-86	380	277.8	-----	-----	-----	-----	100.0	98.5	88.4	41.5	5.1	0.7	0.2	0.0
01-05-86	400	204.7	-----	-----	-----	-----	100.0	99.8	99.1	93.3	25.1	6.4	2.6	0.1
01-05-86	420	290.3	-----	-----	-----	-----	-----	100.0	99.4	89.9	14.0	0.4	0.0	0.0
01-05-86	440	196.9	-----	-----	-----	-----	-----	-----	100.0	99.7	38.3	0.4	0.1	0.1
01-05-86	460	153.3	-----	-----	-----	-----	-----	-----	100.0	99.9	65.0	2.0	0.1	0.0
01-05-86	480	170.4	-----	-----	-----	-----	-----	-----	100.0	99.9	77.8	0.5	0.1	0.0
01-05-86	500	232.0	-----	-----	-----	-----	-----	-----	100.0	99.9	98.3	21.5	2.7	0.1
01-05-86	520	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-05-86	540	148.4	-----	-----	-----	-----	-----	-----	100.0	99.9	99.5	96.4	43.9	8.2

Table 40.--Grain-size distribution of bed material, Colorado River above Little Colorado River, 1985-86

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-06-85	70	204.6	-----	-----	-----	-----	-----	-----	-----	100.0	99.6	90.4	41.6	6.1
10-06-85	90	191.8	-----	-----	-----	-----	-----	-----	100.0	99.9	99.1	44.1	10.5	0.6
10-06-85	110	215.6	1.0	-----	-----	-----	100.0	99.6	98.9	98.6	90.7	15.1	1.3	0.0
10-06-85	130	123.5	30.0	-----	100.0	35.9	25.3	13.0	11.1	10.8	9.8	2.3	0.2	0.0
10-06-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-06-85	170	158.8	56.0	100.0	2.0	2.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
10-06-85	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-06-85	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-06-85	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-06-85	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-06-85	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-06-85	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-06-85	310	13.4	20.0	-----	-----	100.0	38.8	37.3	36.6	35.1	24.6	2.2	0.7	0.0
10-06-85	330	54.2	-----	-----	-----	-----	-----	100.0	98.0	89.9	56.6	3.7	0.2	0.0
10-06-85	350	218.9	-----	-----	-----	-----	-----	-----	100.0	99.6	83.7	4.0	0.5	0.1
10-06-85	370	220.8	-----	-----	-----	-----	-----	-----	-----	100.0	98.6	43.1	6.4	0.4
10-06-85	390	192.7	-----	-----	-----	-----	-----	-----	100.0	99.9	99.4	88.7	54.0	9.8
10-11-85	70	137.4	-----	-----	-----	-----	-----	-----	100.0	99.9	99.8	90.4	41.3	5.7
10-11-85	90	195.2	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	71.6	18.4	1.3
10-11-85	110	227.0	-----	-----	-----	-----	-----	100.0	99.7	99.5	92.7	17.0	1.5	0.2
10-11-85	130	265.6	35.0	100.0	75.5	33.2	22.5	15.7	11.7	11.0	10.1	2.4	0.5	0.1
10-11-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-11-85	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-11-85	190	782.8	83.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-11-85	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-11-85	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-11-85	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-11-85	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-11-85	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-11-85	310	12.5	13.0	-----	-----	-----	100.0	25.6	2.4	0.0	0.0	0.0	0.0	0.0
10-11-85	330	80.9	30.7	-----	100.0	16.6	8.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0
10-11-85	350	127.9	-----	-----	-----	-----	-----	100.0	99.9	99.3	77.6	4.6	0.5	0.2
10-11-85	370	196.4	-----	-----	-----	-----	-----	-----	-----	100.0	99.5	52.6	8.6	0.5
10-11-85	390	204.5	-----	-----	-----	-----	-----	-----	-----	100.0	99.6	81.4	39.2	7.8
11-06-85	120	224.7	-----	-----	-----	-----	-----	-----	100.0	99.9	96.2	17.6	1.4	0.1
11-06-85	140	216.5	40.0	100.0	62.7	29.8	20.0	14.2	10.8	10.1	9.1	2.2	0.3	0.0
11-06-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-85	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-85	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-85	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-85	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-85	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-85	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-85	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-85	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-06-85	330	119.8	31.0	-----	100.0	56.7	44.1	30.7	24.1	22.2	18.1	3.3	0.8	0.1
11-06-85	350	204.1	5.7	-----	-----	-----	100.0	99.9	99.7	99.4	84.5	8.2	1.3	0.1
11-06-85	370	359.8	-----	-----	-----	-----	-----	-----	-----	100.0	99.7	62.5	9.5	0.8
11-12-85	70	141.6	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	94.4	49.4	12.1
11-12-85	90	185.0	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	79.0	15.4	1.4
11-12-85	110	221.2	-----	-----	-----	-----	100.0	99.6	99.5	99.4	96.9	23.1	2.0	0.2
11-12-85	130	43.4	20.3	-----	-----	100.0	50.7	30.9	24.4	23.5	21.9	3.9	0.0	0.0
11-12-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-12-85	170	1.6	-----	-----	-----	-----	-----	100.0	93.7	93.7	81.2	12.5	0.0	0.0
11-12-85	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-12-85	210	13.6	15.0	-----	-----	100.0	79.4	48.5	25.7	21.3	19.1	3.7	0.7	0.0
11-12-85	230	1.8	-----	-----	-----	-----	100.0	94.4	72.2	61.1	50.0	11.1	0.0	0.0
11-12-85	250	1.3	-----	-----	-----	-----	100.0	84.6	76.9	69.2	53.8	7.7	0.0	0.0
11-12-85	270	2.4	-----	-----	-----	100.0	41.7	16.7	12.5	12.5	8.3	4.2	0.0	0.0
11-12-85	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-12-85	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 40.--Grain-size distribution of bed material, Colorado River above Little Colorado River, 1985-86--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-12-85	330	54.5	-----	-----	-----	-----	100.0	99.1	94.9	90.5	66.2	4.0	0.0	0.0
11-12-85	350	198.1	-----	-----	-----	-----	-----	-----	100.0	99.9	93.0	12.4	0.7	0.1
11-12-85	370	151.2	-----	-----	-----	-----	-----	-----	100.0	99.9	99.5	69.9	10.3	0.7
11-12-85	390	190.3	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	96.0	65.0	15.4
12-06-85	90	255.0	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	83.7	21.4	3.2
12-06-85	110	128.4	-----	-----	-----	-----	-----	-----	100.0	99.9	98.2	32.6	2.4	0.2
12-06-85	130	65.5	23.3	-----	100.0	45.8	41.5	26.7	24.4	24.1	23.2	7.3	0.8	0.2
12-06-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-85	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-85	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-85	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-85	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-85	250	24.9	28.7	-----	100.0	2.4	2.4	2.4	1.2	0.8	0.4	0.0	0.0	0.0
12-06-85	270	74.0	41.7	100.0	5.0	5.0	5.0	1.4	0.8	0.7	0.5	0.3	0.0	0.0
12-06-85	290	2.0	11.3	-----	-----	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-85	310	3.1	12.0	-----	-----	100.0	64.5	38.7	35.5	32.3	29.0	6.5	0.0	0.0
12-06-85	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-06-85	350	89.5	-----	-----	-----	-----	100.0	98.4	97.1	96.1	79.9	16.0	1.2	0.1
12-06-85	370	190.2	-----	-----	-----	-----	-----	-----	100.0	99.9	99.6	70.0	8.7	0.6
12-06-85	390	179.5	-----	-----	-----	-----	-----	-----	100.0	99.9	99.7	92.8	56.0	14.0
12-12-85	70	205.1	8.0	-----	-----	-----	-----	100.0	99.9	99.9	99.8	90.6	39.1	7.8
12-12-85	90	158.3	-----	-----	-----	-----	-----	-----	100.0	99.9	99.8	66.9	11.0	1.0
12-12-85	110	212.2	-----	-----	-----	-----	-----	100.0	99.9	99.9	98.9	26.2	1.3	0.1
12-12-85	130	64.5	15.7	-----	-----	100.0	60.6	49.8	44.7	43.7	40.6	6.5	0.5	0.2
12-12-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-85	170	18.6	-----	-----	-----	-----	100.0	95.2	86.6	80.6	60.8	3.8	1.1	0.5
12-12-85	190	91.6	-----	-----	-----	-----	100.0	99.9	99.9	99.8	96.2	34.6	10.0	1.5
12-12-85	210	2.8	-----	-----	-----	100.0	67.9	53.6	50.0	46.4	39.3	7.1	0.0	0.0
12-12-85	230	0.5	-----	-----	-----	-----	-----	-----	-----	100.0	80.0	20.0	0.0	0.0
12-12-85	250	3.2	-----	-----	-----	-----	-----	-----	100.0	96.9	84.4	15.6	6.2	3.1
12-12-85	270	26.0	-----	-----	-----	-----	100.0	95.8	95.4	94.6	86.9	15.0	1.2	0.0
12-12-85	290	107.6	24.0	-----	100.0	69.4	54.9	50.6	49.2	48.0	38.8	2.9	0.2	0.0
12-12-85	310	12.9	-----	-----	-----	-----	100.0	92.2	80.6	74.4	64.3	20.9	7.0	2.3
12-12-85	330	18.1	21.3	-----	100.0	42.5	42.5	42.0	39.2	38.1	32.6	6.1	0.6	0.0
12-12-85	350	19.4	-----	-----	-----	-----	-----	100.0	99.5	98.5	85.6	16.0	2.1	0.5
12-12-85	370	176.0	-----	-----	-----	-----	-----	-----	100.0	99.9	99.4	54.3	4.7	0.3
12-12-85	390	206.4	-----	-----	-----	-----	-----	-----	-----	100.0	99.4	82.3	38.9	11.9
01-10-86	90	189.0	-----	-----	-----	-----	-----	-----	-----	100.0	99.7	67.1	8.9	0.7
01-10-86	110	284.7	-----	-----	-----	-----	-----	-----	-----	100.0	98.8	28.1	1.6	0.1
01-10-86	130	10.3	12.7	-----	-----	100.0	75.7	71.8	64.1	63.1	56.3	5.8	1.0	0.0
01-10-86	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-10-86	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-10-86	190	40.2	18.7	-----	100.0	83.6	75.6	73.6	70.6	67.4	53.5	7.2	0.5	0.0
01-10-86	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-10-86	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-10-86	250	58.6	34.0	-----	100.0	28.5	8.5	4.8	4.4	4.4	3.2	0.2	0.0	0.0
01-10-86	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-10-86	290	25.5	-----	-----	-----	-----	100.0	99.6	99.2	98.8	82.7	16.5	5.5	0.4
01-10-86	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-10-86	330	138.5	-----	-----	-----	-----	100.0	99.6	99.1	98.3	77.8	1.8	0.0	0.0
01-10-86	350	288.5	-----	-----	-----	-----	-----	-----	100.0	99.9	92.1	8.8	0.3	0.0
01-10-86	370	205.5	-----	-----	-----	-----	-----	-----	-----	100.0	99.2	50.6	4.9	0.3
01-10-86	390	196.3	-----	-----	-----	-----	-----	-----	-----	100.0	99.6	85.9	34.5	6.6
01-13-86	70	109.9	-----	-----	-----	-----	-----	100.0	99.8	99.7	99.4	92.7	48.0	13.5
01-13-86	90	207.1	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	68.7	5.6	0.2
01-13-86	110	227.8	-----	-----	-----	-----	100.0	99.5	99.3	99.3	96.4	10.4	0.4	0.0
01-13-86	130	7.5	-----	-----	-----	-----	100.0	88.0	81.3	77.3	72.0	18.7	1.3	0.0
01-13-86	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-13-86	170	62.0	-----	-----	-----	-----	100.0	95.2	90.3	84.8	64.8	6.1	0.3	0.0
01-13-86	190	67.4	-----	-----	-----	-----	100.0	97.5	94.7	90.9	70.6	6.4	0.3	0.0
01-13-86	210	12.3	22.3	-----	-----	100.0	18.7	16.3	13.0	12.2	8.9	0.8	0.0	0.0

Table 40.--Grain-size distribution of bed material, Colorado River above Little Colorado River, 1985-86--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
01-13-86	230	5.3	-----	-----	-----	-----	100.0	49.1	41.5	35.8	30.2	9.4	1.9	0.0
01-13-86	250	133.5	50.0	100.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.1	0.0	0.0
01-13-86	270	45.8	36.0	-----	100.0	2.0	2.0	2.0	2.0	2.0	1.7	0.4	0.0	0.0
01-13-86	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-13-86	310	99.3	48.0	100.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.2	0.1
01-13-86	330	131.6	-----	-----	-----	-----	-----	100.0	99.7	99.4	86.9	11.6	0.5	0.0
01-13-86	350	161.5	-----	-----	-----	-----	-----	100.0	99.9	99.9	91.1	5.5	0.2	0.1
01-13-86	370	211.1	-----	-----	-----	-----	-----	-----	-----	100.0	99.3	55.2	4.3	0.2
01-13-86	390	197.7	-----	-----	-----	-----	-----	-----	-----	100.0	99.7	82.4	30.9	5.2

Table 41.--Grain-size distribution of bed material, Colorado River near Grand Canyon, 1985-86

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-10-85	110	190.6	-----	-----	-----	-----	-----	-----	100.0	99.8	99.8	74.2	25.9	2.2
10-10-85	130	6.1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	100.0
10-10-85	150	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-85	170	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-10-85	190	120.3	-----	-----	-----	-----	-----	100.0	99.9	99.6	91.3	25.6	6.5	0.2
10-10-85	210	7.4	10.0	-----	-----	100.0	87.8	86.5	86.5	86.5	78.4	16.2	2.7	0.0
10-10-85	230	4.8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	100.0
10-10-85	250	82.5	-----	-----	-----	-----	100.0	99.9	98.8	95.8	77.6	17.2	2.5	0.1
10-10-85	270	83.4	-----	-----	-----	-----	-----	100.0	98.7	89.9	58.3	7.8	1.1	0.1
10-10-85	290	228.6	-----	-----	-----	-----	100.0	99.7	99.5	96.0	69.6	8.3	0.7	0.1
10-10-85	310	31.9	-----	-----	-----	-----	-----	-----	100.0	99.4	86.2	22.9	3.4	0.0
10-10-85	330	272.3	-----	-----	-----	-----	-----	100.0	99.9	99.4	87.3	16.6	1.9	0.0
10-10-85	350	2.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	100.0
10-10-85	370	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-85	110	180.2	-----	-----	-----	-----	-----	-----	-----	100.0	99.6	52.9	17.4	2.3
10-17-85	130	327.3	-----	-----	-----	-----	-----	-----	-----	100.0	99.4	39.8	12.8	5.1
10-17-85	150	209.0	-----	-----	-----	-----	-----	-----	-----	100.0	98.5	35.4	7.3	0.6
10-17-85	190	31.4	32.0	-----	100.0	11.1	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-85	210	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-85	230	41.2	26.0	-----	100.0	15.3	9.5	8.3	0.0	0.0	0.0	0.0	0.0	0.0
10-17-85	250	54.6	-----	-----	-----	-----	100.0	98.4	95.6	89.4	71.1	24.9	5.9	1.1
10-17-85	270	71.1	-----	-----	-----	-----	100.0	94.7	92.5	87.6	72.4	26.2	8.9	1.7
10-17-85	290	88.8	-----	-----	-----	-----	-----	100.0	99.8	97.7	75.8	14.9	1.1	0.1
10-17-85	310	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-85	330	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-17-85	350	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-10-85	110	186.6	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	83.3	24.0	3.5
11-10-85	130	248.3	-----	-----	-----	-----	-----	-----	-----	100.0	98.6	37.5	10.0	1.6
11-10-85	150	191.5	-----	-----	-----	-----	-----	-----	100.0	99.8	91.9	25.0	5.7	0.6
11-10-85	170	12.9	-----	-----	-----	-----	-----	-----	-----	100.0	97.7	55.0	10.9	0.0
11-10-85	190	64.5	14.0	-----	-----	-----	100.0	73.3	72.7	72.2	60.9	10.4	1.1	0.2
11-10-85	210	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-10-85	230	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-10-85	250	166.1	9.0	-----	-----	-----	100.0	98.4	96.4	91.7	78.1	20.7	3.9	0.2
11-10-85	270	19.4	-----	-----	-----	-----	-----	100.0	99.5	95.9	75.3	13.4	1.0	0.0
11-10-85	290	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-10-85	310	7.7	-----	-----	-----	-----	-----	-----	100.0	97.4	84.4	15.6	1.3	0.0
11-10-85	330	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-10-85	350	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-10-85	370	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	120	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	140	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	160	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	180	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	200	45.2	17.0	-----	-----	100.0	81.0	80.3	79.2	78.5	69.7	19.7	2.9	0.0
11-17-85	220	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	240	3.0	-----	-----	-----	-----	100.0	90.0	90.0	90.0	83.3	40.0	10.0	0.0
11-17-85	260	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	280	194.5	-----	-----	-----	-----	-----	100.0	99.5	96.7	81.7	20.0	3.1	0.2
11-17-85	300	163.2	-----	-----	-----	-----	-----	100.0	99.4	96.1	77.4	14.9	2.0	0.2
11-17-85	320	281.3	-----	-----	-----	-----	-----	100.0	99.9	99.0	89.7	34.3	7.4	0.9
11-17-85	340	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	360	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	380	269.7	-----	-----	-----	-----	100.0	99.9	99.8	99.1	87.1	31.7	10.2	1.6
12-12-85	110	300.4	-----	-----	-----	-----	-----	-----	100.0	99.9	99.6	82.2	29.4	3.7
12-12-85	130	218.7	-----	-----	-----	-----	-----	-----	-----	100.0	98.9	52.0	18.1	3.0
12-12-85	150	164.8	-----	-----	-----	-----	-----	100.0	99.9	99.6	95.5	28.7	4.2	0.5
12-12-85	170	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-85	190	92.4	35.0	-----	100.0	13.4	13.4	12.0	11.5	11.1	8.9	2.2	0.6	0.2
12-12-85	210	45.0	30.0	-----	100.0	30.0	16.2	14.4	12.7	11.8	10.0	2.9	0.4	0.0
12-12-85	230	31.7	10.3	-----	-----	100.0	94.3	91.8	90.9	89.6	82.6	22.7	3.5	0.6

Table 41.--Grain-size distribution of bed material, Colorado River near Grand Canyon, 1985-86--Continued

Date	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
12-12-85	250	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-85	270	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-85	290	173.9	-----	-----	-----	-----	-----	100.0	99.5	97.4	85.1	18.0	1.3	0.1
12-12-85	310	111.2	11.0	-----	-----	100.0	99.1	98.9	98.7	98.6	96.0	40.0	5.8	0.4
12-12-85	330	150.0	-----	-----	-----	-----	-----	100.0	99.8	99.5	93.9	36.7	4.9	0.2
12-12-85	350	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-12-85	370	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-17-85	110	284.8	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	87.1	32.5	3.4
12-17-85	130	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-17-85	150	288.6	-----	-----	-----	-----	-----	100.0	99.9	99.7	96.1	37.2	8.6	0.8
12-17-85	170	29.1	20.0	-----	100.0	68.0	62.9	62.9	62.5	61.2	35.7	3.4	0.3	0.0
12-17-85	190	243.4	14.0	-----	-----	100.0	98.9	98.6	98.4	98.0	87.8	13.8	1.4	0.1
12-17-85	210	7.7	12.7	-----	-----	100.0	76.6	74.0	72.7	72.7	66.2	26.0	5.2	0.0
12-17-85	230	276.7	-----	-----	-----	-----	100.0	99.8	98.1	94.9	83.3	8.0	0.5	0.0
12-17-85	250	205.6	-----	-----	-----	-----	-----	100.0	99.9	98.9	91.1	11.6	0.6	0.0
12-17-85	270	42.7	-----	-----	-----	-----	-----	100.0	97.2	92.5	80.3	26.5	7.5	2.6
12-17-85	290	192.8	-----	-----	-----	-----	-----	-----	100.0	99.5	91.0	15.8	2.0	0.2
12-17-85	310	35.2	-----	-----	-----	-----	-----	100.0	99.7	99.1	94.3	38.9	8.8	1.4
12-17-85	330	50.2	-----	-----	-----	-----	100.0	99.6	99.2	97.2	75.3	15.7	2.6	0.4
12-17-85	350	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-13-86	110	195.0	-----	------	-----	-----	-----	-----	100.0	99.9	99.8	85.6	21.5	1.7
01-13-86	130	190.3	-----	------	-----	-----	-----	-----	-----	100.0	99.2	48.6	14.6	2.4
01-13-86	150	13.5	-----	------	-----	-----	-----	-----	100.0	99.3	98.5	45.2	4.4	0.0
01-13-86	170	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-13-86	190	55.0	-----	-----	-----	-----	-----	100.0	99.8	99.6	86.5	10.9	0.4	0.0
01-13-86	210	55.3	-----	-----	-----	-----	-----	-----	-----	100.0	94.2	17.4	0.4	0.0
01-13-86	230	195.0	20.0	-----	100.0	96.2	96.2	95.8	95.2	94.4	86.1	13.3	0.6	0.1
01-13-86	250	63.2	-----	-----	-----	100.0	88.1	85.0	83.2	80.9	74.8	24.5	1.6	0.0
01-13-86	270	61.2	-----	-----	-----	-----	100.0	97.7	97.1	95.4	84.8	23.7	2.9	0.0
01-13-86	290	187.0	-----	-----	-----	-----	-----	-----	100.0	99.9	94.8	21.8	0.6	0.1
01-13-86	310	33.9	-----	-----	-----	-----	-----	-----	100.0	99.7	95.3	28.9	1.5	0.3
01-13-86	330	208.7	-----	-----	-----	-----	-----	-----	100.0	99.8	95.1	32.9	3.6	0.2
01-13-86	350	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-13-86	370	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-18-86	110	200.4	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	74.7	14.9	1.9
01-18-86	130	226.2	-----	-----	-----	-----	-----	-----	-----	100.0	98.3	36.9	6.4	0.6
01-18-86	150	128.9	-----	-----	-----	-----	-----	-----	100.0	99.9	97.7	31.3	3.0	0.1
01-18-86	170	3.7	-----	-----	-----	-----	-----	-----	-----	100.0	91.9	21.6	2.7	0.0
01-18-86	190	59.3	-----	-----	-----	-----	-----	100.0	99.8	99.5	87.7	15.3	1.0	0.0
01-18-86	210	78.6	34.0	-----	100.0	88.0	82.4	80.7	80.3	80.2	74.7	18.2	1.1	0.1
01-18-86	230	131.6	-----	-----	-----	-----	100.0	98.3	97.1	95.6	84.9	8.0	0.2	0.1
01-18-86	250	158.1	-----	-----	100.0	71.1	40.2	31.2	27.4	25.8	23.1	6.3	0.5	0.1
01-18-86	270	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-18-86	290	32.8	-----	-----	-----	-----	-----	100.0	99.4	98.8	89.3	15.5	0.3	0.0
01-18-86	310	65.9	-----	-----	-----	-----	-----	100.0	99.4	99.1	94.2	20.6	0.6	0.0
01-18-86	330	1.0	-----	-----	-----	-----	-----	-----	-----	100.0	90.0	30.0	0.0	0.0
01-18-86	350	41.4	14.0	-----	-----	100.0	94.2	92.8	92.5	92.3	87.4	32.1	4.8	0.2
01-18-86	370	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-21-86	150	164.4	-----	-----	-----	-----	-----	-----	-----	100.0	96.9	22.7	3.0	0.1
01-21-86	170	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-21-86	190	88.2	18.0	-----	100.0	92.0	92.0	90.4	89.8	89.5	80.0	21.3	2.9	0.0
01-21-86	210	186.9	-----	-----	-----	-----	100.0	99.3	98.8	97.9	86.0	7.0	0.3	0.0
01-21-86	230	15.2	19.7	-----	100.0	43.4	21.7	3.9	2.0	1.3	0.7	0.0	0.0	0.0
01-21-86	250	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-21-86	270	153.2	-----	-----	-----	-----	-----	100.0	99.9	99.3	78.1	3.6	0.1	0.0
01-21-86	290	170.2	-----	-----	-----	-----	-----	-----	100.0	99.8	88.4	9.8	0.4	0.0
01-21-86	310	158.5	-----	-----	-----	-----	-----	100.0	99.9	99.8	89.1	6.4	0.4	0.1

Table 42.--Grain-size distribution of bed material, Colorado River above National Canyon, 1985-86

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-18-85	130	190.5	-----	-----	-----	-----	-----	-----	100.0	99.9	99.5	92.3	44.4	13.9
10-18-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-85	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-85	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-85	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-85	230	193.6	-----	-----	-----	-----	100.0	99.3	98.5	91.6	50.1	2.8	0.2	0.1
10-18-85	250	190.7	-----	-----	-----	-----	100.0	99.9	99.6	96.7	55.5	4.0	0.3	0.1
10-18-85	270	14.6	-----	-----	-----	-----	100.0	99.3	99.3	97.9	77.4	8.2	0.0	0.0
10-18-85	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-85	310	39.9	30.0	100.0	22.8	22.8	14.5	8.3	7.8	0.0	0.0	0.0	0.0	0.0
10-18-85	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-18-85	350	58.6	-----	-----	-----	-----	-----	-----	100.0	99.8	98.6	92.0	44.9	14.8
10-18-85	370	197.2	-----	-----	-----	-----	-----	-----	100.0	99.9	99.7	81.1	18.9	3.4
10-23-85	110	179.1	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	91.1	36.6	5.6
10-23-85	130	275.9	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	87.5	26.9	8.3
10-23-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-85	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-85	190	0.8	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-85	210	42.5	-----	-----	100.0	76.2	54.6	47.5	46.8	46.4	42.8	13.4	1.6	0.2
10-23-85	230	212.0	-----	-----	-----	-----	100.0	98.2	95.1	80.1	35.0	1.9	0.1	0.0
10-23-85	250	217.6	-----	-----	-----	-----	100.0	99.9	99.8	99.4	81.0	7.0	0.2	0.0
10-23-85	270	14.1	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-85	290	44.8	-----	-----	100.0	11.4	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-85	310	14.1	-----	-----	-----	-----	100.0	88.7	83.7	0.0	0.0	0.0	0.0	0.0
10-23-85	330	110.6	41.0	100.0	50.6	43.6	31.8	30.7	30.7	30.6	30.0	15.6	1.8	0.2
10-23-85	350	30.8	-----	-----	-----	-----	-----	-----	-----	100.0	99.0	93.8	44.8	10.7
10-23-85	370	197.3	-----	-----	-----	-----	-----	-----	100.0	99.9	99.7	79.2	15.2	2.0
11-17-85	110	199.1	-----	-----	-----	-----	-----	-----	100.0	99.9	99.8	94.0	42.8	7.7
11-17-85	130	96.3	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	86.4	32.2	6.0
11-17-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	190	21.2	9.0	-----	100.0	88.7	88.7	88.7	88.2	86.3	65.6	7.5	0.5	0.0
11-17-85	210	202.9	-----	-----	-----	-----	100.0	98.4	96.4	87.5	41.0	2.9	0.1	0.0
11-17-85	230	219.0	11.0	-----	-----	100.0	98.9	98.6	97.5	91.6	41.2	3.7	0.2	0.0
11-17-85	250	223.0	-----	-----	-----	-----	100.0	99.4	99.1	98.7	77.8	3.0	0.1	0.0
11-17-85	270	211.5	-----	-----	-----	-----	-----	-----	-----	100.0	99.1	16.5	0.4	0.0
11-17-85	290	14.7	14.0	-----	-----	100.0	64.6	44.2	43.5	42.2	37.4	10.2	0.7	0.0
11-17-85	310	154.4	17.0	-----	100.0	92.9	86.9	84.6	84.1	83.7	80.0	26.6	2.5	0.1
11-17-85	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-17-85	350	23.3	-----	-----	-----	-----	-----	100.0	99.6	99.6	98.7	94.4	49.8	4.3
11-17-85	370	163.5	-----	-----	-----	-----	-----	-----	100.0	99.9	99.8	95.0	35.3	4.6
11-23-85	110	209.5	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	93.8	38.6	5.6
11-23-85	130	184.9	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	85.0	24.2	4.4
11-23-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-85	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-85	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-85	210	127.8	40.0	100.0	50.5	26.6	5.9	2.7	1.2	0.9	0.6	0.2	0.1	0.0
11-23-85	230	229.2	-----	-----	-----	-----	100.0	99.6	98.6	93.4	32.6	1.4	0.1	0.0
11-23-85	250	222.4	-----	-----	-----	-----	100.0	99.6	99.3	98.2	73.8	4.7	0.0	0.0
11-23-85	270	26.7	-----	-----	-----	-----	-----	100.0	99.3	98.5	86.1	11.2	0.4	0.0
11-23-85	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-85	310	56.9	14.0	-----	-----	100.0	89.1	86.8	86.5	85.6	80.1	28.5	2.5	0.0
11-23-85	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-85	350	35.7	-----	-----	-----	-----	-----	-----	-----	100.0	99.4	89.6	30.8	7.6
11-23-85	370	276.8	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	94.1	24.5	2.9
12-18-85	110	200.6	-----	-----	-----	-----	-----	-----	-----	-----	100.0	97.5	49.0	13.5
12-18-85	130	120.2	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	94.3	32.6	10.0
12-18-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-18-85	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-18-85	190	89.5	11.3	-----	-----	-----	100.0	94.5	93.2	92.4	80.7	13.6	0.8	0.1
12-18-85	210	203.0	58.3	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 42.--Grain-size distribution of bed material, Colorado River above National Canyon, 1985-86--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
12-18-85	230	208.0	12.0	-----	-----	-----	100.0	97.3	94.8	86.2	42.8	4.8	0.3	0.1
12-18-85	250	17.4	17.6	-----	100.0	55.2	14.4	14.4	14.4	14.4	12.6	2.9	0.0	0.0
12-18-85	270	210.1	-----	-----	-----	-----	-----	-----	100.0	99.7	89.3	17.6	0.3	0.0
12-18-85	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-18-85	310	172.4	-----	-----	-----	-----	100.0	99.9	99.7	99.2	94.8	29.2	2.8	0.3
12-18-85	330	222.8	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	61.3	9.1	1.5
12-18-85	350	180.6	-----	-----	-----	-----	-----	-----	100.0	99.9	99.8	94.3	42.0	13.1
12-18-85	370	198.8	-----	-----	-----	-----	-----	-----	100.0	99.9	99.9	97.3	30.8	4.6
12-25-85	110	207.8	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	96.0	44.5	10.5
12-25-85	130	108.0	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	90.4	38.1	9.8
12-25-85	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-25-85	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-25-85	190	6.9	-----	-----	-----	-----	-----	100.0	98.6	97.1	79.7	15.9	2.9	1.4
12-25-85	210	216.0	-----	-----	-----	-----	100.0	99.9	99.7	98.8	59.3	3.4	0.2	0.1
12-25-85	230	210.5	-----	-----	-----	-----	100.0	98.3	97.4	94.2	55.9	5.4	0.2	0.0
12-25-85	250	227.3	-----	-----	-----	-----	-----	100.0	99.9	99.7	87.5	7.9	0.2	0.0
12-25-85	270	196.5	-----	-----	-----	-----	-----	-----	100.0	99.8	93.2	17.6	0.8	0.1
12-25-85	290	12.8	-----	-----	-----	-----	100.0	84.4	83.6	81.2	57.8	10.9	1.6	0.8
12-25-85	310	120.0	21.0	-----	100.0	90.9	80.2	74.2	72.9	72.4	66.7	23.5	3.7	0.6
12-25-85	330	30.6	-----	-----	-----	-----	-----	-----	-----	100.0	99.3	66.3	10.5	1.3
12-25-85	350	191.6	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	92.5	29.1	6.7
12-25-85	370	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-22-86	130	250.0	-----	-----	-----	-----	-----	-----	-----	100.0	99.6	42.5	5.8	0.7
01-22-86	150	113.8	55.0	100.0	10.0	10.0	1.7	1.2	1.1	1.1	0.8	0.2	0.0	0.0
01-22-86	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-22-86	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-22-86	210	186.9	-----	-----	-----	-----	-----	-----	-----	100.0	98.8	14.8	0.3	0.0
01-22-86	230	224.2	-----	-----	-----	-----	100.0	99.8	99.3	96.2	58.0	7.8	0.0	0.0
01-22-86	250	189.4	-----	-----	-----	-----	100.0	99.2	96.8	90.9	47.4	2.0	0.2	0.1
01-22-86	270	31.4	19.0	-----	-----	100.0	38.9	36.3	36.3	36.0	33.4	11.8	0.0	0.0
01-22-86	290	174.9	0.0	-----	-----	-----	100.0	99.9	99.6	86.9	8.6	0.2	0.0	0.0
01-22-86	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-22-86	330	219.0	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	53.9	5.0	0.4
01-22-86	350	241.3	-----	-----	-----	-----	-----	-----	-----	-----	100.0	96.5	48.9	15.3
01-22-86	370	244.8	-----	-----	-----	-----	-----	-----	-----	-----	100.0	94.8	29.2	3.6
01-25-86	130	212.0	-----	-----	-----	-----	-----	-----	-----	-----	100.0	83.9	31.6	7.5
01-25-86	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-25-86	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-25-86	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-25-86	190	222.6	-----	-----	-----	-----	-----	100.0	99.8	99.6	95.1	21.0	0.5	0.0
01-25-86	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-25-86	220	181.0	16.0	-----	-----	100.0	90.7	88.5	87.0	83.2	43.1	2.1	0.1	0.1
01-25-86	235	227.0	-----	-----	-----	-----	-----	-----	100.0	99.9	92.1	11.9	0.1	0.0
01-25-86	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-25-86	265	1.8	-----	-----	-----	-----	100.0	83.3	83.3	77.8	66.7	22.2	0.0	0.0
01-25-86	280	14.5	18.0	-----	-----	100.0	62.8	35.9	34.5	33.8	31.7	10.3	0.7	0.0
01-25-86	295	23.5	22.3	-----	100.0	58.7	28.9	21.7	20.4	20.0	17.4	3.8	0.4	0.0
01-25-86	310	54.2	24.3	-----	100.0	75.3	67.2	61.3	59.6	59.0	56.8	21.8	0.7	0.0
01-25-86	325	44.0	-----	-----	-----	-----	-----	-----	-----	100.0	99.5	42.5	3.0	0.2
01-25-86	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 43.--Grain-size distribution of bed material, Colorado River above Diamond Creek, 1985-86

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-23-85	50	126.8	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	99.4	80.8	32.9
10-23-85	80	266.4	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	93.5	41.5	8.3
10-23-85	95	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-85	110	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-23-85	125	270.7	27.0	-----	100.0	93.1	90.1	87.0	86.5	86.4	82.7	19.2	2.5	0.1
10-23-85	140	223.4	-----	-----	-----	-----	-----	-----	-----	100.0	98.1	14.5	0.7	0.0
10-23-85	155	206.1	-----	-----	-----	-----	-----	-----	100.0	99.9	97.3	13.4	0.4	0.0
10-23-85	170	238.8	-----	-----	-----	100.0	99.2	97.4	93.1	84.8	54.6	4.6	0.3	0.0
10-23-85	185	325.9	-----	-----	-----	-----	-----	-----	100.0	99.8	76.9	17.0	3.7	0.4
10-23-85	200	27.7	-----	-----	-----	-----	100.0	99.3	97.5	96.8	83.0	13.7	0.7	0.0
10-23-85	215	186.6	-----	-----	-----	-----	-----	-----	-----	100.0	96.7	43.7	11.0	1.7
10-23-85	230	225.8	-----	-----	-----	-----	-----	-----	100.0	99.9	99.8	89.8	28.8	4.5
10-23-85	245	208.6	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	84.3	23.7	4.7
10-24-85	50	340.1	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	98.1	67.8	18.8
10-24-85	65	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-24-85	80	201.3	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	93.0	41.3	9.2
10-24-85	95	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-24-85	110	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-24-85	125	57.2	30.0	-----	100.0	20.1	14.7	11.2	10.8	0.0	0.0	0.0	0.0	0.0
10-24-85	140	225.9	-----	-----	-----	-----	-----	-----	100.0	99.9	97.0	14.2	0.6	0.1
10-24-85	155	184.5	14.0	-----	-----	100.0	98.8	98.4	98.0	97.6	89.9	12.4	0.6	0.1
10-24-85	170	194.6	-----	-----	100.0	98.0	96.0	93.9	87.5	54.7	3.2	0.2	0.1	0.0
10-24-85	185	220.1	-----	-----	-----	-----	-----	-----	100.0	99.8	78.9	9.6	1.4	0.2
10-24-85	200	210.4	-----	-----	-----	-----	-----	-----	-----	100.0	98.2	54.5	17.4	3.7
10-24-85	215	71.4	-----	-----	-----	-----	-----	-----	-----	100.0	98.2	36.0	7.3	1.4
10-24-85	230	196.7	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	81.7	18.8	2.7
10-24-85	245	206.2	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	78.5	22.0	4.8
10-28-85	50	264.3	-----	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	85.2	18.9
10-28-85	65	279.6	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	98.6	60.5	14.5
10-28-85	80	263.4	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	92.7	40.5	7.3
10-28-85	95	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-28-85	110	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-28-85	125	211.5	-----	-----	-----	-----	-----	-----	100.0	99.9	97.1	29.4	3.3	0.2
10-28-85	140	203.1	11.0	-----	-----	100.0	99.3	99.3	99.2	98.9	93.4	13.9	0.5	0.0
10-28-85	155	265.5	-----	-----	-----	-----	-----	-----	100.0	99.7	93.0	11.5	0.5	0.0
10-28-85	170	195.0	-----	-----	-----	100.0	99.4	98.8	97.0	89.0	52.4	2.7	0.1	0.0
10-28-85	185	189.3	-----	-----	-----	-----	-----	-----	100.0	99.7	70.7	7.6	1.5	0.1
10-28-85	200	81.1	-----	-----	-----	-----	100.0	99.9	99.8	99.5	96.1	55.6	16.3	1.2
10-28-85	215	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-28-85	230	186.3	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	93.2	35.9	8.1
11-23-85	50	63.1	-----	-----	-----	-----	100.0	99.8	99.7	98.9	98.1	97.3	83.8	32.6
11-23-85	65	16.9	-----	-----	-----	-----	-----	-----	-----	-----	100.0	91.1	53.8	9.5
11-23-85	80	198.8	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	94.1	45.2	8.9
11-23-85	95	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-85	125	224.1	27.0	-----	100.0	90.4	90.4	90.4	90.4	90.3	89.1	27.1	3.7	0.3
11-23-85	140	233.1	-----	-----	-----	-----	-----	100.0	99.9	99.7	94.6	8.6	0.2	0.0
11-23-85	155	211.1	8.0	-----	-----	-----	100.0	99.4	97.8	93.7	71.9	5.3	0.3	0.1
11-23-85	170	199.7	11.0	-----	-----	100.0	96.8	94.8	94.1	93.9	83.9	6.5	0.6	0.1
11-23-85	185	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-85	200	101.6	6.0	-----	-----	-----	100.0	99.2	98.7	98.2	96.1	61.9	27.2	6.2
11-23-85	215	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-23-85	230	217.5	-----	-----	-----	-----	-----	-----	-----	100.0	99.8	82.9	21.5	3.2
11 23-85	245	216.5	-----	-----	-----	-----	-----	-----	-----	100.0	99.6	64.0	15.0	1.8
11-29-85	50	218.3	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	99.3	80.9	26.3
11-29-85	65	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-85	80	247.9	-----	-----	-----	-----	-----	-----	100.0	99.9	99.8	92.5	53.2	17.0
11-29-85	95	196.0	-----	-----	-----	-----	-----	100.0	99.9	99.9	99.8	87.9	29.5	4.5
11-29-85	110	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-85	125	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-85	140	196.2	-----	-----	-----	-----	-----	100.0	99.9	99.8	96.6	11.2	0.3	0.1
11-29-85	155	184.3	-----	-----	-----	-----	-----	-----	100.0	99.9	97.4	12.3	0.2	0.0

Table 43.--Grain-size distribution of bed material, Colorado River above Diamond Creek, 1985-86--Continued

Date	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
				64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-29-85	170	198.6	-----	-----	-----	-----	100.0	99.6	98.9	97.2	81.5	4.2	0.1	0.0
11-29-85	185	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-85	200	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-29-85	215	27.1	-----	-----	-----	-----	-----	-----	-----	100.0	99.3	50.2	5.2	0.4
11-29-85	230	158.3	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	87.4	25.5	3.5
11-29-85	245	163.5	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	82.8	21.9	2.6
12-24-85	65	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-24-85	80	17.6	-----	-----	-----	-----	-----	-----	100.0	99.4	98.9	90.9	59.1	29.5
12-24-85	95	111.7	-----	-----	-----	-----	-----	-----	100.0	99.9	99.8	95.5	52.1	14.9
12-24-85	110	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-24-85	125	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-24-85	140	202.0	-----	-----	-----	-----	100.0	99.9	99.9	99.8	97.9	17.1	0.9	0.1
12-24-85	155	200.3	-----	-----	-----	-----	-----	100.0	99.8	99.4	95.9	11.1	0.4	0.1
12-24-85	170	180.3	-----	-----	-----	-----	100.0	99.8	99.0	98.7	92.2	7.0	0.6	0.1
12-24-85	185	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-24-85	200	11.5	-----	-----	-----	-----	100.0	99.1	97.4	95.7	93.9	70.4	20.9	2.6
12-24-85	215	7.8	-----	-----	-----	-----	-----	-----	-----	-----	100.0	66.7	20.5	2.6
12-24-85	230	214.6	-----	-----	-----	-----	-----	-----	-----	----	100.0	81.0	19.4	3.4
12-31-85	50	241.3	-----	-----	-----	-----	-----	100.0	99.9	99.8	99.5	98.6	80.0	26.0
12-31-85	65	6.7	-----	-----	-----	-----	100.0	95.5	92.5	89.6	85.1	79.1	55.2	10.4
12-31-85	80	190.7	-----	-----	-----	-----	-----	-----	100.0	99.9	99.7	95.3	54.4	13.4
12-31-85	95	200.1	-----	-----	-----	-----	-----	-----	100.0	99.9	99.9	94.2	38.4	10.0
12-31-85	110	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-31-85	125	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-31-85	140	231.2	-----	-----	-----	-----	-----	-----	-----	100.0	99.0	14.6	0.6	0.1
12-31-85	155	223.9	-----	-----	-----	-----	-----	100.0	99.9	99.6	93.7	12.3	0.2	0.0
12-31-85	170	210.8	-----	-----	-----	-----	100.0	99.8	99.5	98.1	84.2	7.4	0.4	0.2
12-31-85	185	4.3	-----	-----	-----	-----	-----	-----	100.0	97.7	88.4	18.6	4.7	2.3
12-31-85	200	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-31-85	215	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-31-85	230	218.5	-----	-----	-----	-----	-----	-----	100.0	99.9	99.3	91.0	32.8	6.0
12-31-85	245	186.8	-----	-----	-----	-----	-----	-----	100.0	99.9	99.6	83.0	27.8	6.3
01-26-86	50	182.9	-----	-----	-----	-----	-----	100.0	99.9	99.9	99.7	99.0	82.2	32.8
01-26-86	65	269.4	-----	-----	-----	-----	-----	-----	-----	-----	100.0	97.6	52.3	8.9
01-26-86	80	210.2	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	93.9	43.2	8.9
01-26-86	110	14.6	-----	-----	-----	-----	-----	100.0	99.3	99.3	97.3	63.0	4.8	0.7
01-26-86	125	290.7	-----	-----	-----	-----	-----	-----	-----	100.0	99.1	32.4	4.0	0.2
01-26-86	140	222.7	-----	-----	-----	-----	-----	-----	-----	100.0	99.0	35.3	1.7	0.1
01-26-86	155	200.1	-----	-----	-----	-----	100.0	99.4	98.0	96.0	88.0	9.9	0.6	0.0
01-26-86	170	201.6	-----	-----	-----	-----	100.0	99.6	98.8	95.6	81.9	18.3	0.6	0.0
01-26-86	185	223.1	21.3	-----	-----	100.0	94.1	87.3	76.6	65.1	49.8	9.7	1.3	0.1
01-26-86	215	4.2	-----	-----	-----	-----	-----	-----	-----	-----	100.0	76.2	9.5	0.0
01-26-86	230	197.6	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	81.1	20.7	3.4
01-26-86	245	4.0	-----	-----	-----	-----	-----	100.0	95.0	95.0	92.5	77.5	17.5	0.0
01-30-86	250	207.2	-----	-----	-----	-----	-----	-----	100.0	99.9	99.6	79.7	18.4	2.1
01-30-86	235	229.9	-----	-----	-----	-----	-----	-----	-----	-----	100.0	79.1	20.0	3.3
01-30-86	220	72.4	-----	-----	-----	-----	-----	-----	100.0	99.9	98.9	40.7	4.0	0.1
01-30-86	205	6.7	-----	-----	-----	-----	-----	-----	100.0	98.5	97.0	56.7	6.0	0.0
01-30-86	190	0.0	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01-30-86	175	223.7	-----	-----	-----	-----	-----	-----	-----	100.0	98.6	22.0	1.6	0.1
01-30-86	160	214.0	-----	-----	-----	-----	-----	-----	-----	100.0	98.1	11.9	0.3	0.0
01-30-86	145	223.2	-----	-----	-----	-----	-----	-----	-----	100.0	99.4	16.9	0.4	0.0
01-30-86	130	188.0	-----	-----	-----	-----	-----	-----	-----	100.0	99.4	26.8	1.3	0.1
01-30-86	115	222.6	-----	-----	-----	-----	-----	-----	100.0	99.9	96.8	21.4	1.3	0.0
01-30-86	100	18.9	-----	-----	-----	-----	-----	-----	100.0	99.5	92.6	28.6	2.1	0.0
01-30-86	85	122.0	-----	-----	-----	-----	-----	-----	-----	100.0	99.9	91.1	49.3	11.2
01-30-86	70	191.5	-----	-----	-----	-----	100.0	99.9	99.9	99.8	99.6	93.5	43.1	8.9
01-30-86	55	183.6	-----	-----	-----	-----	-----	-----	100.0	99.9	99.2	97.1	77.8	27.3

Table 44.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River at Lees Ferry, 1985-86

Date	Time	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
11-02-85	1445	555,180	202.5	----	--	-----	----	100.0	99.7	98.9	93.0	46.1	1.0	0.1	0.1
11-02-85	1540	205,555	99.8	----	--	-----	----	100.0	97.5	97.4	92.4	57.5	0.3	0.2	0.1
11-09-85	1445	270,540,270	121.7	----	--	-----	----	-----	100.0	99.8	98.0	68.2	0.5	0.0	0.0
11-09-85	2118	260,530,260	1026.3	----	--	-----	----	100.0	93.1	73.6	56.2	15.5	0.3	0.1	0.0
01-04-86	2030	170,560	719.6	----	--	-----	----	-----	100.0	99.2	93.9	36.4	0.9	0.1	0.1
01-04-86	2110	560,170	65.6	----	--	-----	----	-----	100.0	99.8	99.2	68.5	0.4	0.1	0.0
01-10-86	1750	230,500,230	131.5	----	--	-----	----	-----	100.0	99.7	98.2	46.8	1.1	0.1	0.0

Table 45.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River above Little Colorado River, 1985-86

Date	Time	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-06-85	0938	105,255	15.6	----	---	-----	----	-----	-----	100.0	98.8	83.2	2.6	1.0	0.5
10-06-85	0938	285,375	34.9	----	---	-----	----	100.0	98.7	96.7	93.3	71.8	1.7	0.3	0.0
10-06-85	1030	105,375	10.6	----	---	-----	----	-----	100.0	99.2	97.6	83.2	2.4	0.0	---
10-06-85	1200	105,375	29.7	----	---	-----	----	-----	100.0	99.0	97.7	87.1	4.3	0.3	0.0
10-06-85	1200	375,105	29.1	----	---	-----	----	-----	100.0	99.2	97.5	82.7	0.6	0.3	0.0
10-14-85	1145	100,370,100	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-15-85	0940	65,390,65	385.4	9	---	-----	----	-----	-----	-----	-----	100.0	9.6	6.0	3.6
11-07-85	0642	80,380	44.6	----	---	-----	----	-----	-----	-----	100.0	94.9	40.6	1.3	0.4
11-07-85	0700	380,80	20.1	----	---	-----	----	100.0	98.5	97.5	93.6	89.7	40.7	1.5	0.5
11-07-85	1002	390,90	24.6	----	---	-----	----	-----	100.0	99.5	98.7	95.4	46.4	2.0	0.4
11-07-85	1052	90,390	36.1	----	---	-----	----	-----	-----	100.0	97.3	89.6	30.9	1.4	0.3
11-13-85	0150	80,350,80	165.8	9	---	-----	100.0	99.3	97.3	96.3	95.0	83.5	4.1	0.3	0.1
11-13-85	0516	80,350,80	136.5	----	---	-----	----	100.0	99.9	99.8	99.4	90.7	1.6	0.2	0.1
11-13-85	1520	100,370,100	53.3	----	---	-----	----	100.0	99.7	98.4	95.6	77.4	2.8	0.0	----
11-13-85	2238	80-350-80	27.0	----	---	-----	----	-----	100.0	98.7	92.9	83.4	42.8	24.2	18.7
11-15-85	1128	100,370,100	65.4	----	---	-----	----	-----	100.0	98.0	96.2	81.2	0.4	0.0	----
12-07-85	0708	80,380	29.0	----	---	-----	----	-----	100.0	99.6	99.3	94.1	37.8	0.7	0.0
12-07-85	0745	380,80	296.6	----	---	-----	----	-----	100.0	99.8	98.8	91.0	1.3	0.1	0.0
12 09 85	1305	80,380	36.1	----	---	-----	----	100.0	99.8	99.2	98.4	93.4	25.3	0.6	0.3
12-09-85	1340	80,80	45.0	----	---	-----	----	-----	----	100.0	97.7	91.8	21.2	0.4	0.2
12-14-85	0338	130,310,130	1028.9	----	---	-----	----	100.0	98.9	97.7	96.3	81.0	2.3	0.0	----
12-14-85	0800	130,310,130	1095.4	----	---	-----	----	100.0	99.6	98.4	97.2	84.4	1.0	0.2	0.0
12-14-85	1132	130,310,130	574.7	----	---	-----	----	100.0	99.3	98.8	98.0	85.1	1.1	0.0	----
12-15-85	0115	80,350,80	55.0	----	---	-----	----	-----	100.0	99.8	99.3	89.1	8.9	0.5	0.0
01 09 86	0815	80,400	224.4	----	---	-----	100.0	98.1	96.6	95.1	93.5	83.2	15.6	2.9	0.3
01-09-86	0845	400,80	250.5	----	---	-----	----	100.0	99.1	98.3	95.2	57.1	1.7	0.0	----
01-11-86	0524	80,380	344.7	----	---	-----	----	100.0	96.5	93.9	92.6	84.8	1.0	0.4	0.1
01-11-86	0545	80,80	558.4	----	---	-----	100.0	98.1	96.6	94.5	92.6	79.1	0.5	0.1	0.0
01-14-86	0110	100,370,100	26.2	----	---	-----	----	-----	----	100.0	99.5	96.9	11.4	0.0	----

Table 45.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Distance from right bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
01-14-86	0938	100,370,100	622.9	----	---	-----	----	100.0	99.1	98.3	97.2	85.0	4.4	0.2	0.1
01-14-86	1750	130,310,130	58.8	----	---	-----	----	100.0	99.9	99.4	98.2	80.1	2.1	0.7	0.2
01-15-86	2310	100,370,100	37.1	----	---	-----	----	-----	100.0	98.5	96.6	69.0	0.2	0.0	----

Table 46.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River near Grand Canyon, 1985-86

Date	Time	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-12-85	1025	115	77.4	----	---	-----	----	-----	-----	100.0	99.7	99.1	68.0	13.9	1.6
10-12-85	1025	130,175	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-12-85	1025	190,325	250.5	----	---	-----	----	100.0	99.8	98.7	98.7	78.8	2.0	0.3	0.1
10-12-85	1025	340,385	0.0	----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-12-85	1138	385,115	261.8	----	---	-----	----	-----	-----	-----	100.0	99.9	12.9	2.3	0.2
10-12-85	1410	115,385	97.6	4.5	---	-----	----	-----	-----	100.0	98.7	98.7	3.8	0.6	0.1
10-12-85	1450	385,115	280.2	8.5	---	-----	----	-----	-----	-----	-----	100.0	41.2	8.7	1.0
10-18-85	1100	140,360,140	142.0	----	---	-----	----	-----	-----	-----	100.0	69.7	0.6	0.2	0.0
10-18-85	1510	115,390,115	662.9	----	---	-----	----	100.0	99.4	97.6	93.0	78.2	26.1	9.3	2.0
11-11-85	1312	115,375	12.5	----	---	-----	----	-----	-----	100.0	97.6	89.8	32.0	2.4	0.8
11-11-85	1345	375,115	19.7	----	---	-----	----	100.0	99.2	98.2	97.2	91.8	34.7	1.5	0.5
11-13-85	1002	115,375	64.1	----	---	-----	----	-----	-----	100.0	98.1	90.0	28.8	1.0	0.4
11-13-85	1032	375,115	23.2	----	---	-----	----	-----	100.0	97.5	93.9	81.3	26.0	0.8	0.0
11-18-85	0930	135,360,135	7.6	----	---	-----	----	-----	-----	100.0	98.6	89.4	3.9	0.0	0.0
11-19-85	0402	180,360,180	202.9	----	---	-----	----	-----	100.0	99.1	94.6	72.5	0.2	0.0	0.0
11-20-85	2250	135,360,135	44.0	----	---	-----	----	100.0	98.7	95.3	88.0	73.6	7.1	0.2	0.0
12-11-85	1002	115,385	17.4	----	---	-----	----	-----	-----	-----	100.0	97.7	60.3	4.0	0.6
12-11-85	1042	385,115	36.1	----	---	-----	----	-----	-----	100.0	99.8	99.2	77.3	18.0	1.1
12-12-85	1253	120,380	19.5	----	---	-----	----	-----	-----	-----	100.0	98.4	47.1	1.5	0.5
12-12-85	1322	380,120	23.5	----	---	-----	----	-----	-----	100.0	99.5	97.8	62.5	6.3	0.8
12-18-85	0330	160,340,160	32.9	----	---	-----	----	-----	-----	100.0	98.4	82.9	1.1	0.3	0.0
12-18-85	1008	160,340,160	529.4	----	---	-----	----	-----	100.0	99.8	98.7	89.9	9.4	0.3	0.1
12-18-85	1412	140,365,140	329.1	----	---	-----	----	100.0	99.9	98.4	95.6	86.9	0.4	0.0	0.0
12-18-85	2118	140,365,140	72.8	----	---	-----	100.0	98.2	94.4	91.4	87.6	74.6	0.4	0.0	0.0
01-14-86	0220	120,380	5.1	----	---	-----	----	100.0	98.0	96.0	88.2	70.6	2.0	0.0	0.0
01-14-86	0248	380,120	2.0	----	---	-----	----	-----	100.0	95.0	85.0	70.0	20.0	0.0	0.0
01-15-86	0918	115,370	439.3	----	---	-----	----	-----	-----	100.0	99.8	95.9	11.3	0.6	0.0
01-15-86	0952	370,115	139.6	----	---	-----	----	-----	-----	100.0	99.5	95.3	5.3	0.5	0.1
01-16-86	0928	110,370	156.4	----	---	-----	----	-----	-----	100.0	99.1	93.3	1.7	0.2	0.1

Table 46.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River near Grand Canyon, 1985-86

Date	Time	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
01-16-86	0958	370,110	47.3	----	---	-----	----	-----	-----	100.0	99.4	94.3	14.8	0.6	0.2
01-19-86	0015	160,340	663.8	----	---	-----	----	-----	100.0	99.6	99.0	93.7	1.7	0.3	0.1
01-19-86	0030	340,160	235.5	----	---	-----	----	-----	100.0	99.3	97.7	88.1	0.6	0.1	0.0
01-19-86	0730	160,340	566.2	----	---	-----	----	100.0	99.2	98.2	96.4	87.4	4.7	0.1	0.0
01-19-86	0800	340,160	58.0	----	---	-----	----	-----	100.0	99.2	97.0	91.8	0.6	0.4	0.2
01-19-86	1125	160,340,340	47.2	----	---	-----	----	100.0	98.0	97.8	97.4	95.1	9.5	0.2	0.0
01-19-86	1300	135,360,135	1449.4	----	---	-----	----	-----	100.0	99.9	99.6	94.3	11.0	0.9	0.1
01-19-86	2100	130,355,130	1681.9	----	---	-----	----	-----	100.0	99.6	99.3	98.7	88.1	1.7	0.1
01-21-86	1128	150,375	129.3	----	---	-----	----	-----	100.0	99.7	99.0	92.0	0.7	0.3	0.1
01-21-86	1140	375,150	93.8	----	---	-----	----	100.0	99.7	99.5	98.7	88.6	0.6	0.2	0.1

Table 47.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River above National Canyon, 1985-86

Date	Time	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-18-85	0130	125-380	334.7	--	--	--	-----	-----	100.0	99.9	99.6	94.2	48.0	14.1	3.4
10-18-85	0130	380-125	206.0	--	--	--	-----	100.0	99.6	99.1	97.5	80.3	4.2	1.4	0.4
10-18-85	0350	120-380	378.2	--	--	--	100.0	99.8	99.8	99.6	98.4	70.1	3.6	0.6	0.2
10-18-85	0350	380-120	75.8	--	--	--	-----	-----	-----	-----	100.0	92.3	5.4	1.9	0.4
10-24-85	2020	150-340	104.1	--	--	--	-----	-----	100.0	99.5	98.0	78.3	0.6	0.3	0.1
10-25-85	0231	370-115	221.9	44	--	--	-----	100.0	99.8	99.3	97.2	68.0	1.6	0.3	0.0
10-25-85	0720	125-350	288.2	--	--	--	-----	100.0	99.5	98.7	96.0	79.7	3.7	0.2	0.0
11-18-85	0235	125-370	44.8	--	--	--	-----	-----	100.0	99.8	99.3	95.8	49.6	2.0	0.2
11-18-85	0235	370-125	103.6	8	--	--	-----	100.0	99.7	99.4	99.0	91.5	42.7	10.5	1.8
11-19-85		120-360	193.2	--	--	--	-----	-----	100.0	99.9	99.5	91.7	62.1	13.0	1.1
11-19-85	0400	360-120	269.1	--	--	--	-----	-----	100.0	99.7	98.3	68.9	12.7	1.8	0.2
11-24-85	2015	150-300	249.8	--	--	--	100.0	99.3	98.4	97.4	93.1	62.1	0.9	0.0	0.0
11-24-85	1200	160-340	183.0	9	--	--	100.0	99.6	99.6	98.1	94.5	73.6	2.6	0.0	0.0
11-25-85	1720	150-330	195.9	--	--	--	-----	100.0	99.9	99.8	99.1	88.8	3.0	0.0	0.0
11-26-85	0710	150-350	276.7	--	--	--	-----	99.7	98.2	93.6	57.1	3.0	0.0	0.0	0.0
12-19-85		120-375	61.5	--	--	--	-----	100.0	99.7	99.7	99.7	99.3	85.0	10.2	1.0
12-19-85	0145	375-120	189.3	--	--	--	-----	-----	-----	100.0	99.9	99.1	85.8	25.2	4.6
12-24-85	2210	170-330	188.4	--	--	--	-----	-----	100.0	99.7	97.7	73.7	4.5	0.1	0.0
12-25-85	0605	125-350	170.5	--	--	--	-----	-----	100.0	99.5	97.8	80.1	10.1	0.4	0.1
12-25-85	1410	170-350	270.3	--	--	--	-----	100.0	99.3	98.4	95.1	62.5	6.1	0.1	0.1
12-26-85	0100	170-350	262.0	--	--	--	-----	100.0	99.1	98.2	95.6	61.6	2.4	0.2	0.0
01-20-86		140-340	230.4	--	--	--	100.0	99.0	97.3	95.6	92.3	76.9	1.6	0.2	0.1
01-20-86	2159	360-140	175.1	--	--	--	-----	100.0	95.1	92.2	86.7	66.5	3.6	0.2	0.1
01-20-86		140-340	304.5	8	--	--	100.0	98.5	96.3	92.6	86.1	66.6	4.7	0.1	0.0
01-20-86	2305	330-130	290.0	8	--	--	100.0	99.2	97.0	93.5	84.8	53.5	3.9	0.2	0.0
01-23-86		120-380	72.8	11	--	--	100.0	91.8	87.4	85.2	83.0	70.2	6.6	0.3	0.1
01-23-86	0750	380-120	159.9	--	--	--	100.0	97.6	97.1	96.1	93.6	73.4	5.1	0.1	0.1
01-25-86		150-330	211.6	--	--	--	100.0	97.8	95.3	93.0	91.0	81.9	0.8	0.1	0.0
01-25-86	1700	330-150	230.9	--	--	--	100.0	94.1	86.7	75.9	62.3	38.9	4.5	0.2	0.0

Table 47.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River above National Canyon, 1985-86

Date	Time	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
01-26-86		140-320	154.6	--	--	--	-----	100.0	97.3	94.4	90.6	67.1	2.7	0.3	0.1
01-26-86	1515	320-140	226.3	--	--	--	-----	100.0	98.4	98.6	93.8	76.4	0.9	0.1	0.0
01-27-86		150-330	172.5	--	--	--	-----	100.0	97.3	96.1	94.9	87.5	2.4	0.3	0.1
01-27-86	0620	330-150	230.6	--	--	--	-----	-----	100.0	99.8	99.1	92.1	6.1	0.2	0.0
01-27-86		160-340	74.4	--	--	--	-----	100.0	96.6	94.2	90.9	71.8	4.7	0.4	0.0
01-27-86	1955	340-160	258.4	7	--	--	100.0	97.3	93.8	88.2	79.8	56.9	7.8	0.6	0.1
01-28-86		160-310	213.5	--	--	--	-----	100.0	99.9	99.5	97.7	83.9	1.5	0.3	0.1
01-28-86	0705	310-160	147.3	--	--	--	-----	100.0	99.4	98.8	98.2	91.7	6.5	0.3	0.1

Table 48.--Grain-size distribution of bedload, Helley-Smith sampler, Colorado River above Diamond Creek, 1985-86

Date	Time	Distance from left bank reference point, in feet	Sample weight, in grams	Tri-axial size	Percent finer than indicated grain size. Grain size is in millimeters.										
					64	32	16	8	4	2	1	0.5	0.25	0.125	0.0625
10-29-85	0742	240-70	238.1	10	-----	----	-----	100.0	98.9	98.8	98.4	88.0	14.9	2.1	0.0
10-29-85	1218	230-50	165.0	11	-----	----	100.0	99.3	99.2	98.4	96.3	82.9	5.9	0.0	---
10-29-85	2200	240-60	193.0	--	-----	----	-----	100.0	99.7	99.2	98.1	90.4	35.5	7.9	0.7
11-24-85	1125	240-60	23.3	--	-----	----	-----	100.0	96.6	96.1	94.8	93.1	60.5	5.6	0.9
11-24-85	1156	60-240	66.2	--	-----	----	-----	-----	100.0	99.8	99.7	98.2	48.0	1.4	0.0
11-24-85	1345	240-60	36.6	--	-----	----	-----	-----	-----	100.0	99.4	96.2	36.3	1.4	0.3
11-24-85	1412	60-240	239.4	--	-----	----	-----	-----	-----	100.0	99.8	96.5	60.5	8.0	0.5
11-29-85	1528	240-60	106.0	--	-----	----	-----	-----	100.0	99.5	97.4	83.3	11.1	1.3	0.1
11-30-85	1018	240-60	97.8	--	-----	----	-----	100.0	99.7	99.5	99.2	97.5	52.1	10.1	1.4
11-30-85	1750	200-110	190.5	--	-----	----	-----	-----	100.0	99.8	99.0	88.0	2.8	0.0	---
12-01-85	0922	60-240	10.3	--	-----	----	-----	-----	-----	100.0	99.0	95.1	25.2	0.0	---
12-02-85	2045	200-110	180.6	--	-----	----	-----	100.0	99.8	99.1	96.7	75.7	0.5	0.1	0.0
01-01-86	1402	60-240	185.1	--	-----	----	-----	100.0	99.1	98.3	97.7	91.2	2.5	0.3	0.0
01-02-86	0102	120-210	207.5	--	-----	----	-----	100.0	99.8	99.2	96.5	77.2	4.3	0.4	0.1
01-02-86	1035	210-110	279.8	--	-----	----	-----	100.0	99.6	99.3	97.9	82.3	4.0	0.1	0.0
01-26-86	1720	250-50	253.8	--	-----	----	100.0	99.7	99.5	99.4	99.3	98.1	42.6	4.9	0.3
01-26 86	1745	50-250	67.5	--	-----	----	-----	100.0	96.0	95.3	94.4	90.8	7.1	0.6	0.1
01-28-86	0755	250-55	238.8	16	100.0	96.3	96.3	96.2	96.1	95.8	94.7	83.0	56.4	21.3	0.0
01-30-86	2330	205-85	287.1	--	-----	----	-----	100.0	99.3	99.0	98.5	90.6	7.3	0.4	0.0
01-30-86	2340	85-205	192.1	--	-----	----	-----	-----	100.0	99.9	98.1	92.0	8.5	0.1	0.0
02-01-86	0500	205-85	300.0	--	-----	----	-----	-----	-----	100.0	99.9	94.6	9.3	0.5	0.0
02-01-86	0512	85-205	24.4	--	-----	----	-----	100.0	98.4	97.5	96.7	93.4	3.7	0.8	0.0
02-01-86	1130	205-85	270.1	--	-----	----	-----	100.0	99.6	99.0	98.4	80.9	1.7	0.2	0.1
02-01-86	1145	85-205	282.4	--	-----	----	-----	100.0	99.7	99.6	99.5	95.7	43.4	13.6	2.6
02-01-86	2018	200-110	280.4	--	-----	----	-----	-----	100.0	99.9	99.8	92.6	1.7	0.0	---
02-01-86	2036	110-220	183.8	7	-----	----	100.0	99.5	99.4	99.1	98.9	90.0	10.0	0.4	0.1

Table 49.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1985-86

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-02-85	950	279	----	8.09	8,280	6,988	406	1.20	571	0.0	0.00
									540	14.4	0.72
									510	23.0	1.12
									485	23.7	1.32
									460	24.1	1.22
									435	23.2	1.42
									405	21.2	1.56
									385	19.5	1.64
									360	19.2	1.66
									335	19.3	1.74
									305	19.6	1.66
									280	18.7	1.09
									250	16.5	0.24
									220	13.1	0.00
									165	0.0	0.00
10-02-85	1640	280	----	10.12	17,400	7,670	406	2.27	573	0.0	0.00
									563	6.3	1.21
									510	25.2	2.48
									470	26.3	2.66
									440	25.4	2.45
									400	22.6	2.77
									350	20.7	2.78
									300	21.3	2.74
									270	20.0	1.88
									240	17.8	0.90
									200	9.8	-0.30
									167	0.0	0.00
10-08-85	1835	281	----	9.78	14,800	7,800	405	1.89	165	0.0	0.00
									180	10.0	0.00
									200	10.2	-0.20
									220	14.3	-0.20
									240	17.9	-0.40
									260	19.0	1.06
									280	20.2	1.78
									300	21.3	2.50
									320	21.0	2.43
									335	20.7	2.53
									350	20.5	2.48
									365	20.5	2.60
									380	20.6	2.50
									390	21.3	2.49
									400	22.0	2.68
									410	23.7	2.25
									420	24.1	2.22
									430	25.4	2.44
									440	25.7	2.06
									450	25.7	2.32
									460	25.9	2.12
									470	25.9	2.39
									485	26.2	2.14
									500	25.7	2.24
									515	24.5	2.17
									530	20.7	1.88
									550	12.5	2.23
									570	0.0	0.00
10-10-85	1000	282	----	8.98	12,300	7,200	400	1.71	170	0.0	0.00

Table 49.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-10-85	1000	282	(Continued)						240	16.4	0.12
									260	17.3	0.67
									280	18.8	1.38
									300	19.8	1.56
									320	20.0	1.55
									340	19.5	1.94
									360	19.8	2.06
									380	20.1	2.10
									400	21.5	1.97
									420	23.2	1.90
									440	24.7	2.07
									460	25.2	2.24
									480	25.6	2.15
									500	25.1	2.47
									520	20.9	2.32
									540	16.1	1.64
									560	7.2	1.36
									570	0.0	0.00
11-02-85	610	283	----	7.96	7,640	6,901	399	2.22	568	0.0	0.00
									550	10.9	0.56
									530	18.6	1.03
									510	22.9	1.20
									495	23.6	1.40
									480	25.6	1.25
									465	24.8	1.32
									450	25.0	1.26
									435	23.7	1.32
									420	20.1	1.30
									405	18.6	1.42
									390	18.6	1.36
									370	18.7	1.47
									350	18.4	1.49
									330	18.7	1.36
									310	18.8	1.42
									290	18.5	1.32
									270	17.4	0.62
									250	15.5	0.32
									220	12.3	0.28
									190	8.4	-0.20
									169	0.0	0.00
11-02-85	2240	284	----	9.80	14,700	7,610	410	1.93	163	0.0	0.00
									180	9.1	0.14
									210	8.8	0.17
									250	17.7	1.08
									280	19.6	1.92
									300	21.1	2.20
									330	21.0	2.36
									350	20.7	2.48
									370	20.8	2.48
									400	21.1	2.42
									420	22.0	2.43
									450	27.2	2.16
									470	27.1	2.32
									500	25.2	1.87
									520	22.7	1.82
									550	13.4	1.23
									573	0.0	0.00

Table 49.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-08-85	2130	285	----	10.48	18,400	7,830	414	2.35	575	0.0	0.00
									550	13.5	1.84
									535	16.7	2.33
									520	22.4	2.54
									505	24.8	2.63
									495	26.5	2.87
									485	27.9	2.77
									470	28.4	2.76
									460	28.7	2.58
									450	27.7	2.77
									435	25.5	2.58
									420	22.5	2.76
									410	22.0	2.98
									395	21.6	2.99
									380	21.4	3.00
									365	21.4	2.84
									350	21.4	2.98
									335	21.2	3.01
									320	21.4	2.62
									300	21.5	2.70
									280	20.8	2.04
									260	18.9	1.40
									235	16.7	0.67
									200	10.1	0.00
									161	0.0	0.00
11-09-85	320	286	10.0	8.75	9,910	6,629	407	1.43	165	0.0	0.00
									210	7.0	0.00
									250	16.3	0.41
									290	19.3	1.52
									330	19.8	1.66
									360	19.5	1.77
									390	19.0	2.08
									420	20.4	1.94
									450	26.0	1.68
									490	25.8	1.43
									530	19.1	1.16
									572	0.0	0.00
11-10-85	600	287	10.0	8.83	10,600	7,190	404	1.47	164	0.0	0.00
									200	9.0	0.12
									235	15.6	0.11
									255	16.8	0.41
									270	18.8	1.00
									285	19.0	1.62
									300	20.3	1.81
									315	19.9	1.86
									330	20.0	1.91
									345	19.6	1.86
									360	19.7	2.08
									375	19.9	2.04
									390	19.8	1.86
									405	20.0	1.86
									420	20.3	1.88
									435	23.9	1.77
									450	26.1	1.75
									460	26.8	1.68
									470	26.7	1.46
									480	27.1	1.58

Table 49.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-10-85	600	287	(Continued)						495	24.7	1.54
									510	24.0	1.52
									525	20.1	1.36
									545	11.4	1.24
									568	0.0	0.00
01-04-86	1710	288	----	10.50	19,000	7,920	411	2.40	576	0.0	0.00
									560	8.8	1.37
									540	17.0	2.11
									520	22.5	2.54
									500	25.9	2.98
									485	26.3	2.82
									470	25.6	2.94
									450	24.8	2.72
									435	24.4	2.75
									415	24.2	2.75
									400	22.9	3.06
									380	21.8	2.94
									365	21.4	3.02
									345	21.3	2.72
									325	21.5	2.66
									300	21.7	2.94
									285	21.0	2.65
									260	19.6	1.76
									230	16.4	0.63
									190	11.1	0.00
									165	0.0	0.00
01-10-86	815	289	9.0	5.76	2,090	5,930	399	0.35	569	0.0	0.00
									540	11.2	0.28
									520	17.4	0.44
									510	21.0	0.43
									500	21.5	0.40
									490	21.8	0.41
									480	21.6	0.45
									470	21.3	0.44
									460	20.4	0.41
									450	20.8	0.39
									435	19.7	0.46
									420	19.8	0.48
									405	18.8	0.45
									390	17.1	0.46
									375	17.2	0.48
									360	16.5	0.51
									345	16.4	0.45
									330	17.0	0.41
									315	16.6	0.40
									300	17.0	0.34
									280	15.9	0.13
									250	13.8	0.00
									170	0.0	0.00
01-10-86	2200	290	10.0	11.19	24,500	8,045	411	3.04	165	0.0	0.00
									205	10.5	0.35
									235	17.5	1.06
									265	21.0	2.33
									280	21.8	3.04
									295	22.5	3.28
									310	22.1	3.51

Table 49.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River at Lees Ferry, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-10-86	2200	290	(Continued)						325	22.4	3.56
									340	22.0	3.73
									355	22.1	3.60
									370	22.5	3.60
									385	22.9	3.52
									400	24.1	3.29
									415	25.3	3.55
									430	25.5	3.40
									445	25.9	3.46
									460	26.4	3.43
									475	27.0	3.63
									490	27.4	3.43
									505	26.2	3.58
									520	22.9	3.16
									535	17.5	3.10
									555	11.5	2.29
									576	0.0	0.00

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-05-85	1740	57	----	2,725.62	9,550	3,990	331	2.39	399	0.0	0.00
									390	4.1	0.50
									360	9.6	1.40
									330	10.7	2.13
									300	11.8	2.68
									270	12.7	2.96
									240	14.1	3.07
									210	15.0	3.24
									180	13.9	3.22
									150	14.6	2.80
									120	15.3	1.62
									80	11.5	0.48
									68	0.0	0.00
10-06-85	250	58	1.1	2,722.59	5,360	3,420	321	1.57	393	0.0	0.00
									375	6.8	0.67
									355	7.9	0.89
									335	8.3	1.22
									305	9.1	1.47
									295	9.9	1.65
									280	10.7	1.58
									265	11.1	1.72
									250	11.8	1.69
									235	12.3	2.16
									225	12.4	2.20
									215	12.9	2.24
									205	12.8	2.02
									195	12.0	2.22
									185	11.8	2.44
									175	12.4	2.40
									165	12.2	2.08
									155	12.7	1.90
									145	13.3	1.86
									135	13.5	1.66
									125	13.6	1.36
									110	13.8	0.96
									95	13.8	0.47
									80	9.5	0.37
									72	0.0	0.00
10-07-85	1050	59	1.1	2,727.16	14,900	4,610	334	3.23	69	0.0	0.00
									90	17.4	0.93
									110	17.2	1.98
									125	17.6	2.78
									140	16.1	3.49
									155	16.4	3.77
									170	15.2	4.22
									185	16.2	4.50
									200	16.4	4.34
									215	16.4	4.41
									230	16.5	4.37
									245	15.4	4.31
									260	15.1	3.70
									275	14.8	3.98
									290	14.1	3.58
									305	13.5	3.58
									320	12.7	3.12
									335	12.5	2.96
									350	12.2	2.12

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-07-85	1050	59	(Continued)						365	10.3	1.64
									380	9.4	1.11
									403	0.0	0.00
10-08-85	410	60	1.1	2,727.32	15,300	4,800	334	3.19	401	0.0	0.00
									375	10.2	0.67
									355	12.3	2.05
									335	12.5	2.47
									320	13.3	3.06
									305	14.0	3.50
									295	14.1	3.60
									285	15.1	3.74
									275	15.2	3.68
									265	15.2	3.88
									255	15.9	3.61
									245	16.3	4.09
									235	16.2	4.56
									230	17.1	4.47
									220	17.1	4.20
									210	17.3	4.58
									200	16.8	4.20
									190	16.5	4.72
									180	16.5	4.67
									170	16.3	4.59
									160	16.9	4.36
									150	17.5	3.89
									140	17.3	3.54
									125	17.8	2.71
									110	17.8	1.71
									85	17.5	0.77
									67	0.0	0.00
10-11-85	2250	61	-----	2,723.40	6,690	3,630	324	1.84	392	0.0	0.00
									380	6.3	0.78
									360	7.8	1.20
									340	9.1	1.46
									320	9.4	1.81
									300	10.9	2.00
									280	11.0	1.94
									260	12.1	2.02
									240	13.2	2.52
									220	13.9	2.40
									200	12.6	2.75
									180	12.8	2.42
									160	13.6	2.30
									140	13.0	2.01
									120	14.1	1.44
									100	14.4	0.71
									80	10.6	0.37
									68	0.0	0.00
10-12-85	2230	62	11.0	2,723.80	5,820	3,550	333	1.64	396	0.0	0.00
									380	6.4	0.63
									360	8.1	1.01
									340	8.4	1.43
									320	9.4	1.61
									300	10.2	1.82
									280	11.0	1.92
									270	11.6	2.12

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-12-85	2230	62	(Continued)						260	11.6	1.87
									250	12.4	2.08
									240	12.8	2.30
									230	13.3	2.29
									220	13.6	2.25
									210	13.0	2.34
									200	12.8	2.20
									190	12.3	2.18
									180	12.4	2.17
									160	12.5	2.11
									140	12.8	1.78
									120	14.0	1.07
									100	13.7	0.48
									80	9.1	0.32
									63	0.0	0.00
10-13-85	1045	63	11.0	2,726.90	14,300	4,800	342	2.98	402	0.0	0.00
									380	10.9	1.18
									360	11.2	1.95
									340	13.0	2.81
									320	13.7	2.94
									300	14.2	3.56
									280	14.9	3.64
									260	15.7	3.69
									250	16.1	3.66
									240	16.3	3.38
									230	16.4	4.37
									220	17.0	4.21
									210	17.3	4.27
									200	16.3	4.21
									190	16.2	4.04
									180	16.1	4.12
									170	15.7	4.08
									160	16.1	4.02
									150	17.0	3.29
									140	16.7	2.89
									130	16.9	2.66
									120	17.6	1.95
									110	17.3	1.33
									100	17.4	1.09
									90	16.8	0.63
									70	5.3	0.57
									60	0.0	0.00
10-14-85	1000	64	11.0	2,724.80	8,630	3,820	332	2.26	66	0.0	0.00
									110	15.8	1.21
									150	14.8	2.52
									170	13.8	2.99
									190	14.2	2.96
									210	15.2	2.93
									230	14.5	2.83
									250	14.0	2.35
									270	12.6	2.58
									310	11.5	2.22
									350	9.9	1.56
									398	0.0	0.00
10-15-85	115	65	11.0	2,726.50	16,100	4,980	333	3.23	69	0.0	0.00
									85	16.8	0.82

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-15-85	115	65	(Continued)						100	18.1	1.22
									115	17.9	2.27
									130	17.3	2.47
									140	16.8	3.03
									150	17.8	3.69
									160	16.7	3.95
									170	16.3	4.09
									180	17.1	4.34
									190	17.0	4.57
									200	17.6	4.57
									210	18.1	4.49
									220	17.7	4.49
									230	17.7	4.43
									240	17.4	4.56
									250	16.9	4.23
									260	16.2	4.13
									270	16.4	4.31
									280	16.2	3.65
									290	16.4	3.49
									300	15.7	3.69
									315	13.7	3.29
									330	14.2	2.98
									345	13.4	2.67
									360	12.6	1.75
									375	11.2	0.92
									402	0.0	0.00
11-05-85	1640	66	12.0	2,725.72	10,260	4,130	334	2.48	66	0.0	0.00
									75	9.7	0.58
									100	16.0	0.99
									125	15.8	1.81
									145	15.4	2.92
									165	14.2	3.35
									180	14.2	3.54
									195	14.5	3.44
									210	15.2	3.48
									225	14.8	3.55
									240	14.4	3.18
									255	13.8	3.21
									270	12.9	2.96
									290	12.4	2.66
									310	11.5	2.54
									330	10.8	2.30
									355	9.5	1.43
									380	7.3	0.96
									400	0.0	0.00
11-06-85	225	67	----	2,725.64	11,100	4,110	327	2.70	74	0.0	0.00
									100	15.1	0.83
									115	15.5	1.56
									130	15.4	2.22
									145	15.0	2.86
									155	14.9	2.99
									165	14.2	3.48
									175	14.4	3.16
									185	13.8	3.64
									190	14.7	3.51
									195	15.0	3.31
									200	15.0	3.78

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-06-85	225	67	(Continued)						205	15.0	3.80
									210	15.5	3.70
									215	15.3	3.61
									225	15.4	3.83
									235	15.3	3.33
									245	15.0	3.39
									255	14.4	3.14
									265	14.0	3.28
									275	13.8	2.86
									290	13.1	3.16
									305	12.9	3.00
									325	12.0	2.64
									345	11.5	2.20
									370	10.1	1.20
									401	0.0	0.00
11-06-85	2022	68	----	2,725.56	9,940	4,080	330	2.44	70	0.0	0.00
									80	12.6	0.42
									120	16.1	1.52
									150	15.0	2.87
									175	14.2	3.39
									200	14.6	3.40
									225	14.7	3.20
									250	14.0	3.23
									275	13.0	2.74
									300	11.9	2.68
									330	10.8	2.30
									370	9.2	1.28
									390	3.1	0.59
									400	0.0	0.00
11-08-85	138	69	11.0	2,725.86	11,500	4,260	330	2.70	71	0.0	0.00
									85	15.6	0.37
									110	15.8	1.58
									125	15.8	2.08
									140	15.0	2.62
									150	15.3	3.10
									160	14.7	3.27
									170	14.3	3.44
									180	14.5	3.72
									190	14.8	3.64
									200	15.0	3.77
									210	15.3	3.74
									220	15.4	3.68
									230	15.2	3.38
									240	14.9	3.60
									250	14.6	3.30
									260	14.4	3.10
									270	13.6	2.96
									280	13.5	3.54
									290	13.2	3.02
									305	12.9	3.32
									320	12.4	2.86
									340	11.5	2.48
									360	10.8	1.64
									390	4.2	0.93
									401	0.0	0.00
11-08-85	915	70	----	2,728.40	18,600	5,040	336	3.69	68	0.0	0.00

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-08-85	915	70	(Continued)						85	17.9	1.44
									110	18.9	2.62
									125	18.4	2.99
									140	17.7	3.82
									150	18.0	4.32
									160	17.5	4.78
									170	16.9	4.74
									180	17.1	5.10
									190	17.5	5.05
									200	17.5	4.80
									210	17.9	4.91
									220	17.5	4.91
									230	17.8	4.84
									240	17.3	4.73
									250	16.8	4.40
									260	16.3	4.12
									270	16.0	4.38
									280	15.4	4.36
									290	15.3	3.75
									305	14.9	3.89
									320	14.1	3.89
									335	13.4	3.28
									360	12.6	2.17
									390	6.8	0.82
									404	0.0	0.00
11-13-85	1152	71	9.0	2,727.30	15,100	4,680	337	3.22	65	0.0	0.00
									85	16.5	0.79
									100	17.5	1.50
									115	17.8	2.15
									130	17.2	2.71
									145	16.9	3.68
									160	16.1	4.09
									175	16.2	4.66
									190	15.8	4.44
									200	16.0	4.34
									210	16.8	4.47
									220	16.5	4.50
									230	16.2	4.61
									240	16.1	4.22
									250	15.7	3.90
									265	14.9	3.96
									280	14.3	3.66
									295	13.4	3.89
									310	13.4	3.43
									325	12.7	3.10
									345	12.2	2.44
									365	11.0	1.54
									385	7.0	1.02
									402	0.0	0.00
11-13-85	1938	72	8.0	2,725.20	8,680	3,940	334	2.20	399	0.0	0.00
									360	10.6	1.23
									340	10.4	1.83
									325	10.9	1.84
									310	12.0	2.08
									300	11.8	2.36
									290	11.8	2.86
									280	12.6	2.64

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-13-85	1938	72	(Continued)						270	12.9	2.68
									260	13.2	2.51
									250	14.1	2.78
									240	13.8	3.06
									230	14.3	3.28
									220	14.5	3.07
									210	14.6	3.32
									200	14.1	3.08
									190	13.6	3.02
									180	13.5	2.80
									170	13.4	2.94
									160	13.8	2.80
									145	14.6	1.88
									125	15.0	1.66
									95	14.7	0.69
									65	0.0	0.00
11-14-85	938	73	----	2,727.75	16,500	4,890	343	3.37	405	0.0	0.00
									375	10.5	1.32
									355	12.4	2.06
									340	12.8	3.02
									325	13.4	3.40
									310	14.0	3.58
									295	14.4	3.75
									280	14.8	4.04
									270	15.4	4.36
									260	15.9	4.02
									250	16.3	4.25
									240	16.5	4.42
									230	17.1	4.48
									220	17.5	4.74
									210	17.3	4.72
									200	16.9	4.69
									190	16.6	4.58
									180	16.6	4.46
									165	16.7	4.40
									150	17.4	3.90
									135	17.9	3.24
									120	18.1	2.26
									105	18.2	1.60
									90	17.7	1.30
									62	0.0	0.00
11-14-85	1640	74	9.0	2,726.40	12,300	3,810	336	3.23	401	0.0	0.00
									330	11.9	2.51
									300	12.9	2.88
									270	13.1	3.68
									245	14.9	3.82
									225	15.7	3.92
									210	15.9	3.58
									190	15.1	3.97
									160	14.9	3.46
									130	15.8	2.62
									65	0.0	0.00
11-14-85	2115	75	9.0	2,725.90	10,900	4,090	334	2.67	400	0.0	0.00
									360	10.0	1.49
									340	10.9	2.20
									325	11.5	2.56

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-14-85	2115	75	(Continued)						310	12.0	2.70
									300	12.2	2.80
									290	12.5	2.88
									280	12.8	2.82
									270	13.2	3.22
									260	13.2	3.08
									250	14.1	2.98
									240	14.5	3.42
									230	15.2	3.45
									220	15.1	3.48
									210	15.3	3.61
									200	14.9	3.34
									190	14.5	3.66
									180	14.4	3.98
									170	13.9	3.64
									160	14.8	3.48
									150	15.5	2.96
									135	15.2	2.44
									120	16.2	1.90
									95	15.6	0.98
									66	0.0	0.00
11-15-85	318	76	9.0	2,727.10	14,100	4,480	339	3.51	403	0.0	0.00
									360	11.8	1.74
									340	12.0	2.89
									325	12.8	3.20
									310	13.0	3.39
									300	13.5	3.55
									290	13.8	3.54
									280	14.1	3.45
									270	14.6	3.80
									260	14.9	3.94
									250	15.4	4.01
									240	15.6	4.01
									230	16.1	4.24
									220	16.3	4.28
									210	16.4	4.20
									200	15.8	4.24
									190	15.5	4.21
									180	15.5	4.36
									170	15.3	4.10
									160	15.9	3.56
									150	16.3	3.39
									135	16.4	2.89
									120	17.0	2.12
									95	16.8	1.03
									64	0.0	0.00
11-15-85	1012	77	9.0	2,727.58	15,700	4,780	340	3.28	65	0.0	0.00
									85	16.8	0.91
									100	17.7	1.52
									115	17.4	2.20
									130	17.3	3.16
									145	17.1	3.60
									160	16.6	3.97
									170	16.1	4.18
									180	16.0	4.25
									190	16.3	4.42
									200	16.2	4.72

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-15-85	1012	77	(Continued)						210	16.7	4.62
									220	16.8	4.52
									230	16.8	4.34
									240	16.4	4.32
									250	15.8	4.11
									260	15.5	4.06
									270	15.1	4.06
									285	14.7	3.80
									300	13.9	3.73
									315	13.4	3.28
									330	13.0	3.26
									345	12.4	2.58
									360	11.7	2.01
									380	9.2	1.13
									405	0.0	0.00
11-15-85	1635	78	9.0	2,726.45	12,100	4,060	337	2.98	401	0.0	0.00
									350	10.6	1.76
									320	12.2	2.94
									290	13.2	3.12
									270	13.9	3.44
									250	14.8	3.64
									230	15.6	4.08
									210	16.0	3.84
									190	15.3	3.78
									170	13.4	3.79
									140	15.5	3.00
									110	16.3	1.49
									64	0.0	0.00
12-06-85	840	79	----	2,728.90	20,000	5,130	338	3.90	68	0.0	0.00
									80	14.5	1.32
									95	18.2	1.96
									110	19.3	2.84
									120	19.1	3.39
									130	19.0	3.60
									140	18.0	4.40
									150	18.7	4.77
									160	17.9	4.88
									170	17.6	4.92
									180	17.4	4.93
									190	17.4	4.96
									200	18.0	5.20
									210	18.0	5.40
									220	18.4	5.25
									225	18.3	4.96
									230	18.4	4.77
									240	17.9	4.76
									250	16.9	4.80
									260	16.4	4.48
									270	16.4	4.10
									280	15.9	4.32
									290	15.5	4.26
									300	15.4	3.90
									310	15.0	4.22
									325	14.5	3.43
									340	13.6	3.60
									355	13.3	2.54
									390	6.0	1.11

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-06-85	840	(Continued)							406	0.0	0.00
12-06-85	2200	80	----	2,725.72	10,300	4,110	333	2.51	66	0.0	0.00
									80	11.2	0.36
									95	15.2	0.65
									110	15.3	1.58
									120	15.6	1.56
									130	15.1	2.13
									140	14.7	2.64
									150	14.8	2.74
									160	14.0	2.94
									170	13.5	3.13
									180	13.4	3.11
									190	13.7	3.54
									200	14.6	3.33
									210	14.6	3.40
									220	14.3	3.50
									230	14.5	3.58
									240	14.3	3.27
									250	13.8	3.36
									260	13.2	3.32
									270	12.8	2.97
									280	12.8	3.10
									300	12.2	2.84
									310	11.4	2.70
									320	11.2	2.69
									335	10.5	2.52
									350	10.0	2.10
									375	9.0	1.44
									395	5.6	1.03
									399	0.0	0.00
12-07-85	2125	81	-----	2,724.63	6,280	3,490	325	1.80	69	0.0	0.00
									90	13.4	0.31
									110	14.3	1.12
									125	14.4	1.54
									140	13.0	1.81
									155	13.2	2.14
									170	12.4	2.54
									180	12.6	2.66
									190	12.4	2.60
									200	13.1	2.68
									210	13.2	2.56
									220	13.3	2.60
									230	13.1	2.44
									240	12.4	2.40
									250	12.0	2.14
									260	11.5	2.06
									270	11.4	2.03
									280	10.9	2.13
									295	9.9	2.00
									310	9.7	1.52
									325	9.1	1.18
									340	8.8	1.36
									360	7.4	0.95
									380	5.0	0.70
									394	0.0	0.00
12-08-85	1640	82	----	2,725.71	10,400	4,080	330	2.55	70	0.0	0.00

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-08-85	1640	(Continued)							90	15.0	0.72
									110	16.0	1.55
									140	15.3	2.74
									160	14.5	3.43
									180	14.5	3.36
									200	14.4	3.78
									220	14.9	3.43
									240	14.3	3.33
									260	13.5	2.89
									280	12.5	2.78
									300	12.0	2.56
									330	11.0	2.25
									360	9.8	1.45
									390	5.0	0.71
									400	0.0	0.00
12-09-85	145	83	7.0	2,722.72	4,410	3,080	320	1.43	70	0.0	0.00
									85	11.4	0.28
									100	12.5	0.65
									115	12.8	0.99
									125	12.9	1.23
									135	12.5	1.48
									145	11.9	1.67
									155	11.2	1.81
									165	11.0	1.92
									175	10.8	2.13
									185	10.7	1.98
									195	11.1	2.04
									205	11.8	1.88
									215	12.3	1.85
									225	11.4	2.00
									235	11.3	1.90
									245	10.4	1.66
									255	10.6	1.64
									265	10.0	1.52
									275	10.0	1.54
									285	9.2	1.40
									295	8.9	1.52
									310	8.5	1.40
									325	8.2	1.32
									340	7.4	1.02
									355	6.6	0.89
									375	4.8	0.75
									390	0.0	0.00
12-12-85	2240	84	9.0	2,725.60	10,800	3,900	330	2.77	395	0.0	0.00
									350	10.4	1.72
									320	11.2	2.47
									290	12.3	2.96
									270	13.2	3.11
									250	14.0	3.09
									230	14.8	3.76
									210	15.2	3.64
									190	14.7	3.59
									170	14.2	3.56
									140	15.4	2.80
									110	16.3	1.48
									65	0.0	0.00
12-13-85	912	85	----	2,729.72	23,500	5,280	348	4.45	61	0.0	0.00

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-13-85	912	(Continued)							100	20.4	2.56
									120	19.8	3.76
									140	19.4	4.56
									150	19.4	4.92
									160	19.1	5.30
									170	18.4	5.62
									180	18.5	5.46
									190	18.2	5.63
									200	18.7	5.41
									210	19.3	5.58
									220	19.1	5.51
									230	18.7	5.22
									240	18.1	5.00
									250	18.4	5.16
									260	17.7	4.82
									270	16.8	4.86
									280	16.7	4.92
									290	16.3	4.68
									300	16.0	4.83
									320	15.2	4.47
									350	14.2	3.14
									409	0.0	0.00
12-13-85	1725	86	10.0	2,726.10	11,200	3,960	333	2.83	400	0.0	0.00
									340	11.2	2.08
									325	11.9	2.32
									290	12.8	3.28
									270	13.3	3.33
									250	14.3	3.42
									235	14.3	3.68
									220	15.3	3.60
									205	15.7	3.66
									190	14.9	3.64
									175	14.9	3.82
									160	14.8	3.46
									145	15.4	2.80
									130	15.8	2.12
									110	16.3	1.17
									67	0.0	0.00
12-14-85	2015	87	10.0	2,724.35	7,090	3,630	329	1.95	66	0.0	0.00
									85	13.6	0.30
									105	14.5	0.84
									120	14.2	1.35
									140	13.1	2.06
									150	13.7	2.23
									160	13.1	2.45
									170	12.5	2.74
									180	12.9	2.74
									190	12.7	2.51
									200	13.4	2.60
									210	13.6	2.60
									220	13.7	2.63
									230	13.3	2.54
									245	12.5	2.60
									260	12.3	2.32
									275	11.9	2.27
									290	11.0	2.35
									305	10.4	2.12

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-14-85	2015	(Continued)							320	9.8	1.88
									340	9.0	1.77
									360	8.1	1.11
									395	0.0	0.00
12-15-85	748	88	----	2,728.08	17,300	4,790	340	3.61	65	0.0	0.00
									100	17.9	1.48
									125	18.0	2.86
									140	17.1	3.80
									155	17.2	4.34
									170	16.5	4.61
									185	16.8	4.65
									200	16.9	4.76
									215	17.2	4.81
									230	17.2	4.67
									245	16.7	4.53
									260	16.2	4.08
									275	15.5	4.22
									290	15.1	4.46
									305	14.4	3.58
									320	14.0	3.56
									335	13.2	3.47
									350	12.7	2.77
									370	11.4	1.65
									405	0.0	0.00
12-15-85	1622	89	10.0	2,726.20	12,000	4,150	336	2.89	401	0.0	0.00
									340	11.3	2.62
									305	12.7	3.24
									280	13.3	3.36
									260	14.2	3.45
									240	15.2	3.58
									225	15.4	3.94
									210	15.7	3.74
									195	15.2	3.56
									175	15.1	3.61
									150	15.6	3.12
									125	16.2	1.94
									95	15.5	0.83
									65	0.0	0.00
12-15-85	2325	90	10.0	2,723.45	5,740	3,320	325	1.73	394	0.0	0.00
									360	7.7	0.94
									340	8.6	1.34
									325	9.1	1.71
									310	9.5	1.68
									300	10.0	1.72
									290	10.5	1.83
									280	10.6	2.06
									270	10.9	2.18
									260	11.2	2.18
									250	11.7	2.12
									240	12.3	2.21
									230	12.7	2.36
									220	12.9	2.30
									210	13.1	2.22
									200	12.6	2.32
									190	12.3	2.30
									180	12.0	2.32

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-15-85	2325	(Continued)							170	11.6	2.32
									160	12.3	2.18
									150	12.7	1.82
									135	12.7	1.66
									120	13.4	1.15
									95	12.7	0.42
									69	0.0	0.00
01-09-86	622	91	----	2,728.10	18,400	4,920	342	3.74	65	0.0	0.00
									80	13.9	1.24
									100	18.0	1.96
									120	17.9	2.96
									135	17.9	3.72
									155	17.3	4.38
									170	16.7	4.91
									185	16.7	4.95
									200	17.1	5.14
									215	17.0	4.91
									230	17.1	4.96
									245	16.8	4.68
									260	15.8	4.70
									275	15.6	4.66
									290	14.9	4.18
									305	14.4	3.85
									325	13.8	3.70
									345	13.1	2.98
									370	11.0	1.58
									395	4.2	0.75
									407	0.0	0.00
01-09-86	2335	92	----	2,723.95	6,090	3,460	330	1.76	67	0.0	0.00
									80	9.5	0.35
									100	13.7	0.63
									115	13.3	1.07
									130	12.7	1.60
									135	13.1	1.54
									155	12.1	2.01
									175	12.3	2.35
									190	11.3	2.48
									205	12.8	2.26
									220	13.2	2.48
									235	13.1	2.48
									250	11.8	2.06
									265	11.2	2.20
									280	10.5	2.10
									295	10.3	2.08
									310	9.8	1.84
									325	9.4	1.80
									345	8.7	1.37
									365	7.6	1.06
									380	5.0	0.72
									397	0.0	0.00
01-10-86	950	93	9.5	2,729.12	21,700	5,310	340	4.09	67	0.0	0.00
									80	15.4	1.54
									105	19.5	2.98
									125	19.0	3.31
									140	18.5	4.51
									155	19.0	4.91

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-10-86	950	93	(Continued)						165	17.6	5.42
									175	18.2	5.02
									190	18.3	5.25
									200	18.0	5.51
									215	18.9	5.68
									225	18.6	5.30
									240	18.1	5.24
									250	17.7	4.90
									265	17.0	4.72
									280	16.5	4.47
									295	16.0	4.72
									310	15.1	3.98
									335	14.3	3.58
									360	13.3	2.47
									380	10.9	1.53
									407	0.0	0.00
01-11-86	730	94	----	2,729.48	22,800	5,410	341	4.21	62	0.0	0.00
									80	16.3	1.78
									100	19.5	2.64
									115	19.8	3.24
									130	19.4	3.78
									145	19.0	4.42
									160	18.6	5.24
									175	18.4	5.45
									190	18.7	5.51
									205	18.7	5.67
									220	18.9	5.51
									235	18.5	5.26
									250	17.6	5.20
									265	17.2	4.47
									280	16.7	5.00
									295	15.9	4.64
									310	15.0	4.02
									330	14.5	4.07
									350	14.0	3.64
									370	12.5	2.30
									390	6.8	1.38
									403	0.0	0.00
01-11-86	1550	95	----	2,726.36	12,300	4,250	332	2.89	69	0.0	0.00
									85	10.6	0.62
									115	17.0	2.12
									135	16.5	2.56
									150	16.1	3.23
									165	15.3	3.54
									175	15.2	3.72
									185	15.2	3.84
									195	15.6	3.76
									205	15.6	3.82
									215	15.5	3.84
									225	16.0	3.68
									240	15.3	3.74
									255	14.8	3.53
									270	13.8	3.39
									290	13.2	2.99
									315	12.2	3.07
									340	11.5	2.34
									370	9.1	1.32

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-11-86	1550	(Continued)							401	0.0	0.00
01-13-86	1638	96	9.0	2,725.98	11,100	4,140	334	2.68	400	0.0	0.00
									360	10.3	1.48
									330	11.5	2.35
									300	12.4	2.98
									280	13.0	3.06
									260	14.3	3.21
									240	14.8	3.63
									220	15.4	3.56
									200	14.8	3.56
									180	14.4	3.45
									160	14.8	3.35
									140	14.8	2.56
									115	15.8	2.08
									90	14.8	0.59
									66	0.0	0.00
01-13-86	2252	97	9.0	2,723.38	5,720	3,250	328	1.76	396	0.0	0.00
									350	8.3	1.28
									325	9.0	1.50
									300	10.0	1.90
									285	10.4	1.88
									270	11.1	1.98
									255	11.6	2.02
									240	12.0	2.13
									230	12.4	2.33
									220	12.6	2.40
									210	12.8	2.35
									200	12.3	2.26
									190	11.9	2.36
									180	11.8	2.40
									170	11.5	2.25
									160	12.0	2.18
									150	12.7	1.84
									135	12.4	1.71
									120	13.2	1.12
									100	12.9	0.62
									68	0.0	0.00
01-14-86	740	98	9.0	2,728.95	20,500	5,150	343	3.98	65	0.0	0.00
									90	18.1	1.73
									110	19.6	2.52
									120	19.1	3.20
									130	19.0	3.72
									140	18.2	4.32
									150	18.9	4.58
									160	18.0	4.96
									170	17.1	5.14
									180	17.7	4.66
									190	17.9	5.20
									200	17.7	5.24
									210	18.8	5.25
									220	18.4	5.30
									230	18.3	5.00
									240	17.9	4.90
									250	17.4	4.74
									260	17.0	4.92
									270	16.5	4.22

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-14-86	740	(Continued)							280	16.3	4.53
									290	15.8	4.47
									300	15.6	3.89
									315	14.9	4.18
									335	14.0	3.42
									360	13.0	2.50
									408	0.0	0.00
01-14-86	2258	99	9.0	2,724.30	6,660	3,480	326	1.91	393	0.0	0.00
									360	7.6	0.90
									340	8.7	1.46
									325	9.0	1.76
									310	9.8	1.71
									300	10.1	2.04
									290	10.4	2.03
									280	10.8	1.89
									270	11.2	2.28
									260	11.5	2.12
									250	12.1	2.20
									240	12.5	2.37
									230	13.0	2.54
									220	13.7	2.63
									210	13.4	2.60
									200	12.8	2.60
									190	12.8	2.65
									180	12.5	2.60
									170	12.3	2.69
									160	13.1	2.69
									150	13.7	2.35
									135	14.3	1.86
									120	14.7	1.40
									95	14.0	0.54
									67	0.0	0.00
01-15-86	555	100	9.0	2,729.00	21,100	5,190	345	4.06	407	0.0	0.00
									370	11.9	2.02
									350	13.6	2.90
									330	14.3	3.85
									315	14.9	4.26
									300	15.3	4.56
									290	15.6	4.46
									280	16.1	4.56
									270	16.5	4.59
									260	17.0	4.82
									250	17.4	5.08
									240	17.9	5.15
									230	18.4	5.46
									220	18.6	5.30
									210	18.8	4.96
									200	18.0	5.30
									190	18.0	5.24
									180	17.7	5.06
									170	17.5	5.15
									160	17.8	5.00
									150	18.4	4.54
									140	18.5	4.04
									125	18.8	3.68
									110	18.8	2.80
									90	18.2	1.77

Table 50.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Little Colorado River, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-15-86	555	(Continued)							62	0.0	0.00
01-15-86	1708	101	9.0	2,725.42	9,780	3,880	333	2.52	66	0.0	0.00
									100	15.3	0.86
									120	15.5	1.77
									135	15.4	2.22
									150	15.0	2.83
									165	13.9	3.18
									180	13.8	3.30
									195	14.4	3.43
									210	14.8	3.43
									225	14.4	3.43
									240	13.9	3.16
									255	13.3	2.92
									270	12.6	2.74
									285	12.0	3.01
									300	11.6	2.98
									320	10.8	2.39
									340	10.0	2.15
									365	8.5	1.18
									399	0.0	0.00
01-16-86	918	102	9.0	2,729.40	22,300	5,220	340	4.26	407	0.0	0.00
									360	13.7	2.70
									340	14.3	3.46
									325	15.1	3.78
									310	15.4	4.50
									300	16.1	4.66
									290	16.6	4.54
									280	16.8	4.59
									270	17.1	4.87
									260	17.5	4.96
									250	17.8	5.30
									240	18.2	4.86
									230	18.8	5.35
									220	18.9	5.69
									210	19.1	5.56
									200	18.4	5.46
									190	18.2	5.34
									180	18.1	5.30
									170	17.9	5.10
									160	18.6	4.95
									150	19.1	4.78
									135	19.3	4.12
									120	19.3	3.23
									95	18.8	2.30
									67	0.0	0.00

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-10-85	1240	992	----	10.35	17,900	5,560	293	3.22	110	4.9	-0.44
									130	15.0	2.60
									145	20.8	2.73
									160	23.4	3.46
									170	23.0	3.54
									180	23.0	3.55
									190	22.2	3.38
									200	21.3	3.40
									210	20.6	3.55
									220	20.5	3.51
									230	20.4	3.54
									240	20.4	3.66
									250	20.0	3.68
									260	20.0	3.75
									270	20.0	3.66
									280	19.8	3.77
									290	19.7	3.63
									300	19.6	3.58
									310	19.6	3.42
									320	19.3	3.32
									330	19.1	3.39
									340	19.2	3.21
									350	19.3	3.15
									365	20.0	3.28
									380	20.6	1.85
									390	19.8	1.51
									395	0.0	0.00
10-11-85	1500	993	----	9.40	15,700	5,140	286	3.05	390	0.0	0.00
									380	19.0	2.26
									365	18.4	2.62
									350	18.5	3.17
									335	18.2	2.80
									320	18.6	3.07
									305	18.5	3.17
									290	18.8	3.24
									275	18.6	3.42
									260	18.9	3.35
									245	19.4	3.42
									230	20.8	3.36
									215	20.9	3.28
									200	20.5	3.34
									185	21.8	3.32
									170	22.4	3.36
									155	22.5	3.08
									140	17.0	2.33
									125	10.9	1.98
									110	2.9	0.39
									104	0.0	0.00
10-11-85	2330	994	12.0	6.21	8,970	4,160	281	2.16	390	0.0	0.00
									380	16.2	1.34
									350	15.3	2.17
									325	15.1	2.36
									305	15.7	2.35
									285	15.7	2.30
									265	15.7	2.33
									245	15.8	2.38
									225	16.1	2.25

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-11-85	2330	994	(Continued)						205	16.5	2.40
									185	18.2	2.21
									160	18.5	2.32
									125	7.7	0.86
									109	0.0	0.00
10-12-85	0415	995	3.22	5.03	7,090	3,850	278	1.84	114	0.0	0.00
									130	9.6	1.08
									145	14.7	1.28
									155	19.1	1.83
									165	17.8	2.02
									175	16.8	2.00
									185	16.5	1.91
									195	14.9	2.06
									205	14.2	2.04
									215	14.1	2.02
									225	13.5	2.13
									235	13.2	2.10
									245	13.2	1.89
									255	12.8	2.00
									265	12.6	2.00
									275	14.1	1.98
									285	14.3	2.20
									295	14.4	1.97
									305	14.4	1.93
									315	14.5	1.86
									325	14.5	1.79
									335	14.6	1.92
									345	14.1	1.90
									355	14.6	1.84
									370	14.9	1.66
									385	15.8	1.06
									392	0.0	0.00
10-13-85	0255	996	----	4.68	26,220	3,550	274	1.75	389	0.0	0.00
									370	14.4	1.32
									350	13.2	1.86
									340	13.4	1.71
									330	13.8	1.70
									320	13.4	1.76
									310	14.0	1.82
									300	13.3	1.86
									290	13.1	1.85
									280	12.8	1.84
									270	13.6	1.94
									260	13.4	1.94
									250	13.8	1.97
									240	13.4	1.86
									230	13.8	1.86
									220	14.4	1.99
									210	13.8	1.88
									200	14.7	1.88
									190	15.5	1.77
									180	16.2	1.86
									170	16.6	1.90
									160	16.7	1.82
									150	16.6	1.55
									140	11.0	1.16
									130	7.8	1.00

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-13-85	0255	996	(Continued)						115	0.0	0.00
10-13-85	1130	997	0.0	9.06	14,100	4,800	286	2.94	389	0.0	0.00
									375	18.4	2.00
									355	17.8	2.80
									335	17.5	2.80
									315	17.6	3.00
									295	18.1	3.04
									275	17.9	3.17
									255	18.1	3.36
									235	18.3	3.24
									215	18.0	3.28
									195	19.5	3.17
									175	20.6	3.14
									155	20.3	2.94
									135	16.0	2.52
									115	5.7	1.29
									103	0.0	0.00
10-13-85	1520	998	----	8.68	13,700	4,920	290	2.78	393	0.0	0.00
									385	17.9	1.41
									370	19.0	2.22
									355	18.0	2.51
									345	17.6	2.74
									335	17.4	2.55
									325	17.4	2.84
									315	17.5	3.20
									305	17.7	3.07
									295	17.9	2.94
									285	17.8	2.87
									275	17.6	3.20
									265	17.9	3.14
									255	17.9	3.17
									245	18.2	3.14
									235	18.1	3.20
									225	18.4	3.17
									215	18.7	3.13
									205	18.9	3.18
									200	19.0	3.14
									190	20.0	2.94
									180	20.5	3.07
									170	20.8	3.02
									160	21.0	2.84
									150	20.4	2.84
									140	15.5	2.26
									130	12.9	2.20
									120	8.5	1.00
									110	2.7	-0.17
									103	0.0	0.00
10-13-85	2030	999	12.0	6.86	10,100	4,350	282	2.32	392	0.0	0.00
									380	17.1	1.19
									360	16.5	2.04
									340	16.4	2.09
									320	16.0	2.42
									300	16.4	2.52
									280	16.3	2.42
									265	16.3	2.59
									250	16.6	2.65

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-13-85	2030	999	(Continued)						235	16.4	2.51
									220	16.9	2.71
									200	17.3	2.45
									180	18.9	2.48
									160	19.5	2.47
									140	13.4	1.94
									110	0.0	0.00
10-14-85	0100	1000	----	5.11	7,020	3,830	277	1.83	115	0.0	0.00
									130	9.6	1.11
									140	11.5	1.72
									150	16.5	1.84
									160	17.5	2.08
									170	17.1	2.24
									180	16.7	1.86
									190	16.5	2.06
									200	14.7	1.98
									210	14.5	1.93
									220	15.0	2.12
									230	14.9	1.98
									240	14.5	2.04
									250	14.3	1.98
									265	14.3	2.10
									275	14.3	1.89
									290	14.2	2.05
									300	14.4	1.96
									315	14.2	1.71
									325	14.1	1.77
									340	14.1	1.75
									350	14.2	1.62
									365	14.4	1.48
									380	14.4	0.95
									392	0.0	0.00
10-17-85	1345	1001	----	9.07	14,500	5,190	291	2.80	393	0.0	0.00
									393	17.8	1.13
									375	19.2	1.88
									360	18.2	2.44
									350	18.0	2.58
									340	18.0	2.93
									330	17.7	2.94
									320	17.9	2.87
									310	18.1	2.84
									300	18.5	2.93
									290	18.2	3.12
									280	18.4	3.14
									270	18.3	3.17
									260	18.7	3.01
									250	18.8	3.29
									240	18.9	2.96
									230	19.1	3.21
									220	19.4	3.30
									210	19.7	3.21
									200	19.8	3.06
									190	20.8	3.09
									180	21.4	3.36
									170	22.0	3.02
									160	21.8	3.06
									150	21.3	2.55

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-17-85	1345	1001	(Continued)						130	13.9	2.32
									110	4.0	0.41
									102	0.0	0.00
10-18-85	0135	1002	12.0	6.25	8,520	4,250	283	2.00	392	0.0	0.00
									392	15.5	0.98
									360	15.7	1.64
									320	15.1	1.87
									280	15.4	2.20
									255	15.5	2.32
									230	16.2	2.36
									205	16.4	2.42
									180	18.1	2.32
									160	18.8	2.15
									140	13.3	1.74
									120	5.2	0.69
									109	0.0	0.00
10-18-85	0510	1003	11.0	6.94	10,600	4,550	288	2.33	393	0.0	0.00
									393	15.2	0.99
									375	16.6	1.66
									360	15.6	2.14
									350	15.1	2.19
									340	15.2	2.22
									330	15.0	2.27
									320	15.4	2.24
									310	15.1	2.32
									300	15.9	2.44
									290	16.0	2.39
									280	15.7	2.52
									270	16.2	2.62
									260	16.3	2.59
									250	16.4	2.42
									240	16.8	2.51
									230	16.9	2.67
									220	16.8	2.50
									210	17.1	2.35
									200	17.8	2.59
									190	18.5	2.63
									180	20.0	2.77
									170	20.1	2.80
									160	20.0	2.71
									150	19.9	2.33
									130	12.1	1.98
									110	3.4	0.00
									105	0.0	0.00
10-18-85	0945	1004	11.0	8.48	13,100	4,910	290	2.67	393	0.0	0.00
									393	17.5	1.49
									350	17.6	2.49
									320	17.4	2.83
									290	17.8	2.98
									260	17.9	2.91
									230	18.5	3.21
									200	19.4	2.88
									170	21.2	3.00
									120	9.3	0.93
									103	0.0	0.00

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-18-85	2250	1005	12.0	6.89	10,100	4,500	284	2.24	392	0.0	0.00
									392	17.9	1.09
									370	16.8	1.83
									350	15.9	2.24
									335	15.6	2.40
									320	15.6	2.48
									305	16.4	2.36
									290	16.2	2.42
									280	15.9	2.62
									270	16.2	2.44
									260	15.9	2.56
									250	16.3	2.74
									240	16.6	2.47
									230	16.5	2.54
									220	16.9	2.54
									210	16.9	2.38
									200	17.5	2.44
									190	18.0	2.00
									180	18.6	2.38
									170	19.3	2.59
									160	19.4	2.51
									150	19.2	2.05
									140	13.6	1.83
									120	8.5	0.78
									108	0.0	0.00
10-19-85	0750	1006	11.0	9.53	15,400	5,320	292	2.89	393	0.0	0.00
									393	19.3	1.19
									375	19.4	1.98
									360	18.5	2.64
									345	18.3	2.87
									330	18.0	2.94
									320	18.2	2.94
									310	18.5	3.13
									300	18.8	3.20
									290	18.5	3.12
									280	18.7	3.15
									270	18.7	3.36
									260	18.9	3.32
									250	19.0	3.28
									240	19.2	3.43
									230	19.4	3.39
									220	19.9	3.36
									210	20.5	3.32
									200	20.4	3.18
									190	21.2	3.12
									180	20.8	3.39
									170	22.2	3.14
									160	22.5	3.22
									150	21.5	2.60
									135	16.5	2.80
									120	10.8	0.82
									101	0.0	0.00
10-19-85	1340	1007	12.0	9.92	16,300	5,320	290	3.07	102	0.0	0.00
									140	17.7	2.88
									165	22.8	3.24
									190	21.8	3.10
									215	20.4	3.54

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-19-85	1340	1007	(Continued)						240	19.7	3.46
									265	19.2	3.46
									290	19.2	2.82
									315	18.8	3.39
									340	18.6	2.98
									365	19.0	2.62
									392	18.8	1.57
									392	0.0	0.00
10-19-85	2225	1008	11.0	7.25	11,200	4,680	285	2.39	393	0.0	0.00
									393	16.6	1.07
									375	18.2	1.79
									360	16.9	2.44
									345	16.6	2.41
									330	16.3	2.54
									320	16.5	2.50
									310	16.7	2.47
									300	16.7	2.51
									290	16.8	2.64
									280	16.6	2.39
									270	16.7	2.74
									260	16.9	2.68
									250	16.8	2.71
									240	17.1	2.70
									230	17.1	2.83
									220	17.4	2.56
									210	17.5	2.57
									200	18.2	2.65
									190	18.8	2.54
									180	19.3	2.42
									170	19.8	2.71
									160	19.6	2.47
									150	19.1	2.19
									135	14.3	2.18
									120	6.6	0.75
									108	0.0	0.00
10-20-85	0245	1009	11.0	5.78	8,660	4,150	282	2.09	393	0.0	0.00
									393	15.0	1.19
									350	15.3	1.98
									310	15.3	2.14
									280	15.3	2.22
									250	15.4	2.40
									225	15.8	2.32
									205	16.1	2.42
									190	17.2	2.09
									170	18.3	2.34
									140	12.8	1.67
									111	0.0	0.00
10-20-85	700	1010	11.0	5.47	7,720	3,990	282	1.93	393	0.0	0.00
									393	14.0	1.10
									360	14.6	1.84
									330	14.1	2.08
									300	14.3	2.10
									270	14.5	2.14
									240	14.7	2.06
									215	15.4	2.08
									190	16.5	2.02

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-20-85	700	1010	(Continued)						170	17.6	2.20
									140	14.0	1.34
									111	0.0	0.00
10-20-85	1310	1011	11.0	7.99	12,500	4,660	288	2.69	393	0.0	0.00
									393	16.6	1.57
									360	16.7	2.40
									330	16.2	2.65
									300	16.9	2.87
									270	17.0	2.87
									240	17.4	3.06
									215	17.8	2.86
									190	19.1	2.72
									170	20.4	2.98
									140	15.1	2.44
									105	0.0	0.00
10-20-85	1815	1012	11.0	8.25	12,800	5,030	289	2.54	393	0.0	0.00
									393	18.2	0.62
									375	18.3	1.03
									360	17.8	2.39
									350	17.3	2.62
									340	17.3	2.58
									330	17.2	2.65
									320	17.4	2.80
									310	17.4	2.70
									300	17.7	2.77
									290	17.5	2.66
									280	17.6	2.80
									270	17.8	2.96
									260	17.8	2.70
									250	17.9	3.03
									240	18.2	2.87
									230	18.5	2.74
									220	18.8	2.96
									210	18.9	2.83
									200	20.5	3.01
									190	20.4	2.65
									180	20.8	2.91
									170	21.3	2.76
									160	21.1	2.58
									150	21.1	2.76
									130	13.6	2.02
									104	0.0	0.00
10-20-85	2345	1013	11.0	7.18	10,800	4,540	285	2.38	393	0.0	0.00
									393	12.9	1.30
									360	18.3	2.17
									330	16.1	2.23
									300	16.4	2.24
									270	16.7	2.56
									240	16.9	2.99
									220	17.3	2.80
									200	18.0	2.26
									170	20.0	2.70
									140	14.6	2.03
									108	0.0	0.00
11-10-85	1120	1014	19,200	10.90	5,615	292	3.42	----	101	0.0	0.00

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-10-85	1120	1014	(Continued)						110	5.1	-0.46
									130	15.0	2.82
									150	23.3	3.10
									165	23.4	3.50
									175	23.1	3.44
									185	22.4	3.30
									195	22.4	3.70
									205	21.5	3.82
									215	21.4	3.82
									225	21.0	4.12
									235	20.8	3.90
									245	20.8	3.83
									255	20.4	3.94
									265	20.4	3.93
									275	20.2	3.83
									285	20.3	3.83
									295	20.4	3.82
									305	20.2	3.90
									315	20.1	3.54
									325	19.8	3.80
									335	19.6	3.40
									350	19.6	3.40
									365	20.3	2.96
									380	21.3	2.12
									385	20.4	1.84
									393	0.0	0.00
11-11-85	0200	1015	----	7.20	9,750	4,330	278	2.25	387	0.0	0.00
									375	17.6	1.44
									350	16.0	2.27
									335	16.3	2.16
									320	16.5	2.29
									310	16.2	2.25
									300	16.6	2.59
									290	16.5	2.48
									280	16.5	2.51
									270	16.6	2.54
									260	16.5	2.49
									250	16.6	2.57
									240	16.9	2.54
									230	17.2	2.56
									220	17.4	2.52
									210	17.5	2.62
									200	17.9	2.47
									190	18.6	2.49
									180	19.2	2.37
									170	19.8	2.33
									160	19.6	2.51
									150	15.4	1.86
									135	10.3	1.09
									120	6.8	0.84
									109	0.0	0.00
11-13-85	0145	1016	3.22	7.30	10,900	4,510	286	2.42	109	0.0	0.00
									120	5.5	0.84
									140	13.9	2.14
									155	19.9	2.35
									170	19.5	2.64
									180	19.4	2.59
									190	18.5	2.50

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-13-85	0145	1016	(Continued)						200	17.5	2.68
									210	17.6	2.80
									220	17.0	2.68
									230	16.8	2.62
									240	16.8	2.78
									250	16.6	2.66
									260	16.4	2.47
									270	16.4	2.67
									280	16.3	2.65
									290	16.3	2.68
									300	16.6	2.48
									310	16.3	2.37
									320	16.1	2.54
									330	16.0	2.47
									340	15.8	2.48
									350	15.9	2.44
									360	16.3	2.27
									370	16.4	1.92
									380	17.0	1.59
									390	15.7	1.20
									395	0.0	0.00
11-17-85	1530	1017	10.0	9.75	15,800	5,260	292	3.00	393	0.0	0.00
									393	18.9	1.28
									375	19.2	2.14
									360	19.2	2.84
									345	18.6	2.87
									330	18.1	2.94
									315	18.4	3.32
									300	18.7	3.08
									285	18.4	3.28
									270	19.1	3.22
									255	19.1	3.47
									240	19.0	3.46
									230	19.3	3.39
									220	19.8	3.39
									210	19.8	3.75
									200	20.5	2.86
									190	21.9	3.20
									180	21.8	3.39
									170	22.1	3.54
									160	21.8	3.28
									150	22.3	2.88
									140	17.2	2.54
									120	7.4	1.04
									101	0.0	0.00
11-17-85	2050	1018	3.22	8.46	13,000	4,700	286	2.77	104	0.0	0.00
									135	15.4	2.42
									160	21.2	2.87
									180	21.0	2.94
									200	19.1	2.96
									220	18.7	2.90
									240	18.0	2.98
									260	18.1	3.04
									280	17.6	2.96
									300	17.5	2.84
									320	17.2	2.86
									340	17.4	2.48

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-17-85	2050	1018	(Continued)						365	17.5	2.27
									390	0.0	0.00
11-18-85	0430	1019	3.22	7.00	10,600	4,460	282	2.38	391	0.0	0.00
									391	15.2	1.12
									375	16.7	1.86
									360	16.1	2.14
									345	15.6	2.39
									330	16.0	2.32
									320	15.6	2.44
									310	15.8	2.56
									300	15.9	2.51
									290	15.8	2.54
									280	16.1	2.51
									270	16.1	2.48
									260	16.2	2.52
									250	16.2	2.77
									240	16.6	2.70
									230	16.5	2.58
									220	16.7	2.68
									210	17.4	2.62
									200	17.6	2.54
									190	18.3	2.59
									180	18.5	2.70
									170	20.5	2.74
									160	19.5	2.50
									150	19.7	2.18
									140	14.1	1.88
									120	6.6	1.11
									109	0.0	0.00
11-19-85	1510	1020	----	10.10	17,000	5,420	292	3.13	393	0.0	0.00
									393	18.8	1.34
									375	19.8	2.23
									360	19.2	2.86
									345	19.0	3.21
									330	18.3	3.06
									315	19.2	3.18
									300	19.4	3.46
									285	19.4	3.46
									270	19.0	3.54
									255	19.3	3.58
									240	19.4	3.64
									230	19.9	3.89
									220	19.8	3.50
									210	20.4	3.32
									200	20.8	3.73
									190	21.3	3.42
									180	22.5	3.52
									170	22.2	3.54
									160	22.1	3.46
									150	22.8	2.85
									140	18.3	2.77
									120	10.4	0.94
									101	0.0	0.00
11-19-85	2040	1021	----	8.40	13,000	4,630	287	2.81	105	0.0	0.00
									130	13.0	2.23
									150	20.7	3.22

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-19-85	2040	1021	(Continued)						170	20.0	2.83
									190	19.0	3.10
									210	18.5	2.98
									230	18.0	3.21
									250	17.6	3.10
									270	17.5	3.04
									290	17.3	2.78
									310	16.9	2.84
									330	16.5	2.49
									350	16.8	2.38
									370	17.4	2.17
									392	0.0	0.00
11-29-85	0315	1022	----	7.76	11,900	4,750	286	2.51	392	0.0	0.00
									392	12.4	0.95
									375	17.3	1.58
									360	16.6	2.26
									345	16.4	2.47
									330	16.0	2.48
									320	16.5	2.60
									310	16.6	2.63
									300	16.8	2.70
									290	17.0	2.54
									280	17.0	2.76
									270	17.0	2.80
									260	17.2	2.92
									250	17.3	2.87
									240	17.2	2.80
									230	17.7	2.84
									220	18.2	2.94
									210	18.5	2.87
									200	18.7	2.87
									190	19.7	2.91
									180	20.2	2.58
									170	20.8	3.00
									160	20.8	2.74
									150	21.0	2.50
									140	15.8	1.99
									120	9.1	0.78
									106	0.0	0.00
11-20-85	1440	1023	----	10.33	17,800	5,470	293	3.25	393	0.0	0.00
									393	19.6	1.31
									375	20.4	2.18
									360	19.4	3.26
									345	19.1	3.25
									330	18.9	3.78
									315	20.1	3.15
									300	20.8	3.43
									285	19.4	3.58
									270	19.9	3.58
									255	20.0	3.78
									240	20.1	3.62
									230	20.0	3.94
									220	19.4	3.74
									210	20.5	3.60
									200	20.8	3.40
									190	21.8	3.56
									180	22.7	3.66
									170	22.6	3.78

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-20-85	1440	1023	(Continued)						160	22.6	3.43
									150	21.8	3.28
									140	15.2	2.68
									120	9.6	0.98
									100	0.0	0.00
12-11-85	1400	1024	----	11.30	19,700	5,520	290	3.57	99	0.0	0.00
									115	7.4	0.97
									140	19.3	2.66
									150	22.9	3.22
									165	24.1	3.80
									175	23.6	4.03
									185	23.5	3.68
									198	22.1	4.03
									208	21.8	4.12
									220	21.5	4.13
									230	21.3	3.98
									245	21.1	4.13
									253	20.8	4.12
									268	20.7	4.03
									275	20.7	3.98
									292	20.6	4.03
									300	20.4	3.75
									320	19.1	3.46
									330	19.7	3.70
									345	19.8	3.43
									360	20.2	3.18
									375	20.8	2.42
									389	0.0	0.00
12-12-85	0140	1025	----	7.15	10,600	4,400	281	2.41	108	0.0	0.00
									125	8.7	1.61
									140	13.4	2.06
									155	19.9	2.37
									165	19.2	2.59
									175	19.1	2.59
									185	18.7	2.34
									195	17.6	2.50
									205	17.2	2.80
									215	17.2	2.87
									225	16.7	2.63
									235	16.5	2.68
									245	16.3	2.39
									255	16.1	2.54
									265	16.0	2.56
									275	15.9	2.92
									285	15.9	2.27
									295	16.3	2.56
									305	16.3	2.54
									315	16.4	2.47
									325	15.6	2.39
									335	15.7	2.50
									345	16.2	2.43
									355	16.4	2.44
									365	16.5	2.32
									375	17.7	1.60
									385	17.1	1.48
									389	0.0	0.00

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-13-85	0810	1026	----	11.58	21,500	5,710	291	3.77	99	0.0	0.00
									115	7.8	0.99
									135	17.8	3.32
									155	24.5	3.59
									175	24.0	4.01
									195	22.8	4.31
									215	22.0	4.01
									235	21.5	4.22
									255	21.4	4.08
									275	21.0	4.18
									295	21.0	4.18
									315	20.5	3.82
									340	20.4	3.90
									365	20.6	3.28
									380	21.3	2.16
									390	0.0	0.00
12-13-85	1240	1027	----	12.41	23,500	5,930	292	3.96	97	0.0	0.00
									115	8.8	0.92
									135	19.0	3.70
									155	25.4	3.96
									165	25.4	4.46
									175	25.1	4.51
									185	25.0	4.28
									196	23.7	4.24
									207	23.0	4.40
									219	23.1	4.32
									230	22.6	4.46
									240	22.4	4.41
									250	21.9	4.41
									261	22.2	4.50
									273	21.8	4.36
									284	21.9	4.28
									295	21.8	4.01
									309	21.5	4.08
									320	20.5	4.08
									335	20.6	3.83
									348	21.0	3.90
									360	21.7	3.66
									378	22.0	2.26
									389	0.0	0.00
12-17-85	1530	1028	----	11.06	19,700	5,520	295	3.57	393	0.0	0.00
									390	11.2	1.86
									365	19.8	3.10
									350	19.2	3.32
									340	19.4	3.39
									330	18.7	3.64
									320	19.4	3.70
									310	19.6	3.66
									300	20.2	3.74
									290	20.0	3.72
									280	19.9	3.82
									270	20.0	3.83
									260	20.8	3.86
									250	21.0	3.82
									240	20.6	3.86
									230	21.1	3.86
									220	20.4	3.76
									210	21.2	3.90

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-17-85	1530	1028	(Continued)						200	21.5	3.82
									190	22.7	4.02
									180	23.4	3.76
									170	23.4	4.07
									160	23.7	3.46
									150	23.0	3.45
									130	15.8	2.94
									98	0.0	0.00
12-17-85	2300	1029	----	6.86	10,200	4,340	283	2.35	393	0.0	0.00
									370	17.2	1.73
									350	16.0	2.24
									330	16.0	2.25
									310	16.1	2.35
									290	16.2	2.49
									270	16.0	2.56
									250	16.4	2.65
									230	16.5	2.56
									210	17.4	2.59
									190	18.0	2.44
									170	19.5	2.59
									150	19.0	2.21
									130	11.5	1.67
									110	0.0	0.00
12-19-85	0610	1030	----	5.96	8,830	4,190	281	2.11	112	0.0	0.00
									130	9.3	1.14
									145	15.4	1.50
									160	18.0	2.20
									175	17.8	2.17
									190	17.2	2.13
									205	16.1	2.22
									220	16.0	2.32
									235	15.6	2.35
									250	15.5	2.40
									265	15.5	2.35
									280	15.4	2.37
									295	15.5	2.45
									310	15.5	2.30
									325	15.4	2.39
									340	15.5	2.27
									355	15.5	2.27
									370	16.3	1.64
									385	16.5	0.98
									393	0.0	0.00
12-19-85	1445	1031	----	9.68	15,900	5,260	289	3.03	392	0.0	0.00
									392	18.6	1.10
									375	20.0	1.83
									360	19.0	2.86
									345	18.7	2.98
									330	18.3	3.14
									320	18.8	3.06
									310	18.7	3.24
									300	18.9	3.29
									290	18.8	3.35
									280	18.9	3.34
									270	18.8	3.36
									260	19.0	3.54
									250	19.2	3.58

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-19-85	1445	1031	(Continued)						240	19.3	3.32
									230	19.4	3.61
									220	19.6	3.32
									210	20.1	3.50
									200	20.3	3.26
									190	21.2	3.50
									180	22.1	3.42
									170	21.9	3.32
									160	21.7	3.32
									150	21.3	2.69
									140	17.4	2.70
									120	7.8	0.88
									103	0.0	0.00
12-19-85	2130	1032	----	7.32	10,900	4,350	285	2.52	392	0.0	0.00
									365	17.3	2.17
									340	16.5	2.56
									315	16.5	2.42
									290	16.8	2.70
									265	16.8	2.60
									240	17.2	2.68
									215	17.6	2.74
									190	18.4	2.74
									165	19.4	2.62
									140	14.4	1.92
									107	0.0	0.00
12-20-85	0700	1033	----	9.27	15,000	5,200	290	2.88	103	0.0	0.00
									130	13.7	2.37
									145	19.2	2.14
									160	22.0	2.89
									175	21.8	3.16
									190	20.5	3.12
									205	19.6	3.28
									220	19.4	3.21
									235	19.3	3.37
									250	18.6	3.58
									265	18.6	3.36
									280	18.5	3.14
									295	18.6	3.01
									310	18.3	2.88
									325	17.8	3.01
									340	18.1	3.06
									355	18.6	2.82
									370	18.9	2.22
									385	19.1	1.47
									393	18.2	0.88
									393	0.0	0.00
12-20-85	1100	1034	----	8.94	14,700	5,060	288	2.90	105	0.0	0.00
									140	16.5	2.47
									165	21.4	3.12
									190	20.8	3.21
									215	19.3	3.12
									240	18.8	3.17
									265	18.4	3.24
									290	18.2	3.17
									315	18.0	2.90
									340	17.8	2.80

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-20-85	1100	1034	(Continued)						365	18.6	2.56
									393	18.4	1.54
									393	0.0	0.00
01-15-86	0410	1035	----	5.20	7,150	3,840	275	1.86	115	0.0	0.00
									130	8.8	1.00
									145	14.5	1.40
									160	17.9	1.88
									170	16.9	2.02
									180	16.5	2.00
									190	15.9	1.80
									200	14.9	1.89
									210	14.9	1.94
									220	14.7	2.02
									230	14.7	2.01
									240	14.5	1.96
									250	14.4	2.05
									260	14.3	1.98
									270	14.3	2.06
									280	14.3	2.05
									290	14.2	2.05
									300	14.2	2.03
									310	14.2	2.08
									320	14.0	2.03
									330	13.9	1.92
									340	14.6	1.96
									355	15.0	1.84
									365	15.5	1.73
									380	15.9	1.32
									390	0.0	0.00
01-16-86	0335	1036	----	4.45	6,450	3,730	272	1.73	114	0.0	0.00
									125	7.1	0.77
									150	17.1	1.57
									160	17.5	1.86
									175	17.4	1.92
									185	16.8	1.82
									200	15.4	1.92
									210	15.2	1.91
									225	14.8	1.90
									235	14.2	2.05
									250	13.8	2.00
									260	13.9	1.85
									275	13.9	1.80
									285	14.4	1.82
									300	13.9	1.83
									310	13.5	1.83
									325	13.4	1.77
									340	13.5	1.67
									355	13.5	1.52
									375	14.9	1.04
									386	0.0	0.00
01-16-86	1145	1037	----	11.98	22,300	5,760	290	3.87	98	0.0	0.00
									115	7.7	1.03
									125	13.2	3.18
									150	24.1	3.72
									160	24.5	4.08
									175	24.4	4.36

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-16-86	1145	1037	(Continued)						185	24.2	4.13
									200	22.8	4.18
									210	22.7	4.07
									225	22.1	4.13
									235	21.7	4.31
									250	21.7	4.22
									260	21.7	4.31
									275	21.6	4.31
									285	21.7	4.03
									300	21.6	3.92
									310	21.2	3.94
									325	20.9	4.13
									340	20.8	3.82
									355	21.5	3.64
									375	21.1	2.60
									388	0.0	0.00
01-18-86	1330	1038	----	13.00	25,200	6,290	304	4.00	395	0.0	0.00
									395	11.8	1.46
									375	23.0	2.44
									360	22.2	3.78
									345	21.8	3.96
									330	22.0	4.08
									320	21.1	4.56
									310	22.0	4.46
									300	22.2	4.41
									290	21.8	4.42
									280	21.9	4.32
									270	22.3	4.67
									260	22.7	4.40
									250	22.8	4.46
									240	22.9	4.42
									230	23.2	4.47
									220	23.1	4.62
									210	23.8	4.58
									200	23.8	4.32
									190	25.0	4.56
									180	25.6	4.70
									170	25.4	4.60
									160	25.4	4.36
									150	25.0	3.77
									140	20.9	3.43
									120	13.3	1.90
									91	0.0	0.00
01-18-86	2020	1039	----	9.86	16,200	5,030	290	3.21	393	0.0	0.00
									365	19.3	2.77
									340	18.8	3.24
									315	19.1	3.29
									290	19.0	3.28
									265	19.0	3.54
									240	19.6	3.32
									215	20.1	3.46
									190	21.5	3.23
									165	22.6	3.36
									140	17.1	2.68
									103	0.0	0.00
01-20-86	0230	1040	----	7.97	11,800	4,750	287	2.48	106	0.0	0.00

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-20-86	0230	1040	(Continued)						120	8.1	0.67
									140	15.5	2.10
									150	20.0	2.44
									160	20.4	2.48
									170	20.7	2.74
									180	20.3	2.55
									190	19.7	2.96
									200	18.7	2.69
									210	18.3	2.90
									220	17.8	2.69
									230	17.7	2.87
									240	17.6	2.84
									250	17.4	2.90
									260	17.3	2.92
									270	17.4	2.90
									280	17.4	2.74
									290	17.0	2.76
									300	17.0	2.80
									310	17.0	2.77
									320	16.7	2.64
									330	16.8	2.54
									345	16.7	2.22
									360	17.4	2.22
									375	18.2	1.54
									393	8.2	0.92
									393	0.0	0.00
01-20-86	1420	1041	----	11.55	21,300	5,850	294	3.64	99	0.0	0.00
									120	11.5	1.38
									140	19.5	3.14
									150	22.2	3.70
									160	24.3	3.78
									170	24.0	4.31
									180	23.8	4.02
									190	23.5	3.84
									200	22.5	3.80
									210	22.0	4.32
									220	21.6	4.22
									230	21.0	4.31
									240	21.3	4.31
									250	21.2	4.12
									260	20.4	4.04
									270	20.6	3.96
									280	20.5	4.03
									290	20.9	4.04
									300	20.5	3.83
									310	20.7	3.94
									320	20.3	3.82
									330	19.8	3.76
									340	20.2	3.55
									350	20.2	3.72
									360	20.7	3.46
									375	21.2	2.16
									393	22.6	2.16
									393	0.0	0.00
01-20-86	2130	1042	----	9.14	14,900	5,090	289	2.93	104	0.0	0.00
									140	16.8	2.50
									160	21.4	3.21

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-20-86	2130	1042	(Continued)						180	21.8	3.09
									200	19.8	3.28
									220	19.4	3.10
									245	19.2	3.06
									270	18.4	2.98
									295	18.3	3.00
									325	17.5	3.02
									360	18.1	2.54
									393	18.2	2.54
									393	0.0	0.00
01-20-86	2335	1043	----	9.00	14,300	5,060	288	2.83	105	0.0	0.00
									130	13.2	2.15
									145	18.8	2.51
									160	21.6	3.06
									170	21.4	3.01
									180	21.0	3.08
									190	20.5	2.98
									200	19.8	2.89
									210	18.2	3.07
									220	18.8	3.24
									230	18.4	3.21
									240	18.5	3.28
									250	18.3	3.14
									260	18.2	3.02
									270	18.0	3.15
									280	18.0	3.14
									290	18.0	3.10
									300	18.0	3.10
									310	17.6	3.07
									320	17.8	2.84
									330	17.7	2.80
									340	17.8	2.80
									350	17.7	2.74
									360	18.2	2.72
									375	18.7	1.74
									393	19.4	1.74
									393	0.0	0.00
01-21-86	1400	1044	----	10.60	17,800	5,560	291	3.20	393	0.0	0.00
									393	16.1	1.08
									375	20.5	1.80
									360	19.8	3.07
									345	19.6	3.10
									330	19.2	3.24
									320	19.6	3.51
									310	19.9	3.47
									300	19.8	3.43
									290	19.8	3.76
									280	20.0	3.63
									270	19.9	3.75
									260	20.0	3.68
									250	20.2	3.77
									240	20.2	3.66
									230	20.3	3.66
									220	20.7	3.62
									210	21.0	3.63
									200	21.3	3.50
									190	22.2	3.58
									180	22.9	3.72

Table 51.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River near Grand Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-21-86	1400	1044	(Continued)						170	23.1	3.66
									160	22.8	3.75
									150	22.6	3.12
									140	18.1	2.51
									120	11.0	0.95
									102	0.0	0.00
01-21-86	2230	1045	----	8.60	12,200	4,830	289	2.53	393	0.0	0.00
									393	13.6	0.81
									375	18.5	1.35
									360	17.4	2.28
									345	17.0	2.50
									330	16.7	2.58
									320	16.9	2.57
									310	17.1	2.60
									300	17.2	2.47
									290	17.1	2.80
									280	17.1	2.84
									270	17.3	2.92
									260	17.2	3.10
									250	17.4	2.99
									240	17.2	2.96
									230	17.8	2.96
									220	18.0	2.98
									210	19.0	2.91
									200	18.5	2.94
									190	19.3	2.60
									180	20.3	2.74
									170	20.8	2.65
									160	20.5	2.92
									150	20.6	2.56
									140	15.4	2.28
									120	8.7	0.71
									104	0.0	0.00

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-16-85	2220	49	----	1,742.60	12,000	4,180	272	2.87	114	0.0	0.00
									125	5.3	0.49
									145	14.8	1.09
									155	15.4	1.79
									165	16.1	2.71
									175	16.5	3.46
									185	17.3	3.76
									195	17.4	3.27
									205	18.2	3.70
									215	18.3	3.98
									225	18.4	3.92
									235	18.8	4.32
									245	18.3	3.89
									255	18.3	3.78
									265	18.6	3.79
									275	18.4	3.56
									285	18.8	3.82
									295	19.3	3.58
									305	20.1	2.89
									315	19.9	2.72
									325	20.4	1.94
									340	18.2	1.04
									360	9.6	0.52
									386	0.0	0.00
10-17-85	310	50	----	1,744.33	14,600	4,650	279	3.14	387	0.0	0.00
									380	4.4	-0.25
									370	6.1	-0.38
									360	10.5	-0.59
									350	16.2	0.51
									340	19.7	1.32
									330	21.9	1.41
									320	21.4	2.88
									310	21.4	3.49
									300	21.3	3.41
									290	21.0	3.84
									280	20.4	4.42
									270	20.1	3.98
									260	20.0	4.29
									250	19.9	4.61
									240	19.9	4.34
									230	19.9	4.43
									220	19.9	4.33
									210	19.7	4.47
									200	19.6	4.08
									190	19.3	4.37
									180	18.8	3.99
									170	18.5	3.89
									160	18.0	3.07
									150	17.2	1.64
									140	14.7	1.37
									130	10.1	0.47
									120	5.5	-0.58
									115	3.0	-0.55
									108	0.0	0.00
10-17-85	645	51	----	1,743.79	13,800	4,670	280	2.96	388	0.0	0.00
									380	4.5	-0.57
									360	10.6	-0.46

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-17-85	645	51	(Continued)						340	19.7	1.34
									320	21.3	1.76
									300	21.2	3.48
									280	20.6	3.91
									260	20.1	4.25
									240	20.4	4.01
									220	20.0	4.52
									200	19.5	4.41
									180	18.9	4.08
									160	17.8	2.76
									140	16.3	0.79
									120	5.2	-0.49
									108	0.0	0.00
10-17-85	1100	52	----	1,742.85	11,600	4,290	271	2.70	386	0.0	0.00
									375	4.1	-0.65
									350	14.8	0.48
									325	21.0	1.56
									310	20.2	2.74
									300	20.0	3.27
									290	19.5	3.62
									280	19.0	3.82
									270	18.5	3.68
									260	18.5	3.36
									250	18.7	3.96
									240	18.7	3.70
									230	18.5	4.06
									220	18.3	3.75
									210	18.4	3.82
									200	18.4	3.68
									190	17.5	3.22
									175	17.0	3.43
									160	16.4	2.60
									140	14.9	0.60
									120	4.0	-0.40
									115	0.0	0.00
10-17-85	2310	53	----	1,743.37	12,600	4,310	275	2.92	112	0.0	0.00
									130	8.8	0.26
									150	15.8	0.84
									170	17.3	3.39
									190	17.5	3.86
									210	18.7	3.90
									230	18.9	4.20
									250	18.7	4.12
									270	18.9	4.04
									290	19.3	3.77
									310	20.6	2.95
									330	20.6	1.72
									350	14.6	0.52
									387	0.0	0.00
10-18-85	2240	54	----	1,743.79	12,900	4,460	274	2.90	112	0.0	0.00
									125	6.9	0.36
									145	15.4	1.15
									160	16.6	2.30
									175	17.7	3.62
									185	17.9	3.59
									200	18.8	3.96

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-18-85	2240	54	(Continued)						210	19.2	4.27
									220	19.1	4.24
									230	19.4	4.26
									240	19.4	4.46
									255	19.4	4.03
									265	19.3	3.77
									280	20.0	3.87
									290	19.8	3.86
									305	20.6	2.99
									315	20.6	2.16
									330	21.5	1.52
									350	16.1	0.50
									386	0.0	0.00
10-19-85	415	55	----	1,743.93	13,900	4,560	281	3.05	108	0.0	0.00
									120	4.6	-0.59
									140	16.9	2.04
									150	16.5	1.79
									160	17.2	2.89
									170	17.7	3.73
									180	18.4	4.26
									190	18.5	3.97
									200	19.2	3.76
									208	19.2	4.36
									216	19.3	4.20
									224	19.3	4.25
									232	19.5	4.20
									240	19.7	4.56
									248	19.6	4.04
									256	19.4	3.96
									264	19.5	3.79
									272	19.6	4.46
									280	20.0	3.96
									288	20.0	4.06
									296	20.6	3.66
									306	20.8	3.18
									316	20.7	2.77
									326	21.1	1.93
									340	19.2	0.88
									350	16.0	0.48
									360	10.4	-0.39
									380	4.1	-0.28
									389	0.0	0.00
10-19-85	1510	56	----	1,741.61	10,200	3,820	267	2.67	117	0.0	0.00
									125	4.8	-0.16
									155	14.8	1.62
									175	16.1	3.35
									185	16.2	3.16
									200	17.1	3.48
									210	17.3	3.43
									220	17.1	3.36
									230	17.1	3.58
									240	17.3	3.85
									250	17.5	3.63
									260	17.2	3.92
									270	17.4	3.70
									280	17.7	3.54
									290	17.7	3.39

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-19-85	1510	56	(Continued)						300	18.4	2.58
									310	18.6	2.10
									325	19.0	1.72
									345	13.4	0.84
									375	2.7	-0.27
									384	0.0	0.00
10-19-85	1725	57	----	1,741.72	9,800	3,850	270	2.55	112	0.0	0.00
									130	7.2	0.36
									150	13.8	1.14
									165	15.2	2.22
									180	15.9	3.21
									190	16.3	3.10
									205	16.6	3.54
									215	16.8	3.64
									230	16.8	3.78
									240	17.3	3.51
									250	17.3	3.54
									260	17.2	3.42
									270	17.1	3.46
									280	17.3	3.48
									290	17.7	3.43
									300	18.6	3.03
									315	18.6	2.37
									330	19.1	1.06
									350	13.6	0.40
									370	3.6	-0.41
									382	0.0	0.00
10-20-85	245	58	----	1,745.31	15,800	4,920	283	3.22	106	0.0	0.00
									115	4.0	-0.37
									130	10.8	-0.50
									145	17.8	1.79
									160	18.8	3.25
									175	19.4	4.42
									190	20.2	4.12
									205	20.9	4.59
									220	20.9	4.51
									235	20.9	4.57
									250	21.3	4.81
									265	21.1	4.65
									280	21.4	4.70
									295	21.8	3.79
									310	22.4	3.10
									325	22.4	2.22
									340	21.4	1.33
									355	14.4	-0.56
									370	6.9	-0.97
									385	3.1	-0.70
									389	0.0	0.00
10-23-85	1625	59	----	1,741.20	9,480	3,880	269	2.45	385	0.0	0.00
									360	8.5	-0.16
									340	18.0	0.71
									330	19.1	1.48
									320	18.5	2.10
									310	18.7	2.40
									300	18.4	2.75
									290	17.5	3.36

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-23-85	1625	59	(Continued)						280	17.6	3.22
									270	17.0	3.37
									260	16.9	3.57
									250	17.3	3.55
									240	17.0	3.48
									230	17.2	3.34
									220	16.9	3.45
									210	16.7	3.56
									200	16.5	3.58
									190	16.1	3.12
									180	15.8	2.79
									170	15.2	2.64
									160	14.8	1.62
									150	13.8	1.10
									135	10.0	0.24
									116	0.0	0.00
10-23-85	2300	60	12.0	1,743.84	15,100	4,570	268	3.31	384	0.0	0.00
									350	15.9	0.55
									310	22.2	2.86
									290	20.4	3.85
									270	20.2	4.42
									250	19.8	4.44
									230	19.8	4.13
									210	20.2	4.83
									190	19.7	4.20
									170	18.8	4.07
									140	16.3	1.40
									116	0.0	0.00
10-24-85	440	61	12.0	1,744.65	16,300	4,700	281	3.45	387	0.0	0.00
									340	20.4	1.61
									325	21.4	2.31
									315	22.0	3.04
									290	21.4	4.25
									280	20.8	4.37
									270	19.8	4.67
									260	20.8	4.50
									250	19.8	4.55
									240	20.4	4.28
									230	20.3	4.42
									220	19.6	4.96
									210	20.2	4.63
									200	19.8	4.28
									190	19.2	4.38
									180	18.4	4.37
									170	18.6	3.94
									160	17.9	2.93
									145	16.9	1.66
									130	10.0	0.67
									115	3.2	0.63
									106	0.0	0.00
10-24-85	1110	62	----	1,742.40	10,500	4,080	274	2.57	385	0.0	0.00
									360	8.2	0.43
									335	20.1	1.02
									310	18.1	2.63
									285	18.2	3.44
									260	17.8	3.75

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-24-85	1110	62	(Continued)						235	17.8	3.94
									210	17.9	3.58
									185	16.9	3.42
									160	16.0	1.42
									135	12.4	0.30
									111	0.0	0.00
10-24-85	1730	63	12.0	1,740.29	7,650	3,610	263	2.12	381	0.0	0.00
									350	12.5	-0.26
									330	18.1	0.73
									320	17.4	1.46
									310	17.5	1.59
									300	17.5	2.71
									290	16.5	2.94
									280	16.4	2.94
									270	16.0	2.88
									260	15.8	3.08
									250	15.9	3.18
									240	15.7	3.35
									230	16.0	3.40
									220	15.8	3.16
									210	15.8	3.09
									200	15.5	3.07
									190	15.0	2.82
									180	14.5	2.82
									170	14.2	2.65
									160	13.8	1.58
									145	12.7	0.61
									130	7.3	-0.23
									118	0.0	0.00
10-25-85	1400	64	----	1,741.99	10,400	3,990	273	2.60	385	0.0	0.00
									355	11.0	0.57
									340	17.5	0.75
									325	19.5	1.74
									310	19.1	2.50
									295	18.5	3.22
									280	17.9	3.61
									265	17.5	3.75
									250	17.3	3.70
									235	17.4	3.62
									220	17.5	3.54
									205	17.2	3.58
									190	16.2	3.20
									175	16.0	3.18
									160	15.5	2.09
									145	14.2	0.68
									130	7.7	0.31
									112	0.0	0.00
10-25-85	2050	65	12.0	1,743.93	14,000	4,550	277	3.08	386	0.0	0.00
									340	20.4	0.93
									305	21.2	3.32
									280	20.1	4.10
									260	19.4	3.90
									240	19.8	4.47
									220	19.9	4.20
									190	18.8	4.24
									150	17.2	1.64

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-25-85	2050	65	(Continued)						109	0.0	0.00
10-26-85	145	66	11.5	1,745.78	18,100	5,020	285	3.60	391	0.0	0.00
									360	15.0	0.68
									340	21.3	1.44
									330	23.0	2.15
									320	23.1	2.56
									310	22.6	3.46
									300	21.9	3.84
									290	21.7	4.34
									280	21.4	4.69
									270	21.2	5.47
									260	21.5	4.67
									250	22.7	5.15
									240	21.4	5.44
									230	21.8	4.63
									220	21.5	4.81
									210	21.4	4.85
									200	20.9	4.86
									190	19.9	4.54
									180	20.0	4.73
									170	19.2	4.16
									160	18.9	3.32
									135	12.6	1.11
									106	0.0	0.00
									0	0.0	0.00
10-26-85	950	67	----	1,743.56	13,100	4,450	279	2.94	388	0.0	0.00
									360	10.4	-0.43
									340	19.7	0.84
									320	20.8	2.10
									300	20.6	3.50
									280	19.5	3.94
									260	19.3	3.77
									240	19.1	4.31
									220	19.1	4.28
									200	18.8	3.86
									180	18.0	4.12
									160	16.8	2.82
									140	14.5	1.04
									109	0.0	0.00
10-26-85	1500	68	12.0	1,742.15	10,700	4,120	272	2.60	113	0.0	0.00
									135	11.4	0.34
									150	15.3	1.59
									160	15.9	2.17
									170	16.4	3.61
									180	16.9	3.09
									190	16.9	3.27
									200	17.5	3.56
									210	17.6	3.63
									220	17.8	4.10
									230	17.8	3.68
									240	18.0	4.08
									250	17.9	3.82
									260	17.7	3.52
									270	17.8	3.39
									280	18.2	3.22
									290	18.4	3.50

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-26-85	1500	68	(Continued)						300	19.0	3.22
									310	19.5	2.42
									320	19.2	1.74
									330	19.9	1.40
									340	20.0	0.64
									360	8.4	-0.51
									385	0.0	0.00
10-26-85	745	69	12.0	1,742.15	10,900	3,960	265	2.76	381	0.0	0.00
									350	13.9	0.54
									320	19.2	1.96
									310	19.2	1.93
									300	19.0	2.96
									290	18.2	3.60
									280	18.2	3.32
									270	17.7	3.78
									260	17.7	3.51
									250	17.8	3.70
									240	17.7	3.36
									235	17.8	3.94
									230	17.7	3.98
									225	17.8	3.93
									220	17.8	3.62
									215	17.5	4.13
									210	17.5	3.84
									200	17.5	3.40
									190	17.0	3.33
									180	16.8	3.54
									170	16.2	2.96
									160	15.6	2.24
									150	15.2	1.53
									116	0.0	0.00
11-16-85	1640	70	----	1,742.89	11,700	4,230	270	2.77	115	0.0	0.00
									125	5.6	-0.45
									145	15.6	0.97
									165	16.7	3.10
									180	17.3	3.70
									190	18.0	3.43
									200	18.2	3.56
									210	18.6	4.08
									220	18.6	4.13
									230	18.5	3.80
									240	18.5	3.52
									250	18.2	3.84
									260	18.0	3.94
									270	18.7	3.96
									280	19.2	3.64
									290	19.5	3.38
									300	20.0	3.24
									315	20.1	2.08
									335	20.4	1.04
									370	4.9	-0.26
									385	0.0	0.00
11-17-85	345	71	10.5	1,746.58	19,700	5,370	286	3.67	105	0.0	0.00
									110	3.6	-0.57
									130	12.5	0.76
									150	19.2	2.34

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-17-85	345	71	(Continued)						165	21.7	4.37
									175	21.2	4.28
									185	22.2	4.95
									195	22.2	5.00
									205	22.9	4.90
									215	22.8	4.94
									225	22.3	5.40
									235	23.0	5.40
									245	23.1	5.10
									255	23.1	5.24
									265	22.8	4.86
									275	23.2	5.14
									285	23.8	4.62
									295	23.8	3.99
									305	24.3	3.58
									315	24.2	3.14
									330	25.0	2.36
									345	18.2	1.47
									365	10.1	-0.68
									385	4.6	-0.59
									391	0.0	0.00
11-18-85	430	72	10.0	1,745.11	15,600	4,830	280	3.22	108	0.0	0.00
									130	11.2	0.52
									150	18.1	1.78
									165	19.1	3.69
									175	19.6	4.36
									185	19.9	4.44
									195	20.3	4.26
									205	20.9	4.47
									215	21.0	4.60
									225	21.3	4.74
									235	21.2	4.60
									245	20.8	4.58
									255	21.1	4.65
									265	21.1	4.65
									275	21.4	4.42
									285	21.5	4.36
									295	21.9	3.98
									310	22.3	3.01
									325	22.6	1.52
									360	11.7	-0.68
									388	0.0	0.00
11-18-85	1630	73	10.5	1,742.30	10,800	3,970	265	2.72	115	0.0	0.00
									125	5.0	-0.35
									145	14.6	1.12
									160	15.6	2.36
									170	15.0	3.36
									180	16.4	3.32
									190	16.6	3.33
									200	17.2	3.35
									210	17.2	3.56
									220	17.5	3.94
									230	17.6	3.68
									240	17.7	3.68
									250	17.9	3.42
									260	17.6	3.46
									270	17.8	3.54

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-18-85	1630	73	(Continued)						280	18.0	3.53
									290	18.3	3.43
									300	19.0	3.23
									310	19.3	2.82
									320	18.9	2.30
									335	19.3	1.20
									355	11.0	0.40
									370	4.0	0.31
									380	0.0	0.00
11-23-85	1540	74	----	1,742.31	11,200	4,030	273	2.78	385	0.0	0.00
									330	19.9	1.50
									300	18.9	3.29
									270	18.1	3.51
									260	17.7	3.78
									250	18.1	3.61
									240	18.0	3.58
									230	18.1	3.74
									220	17.6	3.80
									200	17.3	3.82
									180	16.8	3.35
									150	15.0	0.83
									112	0.0	0.00
11-23-85	1745	75	9.0	1,742.48	11,500	4,130	268	2.78	385	0.0	0.00
									350	14.9	0.73
									320	19.6	1.88
									300	19.4	3.20
									290	18.6	3.56
									280	18.4	3.78
									270	18.1	3.60
									260	17.5	3.83
									250	17.9	3.78
									240	17.9	3.82
									230	17.8	3.76
									220	17.7	3.82
									210	17.9	4.01
									200	17.2	3.66
									190	17.3	3.51
									180	17.2	3.55
									170	16.1	3.14
									160	16.3	2.42
									150	15.1	1.52
									140	15.1	0.90
									130	8.4	0.35
									117	0.0	0.00
11-24-85	440	76	----	1,745.03	16,000	4,870	284	3.29	390	0.0	0.00
									355	14.5	0.49
									325	22.9	2.17
									300	22.2	4.01
									290	21.5	4.50
									280	21.6	4.54
									270	20.8	4.27
									260	20.6	4.50
									250	21.0	4.40
									240	21.0	4.89
									230	20.6	4.81
									220	20.8	4.62

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-24-85	440	76	(Continued)						210	20.6	4.68
									200	20.4	4.10
									190	19.7	3.95
									180	19.5	4.38
									170	19.0	4.16
									160	18.7	3.46
									150	18.0	1.79
									140	15.9	0.88
									130	10.9	-0.61
									106	0.0	0.00
11-24-85	1625	77	11.0	1,742.11	10,500	3,930	271	2.68	385	0.0	0.00
									350	13.9	0.24
									320	18.3	1.97
									300	18.9	2.97
									290	17.9	3.54
									280	17.7	3.41
									270	17.6	3.68
									260	17.4	3.56
									250	17.7	3.40
									240	17.9	3.72
									230	17.8	3.79
									220	17.6	3.86
									210	17.4	3.59
									200	17.2	3.36
									190	16.9	3.74
									180	16.6	3.39
									170	16.2	2.92
									160	15.8	2.24
									150	14.4	1.48
									135	7.5	0.37
									114	0.0	0.00
11-25-85	445	78	----	1,745.00	15,800	4,840	281	3.26	109	0.0	0.00
									135	14.4	0.90
									150	17.7	2.04
									160	19.0	3.10
									170	19.1	4.18
									180	19.3	4.52
									190	20.0	4.38
									200	20.3	4.35
									210	20.5	4.61
									220	20.9	4.68
									230	20.8	4.68
									240	20.5	4.58
									250	20.7	4.56
									260	20.7	4.68
									270	20.8	4.81
									280	21.0	4.44
									290	21.5	4.03
									300	21.6	4.02
									310	22.4	3.24
									325	22.2	1.89
									340	20.5	0.61
									360	11.3	-0.46
									390	0.0	0.00
11-25-85	1520	79	11.0	1,742.25	10,300	4,080	267	2.53	382	0.0	0.00
									350	14.4	0.25

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-25-85	1520	79	(Continued)						320	19.7	1.42
									300	19.4	2.36
									290	18.5	3.39
									280	18.3	3.36
									270	17.7	3.86
									260	18.0	3.68
									250	18.2	3.78
									240	18.1	3.72
									230	18.0	3.92
									220	17.9	3.87
									210	18.0	4.01
									200	17.3	3.64
									190	17.1	3.32
									180	16.8	3.28
									170	16.5	3.22
									160	15.9	1.53
									150	15.0	0.97
									135	11.5	0.25
									115	0.0	0.00
11-25-85	2010	80	11.0	1,741.39	9,200	3,750	265	2.46	384	0.0	0.00
									350	13.2	0.39
									320	18.6	1.69
									300	18.0	2.68
									290	17.3	3.32
									280	17.4	3.39
									270	16.6	3.29
									260	16.6	3.32
									250	16.9	3.46
									240	17.4	3.44
									230	16.3	3.24
									220	16.6	3.32
									210	16.2	3.56
									200	16.0	3.54
									190	15.5	3.10
									180	15.2	3.08
									170	15.0	2.87
									160	13.3	1.82
									150	13.8	1.22
									135	10.2	0.31
									119	0.0	0.00
11-26-85	1225	81	10.5	1,742.14	10,700	3,990	272	2.68	386	0.0	0.00
									330	19.9	1.03
									300	19.1	3.12
									285	18.1	3.32
									270	17.9	3.82
									255	17.9	3.40
									240	17.8	3.60
									225	17.6	3.79
									210	17.4	3.75
									190	16.7	3.20
									170	15.8	2.90
									150	14.7	1.34
									114	0.0	0.00
12-18-85	1630	82	----	1,740.87	9,130	3,690	264	2.47	119	0.0	0.00
									140	13.0	0.76
									155	14.1	1.76

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-18-85	1630	82	(Continued)						170	14.8	2.89
									185	15.5	3.16
									200	16.1	3.38
									215	16.4	3.24
									230	16.2	3.54
									245	16.5	3.36
									260	16.4	3.12
									275	16.4	3.29
									290	17.1	3.13
									305	17.9	2.59
									320	17.5	2.14
									335	18.6	0.82
									350	12.2	0.35
									365	4.2	-0.51
									383	0.0	0.00
12-18-85	1950	83	----	1,740.41	8,230	3,430	261	2.40	120	0.0	0.00
									130	5.5	0.39
									155	12.9	1.50
									175	14.4	2.76
									190	14.9	2.94
									205	15.9	3.36
									220	15.4	3.36
									235	15.3	3.42
									250	15.5	3.28
									265	15.7	3.20
									280	15.8	2.99
									295	16.6	3.12
									310	17.3	2.27
									325	17.4	1.22
									340	15.9	0.50
									365	3.7	-0.39
									381	0.0	0.00
12-19-85	1925	84	----	1,740.35	8,160	3,500	258	2.33	121	0.0	0.00
									130	6.3	-0.25
									150	13.1	0.86
									170	14.3	2.36
									185	15.0	3.12
									195	15.3	2.91
									205	15.6	3.26
									215	15.5	3.28
									225	15.8	3.23
									235	15.6	3.06
									245	16.2	3.24
									255	15.9	3.22
									265	15.8	3.32
									275	15.9	3.15
									285	16.3	2.84
									295	17.1	2.76
									310	17.3	2.20
									325	17.7	1.41
									350	12.0	0.57
									370	2.4	-0.25
									379	0.0	0.00
12-20-85	230	85	----	1,745.10	15,800	4,910	282	3.22	108	0.0	0.00
									120	5.8	-0.41
									135	15.5	0.90

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-20-85	230	85	(Continued)						150	18.0	2.33
									165	18.9	3.77
									180	19.7	4.34
									190	20.1	4.26
									205	20.4	4.46
									220	20.5	4.65
									235	21.0	4.73
									250	21.2	4.48
									265	20.9	4.62
									280	21.0	4.34
									295	22.2	4.04
									310	22.5	3.02
									325	22.8	2.30
									340	22.3	1.29
									355	14.1	-0.54
									370	6.6	-1.44
									390	0.0	0.00
									0	0.0	0.00
12-21-85	300	86	----	1,744.84	15,400	4,760	279	3.24	109	0.0	0.00
									120	5.4	-0.44
									145	16.4	1.41
									160	18.5	3.24
									170	19.4	3.82
									180	19.5	4.40
									190	19.6	4.09
									200	20.2	4.18
									210	20.0	4.47
									220	20.0	4.53
									230	20.9	4.44
									240	21.0	4.78
									250	20.5	4.40
									260	20.4	4.46
									270	20.5	4.46
									280	20.8	4.36
									290	21.6	4.11
									300	21.9	3.51
									310	22.2	3.55
									325	22.3	2.22
									340	20.7	0.82
									365	8.0	-0.71
									380	4.7	-0.50
									388	0.0	0.00
12-24-85	735	87	9.0	1,736.88	4,050	2,630	239	1.54	365	0.0	0.00
									340	12.2	-0.21
									320	14.1	0.78
									305	13.9	1.26
									290	13.0	2.12
									280	12.7	2.14
									270	12.2	2.26
									260	12.2	2.33
									250	12.6	2.22
									240	12.4	2.26
									230	12.2	2.33
									220	12.2	2.35
									210	12.2	2.26
									200	11.9	2.42
									190	11.6	2.10

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-24-85	735	87	(Continued)						180	11.2	1.85
									170	10.7	1.60
									160	10.1	0.95
									140	8.5	0.13
									126	0.0	0.00
12-24-85	1650	88	9.5	1,735.35	3,180	2,300	243	1.38	362	0.0	0.00
									340	11.2	0.00
									320	12.6	0.63
									310	12.8	1.14
									300	12.4	1.32
									290	11.6	1.72
									280	11.1	1.82
									270	10.7	2.02
									260	10.9	1.89
									250	11.3	2.14
									240	11.1	1.93
									230	10.8	1.96
									220	10.9	1.98
									210	10.8	2.15
									200	10.7	1.84
									190	10.2	1.75
									180	9.8	1.34
									170	9.6	1.66
									160	9.0	0.82
									140	6.2	0.31
									129	0.0	0.00
12-24-85	2310	89	----	1,735.40	3,100	2,170	232	1.43	360	0.0	0.00
									330	12.6	0.18
									315	12.0	1.45
									300	12.0	1.30
									292	11.4	1.50
									285	11.0	1.50
									277	10.5	1.82
									270	10.4	1.72
									262	10.2	1.82
									255	10.7	1.76
									247	10.8	1.91
									240	10.6	1.98
									232	10.4	1.82
									225	10.4	1.91
									217	10.4	2.00
									210	10.4	2.10
									200	10.2	2.02
									190	10.4	1.80
									180	9.8	1.62
									170	9.2	1.48
									155	8.8	0.69
									128	0.0	0.00
12-25-85	400	90	----	1,745.25	16,500	4,980	232	3.31	106	0.0	0.00
									135	14.8	0.56
									150	17.9	2.30
									160	19.2	2.98
									170	19.6	3.98
									180	19.8	4.53
									190	20.4	4.48
									200	20.8	4.79

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-25-85	400	90	(Continued)						210	20.9	4.82
									220	20.9	4.78
									230	21.3	5.06
									240	21.6	4.65
									250	21.2	4.68
									260	21.1	4.34
									270	21.5	4.53
									280	21.5	4.81
									290	21.7	4.64
									300	22.1	3.80
									310	22.9	3.32
									320	22.5	2.82
									335	23.6	0.96
									355	13.6	-0.43
									390	0.0	0.00
12-26-85	300	91	----	1,745.44	16,900	5,040	286	3.35	104	0.0	0.00
									140	17.8	1.38
									160	19.0	3.36
									170	19.8	4.41
									180	19.8	4.51
									190	20.5	4.32
									200	20.7	4.68
									207	21.2	4.64
									215	20.8	4.59
									222	21.2	4.48
									230	21.4	4.86
									237	21.0	4.79
									245	21.4	4.77
									252	21.0	4.59
									260	20.8	4.83
									267	21.0	4.81
									275	21.5	4.72
									282	22.0	4.79
									290	22.0	4.01
									300	22.4	3.98
									310	22.8	3.28
									320	22.5	2.45
									335	23.4	1.26
									355	14.1	-0.24
									390	0.0	0.00
12-26-85	1110	92	9.0	1,742.51	10,900	4,110	272	2.65	115	0.0	0.00
									150	15.6	1.20
									170	16.5	3.00
									190	17.4	3.27
									205	17.8	3.70
									220	17.9	3.79
									235	17.8	3.64
									250	18.2	3.79
									265	18.0	3.64
									280	18.1	3.53
									295	18.6	3.12
									310	19.7	2.17
									330	20.2	1.58
									350	14.0	0.36
									387	0.0	0.00
12-27-85	630	93	9.0	1,736.84	4,520	2,620	240	1.72	365	0.0	0.00

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-27-85	630	93	(Continued)						330	14.5	0.41
									310	14.1	1.42
									300	13.9	1.74
									290	12.9	2.05
									282	12.9	2.30
									275	12.7	2.27
									267	12.3	2.48
									260	12.6	2.42
									252	12.5	2.46
									245	12.5	2.42
									237	12.6	2.33
									230	12.2	2.56
									222	12.4	2.29
									215	12.3	2.52
									207	12.1	2.44
									200	12.3	2.36
									190	11.6	2.14
									180	11.2	2.00
									170	11.0	1.53
									160	10.3	1.07
									140	7.4	0.34
									125	0.0	0.00
12-27-85	1430	94	9.0	1,736.00	3,690	2,416	235	1.53	128	0.0	0.00
									155	9.3	0.82
									170	10.2	1.36
									180	9.9	1.90
									190	10.9	1.80
									200	11.1	2.18
									210	11.5	2.10
									217	11.5	2.17
									225	11.7	2.25
									232	11.9	2.06
									240	11.2	2.08
									247	11.5	2.18
									255	11.6	2.09
									262	11.4	2.16
									270	11.6	2.00
									277	11.8	2.00
									285	12.2	1.58
									292	12.2	1.74
									300	12.8	1.61
									310	12.8	1.17
									320	13.1	0.81
									335	14.1	0.35
									363	0.0	0.00
01-20-86	1450	95	----	1,743.67	12,900	4,360	272	2.96	115	0.0	0.00
									125	6.9	0.46
									140	15.5	0.90
									155	16.9	2.08
									170	17.2	3.64
									180	18.4	3.75
									190	18.2	4.02
									200	18.9	3.98
									210	18.9	4.20
									220	19.2	3.72
									230	18.7	4.37
									240	18.7	4.18

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-20-86	1450	95	(Continued)						250	18.4	4.32
									260	18.7	4.36
									270	18.3	3.90
									280	19.4	3.39
									290	19.9	3.77
									300	20.4	3.54
									310	20.7	2.66
									320	20.6	2.20
									340	19.1	1.06
									370	5.2	-0.84
									387	0.0	0.00
01-21-86	840	96	10.0	1,745.35	16,800	5,010	280	3.35	108	0.0	0.00
									115	3.7	-0.37
									140	18.0	1.30
									160	19.3	3.36
									180	20.1	4.32
									195	20.6	4.48
									210	21.1	4.68
									225	20.9	4.91
									235	21.0	4.91
									250	21.3	4.86
									260	21.3	4.74
									275	21.8	4.50
									285	21.3	4.48
									300	22.5	3.78
									315	22.8	2.74
									330	23.0	1.50
									350	17.4	0.68
									375	6.0	-0.42
									388	0.0	0.00
01-22-86	2040	97	10.0	1,747.71	21,800	5,620	284	3.88	105	0.0	0.00
									115	5.8	-0.35
									140	20.1	1.71
									155	21.3	3.66
									170	21.9	4.92
									185	22.6	5.06
									195	22.6	5.16
									210	22.8	5.68
									220	22.8	5.57
									235	23.5	5.46
									245	23.6	5.51
									260	23.3	5.46
									270	23.5	5.46
									285	24.3	5.30
									295	25.2	5.08
									310	25.3	3.50
									330	25.7	1.77
									355	16.6	0.54
									375	8.4	-0.99
									389	0.0	0.00
01-23-86	15	98	10.0	1,747.82	22,800	5,610	284	4.06	105	0.0	0.00
									115	6.1	-0.25
									140	18.7	1.76
									155	21.4	4.04
									170	22.0	5.20

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-23-86	15	98	(Continued)						185	22.6	5.16
									195	22.9	5.26
									210	23.0	5.87
									220	23.2	6.06
									235	23.9	5.42
									245	23.9	5.74
									260	23.3	5.87
									270	22.9	5.81
									285	24.1	5.40
									295	24.7	4.86
									310	25.4	3.63
									330	25.8	2.01
									355	16.7	0.55
									375	8.7	-0.54
									389	0.0	0.00
01-23-86	1130	99	----	1,745.18	16,600	4,770	280	3.48	109	0.0	0.00
									125	7.6	0.36
									145	16.2	1.77
									160	18.4	3.78
									170	19.0	4.32
									180	19.7	4.14
									190	19.8	4.26
									200	20.5	4.20
									210	20.4	4.76
									220	20.1	4.76
									230	20.3	4.98
									240	21.0	4.64
									250	20.9	4.84
									260	20.6	4.88
									270	20.3	4.92
									280	21.4	4.51
									290	21.6	4.18
									300	22.0	3.58
									310	22.6	3.68
									330	22.7	1.82
									350	16.4	0.70
									370	6.1	-0.55
									389	0.0	0.00
01-25-86	1755	100	----	1,748.84	25,500	5,940	290	4.29	390	0.0	0.00
									360	14.9	0.70
									340	26.8	1.07
									330	26.8	2.55
									320	26.0	2.99
									310	26.3	4.01
									300	25.9	5.35
									290	25.7	5.30
									280	24.6	6.00
									270	24.5	5.78
									260	23.9	6.26
									250	24.6	5.80
									240	24.0	6.38
									230	24.4	6.06
									220	24.8	6.06
									210	24.7	5.62
									200	24.4	5.64
									190	24.1	5.22

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-25-86	1755	100	(Continued)						180	23.7	5.36
									170	23.4	5.39
									160	22.8	4.51
									150	22.1	3.37
									135	17.9	1.52
									100	0.0	0.00
01-26-86	530	101	9.0	1,748.08	24,400	5,620	290	4.34	390	0.0	0.00
									330	26.0	2.30
									305	25.6	4.81
									290	24.9	4.92
									275	24.4	5.27
									260	24.2	5.41
									245	24.2	5.57
									230	24.0	5.51
									215	23.7	5.46
									195	23.4	5.40
									175	22.6	5.26
									150	20.9	2.80
									100	0.0	0.00
01-26-86	1625	102	10.0	1,748.83	25,600	5,910	292	4.33	101	0.0	0.00
									145	20.7	2.80
									160	22.8	5.14
									170	23.7	5.46
									180	23.8	5.40
									190	23.9	5.52
									200	24.6	5.51
									210	24.8	5.63
									220	24.6	5.53
									230	24.5	5.88
									240	25.2	5.74
									250	24.3	5.68
									260	24.2	5.68
									270	24.5	5.57
									280	25.5	5.25
									290	25.5	5.22
									300	26.2	4.76
									310	26.5	3.64
									325	26.2	3.27
									350	20.8	0.78
									393	0.0	0.00
01-27-86	930	103	9.0	1,747.84	22,600	5,580	287	4.05	390	0.0	0.00
									350	19.7	0.78
									330	25.5	1.78
									320	24.9	2.72
									310	25.2	3.74
									300	24.9	4.61
									290	24.2	5.16
									280	23.6	5.22
									270	23.8	5.68
									260	23.2	5.70
									250	22.5	5.93
									240	22.2	5.74
									230	22.2	5.94
									220	23.5	5.46
									210	23.5	5.11

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Values in cross section: Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Values at individual verticals: Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-27-86	930	103	(Continued)						200	23.6	5.20
									190	22.8	5.26
									180	22.2	5.14
									170	22.0	5.42
									160	21.4	4.60
									150	20.8	3.21
									135	16.8	1.49
									103	0.0	0.00
01-27-86	1550	104	9.0	1,749.58	28,600	6,140	292	4.66	391	0.0	0.00
									365	13.2	0.47
									330	27.8	3.09
									315	27.2	3.91
									305	27.0	5.30
									295	26.8	5.54
									285	26.3	5.94
									275	25.9	5.80
									265	25.3	6.00
									255	25.8	6.00
									245	25.9	6.21
									235	25.9	6.36
									225	25.1	5.93
									215	25.5	6.00
									205	24.7	6.53
									195	24.3	5.96
									185	24.2	6.00
									175	24.7	5.94
									165	24.0	5.35
									155	23.3	4.70
									140	22.4	2.17
									125	12.7	0.85
									99	0.0	0.00
01-28-86	340	105	9.0	1,749.04	27,100	5,980	292	4.53	100	0.0	0.00
									145	21.6	2.58
									165	23.4	5.44
									180	23.8	5.40
									195	24.0	5.89
									210	24.4	6.00
									225	25.6	6.00
									240	25.2	6.46
									255	24.3	6.21
									270	25.1	6.14
									290	25.7	5.36
									310	26.4	4.65
									340	25.4	1.21
									392	0.0	0.00
01-28-86	1510	106	9.0	1,749.02	26,300	5,980	290	4.40	390	0.0	0.00
									350	21.2	0.71
									325	26.6	3.00
									310	26.7	4.56
									295	26.2	5.14
									280	25.3	5.63
									265	24.9	5.81
									250	24.7	6.06
									235	24.0	6.24
									220	24.9	6.00

Table 52.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above National Canyon, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-28-86	1510	106	(Continued)						205	24.0	5.70
									190	23.8	5.88
									175	23.8	5.20
									160	22.9	4.98
									140	21.0	2.06
									100	0.0	0.00

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-23-85	350	42	13.0	1,349.32	10,100	5,020	201	2.01	250	0.0	0.00
									240	5.5	0.28
									215	17.0	0.64
									195	38.5	1.56
									185	40.0	2.00
									175	41.3	2.59
									170	41.0	2.99
									165	40.2	2.76
									160	40.1	2.78
									155	39.4	3.13
									151	39.1	2.96
									147	39.0	2.70
									143	39.1	2.90
									139	39.0	2.98
									135	39.0	2.56
									130	39.3	2.82
									125	39.5	2.42
									120	36.4	2.45
									115	36.3	1.74
									105	26.4	1.70
									85	13.0	0.79
									65	9.0	-0.15
									49	0.0	0.00
10-23-85	2320	43	0.0	1,350.62	12,100	5,328	200	1.70	49	0.0	0.00
									60	9.0	0.19
									80	14.5	0.75
									100	25.8	1.59
									120	40.5	2.71
									140	40.3	3.10
									160	41.0	3.46
									180	41.5	2.74
									200	34.4	1.24
									220	16.8	0.92
									240	6.6	0.34
									249	0.0	0.00
10-24-85	540	44	0.0	1,349.18	8,940	4,840	202	1.85	250	0.0	0.00
									240	4.9	0.24
									220	15.0	0.56
									200	28.8	0.72
									190	37.6	1.68
									180	39.8	2.54
									175	40.2	2.50
									170	39.8	2.56
									165	39.7	2.70
									160	39.6	2.80
									155	39.3	2.62
									150	38.7	2.52
									145	38.5	2.55
									140	38.7	2.43
									135	38.6	2.44
									130	38.6	2.36
									125	38.0	2.38
									120	35.2	2.11
									110	29.8	1.82
									100	20.5	1.44
									80	12.4	0.26
									60	4.8	0.00

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-24-85	540	44	(Continued)						48	0.0	0.00
10-24-85	1645	45	0.0	1,351.53	14,700	5,470	210	2.69	255	0.0	0.00
									245	4.8	0.26
									230	12.5	0.71
									215	19.1	1.38
									200	35.6	1.50
									192	38.3	2.47
									185	42.1	2.96
									180	42.8	3.06
									175	42.6	3.55
									170	42.2	3.92
									165	41.9	3.86
									160	42.0	3.94
									155	41.5	3.87
									150	41.4	3.50
									145	42.0	4.04
									140	41.4	3.60
									135	41.1	3.62
									130	41.6	3.82
									125	42.4	3.50
									118	41.2	2.70
									110	31.8	2.48
									102	27.4	2.02
									95	21.4	2.48
									80	15.6	1.17
									65	10.9	-2.18
									45	0.0	0.00
10-25-85	715	46	0.0	1,348.71	8,100	4,593	193	1.76	245	0.0	0.00
									240	3.8	0.13
									230	10.6	0.35
									215	16.6	0.68
									205	18.7	0.75
									200	27.1	0.63
									190	37.2	1.52
									185	37.2	1.98
									175	39.3	2.20
									170	39.0	2.50
									160	39.0	2.28
									155	37.7	2.54
									145	37.9	2.37
									140	37.6	2.32
									130	37.5	2.48
									120	34.3	2.11
									105	24.1	1.23
									95	18.2	1.26
									70	8.7	0.24
									52	0.0	0.00
10-28-85	1350	47	0.0	1,350.72	13,600	5,370	209	2.53	44	0.0	0.00
									65	7.8	0.00
									80	15.4	0.77
									95	20.4	2.00
									110	31.5	2.47
									125	41.0	3.39
									140	40.4	3.56
									150	40.0	3.51
									160	41.8	3.58

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-28-85	1350	47	(Continued)						170	42.0	3.80
									180	41.7	3.01
									190	40.3	2.26
									200	32.5	1.68
									210	19.4	1.07
									220	16.9	0.78
									235	19.1	0.49
									253	0.0	0.00
10-28-85	2330	48	-1.0	1,349.95	9,640	5,240	207	1.84	252	0.0	0.00
									240	5.7	0.46
									220	16.5	0.77
									200	33.7	0.84
									180	41.0	2.41
									160	40.0	3.01
									140	38.9	2.78
									120	39.5	1.89
									100	25.5	1.35
									80	14.7	0.24
									60	8.6	-0.09
									45	0.0	0.00
10-29-85	405	49	12.0	1,349.35	9,800	4,990	201	1.97	49	0.0	0.00
									80	14.5	0.25
									100	25.5	1.49
									110	30.6	1.49
									115	27.5	2.22
									120	36.6	2.18
									125	38.3	2.60
									130	38.6	2.77
									135	38.7	2.80
									140	38.2	2.92
									145	38.3	2.87
									150	38.7	2.78
									155	38.8	2.69
									160	38.9	2.98
									165	39.2	2.89
									170	40.1	2.90
									175	40.6	2.51
									180	40.4	2.50
									185	37.2	2.44
									190	38.7	1.78
									195	34.7	1.68
									200	33.0	0.68
									220	15.4	0.74
									240	4.6	0.23
									250	0.0	0.00
10-30-85	730	50	12.0	1,352.45	18,700	5,970	214	3.13	44	0.0	0.00
									90	21.7	1.79
									110	31.8	3.03
									125	43.4	3.75
									140	42.8	4.34
									150	43.0	4.50
									160	43.7	4.08
									170	44.4	4.60
									180	43.4	4.08
									200	35.7	1.82
									220	28.8	1.50

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-30-85	730	50	(Continued)						258	0.0	0.00
10-30-85	1020	51	-1.0	1,352.70	19,100	5,400	216	3.54	43	0.0	0.00
									85	16.0	1.97
									100	28.2	3.03
									110	31.5	3.66
									120	35.3	3.90
									125	42.9	4.38
									130	42.4	4.06
									135	42.2	4.60
									140	42.0	4.52
									145	42.3	4.22
									150	42.2	4.40
									155	42.8	4.80
									160	43.0	4.71
									165	44.3	4.64
									170	45.1	4.60
									175	43.8	4.02
									180	43.4	3.76
									185	42.8	3.68
									190	41.9	3.32
									195	36.0	2.93
									210	21.8	1.98
									240	6.4	0.67
									259	0.0	0.00
10-30-85	2050	52	13.0	1,351.25	14,100	5,320	210	2.64	45	0.0	0.00
									90	20.0	1.54
									110	31.2	2.50
									125	41.3	3.51
									140	40.0	3.60
									150	39.7	3.68
									160	42.5	3.59
									170	41.5	3.90
									180	41.8	3.36
									200	33.5	0.85
									220	17.2	0.95
									255	0.0	0.00
10-31-85	715	53	0.0	1,353.15	19,900	5,700	213	3.49	45	0.0	0.00
									90	20.9	2.21
									110	31.9	3.69
									125	43.8	4.23
									140	43.4	4.56
									150	43.5	4.68
									160	44.9	4.50
									170	44.9	4.81
									180	44.0	4.27
									200	35.5	1.89
									220	19.2	1.28
									258	0.0	0.00
10-31-85	1515	54	0.0	1,352.15	17,600	5,640	214	3.12	45	0.0	0.00
									90	22.1	2.11
									110	32.5	4.21
									125	42.6	3.45
									140	41.6	3.66
									150	42.5	3.94
									160	43.5	4.46

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
10-31-85	1515	54	(Continued)						170	44.5	4.46
									180	43.4	3.77
									200	35.8	1.13
									220	18.0	1.32
									258	0.0	0.00
11-11-85	155	55	0.0	1,350.20	11,600	5,210	207	2.23	45	0.0	0.00
									80	15.5	0.92
									100	22.4	2.00
									110	31.0	1.84
									115	37.7	1.89
									120	37.6	2.87
									125	40.0	3.00
									130	39.4	2.57
									135	39.1	3.02
									140	39.3	2.96
									145	39.8	2.96
									150	39.9	3.42
									155	40.7	3.26
									160	41.0	3.10
									165	40.8	3.37
									170	41.1	3.28
									175	41.3	3.17
									180	40.8	2.66
									185	40.5	2.18
									190	39.4	2.08
									195	36.0	1.91
									200	34.0	0.84
									220	15.8	0.63
									240	6.4	0.48
									252	0.0	0.00
11-22-85	1330	56	0.0	1,352.17	17,800	5,798	213	3.07	45	0.0	0.00
									60	8.5	0.00
									70	13.5	-0.31
									80	17.0	1.33
									90	22.4	1.68
									100	27.5	2.58
									110	33.5	2.72
									120	43.3	3.44
									130	43.5	3.96
									140	42.8	4.24
									150	43.2	4.50
									160	44.4	4.36
									170	44.5	4.32
									180	44.3	3.94
									190	42.3	3.22
									200	35.7	1.93
									210	21.8	1.53
									220	18.2	1.40
									230	16.1	1.57
									245	8.0	0.63
									258	0.0	0.00
11-23-85	1135	57	0.0	1,352.60	18,500	5,510	212	3.35	257	0.0	0.00
									245	5.4	0.42
									225	16.4	1.20
									210	21.1	1.39
									195	37.2	2.94

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-23-85	1135	57	(Continued)						185	43.7	3.44
									180	45.2	3.82
									175	45.9	4.70
									170	45.9	4.75
									165	45.0	4.67
									160	43.9	4.46
									155	43.7	4.65
									150	44.4	4.37
									145	44.2	4.36
									140	43.9	4.40
									135	44.2	3.87
									130	43.1	4.47
									125	43.5	4.48
									120	35.8	3.78
									115	29.1	3.72
									105	28.6	3.20
									95	22.6	2.62
									75	11.9	0.40
									55	7.0	0.16
									45	0.0	0.00
11-24-85	150	58	0.0	1,350.30	11,700	5,043	207	2.32	252	0.0	0.00
									240	9.9	0.35
									220	16.0	0.76
									205	19.7	1.02
									195	33.4	1.92
									185	37.7	2.71
									180	42.0	2.60
									175	42.6	3.02
									170	41.7	3.18
									165	41.4	3.24
									160	41.8	3.29
									155	41.6	3.28
									150	41.1	3.25
									145	40.8	3.32
									140	40.9	3.12
									135	39.9	3.29
									130	39.9	3.06
									125	39.0	2.98
									120	37.5	2.46
									110	30.4	2.15
									100	22.5	1.68
									90	17.2	1.33
									75	10.3	0.27
									60	6.5	0.00
									45	0.0	0.00
11-24-85	2135	59	0.0	1,350.71	12,500	5,109	208	2.45	251	0.0	0.00
									240	6.5	0.82
									220	16.5	1.15
									200	30.5	0.88
									185	39.0	2.83
									170	42.3	3.39
									160	41.2	3.46
									150	41.5	3.50
									140	41.2	3.36
									130	40.5	3.06
									120	37.5	2.78
									110	30.5	2.15

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-24-85	2135	59	(Continued)						95	20.0	2.02
									80	14.4	0.57
									60	4.2	0.11
									43	0.0	0.00
11-25-85	43	60	0.0	1,350.20	11,100	5,140	203	2.16	249	0.0	0.00
									235	7.7	0.40
									200	30.6	1.01
									185	37.6	2.20
									175	42.4	2.92
									170	42.3	2.99
									165	42.2	3.10
									160	42.1	3.24
									155	41.7	3.30
									150	40.6	2.89
									145	40.9	2.98
									140	40.5	2.48
									135	40.4	2.86
									130	40.6	3.06
									125	40.5	2.80
									120	37.4	2.42
									110	31.0	2.16
									100	22.0	1.90
									80	14.7	0.48
									50	3.0	0.00
									46	0.0	0.00
11-25-85	1605	61	0.0	1,351.76	16,600	5,470	210	3.03	255	0.0	0.00
									245	4.8	0.67
									235	9.2	0.66
									225	15.7	0.99
									215	18.8	1.32
									210	20.6	1.86
									205	22.0	1.72
									200	35.2	1.29
									195	41.0	2.62
									190	41.5	3.01
									185	43.6	3.50
									180	44.5	3.52
									175	45.2	3.94
									170	44.5	4.15
									165	44.8	4.50
									160	44.1	4.50
									155	44.0	4.04
									150	43.5	3.87
									145	43.5	3.61
									140	42.4	4.02
									135	42.5	3.36
									130	42.5	3.66
									125	42.8	4.18
									120	42.5	3.14
									115	39.0	3.24
									110	32.5	2.58
									100	26.8	2.84
									85	15.5	1.51
									70	8.8	0.24
									45	0.0	0.00
11-29-85	1000	62	0.0	1,348.70	7,590	4,830	197	1.57	48	0.0	0.00

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-29-85	1000	62	(Continued)						75	8.2	-0.09
									100	24.2	1.10
									110	34.7	1.70
									120	37.9	2.00
									125	36.6	2.08
									130	38.0	2.34
									135	37.9	2.18
									140	38.0	2.21
									145	38.1	2.21
									150	38.9	2.20
									155	38.8	2.36
									160	39.2	2.24
									165	39.4	2.22
									170	39.7	2.20
									175	40.1	1.93
									180	40.0	1.67
									185	35.7	1.55
									190	37.2	1.20
									200	31.6	0.47
									215	16.6	0.60
									230	9.2	0.28
									245	0.0	0.00
11-30-85	420	63	0.0	1,349.02	9,000	4,800	197	1.86	53	0.0	0.00
									80	13.0	0.60
									100	24.1	1.05
									110	29.5	1.44
									120	35.4	2.05
									130	38.9	2.54
									140	38.8	2.86
									150	39.6	2.60
									160	40.0	2.48
									170	40.5	2.64
									180	40.6	2.18
									190	37.9	1.56
									210	17.1	0.66
									230	10.1	0.27
									250	0.0	0.00
11-30-85	1150	64	0.0	1,347.85	6,400	4,660	196	1.37	49	0.0	0.00
									85	11.6	0.27
									105	23.8	1.22
									115	34.5	1.40
									120	33.6	1.75
									125	34.9	1.76
									130	37.3	1.80
									135	37.8	2.12
									140	38.0	2.06
									145	37.9	1.88
									150	37.9	1.84
									155	38.0	2.10
									160	38.2	2.27
									165	38.7	2.05
									170	39.3	1.94
									175	39.7	1.96
									180	39.8	1.73
									185	37.9	1.24
									190	36.6	1.12
									200	31.4	0.27

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
11-30-85	1150	64	(Continued)						225	11.2	0.20
									245	0.0	0.00
12-11-85	1530	65	0.0	1,352.75	19,100	5,700	215	3.35	45	0.0	0.00
									80	17.1	1.09
									100	24.2	2.88
									110	33.6	3.04
									120	43.6	3.50
									130	43.8	4.46
									140	44.6	4.28
									150	45.5	4.61
									160	44.9	4.80
									170	44.9	4.04
									180	45.0	3.78
									190	42.8	3.54
									210	21.5	2.12
									230	13.6	0.52
									260	0.0	0.00
12-11-85	2315	66	0.0	1,350.80	12,900	5,240	210	2.46	45	0.0	0.00
									85	14.9	1.07
									105	28.0	2.11
									120	37.9	2.92
									130	41.2	2.98
									145	42.0	3.08
									155	42.5	3.50
									170	43.7	3.26
									180	42.7	2.76
									195	36.4	1.79
									215	18.1	1.11
									255	0.0	0.00
12-02-85	935	67	0.0	1,348.95	8,730	4,910	199	1.78	49	0.0	0.00
									85	12.4	0.68
									100	25.2	1.27
									110	29.2	1.56
									120	34.7	1.98
									130	38.7	2.29
									140	38.8	2.38
									150	39.3	2.74
									160	39.8	2.66
									170	40.3	2.52
									180	40.7	2.10
									190	38.0	1.72
									200	34.6	0.59
									220	15.1	0.56
									248	0.0	0.00
12-02-85	1750	68	0.0	1,350.20	12,300	5,270	207	2.33	45	0.0	0.00
									80	14.9	0.95
									100	21.8	1.80
									110	30.6	2.28
									115	30.4	2.60
									120	37.7	2.96
									125	40.5	3.06
									130	40.3	3.21
									135	40.3	3.28
									140	40.3	3.24
									145	40.3	3.28

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-02-85	1750	68	(Continued)						150	40.8	3.22
									155	41.2	3.40
									160	41.8	3.43
									165	42.4	3.54
									170	42.1	3.28
									175	42.5	3.06
									180	41.8	2.71
									185	38.0	2.70
									190	39.6	2.10
									195	35.6	1.66
									200	35.7	0.69
									220	16.7	0.77
									240	9.2	0.49
									252	0.0	0.00
12-24-85	910	69	0.0	1,348.22	6,780	4,540	197	1.48	248	0.0	0.00
									235	6.4	0.00
									230	9.3	0.18
									215	15.8	0.46
									205	17.9	0.60
									195	32.5	0.78
									185	38.5	1.30
									175	40.3	2.00
									165	39.1	2.20
									160	38.9	2.30
									155	38.8	2.12
									150	38.8	2.20
									145	38.5	1.98
									135	38.3	1.99
									125	36.8	2.02
									115	27.8	1.49
									105	24.2	1.10
									90	16.9	0.76
									70	5.7	0.21
									51	0.0	0.00
12-25-85	155	70	0.0	1,345.95	4,020	4,340	192	0.93	247	0.0	0.00
									235	4.6	-0.12
									215	13.7	0.28
									195	35.5	0.72
									185	33.6	1.05
									175	38.4	1.22
									165	37.4	1.46
									155	36.7	1.31
									145	36.8	1.20
									135	36.5	1.23
									125	34.5	1.00
									115	30.3	0.67
									95	16.2	0.48
									75	6.9	0.17
									55	0.0	0.00
12-26-85	640	71	0.0	1,348.59	7,930	4,520	204	1.75	249	0.0	0.00
									240	10.0	0.31
									220	16.3	0.84
									200	22.1	0.93
									185	35.4	1.45
									175	39.7	2.32
									170	39.8	2.50

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-26-85	640	71	(Continued)						160	39.2	2.62
									155	39.0	2.44
									145	38.7	2.14
									140	38.2	2.27
									130	38.3	2.26
									125	37.2	2.23
									115	26.4	1.74
									105	22.6	1.48
									90	14.4	1.04
									70	4.4	0.11
									45	0.0	0.00
12-26-85	1400	72	0.0	1,351.92	16,900	5,650	214	2.94	258	0.0	0.00
									250	4.2	0.49
									230	12.3	0.48
									215	19.3	1.22
									195	35.5	2.56
									185	43.3	3.34
									175	44.3	4.02
									165	43.5	4.26
									160	43.6	4.18
									155	43.0	4.18
									150	43.3	4.15
									145	42.3	4.01
									140	43.1	4.28
									135	42.6	4.01
									130	43.4	3.79
									125	42.4	3.62
									120	41.8	3.13
									105	29.5	2.46
									95	21.9	2.36
									70	16.0	1.00
									50	4.5	0.00
									44	0.0	0.00
12-31-85	1320	73	0.0	1,348.87	8,830	4,960	210	1.78	46	0.0	0.00
									80	12.4	0.07
									100	19.7	1.08
									110	29.0	1.54
									115	35.7	1.42
									120	35.4	1.86
									125	38.5	1.96
									130	38.5	2.20
									135	38.4	2.48
									140	38.4	2.38
									145	38.8	2.28
									150	38.7	2.60
									155	39.2	2.46
									160	39.8	2.68
									165	40.3	2.65
									170	40.8	3.10
									175	40.8	2.55
									180	41.8	2.12
									185	39.7	2.02
									190	38.3	1.87
									195	39.0	1.96
									200	31.7	0.93
									220	15.8	0.66
									240	4.8	0.40

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
12-31-85	1320	73	(Continued)						256	0.0	0.00
12-31-85	1920	74	13,100	1,350.70	5,200	215	3.02	0.0	45	0.0	0.00
									80	14.9	1.13
									100	23.6	2.03
									110	30.9	2.50
									115	28.4	3.06
									120	34.6	3.04
									125	41.3	3.36
									130	41.0	3.42
									135	41.2	3.20
									140	40.7	3.36
									145	41.2	3.36
									150	41.2	3.66
									155	41.3	3.30
									160	41.7	3.32
									165	42.7	3.54
									170	42.3	3.52
									175	42.6	3.16
									180	42.3	3.00
									185	39.2	2.56
									190	40.0	2.37
									195	33.9	2.16
									200	31.7	0.88
									220	16.3	0.77
									240	5.3	0.25
									260	0.0	0.00
01-11-86	2130	75	0.0	1,350.35	12,100	5,110	211	2.36	45	0.0	0.00
									80	14.4	1.00
									105	26.2	2.37
									120	39.5	2.59
									130	39.8	3.25
									140	40.1	3.29
									150	40.2	3.28
									160	41.1	3.06
									170	41.6	3.10
									180	41.1	2.71
									195	36.3	1.44
									210	17.8	1.16
									230	11.2	0.34
									256	0.0	0.00
01-02-86	1420	76	0.0	1,352.55	17,900	5,460	217	3.28	43	0.0	0.00
									80	13.0	1.59
									95	23.0	2.69
									110	32.7	3.09
									117	35.6	3.55
									125	44.2	3.77
									132	43.3	4.03
									140	43.2	4.12
									145	42.8	4.47
									150	43.4	4.25
									155	43.8	4.16
									160	45.3	4.46
									165	44.3	4.42
									170	44.8	4.27
									175	44.6	4.13
									180	44.5	3.61

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-02-86	1420	76	(Continued)						187	42.5	3.26
									195	36.0	2.96
									205	22.7	1.90
									230	13.3	0.92
									260	0.0	0.00
01-02-86	2235	77	0.0	1,350.59	12,000	5,260	217	2.28	43	0.0	0.00
									85	14.3	1.21
									110	31.2	2.00
									120	37.6	2.66
									130	40.5	2.85
									140	40.8	2.96
									150	41.4	3.46
									160	42.4	3.06
									170	42.7	3.36
									180	41.6	2.56
									190	39.6	1.67
									220	16.4	0.74
									260	0.0	0.00
01-03-86	950	78	0.0	1,348.08	6,880	4,610	202	1.49	48	0.0	0.00
									80	12.5	0.00
									100	19.6	1.11
									110	28.7	1.36
									120	34.2	1.50
									130	37.8	2.08
									140	37.6	2.06
									150	37.9	2.29
									160	39.0	2.34
									170	39.6	2.18
									180	39.7	1.34
									190	37.5	1.39
									205	17.2	0.46
									225	12.3	0.43
									250	0.0	0.00
01-03-86	1450	79	0.0	1,347.68	5,930	4,640	199	1.28	249	0.0	0.00
									240	2.9	0.16
									220	13.7	0.26
									200	31.1	0.40
									195	36.6	0.83
									190	36.8	1.26
									185	38.2	1.14
									180	38.8	1.51
									175	38.6	1.69
									170	38.7	1.90
									165	38.6	2.08
									160	37.7	2.08
									155	37.7	2.02
									150	37.7	1.95
									145	37.4	2.00
									140	37.0	1.68
									135	37.5	1.84
									130	37.7	1.90
									125	36.4	1.83
									120	34.6	1.53
									115	26.6	1.44
									110	28.3	0.72
									100	19.2	0.73

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-03-86	1450	79	(Continued)						80	12.0	0.09
									50	0.0	0.00
01-03-86	2130	80	0.0	1,350.00	11,100	5,107	213	2.18	45	0.0	0.00
									80	14.4	0.52
									100	22.6	1.88
									110	30.7	2.03
									115	30.0	2.57
									120	37.5	2.48
									125	41.3	2.72
									130	40.0	2.76
									135	40.0	2.99
									140	40.0	3.06
									145	40.1	3.12
									150	40.5	3.24
									155	40.7	3.37
									160	40.8	3.30
									165	41.3	3.22
									170	41.5	2.98
									175	41.5	3.14
									180	41.5	2.04
									185	38.0	2.36
									190	39.0	2.06
									195	33.5	1.74
									200	31.0	0.68
									220	16.0	0.63
									240	5.1	0.37
									258	0.0	0.00
01-26-86	800	81	0.0	1,355.02	25,000	5,880	215	4.25	260	0.0	0.00
									240	11.1	1.36
									225	19.8	1.64
									210	22.8	2.89
									200	34.4	3.50
									190	40.7	4.70
									180	46.4	4.94
									170	45.1	5.06
									160	44.9	5.63
									150	44.9	6.26
									140	43.6	5.68
									130	41.7	5.48
									120	42.5	4.74
									110	34.0	4.12
									100	30.0	3.54
									85	18.5	2.34
									65	11.2	0.38
									45	0.0	0.00
01-26-86	2055	82	0.0	1,354.27	23,400	5,850	215	4.00	260	0.0	0.00
									250	5.0	0.40
									230	15.6	1.10
									210	23.2	2.34
									200	36.8	2.08
									195	38.1	3.68
									185	45.9	4.48
									180	45.5	5.20
									170	43.9	5.68
									165	44.4	5.63
									155	44.5	5.86

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-26-86	2055	82	(Continued)						150	44.4	5.57
									140	45.6	5.55
									135	42.9	5.36
									125	43.0	4.86
									120	36.9	4.52
									110	33.5	4.00
									100	29.5	3.18
									85	18.1	2.32
									65	10.8	0.25
									50	6.9	0.11
									45	0.0	0.00
01-28-86	330	83	0.0	1,355.44	28,100	6,080	217	4.62	261	0.0	0.00
									245	11.0	0.73
									230	19.2	1.03
									215	22.1	2.87
									200	34.1	3.64
									190	42.0	5.24
									180	46.1	5.80
									175	47.1	5.88
									165	47.7	6.18
									160	48.0	6.16
									150	47.9	6.48
									145	44.2	6.44
									135	42.4	6.16
									130	42.5	5.74
									120	41.8	5.33
									110	33.7	5.16
									100	27.7	3.86
									85	19.3	2.38
									70	12.6	0.90
									55	9.3	0.19
									44	0.0	0.00
01-31-86	600	84	0.0	1,354.30	24,100	5,800	217	4.15	45	0.0	0.00
									80	17.8	2.04
									100	27.4	3.47
									110	33.8	4.10
									120	43.5	4.50
									130	41.8	5.36
									140	43.3	5.20
									150	45.2	5.68
									160	45.0	5.57
									170	45.6	5.51
									180	44.9	5.03
									190	38.5	4.36
									200	34.4	2.80
									215	21.8	1.96
									235	12.6	1.48
									262	0.0	0.00
01-31-86	1530	85	0.0	1,353.24	20,600	5,430	219	3.79	43	0.0	0.00
									85	17.1	2.44
									105	30.5	3.20
									120	36.1	4.04
									135	40.8	4.78
									145	40.2	5.14
									155	42.2	4.98
									165	42.0	5.04

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
01-31-86	1530	85	(Continued)						180	41.6	4.56
									195	36.9	3.10
									215	20.8	1.88
									262	0.0	0.00
01-31-86	2040	86	0.0	1,352.70	18,100	5,470	219	3.31	43	0.0	0.00
									80	15.7	1.26
									100	24.0	2.85
									110	33.3	3.08
									115	31.1	3.45
									120	40.3	3.52
									125	39.3	3.98
									130	38.5	4.36
									135	39.1	4.50
									140	40.0	4.41
									145	39.9	4.71
									150	39.9	4.80
									155	39.9	4.75
									160	40.1	4.92
									165	40.0	5.14
									170	40.3	4.92
									175	40.5	4.40
									180	39.9	4.26
									185	41.1	4.06
									190	42.3	3.54
									195	36.4	3.20
									200	35.1	1.77
									220	19.4	1.37
									240	11.4	0.15
									262	0.0	0.00
02-11-86	1535	87	0.0	1,353.22	20,400	5,420	217	3.76	45	0.0	0.00
									85	17.1	2.12
									105	29.3	3.28
									120	40.0	3.65
									135	37.9	4.86
									145	38.3	4.98
									155	38.8	5.02
									165	41.1	4.94
									180	41.7	4.66
									195	40.8	3.36
									215	20.9	2.03
									262	0.0	0.00
02-11-86	2140	88	0.0	1,352.30	17,000	5,300	214	3.20	46	0.0	0.00
									80	15.6	1.42
									100	25.2	2.46
									110	31.5	2.90
									120	36.5	3.66
									130	39.0	4.14
									140	38.9	3.88
									150	40.3	4.53
									160	39.8	4.61
									170	40.2	4.50
									180	39.4	3.94
									190	42.1	3.12
									200	33.5	1.92
									215	20.0	1.88
									235	10.5	1.07

Table 53.--Hydraulic and physical characteristics of cross section during discharge measurements, Colorado River above Diamond Creek, 1985-86--Continued

					Values in cross section				Values at individual verticals		
Date	Time	Measurement number	Water temperature, in °C	Gage height, in feet	Discharge, in cubic feet per second	Area, in square feet	Top width, in feet	Mean velocity, in feet per second	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity, in feet per second
02-11-86	2140	88	(Continued)						260	0.0	0.00
02-12-86	1030	89	0.0	1,352.88	18,900	5,500	219	3.44	43	0.0	0.00
									80	16.3	1.45
									100	25.4	3.04
									110	31.0	3.62
									115	30.5	3.94
									120	41.4	3.82
									125	40.3	4.18
									130	40.4	4.42
									135	40.3	4.52
									140	39.8	4.86
									145	39.6	4.74
									150	39.3	4.90
									155	39.8	4.73
									160	40.3	4.77
									165	40.3	4.56
									170	39.9	5.08
									175	40.2	4.56
									180	40.6	4.22
									185	42.0	3.74
									190	42.4	3.43
									195	36.7	3.20
									200	35.2	1.86
									220	18.8	1.75
									240	11.3	0.69
									262	0.0	0.00

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
06-29-83	1500	18.01	590	0.0
			560	16.5
			520	32.5
			480	34.0
			440	29.2
			400	27.6
			360	29.8
			320	30.1
			280	30.4
			240	24.1
			200	23.9
			107	0.0
07-01-83	1050	17.48	585	0.0
			560	16.4
			520	32.9
			480	36.4
			440	36.1
			400	32.7
			360	30.7
			320	31.1
			280	30.6
			240	27.1
			200	24.2
			85	0.0
07-01-83	1620	17.26	586	0.0
			565	13.7
			545	22.6
			525	27.8
			505	29.8
			485	27.6
			465	26.6
			445	23.6
			425	23.1
			405	22.6
			385	22.8
			365	24.9
			345	24.2
			325	24.7
			305	24.9
			285	26.6
			265	24.5
			245	16.1
			225	13.0
			205	20.0
			185	12.5
			105	0.0
07-02-83	1520	17.21	586	0.0
			580	3.2
			540	21.6
			500	31.6
			460	29.4
			420	28.5
			380	29.0
			340	28.6
			300	29.5
			260	27.0
			220	15.5
			180	16.5
			107	0.0
07-03-83	1150	17.17	586	0.0
			560	15.5
			520	22.4
			480	28.1
			440	25.0
			400	25.6
			360	26.3
			320	28.0
			280	29.5
			240	25.4
			200	24.4
			105	0.0
07-03-83	1600	17.18	586	0.0
			540	23.6
			500	31.0
			460	25.2
			420	25.7
			380	29.3
			340	29.7
			300	30.0
			260	28.5
			220	19.7
			180	17.5
			105	0.0
07-04-83	1705	17.14	586	0.0
			560	14.7
			520	32.4
			480	30.4
			440	24.3
			400	22.7
			360	25.1
			320	29.3
			280	29.7
			240	26.4
			200	22.7
			105	0.0
07-05-83	1045	17.21	587	0.0
			560	14.4
			520	33.2
			480	32.9
			440	36.2
			400	25.6
			360	29.1
			320	27.1
			280	29.0
			240	25.7
			200	24.0
			105	0.0
07-05-83	1515	17.04	587	0.0
			560	14.8
			520	31.1
			480	27.8
			440	24.2
			400	25.2
			360	28.5
			320	28.9
			280	28.8
			240	25.7

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
07-05-83	1515	(Continued)	200	22.2
			105	0.0
07-06-83	1045	16.71	583	0.0
			560	13.7
			520	30.2
			480	30.8
			440	26.8
			400	29.7
			360	28.2
			320	28.4
			280	28.0
			240	24.7
			200	23.5
			105	0.0
07-06-83	1625	16.35	583	0.0
			560	13.6
			520	35.0
			480	31.7
			440	29.1
			400	27.4
			360	26.9
			320	28.4
			280	27.4
			240	24.3
			200	22.4
			105	0.0
07-07-83	1035	16.19	584	0.0
			560	14.0
			520	29.5
			480	28.5
			440	28.3
			400	26.3
			360	25.6
			320	27.2
			280	27.2
			240	24.1
			200	22.0
			105	0.0
07-08-83	1150	15.05	582	0.0
			560	12.8
			520	28.2
			480	28.2
			440	31.5
			400	25.9
			360	25.6
			320	25.4
			280	25.3
			240	22.2
			200	20.0
			105	0.0
07-09-83	1710	14.56	581	0.0
			550	15.6
			510	29.9
			470	30.0
			430	30.1
			390	26.2
			350	25.4
07-09-83	1710	(Continued)	310	26.0
			270	24.9
			230	21.0
			190	19.6
			105	0.0
07-10-83	1100	14.52	581	0.0
			550	15.0
			510	30.5
			470	27.9
			430	28.3
			390	26.6
			350	26.1
			310	25.9
			270	24.8
			230	21.3
			190	20.2
			105	0.0
07-10-83	1515	14.53	580	0.0
			550	13.9
			510	30.4
			470	31.9
			430	28.4
			390	26.4
			350	25.9
			310	26.5
			270	25.3
			230	21.5
			190	20.5
			65	0.0
07-11-83	1030	14.54	580	0.0
			550	14.5
			510	30.8
			470	28.9
			430	30.2
			390	27.2
			350	25.9
			310	26.2
			270	25.4
			230	21.4
			190	20.5
			105	0.0
07-11-83	1420	14.71	582	0.0
			550	14.8
			510	30.3
			470	31.3
			430	29.3
			390	27.3
			350	26.4
			310	26.7
			270	25.6
			230	21.8
			190	18.7
			105	0.0
07-12-83	0820	14.86	581	0.0
			550	14.8
			510	30.9
			470	31.3

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
07-12-83	0820	(Continued)	430	28.3
			390	26.9
			350	26.3
			310	26.7
			270	25.7
			230	21.6
			190	18.5
			105	0.0
07-12-83	1345	14.84	581	0.0
			550	15.5
			510	30.7
			470	31.2
			430	30.5
			390	27.6
			350	26.3
			310	27.0
			270	25.5
			230	21.6
			190	20.5
			105	0.0
07-13-83	0830	14.88	581	0.0
			550	14.4
			510	31.2
			470	30.0
			430	29.9
			390	27.6
			350	26.2
			310	26.4
			270	25.6
			230	21.5
			190	20.4
			105	0.0
07-13-83	1350	14.92	581	0.0
			550	14.7
			510	30.5
			470	30.6
			430	29.3
			390	27.3
			350	26.3
			310	26.8
			270	25.5
			230	21.8
			190	20.2
			105	0.0
07-14-83	1150	14.90	581	0.0
			550	16.0
			510	31.1
			470	30.3
			430	30.5
			390	27.9
			350	26.1
			310	26.9
			270	25.7
			230	21.6
			190	17.8
			150	0.0
07-14-83	1525	14.92	581	0.0
			550	15.0
			510	31.0
			470	30.6
			430	31.0
			390	27.3
			350	26.1
			310	26.5
			270	25.5
			230	21.6
			190	20.4
			150	0.0
07-15-83	0815	14.92	581	0.0
			550	15.5
			510	31.0
			470	34.4
			430	29.6
			390	27.9
			350	26.5
			310	27.2
			270	26.1
			230	22.4
			190	19.5
			150	0.0
07-15-83	1720	14.96	580	0.0
			550	15.4
			510	31.3
			470	30.8
			430	30.3
			390	27.4
			350	26.6
			310	26.9
			270	25.6
			230	22.0
			190	20.4
			150	0.0
07-16-83	0815	14.95	581	0.0
			550	15.2
			510	31.0
			470	31.8
			430	30.5
			390	27.2
			350	26.4
			310	26.7
			270	29.7
			230	22.1
			190	21.0
			150	0.0
07-17-83	0930	14.92	581	0.0
			550	14.8
			510	31.1
			470	32.4
			430	30.3
			390	26.7
			350	26.1
			310	26.7
			270	25.7
			230	21.5

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
07-17-83	0930	(Continued)	190	20.6
			150	0.0
07-17-83	1320	14.71	581	0.0
			550	14.5
			510	27.9
			470	31.4
			430	29.3
			390	26.4
			350	25.9
			310	26.1
			270	25.3
			230	21.1
			190	19.2
			150	0.0
07-18-83	0855	14.61	581	0.0
			550	14.8
			510	30.8
			470	29.0
			430	29.5
			390	26.7
			350	25.9
			310	26.4
			270	25.1
			230	21.2
			190	19.4
			150	0.0
07-19-83	1150	14.35	581	0.0
			560	11.2
			520	26.9
			480	32.4
			440	29.3
			400	26.7
			360	25.2
			320	25.4
			280	25.3
			240	22.4
			200	19.9
			150	0.0
07-21-83	0930	13.36	580	0.0
			560	11.7
			520	27.4
			480	32.0
			440	29.2
			400	26.5
			360	25.0
			320	25.1
			280	24.9
			240	22.2
			200	19.7
			160	0.0
07-21-83	1510	13.38	580	0.0
			560	12.2
			520	26.9
			480	31.8
			440	29.5
			400	26.2
			360	24.8
07-21-83	1510	(Continued)	320	24.9
			280	24.9
			240	22.2
			200	19.5
			160	0.0
07-22-83	1530	13.38	580	0.0
			560	10.5
			520	26.2
			480	31.5
			440	28.0
			400	25.4
			360	24.0
			320	24.3
			280	23.8
			240	21.3
			200	18.7
			160	0.0
07-23-83	0930	13.31	580	0.0
			560	11.5
			520	25.2
			480	31.0
			440	28.2
			400	25.9
			360	24.5
			320	25.2
			280	24.6
			240	22.1
			200	19.2
			160	0.0
07-24-83	0945	13.67	580	0.0
			560	11.6
			520	27.9
			480	31.8
			440	28.8
			400	26.8
			360	25.3
			320	25.5
			280	25.0
			240	22.6
			200	19.2
			160	0.0
07-24-83	1230	13.67	580	0.0
			560	11.1
			520	26.6
			480	30.7
			440	28.3
			400	26.4
			360	25.0
			320	24.8
			280	24.8
			240	22.4
			200	19.6
			160	0.0
07-25-83	0900	13.87	580	0.0
			560	11.6
			520	26.8
			480	30.3

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
07-25-83	0900	(Continued)	440	28.8
			400	26.2
			360	24.4
			320	25.0
			280	24.4
			240	21.8
			200	19.4
			160	0.0
07-25-83	1530	13.70	580	0.0
			560	11.9
			520	26.9
			480	30.8
			440	29.0
			400	26.6
			360	25.2
			320	25.1
			280	24.6
			240	22.0
			200	19.7
			160	0.0
07-26-83	0850	13.67	580	0.0
			560	11.4
			520	25.8
			480	31.4
			440	27.4
			400	26.0
			360	24.4
			320	24.5
			280	24.3
			240	21.6
			200	19.1
			160	0.0
07-26-83	1230	13.66	580	0.0
			560	11.6
			520	26.3
			480	29.2
			440	28.6
			400	26.2
			360	25.1
			320	25.0
			280	24.7
			240	22.0
			200	19.6
			160	0.0
07-27-83	0830	13.66	580	0.0
			555	14.6
			515	29.1
			475	30.9
			435	28.1
			395	26.4
			355	24.8
			315	25.1
			245	24.4
			235	20.4
			195	19.8
			160	0.0
07-27-83	1020	13.63	580	0.0
07-17-83	1020	(Continued)	560	11.0
			520	27.1
			480	32.1
			440	28.1
			400	26.6
			360	24.9
			320	25.0
			280	24.6
			240	22.0
			200	19.6
			160	0.0
07-28-83	0800	13.30	579	0.0
			560	10.8
			520	26.8
			480	30.3
			440	27.3
			400	26.2
			360	24.4
			320	24.9
			280	24.6
			240	21.9
			210	13.6
			160	0.0
07-28-83	1650	13.44	579	0.0
			560	11.6
			520	26.6
			480	31.3
			440	28.2
			400	26.5
			360	24.9
			320	25.2
			280	24.6
			240	22.3
			200	19.2
			160	0.0
07-29-83	1845	13.45	578	0.0
			570	6.0
			550	13.1
			530	23.9
			510	29.1
			490	30.4
			470	30.3
			450	29.2
			430	28.4
			410	27.0
			390	25.4
			370	24.9
			350	24.6
			330	25.0
			310	24.8
			290	24.7
			270	23.9
			250	21.9
			230	19.9
			210	14.7
			178	13.4
			160	0.0
07-30-83	1025	13.49	578	0.0

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
07-30-83	1025	(Continued)	570	5.5
			550	17.4
			530	23.4
			510	29.1
			490	30.8
			470	32.1
			450	29.3
			430	27.5
			410	26.8
			390	25.2
			370	24.7
			350	24.6
			330	25.2
			310	24.7
			290	24.8
			270	23.9
			250	21.9
			230	19.8
			210	13.9
			195	19.6
			175	13.5
			160	0.0
07-30-83	1530	13.49	578	0.0
			570	6.4
			550	13.4
			530	23.4
			510	29.3
			490	30.8
			470	30.7
			450	29.2
			430	27.6
			410	26.8
			390	25.9
			370	25.4
			350	24.9
			330	25.3
			310	24.9
			290	25.1
			270	24.3
			250	23.2
			230	20.6
			210	13.3
			200	19.4
			160	0.0
07-31-83	0730	13.48	160	0.0
			185	16.4
			205	18.2
			225	19.9
			245	21.5
			265	23.8
			285	24.9
			305	25.1
			325	25.3
			345	24.7
			365	24.9
			385	25.4
			405	26.6
			425	23.4
			445	28.0
			465	30.6
07-31-83	0730	(Continued)	485	31.4
			505	28.9
			525	26.5
			545	16.8
			565	8.2
			578	0.0
08-01-83	1640	13.21	578	0.0
			565	9.1
			545	16.4
			525	26.4
			505	28.9
			485	29.8
			465	29.2
			445	28.3
			425	27.7
			405	26.2
			385	24.9
			365	24.5
			345	24.3
			325	24.8
			305	24.7
			285	24.2
			265	23.6
			245	21.1
			225	19.3
			205	17.5
			185	16.2
			167	0.0
08-02-83	1340	12.96	579	0.0
			570	5.3
			550	16.7
			530	23.8
			510	28.7
			490	29.8
			470	29.0
			450	28.4
			430	27.8
			410	26.9
			390	24.9
			370	24.3
			350	24.3
			330	24.5
			310	24.4
			290	23.8
			270	23.3
			250	21.2
			230	19.3
			210	12.9
			190	16.4
			167	0.0
08-03-83	0850	12.92	578	0.0
			570	5.4
			550	14.9
			530	22.8
			510	28.2
			490	28.7
			470	30.3
			450	28.4
			430	26.0

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-03-83	0850	(Continued)	410	25.4
			390	24.3
			370	24.1
			350	23.8
			330	24.4
			310	24.3
			290	23.7
			270	23.2
			250	21.0
			230	23.4
			210	12.4
			190	16.2
			180	12.2
			162	0.0
08-03-83	1450	12.92	579	0.0
			570	5.6
			560	10.8
			540	18.6
			520	26.7
			500	29.1
			480	30.4
			460	30.2
			440	27.5
			420	26.0
			400	25.8
			380	24.2
			360	24.3
			340	24.4
			320	24.6
			300	24.7
			280	23.9
			260	22.7
			240	21.4
			220	18.6
			200	18.5
			180	13.6
			162	0.0
08-04-83	0920	12.94	579	0.0
			560	10.9
			540	18.4
			520	24.9
			500	28.8
			480	29.8
			460	29.4
			440	28.0
			420	26.6
			400	26.0
			380	24.4
			360	24.4
			320	24.4
			300	24.4
			280	24.0
			260	22.4
			240	21.1
			220	18.1
			200	18.6
			162	0.0
08-10-83	1610	12.44	580	0.0
			560	10.2
08-10-83	1610	(Continued)	520	25.8
			480	29.7
			440	27.3
			400	25.0
			360	23.7
			320	23.6
			280	23.2
			240	21.1
			200	18.3
			170	0.0
08-12-83	1635	11.80	580	0.0
			560	9.8
			520	23.8
			480	29.1
			440	25.7
			400	24.3
			360	22.8
			320	23.1
			280	22.4
			240	19.5
			200	17.2
			170	0.0
08-13-83	1120	11.83	580	0.0
			560	8.5
			520	23.5
			480	28.4
			440	26.4
			400	25.2
			360	23.1
			320	23.4
			280	23.0
			240	20.9
			200	17.8
			170	0.0
08-13-83	1610	11.80	580	0.0
			560	8.9
			520	23.5
			480	28.6
			440	26.4
			400	24.5
			360	22.7
			320	23.2
			280	22.5
			240	20.0
			190	15.0
			170	0.0
08-14-83	1555	11.81	580	0.0
			560	10.2
			520	23.8
			480	28.9
			440	26.0
			400	24.2
			360	22.9
			320	23.7
			280	22.6
			240	20.4
			200	17.4
			170	0.0

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-15-83	1130	11.82	580	0.0
			560	9.0
			520	22.7
			480	28.2
			440	26.1
			400	23.8
			360	22.8
			320	22.8
			280	22.2
			240	20.1
			200	17.1
			170	0.0
08-15-83	1630	11.80	580	0.0
			560	9.8
			520	23.4
			480	28.6
			440	26.2
			400	23.9
			360	22.7
			320	22.8
			280	22.5
			240	19.6
			200	17.3
			170	0.0
08-16-83	1050	11.82	580	0.0
			560	9.2
			520	23.2
			480	27.9
			440	26.4
			400	24.3
			360	22.8
			320	22.8
			280	22.4
			240	20.1
			200	17.2
			170	0.0
08-16-83	1605	11.86	580	0.0
			560	9.1
			520	23.8
			480	28.4
			440	26.0
			400	23.9
			360	22.8
			320	22.9
			280	22.4
			240	20.0
			200	16.9
			170	0.0
08-18-83	1320	11.92	580	0.0
			560	10.0
			520	23.6
			480	28.9
			440	25.8
			400	24.2
			360	22.9
			320	23.4
			280	22.4
			240	19.9
08-18-83	1320	(Continued)	200	17.4
			170	0.0
08-19-83	1200	11.93	580	0.0
			560	9.2
			520	23.2
			480	28.2
			440	25.8
			400	23.8
			360	22.8
			320	22.9
			280	22.5
			240	20.0
			200	17.5
			170	0.0
08-19-83	1745	11.93	577	0.0
			560	9.5
			520	25.4
			480	29.3
			440	27.4
			400	24.8
			360	23.4
			320	23.3
			280	22.4
			240	20.3
			200	17.2
			170	0.0
08-20-83	0850	11.94	577	0.0
			560	9.4
			520	25.7
			480	28.3
			440	26.9
			400	25.1
			360	22.8
			320	23.0
			280	22.7
			240	20.1
			200	17.1
			165	0.0
08-20-83	1545	11.92	577	0.0
			560	9.4
			520	24.0
			480	29.4
			440	16.0
			400	24.5
			360	22.7
			320	22.8
			280	22.4
			240	20.1
			200	17.1
			165	0.0
08-21-83	0756	11.94	577	0.0
			560	9.7
			520	24.2
			480	28.5
			440	26.9
			400	24.1
			360	22.9

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
06-29-83	1500	18.01	590	0.0
08-21-83	0756	(Continued)	320	22.8
			280	22.6
			240	19.6
			200	17.6
			165	0.0
08-21-83	1630	11.94	577	0.0
			560	9.3
			520	23.7
			480	28.7
			440	26.3
			400	24.5
			360	22.6
			320	22.7
			280	22.4
			240	19.9
			200	17.1
			165	0.0
08-22-83	0738	11.87	577	0.0
			560	10.5
			520	25.8
			480	28.3
			440	26.7
			400	24.7
			360	22.9
			320	23.0
			280	22.7
			240	21.1
			200	17.4
			165	0.0
08-22-83	1807	11.95	577	0.0
			560	9.6
			520	24.8
			480	27.8
			440	26.7
			400	24.8
			360	22.4
			320	23.3
			280	22.5
			240	20.3
			200	17.4
			165	0.0
08-23-83	0830	11.94	577	0.0
			560	9.3
			520	25.0
			480	29.3
			440	26.4
			400	24.7
			360	23.2
			320	23.2
			280	22.7
			240	20.0
			200	17.3
			165	0.0
08-23-83	1820	11.94	577	0.0
			560	9.5
			520	23.9
			480	28.0
07-03-83	1150	17.17	586	0.0
08-23-83	1820	(Continued)	440	26.9
			400	24.4
			360	27.6
			320	22.8
			280	22.2
			240	19.8
			200	17.4
			165	0.0
08-24-83	0815	11.96	577	0.0
			560	8.9
			520	26.0
			480	29.3
			440	26.5
			400	24.4
			360	23.0
			320	22.9
			280	22.5
			240	20.1
			200	17.5
			165	0.0
08-25-83	1023	10.84	577	0.0
			560	8.8
			520	22.3
			480	27.3
			440	26.5
			400	23.8
			360	21.9
			320	21.9
			280	21.7
			240	19.1
			200	15.3
			165	0.0
08-25-83	1840	11.98	577	0.0
			560	9.2
			520	25.2
			480	28.1
			440	25.8
			400	24.5
			360	22.6
			320	22.8
			280	22.4
			240	19.7
			200	17.2
			165	0.0
08-26-83	0920	12.01	577	0.0
			560	10.7
			520	25.3
			480	29.2
			440	25.5
			400	24.5
			360	22.8
			320	23.4
			280	22.9
			240	20.2
			200	17.5
			165	0.0
08-27-83	1110	12.04	577	0.0

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-27-83	1110	(Continued)	560	10.8
			520	25.6
			480	29.3
			440	26.3
			400	24.5
			360	23.2
			320	23.1
			280	22.4
			240	20.2
			200	17.7
			165	0.0
08-27-83	1810	11.98	577	0.0
			550	15.4
			520	25.2
			490	29.0
			460	27.4
			430	26.4
			400	24.5
			370	23.3
			340	22.9
			310	22.6
			280	22.7
			250	20.0
			220	17.4
			190	15.0
			163	0.0
08-28-83	1000	12.03	578	0.0
			565	7.1
			545	14.8
			525	25.1
			505	27.5
			485	28.2
			465	28.2
			445	26.8
			425	25.9
			405	25.5
			385	24.1
			365	23.4
			345	23.3
			325	23.5
			305	28.6
			285	23.2
			265	21.9
			245	19.7
			225	18.4
			205	15.9
			165	0.0
08-30-83	0805	11.98	577	0.0
			565	7.3
			545	14.4
			525	25.0
			505	27.1
			485	28.5
			465	27.8
			445	26.5
			425	25.8
			405	24.7
			385	23.5
			365	23.1
08-30-83	0805	(Continued)	345	22.6
			325	23.4
			305	23.3
			285	22.8
			265	21.6
			245	19.2
			225	18.0
			205	15.9
			163	0.0
08-31-83	0905	12.05	577	0.0
			565	7.2
			545	14.9
			525	24.5
			505	26.8
			485	28.6
			465	28.4
			445	27.3
			425	25.5
			405	25.4
			385	23.9
			365	23.5
			345	23.2
			325	23.6
			305	23.6
			285	23.1
			265	21.8
			245	19.9
			220	18.0
			205	15.9
			165	0.0
09-01-83	0950	12.04	577	0.0
			565	7.4
			545	14.5
			525	25.0
			505	26.9
			485	28.8
			465	28.6
			445	27.3
			425	25.5
			405	25.1
			385	23.6
			365	23.0
			345	22.8
			325	23.4
			305	23.6
			285	22.8
			265	21.9
			245	19.8
			225	18.4
			205	16.5
			165	0.0
09-02-83	1130	12.05	577	0.0
			565	7.2
			545	15.2
			525	25.0
			505	27.7
			485	29.1
			465	28.7
			445	27.3

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-02-83	1130	12.05	425	25.3
			405	24.4
			385	24.0
			365	23.3
			345	22.7
			325	23.5
			305	23.4
			285	23.1
			265	21.9
			245	19.8
			225	18.2
			205	16.0
			165	0.0
09-03-83	1905	11.98	577	0.0
			565	7.3
			545	14.5
			525	25.0
			505	26.4
			485	28.8
			465	28.5
			445	26.4
			425	24.8
			405	24.7
			385	23.5
			365	22.8
			345	22.9
			325	23.3
			305	22.9
			285	21.9
			265	21.5
			245	19.9
			225	18.4
			205	16.0
			165	0.0
09-04-83	0815	12.02	577	0.0
			565	6.9
			545	15.0
			525	25.3
			505	27.5
			485	28.8
			465	28.5
			445	26.2
			425	25.5
			405	25.3
			385	23.9
			365	23.3
			345	22.8
			325	23.6
			305	23.4
			285	22.9
			265	22.1
			245	19.8
			225	18.3
			205	16.4
			165	0.0
09-05-83	0815	11.78	576	0.0
			565	6.9
			545	14.6
			525	24.9
09-05-83	0815	(Continued)	505	26.9
			485	28.4
			465	27.8
			445	26.2
			425	24.9
			405	24.4
			385	23.2
			365	22.7
			345	22.2
			325	22.7
			305	23.1
			285	22.4
			265	21.0
			245	19.5
			225	18.0
			205	16.1
			165	0.0
09-05-83	1530	12.08	165	0.0
			205	16.5
			225	18.3
			245	19.9
			265	22.2
			285	22.8
			305	23.4
			325	23.6
			345	23.0
			365	23.3
			385	23.8
			405	24.9
			425	25.4
			445	26.8
			465	28.3
			485	28.8
			505	27.5
			525	25.3
			545	19.9
			565	7.1
			577	0.0
09-06-83	1350	11.27	579	0.0
			560	8.8
			540	16.4
			520	22.9
			500	26.9
			480	27.8
			460	26.6
			440	25.4
			420	24.6
			400	23.6
			380	22.7
			360	22.0
			340	22.1
			320	22.4
			300	22.4
			280	21.7
			260	20.2
			240	18.9
			220	16.1
			162	0.0
09-07-83	0850	12.06	162	0.0

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-07-83	0850	(Continued)	200	17.4
			220	17.2
			240	20.1
			260	21.3
			280	22.5
			300	23.3
			320	23.1
			340	22.9
			360	23.1
			380	23.2
			400	24.4
			420	24.6
			440	25.8
			460	27.2
			480	28.7
			500	27.7
			520	23.5
			540	18.4
			560	9.6
			579	0.0
09-08-83	0820	12.10	579	0.0
			560	9.4
			540	18.9
			520	24.3
			500	27.9
			480	29.0
			460	27.7
			440	26.4
			420	26.4
			400	24.8
			380	23.8
			360	23.4
			340	23.4
			320	23.7
			300	23.8
			280	23.2
			260	21.6
			240	20.7
			220	17.8
			200	18.3
			162	0.0
09-08-83	1355	12.10	579	0.0
			560	9.6
			540	18.5
			520	23.9
			500	27.7
			480	28.4
			460	27.3
			440	26.6
			420	25.5
			400	24.7
			380	23.5
			360	23.0
			340	22.8
			320	23.2
			300	23.4
			280	22.7
			260	21.4
			240	20.4
			220	17.5
09-08-83	1355	(Continued)	200	17.4
			162	0.0
09-09-83	0925	12.08	579	0.0
			560	9.5
			540	18.4
			520	23.9
			500	27.7
			480	27.9
			460	27.4
			440	26.7
			420	25.7
			400	24.8
			380	23.4
			360	22.8
			340	23.1
			320	23.2
			300	23.6
			280	22.5
			260	21.2
			240	20.5
			220	17.6
			200	17.6
			162	0.0
09-10-83	0830	11.86	579	0.0
			560	9.3
			540	17.4
			520	23.3
			500	27.4
			480	28.5
			460	28.2
			440	26.2
			420	24.4
			400	24.0
			380	23.4
			360	22.9
			340	22.7
			320	23.2
			300	23.4
			280	22.7
			260	21.1
			240	19.9
			220	17.3
			200	17.5
			162	0.0
09-10-83	1140	11.92	579	0.0
			560	9.4
			540	18.8
			520	23.4
			500	27.6
			480	28.7
			460	27.6
			440	26.3
			420	24.7
			400	24.5
			380	23.2
			360	22.9
			340	22.9
			320	23.1
			300	23.4

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-10-83	1140	(Continued)	280	22.4
			260	21.2
			240	20.1
			220	17.0
			200	17.6
			162	0.0
09-11-83	0815	11.80	579	0.0
			560	9.4
			540	18.3
			520	23.4
			500	27.2
			480	27.7
			460	27.9
			440	26.5
			420	26.0
			400	24.2
			380	23.1
			360	22.7
			340	22.6
			320	23.0
			300	23.0
			280	22.4
			260	21.0
			240	19.6
			220	17.3
			200	17.5
			162	0.0
09-12-83	0835	11.95	579	0.0
			560	9.6
			540	17.3
			520	23.7
			500	27.6
			480	28.5
			460	28.3
			440	26.2
			420	25.4
			400	24.3
			380	23.1
			360	22.7
			340	22.8
			320	23.2
			300	23.2
			280	22.6
			260	21.3
			240	20.0
			220	17.4
			200	17.5
			162	0.0
09-12-83	1155	11.93	579	0.0
			560	9.4
			540	17.3
			520	23.7
			500	27.3
			480	28.8
			460	28.7
			440	26.4
			420	25.5
			400	24.6
			380	23.4
09-12-83	1155	(Continued)	360	22.9
			340	23.1
			320	23.2
			300	23.2
			280	22.5
			260	21.2
			240	20.1
			220	17.3
			200	17.4
			162	0.0
09-13-83	0825	12.08	578	0.0
			560	9.4
			540	17.4
			520	23.8
			500	27.7
			480	28.8
			460	27.7
			440	25.9
			420	25.0
			400	24.6
			380	23.5
			360	23.0
			340	23.1
			320	23.2
			300	23.4
			280	22.8
			260	21.5
			240	20.2
			220	17.3
			200	17.6
			160	0.0
09-14-83	0820	12.08	578	0.0
			560	9.4
			540	18.4
			520	23.7
			500	27.7
			480	28.8
			460	27.9
			440	26.2
			420	25.2
			400	24.7
			380	23.6
			360	23.2
			340	23.1
			320	23.2
			300	23.4
			280	22.7
			260	21.4
			240	20.0
			220	17.5
			200	17.7
			160	0.0
09-14-83	1150	12.06	160	0.0
			200	17.7
			220	17.4
			240	20.4
			260	21.3
			280	22.8
			300	23.4

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-14-83	1150	(Continued)	320	23.3
			340	23.0
			360	23.2
			380	23.4
			400	24.2
			420	25.6
			440	25.6
			460	27.4
			480	28.9
			500	27.8
			520	23.4
			540	15.4
			560	9.4
			578	0.0
09-16-83	0940	11.92	576	0.0
			550	15.4
			530	22.1
			510	26.8
			490	27.6
			470	27.9
			450	27.3
			430	25.2
			410	25.2
			390	23.7
			370	23.2
			350	22.8
			330	20.4
			310	22.4
			290	22.7
			270	22.0
			250	19.8
			230	17.9
			210	11.4
			190	14.7
			164	0.0
09-16-83	1550	11.97	576	0.0
			550	15.2
			530	21.7
			510	27.3
			490	27.9
			470	28.3
			450	27.6
			430	25.5
			410	24.6
			390	23.9
			370	22.8
			350	22.5
			330	23.0
			310	22.4
			290	22.8
			270	22.0
			250	19.8
			230	17.8
			210	11.2
			190	16.9
			164	0.0
09-17-83	0852	12.03	576	0.0
			550	14.2
			530	22.9
09-17-83	0852	(Continued)	510	27.2
			490	28.6
			470	29.3
			450	27.6
			430	25.1
			410	24.5
			390	23.5
			370	22.9
			350	22.8
			330	23.3
			310	22.3
			290	22.9
			270	22.1
			250	20.0
			230	18.2
			210	11.2
			190	14.6
			164	0.0
09-18-83	0920	12.02	576	0.0
			550	11.3
			530	21.6
			510	27.6
			490	28.4
			470	28.2
			450	26.9
			430	26.5
			410	25.2
			390	23.8
			370	22.7
			350	22.3
			330	23.1
			310	22.7
			290	22.8
			270	21.9
			250	20.0
			230	18.0
			210	11.3
			190	15.0
			164	0.0
09-18-83	1555	11.98	576	0.0
			550	14.6
			530	22.1
			510	27.4
			490	27.8
			470	28.1
			450	26.7
			430	25.4
			410	25.3
			390	23.6
			370	22.8
			350	22.7
			330	23.3
			310	22.6
			290	22.8
			270	21.9
			250	19.5
			230	17.8
			210	10.8
			190	15.9
			164	0.0

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-19-83	0905	11.98	576	0.0
			550	15.4
			530	21.6
			510	27.4
			490	28.0
			470	28.0
			450	26.7
			430	26.5
			410	25.4
			390	23.9
			370	23.1
			350	22.8
			330	23.0
			310	22.3
			290	22.7
			270	21.9
			250	20.0
			230	18.0
			210	11.3
			190	14.4
			164	0.0
09-20-83	0830	12.02	576	0.0
			550	15.7
			530	21.9
			510	27.3
			490	28.0
			470	27.9
			450	26.8
			430	27.1
			410	25.2
			390	23.1
			370	22.8
			350	22.4
			330	23.4
			310	22.3
			290	22.7
			270	21.8
			250	18.9
			230	18.2
			210	11.4
			190	14.6
			164	0.0
09-21-83	0830	12.03	576	0.0
			550	14.9
			530	23.2
			510	27.4
			490	28.5
			470	28.6
			450	27.0
			430	25.3
			410	24.2
			390	23.7
			370	23.0
			350	22.7
			330	23.4
			310	22.6
			290	22.5
			270	22.1
			250	20.0
			230	17.8
09-21-83	0830	(Continued)	210	11.5
			190	14.6
			164	0.0
09-30-83	1620	11.90	577	0.0
			550	15.1
			530	22.2
			510	17.2
			490	28.2
			470	28.6
			450	27.6
			430	25.2
			410	23.3
			390	23.6
			370	23.2
			350	22.8
			330	23.3
			310	22.5
			290	23.2
			270	22.2
			250	19.9
			230	18.0
			210	12.0
			190	15.0
			165	0.0
10-02-83	1130	12.02	577	0.0
			550	15.7
			530	22.6
			510	27.2
			490	27.6
			470	27.4
			450	25.0
			430	24.2
			410	23.9
			390	23.6
			370	23.3
			350	22.8
			330	23.2
			310	22.6
			290	23.2
			270	22.1
			250	20.0
			230	18.1
			210	11.4
			190	16.8
			164	00.0
10-06-83	0930	11.94	578	0.0
			560	9.3
			540	18.2
			520	23.7
			500	27.4
			480	29.3
			460	28.1
			440	27.2
			420	25.8
			400	24.6
			380	23.4
			360	22.9
			340	22.8
			320	23.0

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-06-83	0930	(Continued)	300	23.0
			280	22.2
			260	20.8
			240	20.0
			220	16.3
			200	17.3
			169	0.0
10-07-83	1055	11.94	578	0.0
			555	12.6
			535	18.3
			515	26.1
			495	28.0
			475	28.5
			455	27.1
			435	26.4
			415	25.8
			395	23.8
			375	23.0
			355	22.7
			335	22.9
			315	22.9
			295	23.2
			275	22.4
			255	20.8
			235	18.5
			215	15.0
			195	16.5
			169	0.0
10-07-83	1320	12.01	578	0.0
			555	12.5
			535	19.8
			515	26.6
			495	28.0
			475	29.7
			455	28.5
			435	27.8
			415	26.2
			395	24.7
			375	23.2
			355	22.6
			335	22.9
			315	23.0
			295	22.7
			275	22.2
			255	20.5
			235	18.0
			215	15.0
			195	16.8
			169	0.0
10-08-83	1010	12.01	578	0.0
			555	11.9
			535	18.7
			515	26.6
			495	27.9
			475	28.7
			455	28.9
			435	28.1
			415	26.5
			395	23.9
10-08-83	1010	(Continued)	375	23.1
			355	22.5
			335	22.9
			315	23.2
			295	23.2
			275	22.1
			255	19.6
			235	18.2
			215	10.9
			195	16.3
			169	0.0
10-08-83	1725	12.01	578	0.0
			555	12.7
			535	19.1
			515	26.5
			495	28.1
			475	29.9
			455	28.3
			435	27.7
			415	24.9
			395	23.8
			375	23.2
			355	22.6
			335	22.9
			315	22.9
			295	23.1
			275	22.5
			255	20.2
			235	17.9
			215	14.4
			195	16.5
			169	0.0
10-09-83	1040	11.98	578	0.0
			555	12.7
			535	18.4
			515	26.7
			495	27.5
			475	27.5
			455	26.5
			435	24.5
			415	22.9
			395	22.7
			375	22.8
			355	22.5
			335	22.6
			315	22.9
			295	23.1
			275	22.9
			255	20.6
			235	18.2
			215	15.2
			195	16.2
			168	0.0
10-10-83	1705	11.96	578	0.0
			555	12.5
			535	18.1
			515	27.0
			495	27.5
			475	28.1

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-10-83	1705	(Continued)	455	25.3
			435	24.8
			415	23.7
			395	22.9
			375	23.0
			355	22.4
			335	22.6
			315	22.9
			295	22.9
			275	22.1
			255	20.2
			235	17.6
			215	14.5
			195	16.2
			168	0.0
10-11-83	1545	11.44	578	0.0
			555	12.1
			535	18.6
			515	25.9
			495	27.5
			475	27.4
			455	24.8
			435	23.3
			415	22.7
			395	22.6
			375	22.4
			355	22.2
			335	21.9
			315	22.6
			295	22.4
			275	21.7
			255	19.8
			235	17.5
			215	14.2
			195	16.0
			168	0.0
10-12-83	1720	11.45	578	0.0
			555	12.5
			535	18.8
			515	26.0
			495	27.6
			475	28.1
			455	25.4
			435	23.4
			415	23.3
			395	22.7
			375	22.6
			355	22.3
			335	22.3
			315	22.4
			295	22.6
			275	21.9
			255	19.8
			235	18.2
			215	14.5
			195	16.1
			168	0.0
10-13-83	1045	11.44	578	0.0
			555	12.1
10-13-83	1045	(Continued)	535	18.1
			515	26.2
			495	27.3
			475	28.2
			455	25.4
			435	23.7
			415	22.9
			395	22.8
			375	22.7
			355	22.1
			335	22.1
			315	22.5
			295	22.6
			275	22.0
			255	19.8
			235	17.3
			215	14.1
			195	15.9
			168	0.0
10-13-83	1045	11.46	578	0.0
			555	12.4
			535	17.9
			515	26.5
			495	27.5
			475	28.1
			455	26.2
			435	24.1
			415	23.4
			395	22.8
			375	22.6
			355	22.1
			335	22.1
			315	22.2
			295	22.5
			275	21.8
			255	19.6
			235	17.2
			215	14.2
			195	16.0
			168	0.0
11-05-83	0950	11.97	576	0.0
			550	15.4
			530	23.6
			510	27.6
			490	28.8
			470	28.4
			450	26.7
			430	25.8
			410	25.1
			390	24.0
			370	23.3
			350	23.0
			330	23.7
			310	23.0
			290	23.0
			270	22.4
			250	20.1
			230	17.8
			210	12.1
			190	15.3

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-05-83	0950	(Continued)	168	0.0
11-07-83	1028	11.48	576	0.0
			550	14.7
			530	22.2
			510	27.1
			490	28.0
			470	28.4
			450	27.2
			430	24.9
			410	24.4
			390	23.5
			370	22.6
			350	22.1
			330	22.8
			310	22.6
			290	22.5
			270	21.6
			250	19.4
			230	17.6
			210	11.2
			190	14.5
			166	0.0
11-07-83	1625	11.47	576	0.0
			550	14.6
			530	21.8
			510	27.4
			490	28.3
			470	28.3
			450	27.1
			430	25.4
			410	24.5
			390	23.7
			370	22.5
			350	22.6
			330	23.1
			310	22.6
			290	22.7
			270	21.7
			250	19.2
			230	17.4
			210	10.6
			190	13.9
			166	0.0
11-08-83	1515	11.50	576	0.0
			550	14.5
			530	21.6
			510	26.5
			490	27.7
			470	28.6
			450	26.4
			430	24.9
			410	24.2
			390	22.5
			370	22.5
			350	22.2
			330	22.7
			310	22.0
			290	22.3
			270	21.4
11-08-83	1515	(Continued)	250	19.1
			230	17.3
			210	10.8
			190	13.9
			166	0.0
11-09-83	1525	11.48	576	0.0
			550	14.6
			530	22.2
			510	27.0
			490	28.1
			470	28.2
			450	27.2
			430	24.9
			410	24.1
			390	23.1
			370	22.4
			350	22.3
			330	22.8
			310	21.9
			290	22.5
			270	21.7
			250	19.4
			230	17.4
			210	11.1
			190	14.2
			166	0.0
11-10-83	1020	11.34	576	0.0
			190	13.8
			210	10.9
			230	17.1
			250	19.0
			270	21.2
			290	21.7
			310	22.4
			330	22.4
			350	22.2
			370	22.4
			390	22.8
			410	23.4
			430	24.3
			450	26.5
			470	27.6
			490	28.1
			510	26.4
			530	20.7
			550	13.1
			166	0.0
11-10-83	1530	11.40	576	0.0
			550	14.5
			530	20.9
			510	26.6
			490	27.8
			470	27.8
			450	26.8
			430	24.5
			410	23.6
			390	23.2
			370	22.2
			350	22.0

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-10-83	1530	(Continued)	330	22.6
			310	21.7
			290	22.4
			270	21.3
			250	19.2
			230	17.3
			210	11.0
			190	14.4
			166	0.0
11-11-83	0910	11.42	576	0.0
			576	0.0
			550	13.2
			530	21.3
			510	26.6
			490	28.0
			470	27.9
			450	26.6
			430	24.1
			410	23.9
			390	23.1
			370	22.4
			350	22.2
			330	22.8
			310	21.8
			290	22.2
			270	21.5
			250	19.1
			230	19.4
			210	11.1
			190	14.3
			166	0.0
11-12-83	0930	11.43	550	14.8
			530	21.3
			510	26.6
			490	28.0
			470	27.8
			450	25.0
			430	24.6
			410	24.3
			390	22.9
			370	22.2
			350	22.2
			330	23.0
			310	21.9
			290	22.3
			270	21.4
			250	19.2
			230	17.4
			210	10.4
			190	13.6
			166	0.0
11-12-83	0930	11.43	576	0.0
			550	14.8
			530	21.3
			510	26.6
			490	28.0
			470	27.8
			450	25.0
			430	24.6
11-12-83	0930	(Continued)	410	24.3
			390	22.9
			370	22.2
			350	22.2
			330	23.0
			310	21.9
			290	22.3
			270	21.4
			250	19.2
			230	17.4
			210	10.4
			190	13.9
			166	0.0
11-13-83	0920	11.49	576	0.0
			550	14.4
			530	21.4
			510	26.7
			490	28.0
			470	26.9
			450	25.2
			430	24.9
			410	23.8
			390	23.2
			370	22.4
			350	22.2
			330	22.9
			310	22.4
			290	22.5
			270	21.7
			250	19.4
			230	17.7
			210	11.2
			190	13.9
			166	0.0
11-14-83	1620	11.09	578	0.0
			550	14.1
			530	21.7
			510	26.4
			490	26.7
			470	26.7
			450	24.2
			430	23.2
			410	22.2
			390	22.9
			370	22.2
			350	21.7
			330	22.3
			310	21.6
			290	22.2
			270	21.0
			250	18.6
			230	16.8
			210	10.5
			190	14.5
			167	0.0
11-15-83	0915	11.38	578	0.0
			550	14.8
			530	21.5
			510	26.6

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-15-83	0915	(Continued)	490	27.2
			470	26.8
			450	25.1
			430	24.5
			410	23.4
			390	23.1
			370	22.1
			350	22.3
			330	22.8
			310	21.8
			290	22.4
			270	21.3
			250	19.1
			230	17.3
			210	11.2
			190	14.4
			167	0.0
11-16-83	1100	11.46	578	0.0
			550	14.4
			530	21.9
			510	26.5
			490	26.6
			470	26.8
			450	26.2
			430	24.2
			410	23.8
			390	23.1
			370	22.5
			350	22.3
			330	22.7
			310	22.1
			290	22.6
			270	21.4
			250	19.2
			230	17.3
			210	10.8
			190	14.1
			167	0.0
11-17-83	0945	11.35	578	0.0
			550	14.9
			530	22.1
			510	26.1
			490	27.1
			470	27.2
			450	25.5
			430	25.1
			410	24.7
			390	23.2
			370	22.5
			350	22.1
			330	22.7
			310	22.0
			290	22.1
			270	21.7
			250	18.9
			230	17.3
			210	11.5
			190	14.8
			167	0.0
11-18-83	1045	11.28	578	0.0
			550	13.8
			530	21.7
			510	26.5
			490	27.1
			470	26.9
			450	25.8
			430	25.3
			410	24.2
			390	23.1
			370	22.5
			350	22.2
			330	22.6
			310	21.8
			290	22.0
			270	21.2
			250	19.0
			230	17.1
			210	11.2
			190	14.1
			167	0.0
11-18-83	1440	11.23	578	0.0
			550	14.6
			530	21.9
			510	26.5
			490	27.4
			470	26.9
			450	26.5
			430	25.0
			410	24.3
			390	23.0
			370	22.5
			350	22.0
			330	22.3
			310	21.7
			290	21.8
			270	21.2
			250	18.9
			230	17.1
			210	11.1
			190	13.9
			167	0.0
11-19-83	1000	11.40	578	0.0
			550	11.6
			530	21.5
			510	26.6
			490	27.7
			470	28.1
			450	26.7
			430	25.2
			410	23.4
			390	23.2
			370	22.6
			350	22.0
			330	22.5
			310	21.9
			290	22.4
			270	21.4
			250	19.5
			230	17.4

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-19-83	1000	(Continued)	210	11.1
			190	14.5
			167	0.0
11-20-83	1000	11.50	578	0.0
			550	14.9
			530	21.9
			510	26.7
			490	27.6
			470	27.2
			450	25.9
			430	24.7
			410	24.4
			390	23.0
			370	22.5
			350	22.3
			330	22.9
			310	22.2
			290	21.8
			270	21.6
			250	19.5
			230	17.1
			210	11.8
			190	14.4
			167	0.0
11-21-83	0915	11.47	167	0.0
			190	14.4
			210	11.1
			230	17.5
			250	19.4
			270	21.5
			290	22.3
			310	21.9
			330	22.7
			350	22.1
			370	23.6
			390	23.1
			410	23.5
			430	24.1
			450	26.1
			470	27.2
			490	27.2
			510	26.9
			530	21.7
			550	15.1
			578	0.0
11-22-83	0915	11.41	578	0.0
			550	14.7
			530	22.1
			510	26.7
			490	27.3
			470	27.6
			450	25.3
			430	24.2
			410	23.1
			390	23.2
			370	22.5
			350	22.2
			330	22.7
			310	22.2
11-22-83	0915	(Continued)	290	22.4
			270	22.6
			250	19.4
			230	17.1
			210	11.1
			190	14.2
			167	0.0
11-22-83	1535	11.41	578	0.0
			550	14.4
			530	22.3
			510	26.7
			490	27.2
			470	27.5
			450	25.4
			430	23.8
			410	22.8
			390	23.3
			370	22.6
			350	22.9
			330	22.7
			310	22.0
			290	22.3
			270	21.6
			250	19.4
			230	17.3
			210	11.1
			190	14.4
			167	0.0
11-23-83	0925	11.41	578	0.0
			550	15.0
			530	21.8
			510	26.6
			490	27.7
			470	27.7
			450	25.6
			430	23.8
			410	24.2
			390	23.3
			370	22.1
			350	22.2
			330	22.8
			310	22.8
			290	22.5
			270	21.4
			250	19.4
			230	17.4
			210	11.1
			190	14.2
			167	0.0
11-27-83	1545	11.43	165	0.0
			190	16.1
			210	11.1
			230	17.4
			250	19.3
			270	21.6
			290	22.6
			310	22.9
			330	22.6
			350	22.6

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-27-83	1545	(Continued)	370	22.8
			390	23.6
			410	25.1
			430	26.9
			450	26.6
			470	27.3
			490	28.6
			510	26.9
			530	22.2
			550	15.1
			579	0.0
11-28-83	0845	11.46	579	0.0
			550	15.0
			530	22.2
			510	26.8
			490	28.2
			470	27.7
			450	27.2
			430	26.7
			410	25.2
			390	23.3
			370	22.6
			350	22.5
			330	22.9
			310	22.8
			290	22.4
			270	21.5
			250	19.6
			230	17.6
			210	11.2
			190	14.8
			165	0.0
11-29-83	0930	11.46	579	0.0
			550	14.9
			530	22.6
			510	27.0
			490	27.7
			470	28.1
			450	28.5
			430	26.9
			410	25.2
			390	23.2
			370	22.6
			350	22.2
			330	23.1
			310	22.2
			290	22.5
			270	21.5
			250	19.4
			230	17.3
			210	11.5
			190	14.8
			164	0.0
11-29-83	1500	11.41	579	0.0
			550	14.6
			530	21.3
			510	27.0
			490	26.7
			470	28.3
11-29-83	1500	(Continued)	450	28.5
			430	26.8
			410	25.1
			390	22.9
			370	22.4
			350	22.1
			330	22.6
			310	22.2
			290	22.3
			270	21.5
			250	19.1
			230	17.4
			210	11.1
			190	15.5
			164	0.0
11-30-83	0905	11.43	164	0.0
			190	14.4
			210	10.9
			230	17.3
			250	19.2
			270	21.6
			290	22.4
			310	22.4
			330	23.0
			350	22.2
			370	22.3
			390	23.2
			410	25.1
			430	26.9
			450	28.8
			470	29.0
			490	28.6
			510	26.8
			530	22.4
			550	15.1
			579	0.0
11-30-83	0940	11.44	579	0.0
			550	14.6
			530	21.2
			510	26.9
			490	28.5
			470	28.9
			450	28.5
			430	26.8
			410	24.8
			390	23.1
			370	22.6
			350	22.2
			330	22.5
			310	23.1
			290	22.3
			270	21.4
			250	19.2
			230	17.2
			210	11.4
			190	14.4
			164	0.0
12-01-83	0930	11.44	579	0.0
			550	14.7

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-01-83	0930	(Continued)	530	21.8
			510	26.8
			490	28.9
			470	29.2
			450	28.1
			430	25.7
			410	24.3
			390	23.2
			370	22.5
			350	22.3
			330	23.2
			310	22.4
			290	22.5
			270	21.4
			250	18.9
			230	17.5
			210	11.0
			190	14.9
			164	0.0
12-02-83	1020	11.46	164	0.0
			190	14.8
			210	11.0
			230	17.3
			250	19.4
			270	21.3
			290	22.5
			310	22.4
			330	22.9
			350	22.5
			370	22.7
			390	23.2
			410	23.9
			430	25.1
			450	28.2
			470	30.1
			490	28.8
			510	26.9
			530	22.4
			550	14.9
			579	0.0
12-02-83	1125	11.46	579	0.0
			550	15.0
			530	24.6
			510	26.9
			490	30.1
			470	30.2
			450	27.5
			430	25.3
			410	24.1
			390	22.9
			370	22.8
			350	22.2
			330	22.9
			310	23.0
			290	22.3
			270	22.5
			250	19.6
			230	17.4
			210	10.5
			190	14.9
12-02-83	1125	(Continued)	164	0.0
12-03-83	1110	11.43	579	0.0
			550	21.4
			510	26.9
			490	28.3
			470	29.1
			450	28.0
			430	25.5
			410	24.8
			390	23.1
			370	22.5
			350	22.2
			330	22.7
			310	22.3
			290	22.2
			270	21.6
			250	19.0
			230	17.3
			210	11.1
			190	14.5
			164	0.0
12-04-83	0950	11.44	164	0.0
			190	14.7
			210	11.4
			230	17.4
			250	19.4
			270	21.3
			290	22.4
			310	22.5
			330	22.6
			350	22.2
			370	22.5
			390	23.2
			410	25.4
			430	26.2
			450	26.8
			470	27.4
			490	27.2
			510	26.8
			530	22.1
			550	14.9
			579	0.0
12-04-83	1040	11.46	579	0.0
			550	15.1
			530	21.4
			510	26.9
			490	26.7
			470	27.5
			450	26.8
			430	26.7
			410	24.9
			390	23.0
			370	22.6
			350	22.2
			330	22.7
			310	22.5
			290	22.4
			270	21.5
			250	19.1

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-04-83	1040	(Continued)	230	17.5
			210	10.8
			190	15.2
			164	0.0
12-06-83	1000	11.47	164	0.0
			190	14.5
			210	11.1
			230	17.3
			250	19.4
			270	21.5
			290	22.2
			310	22.6
			330	22.9
			350	22.2
			370	22.6
			390	23.2
			410	23.5
			430	24.4
			450	26.6
			470	27.9
			490	27.9
			510	26.9
			530	21.2
			550	14.4
			579	0.0
12-06-83	1000	11.47	164	0.0
			190	14.5
			210	11.1
			230	17.3
			250	19.4
			270	21.5
			290	22.2
			310	22.6
			330	22.9
			350	22.2
			370	22.6
			390	23.2
			410	23.5
			430	24.4
			450	26.6
			470	27.9
			490	27.9
			510	26.9
			530	21.2
			550	14.4
			579	0.0
12-06-83	1045	11.47	579	0.0
			550	14.4
			530	22.1
			510	26.9
			490	27.6
			470	28.0
			450	26.3
			430	24.8
			410	23.6
			390	22.9
			370	22.4
			350	22.1
			330	22.8
12-06-83	1045	(Continued)	310	22.1
			290	22.5
			270	21.4
			250	19.1
			230	17.4
			210	10.7
			190	14.4
			165	0.0
12-07-83	1130	11.43	579	0.0
			550	14.9
			530	22.2
			510	27.0
			490	27.5
			470	27.9
			450	26.6
			430	24.4
			410	22.6
			390	23.0
			370	22.8
			350	22.3
			330	22.7
			310	22.5
			290	22.6
			270	21.5
			250	19.3
			230	17.3
			210	11.3
			190	14.4
			164	0.0
12-08-83	1615	11.47	579	0.0
			550	13.9
			530	21.1
			510	26.4
			490	27.6
			470	27.4
			450	26.3
			430	23.8
			410	22.8
			390	22.7
			370	22.2
			350	22.1
			330	22.8
			310	21.9
			290	22.0
			270	21.6
			250	18.9
			230	17.3
			210	10.8
			190	14.3
			165	0.0
12-08-83	1540	11.47	165	0.0
			190	14.5
			210	11.3
			230	17.4
			250	19.4
			270	21.5
			290	22.6
			310	22.0
			330	22.9

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-08-83	1540	(Continued)	250	22.0
			370	22.5
			390	23.0
			410	22.8
			430	23.7
			450	26.4
			470	28.0
			490	27.5
			510	26.8
			530	21.4
			550	14.6
			579	0.0
12-09-83	1155	11.48	579	0.0
			550	14.6
			530	21.3
			510	26.5
			490	28.4
			470	28.0
			450	26.3
			430	23.6
			410	23.1
			390	23.1
			370	22.4
			350	22.2
			330	22.6
			310	21.9
			290	22.3
			270	21.6
			250	19.4
			230	17.3
			210	10.7
			190	14.7
			165	0.0
12-10-83	1000	11.46	165	0.0
			190	14.3
			210	11.0
			230	17.4
			250	19.2
			270	21.5
			290	22.2
			310	21.8
			330	22.8
			350	22.2
			370	22.3
			390	23.5
			410	24.1
			430	24.1
			450	26.0
			470	28.2
			490	28.2
			510	26.8
			530	21.5
			550	14.4
			579	0.0
12-10-83	1030	11.44	579	0.0
			550	14.3
			530	21.6
			510	26.7
			490	28.2
12-10-83	1030	(Continued)	470	28.2
			450	25.3
			430	23.8
			410	24.2
			390	23.0
			370	22.3
			350	22.2
			330	22.5
			310	21.8
			290	22.3
			270	21.4
			250	19.2
			230	17.4
			210	10.5
			190	14.4
			165	0.0
12-11-83	1015	11.46	578	0.0
			550	14.3
			530	21.4
			510	26.8
			490	28.2
			470	27.9
			450	25.1
			430	24.4
			410	25.0
			390	23.4
			370	22.5
			350	22.3
			330	22.9
			310	22.2
			290	22.2
			270	21.7
			250	19.4
			230	17.4
			210	11.2
			190	14.4
			164	0.0
12-12-83	1010	11.47	164	0.0
			190	15.8
			210	11.4
			230	17.4
			250	19.2
			270	21.5
			290	22.2
			310	22.2
			330	22.9
			350	22.3
			370	22.4
			390	23.2
			410	24.9
			430	25.1
			450	25.5
			470	27.0
			490	28.2
			510	26.8
			530	22.0
			550	14.6
			578	0.0

Table 54.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-12-83	1040	11.48	578	0.0	12-13-83	0955	11.47	164	0.0
			550	14.4				190	14.4
			530	22.1				210	11.2
			510	26.5				230	17.4
			490	28.2				250	19.2
			470	26.8				270	21.5
			450	24.8				290	22.4
			430	24.7				310	22.0
			410	24.8				330	22.8
			390	23.0				350	22.2
			370	22.4				370	22.4
			350	22.2				390	23.2
			330	22.5				410	24.9
			310	22.1				430	26.0
			290	22.2				450	26.2
			270	21.4				470	27.0
			250	18.8				490	27.8
			230	17.2				510	26.6
			210	10.6				530	21.4
			190	14.3				550	14.4
			164	0.0				578	0.0

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
07-12-83	940	2,792.00	413	0.0
			365	22.3
			345	23.4
			325	23.9
			305	24.9
			285	25.6
			265	26.3
			245	27.2
			225	28.3
			205	27.4
			185	27.1
			165	27.2
			145	28.5
			125	29.1
			105	30.1
			85	29.2
			65	13.7
			60	0.0
07-12-83	1755	2,792.00	61	0.0
			75	22.3
			105	29.0
			135	28.8
			165	20.2
			195	27.7
			225	23.5
			255	24.1
			285	21.8
			315	22.2
			345	21.6
			413	0.0
07-13-83	1000	2,791.90	61	0.0
			80	25.9
			120	28.3
			160	26.2
			200	27.0
			240	26.6
			280	24.3
			320	23.4
			360	21.7
			415	0.0
07-13-83	1650	2,792.00	415	0.0
			360	20.8
			320	22.5
			280	23.7
			240	26.1
			200	26.2
			160	25.5
			120	27.4
			80	25.0
			60	0.0
07-14-83	815	2,792.00	57	0.0
			80	23.6
			120	28.0
			160	27.0
			200	25.6
			240	26.3
			280	24.7
			320	23.6
07-14-83	815	(Continued)	360	21.3
			415	0.0
07-15-83	1120	2,792.00	57	0.0
			80	23.1
			120	28.5
			160	26.4
			200	26.3
			240	25.2
			280	24.2
			320	23.7
			360	21.7
			415	0.0
08-01-83	950	2,789.00	410	0.0
			380	16.7
			345	18.6
			310	20.0
			275	20.9
			240	22.8
			205	22.4
			170	21.7
			135	23.9
			100	25.6
			65	10.6
			61	0.0
08-01-83	1645	2,789.00	410	0.0
			385	14.1
			350	18.2
			315	19.7
			280	20.1
			245	22.4
			210	23.1
			175	22.4
			140	22.9
			105	25.3
			70	11.4
			61	0.0
08-02-83	1830	2,787.30	409	0.0
			385	13.1
			350	17.0
			315	18.1
			280	20.0
			245	20.9
			210	21.5
			175	21.3
			140	22.1
			105	23.0
			75	16.1
			67	0.0
08-03-83	940	2,787.20	409	0.0
			385	12.9
			350	16.8
			315	19.0
			280	19.7
			245	20.5
			210	21.9
			175	20.1
			140	22.1

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
08-03-83	940	(Continued)	105	23.4
			75	15.9
			67	0.0
08-04-83	855	2,787.20	409	0.0
			385	14.1
			350	17.0
			315	18.3
			280	19.0
			245	21.8
			210	21.7
			175	22.1
			140	23.2
			105	23.7
			75	16.0
			67	0.0
08-05-83	0840	2,787.40	409	0.0
			385	12.9
			350	16.8
			315	18.5
			280	19.7
			245	20.9
			210	21.4
			175	21.4
			140	21.7
			105	24.1
			75	15.6
			67	0.0
08-05-83	1800	2,787.40	409	0.0
			385	12.8
			350	17.0
			315	18.0
			280	19.2
			245	20.7
			210	20.9
			175	20.9
			140	21.4
			105	23.3
			75	13.5
			67	0.0
08-06-83	1000	2,787.30	409	0.0
			385	11.6
			350	16.1
			315	17.6
			280	19.3
			245	20.8
			210	20.8
			175	18.9
			140	21.3
			105	22.8
			75	17.5
			67	0.0
08-07-83	916	2,787.30	408	0.0
			385	11.9
			350	16.4
			315	17.6
			280	19.0
			245	20.6
08-07-83	916	(Continued)	210	21.6
			175	20.9
			140	21.4
			105	23.0
			75	15.5
			67	0.0
08-07-83	1135	2,787.40	408	0.0
			385	13.5
			350	16.4
			315	18.0
			280	19.9
			245	21.0
			210	21.3
			175	20.4
			140	22.9
			105	23.0
			75	17.6
			67	0.0
08-09-83	1030	2,787.20	410	0.0
			400	4.5
			385	13.5
			370	16.9
			355	17.1
			340	18.2
			325	18.8
			310	19.3
			295	19.9
			280	19.9
			265	20.4
			250	22.0
			235	22.2
			220	22.3
			205	22.3
			190	21.7
			175	21.7
			160	22.8
			145	22.4
			130	22.8
			115	23.2
			100	23.0
			85	22.6
			70	12.5
			61	0.0
08-09-83	1540	2,787.20	410	0.0
			400	5.0
			385	11.3
			370	16.8
			355	17.7
			340	18.4
			325	18.6
			310	19.3
			295	19.8
			280	20.7
			265	20.7
			250	22.2
			235	22.2
			220	22.5
			205	22.5
			190	20.8

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
08-09-83	1540	(Continued)	175	21.3
			160	22.0
			145	22.6
			130	21.3
			115	22.9
			100	21.5
			85	22.8
			70	11.4
			61	0.0
08-10-83	1500	2,787.40	410	0.0
			400	4.9
			385	12.8
			370	16.1
			355	17.7
			340	18.2
			325	18.9
			310	20.5
			295	20.2
			280	20.2
			265	20.6
			250	21.2
			235	22.2
			220	22.7
			205	22.4
			190	22.4
			175	22.1
			61	0.0
08-13-83	840	2,784.82	405	0.0
			395	5.8
			360	14.6
			325	16.3
			290	17.6
			255	19.2
			220	20.0
			185	19.4
			150	20.4
			115	20.9
			80	18.6
			64	0.0
08-13-83	1615	2,784.75	402	0.0
			395	5.0
			360	16.4
			325	17.6
			290	19.2
			255	19.9
			220	20.8
			185	19.3
			150	20.1
			115	20.2
			80	18.3
			64	0.0
08-14-83	1310	2,784.63	402	0.0
			385	10.5
			350	15.5
			315	16.6
			280	18.6
			245	19.2
			210	20.1
08-14-83	1310	(Continued)	175	19.6
			140	20.4
			105	20.8
			70	8.8
			64	0.0
08-15-83	930	2,789.70	410	0.0
			395	6.6
			360	13.3
			325	16.1
			290	17.7
			255	19.1
			220	20.2
			185	19.6
			150	20.6
			115	21.5
			80	18.4
			64	0.0
08-15-83	1600	2,784.63	410	0.0
			395	7.0
			360	13.5
			325	15.9
			290	17.3
			255	18.4
			220	19.7
			185	19.3
			150	20.6
			115	20.3
			80	17.2
			64	0.0
08-17-83	830	2,784.80	410	0.0
			395	6.5
			360	14.7
			325	15.9
			290	18.0
			255	19.4
			220	20.1
			185	19.1
			150	20.6
			115	19.9
			80	18.5
			64	0.0
08-17-83	1630	2,784.75	410	0.0
			395	6.5
			360	14.0
			325	16.1
			290	18.1
			255	19.2
			220	20.2
			185	19.5
			150	21.0
			115	20.1
			80	18.5
			64	0.0
08-18-83	1120	2,784.70	410	0.0
			390	8.4
			360	14.0
			330	15.9

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
08-18-83	1120	(Continued)	300	17.8
			270	17.8
			240	19.1
			210	19.9
			180	19.4
			150	20.1
			120	19.5
			90	19.5
			70	0.0
08-19-83	1020	2,784.78	410	0.0
			390	8.3
			360	14.4
			330	15.8
			300	16.8
			270	18.4
			240	19.1
			210	20.3
			180	19.4
			150	20.3
			120	20.2
			90	20.0
			70	0.0
08-20-83	1630	2,784.70	410	0.0
			390	7.6
			360	14.8
			330	15.8
			300	17.2
			270	18.9
			240	19.7
			210	20.4
			180	19.8
			150	20.6
			120	20.2
			90	20.6
			70	0.0
08-21-83	1140	2,784.65	410	0.0
			390	9.2
			360	14.8
			330	15.7
			300	17.3
			270	18.0
			240	19.4
			210	20.0
			180	19.4
			150	20.3
			120	20.1
			90	19.3
			70	0.0
08-21-83	1630	2,784.70	410	0.0
			390	8.9
			360	14.8
			330	16.2
			300	15.2
			270	18.5
			240	19.4
			210	19.7
			180	19.1
			150	20.1
08-21-83	1630	(Continued)	120	19.8
			90	19.3
			70	0.0
08-22-83	1720	2,784.55	410	0.0
			390	9.0
			360	14.6
			330	15.8
			300	17.1
			270	18.3
			240	20.3
			210	19.3
			180	19.6
			150	20.5
			120	21.4
			90	20.5
			70	0.0
08-23-83	1110	2,784.70	410	0.0
			390	8.2
			360	14.8
			330	15.9
			300	16.8
			270	17.6
			240	18.9
			210	19.9
			180	19.6
			150	20.1
			120	20.3
			90	20.4
			70	0.0
08-23-83	1530	2,784.62	410	0.0
			390	9.2
			360	14.3
			330	15.9
			300	17.3
			270	18.5
			240	19.5
			210	19.9
			180	19.3
			150	20.2
			120	20.6
			90	20.2
			70	0.0
08-25-83	1150	2,784.68	410	0.0
			390	8.4
			360	14.7
			330	16.3
			300	16.7
			270	18.4
			240	19.0
			210	20.0
			180	19.0
			150	20.3
			120	20.4
			90	20.5
			70	0.0
08-25-83	1630	2,784.35	410	0.0
			390	7.8

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
08-25-83	1630	(Continued)	360	13.9
			330	15.4
			300	16.4
			270	17.1
			240	19.0
			210	19.5
			180	18.7
			150	20.3
			120	20.3
			90	20.1
			70	0.0
08-26-83	950	2,784.50	410	0.0
			380	12.0
			350	15.0
			320	16.3
			290	17.2
			260	18.4
			230	20.0
			200	19.6
			170	18.8
			140	19.8
			110	21.2
			80	18.6
			70	0.0
08-27-83	1025	2,784.70	410	0.0
			390	8.3
			360	14.5
			330	16.1
			300	17.4
			270	18.2
			240	19.1
			210	20.1
			180	19.2
			150	20.6
			120	20.7
			90	20.4
			70	0.0
08-27-83	1025	2,784.75	410	0.0
			380	11.6
			350	14.5
			320	16.3
			290	16.9
			260	18.7
			230	19.6
			200	19.3
			170	18.9
			140	19.8
			110	20.3
			80	16.3
			70	0.0
08-28-83	1340	2,784.68	407	0.0
			370	13.9
			350	15.0
			330	15.7
			310	16.7
			290	17.7
			270	17.6
			250	18.8
08-28-83	1340	(Continued)	230	19.7
			210	20.1
			190	19.1
			170	18.5
			150	20.5
			130	20.5
			110	20.4
			90	16.8
			63	0.0
09-15-83	910	2,785.16	410	0.0
			395	6.2
			375	13.6
			355	14.8
			335	16.1
			315	16.8
			295	17.3
			275	18.1
			255	19.0
			235	19.8
			215	20.0
			195	19.6
			175	19.4
			155	20.3
			135	20.9
			115	20.6
			95	21.4
			75	14.3
			60	0.0
09-16-83	1230	2,784.87	404	0.0
			390	8.3
			370	13.9
			350	15.0
			330	15.9
			310	16.4
			290	17.2
			270	17.8
			250	18.8
			230	20.4
			210	19.7
			190	19.5
			170	19.2
			150	20.3
			130	20.5
			110	19.9
			90	19.4
			70	8.4
			60	0.0
09-16-83	1540	2,784.88	404	0.0
			390	8.1
			370	13.9
			350	15.2
			330	15.8
			310	16.9
			290	17.4
			270	18.0
			250	18.4
			230	19.8
			210	20.0
			190	20.3

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
09-16-83	1540	(Continued)	170	19.0
			150	20.2
			130	20.4
			110	20.3
			90	20.1
			70	8.4
			60	0.0
09-17-83	1047	2,784.94	60	0.0
			70	8.4
			100	21.2
			130	20.7
			160	19.9
			190	19.3
			220	19.9
			250	18.6
			280	17.6
			310	16.8
			340	15.5
			370	14.4
			404	0.0
09-18-83	915	2,785.21	408	0.0
			390	8.7
			370	14.1
			350	15.3
			330	16.3
			310	17.0
			290	17.4
			270	18.3
			250	18.9
			230	20.2
			210	20.3
			190	19.7
			170	19.5
			150	20.5
			130	20.9
			110	20.8
			90	20.9
			70	8.6
			60	0.0
09-18-83	1400	2,785.05	408	0.0
			390	8.4
			370	14.1
			350	15.5
			330	16.2
			310	17.1
			290	17.4
			270	18.2
			250	18.9
			230	20.1
			210	20.1
			190	19.3
			170	19.2
			150	20.3
			130	20.8
			110	20.7
			90	20.5
			70	8.6
			60	0.0
09-19-83	845	2,785.02	408	0.0
			390	9.2
			375	13.8
			360	14.7
			345	18.6
			330	16.4
			315	16.6
			300	17.0
			285	17.4
			270	18.2
			255	18.8
			240	19.4
			225	20.3
			210	19.8
			195	19.5
			180	19.1
			165	19.3
			150	20.3
			135	20.6
			120	21.0
			105	20.7
			90	20.7
			75	14.4
			60	0.0
09-20-83	1010	2,785.02	408	0.0
			390	8.6
			370	14.2
			350	14.9
			330	16.2
			310	17.2
			290	18.1
			270	18.4
			250	19.4
			230	18.9
			210	19.5
			190	19.7
			170	18.9
			150	20.0
			130	20.5
			110	21.0
			90	20.4
			70	8.4
			60	0.0
09-20-83	1410	2,785.03	408	0.0
			390	9.1
			370	14.1
			350	15.5
			330	16.4
			310	16.9
			290	18.0
			270	18.3
			250	19.2
			230	19.8
			210	20.3
			190	19.8
			170	19.7
			150	20.7
			130	20.9
			110	21.4
			90	20.8

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
09-20-83	1410	(Continued)	70	8.7
			60	0.0
09-21-83	845	2,785.02	409	0.0
			390	8.6
			370	13.9
			350	15.2
			330	16.2
			310	17.3
			290	17.8
			270	18.0
			250	19.1
			230	19.4
			210	20.2
			190	19.2
			170	19.7
			150	20.7
			130	20.9
			110	21.4
			90	20.8
			70	8.7
			60	0.0
09-22-83	840	2,785.09	409	0.0
			390	8.7
			370	14.0
			350	15.3
			320	16.2
			310	17.1
			290	17.9
			270	19.1
			250	19.4
			230	20.4
			210	20.9
			190	20.1
			170	19.8
			150	21.0
			130	21.6
			110	21.1
			90	20.7
			70	8.8
			60	0.0
09-22-83	1210	2,785.08	408	0.0
			390	8.9
			370	14.2
			350	15.4
			330	16.4
			310	17.3
			290	17.8
			270	18.0
			250	19.3
			230	20.4
			210	20.4
			190	20.0
			170	19.8
			150	20.8
			130	20.8
			110	21.4
			90	20.5
			70	8.5
			60	0.0
09-23-83	1400	2,785.02	408	0.0
			390	8.9
			370	14.3
			350	15.1
			330	16.2
			310	17.2
			290	17.6
			270	18.4
			250	19.5
			230	20.0
			210	20.4
			190	20.0
			170	19.8
			150	20.6
			130	20.9
			110	20.8
			90	20.5
			70	8.4
			60	0.0
09-24-83	845	2,785.34	409	0.0
			390	8.9
			370	14.4
			350	15.5
			330	16.3
			310	17.1
			290	18.1
			270	18.7
			250	19.8
			230	21.0
			210	21.3
			190	19.8
			170	19.8
			150	21.6
			130	20.9
			110	20.7
			90	20.7
			70	9.3
			60	0.0
09-24-83	1235	2,785.34	409	0.0
			390	9.0
			370	14.2
			350	15.3
			330	16.4
			310	17.4
			290	18.0
			270	18.6
			250	19.5
			230	20.7
			210	20.6
			190	20.0
			170	20.0
			150	21.2
			130	20.9
			110	21.0
			90	21.0
			70	9.1
			60	0.0
09-25-83	1550	2,785.05	408	0.0
			390	8.8

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
09-25-83	1550	(Continued)	370	14.1
			350	15.2
			330	16.0
			310	17.1
			290	17.8
			270	18.1
			250	19.4
			230	20.2
			210	20.9
			190	19.8
			170	19.6
			150	20.5
			130	20.8
			110	21.4
			90	20.8
			70	9.1
			60	0.0
10-05-83	917	2,785.68	409	0.0
			360	14.8
			340	15.9
			320	17.2
			300	17.6
			280	18.5
			260	19.0
			240	19.7
			220	20.3
			200	19.4
			180	19.8
			160	20.3
			140	20.4
			120	21.4
			100	21.0
			80	18.4
			66	0.0
10-07-83	1210	2,785.21	408	0.0
			380	12.2
			360	14.3
			340	15.8
			320	16.7
			300	17.1
			280	17.6
			260	18.4
			240	19.2
			220	20.4
			200	19.6
			180	19.4
			160	19.3
			140	19.5
			120	21.3
			100	20.8
			80	17.6
			66	0.0
10-07-83	1717	2,785.26	409	0.0
			380	12.1
			360	14.9
			340	15.9
			320	16.7
			300	16.4
			280	17.7
10-08-83	1035	2,785.42	409	0.0
			380	12.2
			360	15.1
			340	15.9
			320	17.0
			300	17.4
			280	18.1
			260	19.2
			240	19.5
			220	20.6
			200	19.7
			180	19.7
			160	20.1
			140	20.4
			120	21.5
			100	21.0
			80	17.0
			64	0.0
10-09-83	930	2,785.32	409	0.0
			350	11.9
			360	14.5
			340	16.1
			320	16.6
			300	17.2
			280	17.9
			260	18.5
			240	19.2
			220	19.5
			200	19.6
			180	19.6
			160	19.7
			140	20.4
			120	21.2
			100	21.4
			80	18.2
			62	0.0
10-10-83	845	2,785.28	409	0.0
			380	12.4
			360	14.7
			340	15.6
			320	16.6
			300	17.1
			280	17.8
			260	18.7
			240	19.0
			220	20.0
			200	19.3
			180	19.1
			160	19.7
			140	20.2
			120	21.1
			100	20.8
			80	17.8
			62	0.0
10-11-83	900	2,785.20	409	0.0
			380	12.0
			360	14.2
			340	15.7
			320	16.7

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-11-83	900	(Continued)	300	16.8
			280	17.5
			260	18.6
			240	19.1
			220	19.9
			200	19.3
			180	19.2
			160	19.7
			140	20.0
			120	21.0
			100	21.1
			80	17.9
			62	0.0
10-11-83	1637	2,784.40	408	0.0
			380	11.4
			360	13.9
			340	14.8
			320	15.6
			300	16.4
			280	16.8
			260	17.7
			240	18.3
			220	18.9
			200	18.3
			180	18.3
			160	18.8
			140	19.2
			120	20.1
			100	19.9
			80	17.1
			62	0.0
10-12-83	925	2,784.28	407	0.0
			380	11.4
			360	13.6
			340	14.7
			320	15.7
			300	15.9
			280	16.5
			260	17.8
			240	18.3
			220	19.0
			200	18.5
			180	18.2
			160	18.6
			140	18.9
			120	20.4
			100	20.2
			80	16.9
			62	0.0
10-13-83	0910	2,784.14	406	0.0
			380	11.3
			360	13.9
			340	14.9
			320	15.8
			300	16.6
			280	16.9
			260	17.7
			240	18.1
			220	18.8
10-13-83	0910	(Continued)	200	18.6
			180	18.2
			160	18.2
			140	19.2
			120	20.0
			100	20.0
			80	12.2
			62	0.0
10-14-83	945	2,784.70	408	0.0
			380	11.5
			360	13.9
			340	15.2
			320	16.1
			300	16.7
			280	17.1
			260	17.9
			240	18.7
			220	19.0
			200	19.1
			180	18.9
			160	19.1
			140	19.3
			120	20.6
			100	20.8
			80	17.4
			62	0.0
10-16-83	1430	2,784.16	408	0.0
			390	7.9
			370	12.6
			350	14.1
			330	15.4
			310	15.9
			290	17.1
			270	17.6
			250	18.3
			230	19.5
			210	19.6
			190	18.6
			170	18.9
			150	19.6
			130	19.6
			110	19.2
			90	18.8
			70	7.3
			66	0.0
10-17-83	1335	2,784.46	408	0.0
			395	5.1
			375	12.4
			355	14.5
			335	15.2
			315	16.0
			295	16.8
			275	17.2
			255	18.2
			235	18.3
			215	19.7
			195	19.3
			175	18.9
			155	19.4

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-17-83	1335	(Continued)	135	20.0
			115	20.0
			95	19.3
			75	13.5
			66	0.0
10-19-83	1515	2,784.38	408	0.0
			385	9.8
			365	13.5
			345	14.6
			325	16.0
			305	17.4
			285	17.7
			265	18.0
			245	19.9
			225	20.9
			205	20.2
			185	19.6
			165	20.0
			145	20.0
			125	19.9
			105	19.9
			85	17.5
			67	0.0
10-20-83	1020	2,784.88	408	0.0
			385	10.2
			365	13.9
			345	15.5
			325	16.6
			305	17.5
			285	19.7
			265	19.2
			245	19.7
			225	21.4
			205	21.1
			185	19.9
			165	20.6
			145	21.0
			125	21.1
			105	20.7
			85	19.5
			67	0.0
10-21-83	1030	2,784.40	408	0.0
			385	9.5
			365	13.6
			345	14.8
			325	15.5
			305	16.6
			285	17.7
			265	18.2
			245	19.6
			225	21.7
			205	20.4
			185	20.3
			165	19.7
			145	20.7
			125	20.5
			105	19.9
			85	19.3
			67	0.0
10-21-83	1500	2,784.43	408	0.0
			385	9.7
			365	13.2
			345	14.8
			325	15.9
			305	16.3
			285	16.9
			265	17.3
			245	19.1
			225	20.7
			205	20.1
			185	20.0
			165	19.5
			145	19.7
			125	19.8
			105	20.7
			85	19.3
			67	0.0
10-22-83	1115	2,784.40	408	0.0
			385	10.0
			365	13.6
			345	14.8
			325	16.0
			305	17.1
			285	17.2
			265	18.8
			245	19.7
			225	20.8
			205	20.4
			185	19.9
			165	19.3
			145	20.2
			125	19.8
			105	21.2
			85	19.1
			66	0.0
10-23-83	1210	2,784.33	66	0.0
			85	19.6
			105	20.5
			125	20.5
			145	20.2
			165	19.5
			185	19.2
			205	20.4
			225	20.3
			245	19.4
			265	18.0
			285	17.4
			305	16.5
			325	15.9
			345	14.5
			365	13.1
			385	9.6
			408	0.0
10-23-83	1615	2,784.32	408	0.0
			385	9.1
			365	13.7
			345	14.7
			325	15.9

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-23-83	1615	(Continued)	305	20.8
			285	17.1
			265	18.3
			245	19.9
			225	19.9
			205	20.1
			185	19.8
			165	19.0
			145	20.2
			125	20.1
			105	21.1
			85	19.3
			66	0.0
10-25-83	1025	2,785.10	409	0.0
			385	10.6
			365	14.5
			345	15.5
			325	16.4
			305	17.7
			285	18.1
			265	19.5
			245	20.1
			225	21.7
			205	21.6
			185	20.8
			165	20.7
			145	21.5
			125	20.9
			105	21.5
			85	19.6
			66	0.0
10-25-83	1425	2,784.84	409	0.0
			385	9.8
			365	13.4
			345	15.0
			325	16.0
			305	16.9
			285	17.7
			265	18.5
			245	19.8
			225	21.5
			205	20.7
			185	20.2
			165	20.6
			145	20.7
			125	21.0
			105	20.7
			85	20.2
			66	0.0
10-26-83	1025	2,784.75	409	0.0
			385	10.5
			365	13.8
			345	15.1
			325	16.3
			305	17.6
			285	18.5
			265	18.8
			245	20.1
			225	21.4
10-26-83	1025	(Continued)	205	20.9
			185	20.6
			165	20.7
			145	21.0
			125	20.3
			105	19.7
			85	19.4
			66	0.0
10-27-83	1020	2,785.40	409	0.0
			385	10.7
			365	14.5
			345	15.9
			325	16.9
			305	17.9
			285	18.4
			265	20.1
			245	21.0
			225	22.2
			205	22.4
			185	21.0
			165	21.6
			145	20.8
			125	21.3
			105	21.7
			85	21.2
			66	0.0
10-28-83	1110	2,785.24	409	0.0
			385	10.5
			365	14.0
			345	15.6
			325	16.6
			305	18.1
			285	18.6
			265	19.3
			245	20.4
			225	21.3
			205	21.5
			185	21.1
			165	22.1
			145	21.0
			125	21.2
			105	20.6
			85	20.4
			66	0.0
10-29-83	1105	2,785.20	409	0.0
			385	10.4
			365	14.4
			345	15.7
			325	16.8
			305	17.8
			285	18.3
			265	19.5
			245	20.6
			225	22.1
			205	21.5
			185	21.0
			165	20.5
			145	20.5
			125	21.0

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-29-83	1105	(Continued)	105	20.4
			85	19.8
			66	0.0
10-29-83	1540	2,785.16	409	0.0
			385	11.2
			365	14.8
			345	15.4
			325	16.2
			305	17.4
			285	18.2
			265	18.9
			245	20.5
			225	21.5
			205	20.8
			185	20.8
			165	20.4
			145	21.2
			125	21.3
			105	20.6
			85	20.6
			0	0.0
10-30-83	1035	2,784.84	409	0.0
			385	10.5
			365	14.1
			345	15.3
			325	16.4
			305	17.4
			285	18.0
			265	19.6
			245	20.2
			225	20.7
			205	21.2
			185	19.8
			165	20.2
			145	20.5
			125	20.6
			105	21.5
			85	19.8
			66	0.0
10-31-83	940	2,785.17	408	0.0
			385	10.5
			365	14.0
			345	15.5
			325	17.0
			305	17.8
			285	18.9
			265	20.0
			245	20.6
			225	21.7
			205	21.4
			185	21.5
			165	20.7
			145	21.6
			125	20.9
			105	20.5
			85	20.5
			66	0.0
10-31-83	1525	2,785.18	408	0.0
10-31-83	1525	(Continued)	385	10.4
			365	14.5
			345	15.9
			325	16.5
			305	17.5
			285	18.1
			265	19.2
			245	20.6
			225	22.0
			205	21.7
			185	20.7
			165	20.2
			145	21.3
			125	20.7
			105	21.2
			85	20.3
			66	0.0
11-01-83	1345	2,784.88	409	0.0
			385	10.2
			365	14.5
			345	14.7
			325	16.4
			305	16.7
			285	18.2
			265	18.7
			245	20.0
			225	21.4
			205	20.7
			185	20.2
			165	20.4
			145	20.7
			125	20.7
			105	21.0
			85	20.9
			66	0.0
11-02-83	1055	2,785.14	66	0.0
			85	20.4
			105	21.6
			125	21.3
			145	22.5
			165	20.3
			185	21.2
			205	20.0
			225	21.4
			245	19.7
			265	18.3
			285	18.3
			305	17.4
			325	16.5
			345	15.2
			365	13.7
			385	10.4
			409	0.0
11-02-83	1640	2,784.66	409	0.0
			385	10.9
			365	13.8
			345	14.9
			325	16.1
			305	17.7

Table 55.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-02-83	1640	(Continued)	285	18.8	11-03-83	1150	(Continued)	165	20.9
			265	19.1				145	20.4
			245	19.5				125	21.3
			225	21.0				105	21.5
			205	20.5				85	20.0
			185	19.0				66	0.0
			165	19.9					
			145	20.9	11-05-83	1605	2,785.30	409	0.0
			125	20.4				390	8.9
			105	20.2				370	14.0
			85	19.9				350	15.3
			66	0.0				330	15.9
								310	16.9
11-03-83	1150	2,785.26	409	0.0				290	17.4
			385	11.0				270	18.5
			365	14.4				250	19.2
			345	16.0				230	19.7
			325	16.8				210	19.9
			305	17.8				190	19.6
			285	18.4				170	19.5
			265	19.5				150	20.6
			245	20.4				130	21.1
			225	21.7				110	21.1
			205	20.9				90	20.9
			185	21.0				66	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
07-01-83	1000	24.60	400	0.0
			375	34.9
			350	34.1
			325	33.3
			300	34.1
			275	33.6
			250	34.8
			225	35.5
			200	35.0
			175	37.7
			150	35.2
			125	31.6
			100	17.5
			90	0.0
07-03-83	1035	24.30	400	0.0
			375	33.4
			350	33.4
			325	32.5
			300	33.9
			275	33.4
			250	34.0
			225	33.5
			200	34.1
			175	36.6
			150	36.9
			125	28.0
			100	17.3
			90	0.0
07-03-83	1622	24.30	400	0.0
			375	33.5
			350	33.1
			325	31.6
			300	32.5
			275	33.7
			250	33.8
			225	34.4
			200	34.7
			175	35.9
			150	36.5
			125	37.3
			100	16.3
			90	0.0
07-04-83	1100	24.30	400	0.0
			375	33.3
			350	32.3
			325	32.5
			300	33.9
			275	33.2
			250	33.3
			225	34.5
			200	34.2
			175	39.0
			150	36.8
			125	28.4
			100	17.7
			90	0.0
07-05-83	935	24.30	400	0.0
			375	33.5
07-05-83	935	(Continued)	350	31.8
			325	31.7
			300	33.0
			275	33.7
			250	34.7
			225	34.2
			200	35.0
			175	36.8
			150	33.9
			125	28.4
			100	18.0
			90	0.0
07-06-83	1010	23.40	400	0.0
			375	32.9
			350	31.5
			325	39.9
			300	31.4
			275	31.5
			250	33.5
			225	32.6
			200	33.1
			175	34.0
			150	34.5
			125	27.7
			100	16.3
			90	0.0
07-06-83	1515	23.40	400	0.0
			375	32.7
			350	31.8
			325	31.9
			300	31.7
			275	32.9
			250	33.9
			225	33.2
			200	31.1
			175	35.0
			150	34.0
			125	27.6
			100	16.6
			90	0.0
07-07-83	1645	22.70	400	0.0
			365	30.5
			325	30.9
			295	30.9
			270	30.6
			245	31.3
			220	31.9
			195	33.5
			170	33.8
			155	33.6
			100	15.8
			90	0.0
07-08-83	1630	21.50	400	0.0
			365	30.9
			325	30.8
			295	32.2
			270	32.5
			245	34.2

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
07-08-83	1630	(Continued)	220	35.0
			195	35.7
			170	36.3
			155	36.2
			100	14.2
			90	0.0
07-11-83	1110	19.13	395	0.0
			375	28.8
			350	24.0
			325	27.3
			300	28.1
			275	26.3
			250	27.3
			225	28.2
			200	28.2
			175	32.1
			150	31.9
			125	20.6
			100	23.5
			95	0.0
07-12-83	910	19.70	395	0.0
			375	28.8
			350	29.0
			325	29.0
			300	30.1
			275	28.1
			250	29.0
			225	29.8
			200	31.3
			175	36.2
			150	31.0
			125	23.3
			100	12.4
			95	0.0
07-12-83	1550	19.74	395	0.0
			370	29.5
			240	29.7
			310	29.8
			280	29.8
			250	30.2
			220	30.8
			190	32.4
			160	34.0
			130	26.5
			100	12.7
			95	0.0
07-13-83	1240	19.70	395	0.0
			370	30.0
			340	28.7
			310	28.1
			280	29.8
			250	30.1
			220	31.3
			190	32.5
			160	33.6
			130	26.4
			95	0.0
07-14-83	1755	19.75	395	0.0
			370	29.9
			340	29.3
			310	29.4
			280	29.1
			250	30.1
			220	31.4
			190	32.8
			160	34.0
			130	26.8
			95	0.0
07-14-83	835	19.71	395	0.0
			370	29.3
			340	28.0
			310	29.6
			280	29.8
			250	30.2
			220	31.6
			190	33.5
			160	33.9
			130	26.4
			95	0.0
07-15-83	910	-1.00	395	0.0
			370	29.7
			340	28.6
			310	29.1
			280	28.5
			250	29.2
			220	29.0
			190	33.9
			160	32.3
			130	25.3
			95	0.0
07-16-83	0850	19.81	395	0.0
			370	29.0
			340	28.7
			310	29.2
			280	29.5
			250	29.9
			220	31.4
			190	32.6
			160	33.9
			130	25.8
			95	0.0
07-16-83	1710	19.80	395	0.0
			370	28.8
			340	28.3
			310	28.8
			280	28.4
			250	29.5
			220	29.7
			190	31.8
			160	32.8
			130	25.4
			95	0.0
07-17-83	1105	19.66	395	0.0
			370	29.8

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
07-17-83	1105	(Continued)	340	28.3
			310	28.7
			280	28.5
			250	29.5
			220	30.0
			190	31.8
			160	32.2
			130	24.7
			95	0.0
07-18-83	835	19.22	395	0.0
			370	28.8
			340	28.0
			310	28.3
			280	28.3
			250	29.3
			220	29.3
			190	31.5
			160	31.6
			130	24.8
			95	0.0
07-18-83	1650	19.15	395	0.0
			370	28.3
			340	27.7
			310	28.3
			280	28.3
			250	28.7
			220	29.3
			190	31.3
			160	32.0
			130	24.7
			95	0.0
07-19-83	1200	18.65	395	0.0
			370	28.1
			340	26.4
			310	26.9
			280	27.9
			250	27.2
			220	27.0
			190	30.2
			160	30.7
			130	23.4
			95	0.0
07-21-83	935	16.76	94	0.0
			130	21.7
			160	29.2
			190	28.4
			220	27.0
			250	25.7
			280	25.7
			310	25.2
			340	24.5
			370	26.0
			396	0.0
07-22-83	1020	16.79	396	0.0
			370	26.7
			340	24.9
			310	25.9
07-22-83	1020	(Continued)	280	26.4
			250	26.3
			220	27.0
			190	29.0
			160	29.6
			130	21.4
			94	0.0
07-22-83	1730	16.88	396	0.0
			370	26.2
			340	24.9
			310	25.9
			280	26.3
			250	26.4
			220	27.5
			190	28.8
			160	29.3
			130	21.4
			94	0.0
07-23-83	745	16.92	94	0.0
			130	21.4
			160	29.6
			190	28.5
			220	27.4
			250	26.6
			280	26.2
			310	25.9
			340	25.4
			370	26.1
			396	0.0
07-24-83	1030	17.40	396	0.0
			370	27.4
			340	26.5
			310	27.3
			280	27.4
			250	26.9
			220	28.4
			190	29.5
			160	30.6
			130	23.5
			94	0.0
07-24-83	1655	17.57	396	0.0
			370	27.3
			340	26.4
			310	26.4
			280	27.4
			250	27.5
			220	28.0
			190	29.8
			160	30.4
			130	22.4
			94	0.0
07-25-83	1100	17.10	94	0.0
			130	21.9
			160	30.3
			190	28.9
			220	27.8
			250	27.2

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
07-25-83	1100	(Continued)	280	26.6
			310	26.2
			340	26.3
			370	26.7
			396	0.0
07-26-83	840	-1.00	93	0.0
			130	22.6
			160	30.6
			190	29.6
			220	28.2
			250	27.7
			280	27.1
			310	26.6
			340	26.0
			370	27.3
			396	0.0
07-27-83	1055	17.43	93	0.0
			130	22.9
			160	30.4
			190	29.6
			220	27.7
			250	26.0
			280	26.9
			310	26.3
			340	25.6
			370	26.9
			396	0.0
07-28-83	840	16.34	393	0.0
			370	26.4
			340	25.6
			310	25.7
			280	25.9
			250	26.6
			220	25.8
			190	28.5
			160	29.5
			130	21.8
			93	0.0
07-28-83	1555	16.85	393	0.0
			370	26.3
			340	25.4
			310	25.7
			280	26.1
			250	26.5
			220	26.4
			190	28.5
			160	29.9
			130	21.9
			93	0.0
07-29-83	830	17.14	93	0.0
			130	22.9
			160	30.0
			190	29.0
			220	27.5
			250	26.3
			280	26.4
			310	26.1
07-29-83	830	(Continued)	340	25.1
			370	27.3
			393	0.0
07-30-83	1445	17.10	395	0.0
			370	26.7
			340	25.5
			310	25.7
			280	25.8
			250	26.2
			220	27.0
			190	28.3
			160	29.5
			130	22.2
			94	0.0
07-31-83	945	17.20	395	0.0
			370	26.9
			340	25.6
			310	24.5
			280	25.1
			250	26.4
			220	26.4
			190	28.2
			160	29.5
			130	22.3
			94	0.0
07-31-83	1525	17.20	94	0.0
			130	22.6
			160	30.5
			190	29.0
			220	25.4
			250	26.7
			280	25.8
			310	25.0
			340	24.9
			370	25.6
			395	0.0
08-01-83	925	17.20	395	0.0
			370	26.6
			340	25.4
			310	25.1
			380	25.4
			250	26.0
			220	26.8
			190	28.5
			160	29.2
			130	23.8
			94	0.0
08-01-83	1355	17.20	395	0.0
			370	26.7
			340	25.4
			310	25.1
			280	25.9
			250	26.1
			220	27.1
			190	28.0
			160	29.6
			130	23.9

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
08-01-83	1355	(Continued)	94	0.0
08-02-83	840	16.20	94	0.0
			130	21.4
			160	28.3
			190	27.3
			220	25.5
			250	25.4
			280	25.0
			310	24.2
			340	23.9
			370	25.7
			395	0.0
08-02-83	1315	16.00	395	0.0
			370	25.2
			340	24.4
			310	24.2
			280	24.0
			250	25.3
			220	25.9
			190	27.0
			160	28.2
			130	21.6
			94	0.0
08-03-83	855	16.00	94	0.0
			130	21.8
			160	28.3
			190	26.9
			220	25.7
			250	24.6
			280	24.3
			310	24.2
			340	24.3
			370	24.7
			395	0.0
08-04-83	930	16.00	395	0.0
			370	24.3
			340	24.0
			310	24.1
			280	24.6
			250	24.5
			220	25.5
			190	26.7
			160	28.1
			130	20.7
			95	0.0
08-05-83	1450	16.08	95	0.0
			130	21.6
			160	28.2
			190	27.4
			220	25.8
			250	24.5
			280	24.3
			310	23.7
			340	23.9
			370	24.9
			395	0.0
08-05-83	1140	16.10	395	0.0
			370	25.1
			340	24.0
			310	24.0
			280	24.1
			250	25.2
			220	25.7
			190	27.0
			160	28.2
			130	21.4
			95	0.0
08-06-83	830	16.03	395	0.0
			370	25.1
			340	24.2
			310	23.1
			280	24.6
			250	25.2
			220	25.6
			190	26.7
			160	28.2
			130	21.4
			95	0.0
08-06-83	1220	16.00	395	0.0
			370	25.1
			340	24.3
			310	24.1
			280	24.6
			250	25.0
			220	25.3
			190	26.5
			150	28.0
			130	21.4
			95	0.0
08-07-83	855	16.17	95	0.0
			120	18.4
			150	27.9
			180	28.1
			210	25.8
			240	25.4
			270	23.6
			300	24.7
			330	23.7
			360	24.7
			390	20.0
			395	0.0
08-08-83	900	16.04	395	0.0
			380	24.9
			350	24.3
			320	24.0
			290	24.1
			260	24.6
			230	25.0
			200	25.6
			170	28.0
			140	24.9
			110	11.2
			95	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
08-09-83	855	15.93	395	0.0
			380	24.5
			350	23.8
			320	23.4
			290	24.8
			260	24.8
			230	25.5
			200	26.4
			170	28.0
			140	24.8
			110	11.0
			95	0.0
08-09-83	1130	16.05	395	0.0
			380	24.8
			350	24.1
			320	23.3
			290	23.2
			260	25.2
			230	24.3
			200	25.5
			170	27.5
			140	24.4
			110	10.2
			95	0.0
08-10-83	835	16.14	395	0.0
			380	24.0
			350	23.9
			320	23.6
			290	22.9
			260	25.0
			230	23.7
			200	25.4
			170	28.3
			140	24.5
			110	10.3
			95	0.0
08-11-83	815	14.78	395	0.0
			380	24.1
			350	23.2
			320	23.0
			290	24.4
			260	22.9
			230	23.3
			200	24.2
			170	26.7
			140	23.5
			110	10.0
			95	0.0
08-11-83	1003	14.73	395	0.0
			380	23.8
			350	23.1
			320	22.9
			290	23.4
			260	23.7
			230	23.4
			200	24.1
			170	27.0
			140	22.4
08-11-83	1003	(Continued)	110	9.5
			95	0.0
08-12-83	750	-1.00	395	0.0
			380	23.0
			350	22.0
			320	21.9
			290	22.5
			260	21.5
			230	22.1
			200	23.6
			170	25.3
			140	22.0
			110	7.4
			95	0.0
08-12-83	1115	13.12	393	0.0
			370	22.5
			350	22.1
			320	21.5
			310	22.0
			290	22.6
			270	22.6
			250	22.9
			230	23.0
			210	23.1
			190	25.0
			170	25.5
			150	24.3
			130	18.0
			94	0.0
08-13-83	1545	13.55	390	0.0
			380	22.1
			350	21.0
			320	20.7
			290	20.0
			260	20.1
			230	21.3
			200	22.3
			170	24.4
			140	20.1
			110	7.0
			93	0.0
08-13-83	1705	13.50	390	0.0
			380	21.9
			350	21.0
			320	20.7
			290	21.1
			260	19.9
			230	22.0
			200	22.8
			170	24.6
			140	21.1
			110	7.9
			93	0.0
08-14-83	810	13.39	390	0.0
			380	22.3
			350	20.8
			320	20.4

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
08-14-83	810	(Continued)	290	20.2
			260	21.5
			230	21.3
			200	22.2
			170	24.3
			140	20.7
			110	7.8
			93	0.0
08-15-83	855	13.50	390	0.0
			385	22.0
			355	21.2
			325	20.5
			295	21.4
			265	21.0
			235	20.6
			205	21.6
			175	24.5
			145	22.4
			115	10.5
			95	0.0
08-15-83	958	13.46	390	0.0
			385	21.7
			355	21.1
			385	20.2
			295	21.4
			265	20.3
			235	21.7
			205	22.5
			175	24.2
			145	22.1
			115	10.9
			93	0.0
08-16-83	833	13.34	390	0.0
			385	21.6
			355	21.0
			325	20.0
			295	21.3
			265	21.2
			235	20.9
			205	22.4
			175	24.2
			145	22.2
			115	10.4
			93	0.0
08-17-83	950	13.46	395	0.0
			385	21.7
			355	21.0
			325	20.4
			295	20.7
			265	21.0
			235	21.6
			205	22.5
			175	24.2
			145	22.9
			115	10.3
			97	0.0
08-17-83	1053	13.42	395	0.0
08-17-83	1053	(Continued)	385	21.7
			355	21.0
			325	18.8
			295	20.0
			265	21.0
			235	21.9
			205	21.6
			175	24.4
			145	22.4
			115	10.6
			97	0.0
08-18-83	800	13.54	390	0.0
			385	21.7
			355	21.3
			325	19.4
			295	21.3
			265	21.3
			235	21.8
			205	22.6
			175	24.7
			145	22.9
			115	11.2
			97	0.0
08-19-83	920	13.59	395	0.0
			385	23.2
			355	22.4
			325	21.8
			295	21.3
			265	22.8
			235	22.5
			205	24.0
			175	26.0
			145	24.0
			115	11.1
			94	0.0
08-19-83	1530	13.42	393	0.0
			385	22.7
			360	22.0
			335	21.3
			310	22.3
			285	22.6
			260	22.7
			235	22.9
			210	23.0
			185	25.8
			160	25.3
			135	20.5
			110	7.8
			94	0.0
08-20-83	1022	13.46	380	23.4
			350	22.2
			320	21.9
			290	23.0
			260	22.9
			230	23.1
			200	23.6
			170	25.2
			140	-1.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
08-20-83	1022	(Continued)	110	-1.0
08-22-83	955	-1.00	395	0.0
			390	18.2
			365	22.8
			340	22.3
			315	22.1
			290	22.8
			265	22.2
			240	23.2
			215	23.9
			190	24.5
08-22-83	1700	13.27	370	23.1
			340	22.4
			310	22.1
			280	21.7
			250	23.0
			220	23.4
			190	24.1
			160	25.8
			130	17.4
			100	3.0
08-22-83	1700	13.27	395	0.0
			370	23.1
			340	22.4
			310	22.1
			280	21.7
			250	23.0
			220	23.4
			190	24.1
			160	25.8
			130	17.4
			100	3.0
			93	0.0
08-23-83	1105	13.44	393	0.0
			380	23.1
			350	22.6
			320	22.3
			290	22.5
			260	21.6
			230	21.7
			200	24.4
			170	25.2
			140	22.8
			110	9.5
			94	0.0
08-24-83	920	13.46	395	0.0
			380	23.1
			350	21.7
			320	21.2
			290	21.8
			260	22.4
			230	22.4
			200	24.1
			170	26.0
			140	21.2
			110	8.1
			92	0.0
08-24-83	1645	13.48	392	0.0
			380	22.4
			350	22.6
			320	22.4
			290	22.9
			260	22.9
			230	23.6
			200	23.7
			170	26.1
			140	22.1
			110	8.1
			91	0.0
08-25-83	1030	13.42	395	0.0
			380	23.3
			350	22.0
			320	21.9
			290	22.6
			260	22.3
			230	23.5
			200	23.7
			170	25.7
			140	21.2
			110	7.3
			98	0.0
08-26-83	905	13.31	393	0.0
			380	22.6
			350	22.3
			320	21.3
			290	21.6
			260	22.6
			230	23.2
			200	24.0
			170	25.7
			140	22.1
			110	8.1
			92	0.0
08-26-83	1625	13.48	393	0.0
			380	23.4
			350	22.5
			320	22.5
			290	22.2
			260	23.0
			230	22.3
			200	23.9
			170	25.5
			140	22.0
			110	9.2
			93	0.0
08-27-83	1002	13.49	393	0.0
			380	23.1
			350	22.4
			320	22.3
			290	22.3
			260	23.0
			230	23.5
			200	24.1
			170	25.8
			140	22.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
08-27-83	1002	(Continued)	110	8.4
			93	0.0
08-28-83	645	13.46	393	0.0
			380	23.0
			350	22.3
			320	21.3
			290	22.6
			260	22.8
			230	23.1
			200	23.5
			170	25.7
			140	22.0
			110	7.3
			95	0.0
08-29-83	1540	13.40	393	0.0
			380	22.6
			350	22.1
			320	22.0
			290	22.1
			260	23.0
			230	22.9
			200	24.2
			170	25.4
			140	22.6
			110	8.7
			95	0.0
09-01-83	835	13.45	393	0.0
			375	23.0
			355	23.0
			335	21.3
			315	21.9
			295	22.2
			275	22.6
			255	22.4
			235	23.3
			215	22.6
			195	24.7
			175	25.1
			155	25.2
			135	19.3
			115	11.0
			95	0.0
09-01-83	1645	13.45	393	0.0
			375	22.5
			355	22.3
			335	21.5
			315	21.6
			295	22.3
			275	22.2
			255	22.3
			235	22.9
			215	23.5
			195	25.1
			175	25.7
			155	25.7
			135	19.2
			115	10.4
			95	0.0
09-02-83	1225	13.41	393	0.0
			375	22.4
			355	21.8
			335	20.9
			315	20.4
			295	22.3
			275	22.7
			255	22.9
			235	22.4
			215	23.1
			195	24.7
			175	25.3
			155	25.9
			135	20.8
			115	11.2
			95	0.0
09-03-83	845	13.37	393	0.0
			375	22.9
			355	22.1
			335	21.3
			315	22.3
			295	22.0
			275	22.1
			255	22.3
			235	22.6
			215	22.6
			197	24.3
			175	24.9
			155	25.5
			135	19.1
			115	10.1
			95	0.0
09-03-83	1810	13.34	393	0.0
			375	22.2
			355	21.7
			335	21.0
			315	21.2
			295	21.4
			275	22.2
			255	22.1
			235	22.6
			215	23.8
			195	25.2
			175	25.0
			155	25.7
			135	20.3
			115	11.4
			95	0.0
09-03-83	1810	13.34	393	0.0
			375	22.2
			355	21.7
			335	21.0
			315	21.2
			295	21.4
			275	22.2
			255	22.1
			235	22.6
			215	23.8
			195	25.2

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
09-03-83	1810	(Continued)	175	25.0
			155	25.7
			135	20.3
			115	11.4
			95	0.0
09-04-83	955	13.30	393	0.0
			375	21.8
			355	21.9
			335	21.5
			315	22.0
			295	22.5
			275	22.3
			255	22.4
			235	22.5
			215	22.9
			195	24.7
			175	24.9
			155	24.9
			135	19.1
			115	19.1
			95	0.0
09-05-83	930	13.46	393	0.0
			375	22.4
			355	21.7
			335	20.4
			315	21.9
			295	21.9
			275	22.1
			255	22.0
			235	22.7
			215	23.0
			195	25.3
			175	25.7
			155	26.0
			135	20.4
			115	9.4
			95	0.0
09-05-83	1640	13.36	393	0.0
			375	22.9
			355	22.0
			335	21.5
			315	21.8
			295	21.9
			275	21.6
			255	22.2
			235	22.7
			215	23.0
			195	24.7
			175	25.1
			155	25.6
			135	19.8
			115	10.9
			95	0.0
09-06-83	852	13.47	393	0.0
			375	22.0
			355	22.5
			335	21.4
			315	22.1
09-06-83	852	(Continued)	295	22.0
			275	22.3
			255	22.6
			235	22.9
			215	22.8
			195	24.9
			175	25.1
			155	24.5
			135	19.8
			115	9.0
			95	0.0
09-07-83	1657	13.42	392	0.0
			380	22.5
			360	22.0
			340	22.0
			320	22.1
			300	22.9
			280	22.8
			260	23.7
			240	23.4
			220	24.1
			200	23.3
			180	25.1
			160	26.1
			140	21.2
			94	0.0
09-08-83	1032	13.47	390	0.0
			370	22.1
			350	22.3
			330	21.7
			310	21.5
			290	21.4
			270	22.5
			250	22.7
			230	22.8
			210	24.2
			190	24.5
			170	25.1
			150	25.0
			130	18.1
			110	6.8
			94	0.0
09-09-83	1057	13.35	393	0.0
			380	22.4
			360	22.4
			340	21.4
			320	22.0
			300	22.4
			280	22.5
			260	22.8
			240	22.1
			220	22.3
			200	24.2
			180	25.8
			160	25.8
			140	22.0
			120	13.3
			94	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
09-09-83	1812	13.36	393	0.0
			375	22.7
			355	22.9
			335	21.9
			315	22.2
			295	22.7
			275	22.9
			255	23.2
			235	23.4
			215	23.2
			195	24.8
			175	25.5
			155	25.6
			135	19.7
			94	0.0
09-10-83	903	13.08	393	0.0
			370	22.7
			350	21.8
			330	21.5
			310	21.9
			290	22.1
			270	22.4
			250	22.6
			230	22.5
			210	22.8
			190	24.7
			170	25.2
			150	25.7
			130	17.5
			94	0.0
09-11-83	941	12.80	393	0.0
			380	22.2
			360	22.1
			340	21.7
			320	21.0
			300	21.6
			280	21.7
			260	22.0
			240	22.1
			220	23.2
			200	23.4
			180	25.1
			160	25.6
			140	21.2
			120	12.1
			94	0.0
09-11-83	1725	12.44	393	0.0
			375	22.0
			355	21.5
			335	20.5
			315	21.4
			295	21.8
			275	21.7
			255	22.2
			235	22.4
			215	22.4
			195	23.8
			175	24.7
			155	25.4
09-11-83	1725	(Continued)	135	18.6
			94	0.0
09-13-83	708	13.10	94	0.0
			120	11.3
			140	20.5
			160	25.5
			180	25.1
			200	23.2
			220	22.9
			240	21.5
			260	22.6
			280	21.8
			300	21.9
			320	20.5
			340	21.7
			360	21.7
			380	22.0
			393	0.0
09-13-83	758	13.06	393	0.0
			370	22.4
			350	21.5
			330	21.2
			310	21.8
			290	21.5
			270	22.2
			250	21.8
			230	22.5
			210	23.2
			190	24.6
			170	25.1
			150	24.5
			130	17.4
			94	0.0
09-14-83	1654	12.88	94	0.0
			120	12.7
			140	21.9
			160	25.1
			180	25.4
			200	23.4
			220	23.3
			240	22.8
			260	21.7
			280	22.2
			300	22.1
			320	22.2
			340	21.7
			360	22.4
			380	22.3
			393	0.0
09-15-83	1628	13.45	393	0.0
			375	23.4
			355	22.5
			335	21.4
			315	22.2
			295	22.4
			275	22.5
			255	22.3
			235	22.5

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
09-15-83	1628	(Continued)	175	25.9
			155	26.2
			135	19.7
			94	0.0
09-15-83	1628	13.45	393	0.0
			370	23.1
			350	22.0
			330	22.0
			310	22.1
			290	22.8
			270	22.5
			250	23.2
			230	23.2
			210	23.5
			190	25.1
			170	25.6
			150	25.4
			130	17.8
			94	0.0
09-17-83	1017	13.19	394	0.0
			375	23.1
			355	21.1
			335	21.4
			315	21.8
			295	20.7
			275	23.6
			255	22.7
			235	22.6
			215	23.4
			195	23.8
			175	25.6
			155	25.9
			135	19.9
			115	10.0
			92	0.0
09-17-83	1710	13.26	395	0.0
			380	23.0
			360	22.5
			340	21.8
			320	21.5
			300	22.8
			280	22.7
			260	22.8
			240	22.5
			220	23.0
			200	23.8
			180	26.0
			160	26.0
			140	22.7
			120	13.4
			100	2.8
			95	0.0
09-18-83	915	13.34	395	0.0
			375	23.1
			355	22.7
			335	21.8
			315	21.5
			295	22.9
09-18-83	915	(Continued)	275	22.7
			255	23.0
			235	22.4
			215	23.5
			195	24.1
			175	25.8
			155	26.2
			135	18.8
			115	10.2
			92	0.0
09-19-83	1720	13.30	397	0.0
			380	23.3
			360	22.2
			340	22.0
			320	21.4
			300	22.1
			280	22.5
			260	22.8
			240	23.0
			220	23.7
			200	24.2
			180	25.9
			160	26.2
			140	21.9
			120	11.9
			94	0.0
09-20-83	1030	13.30	397	0.0
			375	22.9
			355	22.5
			235	21.8
			315	21.6
			295	22.5
			275	22.8
			255	22.4
			235	22.0
			215	23.4
			195	24.9
			175	25.5
			155	26.4
			135	20.4
			115	10.0
			94	0.0
09-21-83	920	13.32	379	0.0
			380	22.8
			365	22.4
			350	22.1
			335	21.4
			320	22.3
			305	22.5
			290	22.8
			275	22.7
			260	22.9
			245	23.3
			230	22.8
			215	23.2
			200	24.0
			185	25.4
			170	25.8
			155	26.5

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
09-21-83	920	(Continued)	140	22.3
			125	14.4
			110	7.0
			92	0.0
09-21-83	1700	13.26	397	0.0
			380	22.4
			365	22.3
			350	22.3
			335	21.8
			320	21.9
			305	22.4
			290	21.7
			275	21.9
			260	21.8
			245	22.4
			230	23.3
			215	23.4
			200	23.9
			185	25.5
			170	25.8
			155	26.3
			140	21.5
			125	15.2
			110	15.2
			94	0.0
09-22-83	900	13.32	396	0.0
			370	23.1
			350	22.3
			330	21.9
			310	21.6
			290	22.8
			270	21.6
			250	22.9
			230	23.2
			210	23.5
			190	25.0
			170	25.3
			150	25.4
			130	18.1
			110	7.0
			93	0.0
09-23-83	1710	13.34	397	0.0
			380	22.3
			365	22.4
			350	22.3
			335	21.8
			320	21.4
			305	22.5
			290	22.3
			275	22.3
			260	22.6
			245	22.8
			230	23.6
			215	23.7
			200	23.9
			185	25.4
			170	25.5
			155	25.8
			140	22.0
09-23-83	1710	(Continued)	125	14.6
			110	8.3
			94	0.0
09-24-83	950	13.62	394	0.0
			380	22.7
			365	23.3
			350	22.4
			335	21.8
			320	21.6
			305	22.2
			290	22.4
			275	23.4
			260	23.3
			245	23.5
			230	22.9
			215	23.5
			200	24.1
			185	26.1
			165	26.4
			150	26.4
			135	20.4
			120	14.2
			105	7.0
			94	0.0
09-25-83	930	13.30	394	0.0
			375	22.4
			360	22.3
			345	22.0
			330	21.9
			315	21.8
			300	22.3
			285	21.5
			270	22.3
			255	22.7
			240	22.4
			225	22.6
			210	23.2
			195	24.8
			180	25.9
			165	25.8
			150	25.3
			135	21.0
			120	14.1
			105	5.5
			94	0.0
09-25-83	1540	12.46	394	0.0
			375	22.8
			360	22.4
			345	22.1
			330	21.7
			315	21.8
			300	22.3
			285	22.0
			270	22.5
			255	22.7
			240	21.9
			225	23.4
			210	23.6
			195	24.8

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
09-25-83	1540	(Continued)	180	25.4
			165	25.7
			150	25.0
			135	20.7
			120	12.7
			105	5.8
			94	0.0
09-27-83	1400	13.32	398	0.0
			380	23.4
			365	23.0
			350	22.5
			335	21.3
			320	22.0
			305	22.6
			290	22.7
			275	22.8
			260	22.8
			245	23.1
			230	23.3
			215	22.7
			200	23.8
			185	24.8
			170	25.6
			155	25.9
			140	21.8
			110	0.0
09-28-83	935	13.47	398	0.0
			380	23.0
			365	22.5
			350	22.4
			335	21.4
			320	21.9
			305	22.6
			290	23.1
			275	22.7
			250	22.8
			245	22.9
			230	22.3
			215	24.0
			200	24.0
			185	24.6
			170	25.6
			155	26.0
			140	22.1
			125	16.1
			110	7.4
			98	0.0
09-28-83	1335	13.46	398	0.0
			380	22.8
			365	23.3
			350	22.4
			335	21.6
			320	21.3
			305	21.5
			290	22.4
			275	23.1
			260	22.9
			245	22.8
			230	22.3
09-28-83	1335	(Continued)	215	23.9
			200	24.4
			185	25.0
			170	25.7
			155	26.3
			140	22.7
			125	15.9
			110	7.2
			98	0.0
09-29-83	820	13.37	398	0.0
			380	22.9
			365	22.9
			350	22.1
			335	21.2
			320	22.1
			305	22.3
			290	22.8
			275	22.6
			260	22.0
			245	23.1
			230	23.2
			215	23.8
			200	24.1
			185	25.2
			170	25.6
			155	26.1
			140	21.4
			125	15.1
			110	7.3
			98	0.0
09-30-83	900	13.88	398	0.0
			380	23.6
			365	23.0
			350	22.7
			335	21.9
			320	22.2
			305	22.8
			290	22.2
			275	22.7
			260	22.1
			245	22.5
			230	22.9
			215	23.8
			200	24.6
			185	25.6
			170	26.0
			155	26.7
			140	22.5
			125	14.8
			110	7.7
			98	0.0
09-30-83	1300	13.47	398	0.0
			380	23.4
			365	23.2
			350	22.4
			335	21.7
			320	21.8
			305	22.7
			290	23.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
09-30-83	1300	(Continued)	275	23.0
			260	22.3
			245	23.4
			230	22.4
			215	23.1
			200	24.1
			185	25.1
			170	25.6
			155	26.3
			140	22.2
			125	15.1
			110	7.4
			98	0.0
10-01-83	840	14.79	398	0.0
			380	24.4
			365	24.2
			350	23.3
			335	22.4
			320	23.1
			305	23.8
			290	22.9
			275	23.8
			260	23.0
			245	23.6
			230	23.5
			215	24.7
			200	24.8
			185	26.1
			170	26.9
			155	26.6
			140	23.5
			125	16.2
			110	9.2
			92	0.0
10-02-83	850	14.65	398	0.0
			380	24.2
			365	24.4
			350	23.7
			335	22.0
			320	23.3
			305	23.9
			290	23.9
			275	24.0
			260	23.6
			245	22.3
			230	24.6
			215	24.8
			200	25.0
			185	25.7
			170	26.9
			155	26.3
			140	23.2
			125	17.4
			110	8.4
			92	0.0
10-02-83	1230	14.40	398	0.0
			380	24.2
			365	23.8
			350	23.2
10-02-83	1230	(Continued)	335	22.0
			320	22.1
			305	21.4
			290	21.1
			275	21.6
			260	22.9
			245	23.7
			230	24.1
			215	24.6
			200	24.8
			185	25.5
			170	26.7
			155	26.2
			140	23.2
			125	15.9
			110	8.2
			95	0.0
10-03-83	830	14.17	398	0.0
			380	24.4
			365	23.6
			350	23.4
			335	22.2
			320	21.7
			305	21.0
			290	21.2
			275	21.4
			260	21.7
			245	23.9
			230	22.3
			215	22.9
			200	23.9
			185	25.1
			170	26.4
			155	25.7
			140	23.2
			125	17.2
			110	9.0
			93	0.0
10-04-83	1515	14.19	398	0.0
			380	23.9
			365	23.4
			350	23.0
			335	22.4
			320	22.7
			305	21.1
			290	21.7
			275	23.4
			260	22.3
			245	21.3
			230	22.4
			215	24.1
			200	24.6
			185	25.2
			170	26.1
			155	26.0
			140	22.6
			125	16.0
			110	8.1
			92	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-06-83	1400	13.64	398	0.0	10-08-83	840	13.73	398	0.0
			380	22.7				380	22.9
			365	23.2				365	23.1
			350	22.1				350	22.8
			330	21.7				335	22.1
			320	22.2				320	21.9
			305	22.9				305	20.9
			290	23.1				290	21.8
			275	22.8				275	22.9
			260	22.9				260	23.3
			245	23.1				245	23.5
			230	23.1				230	23.1
			215	24.0				215	24.1
			200	24.2				200	24.4
			185	24.4				185	25.1
			170	25.8				170	26.2
			155	25.3				155	26.3
			140	21.3				140	22.1
			125	16.3				125	14.9
			98	0.0				98	0.0
10-07-83	905	13.57	398	0.0	10-09-83	830	13.61	398	0.0
			380	22.7				380	23.2
			365	22.9				365	22.7
			350	22.3				350	22.5
			335	21.9				335	21.6
			320	21.5				320	21.6
			305	22.8				305	22.8
			290	23.0				290	21.3
			275	22.6				275	21.1
			260	23.1				260	22.2
			245	23.1				245	23.2
			230	23.6				230	21.5
			215	23.2				215	21.9
			200	24.1				200	24.0
			185	24.7				185	24.7
			170	25.7				170	26.1
			155	25.4				155	25.4
			140	22.1				140	22.8
			125	15.4				125	14.6
			98	0.0				98	0.0
10-07-83	1155	13.55	398	0.0	10-09-83	1150	13.61	398	0.0
			380	22.9				380	23.4
			365	22.8				365	22.8
			350	22.4				350	22.2
			335	22.0				335	21.8
			320	22.2				320	21.0
			305	22.7				305	21.1
			290	23.1				290	21.6
			275	22.5				275	22.6
			260	22.9				260	23.0
			245	21.8				245	22.5
			230	22.9				230	23.3
			215	23.9				215	24.2
			200	24.0				200	24.2
			185	24.7				185	24.8
			170	25.7				170	25.9
			155	25.5				155	26.3
			140	21.0				140	22.1
			125	15.0				125	15.1
			98	0.0				98	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-11-83	830	13.59	398	0.0
			380	23.2
			365	22.8
			350	22.0
			335	21.9
			320	22.2
			305	22.7
			290	21.5
			275	22.8
			260	22.7
			245	22.3
			230	23.3
			215	23.1
			200	24.1
			185	24.8
			170	25.8
			155	26.1
			140	21.6
			125	14.7
			98	0.0
10-11-83	1052	13.56	398	0.0
			380	22.9
			365	22.7
			350	22.2
			335	21.5
			320	21.8
			305	21.2
			290	21.8
			275	22.2
			260	21.4
			245	22.8
			230	23.0
			215	23.1
			200	23.1
			185	25.0
			170	25.7
			155	26.2
			140	22.1
			125	15.0
			98	0.0
10-13-83	938	12.45	398	0.0
			380	21.7
			365	21.9
			350	21.5
			335	20.6
			320	20.2
			305	21.6
			290	20.3
			275	21.4
			260	20.9
			245	21.8
			230	22.3
			215	22.0
			200	23.0
			185	23.8
			170	24.4
			155	25.2
			140	20.9
			125	15.1
			100	0.0
10-13-83	1130	12.47	398	0.0
			380	21.9
			365	21.6
			350	21.2
			335	20.8
			320	20.3
			305	20.5
			290	21.2
			275	20.4
			260	21.7
			245	22.1
			230	22.4
			215	22.3
			200	23.3
			185	24.2
			170	24.8
			155	25.2
			140	20.1
			125	14.3
			100	0.0
10-17-83	1130	12.58	398	0.0
			380	21.5
			360	21.7
			340	20.8
			320	21.2
			300	20.8
			280	20.7
			260	21.6
			240	21.4
			220	22.6
			200	23.0
			180	24.6
			160	24.4
			140	20.1
			120	12.5
			98	0.0
10-18-83	930	12.50	398	0.0
			380	21.4
			365	21.5
			350	21.1
			335	20.8
			320	20.9
			305	21.6
			290	20.5
			275	21.4
			260	21.8
			245	21.4
			230	20.9
			215	22.4
			200	22.5
			185	23.7
			170	24.3
			155	24.6
			140	20.7
			125	14.8
			110	6.2
			98	0.0
10-18-83	1635	12.44	398	0.0
			380	21.6

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-18-83	1635	(Continued)	365	21.4
			350	21.3
			335	20.5
			320	20.0
			305	21.2
			290	21.6
			275	21.6
			260	20.7
			245	21.6
			230	22.0
			215	21.6
			200	22.7
			185	23.9
			170	23.9
			155	24.6
			140	20.6
			125	15.2
			99	0.0
10-19-83	900	12.56	393	0.0
			380	22.2
			365	21.8
			350	21.3
			335	20.4
			320	21.2
			305	21.3
			290	20.7
			275	21.4
			260	22.0
			245	21.7
			230	21.0
			215	21.7
			200	23.1
			185	24.3
			170	24.5
			155	25.0
			140	20.8
			125	15.5
			99	0.0
10-20-83	1000	12.94	393	0.0
			380	22.1
			365	21.8
			350	21.6
			335	21.0
			320	20.8
			305	21.2
			290	21.2
			275	20.7
			260	22.4
			245	22.6
			230	21.5
			215	23.2
			200	23.4
			185	24.6
			170	25.5
			155	25.5
			140	21.0
			125	16.1
			99	0.0
10-20-83	1700	12.86	393	0.0
10-20-83	1700	(Continued)	380	22.2
			365	21.7
			350	21.6
			335	21.1
			320	20.1
			305	20.4
			290	20.7
			275	21.0
			260	22.1
			245	22.4
			230	22.4
			215	22.8
			200	23.5
			185	24.2
			170	24.7
			155	25.2
			140	21.1
			125	15.3
			99	0.0
10-21-83	900	12.58	393	0.0
			380	21.9
			365	21.9
			350	21.2
			335	20.9
			320	20.0
			305	20.6
			290	21.0
			275	21.4
			260	22.0
			245	21.2
			230	20.8
			215	21.9
			200	22.7
			185	24.1
			170	24.6
			155	25.1
			140	21.7
			125	13.8
			99	0.0
10-22-83	900	12.57	393	0.0
			380	21.6
			365	21.7
			350	21.1
			335	20.7
			320	20.4
			305	21.2
			290	20.2
			275	20.8
			260	20.6
			245	21.7
			230	21.0
			215	21.2
			200	23.0
			185	24.6
			170	24.7
			155	25.3
			140	21.1
			125	14.3
			99	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-22-83	1645	12.54	393	0.0
			380	21.4
			365	21.7
			350	21.3
			335	20.7
			320	20.2
			305	20.2
			290	21.3
			275	20.5
			260	20.8
			245	20.7
			230	21.3
			215	22.6
			200	22.7
			185	24.1
			170	24.3
			155	24.6
			140	20.9
			125	13.8
			99	0.0
10-23-83	1410	12.62	393	0.0
			380	22.1
			365	21.5
			350	21.3
			335	20.7
			320	20.4
			305	21.4
			290	21.6
			275	21.7
			260	21.5
			245	22.3
			230	22.2
			215	22.3
			200	22.9
			185	23.6
			170	23.8
			165	24.9
			140	21.0
			125	13.7
			99	0.0
10-24-83	915	13.00	393	0.0
			380	22.8
			365	22.4
			350	21.4
			335	21.1
			320	22.1
			305	21.0
			290	22.4
			275	22.3
			260	22.6
			245	22.8
			230	22.7
			215	22.7
			200	23.6
			185	24.6
			170	25.2
			155	25.7
			140	22.5
			125	14.3
			94	0.0
10-24-83	915	(Continued)	96	0.0
10-24-83	1700	13.50	393	0.0
			380	22.4
			365	22.5
			350	22.1
			335	21.5
			320	21.5
			305	21.0
			290	21.9
			275	22.9
			260	22.7
			245	23.0
			230	23.2
			215	23.7
			200	23.0
			185	24.8
			170	25.3
			155	25.5
			140	22.2
			125	16.2
			95	0.0
10-26-83	1623	12.68	398	0.0
			375	21.4
			360	21.5
			345	20.3
			330	20.6
			315	20.6
			300	20.4
			285	26.1
			270	21.3
			255	20.3
			240	20.6
			225	22.0
			210	22.6
			195	21.7
			180	24.3
			165	24.2
			150	23.5
			135	18.2
			93	0.0
10-27-83	1220	13.62	95	0.0
			125	17.7
			140	22.3
			155	26.2
			170	26.0
			185	24.0
			200	22.8
			215	23.0
			230	21.6
			245	21.6
			260	22.7
			275	23.1
			290	22.6
			305	21.6
			320	20.9
			335	21.3
			350	22.1
			365	23.1
			398	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-28-83	1006	13.61	398	0.0
			380	22.8
			365	22.5
			350	21.7
			335	21.1
			320	21.5
			305	22.5
			290	22.5
			275	21.6
			260	22.6
			245	22.8
			230	22.9
			215	23.3
			200	24.2
			185	24.5
			160	25.4
			145	23.4
			130	18.0
			93	0.0
10-28-83	1610	13.53	398	0.0
			375	22.7
			360	21.7
			345	21.7
			330	21.5
			315	21.5
			300	22.1
			285	21.5
			270	20.3
			255	21.1
			240	21.7
			225	23.2
			210	23.5
			195	23.7
			180	25.0
			165	25.5
			150	23.9
			135	19.5
			93	0.0
10-29-83	1019	13.64	93	0.0
			125	15.7
			140	22.1
			155	26.0
			170	25.0
			185	23.9
			200	22.5
			215	22.6
			230	22.5
			245	22.7
			260	22.2
			275	22.0
			290	22.3
			305	21.3
			320	20.8
			335	21.5
			350	21.9
			365	22.4
			398	0.0
10-30-83	953	13.67	398	0.0
			385	22.6
10-30-83	953	(Continued)	370	22.9
			355	21.8
			340	22.0
			325	20.9
			310	22.6
			295	20.5
			280	21.2
			265	21.0
			250	21.5
			235	23.0
			220	22.5
			205	22.9
			190	23.9
			175	25.5
			160	25.5
			145	23.1
			130	18.1
			93	0.0
10-30-83	1601	13.11	398	0.0
			380	22.2
			365	22.3
			350	22.0
			335	21.3
			320	21.5
			305	21.6
			290	22.2
			275	21.3
			260	21.4
			245	21.6
			230	22.6
			215	21.4
			200	21.8
			185	23.0
			170	24.4
			155	24.3
			140	21.2
			125	15.4
			110	0.0
			93	0.0
10-31-83	923	13.68	93	0.0
			125	15.3
			140	21.6
			155	25.2
			170	25.2
			185	23.5
			200	23.6
			215	23.5
			230	22.8
			245	22.7
			260	22.6
			275	22.5
			290	22.4
			305	22.5
			320	21.3
			335	21.1
			350	22.1
			365	22.3
			380	22.6
			398	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-01-83	1146	13.61	398	0.0	11-03-83	1124	13.51	398	0.0
			380	22.4				385	22.2
			365	22.5				370	23.2
			350	22.1				355	22.2
			335	21.7				340	22.1
			320	21.0				325	21.3
			305	21.9				310	22.1
			290	22.2				295	22.5
			275	22.5				280	23.1
			260	22.8				265	22.5
			245	22.4				250	22.3
			230	22.9				235	22.3
			215	22.9				220	22.5
			200	23.4				205	22.5
			185	24.0				190	24.0
			170	25.3				175	26.0
			155	25.6				160	26.1
			140	22.4				145	23.0
			125	13.8				130	18.2
			93	0.0				93	0.0
11-01-83	1637	13.11	398	0.0	11-03-83	1546	13.52	398	0.0
			380	22.4				380	22.9
			365	22.2				365	22.6
			350	21.1				350	21.8
			335	21.2				335	21.4
			320	21.4				320	20.6
			305	22.1				305	22.0
			290	21.3				290	22.3
			275	20.1				275	22.4
			260	22.1				260	22.4
			245	22.4				245	22.6
			230	22.4				230	22.4
			215	22.8				215	22.3
			200	22.6				200	23.6
			185	23.5				185	23.8
			170	24.9				170	25.0
			155	25.2				155	25.4
			140	19.8				140	22.0
			125	14.4				125	16.4
			93	0.0				93	0.0
					11-06-83	1100	13.63	387	0.0
11-02-83	956	13.92	93	0.0				370	23.7
			130	18.2				355	22.1
			145	23.5				340	22.4
			160	25.6				325	21.7
			175	25.5				310	22.3
			190	24.2				295	22.7
			205	23.8				280	22.4
			220	23.5				265	22.6
			235	22.0				250	22.8
			250	21.9				235	23.1
			265	21.1				220	24.0
			280	22.5				205	23.4
			295	20.1				190	23.6
			310	19.9				175	25.7
			325	21.0				160	26.4
			340	21.5				145	23.8
			355	22.1				130	18.7
			370	23.1				115	10.8
			398	0.0				91	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-06-83	1415	13.54	387	0.0	11-09-83	1040	12.60	387	0.0
			370	23.7				370	22.2
			355	22.2				355	21.7
			340	21.9				340	20.3
			325	21.8				325	20.9
			310	21.2				310	20.6
			295	20.0				295	20.7
			280	20.9				280	20.4
			265	22.8				265	20.8
			250	23.0				250	20.7
			235	22.8				235	22.1
			220	23.8				220	23.3
			205	24.2				205	22.5
			190	24.3				190	22.1
			175	25.9				175	24.9
			160	26.2				160	25.1
			145	23.0				145	22.8
			130	18.9				130	17.4
			115	9.6				115	9.7
			91	0.0				91	0.0
11-07-83	1600	12.58	387	0.0	11-10-83	1115	12.38	387	0.0
			370	22.3				370	21.9
			355	21.4				355	21.2
			340	21.1				340	20.5
			325	20.7				325	20.7
			310	19.7				310	20.7
			295	21.5				295	21.7
			280	20.7				280	21.7
			265	19.6				265	21.6
			250	21.5				250	21.8
			235	21.0				235	22.1
			220	21.6				220	22.7
			205	22.7				205	22.0
			190	24.2				190	22.7
			175	24.9				175	24.6
			160	24.9				160	24.8
			145	22.8				145	22.2
			130	17.0				130	17.6
			115	7.1				115	8.5
			91	0.0				98	0.0
11-08-83	1500	12.42	387	0.0	11-10-83	1600	12.34	387	0.0
			370	22.3				370	21.7
			355	21.3				355	21.4
			340	21.0				340	21.0
			325	21.4				325	20.0
			310	21.5				310	20.4
			295	20.5				295	21.3
			280	19.9				280	21.3
			265	21.6				265	21.1
			250	21.0				250	21.9
			235	21.7				235	23.0
			220	22.9				220	22.1
			205	23.3				205	22.1
			190	23.1				190	23.4
			175	24.7				175	24.6
			160	25.1				160	24.7
			145	22.2				145	22.9
			130	17.5				130	16.7
			115	7.4				115	7.5
			91	0.0				98	0.0

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-11-83	1045	12.40	390	0.0
			370	22.2
			355	21.5
			340	20.2
			325	20.1
			310	19.8
			295	21.2
			280	21.5
			265	21.2
			250	21.8
			235	22.0
			220	22.7
			205	22.9
			190	23.0
			175	24.6
			160	25.0
			145	22.9
			130	17.2
			115	8.0
			99	0.0
11-12-83	1000	12.56	390	0.0
			375	22.1
			360	21.6
			345	21.2
			330	21.0
			315	20.7
			300	21.7
			285	21.7
			270	21.3
			255	21.0
			240	21.2
			225	21.8
			210	22.6
			195	23.3
			180	25.1
			165	25.0
			150	24.5
			135	17.8
			120	10.7
			99	0.0
11-13-83	1045	12.51	390	0.0
			375	22.3
			360	21.7
			345	20.1
			330	20.6
			315	21.5
			300	21.3
			285	21.9
			370	21.7
			255	20.7
			240	21.9
			225	22.4
			210	22.9
			195	22.8
			180	24.9
			165	25.0
			150	24.2
			135	17.9
			120	11.8
			99	0.0
11-17-83	1000	12.16	391	0.0
			380	21.6
			365	21.8
			350	20.7
			335	20.2
			320	20.9
			305	21.3
			290	21.0
			275	21.2
			260	21.0
			245	21.9
			230	21.5
			215	22.1
			200	22.6
			185	24.2
			170	24.3
			155	25.2
			140	20.3
			125	14.9
			110	7.2
			100	0.0
11-17-83	1510	12.17	391	0.0
			380	21.5
			360	21.4
			340	21.0
			320	21.0
			300	21.0
			280	20.8
			260	21.3
			240	20.8
			220	22.5
			200	22.6
			180	24.5
			160	24.9
			140	20.7
			120	12.9
			100	0.0
11-18-83	1000	11.59	391	0.0
			380	21.3
			360	21.0
			340	20.4
			320	20.8
			300	20.1
			280	21.1
			260	21.2
			240	21.3
			220	22.0
			200	22.3
			180	24.0
			160	23.9
			140	19.6
			120	12.4
			100	0.0
11-19-83	1050	12.32	391	0.0
			380	22.5
			365	22.0
			350	21.6
			335	20.9
			320	21.2

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-19-83	1050	(Continued)	305	21.8
			290	21.0
			275	21.1
			260	20.6
			245	21.4
			230	22.2
			215	22.7
			200	23.3
			185	23.6
			170	24.6
			155	25.4
			140	22.5
			125	15.1
			110	7.7
			100	0.0
11-19-83	1500	12.38	391	0.0
			380	22.4
			365	21.4
			350	21.2
			335	21.4
			320	20.0
			305	21.5
			290	21.6
			275	21.8
			260	21.7
			245	21.6
			230	21.9
			215	22.2
			200	22.6
			185	23.4
			170	24.7
			155	24.3
			140	20.4
			125	13.9
			110	5.7
			100	0.0
11-20-83	1515	12.66	391	0.0
			380	22.3
			365	22.0
			350	21.4
			335	21.2
			320	21.5
			305	21.7
			290	22.1
			275	20.6
			260	22.3
			245	21.3
			230	22.7
			215	22.5
			200	22.5
			185	24.7
			170	24.6
			155	21.4
			140	19.2
			125	13.5
			110	6.4
			100	0.0
11-21-83	946	12.67	391	0.0
			380	22.5
11-21-83	946	(Continued)	365	22.4
			350	21.9
			335	21.1
			320	20.8
			305	21.0
			290	21.4
			275	22.1
			260	22.1
			245	22.5
			230	22.6
			215	22.7
			200	22.8
			185	23.7
			170	24.9
			155	25.5
			140	22.0
			125	13.4
			110	5.9
			100	0.0
11-21-83	1630	12.67	391	0.0
			380	22.4
			365	21.9
			350	21.4
			335	20.4
			320	20.5
			305	21.3
			290	21.8
			275	21.7
			260	22.3
			245	22.2
			230	21.7
			215	23.3
			200	23.6
			185	24.4
			170	25.0
			155	25.2
			140	20.0
			125	14.5
			110	6.6
			100	0.0
11-22-83	1000	12.54	391	0.0
			380	21.5
			365	20.8
			350	20.1
			335	19.8
			320	20.2
			305	19.6
			290	19.3
			275	19.5
			260	20.6
			245	20.1
			230	21.4
			215	21.8
			200	22.3
			185	22.9
			170	24.1
			155	24.4
			140	19.3
			125	15.1
			110	6.5

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-22-83	1100	(Continued)	99	0.0
11-28-83	1620	12.60	389	0.0
			375	22.2
			360	22.1
			345	21.2
			330	20.9
			315	20.2
			300	21.6
			285	21.8
			270	22.3
			255	22.0
			240	20.8
			225	20.9
			210	22.9
			195	23.3
			180	25.0
			165	25.2
			150	24.7
			135	17.8
			120	12.3
			94	0.0
11-30-83	1110	-1.00	389	0.0
			375	22.5
			360	21.6
			345	21.3
			330	21.0
			315	21.6
			300	20.5
			285	21.8
			270	21.7
			255	21.0
			240	22.0
			225	22.7
			210	22.8
			195	22.5
			180	24.4
			165	24.8
			150	24.3
			135	17.9
			120	0.0
			94	0.0
11-30-83	1445	12.62	389	0.0
			375	22.4
			360	21.6
			345	21.0
			330	21.8
			315	21.3
			300	21.5
			285	20.4
			270	20.2
			255	20.6
			240	21.3
			225	22.3
			210	21.7
			195	22.6
			180	24.3
			165	25.0
			150	23.8
			135	18.8
11-30-83	1445	(Continued)	120	12.5
			94	0.0
12-01-83	1025	12.56	389	0.0
			375	22.2
			360	21.6
			345	21.2
			330	21.1
			315	20.5
			300	20.3
			285	20.4
			270	22.0
			255	22.2
			240	22.2
			225	22.6
			210	23.0
			195	22.9
			180	25.1
			165	24.8
			150	24.2
			135	17.6
			120	12.0
			94	0.0
12-02-83	1040	12.58	389	0.0
			375	22.4
			360	21.8
			345	21.3
			330	21.1
			315	21.2
			300	21.4
			285	20.5
			270	20.3
			255	21.1
			240	22.1
			225	21.8
			210	22.4
			195	23.0
			180	24.1
			165	24.8
			150	23.8
			135	18.8
			120	12.8
			94	0.0
12-02-83	1425	12.44	389	0.0
			375	22.3
			360	21.5
			345	21.2
			330	20.7
			315	21.2
			300	21.5
			285	21.7
			270	21.6
			255	20.8
			240	22.2
			225	21.8
			210	22.8
			195	22.6
			180	24.6
			165	25.3
			150	24.5

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
12-02-83	1425	(Continued)	135	18.1
			120	12.2
			94	0.0
12-03-83	1030	12.27	389	0.0
			375	21.9
			360	21.5
			345	21.3
			330	20.9
			315	21.4
			300	21.3
			285	21.4
			270	21.6
			255	21.5
			240	21.7
			225	23.2
			210	22.1
			195	23.2
			180	24.4
			165	24.4
			150	23.7
			135	18.8
			120	10.5
			94	0.0
12-04-83	1130	12.52	389	0.0
			375	21.9
			360	21.7
			345	21.6
			330	21.3
			315	21.8
			300	21.7
			285	21.7
			270	21.7
			255	22.3
			240	22.1
			225	22.0
			210	22.6
			195	23.0
			180	24.9
			165	24.4
			150	24.2
			135	18.2
			120	13.5
			94	0.0
12-04-83	1445	12.58	389	0.0
			375	22.4
			360	21.8
			345	21.4
			330	21.3
			315	20.3
			300	21.6
			285	21.4
			270	21.6
			255	21.3
			240	20.6
			225	21.5
			210	21.6
			195	23.2
			180	24.0
			165	24.6
12-04-83	1445	(Continued)	150	23.7
			135	19.5
			120	11.8
			94	0.0
12-05-83	1130	12.64	389	0.0
			375	21.6
			360	21.7
			345	21.4
			330	21.0
			315	21.4
			300	21.9
			285	21.9
			270	20.7
			255	21.0
			240	20.7
			225	22.8
			210	23.2
			195	22.7
			180	24.2
			165	24.8
			150	23.9
			135	19.4
			120	10.9
			94	0.0
12-06-83	1320	12.52	389	0.0
			375	22.2
			360	21.5
			345	21.3
			330	20.3
			315	20.0
			300	20.2
			285	21.4
			270	21.0
			255	20.4
			240	22.0
			225	22.1
			210	22.6
			195	22.3
			180	23.9
			165	24.2
			150	23.7
			135	18.9
			120	11.8
			94	0.0
12-07-83	1050	12.60	389	0.0
			375	22.5
			360	21.8
			345	21.4
			330	21.1
			315	21.7
			300	21.4
			285	21.2
			270	21.3
			255	21.8
			240	21.3
			225	22.4
			210	21.9
			195	23.7
			180	24.6

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
12-07-83	1050	(Continued)	165	25.1
			150	24.1
			135	19.4
			120	12.0
			94	0.0
12-07-83	1455	12.46	389	0.0
			375	22.0
			360	21.7
			345	20.9
			330	21.0
			315	21.6
			300	21.8
			285	21.4
			270	20.4
			255	21.8
			240	22.2
			225	21.6
			210	21.6
			195	22.5
			180	24.7
			165	24.9
			150	24.1
			135	18.7
			120	13.0
			94	0.0
12-08-83	1120	12.62	389	0.0
			375	21.9
			360	22.0
			345	21.5
			330	21.2
			315	21.9
			300	21.7
			285	21.0
			270	20.9
			255	22.4
			240	22.4
			225	22.8
			210	23.1
			195	23.3
			180	24.5
			165	24.9
			150	24.0
			135	18.4
			120	14.0
			94	0.0
12-08-83	1500	12.66	389	0.0
			375	22.4
			360	21.7
			345	21.5
			330	21.3
			315	20.4
			300	21.3
			285	21.9
			270	22.0
			255	22.3
			240	21.2
			225	21.4
			210	23.3
			195	23.8
12-08-83	1500	(Continued)	180	24.7
			165	25.1
			150	24.3
			135	18.5
			120	13.2
			94	0.0
12-09-83	1440	12.75	389	0.0
			375	22.3
			360	21.8
			345	21.3
			330	20.5
			315	21.0
			300	21.7
			285	21.7
			270	21.8
			255	21.3
			240	22.0
			225	22.5
			210	22.3
			195	22.9
			180	24.6
			165	25.0
			150	23.7
			135	18.4
			120	13.5
			94	0.0
12-10-83	1150	12.48	389	0.0
			375	22.2
			360	21.7
			345	20.9
			330	21.0
			315	20.4
			300	21.9
			285	21.0
			270	21.4
			255	22.3
			240	22.3
			225	22.5
			210	23.1
			195	22.7
			180	24.6
			165	25.0
			150	23.9
			135	18.3
			120	11.0
			94	0.0
12-11-83	1200	12.71	389	0.0
			375	22.5
			360	21.7
			345	21.2
			330	21.4
			315	21.3
			300	21.9
			285	21.7
			270	22.3
			255	21.3
			240	22.0
			225	22.7
			210	23.2

Table 56.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
12-11-83	1200	(Continued)	195	23.5
			180	24.4
			165	25.0
			150	24.0
			135	18.5
			120	13.1
			94	0.0
12-11-83	1530	12.65	389	0.0
			375	22.6
			360	22.0
			345	21.4
			330	21.2
			315	20.3
			300	21.2
			285	21.7
			270	22.1
			255	21.9
			240	22.3
			225	21.1
			210	23.3
			195	23.8
			180	24.5
			165	25.2
			150	24.0
			135	19.1
			120	10.5
			94	0.0
12-12-83	1305	12.68	389	0.0
			375	22.4
			360	21.9
			345	21.3
			330	21.1
			315	20.1
			300	21.1
			285	21.7
			270	21.6
			255	21.8
			240	20.3
			225	22.3
			210	22.7
			195	23.2
			180	24.1
			165	25.0
			150	24.0
			135	18.0
			120	13.6
			94	0.0
12-13-83	1105	12.72	389	0.0
			375	22.8
			360	21.6
			345	21.5
			330	21.1
			315	21.5
12-13-83	1105	(Continued)	300	21.7
			285	22.1
			270	22.2
			255	22.3
			240	20.6
			225	22.8
			210	23.3
			195	23.7
			180	25.3
			165	25.1
			150	24.3
			135	18.5
			120	13.0
			94	0.0
12-14-83	1145	12.68	389	0.0
			375	21.8
			360	21.7
			345	21.4
			330	20.9
			315	21.5
			300	21.8
			285	20.2
			270	21.6
			255	21.3
			240	21.6
			225	22.2
			210	22.2
			195	23.6
			180	24.4
			165	24.7
			150	24.4
			135	19.2
			120	13.5
			94	0.0
12-14-83	1530	12.58	389	0.0
			375	22.4
			360	22.0
			345	21.5
			330	20.3
			315	20.5
			300	21.9
			285	21.9
			270	22.1
			255	22.0
			240	21.1
			225	21.5
			210	21.9
			195	23.9
			180	25.1
			165	24.7
			150	23.9
			135	15.1
			120	12.8
			94	0.0

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
07-15-83	1045	1,753.02	77	0.0
			115	17.2
			145	29.4
			175	29.6
			205	28.6
			235	29.0
			265	28.7
			295	28.5
			325	28.7
			355	20.0
			400	0.0
07-16-83	0830	1,753.02	77	0.0
			105	13.9
			135	28.6
			165	29.2
			195	29.6
			225	29.2
			255	29.2
			285	27.9
			315	29.0
			345	25.3
			375	10.7
			400	0.0
07-16-83	1555	1,753.02	77	0.0
			105	13.1
			135	27.8
			165	28.9
			195	28.0
			225	28.7
			255	27.9
			285	28.2
			315	28.1
			345	24.4
			375	10.0
			400	0.0
07-17-83	0825	1,752.97	77	0.0
			105	14.7
			135	28.8
			165	28.4
			195	28.0
			225	28.1
			255	27.3
			285	28.0
			315	27.8
			345	24.8
			375	10.3
			400	0.0
07-18-83	0900	1,752.62	77	0.0
			105	13.7
			135	26.8
			165	27.7
			195	29.1
			225	27.3
			255	28.3
			285	29.5
			315	27.0
			345	24.5
			375	9.8
07-18-83	0900	(Continued)	400	0.0
07-18-83	1630	1,752.42	77	0.0
			105	13.8
			135	26.9
			165	27.2
			195	26.9
			225	26.4
			255	24.8
			285	26.2
			315	25.9
			245	24.8
			375	10.0
			400	0.0
07-19-83	1510	1,751.92	79	0.0
			105	12.3
			135	26.6
			165	27.2
			195	26.9
			225	27.7
			255	25.6
			285	26.7
			315	25.1
			345	22.5
			375	8.6
			400	0.0
07-20-83	0830	1,751.87	79	0.0
			105	12.7
			135	26.9
			165	26.9
			195	29.1
			225	29.6
			255	27.4
			285	27.8
			315	25.2
			345	22.2
			375	8.4
			400	0.0
07-24-83	1050	1,749.86	90	0.0
			120	7.5
			150	16.3
			180	26.5
			210	26.1
			240	25.4
			270	23.6
			300	23.4
			330	22.2
			360	11.7
			390	0.0
07-25-83	1025	1,750.64	395	0.0
			360	14.0
			330	22.3
			300	26.4
			270	29.6
			240	29.6
			210	29.3
			180	27.1
			150	26.5

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
07-25-83	1025	(Continued)	120	17.3
			83	0.0
07-25-83	1600	1,750.66	395	0.0
			360	14.0
			330	22.9
			300	25.6
			270	24.6
			240	25.2
			210	25.4
			180	26.3
			150	26.9
			120	17.6
			83	0.0
07-26-83	1125	1,751.06	395	0.0
			360	13.1
			330	24.4
			300	26.4
			270	27.5
			240	27.6
			210	27.9
			180	27.8
			150	27.2
			120	18.1
			83	0.0
07-27-83	1020	1,750.46	395	0.0
			360	13.3
			330	25.0
			300	25.3
			270	26.5
			240	26.2
			210	27.2
			180	26.8
			150	26.1
			120	17.5
			83	0.0
07-27-83	1715	1,750.28	395	0.0
			360	13.2
			330	24.7
			300	26.1
			270	25.0
			240	25.0
			210	24.8
			180	26.0
			150	25.5
			120	17.4
			83	0.0
07-28-83	0810	1,750.21	395	0.0
			360	13.3
			330	23.3
			300	23.5
			270	25.7
			240	26.5
			210	25.7
			180	25.5
			150	25.4
			120	16.9
			83	0.0
07-29-83	0850	1,749.76	395	0.0
			360	12.4
			330	22.4
			300	21.7
			270	22.5
			240	23.8
			210	24.1
			180	24.1
			150	24.1
			120	16.9
			83	0.0
07-29-83	1720	1,750.08	390	0.0
			360	13.0
			330	21.4
			300	23.0
			270	24.9
			240	25.3
			210	26.2
			180	24.7
			150	25.4
			120	16.7
			85	0.0
07-30-83	1055	1,750.36	390	0.0
			360	12.2
			330	21.7
			300	24.5
			270	27.0
			240	30.1
			210	27.5
			180	25.6
			150	25.9
			120	17.7
			85	0.0
08-01-83	1220	1,750.09	390	0.0
			340	19.7
			310	23.4
			280	23.8
			250	24.2
			220	24.6
			190	24.7
			160	24.6
			130	21.3
			85	0.0
08-02-83	1000	1,749.80	390	0.0
			370	6.4
			340	19.5
			310	21.4
			280	22.8
			250	24.3
			220	23.6
			190	24.1
			160	24.2
			130	21.0
			89	0.0
08-02-83	1630	1,749.36	390	0.0
			370	6.0
			340	18.6

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-02-83	1630	(Continued)	310	23.7
			280	28.1
			250	27.9
			220	28.5
			190	24.6
			160	24.6
			130	20.7
			89	0.0
08-03-83	1640	1,748.97	387	0.0
			360	11.0
			330	20.9
			300	20.9
			270	21.0
			240	22.8
			210	23.1
			180	23.3
			150	23.9
			120	15.3
			96	0.0
08-04-83	0935	1,748.92	387	0.0
			360	10.0
			330	19.9
			300	21.6
			270	21.2
			240	22.8
			210	23.5
			180	23.3
			150	23.6
			120	14.9
			96	0.0
08-04-83	1615	1,748.86	387	0.0
			360	10.1
			330	19.7
			300	23.9
			270	27.6
			240	28.0
			210	27.5
			180	23.4
			150	23.2
			120	15.8
			96	0.0
08-05-83	0955	1,748.86	387	0.0
			360	10.0
			330	19.7
			300	21.9
			270	24.5
			240	23.9
			210	23.1
			180	23.1
			150	23.1
			120	15.7
			96	0.0
08-06-83	0905	1,749.31	387	0.0
			360	10.5
			330	20.7
			300	22.9
			270	25.0
08-06-83	0905	(Continued)	240	25.4
			210	24.4
			180	23.8
			150	23.9
			120	15.7
			96	0.0
08-06-83	1700	1,749.02	387	0.0
			360	10.3
			330	20.2
			300	22.4
			270	25.6
			240	26.4
			210	24.4
			180	23.7
			150	24.0
			120	15.9
			96	0.0
08-07-83	1030	1,749.16	96	0.0
			120	16.2
			150	24.1
			180	23.6
			210	24.0
			240	23.2
			270	22.9
			300	22.0
			330	20.5
			360	10.4
			387	0.0
08-08-83	0930	1,749.12	387	0.0
			360	10.5
			330	20.1
			300	21.3
			270	21.4
			240	22.0
			210	23.3
			180	23.2
			150	23.7
			120	15.6
			96	0.0
08-08-83	1700	1,749.05	387	0.0
			360	10.3
			330	19.5
			300	23.4
			270	26.2
			240	26.7
			210	25.8
			180	24.2
			150	22.4
			120	15.4
			96	0.0
08-09-83	1100	1,747.56	96	0.0
			120	14.6
			150	21.4
			180	21.7
			210	21.9
			240	24.9
			270	25.9

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-09-83	1100	(Continued)	300	21.8
			330	18.5
			360	8.4
			387	0.0
08-11-83	1000	1,749.20	388	0.0
			360	10.5
			340	19.1
			320	20.6
			300	22.4
			280	25.0
			260	27.2
			240	27.2
			220	28.4
			200	25.3
			180	23.0
			160	22.7
			140	22.0
			120	15.1
			92	0.0
08-12-83	0845	1,748.92	92	0.0
			120	15.4
			140	21.8
			160	23.0
			180	23.7
			200	23.9
			220	24.5
			240	23.3
			260	21.5
			280	20.4
			300	20.2
			320	20.5
			340	17.3
			388	0.0
08-13-83	1005	1,746.88	370	0.0
			360	7.3
			340	15.3
			320	18.5
			300	20.1
			280	23.6
			260	24.7
			240	25.3
			220	24.6
			200	22.1
			180	22.9
			160	21.6
			140	21.4
			120	13.4
			100	0.0
08-13-83	1345	1,747.33	370	0.0
			350	11.8
			330	17.9
			310	18.6
			290	19.3
			270	19.8
			250	20.0
			230	20.3
			210	21.9
			190	23.2
08-13-83	1345	(Continued)	170	22.3
			150	21.7
			130	17.9
			100	0.0
08-14-83	1450	1,748.00	370	0.0
			350	16.5
			330	15.9
			310	18.9
			290	21.0
			270	23.7
			250	25.0
			230	24.0
			210	22.2
			190	21.6
			170	23.1
			150	20.5
			130	19.8
			100	0.0
08-15-83	0935	1,748.00	370	0.0
			340	14.7
			320	19.4
			300	22.2
			280	23.8
			260	24.0
			240	23.8
			220	24.5
			200	23.7
			180	22.2
			160	22.1
			140	20.7
			100	0.0
08-15-83	0935	1,748.22	370	0.0
			340	14.7
			320	19.4
			300	22.2
			280	23.8
			260	24.0
			240	23.8
			220	24.5
			200	23.7
			180	22.2
			160	22.1
			140	20.7
			100	0.0
08-15-83	1315	1,748.08	370	0.0
			340	14.8
			320	19.3
			300	21.3
			280	18.7
			260	19.5
			240	19.3
			220	20.6
			200	23.2
			180	23.8
			160	21.7
			140	22.3
			100	0.0

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-16-83	1300	1,747.94	372	0.0
			340	14.4
			320	18.3
			300	24.9
			280	23.3
			260	24.9
			240	25.0
			220	23.2
			200	23.1
			180	22.9
			160	22.3
			140	21.3
			98	0.0
08-17-83	0830	1,747.92	372	0.0
			340	15.2
			320	17.9
			300	20.3
			280	21.7
			260	21.2
			240	20.9
			220	21.4
			200	21.8
			180	23.6
			160	22.6
			140	20.8
			98	0.0
08-17-83	1225	1,747.92	372	0.0
			340	15.3
			320	15.7
			300	18.2
			280	17.9
			260	19.0
			240	20.3
			220	21.2
			200	20.7
			180	22.6
			160	21.4
			140	20.8
			98	0.0
08-18-83	1355	1,748.05	372	0.0
			340	14.9
			320	18.8
			300	21.4
			280	24.1
			260	24.9
			240	22.8
			220	22.2
			200	21.4
			180	20.9
			160	21.6
			140	20.1
			98	0.0
08-19-83	1545	1,748.12	372	0.0
			340	18.1
			320	18.6
			300	20.2
			280	21.5
			260	21.7
08-19-83	1545	(Continued)	240	22.4
			220	23.7
			200	21.9
			180	23.4
			160	21.5
			140	21.5
			98	0.0
08-21-83	0927	1,746.52	374	0.0
			350	11.0
			325	18.0
			300	20.4
			275	23.4
			250	24.4
			225	25.0
			200	22.1
			175	21.7
			150	21.7
			125	15.5
			98	0.0
08-21-83	1658	1,746.36	374	0.0
			350	9.5
			325	17.2
			300	19.0
			275	19.8
			250	19.4
			225	19.4
			200	21.1
			175	20.5
			150	21.5
			125	15.4
			98	0.0
08-22-83	0848	1,746.34	374	0.0
			350	11.0
			325	16.2
			300	16.6
			275	17.9
			250	19.9
			225	21.1
			200	21.6
			175	21.5
			150	21.2
			125	15.1
			98	0.0
08-23-83	0820	1,746.23	374	0.0
			350	10.9
			325	17.1
			300	20.3
			275	19.2
			250	19.1
			225	20.1
			200	21.2
			175	22.6
			150	21.0
			125	14.2
			98	0.0
08-23-83	1702	1,746.41	374	0.0
			350	11.2

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-23-83	1702	(Continued)	325	18.2
			300	20.2
			275	20.2
			250	19.6
			225	21.2
			200	20.8
			175	21.4
			150	21.8
			125	15.6
			98	0.0
08-24-83	0900	1,746.39	374	0.0
			350	10.4
			325	18.6
			300	20.5
			275	22.6
			250	23.6
			225	21.6
			200	23.2
			175	22.0
			150	21.4
			125	15.4
			98	0.0
08-25-83	0815	1,746.39	374	0.0
			350	12.0
			325	18.4
			300	20.6
			275	23.4
			250	23.2
			225	22.6
			200	23.8
			175	22.0
			150	21.4
			125	15.2
			98	0.0
08-25-83	1722	1,746.33	374	0.0
			350	11.2
			325	18.6
			300	19.2
			275	21.0
			250	24.0
			225	24.6
			200	22.8
			175	22.4
			150	21.6
			125	14.8
			98	0.0
08-26-83	0855	1,745.30	374	0.0
			350	11.2
			325	16.8
			300	17.6
			275	18.2
			250	19.0
			225	19.2
			200	22.4
			175	22.6
			150	21.0
			125	14.8
			98	0.0
08-27-83	0832	1,746.39	374	0.0
			350	10.6
			325	18.4
			300	21.2
			275	21.0
			250	21.0
			225	20.8
			200	21.0
			175	21.8
			150	21.6
			125	15.2
			98	0.0
08-27-83	1650	1,746.38	374	0.0
			350	11.6
			325	19.4
			300	21.6
			275	26.0
			250	24.0
			225	23.8
			200	22.4
			175	22.2
			150	21.4
			125	15.8
			98	0.0
08-28-83	0842	1,746.37	374	0.0
			350	11.2
			325	18.8
			300	21.4
			275	21.0
			250	23.6
			225	24.0
			200	24.4
			175	22.8
			150	21.8
			125	15.2
			98	0.0
08-28-83	1706	1,746.32	374	0.0
			350	10.6
			325	19.6
			300	20.6
			275	25.8
			250	22.4
			225	22.4
			200	22.0
			175	22.4
			150	22.0
			125	14.6
08-29-83	0845	1,746.44	350	10.6
			325	18.7
			300	21.1
			275	22.3
			250	21.8
			225	22.3
			200	22.5
			175	22.2
			150	21.5
			125	15.2
			98	0.0

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-30-83	0905	1,762.97	375	0.0
			350	10.6
			325	24.2
			300	20.8
			275	25.3
			250	22.9
			225	22.3
			200	22.0
			175	22.0
			150	22.0
			125	14.9
			95	0.0
08-30-83	1715	1,746.31	375	0.0
			350	11.2
			325	19.6
			300	22.3
			275	23.6
			250	21.7
			225	21.7
			200	24.0
			175	23.4
			150	22.0
			125	13.3
			95	0.0
08-31-83	0900	1,746.26	371	0.0
			350	10.6
			325	19.3
			300	20.8
			275	22.7
			250	24.2
			225	26.3
			200	24.9
			175	20.3
			150	22.2
			125	16.4
			95	0.0
08-31-83	1730	1,746.37	372	0.0
			350	11.3
			325	19.2
			300	21.5
			275	21.9
			250	23.0
			225	23.0
			200	24.5
			175	23.2
			150	21.9
			125	15.2
			95	0.0
09-01-83	0915	1,746.40	371	0.0
			360	5.4
			340	14.7
			320	18.5
			300	21.6
			280	21.1
			260	23.7
			240	23.5
			220	21.8
			200	22.1
09-01-83	0915	(Continued)	180	22.3
			160	22.3
			140	22.1
			120	12.8
			95	0.0
09-02-83	1218	1,746.38	375	0.0
			360	5.2
			340	15.1
			320	18.9
			300	21.8
			280	25.1
			260	24.4
			240	25.0
			220	26.0
			180	23.5
			160	22.6
			140	20.9
			120	13.3
			95	0.0
09-03-83	0930	1,746.38	375	0.0
			360	6.4
			340	15.3
			320	14.6
			300	21.3
			280	21.6
			260	24.1
			240	25.5
			220	25.9
			200	25.1
			180	24.3
			160	22.2
			140	21.3
			120	12.9
			95	0.0
09-04-83	1130	1,747.56	375	0.0
			360	6.2
			340	15.6
			320	20.7
			300	22.1
			280	21.8
			260	22.5
			240	23.7
			220	26.0
			200	25.0
			180	23.8
			160	22.7
			140	22.3
			120	13.3
			97	0.0
09-05-83	0955	1,746.32	375	0.0
			360	6.0
			340	15.8
			320	19.8
			300	22.5
			280	25.4
			260	24.5
			240	25.2
			220	24.9

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-05-83	0955	(Continued)	200	22.8
			180	23.5
			160	22.2
			140	21.1
			120	12.9
			97	0.0
09-05-83	1815	1,746.36	375	0.0
			360	9.8
			340	15.8
			320	19.4
			300	23.2
			280	23.8
			260	25.3
			240	25.5
			220	25.5
			200	23.0
			180	23.1
			160	22.2
			140	22.4
			120	13.6
			97	0.0
09-06-83	0830	1,746.08	384	0.0
			360	9.1
			340	15.7
			320	19.8
			300	21.3
			280	21.5
			260	20.8
			240	21.3
			220	22.1
			200	22.2
			180	23.3
			160	22.7
			140	21.6
			120	12.8
			98	0.0
09-11-83	1215	1,746.05	382	0.0
			360	7.5
			340	16.7
			320	21.5
			300	21.6
			280	22.4
			260	24.4
			240	24.2
			220	25.3
			200	22.7
			180	22.0
			160	22.3
			140	21.1
			120	12.7
			99	0.0
09-11-83	1720	1,745.80	382	0.0
			360	7.5
			340	16.6
			320	21.6
			300	22.8
			280	25.3
			260	21.4
09-11-83	1720	(Continued)	240	22.2
			220	23.2
			200	22.1
			180	21.3
			160	21.9
			140	21.6
			120	12.6
			99	0.0
09-12-83	1645	1,746.43	382	0.0
			360	7.8
			340	17.4
			320	22.0
			300	23.5
			280	24.9
			260	24.2
			240	24.3
			220	23.4
			200	22.2
			180	23.9
			160	22.3
			140	22.0
			120	12.9
			99	0.0
09-13-83	1020	1,746.10	383	0.0
			360	8.1
			340	17.4
			320	21.9
			300	22.3
			280	23.9
			260	24.9
			240	24.4
			220	24.4
			200	24.9
			180	23.4
			160	22.5
			140	21.3
			120	13.0
			99	0.0
09-13-83	1705	1,745.80	383	0.0
			360	6.8
			340	17.9
			320	21.7
			300	22.0
			280	23.4
			260	23.9
			240	23.7
			220	24.2
			200	24.4
			180	23.9
			160	22.6
			140	21.2
			120	12.5
			99	0.0
09-14-83	1705	1,745.95	99	0.0
			110	9.4
			125	15.7
			140	22.5
			155	23.1

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-14-83	1705	(Continued)	170	22.6
			185	19.9
			200	23.7
			215	24.0
			230	23.5
			245	23.4
			260	24.0
			275	25.6
			290	22.7
			305	22.5
			320	22.5
			335	20.1
			350	13.9
			365	6.7
			383	0.0
09-15-83	0915	1,746.34	383	0.0
			360	7.7
			340	18.7
			320	22.5
			300	22.7
			280	24.6
			260	25.4
			240	25.3
			220	25.3
			200	22.7
			180	23.7
			160	22.8
			140	21.9
			120	13.3
			99	0.0
09-15-83	1705	1,746.41	383	0.0
			360	7.7
			340	21.0
			320	22.5
			300	23.9
			280	24.8
			260	24.4
			240	25.0
			220	23.3
			200	24.8
			180	24.2
			160	22.4
			140	22.3
			120	13.0
			99	0.0
09-16-83	1045	1,746.34	383	0.0
			360	8.1
			340	18.8
			320	22.5
			300	22.0
			280	22.3
			260	23.3
			240	23.3
			230	25.5
			200	24.6
			180	24.6
			160	22.9
			140	22.4
			120	13.3
09-16-83	1045	(Continued)	99	0.0
09-18-83	1348	1,747.62	99	0.0
			120	12.7
			140	21.6
			160	22.6
			180	24.3
			200	24.5
			220	24.1
			240	25.6
			260	26.1
			280	25.1
			300	22.3
			320	23.2
			340	19.1
			360	8.0
			383	0.0
09-19-83	1004	1,746.33	95	0.0
			115	11.4
			135	20.1
			155	22.5
			175	24.0
			195	25.1
			215	25.3
			235	24.9
			255	26.0
			275	24.3
			295	23.2
			315	22.7
			335	20.6
			355	11.9
			387	0.0
09-20-83	1209	1,746.22	387	0.0
			360	9.6
			345	16.8
			330	21.7
			315	22.6
			300	23.3
			285	25.1
			270	25.1
			255	25.4
			240	25.3
			225	25.3
			210	22.8
			195	22.3
			180	23.1
			165	23.3
			150	22.3
			135	21.4
			120	13.2
			95	0.0
09-20-83	1736	1,746.25	387	0.0
			355	12.1
			340	19.8
			325	22.8
			310	22.9
			295	23.5
			280	23.7
			265	25.7

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-20-83	1736	(Continued)	250	25.5
			235	25.6
			220	25.7
			205	24.8
			190	24.3
			175	24.0
			160	22.8
			145	22.6
			130	18.8
			115	10.4
			95	0.0
09-21-83	0955	1,746.24	96	0.0
			115	11.2
			130	19.2
			145	22.4
			160	23.2
			175	24.4
			190	24.7
			205	22.2
			220	23.6
			235	23.4
			250	23.8
			265	23.5
			280	22.4
			295	22.1
			310	22.4
			325	23.1
			340	20.0
			355	12.3
			385	0.0
09-22-83	1144	1,746.27	386	0.0
			360	10.2
			345	16.5
			330	22.8
			315	23.5
			300	23.7
			285	25.4
			260	25.7
			245	25.8
			230	24.9
			215	25.5
			200	25.0
			185	24.6
			160	23.3
			145	22.5
			130	22.2
			115	15.4
			95	0.0
09-23-83	1431	1,746.34	95	0.0
			125	15.6
			140	22.2
			155	22.6
			170	23.7
			185	24.7
			200	25.2
			215	25.5
			230	24.2
			245	24.1
			260	25.1
09-23-83	1431	(Continued)	275	24.4
			290	24.9
			305	23.4
			320	24.4
			335	21.8
			350	16.2
			386	0.0
09-24-83	1008	1,746.34	386	0.0
			360	10.7
			345	18.4
			330	22.8
			315	24.3
			300	23.7
			285	26.2
			270	25.7
			255	25.6
			240	24.5
			225	23.7
			210	24.2
			195	24.6
			180	24.5
			165	23.7
			150	22.4
			135	21.1
			120	13.6
			95	0.0
09-24-83	1814	1,746.85	387	0.0
			365	9.3
			350	16.2
			335	23.3
			320	25.0
			305	24.0
			290	23.8
			275	25.4
			260	26.2
			245	25.3
			230	24.7
			215	24.7
			200	23.8
			185	24.7
			170	25.3
			155	23.5
			140	23.2
			125	16.3
			95	0.0
09-25-83	0844	1,746.66	95	0.0
			120	13.5
			135	21.5
			150	23.8
			165	23.6
			180	21.4
			195	25.3
			210	24.0
			225	23.6
			240	24.3
			255	23.9
			270	23.3
			285	25.7
			300	23.5

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-25-83	0844	(Continued)	315	23.2
			330	23.8
			345	18.7
			360	11.7
			386	0.0
09-29-83	0945	1,746.36	383	0.0
			370	9.1
			355	17.2
			340	21.8
			325	24.4
			310	23.0
			295	24.5
			280	25.4
			265	24.1
			250	25.0
			235	25.3
			220	24.3
			205	23.7
			190	24.0
			175	24.8
			160	23.1
			145	22.5
			130	19.8
			115	11.6
			93	0.0
09-29-83	0945	1,746.38	383	0.0
			370	9.1
			355	17.2
			340	21.8
			325	24.4
			310	23.0
			295	24.5
			280	25.4
			265	24.1
			250	25.0
			235	25.3
			220	24.3
			205	23.7
			190	24.0
			175	24.8
			160	23.1
			145	22.5
			130	19.8
			115	11.6
			95	0.0
09-30-83	1135	1,747.21	93	0.0
			110	10.1
			130	20.2
			150	23.5
			170	24.3
			190	24.8
			210	24.4
			230	26.4
			250	26.1
			270	26.2
			290	24.4
			310	23.5
			330	24.9
			350	18.0
09-30-83	1135	(Continued)	370	10.7
			394	0.0
10-01-83	1130	1,746.92	394	0.0
			370	10.9
			350	21.0
			330	26.6
			310	25.1
			290	25.1
			270	27.6
			250	26.4
			230	26.8
			210	26.5
			190	25.9
			170	25.3
			150	24.4
			130	20.3
			110	12.3
			91	0.0
10-02-83	1630	1,746.36	385	0.0
			370	13.8
			350	19.1
			330	25.8
			310	23.8
			290	23.9
			270	23.8
			250	23.5
			230	23.5
			210	23.8
			190	23.7
			170	24.7
			150	24.2
			130	21.0
			110	12.0
			92	0.0
10-03-83	1045	1,747.21	384	0.0
			370	12.0
			350	19.2
			330	25.1
			310	27.6
			290	23.3
			270	24.4
			250	23.9
			230	23.7
			210	24.4
			190	25.6
			170	23.9
			150	23.4
			130	20.9
			110	20.6
			94	0.0
10-04-83	1245	1,747.23	384	0.0
			370	13.1
			350	19.2
			330	22.9
			310	23.1
			290	24.1
			270	24.8
			250	25.0

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-04-83	1245	(Continued)	230	25.3
			210	24.8
			190	25.7
			170	25.2
			150	23.2
			130	18.2
			110	9.5
			94	0.0
10-06-83	0933	1,747.20	385	0.0
			370	12.2
			350	17.5
			330	24.8
			310	22.7
			290	22.7
			270	23.8
			250	25.9
			230	25.1
			210	25.1
			190	25.1
			170	24.4
			150	22.4
			130	18.4
			110	9.6
			94	0.0
10-06-83	1625	1,745.56	385	0.0
			370	11.2
			350	17.8
			330	24.1
			310	22.2
			290	22.4
			270	22.3
			250	25.6
			230	25.7
			210	24.1
			190	23.7
			170	24.0
			150	22.6
			130	18.1
			110	9.1
			94	0.0
10-07-83	0905	1,746.56	385	0.0
			370	12.3
			350	17.1
			330	22.0
			310	22.4
			290	23.0
			270	26.2
			250	25.8
			230	25.5
			210	23.4
			190	25.6
			170	23.8
			150	22.3
			130	20.0
			110	8.0
			94	0.0
10-08-83	0912	1,746.64	385	0.0
			370	11.6
10-08-83	0912	(Continued)	350	16.7
			330	22.6
			310	21.7
			290	22.0
			270	22.9
			250	22.4
			230	22.7
			210	24.6
			190	24.4
			170	23.9
			150	22.4
			130	17.6
			110	8.4
			94	0.0
10-08-83	1605	1,746.66	385	0.0
			370	11.6
			350	16.4
			330	22.1
			310	22.8
			290	23.8
			270	25.4
			250	23.8
			230	25.8
			210	25.0
			190	24.9
			170	24.0
			150	22.5
			130	19.8
			110	9.7
			94	0.0
10-09-83	0837	1,746.67	384	0.0
			370	11.4
			350	15.9
			330	22.4
			310	22.9
			290	23.5
			270	22.8
			250	23.5
			230	25.6
			210	25.1
			190	24.7
			170	22.8
			150	22.6
			130	17.9
			110	9.4
			95	0.0
10-10-83	1630	1,746.52	382	0.0
			370	10.4
			350	16.0
			330	22.7
			310	22.2
			290	22.3
			270	23.6
			250	23.5
			230	25.1
			210	24.2
			190	24.2
			170	22.3
			150	22.5

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-10-83	1630	(Continued)	130	20.8
			110	8.4
			93	0.0
10-11-83	0912	1,746.48	383	0.0
			370	10.0
			350	16.8
			330	22.8
			310	21.8
			290	23.2
			270	24.4
			250	23.9
			230	25.4
			210	24.2
			190	24.5
			170	24.3
			150	22.3
			130	18.8
			110	8.4
			95	0.0
10-12-83	0937	1,745.29	381	0.0
			370	8.1
			350	15.0
			330	21.3
			310	21.3
			290	22.1
			270	23.8
			250	24.1
			230	22.2
			210	23.0
			190	23.7
			170	22.6
			150	20.9
			130	18.4
			110	7.4
			95	0.0
10-12-83	1523	1,745.25	382	0.0
			370	8.3
			350	14.8
			330	20.9
			310	20.9
			290	22.6
			270	24.2
			250	23.0
			230	24.0
			210	21.6
			190	20.9
			170	21.4
			150	21.1
			130	17.7
			110	6.9
			95	0.0
10-13-83	1140	1,745.25	96	0.0
			110	7.5
			130	17.4
			150	20.9
			170	21.5
			190	22.5
			210	22.2
10-13-83	1140	(Continued)	230	23.9
			250	21.7
			270	22.2
			290	22.8
			310	21.5
			330	21.3
			350	15.0
			370	7.5
			382	0.0
10-14-83	1017	1,745.24	382	0.0
			370	7.7
			350	14.6
			330	22.4
			310	21.4
			290	22.2
			270	22.7
			250	22.8
			230	22.3
			210	22.6
			190	21.4
			170	22.2
			150	20.9
			130	17.9
			110	6.9
			94	0.0
10-15-83	0945	1,745.24	382	0.0
			370	7.6
			350	15.4
			330	22.1
			310	21.5
			290	22.4
			270	22.5
			250	24.0
			230	22.1
			210	22.8
			190	21.6
			170	21.9
			150	21.1
			130	17.9
			110	8.0
			96	0.0
10-16-83	1202	1,745.10	379	0.0
			365	13.4
			350	17.6
			335	20.5
			320	21.3
			305	22.3
			290	22.9
			275	22.4
			260	22.9
			245	22.7
			230	22.5
			215	23.4
			200	23.2
			185	23.0
			170	22.5
			155	21.2
			140	20.5
			125	14.3

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-16-83	1202	(Continued)	110	7.6
			98	0.0
10-17-83	0935	1,745.23	379	0.0
			365	12.9
			350	16.4
			335	20.6
			320	22.7
			305	22.6
			290	23.2
			275	22.7
			260	22.9
			245	23.5
			230	22.7
			215	22.1
			200	23.5
			185	23.4
			170	22.8
			155	21.3
			140	20.1
			125	14.1
			110	6.8
			98	0.0
10-18-83	0915	1,745.32	379	0.0
			365	12.4
			350	16.0
			335	21.6
			320	23.6
			305	22.3
			290	22.8
			275	23.7
			260	23.9
			245	23.5
			230	24.4
			215	24.5
			200	24.1
			185	23.5
			170	23.2
			155	20.9
			140	20.3
			125	14.7
			110	6.6
			98	0.0
10-18-83	1142	1,744.27	379	0.0
			365	12.7
			350	16.0
			335	21.6
			320	23.5
			305	22.4
			290	24.3
			275	23.4
			260	22.7
			245	21.9
			230	22.0
			215	22.4
			200	23.7
			185	23.1
			170	22.9
			155	21.4
			140	21.0
10-18-83	1142	(Continued)	125	14.0
			110	7.2
			98	0.0
10-19-83	0942	1,745.37	379	0.0
			365	12.6
			350	16.3
			335	22.2
			320	23.3
			305	22.8
			290	23.3
			275	24.0
			260	23.5
			245	24.1
			230	22.8
			215	22.8
			200	23.8
			185	23.4
			120	22.9
			155	21.4
			140	21.2
			125	14.2
			110	6.8
			98	0.0
10-20-83	0955	1,745.39	379	0.0
			365	11.9
			350	16.6
			335	22.0
			320	23.6
			305	23.0
			290	23.1
			275	23.2
			260	23.9
			245	24.2
			230	22.6
			215	23.6
			200	24.2
			185	22.4
			170	22.5
			155	21.3
			140	21.5
			125	14.3
			110	7.8
			98	0.0
10-21-83	0910	1,745.36	379	0.0
			365	11.8
			350	16.6
			335	22.3
			320	24.2
			305	23.4
			290	23.5
			275	24.8
			260	24.0
			245	24.6
			230	22.8
			215	22.9
			200	23.4
			185	23.1
			170	23.2
			155	21.5

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-21-83	0910	(Continued)	140	21.3
			125	14.8
			110	6.8
			98	0.0
10-22-83	0953	1,745.36	379	0.0
			365	11.7
			350	15.9
			335	22.1
			320	24.0
			305	23.2
			290	24.5
			275	23.1
			260	23.1
			245	23.0
			230	24.3
			215	23.9
			200	22.8
			185	23.3
			170	22.4
			155	21.2
			140	20.1
			125	15.0
			110	6.9
			98	0.0
10-22-83	1105	1,745.36	379	0.0
			365	11.5
			350	15.9
			335	22.2
			320	24.2
			305	23.2
			290	23.3
			275	22.5
			260	22.4
			245	23.0
			230	23.9
			215	23.4
			200	24.0
			185	23.4
			170	23.2
			155	21.3
			140	20.1
			125	14.3
			110	7.1
			98	0.0
10-23-83	0936	1,745.16	379	0.0
			365	11.3
			350	16.4
			335	22.5
			320	23.7
			305	22.2
			290	24.7
			275	24.7
			260	22.3
			245	24.5
			230	24.3
			215	24.0
			200	23.5
			185	22.8
			170	22.3
10-23-83	0936	(Continued)	155	21.1
			140	20.4
			125	14.0
			110	7.0
			98	0.0
10-25-83	1450	1,746.46	383	0.0
			365	11.5
			350	18.3
			335	23.4
			320	25.2
			305	24.9
			290	24.2
			275	25.7
			260	25.1
			245	24.6
			230	25.0
			215	24.8
			200	24.6
			185	24.6
			170	23.9
			155	22.4
			140	22.2
			125	15.3
			110	7.8
			95	0.0
10-26-83	0910	1,746.34	383	0.0
			365	11.3
			350	17.6
			335	23.3
			320	24.9
			305	23.6
			290	25.4
			275	24.0
			260	22.6
			245	23.6
			230	25.2
			215	24.5
			200	24.9
			185	24.6
			170	23.9
			155	22.3
			140	22.4
			125	15.4
			110	8.3
			95	0.0
10-26-83	1510	1,746.63	383	0.0
			365	11.4
			350	18.5
			335	23.7
			320	25.3
			305	24.2
			290	25.3
			275	24.5
			260	24.5
			245	24.7
			230	24.3
			215	25.0
			200	23.7
			185	24.4

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-26-83	1510	(Continued)	170	23.1
			155	22.4
			140	22.4
			125	15.1
			110	9.4
			95	0.0
10-27-83	1130	1,746.23	382	0.0
			365	11.0
			350	17.7
			335	23.1
			320	25.1
			305	23.5
			290	23.0
			275	23.6
			260	23.9
			245	24.8
			230	24.1
			215	23.4
			200	24.7
			185	23.1
			170	23.3
			155	22.0
			140	22.1
			125	15.6
			110	8.7
			96	0.0
10-28-83	1123	1,746.35	381	0.0
			365	11.4
			350	17.8
			335	23.7
			320	24.7
			305	25.0
			290	25.0
			275	24.5
			260	25.6
			245	24.4
			230	23.2
			215	24.1
			200	23.5
			185	24.7
			160	23.9
			155	22.7
			140	22.2
			125	15.6
			110	8.1
			96	0.0
10-29-83	1145	1,746.50	382	0.0
			370	10.4
			350	18.2
			330	24.4
			310	25.5
			290	24.8
			270	24.2
			250	23.7
			230	24.4
			210	25.2
			190	24.4
			170	24.4
			150	22.4
10-29-83	1145	(Continued)	130	17.8
			110	8.6
			96	0.0
10-30-83	0907	1,746.50	382	0.0
			370	9.6
			350	17.9
			330	24.7
			310	24.0
			290	23.8
			270	24.2
			250	25.3
			230	25.6
			210	25.5
			190	25.0
			170	23.4
			150	22.3
			130	16.5
			110	8.7
			96	0.0
10-30-83	1005	1,746.54	382	0.0
			270	10.0
			350	18.6
			330	24.5
			310	24.2
			290	25.4
			270	23.6
			250	23.3
			230	23.4
			210	22.2
			190	23.7
			170	23.6
			150	22.3
			130	18.8
			110	7.9
			96	0.0
10-31-83	0937	1,746.43	382	0.0
			370	9.4
			350	17.9
			330	24.2
			310	23.3
			290	24.6
			270	26.4
			250	25.1
			230	26.1
			210	25.5
			190	24.9
			170	23.4
			150	22.4
			130	19.8
			110	9.0
			96	0.0
11-01-83	0930	1,746.57	382	0.0
			370	9.8
			350	18.2
			330	23.9
			310	24.5
			290	23.9
			270	25.7

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-01-83	0930	(Continued)	250	24.4
			230	25.1
			210	25.4
			190	24.8
			170	23.0
			150	22.3
			130	19.1
			110	9.2
			96	0.0
11-02-83	0845	1,746.09	381	0.0
			370	8.9
			350	16.4
			330	23.9
			310	24.6
			290	24.3
			270	24.1
			250	23.6
			230	25.5
			210	24.5
			190	23.0
			170	22.8
			150	21.8
			130	17.9
			110	9.1
			97	0.0
11-03-83	0957	1,746.38	381	0.0
			370	8.7
			350	16.3
			330	23.4
			310	23.5
			290	23.1
			270	24.8
			250	24.0
			230	25.2
			210	24.4
			190	23.9
			170	23.5
			150	21.6
			130	18.4
			110	7.2
			97	0.0
11-03-83	1042	1,745.78	381	0.0
			370	9.4
			350	17.5
			330	23.7
			310	23.3
			290	23.1
			270	25.0
			250	24.4
			230	24.9
			210	22.6
			190	24.1
			170	23.1
			150	21.7
			130	18.4
			110	7.9
			97	0.0
11-05-83	1623	1,746.67	383	0.0
11-05-83	1623	(Continued)	370	9.8
			350	17.9
			330	22.7
			310	23.1
			290	24.0
			270	23.9
			250	24.2
			230	24.2
			210	25.1
			190	24.5
			170	24.1
			150	22.0
			130	19.6
			93	0.0
11-06-83	1211	1,746.58	385	0.0
			370	9.1
			355	15.8
			340	22.6
			325	24.6
			310	23.7
			295	23.9
			280	24.6
			265	24.2
			250	25.1
			235	24.4
			220	25.2
			205	24.6
			190	24.1
			175	24.4
			160	22.8
			145	22.0
			130	16.8
			115	11.0
			93	0.0
11-06-83	1644	1,748.10	385	0.0
			360	15.3
			350	20.4
			340	23.2
			330	24.4
			320	24.6
			310	24.1
			300	24.8
			290	24.5
			280	24.3
			270	24.1
			260	24.1
			250	25.1
			240	25.6
			230	25.1
			220	25.4
			210	25.7
			200	24.7
			190	24.5
			180	24.2
			170	24.1
			160	22.7
			150	22.4
			140	22.6
			130	19.5
			120	13.0

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-06-83	1644	(Continued)	93	0.0
11-07-83	1200	1,745.44	98	0.0
			110	7.4
			125	14.9
			140	20.5
			155	21.3
			170	22.5
			185	22.4
			200	22.8
			215	22.7
			230	21.7
			245	22.7
			260	22.7
			275	23.8
			290	24.2
			305	23.9
			320	24.1
			335	22.2
			350	16.7
			385	0.0
11-08-83	1040	1,745.46	385	0.0
			360	11.6
			350	16.3
			340	21.0
			330	23.0
			320	23.7
			310	23.9
			300	24.0
			290	23.5
			280	24.9
			270	24.3
			260	24.0
			250	24.3
			240	23.1
			230	23.0
			220	22.5
			210	22.2
			200	22.9
			190	22.7
			180	23.0
			170	22.5
			160	21.6
			150	21.2
			140	21.2
			130	17.8
			120	11.8
			98	0.0
11-09-83	1430	1,745.40	98	0.0
			115	10.0
			125	13.5
			135	19.6
			145	21.2
			155	21.0
			165	22.3
			175	22.4
			185	23.3
			195	23.7
			205	23.0
			215	23.3
11-09-83	1430	(Continued)	225	24.2
			235	24.1
			245	24.2
			255	24.3
			265	23.0
			275	23.3
			285	22.4
			295	23.2
			305	23.2
			315	24.2
			325	23.5
			335	20.3
			345	19.7
			355	14.3
			385	0.0
11-10-83	0940	1,745.46	385	0.0
			360	11.7
			350	16.3
			340	20.8
			330	23.0
			320	23.9
			310	24.9
			300	25.2
			290	25.0
			280	23.4
			270	23.5
			260	23.4
			250	24.0
			240	23.8
			230	23.2
			220	22.8
			210	23.1
			200	23.6
			190	23.4
			180	22.9
			170	22.7
			160	22.1
			150	21.1
			140	20.0
			130	17.6
			98	0.0
11-11-83	1540	1,745.05	98	0.0
			120	11.4
			130	19.2
			140	21.0
			150	20.4
			160	21.4
			170	22.6
			180	22.7
			190	23.4
			200	22.6
			210	22.0
			220	22.2
			230	23.6
			240	24.1
			250	24.1
			260	23.9
			270	23.9
			280	24.1
			290	23.8

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-11-83	1540	(Continued)	300	24.5
			310	24.4
			320	23.6
			330	22.6
			340	21.0
			350	15.3
			385	0.0
11-12-83	1144	1,745.32	98	0.0
			120	11.8
			130	17.9
			140	20.3
			150	21.1
			160	21.2
			170	22.4
			180	22.7
			190	23.1
			200	23.7
			210	23.9
			220	23.8
			230	23.9
			240	22.8
			250	24.1
			260	23.7
			270	23.7
			280	23.4
			290	23.4
			300	24.3
			310	24.3
			320	23.2
			330	22.6
			340	20.3
			350	15.3
			360	11.7
			385	0.0
11-12-83	1231	1,745.32	385	0.0
			360	11.2
			345	19.0
			330	23.1
			315	24.8
			300	24.4
			285	23.9
			270	23.8
			255	23.2
			240	24.4
			225	22.3
			210	22.2
			195	22.8
			180	22.7
			165	22.3
			150	20.9
			135	18.7
			98	0.0
11-13-83	1050	1,745.30	98	0.0
			115	10.1
			125	14.7
			135	19.4
			145	21.4
			155	21.2
			165	22.0
11-13-83	1050	(Continued)	175	22.9
			185	23.5
			195	22.2
			205	22.8
			215	23.0
			225	23.1
			235	23.4
			245	23.8
			255	24.2
			265	23.9
			275	24.0
			285	23.0
			295	23.6
			305	23.3
			315	24.4
			325	23.4
			335	21.5
			345	18.8
			355	14.2
			385	0.0
11-14-83	1141	1,745.46	385	0.0
			350	16.1
			335	22.3
			320	23.6
			305	23.6
			290	24.4
			275	23.1
			260	24.1
			245	23.2
			230	22.3
			215	22.2
			200	21.9
			185	23.4
			170	22.4
			155	21.1
			140	20.8
			98	0.0
11-14-83	1706	1,745.34	385	0.0
			360	11.8
			350	16.6
			340	21.7
			330	23.2
			320	24.3
			310	23.6
			300	23.4
			290	23.8
			280	24.6
			270	23.4
			260	23.7
			250	24.5
			240	23.4
			230	22.5
			220	23.2
			210	24.4
			200	23.4
			180	23.8
			170	23.6
			160	23.3
			150	21.1
			140	20.6

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-14-83	1706	(Continued)	130	20.5
			120	11.9
			98	0.0
11-15-83	1349	1,746.62	98	0.0
			125	13.5
			140	20.6
			155	21.1
			170	22.0
			185	22.5
			200	22.4
			215	22.3
			230	22.6
			245	22.2
			260	22.0
			275	21.9
			290	23.3
			305	23.4
			320	22.7
			335	24.6
			385	0.0
11-16-83	1056	1,745.04	385	0.0
			360	11.2
			350	16.0
			340	20.8
			330	22.6
			320	23.9
			310	24.7
			300	24.4
			290	24.2
			280	24.9
			270	23.4
			260	22.9
			250	24.0
			240	23.5
			230	23.9
			220	23.0
			210	22.7
			200	23.4
			190	23.1
			180	22.8
			170	22.6
			160	21.2
			150	20.5
			140	20.3
			130	16.6
			120	11.3
			98	0.0
11-16-83	1637	1,744.44	385	0.0
			345	19.2
			330	22.0
			315	23.3
			300	22.5
			285	23.3
			270	21.6
			255	21.5
			240	23.0
			225	22.4
			210	22.0
			195	22.2
11-16-83	1637	(Continued)	180	21.9
			165	21.0
			150	19.6
			98	0.0
11-17-83	1036	1,745.22	98	0.0
			130	17.8
			145	20.8
			160	21.5
			175	23.0
			190	23.4
			205	23.9
			220	24.4
			235	24.2
			250	24.2
			265	23.9
			280	24.2
			295	24.6
			310	24.9
			325	23.4
			340	20.8
			385	0.0
11-18-83	1704	1,744.60	98	0.0
			130	17.4
			145	20.8
			160	21.1
			175	22.5
			190	22.5
			205	21.5
			220	21.8
			235	22.5
			250	22.1
			265	22.0
			280	22.2
			295	23.1
			310	23.5
			325	22.4
			385	0.0
11-19-83	1654	1,744.93	385	0.0
			340	20.2
			325	22.7
			310	24.5
			295	23.6
			280	24.6
			265	22.9
			250	22.3
			235	22.7
			220	23.2
			205	23.5
			190	22.9
			175	22.6
			160	21.1
			145	20.7
			130	18.6
			98	0.0
11-20-83	1149	1,745.28	385	0.0
			345	18.5
			330	22.9
			315	24.4

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-20-83	1149	(Continued)	300	23.6
			285	22.3
			270	23.1
			255	22.3
			240	22.9
			225	23.9
			210	23.6
			195	22.8
			180	22.8
			165	21.0
			150	21.1
			135	20.7
			98	0.0
11-20-83	1623	1,745.40	385	0.0
			350	16.4
			335	22.7
			320	24.1
			305	24.6
			290	24.2
			275	24.2
			260	24.4
			245	24.4
			230	23.5
			215	22.5
			200	23.9
			185	23.6
			170	23.1
			155	21.3
			140	20.4
			98	0.0
11-22-83	1314	1,745.17	385	0.0
			350	16.3
			335	21.7
			320	23.7
			305	24.5
			290	23.3
			275	22.4
			260	21.8
			245	22.2
			230	22.0
			215	23.8
			200	23.7
			185	22.9
			170	22.4
			155	20.5
			140	20.9
			125	14.5
11-23-83	1224	1,745.41	385	0.0
			350	16.0
			335	22.2
			320	23.7
			305	24.1
			290	23.5
			275	24.1
			260	22.8
			245	22.7
			230	23.9
			215	24.1
			200	23.8
11-23-83	1224	(Continued)	185	23.0
			170	23.1
			155	20.9
			140	20.0
			125	14.3
			98	0.0
11-28-83	1554	1,745.41	95	0.0
			120	12.2
			140	20.5
			160	21.7
			180	23.6
			200	23.9
			220	24.7
			240	23.5
			260	24.0
			280	24.3
			300	23.8
			320	24.7
			340	21.1
			360	11.4
			384	0.0
11-29-83	1615	1,745.42	384	0.0
			360	10.9
			345	19.3
			330	22.8
			315	24.8
			300	24.2
			285	24.3
			270	23.7
			255	23.8
			240	22.9
			225	24.0
			210	24.2
			195	23.8
			180	23.1
			165	22.1
			150	20.9
			135	20.8
			120	12.0
			95	0.0
11-30-83	1615	1,745.38	95	0.0
			120	11.3
			140	21.3
			160	23.5
			180	24.3
			200	23.3
			220	24.5
			240	23.4
			260	24.3
			280	24.3
			300	25.1
			320	24.5
			340	22.3
			360	10.2
			384	0.0
12-01-83	1230	1,745.38	384	0.0
			360	10.0
			345	18.2

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-01-83	1230	(Continued)	330	23.4
			315	25.1
			300	25.5
			285	24.4
			270	24.2
			255	24.3
			240	24.4
			225	24.4
			210	24.5
			195	23.5
			180	23.6
			165	22.5
			150	21.2
			135	19.6
			120	12.6
			95	0.0
12-02-83	1055	1,745.31	95	0.0
			120	11.8
			135	19.2
			150	21.3
			165	22.3
			180	23.2
			195	23.2
			210	24.1
			225	23.8
			240	23.2
			255	23.6
			270	23.7
			285	24.6
			300	25.3
			315	24.6
			330	23.4
			345	19.1
			360	10.3
			384	0.0
12-02-83	1642	1,745.31	384	0.0
			360	11.1
			345	15.6
			330	23.2
			315	25.0
			300	25.6
			285	23.8
			270	23.8
			255	24.4
			240	24.7
			225	24.6
			210	24.2
			195	22.7
			180	22.3
			165	22.1
			150	21.2
			135	21.2
			120	11.6
			95	0.0
12-03-83	1532	1,745.38	385	0.0
			360	11.2
			345	19.0
			330	23.4
			315	24.5
12-03-83	1532	(Continued)	300	25.6
			285	24.0
			270	24.5
			255	24.4
			240	24.0
			225	24.0
			210	23.9
			195	23.6
			180	22.5
			165	22.0
			150	21.3
			135	19.1
			120	11.8
			95	0.0
12-05-83	1110	1,745.41	385	0.0
			360	10.4
			345	18.1
			330	23.3
			315	25.5
			300	25.4
			385	24.3
			270	23.5
			255	23.5
			240	24.4
			225	23.3
			210	23.2
			195	23.1
			180	22.7
			165	21.1
			150	20.3
			135	20.3
			120	11.7
			95	0.0
12-06-83	1302	1,745.38	385	0.0
			360	10.6
			345	18.4
			330	23.3
			315	24.6
			300	25.4
			285	24.3
			270	23.8
			255	23.1
			240	23.6
			225	24.0
			210	24.1
			195	23.7
			180	23.4
			165	22.8
			150	21.4
			135	21.1
			120	11.8
			95	0.0
12-07-83	1237	1,745.46	385	0.0
			360	11.1
			345	18.0
			330	23.3
			315	25.1
			300	25.4
			285	23.8

Table 57.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-07-83	1237	(Continued)	270	23.2	12-07-83	1530	(Continued)	330	23.1
			255	22.4				315	24.7
			240	22.7				300	24.6
			225	24.8				285	25.0
			210	24.2				270	23.1
			195	23.5				255	24.3
			180	22.9				240	24.4
			165	22.3				225	23.2
			150	21.1				210	24.1
			135	18.7				195	23.0
			120	12.0				180	22.7
			95	0.0				165	22.7
								150	21.1
12-07-83	1530	1,745.46	385	0.0				135	21.1
			360	11.0				120	12.1
			345	18.4				95	0.0

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-06-83	1040	1,355.30	265	0.0
			245	13.8
			225	24.1
			205	32.1
			185	41.9
			165	38.3
			145	40.6
			125	40.4
			105	38.5
			85	34.8
			65	15.5
			47	0.0
08-07-83	0915	1,355.35	265	0.0
			245	14.7
			225	22.8
			205	31.5
			185	42.2
			165	41.4
			145	40.3
			125	43.7
			105	38.4
			85	26.8
			65	14.8
			47	0.0
08-08-83	0940	1,355.40	265	0.0
			245	14.3
			225	23.4
			205	31.1
			185	44.4
			165	38.4
			145	38.8
			125	42.0
			105	37.8
			85	26.2
			65	14.9
			47	0.0
08-09-83	0905	1,355.40	265	0.0
			245	15.0
			225	24.0
			205	33.4
			185	44.2
			165	43.1
			145	39.6
			125	41.4
			105	38.1
			65	24.4
			47	0.0
08-10-83	0845	1,355.29	265	0.0
			245	12.8
			225	24.3
			205	33.6
			185	43.7
			165	41.6
			145	39.6
			125	30.1
			105	36.9
			85	25.7
			65	-1.0
08-10-83	0845	(Continued)	47	0.0
08-12-83	1100	1,354.56	261	0.0
			245	13.1
			225	23.2
			205	33.0
			185	41.5
			165	40.0
			145	39.2
			125	39.8
			105	35.1
			85	23.4
			65	14.6
			43	0.0
08-13-83	0915	1,353.08	261	0.0
			245	12.4
			225	22.1
			205	30.8
			185	36.8
			165	36.7
			145	37.7
			125	32.2
			105	32.7
			85	20.8
			65	12.3
			44	0.0
08-13-83	1825	1,353.10	261	0.0
			245	11.7
			225	21.5
			205	30.6
			185	38.3
			165	39.6
			145	39.8
			125	39.4
			105	31.0
			85	20.8
			65	13.0
			43	0.0
08-16-83	1050	1,353.10	43	0.0
			65	12.1
			85	19.5
			105	23.2
			125	41.7
			145	39.7
			165	40.9
			185	41.7
			205	24.1
			225	21.7
			245	11.4
			261	0.0
08-18-83	1125	1,353.32	245	13.4
			225	22.5
			205	26.9
			185	42.5
			165	41.8
			145	42.8
			125	42.2
			105	33.5

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-18-83	1125	(Continued)	85	21.8
			65	12.4
08-18-83	1735	1,353.12	261	0.0
			245	11.4
			225	21.5
			205	31.4
			185	40.9
			165	42.5
			145	41.7
			125	34.0
			105	34.2
			85	24.8
			65	13.8
			43	0.0
08-19-83	1005	1,353.08	260	0.0
			245	11.8
			225	22.5
			205	26.4
			185	42.0
			165	42.3
			145	41.1
			125	33.7
			105	33.9
			85	20.6
			65	12.4
			43	0.0
08-20-83	0945	1,353.14	260	0.0
			245	12.3
			225	21.7
			205	23.3
			185	41.7
			165	40.2
			145	40.8
			125	39.8
			105	33.0
			85	20.5
			65	11.4
			43	0.0
08-22-83	1115	1,353.06	262	0.0
			250	9.5
			235	17.6
			220	22.1
			205	30.8
			190	40.1
			175	42.1
			160	39.0
			145	38.0
			130	41.4
			115	38.0
			100	29.3
			85	13.5
			70	0.0
08-24-83	1135	1,353.03	262	0.0
			250	9.0
			240	13.3
			230	20.0
			220	21.6
08-24-83	1135	(Continued)	210	23.1
			200	34.8
			190	40.8
			180	39.8
			170	42.1
			160	41.9
			150	42.9
			140	42.2
			130	40.6
			120	40.8
			110	34.3
			100	28.2
			90	24.8
			80	20.6
			70	13.0
			60	8.7
			42	0.0
08-24-83	1640	1,353.00	262	0.0
			250	9.7
			235	13.9
			220	21.7
			205	25.4
			190	39.7
			175	39.1
			160	38.0
			145	37.5
			130	38.8
			115	39.6
			100	31.9
			85	20.8
			70	13.1
			55	10.4
			42	0.0
08-26-83	1250	1,352.92	261	0.0
			250	9.3
			240	14.4
			230	20.0
			220	21.5
			210	23.5
			200	38.7
			190	28.5
			180	39.1
			170	38.8
			160	39.0
			150	39.1
			140	38.9
			130	40.4
			120	40.6
			110	35.2
			100	32.2
			90	25.0
			80	20.4
			70	12.9
			60	8.2
			42	0.0
08-27-83	1050	1,353.02	42	0.0
			55	10.6
			65	11.0
			75	16.6

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
08-27-83	1050	(Continued)	85	20.7
			95	25.7
			105	31.8
			115	38.9
			125	39.5
			135	39.4
			145	40.0
			155	40.8
			165	40.5
			175	41.0
			185	39.7
			195	39.3
			205	24.8
			215	22.7
			225	21.4
			235	14.1
			245	11.4
			262	0.0
08-28-83	1030	-1.00	262	0.0
			250	10.3
			240	15.9
			230	20.3
			220	22.0
			210	23.4
			290	38.5
			190	40.0
			180	39.8
			170	39.5
			160	39.5
			150	40.2
			140	41.1
			130	39.5
			120	40.9
			110	35.2
			100	32.5
			90	25.7
			80	20.5
			70	15.9
			60	11.9
			42	0.0
08-28-83	1435	1,353.03	262	0.0
			255	12.1
			245	17.8
			235	21.6
			225	23.0
			215	25.3
			205	38.7
			195	38.1
			185	38.6
			175	38.4
			165	38.1
			155	37.6
			145	38.7
			135	38.5
			125	35.5
			115	32.5
			105	27.5
			95	19.9
			85	16.3
			75	12.6
08-28-83	1435	(Continued)	65	9.4
			42	0.0
08-29-83	0845	1,353.00	262	0.0
			250	9.8
			240	15.8
			230	22.0
			220	22.1
			210	23.3
			200	38.0
			190	38.5
			180	38.1
			170	37.8
			160	39.0
			150	40.9
			140	41.7
			130	41.2
			120	39.3
			110	34.5
			100	32.3
			90	25.6
			80	20.7
			70	16.1
			60	13.0
			42	0.0
08-30-83	0940	1,352.98	262	0.0
			255	11.4
			245	17.6
			235	21.9
			225	23.3
			215	31.1
			205	40.7
			195	39.3
			185	39.7
			175	40.2
			165	39.2
			155	38.5
			145	39.1
			135	40.3
			125	38.9
			115	32.9
			105	25.8
			95	20.8
			85	16.0
			75	11.6
			65	9.4
			42	0.0
09-03-83	1310	1,352.93	260	0.0
			255	5.7
			245	11.4
			235	17.3
			225	21.3
			215	22.3
			205	30.7
			195	37.7
			185	40.1
			175	40.1
			165	40.8
			155	43.0
			145	43.2

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-03-83	1310	(Continued)	135	41.8
			125	39.9
			115	37.2
			105	32.1
			95	27.7
			85	19.0
			75	14.4
			65	12.4
			42	0.0
09-04-83	1000	1,352.74	260	0.0
			255	5.7
			245	11.3
			235	17.1
			225	20.9
			215	22.1
			205	30.7
			195	39.3
			185	40.1
			175	40.4
			165	40.6
			155	41.2
			145	41.4
			135	39.7
			125	39.3
			115	37.6
			105	33.1
			95	26.5
			85	19.9
			75	15.7
			65	13.4
			42	0.0
09-04-83	1530	1,352.87	260	0.0
			255	6.1
			245	11.3
			235	13.3
			225	20.8
			215	22.2
			205	30.4
			195	39.3
			185	39.8
			175	37.9
			165	37.5
			155	38.7
			145	37.7
			135	38.5
			125	39.0
			115	37.9
			105	32.4
			95	26.6
			80	19.9
			75	15.3
			65	11.4
			42	0.0
09-05-83	1005	1,352.89	260	0.0
			255	6.1
			245	11.9
			235	13.4
			225	21.5
			215	23.1
09-05-83	1005	(Continued)	205	25.2
			195	40.1
			185	39.1
			175	41.7
			165	43.2
			155	42.5
			145	44.3
			135	42.0
			125	40.1
			115	38.0
			105	33.4
			95	27.7
			85	20.3
			75	14.6
			65	12.2
			42	12.2
09-06-83	0900	1,353.02	260	0.0
			255	6.3
			245	11.9
			235	13.9
			225	21.5
			215	22.4
			205	31.2
			195	39.9
			185	38.9
			175	39.0
			165	38.8
			155	39.2
			145	39.6
			135	38.6
			125	39.1
			115	37.2
			105	32.5
			95	25.5
			85	20.6
			75	16.7
			65	12.2
			42	0.0
09-06-83	1710	1,352.79	260	0.0
			255	6.2
			245	12.4
			235	17.0
			225	21.6
			215	22.7
			205	30.2
			195	38.1
			185	38.1
			175	38.5
			165	38.1
			155	38.4
			145	38.6
			135	38.3
			125	38.4
			115	37.3
			105	33.2
			95	27.6
			85	21.9
			75	15.8
			65	14.5
			42	0.0

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-07-83	1115	1,353.01	260	0.0
			255	7.9
			245	12.9
			235	17.5
			225	20.5
			215	22.3
			205	30.4
			195	39.9
			185	38.3
			175	39.5
			165	39.1
			155	39.4
			145	41.0
			135	38.3
			125	38.9
			115	36.5
			105	29.8
			95	26.0
			85	20.7
			75	16.8
			65	12.3
			42	0.0
09-08-83	0850	1,352.94	260	0.0
			255	6.8
			245	11.9
			235	17.8
			225	21.7
			215	23.0
			205	31.0
			195	39.5
			185	38.8
			175	37.8
			165	38.1
			155	37.8
			145	37.8
			135	38.8
			125	39.6
			115	36.7
			105	33.0
			95	27.0
			85	20.6
			75	16.6
			65	13.6
			42	0.0
09-09-83	1000	1,352.91	260	0.0
			255	5.9
			245	12.9
			235	13.3
			225	21.7
			215	24.2
			205	31.4
			195	39.9
			185	39.6
			175	39.6
			165	38.9
			155	39.0
			145	39.8
			135	40.5
			125	40.4
			115	38.2
09-09-83	1000	(Continued)	105	32.9
			95	27.1
			85	20.0
			75	16.4
			65	14.5
			42	0.0
09-10-83	0955	1,352.86	261	0.0
			250	9.1
			230	19.7
			210	22.0
			190	37.8
			170	41.2
			150	38.8
			130	39.4
			110	36.9
			90	24.6
			70	15.7
			44	0.0
09-10-83	1655	1,352.91	261	0.0
			240	15.4
			225	41.7
			210	21.8
			195	39.3
			180	40.0
			165	39.9
			150	41.7
			135	42.4
			120	38.6
			105	33.4
			90	25.9
			75	16.9
			60	12.2
			44	0.0
09-11-83	0830	1,352.69	261	0.0
			240	13.2
			220	21.4
			200	37.8
			180	37.6
			160	37.4
			140	38.4
			120	39.3
			100	28.1
			80	19.9
			60	8.4
			44	0.0
09-12-83	1105	1,352.20	260	0.0
			240	13.4
			220	20.6
			180	39.1
			160	38.4
			140	39.4
			120	39.9
			100	31.3
			80	19.1
			60	8.8
			44	0.0
09-13-83	0945	1,352.60	260	0.0

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-13-83	0945	(Continued)	250	8.7
			235	17.2
			220	21.2
			205	24.9
			190	40.9
			175	41.1
			160	39.7
			145	38.9
			130	40.1
			115	38.5
			100	32.9
			85	19.1
			70	13.7
			55	11.5
			44	0.0
09-13-83	1745	1,349.40	260	0.0
			240	15.6
			225	22.0
			210	23.4
			195	39.6
			180	39.9
			165	39.7
			150	41.5
			135	40.7
			120	39.8
			105	32.6
			90	22.0
			75	15.5
			60	11.6
			45	0.0
09-14-83	0845	1,352.47	260	0.0
			250	8.4
			235	13.8
			220	21.1
			205	31.3
			190	37.8
			175	37.6
			160	36.3
			145	37.3
			130	38.3
			115	38.5
			100	31.8
			85	23.1
			70	14.0
			55	9.2
			44	0.0
09-15-83	1645	1,352.89	260	0.0
			245	12.4
			230	20.2
			215	23.2
			200	38.6
			185	39.9
			170	38.2
			155	38.6
			140	41.5
			125	38.6
			110	35.1
			95	25.1
			80	20.2
09-15-83	1645	(Continued)	44	0.0
09-16-83	1145	1,353.00	260	0.0
			245	13.9
			230	21.9
			215	23.2
			200	37.0
			185	40.0
			170	40.0
			155	40.1
			140	40.4
			125	39.5
			110	34.1
			95	25.3
			80	19.4
			65	12.1
			44	0.0
09-18-83	1010	1,352.86	262	0.0
			240	13.7
			225	21.8
			210	23.1
			195	39.4
			180	41.0
			165	38.7
			150	39.2
			135	39.6
			120	39.7
			105	32.0
			90	25.1
			75	16.2
			60	12.6
			44	0.0
09-19-83	1045	1,353.03	259	0.0
			240	13.4
			225	21.7
			210	23.6
			195	40.1
			180	40.7
			165	40.6
			150	42.8
			135	41.4
			120	36.9
			105	32.5
			90	25.3
			75	15.9
			60	11.4
			44	0.0
09-20-83	0950	1,353.00	259	0.0
			240	14.9
			225	21.9
			210	23.4
			195	39.9
			180	40.7
			165	39.5
			150	41.6
			135	40.3
			120	39.6
			105	31.7
			90	24.7

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-20-83	0950	(Continued)	75	16.3
			60	8.4
			44	0.0
09-21-83	1015	1,352.93	259	0.0
			240	15.4
			225	21.5
			210	22.7
			195	39.7
			180	41.2
			165	41.3
			150	40.8
			135	41.0
			120	40.3
			105	32.3
			90	21.5
			75	16.2
			60	8.3
			44	0.0
09-21-83	1425	1,352.94	259	0.0
			240	13.0
			225	21.9
			210	23.1
			195	39.6
			180	40.9
			165	41.4
			150	40.2
			135	39.8
			120	41.1
			105	31.9
			90	24.5
			75	16.1
			60	8.3
			44	0.0
09-22-83	1110	1,352.92	259	0.0
			240	13.0
			225	21.3
			210	23.5
			195	39.1
			180	40.0
			165	38.7
			150	37.5
			135	37.7
			120	35.0
			105	32.6
			90	23.5
			75	15.1
			60	11.2
			44	0.0
09-24-83	1150	1,353.18	259	0.0
			240	15.7
			225	21.8
			210	23.1
			195	37.1
			180	41.1
			165	41.3
			150	40.5
			135	40.9
			120	40.6
09-24-83	1150	(Continued)	105	32.0
			90	23.4
			75	16.4
			60	8.5
			44	0.0
09-25-83	1010	1,353.35	259	0.0
			240	16.1
			225	22.6
			210	24.0
			195	40.4
			180	41.3
			165	40.9
			150	39.0
			135	39.5
			120	39.3
			105	34.2
			90	24.2
			75	17.1
			60	9.3
			44	0.0
09-25-83	1610	1,353.26	259	0.0
			240	13.1
			225	21.5
			210	22.0
			195	40.2
			180	40.4
			165	39.0
			150	39.1
			135	38.9
			120	40.3
			105	42.2
			90	25.3
			75	16.8
			60	8.9
			44	0.0
09-26-83	0755	1,352.78	259	0.0
			240	13.1
			225	21.8
			210	23.3
			195	39.9
			180	40.3
			165	40.7
			150	39.5
			135	39.3
			120	39.6
			105	31.9
			90	24.5
			75	15.8
			60	11.6
			44	0.0
09-27-83	1742	1,352.98	260	0.0
			240	14.6
			225	21.5
			210	23.6
			195	39.2
			180	38.8
			165	39.6
			150	37.1

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
09-27-83	1742	(Continued)	135	38.0
			120	39.2
			105	33.7
			90	24.2
			75	16.5
			60	10.5
			42	0.0
09-28-83	1044	1,352.93	260	0.0
			250	9.9
			235	13.8
			220	21.4
			205	31.2
			190	39.2
			175	38.6
			160	38.7
			145	37.5
			130	38.1
			115	38.4
			190	28.9
			85	22.7
			70	13.1
			55	10.5
			42	0.0
09-28-83	1748	1,352.98	260	0.0
			240	14.2
			225	21.4
			205	23.1
			190	40.5
			175	40.0
			160	39.9
			145	42.2
			130	41.5
			115	39.6
			100	31.5
			85	25.4
			70	15.3
			42	0.0
09-29-83	0948	1,353.03	42	0.0
			65	12.1
			80	19.8
			95	26.5
			110	36.4
			125	38.8
			140	37.6
			155	37.4
			170	37.8
			185	37.5
			200	33.6
			215	21.6
			230	19.7
			245	12.0
			260	0.0
09-30-83	1052	1,353.01	260	0.0
			250	9.5
			235	14.8
			220	22.2
			205	23.7
			190	38.7
09-30-83	1052	(Continued)	175	38.5
			160	38.4
			145	38.2
			130	39.8
			115	37.7
			100	30.3
			85	20.5
			70	13.6
			42	0.0
10-01-83	1316	1,353.66	42	0.0
			75	15.7
			90	25.2
			105	32.5
			120	39.9
			135	43.1
			150	39.5
			165	37.3
			180	37.5
			195	38.7
			210	22.8
			225	22.4
			240	13.3
			260	0.0
10-02-83	1155	1,354.41	263	0.0
			245	12.6
			230	20.5
			215	24.1
			200	32.0
			185	40.3
			160	41.2
			145	39.0
			130	39.5
			115	39.5
			100	39.0
			85	31.2
			60	22.2
			45	13.1
			42	0.0
10-02-83	1736	1,354.26	263	0.0
			250	10.2
			235	19.7
			220	21.5
			205	29.6
			190	39.8
			175	40.3
			160	39.7
			145	39.0
			130	40.5
			115	40.5
			100	33.8
			42	0.0
10-03-83	0908	1,353.86	42	0.0
			70	16.0
			85	21.5
			100	33.2
			115	38.4
			130	37.6
			145	43.4

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-03-83	0908	(Continued)	160	38.8
			175	39.0
			190	39.3
			205	23.5
			220	22.7
			235	14.7
			263	0.0
10-04-83	1019	1,353.68	263	0.0
			250	10.0
			235	16.4
			220	22.5
			205	32.0
			190	39.5
			175	39.5
			160	38.8
			145	38.5
			130	39.0
			115	39.1
			100	33.3
			85	24.0
			60	18.9
			42	0.0
10-04-83	1420	1,353.80	263	0.0
			245	12.4
			230	20.7
			215	23.6
			200	27.7
			185	39.3
			170	38.1
			155	37.8
			140	37.9
			125	39.9
			110	36.9
			95	28.0
			80	21.3
			42	0.0
10-05-83	0925	1,353.72	263	0.0
			240	14.8
			225	22.4
			210	23.0
			195	41.5
			180	38.6
			165	37.8
			150	38.5
			135	39.2
			120	39.5
			105	34.3
			90	26.0
			75	16.8
			42	0.0
10-06-83	1106	1,353.86	263	0.0
			250	9.6
			235	17.0
			220	21.2
			205	24.8
			190	38.3
			175	38.1
			160	38.8
10-06-83	1106	(Continued)	145	40.1
			130	38.0
			115	36.3
			100	31.8
			85	21.2
			42	0.0
10-07-83	1020	1,353.29	260	0.0
			245	12.5
			230	21.2
			215	23.3
			200	27.6
			185	37.2
			170	37.6
			155	37.4
			140	38.4
			125	37.6
			110	36.9
			95	29.9
			80	21.3
			65	14.0
			50	9.5
			42	0.0
10-08-83	1545	1,353.24	42	0.0
			55	10.0
			70	15.0
			85	21.1
			100	32.5
			115	37.3
			130	37.1
			145	37.7
			160	38.2
			175	38.0
			190	37.6
			205	31.2
			220	21.6
			235	15.4
			250	9.5
			260	0.0
10-09-83	1430	1,353.28	260	0.0
			245	12.5
			230	18.8
			215	23.4
			200	31.4
			185	38.2
			170	38.4
			155	41.5
			140	43.4
			125	38.7
			110	36.6
			95	28.2
			80	21.0
			65	12.2
			50	8.5
			42	0.0
10-10-83	1055	1,353.10	260	0.0
			245	12.1
			230	19.1
			215	22.8

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-10-83	1055	(Continued)	200	37.3
			185	36.5
			170	36.1
			155	35.8
			140	35.5
			125	34.6
			110	35.6
			95	30.1
			80	19.8
			65	13.5
			50	8.3
			42	0.0
10-11-83	1600	1,353.08	260	0.0
			245	12.4
			230	20.3
			215	22.6
			200	37.4
			185	37.9
			170	38.0
			155	37.1
			140	39.7
			125	37.9
			110	36.8
			95	28.4
			80	20.3
			65	12.4
			50	8.5
			42	0.0
10-12-83	0930	1,352.82	260	0.0
			245	12.3
			230	19.5
			215	22.5
			200	31.6
			185	37.3
			170	39.3
			155	40.2
			140	42.8
			125	39.5
			110	36.5
			95	27.4
			85	20.4
			65	15.0
			50	8.4
			42	0.0
10-12-83	0930	1,352.82	260	0.0
			245	12.3
			230	19.5
			215	22.5
			200	31.6
			185	37.3
			170	39.3
			155	40.2
			140	42.8
			125	39.5
			110	36.5
			95	27.4
			85	20.4
			65	15.0
			50	8.4
10-12-83	0930	(Continued)	42	0.0
10-14-83	1030	1,352.01	259	0.0
			245	11.3
			230	19.0
			215	21.4
			200	35.9
			185	35.0
			170	35.0
			155	35.3
			140	35.9
			125	35.6
			110	33.8
			95	28.0
			80	18.3
			65	9.6
			50	7.4
			42	0.0
10-14-83	1620	1,352.10	259	0.0
			245	10.4
			230	19.3
			215	21.6
			200	37.3
			185	37.4
			170	36.3
			155	38.1
			140	39.7
			125	38.0
			110	34.7
			95	27.6
			80	19.8
			65	12.0
			50	7.5
			42	0.0
10-15-83	1125	1,352.22	259	0.0
			245	11.1
			230	18.9
			215	21.5
			200	37.6
			185	37.6
			170	35.9
			155	35.3
			140	36.1
			125	37.4
			110	34.0
			95	26.9
			80	18.8
			65	12.0
			50	7.0
			42	0.0
10-16-83	1000	1,352.04	259	0.0
			245	10.6
			230	17.9
			215	22.5
			200	31.4
			185	39.7
			170	41.3
			155	42.2
			140	43.3

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-16-83	1000	(Continued)	125	38.4
			110	33.3
			95	27.3
			80	19.6
			65	13.5
			50	6.7
			42	0.0
10-18-83	1630	1,352.25	259	0.0
			250	7.7
			235	13.1
			220	20.2
			205	22.3
			190	37.8
			175	39.0
			160	38.2
			145	38.5
			130	38.8
			115	29.6
			110	31.6
			100	27.8
			85	18.6
			70	12.9
			55	8.7
			42	0.0
10-19-83	0955	1,352.17	42	0.0
			65	11.5
			75	15.2
			85	19.5
			95	26.4
			105	32.3
			115	37.2
			125	38.5
			135	42.2
			145	44.6
			155	43.9
			165	41.8
			175	41.6
			185	35.3
			195	38.6
			205	24.5
			215	21.9
			225	20.9
			259	0.0
10-20-83	1455	1,352.21	42	0.0
			65	11.3
			75	14.8
			85	18.7
			95	26.7
			105	31.7
			115	33.5
			125	36.5
			135	38.2
			145	41.5
			155	42.6
			165	38.8
			175	39.4
			185	39.5
			195	38.1
			205	24.3
10-20-83	1455	(Continued)	215	22.3
			225	21.1
			235	12.7
			259	0.0
10-20-83	1610	1,352.21	259	0.0
			235	13.7
			225	20.8
			215	21.9
			205	25.8
			195	37.5
			185	38.3
			175	39.0
			165	39.4
			155	37.1
			145	37.6
			135	37.1
			125	36.5
			115	36.5
			105	31.6
			95	26.4
			85	19.0
			75	15.3
			65	0.0
10-21-83	0945	1,352.68	258	0.0
			235	13.2
			225	21.3
			215	21.5
			205	25.1
			195	39.1
			185	40.6
			175	40.9
			165	40.5
			155	41.5
			145	41.3
			135	40.4
			125	39.5
			115	36.8
			105	32.7
			95	25.1
			85	18.8
			75	15.9
			65	11.6
			42	0.0
10-22-83	1135	1,352.23	42	0.0
			65	13.2
			75	14.8
			85	19.5
			95	27.2
			105	32.0
			115	35.5
			125	39.0
			135	39.1
			145	41.2
			155	40.3
			165	39.5
			175	37.8
			185	38.0
			195	38.7
			205	21.8

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-22-83	1135	(Continued)	215	22.7
			225	21.0
			235	16.8
			258	0.0
10-22-83	1348	1,352.23	259	0.0
			235	16.9
			225	20.1
			215	22.0
			205	22.1
			195	38.8
			185	39.8
			175	40.9
			165	42.1
			155	41.8
			145	40.5
			135	39.1
			125	39.3
			115	35.0
			105	31.3
			95	24.6
			85	19.2
			75	15.1
			65	11.3
			42	0.0
10-23-83	0950	1,352.25	261	0.0
			235	13.2
			225	20.4
			215	22.4
			205	22.9
			195	37.4
			185	40.1
			175	40.4
			165	38.4
			155	38.3
			145	38.8
			135	38.1
			125	38.2
			115	33.8
			105	32.0
			95	25.3
			85	18.7
			75	15.2
			65	12.1
			42	0.0
10-24-83	1100	1,352.23	261	0.0
			235	13.0
			225	20.9
			215	21.8
			205	24.5
			195	39.5
			185	39.9
			175	39.1
			165	40.3
			155	38.8
			145	39.8
			135	39.4
			125	39.7
			115	35.5
			105	31.9
10-24-83	1100	(Continued)	95	-1.0
			85	-1.0
			75	-1.0
			65	-1.0
10-25-83	1010	1,353.16	260	0.0
			235	14.6
			225	21.8
			215	23.6
			205	27.5
			195	39.1
			185	42.8
			175	42.9
			165	44.6
			155	44.7
			145	45.2
			135	42.6
			125	41.6
			115	37.9
			105	33.7
			95	25.6
			85	21.6
			75	15.8
			65	12.3
			42	0.0
10-26-83	1010	1,352.88	260	0.0
			235	13.8
			225	21.7
			215	22.2
			205	34.7
			195	39.8
			185	41.4
			175	39.6
			165	39.0
			155	37.8
			145	38.2
			135	38.4
			125	39.5
			115	37.6
			105	33.2
			95	27.0
			85	20.2
			75	16.2
			65	11.4
			42	0.0
10-27-83	1130	1,352.20	261	0.0
			245	11.6
			230	20.0
			215	23.5
			200	37.4
			185	40.3
			170	41.0
			155	40.6
			140	40.3
			125	39.1
			110	33.8
			95	26.6
			80	19.7
			41	0.0

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-28-83	0915	-1.00	261	0.0
			245	11.4
			230	17.4
			215	23.4
			200	38.7
			185	41.4
			170	40.0
			155	37.7
			140	39.1
			125	39.7
			110	35.5
			95	27.6
			80	20.3
			65	15.1
			41	0.0
11-04-83	1600	1,353.03	261	0.0
			245	12.0
			230	20.4
			215	22.8
			200	37.5
			185	36.1
			170	35.3
			155	34.8
			140	33.5
			125	34.4
			110	35.0
			95	28.4
			80	20.4
			65	12.3
			50	-1.0
			41	0.0
11-07-83	1100	1,352.81	260	0.0
			245	12.4
			230	20.2
			215	22.8
			200	38.1
			185	37.7
			170	38.8
			155	39.4
			140	41.3
			125	38.8
			110	37.1
			95	28.3
			80	19.6
			65	12.0
			50	8.1
			41	0.0
11-07-83	1435	1,352.52	260	0.0
			245	11.8
			230	19.7
			215	22.9
			200	37.5
			185	36.7
			170	36.2
			155	35.4
			145	35.2
			125	36.7
			110	34.4
			95	25.5
11-07-83	1435	(Continued)	80	19.3
			65	12.0
			50	7.6
			42	0.0
11-08-83	1050	1,352.12	259	0.0
			245	11.5
			230	19.1
			215	22.3
			200	37.4
			185	36.5
			170	35.5
			155	34.5
			140	35.5
			125	34.3
			110	33.4
			95	27.8
			80	15.4
			65	13.0
			50	7.3
			42	0.0
11-08-83	1410	1,352.20	258	0.0
			250	8.3
			235	12.8
			220	20.1
			205	24.9
			190	40.1
			175	38.3
			160	38.5
			145	38.9
			130	38.8
			115	34.4
			100	27.4
			85	19.8
			70	12.1
			55	9.9
			41	0.0
11-09-83	1055	1,352.05	259	0.0
			345	11.2
			230	19.2
			215	22.5
			200	37.1
			185	38.6
			170	36.9
			155	37.8
			140	37.0
			125	35.6
			110	33.9
			95	25.8
			80	18.7
			65	10.9
			50	7.4
			42	0.0
11-09-83	1215	1,352.03	259	0.0
			245	10.8
			230	19.0
			215	22.3
			200	37.1
			185	35.9

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-09-83	1215	1,352.03	170	35.4
			155	35.2
			140	34.6
			125	35.2
			110	33.4
			95	26.8
			80	18.9
			65	13.6
			50	7.1
			42	0.0
11-10-83	1045	1,352.08	259	0.0
			245	11.9
			230	18.3
			215	22.1
			200	37.2
			185	37.6
			170	37.9
			155	37.2
			140	35.5
			125	35.4
			110	34.3
			95	24.6
			80	19.1
			65	11.3
			50	6.8
			42	0.0
11-11-83	1056	1,351.91	259	0.0
			245	11.5
			230	18.1
			215	22.9
			200	37.1
			185	36.3
			170	35.2
			155	34.2
			140	36.2
			125	36.1
			110	33.6
			95	24.8
			80	17.8
			65	14.2
			50	7.8
			42	0.0
11-11-83	1210	1,351.91	259	0.0
			245	11.3
			230	18.3
			215	21.8
			200	36.8
			185	36.7
			170	35.9
			155	36.3
			140	35.1
			125	36.4
			110	32.3
			95	23.8
			80	17.5
			65	13.6
			50	6.8
			42	0.0
11-12-83	1425	1,351.95	259	0.0
			245	10.4
			230	19.1
			215	22.9
			200	36.6
			185	36.7
			170	35.9
			155	37.1
			140	36.7
			125	36.2
			110	33.6
			95	24.5
			80	18.0
			65	12.1
			50	7.0
			42	0.0
11-13-83	1050	1,352.08	259	0.0
			245	11.8
			230	19.5
			215	22.0
			200	36.9
			185	36.9
			170	37.2
			155	38.6
			140	39.9
			125	36.3
			110	33.1
			95	25.0
			80	18.9
			65	11.3
			50	6.8
			42	0.0
11-13-83	1155	1,352.08	259	0.0
			245	10.2
			230	19.2
			215	21.9
			200	36.8
			185	37.4
			170	36.3
			155	36.3
			140	36.6
			125	35.8
			110	33.8
			95	28.5
			80	18.3
			65	13.1
			50	7.1
			42	0.0
11-14-83	0925	1,352.10	42	0.0
			50	7.9
			65	13.0
			80	18.9
			95	27.9
			110	33.4
			125	36.9
			140	36.6
			155	36.5
			170	37.3
			185	36.7

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-14-83	0925	(Continued)	200	37.8
			215	21.9
			230	18.8
			245	11.5
			259	0.0
11-19-83	1325	1,351.85	258	0.0
			250	7.4
			235	16.1
			220	20.7
			205	29.7
			190	38.6
			195	38.9
			160	40.4
			145	40.2
			130	37.9
			115	36.9
			100	26.5
			85	18.2
			70	12.1
			55	9.4
			41	0.0
11-20-83	1140	1,352.09	258	0.0
			250	8.2
			235	12.8
			220	20.3
			205	39.9
			190	38.7
			175	39.9
			160	40.7
			145	39.0
			130	38.8
			115	35.0
			100	28.0
			85	19.0
			70	14.6
			55	10.8
			41	0.0
11-20-83	1140	1,352.09	258	0.0
			250	8.2
			235	12.8
			220	20.3
			205	39.9
			190	38.7
			175	39.9
			160	40.7
			145	39.0
			130	38.8
			115	35.0
			100	28.0
			85	19.0
			70	14.6
			55	10.8
			41	0.0
11-21-83	1445	1,352.33	258	0.0
			250	6.8
			235	15.8
			220	20.6
			205	24.4
11-21-83	1445	(Continued)	190	40.7
			175	40.1
			160	41.0
			145	41.5
			130	38.1
			115	34.0
			100	27.2
			85	18.5
			70	13.0
			55	10.2
			41	0.0
11-22-83	1105	1,352.34	258	0.0
			250	8.2
			235	13.9
			220	21.6
			205	33.6
			190	31.2
			175	40.5
			160	42.5
			145	43.1
			130	39.7
			115	34.2
			100	25.9
			85	20.1
			70	12.6
			55	9.7
			41	0.0
11-22-83	1640	1,352.32	258	0.0
			250	8.4
			235	16.6
			220	20.6
			205	24.9
			190	41.2
			175	40.0
			160	41.1
			145	41.0
			130	38.2
			115	30.6
			100	30.2
			85	19.6
			70	11.8
			55	9.7
			41	0.0
11-28-83	1049	1,352.28	259	0.0
			245	11.5
			230	18.7
			215	21.8
			200	37.1
			185	38.6
			170	38.5
			155	35.8
			140	35.2
			125	36.4
			110	34.1
			95	24.5
			80	18.7
			65	10.6
			50	6.3
			42	0.0

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-29-83	1106	1,352.30	259	0.0
			245	10.9
			230	18.9
			215	23.2
			200	37.1
			185	39.3
			170	39.9
			155	39.8
			140	38.7
			125	38.3
			110	33.6
			95	26.1
			80	18.4
			65	11.3
			50	7.6
			40	0.0
12-01-83	1130	1,352.23	259	0.0
			245	11.2
			230	18.7
			215	22.9
			200	36.9
			185	38.0
			170	39.1
			155	40.8
			140	38.1
			125	36.8
			110	34.0
			95	24.3
			80	18.8
			65	11.3
			50	7.2
			40	0.0
12-02-83	1550	1,352.13	259	0.0
			245	10.6
			230	17.6
			215	21.8
			200	33.8
			185	37.4
			170	37.6
			155	38.7
			140	-1.0
			125	-1.0
			110	-1.0
			95	-1.0
			80	-1.0
			65	-1.0
			50	-1.0
			40	-1.0
12-03-83	1614	1,352.12	259	0.0
			245	11.4
			230	19.0
			215	21.9
			200	36.8
			185	37.6
			170	36.9
			155	37.0
			140	37.2
			125	-1.0
			110	-1.0
12-03-83	1614	(Continued)	95	-1.0
			80	-1.0
			65	-1.0
			50	-1.0
			40	-1.0
12-04-83	1023	1,351.90	259	0.0
			245	11.2
			230	18.6
			215	21.0
			200	36.7
			185	36.4
			170	37.2
			155	38.1
			140	38.8
			125	36.7
			110	33.5
			95	25.9
			80	18.6
			65	12.7
			50	6.7
			40	0.0
12-04-83	1425	1,352.04	259	0.0
			245	10.5
			230	18.2
			215	21.6
			200	37.5
			185	37.5
			170	37.8
			155	38.7
			140	39.5
			125	37.4
			110	33.2
			95	27.6
			80	19.5
			65	11.8
			50	7.1
			40	0.0
12-05-83	1136	1,352.14	259	0.0
			245	10.8
			230	18.9
			215	21.6
			200	37.2
			185	39.1
			170	38.8
			155	37.2
			140	36.5
			125	37.2
			110	34.3
			95	27.1
			80	19.6
			65	10.6
			50	6.9
			40	0.0
12-06-83	1050	1,352.14	259	0.0
			245	11.3
			230	19.2
			215	22.1
			200	37.0

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-06-83	1050	(Continued)	185	37.9
			170	36.7
			155	37.1
			140	36.7
			125	37.9
			110	33.8
			95	24.5
			80	18.6
			65	11.8
			50	6.9
			40	0.0
12-06-83	1515	1,352.11	259	0.0
			245	11.3
			230	19.1
			215	22.0
			200	37.1
			185	37.9
			170	39.7
			155	40.5
			140	39.9
			125	38.2
			110	33.9
			95	25.1
			80	18.3
			65	11.4
			50	7.3
			40	0.0
12-08-83	1020	1,352.10	259	0.0
			245	10.8
			230	18.3
			215	23.5
			200	36.9
			185	37.5
			170	37.8
			155	36.4
			140	36.4
			125	36.8
			110	33.4
			95	27.3
			80	19.5
			65	11.2
			50	5.5
			40	0.0
12-09-83	1106	1,352.21	259	0.0
			245	10.8
			230	18.1
			215	21.1
			200	37.8
			185	37.8
			170	39.3
			155	37.7
			140	37.2
			125	37.9
			110	33.1
			95	24.7
			80	18.7
			65	10.8
			40	0.0
12-10-83	0902	1,352.28	259	0.0
			245	10.8
			230	19.5
			215	23.3
			200	37.3
			185	37.8
			170	36.9
			155	36.6
			140	37.7
			120	37.8
			110	34.1
			95	24.8
			80	18.8
			65	11.2
			50	7.1
			40	0.0
12-11-83	1612	1,358.17	259	0.0
			245	11.3
			230	19.5
			215	22.2
			200	37.2
			185	38.1
			170	37.2
			155	37.8
			140	37.0
			125	37.8
			110	32.5
			95	25.5
			80	18.9
			65	11.4
			50	6.4
			40	0.0
12-12-83	0934	1,352.25	259	0.0
			240	12.6
			225	21.0
			210	22.8
			195	37.6
			180	37.8
			165	38.7
			150	38.8
			135	37.8
			120	36.1
			105	31.8
			90	24.3
			75	14.7
			60	7.5
			40	0.0
12-13-83	1505	1,352.29	259	0.0
			245	11.5
			230	19.8
			215	22.1
			200	37.1
			185	37.3
			170	38.0
			155	36.7
			140	36.5
			125	37.5
			110	33.6
			95	26.8

Table 58.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1983--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-13-83	1505	(Continued)	80	19.0
			65	11.5
			50	7.5
			40	0.0
12-14-83	1105	1,352.25	259	0.0
			245	11.1
			230	19.4
			215	22.2
			200	37.3
			185	38.2
			170	38.7
			155	39.5
			140	40.1
			125	39.0
			110	34.3
			95	24.5
			80	19.1
			65	11.4
			50	7.0
			40	0.0
12-15-83	1040	1,352.29	259	0.0
			245	11.7
			230	18.9
			215	22.4
			200	37.1
			185	38.4
			170	41.3
			155	41.1
			140	41.7
			125	37.3
			110	33.4
			95	26.2
			80	18.8
			65	11.3
			50	7.0
			40	0.0
12-15-83	1545	1,352.05	259	0.0
			245	11.0
			230	19.2
			215	22.0
			200	36.8
			185	38.4
			120	37.0
			155	36.1
			140	36.5
			125	37.1
			110	33.5
			95	26.3
			80	18.4
12-15-83	1545	(Continued)	65	10.8
			50	6.9
			40	0.0
12-16-83	0920	1,351.82	259	0.0
			245	11.0
			230	19.1
			215	21.6
			200	36.9
			185	37.6
			170	37.4
			155	36.8
			140	37.1
			125	36.7
			110	33.4
			95	27.3
			80	18.4
			65	12.2
			50	7.5
			40	0.0
12-18-83	1346	1,352.34	259	0.0
			240	12.6
			225	20.6
			210	24.0
			195	39.0
			180	38.5
			165	39.7
			150	39.2
			135	39.7
			120	38.5
			105	31.7
			90	23.7
			75	15.5
			60	7.8
			40	0.0
12-19-83	1120	1,352.29	259	0.0
			240	12.3
			225	20.6
			210	22.1
			195	38.7
			180	39.5
			165	40.8
			150	41.3
			135	37.9
			120	39.3
			105	31.7
			90	23.8
			75	15.0
			60	10.0
			40	0.0

Table 59.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-01-85	1540	9.87	572	0.0
			552	10.7
			512	25.0
			472	25.8
			432	24.9
			392	21.4
			352	20.0
			312	20.5
			272	19.0
			232	15.8
			192	10.0
			164	0.0
10-01-85	1850	9.47	162	0.0
			182	11.6
			222	13.9
			262	18.2
			302	21.2
			342	21.1
			382	20.6
			422	23.7
			462	25.2
			502	24.4
			542	14.3
			572	0.0
10-08-85	1115	8.98	167	0.0
			240	16.6
			310	19.7
			380	20.1
			450	24.6
			520	20.9
			570	0.0
10-08-85	1430	9.82	165	0.0
			235	16.2
			305	20.8
			375	20.9
			445	25.8
			515	24.4
			570	0.0
11-01-85	1350	10.06	547	0.0
			540	16.7
			510	25.4
			480	27.5
			450	27.5
			420	22.1
			390	20.8
			360	20.9
			330	21.4
			300	21.4
			270	19.9
			240	17.9
			210	9.5
			167	0.0
11-01-85	1540	10.04	164	0.0
			190	10.9
			220	14.5
			250	17.7
			280	20.5
11-01-85	1540	(Continued)	310	21.0
			340	20.8
			370	21.0
			400	20.8
			430	24.0
			460	27.5
			490	27.0
			520	21.8
			550	12.9
			572	0.0
11-01-85	1920	9.90	572	0.0
			550	12.6
			525	21.1
			500	25.6
			475	27.0
			450	27.1
			425	22.7
			400	20.4
			375	20.3
			350	20.2
			325	20.8
			300	20.8
			275	19.4
			250	17.4
			225	14.3
			200	10.0
			162	0.0
11-01-85	2245	9.92	572	0.0
			550	13.4
			525	21.1
			500	25.7
			475	28.1
			450	27.0
			425	22.6
			400	20.7
			375	20.9
			350	20.8
			325	21.2
			300	21.2
			275	20.0
			250	17.2
			225	14.8
			200	10.0
			167	0.0
11-08-85	1225	9.30	574	0.0
			540	15.4
			510	24.3
			480	27.4
			450	26.8
			420	21.8
			390	19.9
			360	20.0
			330	20.5
			300	20.5
			270	18.7
			168	0.0
11-08-85	1717	9.77	163	0.0
			270	19.5

Table 59.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-08-85	1717	(Continued)	300	21.0
			330	20.7
			360	19.9
			390	20.6
			420	22.0
			450	27.1
			480	27.3
			510	24.6
			540	16.3
			575	0.0
11-08-85	1758	10.16	575	0.0
			540	16.1
			510	24.5
			480	27.6
			450	27.7
			420	22.3
			390	20.9
			360	20.6
			330	21.0
			300	21.0
			270	19.5
			163	0.0
11-09-85	450	8.40	165	0.0
			200	7.7
			230	14.0
			270	17.7
			300	19.2
			330	18.8
			360	18.7
			390	18.9
			420	19.6
			572	0.0
11-09-85	1205	9.40	165	0.0
			270	19.1
			300	20.6
			330	20.5
			360	20.2
			390	20.2
			420	21.5
			450	27.0
			480	27.7
			510	25.0
			540	15.1
			574	0.0
11-09-85	1235	9.80	574	0.0
			540	15.9
			510	25.0
			480	27.9
			450	27.4
			420	21.6
			390	20.5
			360	20.7
			330	21.4
			300	21.3
			270	19.2
			165	0.0
11-09-85	1340	10.20	165	0.0
11-09-85	1340	(Continued)	270	19.5
			300	21.6
			330	21.2
			360	21.0
			390	21.2
			420	22.2
			450	27.5
			480	28.6
			510	25.4
			540	15.6
			576	0.0
11-09-85	1840	10.28	163	0.0
			270	19.6
			300	21.2
			330	21.3
			360	21.0
			390	21.0
			420	22.2
			450	27.6
			480	28.6
			510	25.3
			540	16.6
			574	0.0
11-09-85	2037	10.76	163	0.0
			270	20.4
			300	22.3
			330	21.9
			360	21.4
			390	21.9
			420	23.1
			450	28.4
			480	29.3
			510	26.1
			540	17.5
			574	0.0
11-10-85	500	9.14	568	0.0
			550	12.6
			500	24.7
			450	26.7
			400	20.0
			350	19.8
			300	20.2
			250	17.0
			200	9.1
			165	0.0
01-04-86	1150	9.20	570	0.0
			550	12.1
			510	24.6
			470	23.9
			430	22.2
			390	21.1
			350	20.4
			310	20.5
			270	19.4
			230	15.4
			190	10.0
			165	0.0

Table 59.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-04-86	1302	10.31	165	0.0
			190	10.9
			230	15.3
			270	20.0
			310	21.3
			350	21.3
			390	22.1
			430	23.6
			470	25.6
			510	26.0
			550	12.9
			575	0.0
01-04-86	1432	10.58	162	0.0
			190	10.7
			230	16.2
			270	20.2
			310	21.6
			350	21.4
			390	22.3
			430	23.6
			470	25.0
			510	25.7
			550	13.9
			574	0.0
01-04-86	1838	10.54	164	0.0
			180	21.0
			210	21.5
			240	21.4
			270	21.9
			300	21.7
			330	21.8
			360	21.4
			390	22.3
			420	23.9
			450	24.7
			480	26.3
			510	25.8
			540	17.1
			570	2.5
			575	0.0
01-04-86	2225	10.84	575	0.0
			550	14.5
			520	22.9
			490	26.8
			460	25.9
			430	24.6
			400	23.6
			370	22.0
			340	21.9
			310	22.0
			280	21.4
			250	18.8
			220	15.1
			190	11.6
			165	0.0
01-05-86	200	9.05	166	0.0
			190	9.1
			220	12.8
01-05-86	200	(Continued)	250	16.7
			280	19.0
			310	19.7
			340	20.0
			370	20.2
			400	21.8
			430	22.4
			460	23.5
			490	24.8
			520	20.5
			550	12.4
			572	0.0
01-05-86	300	8.22	167	0.0
			190	8.4
			220	11.9
			250	15.5
			280	17.9
			310	18.6
			340	18.4
			370	19.1
			400	20.4
			430	21.3
			460	22.9
			490	24.0
			520	19.9
			550	11.5
			572	0.0
01-05-86	1048	7.44	167	0.0
			190	7.5
			230	13.0
			270	15.4
			310	17.7
			350	17.8
			390	19.2
			430	20.6
			470	22.2
			510	22.5
			550	11.3
			572	0.0
01-05-86	1112	8.09	168	0.0
			190	8.9
			230	14.0
			270	17.5
			310	19.1
			350	18.7
			390	19.9
			430	21.6
			470	22.4
			510	23.0
			550	11.3
			572	0.0
01-05-86	1259	9.26	165	0.0
			190	9.5
			230	15.0
			270	18.6
			310	19.9
			350	20.0
			390	20.8

Table 59.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-05-86	1259	(Continued)	430	22.4
			470	24.0
			510	24.4
			550	12.5
			570	0.0
01-05-86	1705	9.15	573	0.0
			560	7.6
			535	15.5
			510	24.4
			485	25.0
			460	23.7
			435	22.9
			410	22.7
			385	20.7
			360	20.1
			335	20.1
			310	20.2
			285	19.5
			260	18.2
			235	15.5
			210	8.1
			185	9.7
			165	0.0
01-05-86	1828	9.20	164	0.0
			180	8.6
			210	8.5
			240	17.0
			270	18.9
			300	20.3
			330	20.2
			360	19.7
			390	20.8
			420	22.5
			450	23.2
			480	24.7
			510	24.4
			540	15.7
			570	1.0
			573	0.0
01-05-86	1945	9.68	165	0.0
			190	10.0
			220	14.0
			250	17.6
			280	20.0
			310	20.5
			340	20.5
			370	20.5
			400	22.0
			430	23.3
			460	24.2
			490	25.7
			520	21.4
			550	13.4
			574	0.0
01-05-86	2135	10.16	574	0.0
			560	7.7
			530	20.4
			500	25.6
01-05-86	2135	(Continued)	470	25.3
			440	24.1
			410	23.9
			380	21.6
			350	21.0
			320	21.5
			290	21.1
			260	19.5
			230	16.1
			200	9.9
			180	9.4
			164	0.0
01-05-86	2222	10.20	165	0.0
			180	9.9
			205	10.0
			230	16.3
			255	18.5
			280	20.7
			305	21.5
			330	21.7
			355	20.9
			380	21.5
			405	23.4
			430	24.0
			455	24.8
			480	26.0
			505	24.9
			530	21.2
			555	10.4
			574	0.0
01-09-86	1550	9.50	575	0.0
			525	21.6
			500	25.4
			475	25.6
			450	24.2
			425	24.2
			400	22.4
			375	20.9
			350	20.7
			325	21.0
			300	21.2
			275	19.7
			63	0.0
01-10-86	1140	10.48	578	0.0
			540	16.8
			510	25.7
			480	26.3
			450	25.2
			420	24.6
			390	22.2
			360	21.3
			330	21.6
			300	21.8
			270	13.8
			166	0.0
01-10-86	1710	10.66	575	0.0
			520	22.3
			480	26.4

Table 59.--Cross-section geometry at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-10-86	1710	(Continued)	440	25.1	01-10-86	2045	(Continued)	450	26.0
			400	23.2				480	27.6
			360	21.8				510	26.7
			320	21.9				540	18.5
			280	21.0				575	0.0
			240	18.6					
			200	10.5					
			164	0.0	01-10-86	2310	11.00	576	0.0
								520	22.7
01-10-86	2045	11.22	165	0.0				480	26.8
			210	10.3				440	25.3
			240	19.0				400	23.7
			270	21.3				360	22.0
			300	22.6				320	22.3
			330	22.8				280	21.3
			360	22.2				240	19.1
			390	23.3				200	11.4
			420	25.5				165	0.0

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-05-85	1505	2,726.42	134	0.0
			160	9.5
			180	11.1
			200	11.4
			220	12.4
			240	12.9
			260	14.2
			280	15.0
			300	15.0
			320	15.7
			340	15.4
			360	14.6
			380	15.4
			400	15.6
			420	15.8
			468	0.0
10-05-85	2200	2,724.06	140	0.0
			150	4.4
			170	7.8
			190	8.8
			210	9.5
			230	10.3
			250	11.2
			270	11.6
			290	12.3
			310	13.7
			330	13.4
			350	12.6
			370	13.0
			390	13.6
			410	14.1
			430	14.3
			450	15.2
			470	0.0
10-06-85	0620	2,725.30	137	0.0
			155	9.1
			170	10.2
			185	11.0
			200	11.4
			215	11.5
			230	12.2
			245	12.8
			260	13.7
			275	14.3
			290	14.6
			305	15.5
			320	15.4
			335	15.3
			350	15.1
			365	14.4
			380	15.3
			395	15.5
			410	16.3
			425	16.4
			440	16.3
			455	14.2
			466	0.0
10-07-85	0130	2,722.78	146	0.0
			155	5.4
10-07-85	0130	(Continued)	170	6.8
			185	7.6
			200	8.1
			215	9.0
			230	9.6
			245	10.0
			260	11.2
			275	11.4
			290	11.9
			305	12.1
			320	12.6
			335	12.7
			350	12.2
			365	11.8
			380	12.1
			395	12.3
			410	12.8
			425	13.4
			440	13.1
			455	11.3
			460	0.0
10-08-85	0130	2,725.64	138	0.0
			150	6.1
			170	9.6
			190	10.8
			210	11.7
			230	12.5
			250	13.2
			270	14.0
			290	15.0
			310	15.5
			330	15.8
			350	15.3
			370	15.2
			390	16.4
			410	16.7
			430	17.2
			450	16.2
			462	0.0
10-08-85	1035	2,727.68	462	0.0
			450	17.5
			435	18.3
			420	18.2
			405	17.8
			390	17.4
			375	16.9
			360	16.5
			345	16.5
			330	17.2
			315	17.3
			300	16.8
			285	16.5
			270	15.8
			255	15.0
			240	14.8
			225	14.1
			210	13.2
			195	12.9
			180	12.2
			165	11.4

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-08-85	1035	(Continued)	137	0.0
10-08-85	1345	2,726.86	465	0.0
			440	16.8
			410	16.5
			380	15.6
			350	15.5
			320	15.7
			290	15.2
			260	14.0
10-08-85	2220	2,723.88	459	0.0
			460	7.4
			445	13.9
			430	14.5
			415	14.2
			400	14.0
			385	13.7
			370	13.2
			355	12.4
			340	12.9
			325	13.2
			310	13.3
			295	12.8
			280	11.7
			265	11.8
			250	10.4
			235	9.9
			220	9.7
			205	8.8
			190	8.3
			175	7.1
			160	5.6
			141	0.0
10-09-85	0240	2,725.70	138	0.0
			150	5.5
			165	8.5
			180	9.6
			195	10.1
			210	11.5
			225	12.5
			240	12.4
			255	12.9
			270	14.4
			285	15.1
			300	15.7
			315	16.5
			330	16.4
			345	15.8
			360	16.0
			375	16.0
			390	16.7
			405	17.5
			420	17.5
			435	17.5
			450	17.4
			463	0.0
11-07-85	1605	2,726.42	70	0.0
			80	12.4
			110	16.2
11-07-85	1605	(Continued)	140	15.6
			170	14.3
			200	15.2
			230	15.4
			260	15.8
			290	12.7
			320	11.8
			350	10.4
			399	0.0
11-08-85	0305	2,727.08	71	0.0
			80	13.1
			110	17.1
			140	17.0
			170	15.2
			200	16.1
			230	16.1
			260	15.0
			290	14.2
			320	12.9
			350	12.5
			380	9.2
			402	0.0
11-08-85	1105	2,728.18	68	0.0
			85	17.5
			105	18.5
			125	18.3
			145	18.2
			165	17.0
			185	17.1
			205	17.5
			225	17.7
			245	16.9
			265	15.8
			285	15.1
			305	14.5
			325	13.8
			345	13.1
			365	11.8
			385	7.2
			403	0.0
11-12-85	2350	2,726.60	399	0.0
			350	11.5
			320	12.3
			290	13.6
			260	14.7
			230	16.0
			200	15.7
			170	15.0
			140	16.0
			110	17.2
			80	13.3
			71	0.0
11-13-85	0243	2727.35	63	0.0
			80	14.1
			110	17.5
			140	16.7
			170	16.0
			200	16.1

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-13-85	0243	(Continued)	230	16.4
			260	14.4
			290	13.1
			320	12.2
			350	8.3
			405	0.0
11-13-85	0410	2,727.42	63	0.0
			80	13.4
			110	17.5
			140	16.5
			170	14.9
			200	16.5
			230	16.8
			260	15.0
			290	14.4
			320	14.0
			350	12.2
			405	0.0
11-13-85	0602	2,727.55	63	0.0
			80	14.1
			110	17.8
			140	16.6
			170	15.6
			200	16.1
			230	16.6
			260	15.8
			290	14.5
			320	13.2
			350	12.7
			405	0.0
11-13-85	0900	2,727.70	65	0.0
			100	17.7
			140	17.0
			180	16.2
			220	16.8
			260	15.6
			300	14.3
			340	12.8
			380	9.4
			402	0.0
11-13-85	2355	2,725.40	395	0.0
			350	9.7
			320	11.2
			290	12.3
			260	13.1
			230	14.3
			200	14.7
			170	13.7
			140	14.9
			110	16.0
			80	12.1
			67	0.0
11-14-85	0139	2,726.35	66	0.0
			80	15.8
			110	17.0
			140	16.0
			170	15.5
11-14-85	0139	(Continued)	200	15.4
			230	15.5
			260	14.5
			290	13.5
			320	12.4
			350	11.2
			401	0.0
11-14-85	0535	2,727.15	65	0.0
			80	13.8
			110	17.3
			140	16.3
			170	15.8
			200	15.8
			230	16.3
			260	14.5
			290	13.7
			320	12.9
			350	12.5
			401	0.0
11-14-85	0612	2,727.25	65	0.0
			80	13.4
			110	17.6
			140	16.6
			170	15.6
			200	16.1
			230	16.1
			260	15.9
			290	14.0
			320	13.2
			350	11.6
			401	0.0
11-14-85	1140	2,727.62	62	0.0
			100	17.4
			130	17.5
			160	16.8
			190	16.4
			220	17.1
			250	16.2
			280	15.1
			310	13.9
			340	12.6
			370	11.3
			405	0.0
11-14-85	2305	2,726.40	401	0.0
			350	11.1
			320	11.7
			290	13.6
			260	14.8
			230	15.8
			200	15.5
			170	14.8
			140	15.8
			110	16.7
			80	12.7
			64	0.0
11-15-85	0133	2,727.05	63	0.0
			80	14.2

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-15-85	0133	(Continued)	110	17.4
			140	17.4
			170	16.4
			200	15.5
			230	16.1
			260	15.3
			290	14.0
			320	12.8
			350	12.5
			406	0.0
11-15-85	0445	2,727.10	64	0.0
			80	13.6
			110	17.6
			140	16.2
			170	15.0
			200	16.7
			230	16.4
			260	15.6
			290	14.0
			320	12.9
			350	12.3
			406	0.0
11-15-85	0710	2,727.25	400	0.0
			350	11.8
			320	12.9
			290	13.8
			260	15.2
			230	16.3
			200	16.3
			170	15.4
			140	16.2
			110	17.5
			80	13.4
			66	0.0
11-15-85	0850	2,727.55	65	0.0
			100	17.4
			130	17.2
			160	16.6
			190	16.2
			220	16.6
			250	15.6
			280	14.4
			310	13.4
			340	12.3
			370	11.1
			402	0.0
11-15-85	2115	2,725.80	399	0.0
			350	10.4
			320	11.4
			290	12.7
			260	13.7
			230	15.0
			200	14.8
			170	14.3
			140	15.0
			110	15.8
			80	11.8
			67	0.0
11-15-85	2225	2,726.00	400	0.0
			350	11.0
			320	11.3
			290	13.2
			260	13.6
			230	15.1
			200	15.2
			170	14.3
			140	15.3
			110	16.1
			80	12.2
			67	0.0
11-16-85	0100	2,726.80	63	0.0
			80	12.8
			110	16.4
			140	16.0
			170	14.4
			200	16.1
			230	15.4
			260	14.6
			290	13.9
			320	12.7
			350	11.4
			403	0.0
11-16-85	0145	2,727.00	63	0.0
			80	13.2
			110	16.9
			140	16.0
			170	15.4
			200	16.3
			230	16.0
			260	14.8
			290	13.9
			320	13.4
			350	12.9
			404	0.0
12-06-85	2325	2,726.28	68	0.0
			80	12.4
			110	16.5
			140	15.6
			170	15.1
			200	15.1
			230	15.3
			260	14.2
			290	13.2
			320	12.2
			350	10.1
			380	8.0
			401	0.0
12-07-85	0155	2,727.16	70	0.0
			85	16.3
			115	17.5
			145	17.1
			175	16.0
			205	16.5
			235	16.3
			265	15.1
			295	13.8

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
12-07-85	0155	(Continued)	325	13.2
			355	11.8
			385	7.0
			403	0.0
12-07-85	0445	2,727.42	69	0.0
			80	13.3
			100	17.1
			120	17.6
			140	16.7
			160	16.6
			180	16.3
			200	16.5
			220	16.8
			240	16.4
			260	15.2
			280	15.0
			300	14.0
			320	13.3
			340	12.4
			360	11.9
			380	9.3
			404	0.0
12-07-85	2308	2,723.46	71	0.0
			85	12.1
			115	13.6
			145	12.8
			175	11.9
			205	12.8
			235	12.4
			265	10.9
			295	10.0
			325	8.8
			355	7.8
			385	3.6
			493	0.0
12-07-85	2332	2,723.30	493	0.0
			385	3.4
			355	7.6
			325	9.0
			295	9.8
			265	11.1
			235	12.2
			205	12.4
			175	11.4
			145	12.6
			115	13.1
			85	12.0
			73	0.0
12-08-85	0808	2,727.26	69	0.0
			80	14.1
			110	17.8
			140	17.1
			170	16.1
			200	16.6
			230	16.9
			260	15.4
			290	14.4
			320	13.5
12-08-85	0808	(Continued)	350	12.4
			380	9.0
			404	0.0
12-09-85	0538	2,724.31	68	0.0
			90	13.3
			130	14.2
			170	12.6
			210	13.4
			250	12.3
			290	11.1
			330	9.7
			370	7.9
			393	0.0
12-09-85	0820	2,726.10	69	0.0
			100	15.8
			170	14.0
			240	14.6
			310	12.0
			380	7.7
			400	0.0
12-09-85	1128	2,726.62	70	0.0
			90	16.3
			125	16.5
			160	15.8
			195	15.6
			230	16.0
			265	14.4
			300	13.2
			335	12.2
			370	11.4
			399	0.0
12-12-85	2035	2,724.80	395	0.0
			350	9.7
			320	10.7
			290	11.8
			260	12.8
			230	13.8
			200	13.8
			170	13.2
			140	13.9
			110	15.1
			80	11.3
			66	0.0
12-12-85	2130	2,724.80	395	0.0
			350	9.5
			320	10.5
			290	11.7
			260	12.6
			230	13.9
			200	13.8
			170	13.0
			140	14.1
			110	15.2
			80	11.0
			66	0.0
12-13-85	0215	2,728.68	407	0.0

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
12-13-85	0215	(Continued)	350	13.4
			320	14.7
			290	15.5
			260	16.7
			230	18.5
			200	17.6
			170	17.3
			140	18.2
			110	18.8
			80	15.4
			61	0.0
12-13-85	0715	2,729.78	61	0.0
			80	16.7
			110	20.0
			140	19.0
			170	18.4
			200	18.3
			230	18.8
			260	17.7
			290	16.5
			320	15.1
			350	14.1
			408	0.0
12-14-85	0220	2,728.60	407	0.0
			350	13.2
			320	14.0
			290	15.5
			260	16.5
			230	17.8
			200	17.5
			170	17.4
			140	17.9
			110	18.7
			80	14.9
			63	0.0
12-14-85	0450	2,729.00	406	0.0
			350	13.8
			320	14.9
			290	15.8
			260	17.2
			230	17.8
			200	18.0
			170	17.7
			140	18.8
			110	19.3
			80	16.0
			64	0.0
12-14-85	0700	2,729.60	406	0.0
			350	15.4
			320	15.1
			290	16.2
			260	17.8
			230	19.3
			200	18.6
			170	18.4
			140	19.6
			110	19.8
			80	17.0
12-14-85	0700	(Continued)	62	0.0
12-14-85	2350	2,723.40	393	0.0
			350	8.1
			320	8.9
			290	8.9
			260	10.6
			230	12.0
			200	12.3
			170	11.5
			140	12.2
			110	12.9
			80	9.4
			58	0.0
12-15-85	0330	2,727.40	68	0.0
			100	18.3
			130	17.7
			160	16.9
			190	16.3
			220	16.7
			250	16.2
			280	14.8
			310	13.7
			340	12.8
			370	11.0
			403	0.0
12-15-85	0645	2,727.85	65	0.0
			100	18.1
			130	17.4
			160	16.7
			190	16.4
			220	17.0
			250	16.2
			280	15.2
			310	14.3
			340	12.6
			370	11.1
12-15-85	1015	2,728.22	65	0.0
			100	18.2
			130	17.7
			160	17.4
			190	17.1
			220	17.5
			250	16.4
			280	15.5
			310	14.3
			340	13.2
			370	11.3
			405	0.0
01-08-86	0112	2,723.56	73	0.0
			90	12.7
			120	13.7
			150	13.0
			180	12.2
			210	13.2
			240	12.5
			270	11.4
			300	10.2

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-08-86	0112	(Continued)	330	9.0
			360	7.7
			390	1.6
			394	0.0
01-08-86	0240	2,725.68	71	0.0
			90	14.8
			130	15.7
			170	14.1
			210	15.2
			250	14.2
			290	13.0
			330	11.4
			370	9.5
			400	0.0
01-08-86	0422	2,727.21	68	0.0
			100	17.4
			145	16.9
			190	16.0
			235	16.3
			280	14.7
			325	13.4
			370	10.7
			404	0.0
01-08-86	0718	2,727.79	65	0.0
			85	16.5
			100	17.9
			135	17.9
			170	16.3
			205	17.2
			240	16.8
			275	15.4
			310	14.3
			345	12.7
			380	9.5
			402	0.0
01-09-86	0112	2,724.25	72	0.0
			90	13.2
			130	14.1
			170	12.1
			210	13.3
			250	12.8
			290	11.2
			330	9.5
			370	7.4
			399	0.0
01-09-86	0152	2,725.55	71	0.0
			90	14.0
			125	15.9
			160	14.7
			195	14.8
			230	15.0
			265	13.4
			300	12.0
			335	10.5
			370	8.9
			400	0.0
01-09-86	0248	2,726.78	69	0.0
			90	15.5
			125	16.6
			160	15.9
			195	15.6
			230	16.1
			265	14.7
			300	13.1
			335	12.0
			370	10.1
			404	0.0
01-09-86	0330	2,727.36	402	0.0
			380	9.2
			340	12.4
			300	13.9
			260	15.5
			220	16.8
			180	16.1
			140	16.7
			100	17.2
			68	0.0
01-09-86	0517	2,727.99	68	0.0
			100	17.9
			140	17.0
			180	16.6
			220	17.1
			260	15.9
			300	14.3
			340	12.9
			380	9.1
			407	0.0
01-10-86	0245	2,727.16	69	0.0
			100	17.4
			145	16.9
			190	16.0
			235	16.2
			280	14.4
			325	13.2
			370	10.5
			403	0.0
01-11-86	0042	2,725.96	70	0.0
			80	10.9
			115	15.0
			150	14.8
			185	15.2
			220	15.8
			255	14.9
			290	13.4
			325	12.4
			360	11.2
			395	3.3
			406	0.0
01-11-86	0147	2,727.81	70	0.0
			80	14.0
			120	17.2
			160	16.6
			200	16.3

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-11-86	0147	(Continued)	240	16.4
			280	14.8
			320	13.6
			360	12.0
			410	0.0
01-11-86	1640	2,725.97	401	0.0
			385	6.2
			360	10.4
			335	11.3
			310	12.5
			285	13.1
			260	14.3
			235	15.2
			210	15.7
			185	14.4
			160	14.8
			135	15.7
			110	16.0
			85	14.8
			69	0.0
01-13-86	0900	2,729.00	406	0.0
			350	13.7
			320	14.8
			290	16.0
			260	17.3
			230	18.5
			200	18.2
			170	17.6
			140	15.4
			110	19.0
			80	14.9
			62	0.0
01-13-86	2350	2,723.40	396	0.0
			350	7.7
			320	9.1
			290	10.0
			260	11.0
			230	12.3
			200	12.2
			170	11.4
			140	12.3
			110	13.3
			98	0.0
01-14-86	0200	2,726.30	66	0.0
			100	16.5
			130	16.3
			160	15.5
			190	15.4
			220	16.1
			250	15.0
			280	14.3
			310	12.9
			340	12.0
			370	9.9
			405	0.0
01-14-86	0245	2,727.40	63	0.0
			100	17.3
01-14-86	0245	(Continued)	130	17.1
			160	16.7
			190	16.4
			220	17.0
			250	16.2
			280	14.8
			310	13.9
			340	12.8
			370	11.2
			406	0.0
01-14-86	0415	2,728.40	65	0.0
			100	18.5
			130	18.4
			160	17.3
			190	17.6
			220	18.0
			250	17.2
			280	15.5
			310	14.8
			340	13.8
			370	11.8
			407	0.0
01-15-86	0220	2,728.55	407	0.0
			350	13.3
			330	13.8
			305	14.7
			280	15.3
			255	15.4
			230	18.1
			205	18.0
			180	17.1
			155	18.4
			130	18.4
			105	19.2
			61	0.0
01-15-86	0330	2,728.84	407	0.0
			355	13.3
			330	14.2
			305	15.4
			280	15.9
			255	17.4
			230	18.2
			205	18.2
			180	17.4
			155	18.7
			130	18.9
			105	19.1
			61	0.0
01-15-86	0730	2,728.95	407	0.0
			355	13.3
			330	13.9
			305	15.0
			280	15.8
			255	17.1
			230	18.5
			205	18.1
			180	17.5
			155	18.3

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-15-85	0730	(Continued)	130	18.8
			105	19.3
			61	0.0
01-15-86	2230	2,723.48	391	0.0
			100	12.8
			130	12.8
			160	12.3
			190	12.2
			220	12.4
			250	11.0
			280	10.0
			310	8.9
			340	8.4
			370	6.5
			67	0.0
01-16-86	0130	2,726.40	401	0.0
			350	10.8
			320	12.0
			290	13.3
			260	14.4
			230	15.5
			200	15.6
			170	14.8
			140	15.2
			110	17.1
			80	13.7
			65	0.0
01-16-86	0240	2,727.60	405	0.0
			350	12.5
			320	13.5
			290	14.7
			260	15.8
			230	16.9
			200	16.7
			170	16.2
			140	17.5
			110	18.2
			80	14.2
			67	0.0
01-16-86	0340	2,728.20	406	0.0
			350	13.1
			320	14.3
			290	15.3
			260	16.4
			230	17.8
			200	17.3
			170	17.0
			140	17.8
			110	18.7
			80	14.8
			67	0.0
01-16-86	0440	2,728.70	407	0.0
			350	13.4
			320	14.5
			290	15.6
			260	16.8
			230	18.0
01-16-86	0440	(Continued)	200	17.9
			170	17.3
			140	18.0
			110	19.0
			80	15.0
			67	0.0
01-16-86	0610	2,728.10	407	0.0
			350	13.8
			320	15.0
			290	16.2
			260	17.3
			230	18.7
			200	18.2
			170	17.7
			140	18.4
			110	19.5
			80	15.7
			67	0.0
01-16-86	0720	2,729.40	407	0.0
			350	14.3
			320	15.4
			290	16.2
			260	17.4
			230	18.9
			200	18.7
			170	18.5
			140	18.7
			110	19.5
			80	15.5
			67	0.0
01-16-86	1230	2,728.45	395	0.0
			350	8.9
			320	10.0
			290	11.3
			260	12.6
			230	13.7
			200	13.8
			170	13.3
			140	14.0
			110	15.2
			80	11.7
			67	0.0
01-16-86	1945	2,727.15	405	0.0
			355	11.4
			330	12.4
			305	13.5
			280	14.4
			255	15.6
			230	16.5
			205	16.8
			180	15.9
			155	17.1
			130	17.1
			105	17.3
			62	0.0
01-16-86	2110	2,727.75	405	0.0

Table 60.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-16-86	2110	(Continued)	355	11.9	01-16-86	2235	2,728.34	407	0.0
			330	13.1				355	12.5
			305	13.9				330	13.0
			280	15.0				305	14.4
			255	15.8				280	14.9
			230	16.8				255	16.4
			205	17.1				230	17.5
			180	16.6				205	17.5
			155	17.2				180	16.6
			130	18.0				155	17.5
			105	17.8				130	18.0
			61	0.0				105	17.8
								62	0.0

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-11-85	2215	6.57	111	0.0
			120	9.4
			145	15.2
			170	20.8
			195	18.2
			220	17.2
			245	16.6
			270	16.2
			295	16.8
			320	15.2
			345	15.3
			370	16.1
			390	0.0
10-12-85	0205	5.16	392	0.0
			380	14.2
			360	14.6
			340	14.1
			320	14.4
			300	14.4
			280	15.2
			260	14.7
			240	14.8
			220	15.2
			200	15.4
			180	17.4
			160	18.3
			140	18.0
			120	12.0
			114	0.0
10-12-85	0525	5.95	392	0.0
			370	14.6
			350	14.5
			330	14.7
			310	15.2
			290	15.4
			270	15.5
			250	15.3
			230	15.8
			210	16.1
			190	18.3
			170	18.5
			150	13.7
			130	10.5
			114	0.0
10-12-85	2105	6.99	107	0.0
			115	4.4
			135	14.4
			155	20.6
			175	21.0
			195	18.2
			215	18.1
			235	16.5
			255	16.9
			275	16.5
			295	16.4
			315	16.0
			335	15.7
			355	16.0
			375	17.0
10-12-85	2105	(Continued)	387	0.0
10-12-85	2255	6.22	397	0.0
			380	17.0
			365	16.5
			350	15.7
			335	15.4
			320	15.0
			305	15.3
			290	16.1
			275	17.3
			260	15.5
			245	16.2
			230	16.2
			215	16.1
			200	16.5
			185	18.2
			170	18.3
			155	18.7
			140	12.6
			125	7.8
			111	0.0
10-13-85	0150	5.10	114	0.0
			130	12.1
			150	17.1
			170	17.8
			190	16.8
			210	15.3
			230	14.8
			250	14.6
			270	13.9
			290	14.2
			310	14.5
			330	14.4
			350	14.6
			389	0.0
10-13-85	0440	4.11	115	0.0
			125	6.0
			150	15.1
			175	16.0
			200	14.5
			225	13.9
			250	14.2
			275	13.2
			300	12.8
			325	12.6
			350	12.6
			375	13.4
			389	0.0
10-13-85	1730	8.02	390	0.0
			380	18.1
			365	17.8
			350	17.2
			335	17.4
			320	17.1
			305	17.6
			290	17.3
			275	17.5
			260	17.5

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-13-85	1730	(Continued)	245	17.8
			230	18.2
			215	18.2
			200	18.7
			185	20.3
			170	20.5
			155	20.8
			140	15.0
			125	10.2
			106	0.0
10-13-85	2155	6.44	389	0.0
			370	16.5
			345	15.4
			320	15.3
			295	15.7
			270	15.8
			245	16.2
			220	16.3
			195	17.4
			170	18.7
			145	14.5
			120	12.5
			111	0.0
10-14-85	0200	4.84	392	0.0
			370	15.4
			350	13.8
			330	13.7
			310	14.2
			290	14.1
			270	14.3
			250	14.1
			230	14.6
			210	14.8
			190	16.3
			170	17.1
			150	15.2
			130	8.4
			115	0.0
10-17-85	1745	8.80	102	0.0
			120	8.0
			140	16.3
			160	21.7
			180	21.7
			200	19.2
			220	18.9
			240	18.6
			260	18.4
			280	18.4
			300	18.2
			320	17.6
			340	18.0
			360	18.4
			380	19.0
			394	0.0
10-18-85	0245	6.05	392	0.0
			365	15.1
			340	14.6
			315	14.8
10-18-85	0245	(Continued)	290	15.3
			265	15.6
			240	15.5
			215	16.0
			190	17.4
			165	15.9
			140	12.4
			109	0.0
10-18-85	1340	8.45	104	0.0
			130	13.3
			150	20.8
			170	21.2
			190	20.0
			210	18.9
			230	18.4
			250	18.2
			270	17.8
			290	17.7
			310	17.6
			330	17.2
			350	17.4
			370	18.6
			392	0.0
10-18-85	2120	7.30	392	0.0
			365	16.8
			340	16.4
			315	16.2
			290	16.6
			265	16.6
			240	17.1
			215	17.4
			190	18.6
			165	21.4
			140	14.9
			106	0.0
10-19-85	0935	9.76	101	0.0
			120	10.9
			140	17.7
			160	22.2
			180	22.3
			200	21.8
			220	19.8
			240	19.6
			260	19.2
			280	19.0
			300	18.9
			320	18.5
			340	18.5
			360	18.9
			380	19.5
			392	0.0
10-20-85	0135	6.18	393	0.0
			350	15.3
			330	15.0
			310	15.5
			290	15.7
			270	16.2
			250	15.5

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
10-20-85	0135	(Continued)	230	16.0
			210	16.5
			190	18.0
			170	18.9
			110	0.0
11-10-85	1635	10.55	100	0.0
			110	4.2
			130	15.1
			150	22.3
			170	22.5
			190	21.4
			210	20.4
			230	20.2
			250	20.0
			270	19.5
			290	19.6
			310	19.5
			330	18.7
			350	18.8
			370	20.2
			391	0.0
11-11-85	1050	6.94	110	0.0
			125	9.6
			150	18.6
			175	19.6
			200	17.9
			225	17.1
			250	16.5
			275	16.2
			300	16.3
			325	15.9
			350	16.0
			375	17.0
			387	0.0
11-11-85	1135	6.96	387	0.0
			380	17.0
			360	16.1
			340	16.1
			320	16.0
			300	16.5
			280	16.5
			260	16.3
			240	16.8
			220	16.9
			200	17.5
			180	19.3
			160	19.6
			140	14.9
			120	7.8
			110	0.0
11-11-85	1500	8.12	106	0.0
			120	7.5
			150	20.2
			180	19.8
			210	18.0
			240	17.3
			270	17.2
			300	17.1
11-11-85	1500	(Continued)	330	16.8
			360	17.0
			395	0.0
11-13-85	0550	8.98	105	0.0
			120	16.0
			150	21.1
			180	19.3
			210	18.6
			240	18.4
			270	18.2
			300	18.4
			330	17.4
			360	18.1
			390	17.7
			395	0.0
11-17-85	1145	8.42	393	0.0
			360	17.2
			335	17.2
			310	17.4
			285	18.0
			260	17.8
			235	18.2
			210	19.0
			185	21.1
			160	21.2
			135	15.9
			105	0.0
11-18-85	0645	7.80	109	0.0
			180	19.7
			200	18.4
			220	17.8
			240	17.3
			260	16.3
			280	16.9
			300	16.8
			320	16.8
			340	16.5
			360	16.8
			391	0.0
11-18-85	0725	7.90	391	0.0
			360	16.8
			340	16.3
			320	16.3
			300	16.5
			280	16.5
			260	16.7
			240	17.3
			220	17.6
			200	18.2
			180	20.0
			108	0.0
11-18-85	1045	7.94	107	0.0
			135	14.8
			160	20.2
			185	19.5
			210	17.2
			235	16.9

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-18-85	1045	(Continued)	260	16.9
			285	16.3
			310	16.8
			335	16.7
			360	17.4
			393	0.0
11-18-85	1115	7.94	393	0.0
			360	17.2
			335	16.4
			310	17.0
			285	17.2
			260	17.4
			235	17.3
			210	18.4
			185	19.9
			160	20.4
			135	14.8
			106	0.0
11-19-85	1030	9.65	102	0.0
			135	16.4
			160	22.4
			185	21.7
			210	19.6
			235	18.9
			260	18.5
			285	18.5
			310	18.4
			335	18.6
			360	17.5
			393	0.0
11-19-85	1100	9.61	393	0.0
			360	18.4
			335	15.1
			310	18.6
			285	18.6
			260	18.6
			235	19.0
			210	19.8
			185	21.1
			160	21.4
			135	16.4
			101	0.0
11-20-85	0505	8.93	393	0.0
			360	18.2
			340	17.6
			320	17.7
			300	18.1
			280	18.3
			260	18.4
			240	18.6
			220	19.3
			200	19.8
			180	21.3
			103	0.0
11-20-85	0635	9.59	393	0.0
			360	18.7
			340	18.3
11-20-85	0635	(Continued)	320	18.2
			300	18.7
			280	18.8
			260	18.8
			240	19.3
			220	19.7
			200	20.4
			180	21.8
			103	0.0
11-20-85	0735	9.75	393	0.0
			360	18.7
			340	18.5
			320	18.5
			300	18.7
			280	18.8
			260	19.7
			240	19.5
			220	19.7
			200	20.4
			180	22.0
			160	22.1
			102	0.0
11-20-85	0942	10.15	393	0.0
			360	19.0
			335	18.2
			310	19.2
			285	19.4
			260	19.3
			235	19.8
			210	20.7
			185	21.8
			160	22.3
			135	17.1
			101	0.0
11-20-85	1130	10.56	100	0.0
			135	15.8
			160	22.6
			185	22.5
			210	20.8
			235	19.6
			260	19.8
			285	20.2
			310	19.5
			335	18.8
			360	19.5
			393	0.0
11-20-85	1150	10.60	393	0.0
			360	19.8
			335	18.6
			310	19.7
			285	19.3
			260	19.9
			235	20.4
			210	20.7
			185	23.1
			160	23.3
			135	16.7
			99	0.0

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
11-21-85	0135	7.83	393	0.0
			360	16.8
			345	16.5
			330	16.5
			315	16.7
			300	17.0
			285	17.0
			270	17.1
			255	17.3
			240	17.6
			225	18.0
			210	18.0
			195	18.8
			180	20.2
			165	20.2
			150	19.7
			109	0.0
12-11-85	0800	10.02	100	0.0
			115	6.8
			150	22.8
			185	22.3
			220	20.2
			255	19.6
			290	19.4
			325	18.9
			360	19.5
			388	0.0
12-12-85	0335	9.15	101	0.0
			120	9.1
			155	22.4
			190	20.5
			225	18.9
			260	17.9
			295	17.5
			330	17.2
			365	18.4
			389	0.0
12-12-85	0505	10.28	107	0.0
			120	9.4
			155	23.2
			190	21.7
			225	20.0
			260	19.6
			295	19.4
			230	18.9
			365	19.4
			390	0.0
12-12-85	0930	10.60	97	0.0
			115	6.7
			145	21.5
			175	23.3
			205	21.4
			235	20.3
			265	20.0
			295	20.1
			325	19.4
			355	20.1
			385	20.4
12-12-85	0930	(Continued)	390	0.0
12-12-85	1010	10.68	390	0.0
			380	20.5
			350	19.6
			320	19.7
			290	19.9
			260	20.3
			230	20.6
			200	21.5
			170	23.1
			140	18.6
			110	5.1
			97	0.0
12-13-85	0235	6.26	387	0.0
			380	15.9
			360	15.7
			340	15.3
			320	15.2
			300	15.4
			280	15.8
			260	15.6
			240	16.0
			220	16.5
			200	17.4
			180	18.5
			160	19.0
			140	13.2
			120	6.3
			110	0.0
12-13-85	0420	9.52	103	0.0
			130	13.9
			160	21.9
			190	21.0
			220	19.9
			250	19.1
			280	19.2
			310	19.0
			340	18.5
			370	20.0
			388	0.0
12-13-85	0450	10.20	388	0.0
			370	19.9
			340	19.3
			310	19.5
			280	19.7
			250	20.1
			220	20.5
			190	22.1
			160	23.5
			130	15.3
			100	0.0
12-13-85	0610	11.11	100	0.0
			120	11.7
			145	21.4
			170	23.4
			195	22.5
			220	21.2

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
12-13-85	0610	(Continued)	245	21.0
			270	20.7
			295	20.5
			320	19.1
			345	20.0
			370	21.0
			389	0.0
12-13-85	1050	12.42	96	0.0
			110	6.7
			130	16.9
			150	20.8
			170	24.9
			190	23.8
			210	22.8
			230	21.8
			250	21.8
			270	21.5
			290	21.7
			310	21.5
			330	20.8
			350	21.0
			370	22.4
			392	0.0
12-13-85	1130	12.41	392	0.0
			380	21.5
			360	21.2
			340	21.0
			320	21.4
			300	21.4
			280	21.8
			260	21.8
			240	22.0
			220	22.1
			200	22.8
			180	25.0
			160	24.9
			140	21.4
			120	12.5
			100	1.8
			95	0.0
12-13-85	1418	11.62	389	0.0
			375	21.9
			345	21.1
			315	20.9
			285	21.5
			255	21.6
			225	22.2
			195	23.3
			165	24.6
			135	19.4
			105	3.1
			98	0.0
12-13-85	1518	11.12	98	0.0
			110	5.1
			140	19.7
			170	24.1
			200	22.4
			230	21.6
12-13-85	1518	(Continued)	260	21.6
			290	20.8
			320	20.1
			350	20.2
			380	21.3
			392	0.0
12-13-85	2345	6.72	389	0.0
			370	16.4
			345	15.6
			320	15.9
			295	16.0
			270	16.2
			245	16.4
			220	17.0
			195	17.0
			170	19.1
			145	15.0
			120	7.0
			111	0.0
12-14-85	0945	12.05	100	0.0
			120	9.6
			155	24.6
			190	23.2
			225	21.4
			260	21.1
			295	20.8
			330	20.3
			365	20.8
			390	0.0
12-14-85	1025	12.16	390	0.0
			365	20.8
			330	20.3
			295	21.3
			260	21.2
			225	21.8
			190	23.4
			155	24.8
			120	11.2
			-1	0.0
12-14-85	1545	10.52	101	0.0
			110	4.8
			140	18.8
			170	22.9
			200	20.5
			230	20.3
			260	20.0
			290	20.3
			320	19.3
			350	19.4
			380	20.4
			390	0.0
12-14-85	1620	10.28	390	0.0
			380	20.4
			360	19.8
			340	19.4
			320	19.6
			300	19.7

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
12-14-85	1620	(Continued)	280	19.8
			260	20.0
			240	19.6
			220	20.4
			200	21.1
			180	22.8
			160	22.5
			140	18.0
			120	11.5
			103	0.0
12-17-85	1145	10.80	393	0.0
			360	19.6
			335	19.1
			310	19.8
			285	19.6
			260	19.8
			235	20.2
			210	21.0
			185	22.8
			0	23.8
			135	17.6
			101	0.0
12-17-85	1330	11.59	393	0.0
			375	20.9
			350	20.0
			325	20.0
			300	20.5
			275	20.6
			250	21.2
			225	21.3
			200	21.7
			175	24.0
			150	23.1
			125	12.2
			98	0.0
12-18-85	0240	5.04	391	0.0
			365	15.0
			340	14.2
			315	14.4
			290	14.4
			265	14.4
			240	14.9
			215	15.2
			190	16.5
			165	17.2
			140	11.6
			112	0.0
12-18-85	0550	4.70	391	0.0
			365	14.3
			340	13.9
			315	13.7
			290	13.4
			265	14.2
			240	14.2
			215	14.9
			190	16.3
			165	17.0
			140	11.5
12-18-85	0550	(Continued)	111	0.0
12-18-85	0735	8.01	391	0.0
			365	17.2
			340	16.6
			315	16.8
			290	17.2
			265	17.3
			240	17.8
			215	18.2
			190	20.2
			165	20.4
			140	15.5
			105	0.0
12-18-85	0925	9.29	392	0.0
			365	18.4
			340	18.0
			315	18.4
			290	18.4
			265	18.4
			240	19.0
			215	19.4
			190	20.7
			165	21.6
			140	16.5
			105	0.0
12-18-85	1135	10.16	392	0.0
			365	19.2
			340	19.7
			315	19.2
			290	19.3
			265	19.5
			240	19.8
			215	20.3
			190	21.8
			165	22.5
			140	17.4
			101	0.0
12-18-85	1310	10.70	393	0.0
			365	20.0
			340	19.5
			315	19.4
			290	19.9
			265	19.5
			240	20.2
			215	20.7
			190	22.0
			165	22.8
			140	18.6
			100	0.0
12-18-85	1340	10.60	100	0.0
			140	18.6
			165	23.0
			190	21.9
			215	20.7
			240	20.2
			265	19.7
			290	19.8

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
12-18-85	1340	(Continued)	315	19.8
			340	19.4
			365	20.4
			393	0.0
12-19-85	0435	4.50	393	0.0
			360	13.5
			335	13.0
			310	13.3
			285	13.7
			260	13.3
			235	13.9
			210	15.1
			185	16.3
			160	17.2
			135	11.2
			112	0.0
12-19-85	0800	8.55	105	0.0
			135	15.1
			160	20.5
			185	19.8
			210	18.7
			235	17.7
			260	17.8
			285	17.3
			310	17.2
			335	17.0
			360	17.7
			393	0.0
12-19-85	1130	9.40	393	0.0
			360	18.5
			335	17.7
			310	18.4
			285	18.4
			260	18.5
			235	19.0
			210	19.9
			185	21.4
			160	21.9
			135	14.2
			104	0.0
12-19-85	1340	9.72	392	0.0
			365	19.1
			340	18.5
			315	18.2
			290	19.0
			265	18.9
			240	19.6
			215	20.2
			190	21.2
			165	22.3
			140	16.2
			101	0.0
12-20-85	0145	7.40	392	0.0
			365	16.5
			340	15.8
			315	16.0
			290	16.2
12-20-85	0145	(Continued)	265	16.4
			240	16.8
			215	17.2
			190	18.6
			165	19.4
			140	14.4
			109	0.0
12-20-85	0350	8.95	393	0.0
			365	18.0
			340	17.7
			315	17.5
			290	17.3
			265	18.0
			240	18.2
			215	19.4
			190	20.0
			165	21.1
			140	21.2
			105	0.0
12-20-85	0600	9.32	393	0.0
			365	18.8
			340	18.1
			315	18.5
			290	18.2
			265	18.8
			240	19.0
			215	19.4
			190	20.6
			165	21.6
			140	16.6
			103	0.0
12-20-85	1400	9.50	102	0.0
			135	14.4
			160	21.9
			185	21.4
			210	19.4
			235	18.9
			260	18.2
			285	18.3
			310	18.3
			335	18.0
			360	18.4
			393	0.0
12-20-85	1510	9.40	102	0.0
			135	16.7
			160	22.0
			185	21.7
			210	20.0
			235	19.1
			260	18.8
			285	18.8
			310	18.5
			335	18.2
			360	18.0
			393	0.0
01-13-86	0745	11.18	104	0.0
			120	7.5

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-13-86	0745	(Continued)	150	22.5
			180	22.2
			210	20.5
			240	20.2
			270	19.9
			300	19.9
			330	19.2
			360	19.8
			389	0.0
01-13-86	0815	11.40	389	0.0
			370	19.9
			340	19.1
			310	19.9
			280	19.9
			250	20.5
			220	21.1
			190	22.6
			160	23.6
			130	15.7
			99	0.0
01-13-86	0948	11.64	100	0.0
			125	14.2
			155	24.2
			185	24.0
			215	21.7
			245	21.4
			275	20.8
			305	20.7
			335	20.0
			365	21.0
			389	0.0
01-13-86	1020	11.62	389	0.0
			370	21.3
			345	20.5
			320	20.4
			295	21.0
			270	21.2
			245	21.5
			220	21.9
			195	22.9
			170	24.3
			145	21.2
			120	10.0
			99	0.0
01-13-86	1105	11.56	99	0.0
			115	7.9
			135	17.1
			155	24.6
			175	24.2
			195	22.8
			215	22.2
			235	21.3
			255	21.1
			275	20.9
			295	20.9
			315	20.8
			335	20.1
			355	20.7
01-13-86	1105	(Continued)	375	21.4
			389	0.0
01-13-86	1150	11.48	389	0.0
			375	21.4
			355	20.7
			335	20.2
			315	20.4
			295	21.2
			275	20.8
			255	21.2
			235	21.4
			215	21.8
			195	22.3
			175	24.1
			155	24.8
			135	17.1
			115	8.0
			99	0.0
01-13-86	1307	11.15	100	0.0
			115	6.8
			140	18.9
			165	23.7
			190	23.0
			215	21.7
			240	21.0
			265	20.6
			290	20.5
			315	20.2
			340	20.1
			365	20.0
			390	19.6
			396	0.0
01-13-86	1345	10.92	100	0.0
			110	4.9
			135	17.9
			160	23.4
			185	23.3
			210	21.7
			235	21.1
			260	20.4
			285	20.1
			310	20.0
			335	19.7
			360	20.2
			385	20.9
			395	0.0
01-13-86	1415	10.74	395	0.0
			380	20.6
			350	19.8
			320	19.6
			290	20.0
			260	20.3
			230	20.7
			200	21.6
			170	23.4
			140	18.5
			110	4.5
			100	0.0

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-13-86	1935	8.04	104	0.0
			200	19.5
			225	18.7
			250	17.9
			275	18.0
			300	17.5
			325	17.0
			350	17.0
			375	18.3
			392	0.0
01-13-86	2015	7.65	104	0.0
			125	11.9
			150	18.6
			175	20.6
			200	18.5
			225	18.3
			250	17.3
			275	17.7
			300	17.2
			325	16.5
			350	16.8
			375	17.6
			391	0.0
01-13-86	2235	6.40	100	0.0
			125	14.0
			150	19.6
			175	18.8
			200	17.5
			225	16.8
			250	16.1
			275	16.2
			300	16.1
			325	15.2
			350	15.2
			375	17.0
			392	0.0
01-13-86	2315	6.06	110	0.0
			125	12.9
			150	19.0
			175	18.6
			200	17.2
			225	16.3
			250	15.8
			275	15.7
			300	15.6
			325	15.6
			350	15.3
			375	17.0
			392	0.0
01-14-86	0405	4.16	114	0.0
			125	6.7
			150	16.9
			175	16.8
			200	15.2
			225	14.3
			250	13.8
			275	13.8
			300	13.9
01-14-86	0405	(Continued)	325	13.2
			350	13.0
			375	14.4
			390	0.0
01-14-86	0445	4.45	390	0.0
			375	14.3
			350	13.3
			325	13.4
			300	13.5
			275	13.7
			250	13.7
			225	14.3
			200	15.2
			175	16.5
			150	16.6
			125	6.3
			85	0.0
01-14-86	0602	8.20	114	0.0
			125	6.4
			150	16.8
			175	17.3
			200	15.4
			225	14.8
			250	14.4
			275	14.4
			300	14.4
			325	14.7
			350	14.6
			375	16.1
			390	0.0
01-14-86	0749	10.80	105	0.0
			120	8.7
			145	17.8
			170	21.8
			195	20.3
			220	20.0
			245	18.0
			270	19.5
			295	19.2
			320	18.5
			345	18.8
			370	20.2
			395	0.0
01-14-86	0914	11.05	100	0.0
			115	6.3
			140	18.5
			165	22.8
			190	22.2
			215	20.4
			240	20.2
			265	20.2
			290	20.0
			315	20.0
			340	19.8
			365	20.2
			393	0.0
01-14-86	1135	11.50	99	0.0

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-14-86	1135	(Continued)	115	7.5
			140	19.3
			165	23.6
			190	22.8
			215	21.4
			240	20.8
			265	20.6
			290	20.3
			315	20.0
			340	20.2
			365	20.4
			393	0.0
01-14-86	1305	11.40	100	0.0
			115	8.3
			135	18.0
			155	24.3
			175	24.0
			195	22.5
			215	21.9
			235	21.3
			255	21.1
			275	21.0
			295	20.8
			315	20.5
			335	20.0
			355	20.4
			375	21.3
			388	0.0
01-14-86	1342	11.22	388	0.0
			370	21.0
			345	20.4
			320	20.4
			295	20.8
			270	20.6
			245	21.3
			220	21.5
			195	21.8
			170	24.0
			145	22.0
			120	9.6
			100	0.0
01-14-86	1515	10.60	101	0.0
			120	11.3
			145	21.0
			170	23.5
			195	21.8
			220	20.9
			245	19.3
			270	20.4
			295	20.0
			320	19.7
			345	19.4
			370	21.0
			388	0.0
01-14-86	1555	10.35	388	0.0
			370	20.7
			345	19.3
			320	19.5
01-14-86	1555	(Continued)	295	19.9
			270	20.0
			245	20.4
			220	20.7
			195	21.4
			170	23.0
			145	21.4
			120	9.2
			102	0.0
01-14-86	1715	9.70	103	0.0
			120	9.3
			145	20.5
			170	22.9
			195	20.6
			220	20.0
			245	20.0
			270	19.1
			295	19.2
			320	18.9
			345	18.8
			370	19.7
			388	0.0
01-14-86	1945	8.35	105	0.0
			120	8.5
			150	20.8
			180	21.9
			210	18.8
			240	18.2
			270	17.9
			300	17.7
			330	17.4
			360	17.2
			386	0.0
01-14-86	2015	8.05	388	0.0
			370	17.8
			340	17.9
			310	17.4
			280	17.2
			250	17.5
			220	18.6
			190	19.3
			160	20.8
			130	12.0
			106	0.0
01-14-86	2258	6.55	386	0.0
			370	16.6
			340	15.8
			310	15.9
			280	15.9
			250	16.4
			220	16.9
			190	18.3
			160	19.2
			130	11.1
			109	0.0
01-15-86	0047	5.68	111	0.0
			125	9.1

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-15-86	0047	(Continued)	150	17.4
			175	18.3
			200	16.7
			225	15.9
			250	15.4
			275	15.1
			300	15.1
			325	14.4
			350	14.4
			375	15.9
			391	0.0
01-15-86	0125	5.38	391	0.0
			375	15.9
			350	14.4
			325	14.4
			300	14.8
			275	14.7
			250	14.7
			225	14.9
			200	15.9
			175	17.7
			150	17.4
			125	6.8
			112	0.0
01-15-86	0253	4.78	115	0.0
			125	6.3
			150	17.1
			175	17.0
			200	15.4
			225	14.7
			250	14.3
			275	14.2
			300	14.0
			325	13.4
			350	13.6
			375	14.6
			389	0.0
01-15-86	0645	11.12	100	0.0
			125	13.9
			150	23.4
			175	23.9
			200	21.7
			225	21.2
			250	20.7
			275	20.2
			300	20.2
			325	19.4
			350	20.1
			375	20.5
			393	0.0
01-15-86	1050	11.45	99	0.0
			125	12.5
			150	23.5
			175	24.0
			200	20.5
			225	22.7
			250	21.0
			275	20.8
01-15-86	1050	(Continued)	300	20.4
			325	20.2
			350	19.9
			375	21.5
			393	0.0
01-16-86	0215	4.98	113	0.0
			130	9.3
			150	17.4
			170	17.6
			190	16.6
			210	15.7
			230	14.9
			250	14.4
			270	14.5
			290	14.2
			310	14.3
			330	14.1
			350	14.2
			370	15.1
			393	0.0
01-16-86	0430	4.30	386	0.0
			370	14.8
			340	13.5
			310	13.5
			280	13.9
			250	13.8
			220	14.4
			190	15.8
			160	17.0
			130	8.7
			115	0.0
01-16-86	0615	7.20	109	0.0
			130	12.3
			160	20.4
			190	19.3
			220	18.0
			250	17.1
			280	17.2
			310	17.2
			340	17.5
			370	18.0
			393	0.0
01-16-86	0642	8.70	387	0.0
			365	18.8
			335	17.9
			305	18.5
			275	18.6
			245	18.8
			215	19.4
			185	21.3
			155	22.9
			125	12.1
			104	0.0
01-16-86	0722	10.00	103	0.0
			120	8.5
			155	23.5
			190	21.5

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-16-86	0722	(Continued)	225	20.2
			260	19.4
			305	19.6
			340	19.1
			375	20.0
			390	0.0
01-16-86	0748	10.40	390	0.0
			370	20.4
			340	19.2
			310	19.8
			280	19.6
			250	20.1
			220	20.9
			190	22.2
			160	23.2
			130	15.1
			101	0.0
01-18-86	1040	12.42	393	0.0
			360	21.6
			335	21.3
			310	21.8
			285	22.1
			260	22.2
			235	22.2
			210	23.3
			185	25.0
			160	25.5
			135	18.5
			105	0.0
01-18-86	2335	9.22	104	0.0
			160	22.2
			180	21.8
			200	20.0
			220	19.4
			240	18.8
			260	18.8
			280	18.5
			300	18.2
			320	18.1
			340	18.2
			393	0.0
01-19-86	0145	9.90	393	0.0
			360	19.1
			340	18.9
			320	18.5
			300	19.0
			280	19.1
			260	19.4
			240	19.6
			220	19.7
			200	21.6
			180	22.6
			160	23.0
			102	0.0
01-19-86	0330	10.94	101	0.0
			160	23.2
			180	23.0
01-19-86	0330	(Continued)	200	21.6
			220	20.7
			240	20.6
			260	20.3
			280	20.0
			300	20.0
			320	19.7
			340	20.1
			360	19.9
			393	0.0
01-19-86	0450	11.36	100	0.0
			140	18.9
			160	23.8
			180	23.6
			200	22.2
			220	21.5
			240	21.1
			260	20.8
			280	20.6
			300	20.5
			320	20.1
			340	20.0
			360	20.5
			393	0.0
01-19-86	0645	11.68	99	0.0
			140	19.7
			160	24.5
			180	24.6
			200	22.6
			220	22.2
			240	21.6
			260	21.3
			280	21.1
			300	20.8
			320	20.6
			340	20.2
			360	21.3
			393	0.0
01-19-86	0930	12.20	95	0.0
			160	24.7
			180	24.5
			200	22.7
			220	22.3
			240	21.6
			260	21.5
			280	20.8
			300	21.5
			320	20.0
			340	20.9
			393	0.0
01-19-86	1100	12.45	93	0.0
			140	20.8
			160	25.2
			180	25.1
			200	23.3
			220	22.4
			240	22.1
			260	21.8

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-19-86	1100	(Continued)	280	21.7
			300	21.3
			320	20.2
			340	21.2
			360	21.5
			393	0.0
01-19-86	2340	8.38	105	0.0
			140	16.3
			165	20.8
			190	22.0
			215	18.5
			240	18.1
			265	17.7
			290	17.7
			315	17.4
			340	17.2
			365	17.6
			393	0.0
01-20-86	0350	8.30	393	0.0
			340	17.3
			320	17.3
			300	17.3
			280	17.8
			260	17.7
			240	18.2
			220	18.6
			200	19.4
			180	20.1
			160	21.3
			107	0.0
01-20-86	0615	9.90	393	0.0
			340	18.8
			320	18.8
			300	19.0
			280	19.3
			260	19.3
			240	19.8
			220	20.1
			200	20.8
			180	22.5
			160	22.6
			102	0.0
01-20-86	0915	10.44	102	0.0
			160	22.7
			180	22.8
			200	21.2
			220	20.8
			240	20.2
			260	19.9
			280	19.4
			300	19.8
			320	19.5
			340	19.5
			393	0.0
01-20-86	1130	11.38	100	0.0
			160	23.7
			180	23.5
01-20-86	1130	(Continued)	200	22.0
			220	21.2
			240	20.6
			260	20.8
			280	20.7
			300	20.5
			393	0.0
01-20-86	1320	11.60	99	0.0
			110	19.4
			160	23.6
			180	24.2
			200	22.2
			220	21.7
			240	21.2
			260	21.0
			280	20.6
			300	21.6
			320	19.8
			340	20.2
			393	0.0
01-20-86	2235	8.87	104	0.0
			140	16.1
			160	21.3
			180	21.0
			200	19.5
			220	18.5
			240	18.3
			260	18.3
			280	17.8
			300	18.2
			320	17.5
			340	17.8
			360	18.0
			393	0.0
01-21-86	0110	10.00	105	0.0
			135	15.1
			160	21.7
			185	21.5
			210	19.8
			235	19.0
			260	19.1
			285	18.5
			310	18.4
			335	17.9
			360	18.6
			393	0.0
01-21-86	0610	10.45	393	0.0
			375	20.1
			350	19.2
			325	18.8
			300	19.4
			275	19.5
			250	20.4
			225	20.2
			200	21.0
			175	23.0
			150	22.5
			125	11.5

Table 61.--Cross-section geometry at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet
01-21-86	0610	(Continued)	105	0.0	01-21-86	0930	(Continued)	103	0.0
01-21-86	0730	10.20	107	0.0	01-21-86	1040	10.40	393	0.0
			150	22.4				375	20.0
			175	22.7				350	19.1
			200	20.8				325	18.5
			225	20.1				300	19.2
			250	19.7				275	19.3
			275	19.4				250	19.6
			300	19.8				225	20.2
			375	19.6				200	20.1
			350	19.4				175	22.7
			375	20.5				150	22.2
			393	0.0				104	0.0
					01-21-86	1250	10.70	102	0.0
01-21-86	0930	10.20	393	0.0				160	23.3
			375	20.2				180	23.2
			350	18.9				200	21.5
			325	18.6				220	20.7
			300	19.7				240	20.6
			275	19.3				260	20.0
			250	19.7				280	20.0
			225	20.1				300	19.8
			200	20.8				320	19.2
			175	22.7				340	19.7
			150	22.3				393	0.0

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-17-85	0545	1,744.22	109	0.0
			120	5.2
			140	16.3
			160	17.8
			180	18.9
			200	19.5
			220	20.0
			240	20.4
			260	20.1
			280	20.6
			300	21.2
			320	21.3
			340	19.7
			360	10.6
			380	4.5
			388	0.0
10-17-85	1515	1,741.41	382	0.0
			375	2.6
			360	8.2
			345	13.5
			330	18.8
			315	18.5
			300	18.4
			285	17.5
			270	17.2
			255	17.1
			240	17.1
			225	17.1
			210	16.9
			195	16.6
			180	15.6
			165	15.2
			150	14.1
			135	10.1
			120	2.5
			119	0.0
10-17-85	2350	1,743.37	387	0.0
			350	14.6
			330	20.6
			310	20.6
			290	19.3
			270	18.9
			250	18.7
			230	18.9
			210	18.7
			190	17.5
			170	17.3
			150	15.8
			130	8.8
			110	0.0
10-18-85	2325	1,743.47	389	0.0
			370	5.5
			345	18.8
			320	20.8
			295	20.0
			270	19.2
			245	19.0
			220	18.9
			195	18.8
10-18-85	2325	(Continued)	170	17.3
			145	15.8
			111	0.0
10-24-85	1515	1,740.90	380	0.0
			350	13.5
			330	18.2
			310	18.1
			290	17.2
			270	16.7
			250	16.5
			230	16.3
			210	16.4
			190	16.0
			170	14.9
			150	13.6
			130	6.6
			116	0.0
10-25-85	0115	1,744.82	389	0.0
			360	11.3
			340	20.4
			320	21.9
			300	21.9
			280	21.3
			260	20.6
			240	20.4
			220	20.4
			200	20.8
			180	19.3
			160	18.4
			140	14.6
			120	6.0
			106	0.0
10-25-85	1505	1,741.70	114	0.0
			140	12.2
			165	15.5
			190	16.4
			215	17.0
			240	17.4
			265	17.1
			290	17.7
			315	18.7
			340	18.0
			365	6.0
			386	0.0
10-25-85	2210	1,744.78	108	0.0
			170	18.9
			190	19.6
			210	20.7
			230	20.9
			250	21.0
			270	21.2
			290	21.7
			310	22.7
			330	23.0
			350	17.2
			389	0.0
10-26-85	0255	1,745.62	391	0.0

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-26-85	0255	(Continued)	360	12.2
			340	21.3
			320	22.7
			300	22.6
			280	21.8
			260	21.4
			240	21.4
			220	21.4
			200	20.8
			180	19.8
			160	19.0
			140	18.2
			120	5.5
			106	0.0
10-26-85	1345	1,742.44	386	0.0
			360	9.4
			340	18.2
			320	19.7
			300	19.5
			280	18.6
			260	18.0
			240	18.1
			220	18.1
			200	17.6
			180	16.9
			160	16.1
			140	14.8
			114	0.0
11-16-85	2100	1,744.43	110	0.0
			120	4.8
			140	15.1
			160	18.0
			180	19.0
			200	20.0
			220	20.4
			240	20.3
			260	20.4
			280	20.7
			300	21.6
			320	21.8
			340	21.4
			360	11.1
			380	4.8
			387	0.0
11-16-85	2205	1,744.77	387	0.0
			380	4.7
			360	11.4
			340	20.1
			320	21.9
			300	21.4
			280	21.0
			260	20.2
			240	20.3
			220	20.5
			200	20.3
			180	19.4
			160	18.7
			140	15.1
			120	5.6
11-16-85	2205	(Continued)	109	0.0
11-16-85	2350	1,745.71	108	0.0
			120	6.3
			145	18.6
			170	19.8
			195	21.0
			220	21.2
			245	21.4
			270	21.2
			295	22.7
			320	22.9
			345	17.5
			370	7.7
			388	0.0
11-17-85	147	1746.50	106	0.0
			120	7.0
			150	19.3
			180	21.4
			210	22.2
			240	22.7
			270	22.6
			300	23.2
			330	24.0
			360	13.1
			390	0.0
11-18-85	0555	1,745.01	108	0.0
			120	5.6
			140	15.5
			160	18.8
			180	19.9
			200	20.3
			220	20.6
			240	21.2
			260	20.9
			280	21.5
			300	22.2
			320	22.2
			340	20.5
			360	11.7
			380	5.0
			388	0.0
11-18-85	1442	1,742.56	115	0.0
			125	6.5
			155	16.2
			185	17.2
			215	17.7
			245	18.6
			275	18.5
			305	19.9
			335	19.9
			365	6.1
			385	0.0
11-18-85	1935	1,742.48	115	0.0
			125	12.1
			150	15.2
			175	17.0
			200	18.1

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-18-85	1935	(Continued)	225	18.6
			250	18.9
			275	18.5
			300	19.5
			325	20.3
			350	14.8
			375	3.2
			385	0.0
11-19-85	2105	1,744.68	109	0.0
			120	5.3
			140	14.6
			160	18.4
			180	19.3
			200	20.2
			220	20.5
			240	20.6
			260	20.6
			280	20.8
			300	21.8
			320	21.9
			340	23.3
			360	11.5
			380	4.8
			388	0.0
11-24-85	1530	1,741.92	386	0.0
			340	17.5
			320	18.9
			300	19.0
			280	18.1
			260	17.7
			240	17.8
			220	17.7
			200	17.4
			180	16.3
			160	15.4
			115	0.0
11-24-85	1740	1,742.70	385	0.0
			350	14.9
			330	20.2
			310	20.1
			290	18.7
			270	15.5
			250	18.6
			230	18.4
			210	15.2
			190	17.5
			170	16.9
			150	15.6
			113	0.0
11-24-85	2235	1,744.14	386	0.0
			350	16.2
			330	22.1
			310	21.4
			290	20.4
			270	19.9
			250	19.4
			230	19.8
			210	19.3
11-24-85	2235	(Continued)	190	18.5
			170	18.1
			150	16.9
			109	0.0
11-25-85	0130	1,744.48	109	0.0
			150	16.8
			170	18.0
			190	19.0
			210	20.0
			230	20.1
			250	20.3
			270	20.0
			290	20.6
			310	21.7
			330	22.3
			350	16.5
			390	0.0
11-25-85	0655	1,744.77	109	0.0
			140	15.7
			160	18.2
			180	19.3
			200	19.8
			220	20.5
			240	20.0
			260	20.0
			280	20.7
			300	21.4
			320	21.7
			340	20.4
			360	10.2
			390	0.0
11-25-85	1630	1,741.96	383	0.0
			350	13.9
			330	19.6
			310	19.1
			290	18.2
			270	17.3
			250	17.5
			230	17.6
			210	17.0
			190	16.5
			170	15.8
			150	14.6
			115	0.0
11-25-85	2205	1,741.39	385	0.0
			350	13.7
			330	18.3
			310	18.3
			290	17.4
			270	16.9
			250	16.8
			230	16.9
			210	16.7
			190	16.1
			170	15.4
			117	0.0
11-26-85	0155	1,741.40	117	0.0

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-26-85	0155	(Continued)	150	14.7
			170	15.6
			190	16.3
			210	17.2
			230	17.0
			250	16.9
			270	17.3
			290	17.5
			310	18.6
			330	19.0
			350	13.1
			383	0.0
11-26-85	0610	1,742.39	115	0.0
			140	12.5
			160	15.8
			180	16.7
			200	17.3
			220	17.7
			240	17.9
			260	18.0
			280	18.4
			300	18.8
			320	19.0
			340	17.9
			360	7.9
			385	0.0
11-26-85	0905	1,742.86	386	0.0
			340	18.3
			320	20.0
			300	19.8
			280	18.9
			260	18.7
			240	18.7
			220	18.6
			200	18.0
			180	17.3
			160	16.3
			115	0.0
11-26-85	1720	1,741.02	383	0.0
			350	12.9
			330	18.4
			310	18.1
			290	17.1
			270	16.8
			250	16.9
			230	16.4
			210	16.2
			190	15.8
			170	14.6
			150	14.0
			116	0.0
11-26-85	2025	1,742.68	385	0.0
			350	15.5
			330	20.0
			310	20.0
			290	18.9
			270	18.1
			250	18.6
11-26-85	2025	(Continued)	230	17.6
			210	18.2
			190	17.7
			170	16.8
			112	0.0
11-26-85	2105	1,743.22	385	0.0
			350	14.0
			330	18.4
			310	18.6
			290	17.5
			270	16.6
			250	16.8
			230	16.4
			210	16.6
			190	15.8
			170	15.1
			150	14.5
			119	0.0
11-26-85	2150	1,743.62	388	0.0
			350	15.7
			330	20.8
			310	20.9
			290	19.8
			270	19.2
			250	19.1
			230	19.2
			210	19.3
			190	18.4
			170	17.6
			110	0.0
11-26-85	2300	1,744.26	388	0.0
			350	15.2
			330	21.6
			310	21.4
			290	21.1
			270	20.1
			250	19.9
			230	19.9
			210	20.0
			190	19.1
			170	18.6
			117	0.0
12-18-85	0955	1,743.87	100	0.0
			115	2.1
			140	15.5
			165	17.4
			190	19.1
			215	19.4
			240	20.1
			265	20.0
			290	20.4
			315	21.1
			340	19.5
			365	8.5
			388	0.0
12-18-85	2132	1,742.58	117	0.0
			135	11.9

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-18-85	2132	(Continued)	165	16.3
			195	17.4
			225	17.6
			255	17.9
			285	18.3
			315	19.6
			345	13.5
			375	2.7
			386	0.0
12-18-85	2210	1,743.61	112	0.0
			135	12.6
			165	17.6
			195	18.7
			225	18.8
			255	18.7
			285	19.3
			315	20.6
			345	15.4
			375	4.3
			388	0.0
12-18-85	2240	1,744.31	111	0.0
			135	13.2
			165	17.9
			195	19.1
			225	19.0
			255	19.9
			285	19.9
			315	21.1
			345	16.0
			375	4.5
			389	0.0
12-19-85	2205	1,743.15	114	0.0
			130	8.7
			160	16.6
			190	18.0
			220	18.5
			250	18.6
			280	19.5
			310	20.8
			340	19.4
			370	5.4
			385	0.0
12-19-85	2242	1,743.73	386	0.0
			375	4.4
			350	15.5
			325	21.1
			300	20.8
			275	19.5
			250	19.9
			225	19.1
			200	19.5
			175	18.5
			150	16.8
			125	6.8
			111	0.0
12-20-85	0130	1,744.98	109	0.0
			125	7.8
12-20-85	0130	(Continued)	155	18.5
			185	20.0
			215	20.5
			245	20.3
			275	21.2
			305	22.0
			335	22.3
			365	8.2
			387	0.0
12-20-85	1628	1,743.40	114	0.0
			130	9.1
			150	16.1
			170	17.6
			190	18.6
			210	19.3
			230	19.7
			250	19.3
			270	18.8
			290	19.7
			310	20.8
			330	21.4
			350	14.7
			370	4.9
			386	0.0
12-20-85	1730	1,744.11	109	0.0
			120	5.0
			150	16.8
			180	18.4
			210	19.4
			240	19.7
			270	19.8
			300	20.6
			330	21.4
			360	10.1
			387	0.0
12-20-85	2210	1,744.57	389	0.0
			360	10.4
			335	21.8
			310	21.6
			285	20.8
			260	20.2
			235	20.0
			210	20.0
			185	18.9
			160	18.1
			135	13.4
			108	0.0
12-21-85	0125	1,744.75	109	0.0
			120	5.4
			140	15.1
			160	18.3
			180	19.2
			200	19.7
			220	20.2
			240	20.0
			260	20.5
			280	20.8
			300	21.6

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-21-85	0125	(Continued)	320	21.7
			340	20.3
			360	11.0
			380	4.3
			388	0.0
12-21-85	2014	1,739.45	121	0.0
			135	8.6
			160	13.1
			185	14.0
			210	14.6
			235	15.0
			260	14.9
			285	15.3
			310	16.7
			335	17.1
			360	5.6
			375	0.0
12-21-85	2130	1,740.72	375	0.0
			360	4.8
			335	16.2
			310	17.2
			285	15.2
			260	15.4
			235	15.4
			210	15.4
			185	14.9
			160	14.0
			135	10.1
			120	0.0
12-24-85	0530	1,737.35	366	0.0
			350	8.2
			330	14.5
			310	14.5
			290	13.4
			270	12.9
			250	12.9
			230	12.7
			210	12.5
			190	12.0
			170	11.1
			126	0.0
12-24-85	0930	1,736.32	365	0.0
			350	7.7
			330	13.8
			310	13.7
			290	12.5
			270	11.6
			250	12.2
			230	11.8
			210	11.7
			190	11.3
			170	10.8
			126	0.0
12-24-85	1140	1,736.00	364	0.0
			350	7.2
			330	13.7
			310	13.3
12-24-85	1140	(Continued)	290	12.2
			270	11.3
			250	12.0
			230	11.5
			210	11.5
			190	11.0
			170	10.2
			126	0.0
12-25-85	0135	1,743.69	390	0.0
			350	15.7
			330	21.8
			310	21.5
			290	20.1
			270	19.6
			250	19.5
			230	19.4
			210	19.1
			190	18.4
			170	17.2
			111	0.0
12-25-85	0255	1,745.23	107	0.0
			125	8.1
			150	18.0
			175	19.8
			200	20.5
			225	21.0
			250	21.1
			275	21.2
			300	22.0
			325	22.6
			350	13.8
			390	0.0
12-25-85	0500	1,745.12	107	0.0
			125	8.4
			150	17.8
			175	19.4
			200	20.3
			225	20.5
			250	20.3
			275	20.9
			300	21.8
			325	22.2
			350	16.3
			390	0.0
12-25-85	2115	1,740.41	385	0.0
			350	11.5
			330	17.4
			310	17.1
			290	16.2
			270	15.7
			250	15.7
			230	16.0
			210	15.8
			190	15.4
			170	14.8
			118	0.0
12-25-85	2300	1,743.86	388	0.0

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-21-85	0125	(Continued)	320	21.7
			340	20.3
			360	11.0
			380	4.3
			388	0.0
12-21-85	2014	1,739.45	121	0.0
			135	8.6
			160	13.1
			185	14.0
			210	14.6
			235	15.0
			260	14.9
			285	15.3
			310	16.7
			335	17.1
			360	5.6
			375	0.0
12-21-85	2130	1,740.72	375	0.0
			360	4.8
			335	16.2
			310	17.2
			285	15.2
			260	15.4
			235	15.4
			210	15.4
			185	14.9
			160	14.0
			135	10.1
			120	0.0
12-24-85	0530	1,737.35	366	0.0
			350	8.2
			330	14.5
			310	14.5
			290	13.4
			270	12.9
			250	12.9
			230	12.7
			210	12.5
			190	12.0
			170	11.1
			126	0.0
12-24-85	0930	1,736.32	365	0.0
			350	7.7
			330	13.8
			310	13.7
			290	12.5
			270	11.6
			250	12.2
			230	11.8
			210	11.7
			190	11.3
			170	10.8
			126	0.0
12-24-85	1140	1,736.00	364	0.0
			350	7.2
			330	13.7
			310	13.3
12-24-85	1140	(Continued)	290	12.2
			270	11.3
			250	12.0
			230	11.5
			210	11.5
			190	11.0
			170	10.2
			126	0.0
12-25-85	0135	1,743.69	390	0.0
			350	15.7
			330	21.8
			310	21.5
			290	20.1
			270	19.6
			250	19.5
			230	19.4
			210	19.1
			190	18.4
			170	17.2
			111	0.0
12-25-85	0255	1,745.23	107	0.0
			125	8.1
			150	18.0
			175	19.8
			200	20.5
			225	21.0
			250	21.1
			275	21.2
			300	22.0
			325	22.6
			350	13.8
			390	0.0
12-25-85	0500	1,745.12	107	0.0
			125	8.4
			150	17.8
			175	19.4
			200	20.3
			225	20.5
			250	20.3
			275	20.9
			300	21.8
			325	22.2
			350	16.3
			390	0.0
12-25-85	2115	1,740.41	385	0.0
			350	11.5
			330	17.4
			310	17.1
			290	16.2
			270	15.7
			250	15.7
			230	16.0
			210	15.8
			190	15.4
			170	14.8
			118	0.0
12-25-85	2300	1,743.86	388	0.0

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-25-85	2300	(Continued)	350	15.5
			330	21.4
			310	21.0
			290	20.0
			270	19.5
			250	19.7
			230	19.5
			210	19.4
			190	19.0
			170	18.2
			110	0.0
12-26-85	0200	1,745.55	390	0.0
			350	16.7
			330	22.9
			310	23.1
			290	21.6
			270	21.4
			250	21.5
			230	21.5
			210	20.8
			190	20.5
			170	19.8
			150	18.4
			104	0.0
12-26-85	2035	1,739.12	120	0.0
			150	12.1
			170	13.2
			190	13.7
			210	14.2
			230	14.7
			250	14.7
			270	14.4
			290	14.8
			310	15.8
			330	16.7
			350	10.9
			374	0.0
12-26-85	2315	1,738.36	122	0.0
			150	11.3
			170	12.6
			190	13.2
			210	14.0
			230	14.0
			250	14.0
			270	13.9
			290	14.4
			310	15.5
			330	15.8
			350	10.3
			371	0.0
12-27-85	1340	1,739.00	363	0.0
			330	13.4
			310	13.2
			290	11.9
			270	11.8
			250	11.6
			230	11.6
			210	11.5
12-27-85	1340	(Continued)	190	11.1
			170	10.2
			128	0.0
12-27-85	1650	1,736.05	363	0.0
			330	13.6
			310	13.2
			290	12.0
			270	11.7
			250	11.9
			230	11.6
			210	11.4
			190	11.0
			170	10.3
			128	0.0
12-27-85	2125	1,736.45	365	0.0
			330	14.0
			310	13.5
			290	13.7
			270	12.2
			250	12.3
			230	11.9
			210	12.0
			190	11.4
			170	10.5
			127	0.0
01-20-86	1305	1,743.93	110	0.0
			125	7.4
			150	17.2
			175	18.4
			200	18.9
			225	19.1
			250	19.6
			270	20.0
			300	20.4
			325	21.1
			350	15.2
			375	4.4
			388	0.0
01-20-86	2050	1,746.00	108	0.0
			120	6.0
			145	16.8
			170	19.9
			195	20.8
			220	20.5
			245	21.1
			270	21.6
			295	22.5
			320	23.0
			345	17.7
			370	7.2
			390	0.0
01-21-86	0330	1,747.02	103	0.0
			120	7.3
			145	19.4
			170	20.9
			195	22.2
			220	22.8

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-21-86	0330	(Continued)	245	22.6
			270	22.4
			295	23.7
			320	24.2
			345	21.0
			370	8.3
			389	0.0
01-21-86	0430	1,746.74	104	0.0
			120	6.4
			145	18.8
			170	20.5
			195	21.8
			220	21.8
			245	22.0
			270	22.5
			295	23.5
			320	23.7
			345	18.7
			370	8.0
			388	0.0
01-21-86	0510	1,746.48	105	0.0
			120	7.5
			140	18.6
			160	20.1
			180	21.4
			200	21.0
			220	22.4
			240	22.5
			260	22.3
			280	22.7
			300	23.2
			320	23.2
			340	21.6
			360	12.7
			390	0.0
01-21-86	0605	1,746.23	105	0.0
			140	18.5
			165	20.0
			180	20.9
			200	21.5
			220	22.0
			240	21.6
			260	22.0
			280	22.8
			300	22.7
			320	23.5
			340	22.8
			388	0.0
01-21-86	0940	1,745.07	108	0.0
			120	6.9
			145	16.4
			170	19.2
			195	20.0
			220	20.6
			245	20.7
			270	21.0
			295	22.0
			320	22.4
01-21-86	0940	(Continued)	345	16.9
			370	6.5
			388	0.0
01-21-86	1312	1,745.19	107	0.0
			120	5.8
			145	16.8
			170	19.1
			195	20.5
			220	20.4
			245	20.6
			270	21.1
			295	21.8
			320	22.5
			345	17.3
			370	7.0
			387	0.0
01-21-86	1528	1,746.15	106	0.0
			120	6.5
			140	16.6
			160	19.8
			180	20.9
			200	21.5
			220	21.8
			240	21.7
			260	22.1
			280	22.0
			300	23.2
			320	21.5
			340	21.5
			360	12.6
			380	5.9
			388	0.0
01-21-86	1610	1,746.28	106	0.0
			120	6.4
			140	16.6
			160	20.0
			180	21.0
			200	21.4
			220	21.4
			240	21.8
			260	21.4
			280	21.8
			300	23.4
			320	23.4
			340	22.0
			360	12.6
			380	6.2
			388	0.0
01-21-86	2150	1,746.03	108	0.0
			120	6.2
			145	17.9
			170	19.9
			195	20.7
			220	21.3
			245	21.3
			270	21.4
			295	22.6
			320	23.0

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-21-86	2150	(Continued)	345	17.4
			370	7.2
			388	0.0
01-21-86	2240	1,746.09	108	0.0
			120	6.6
			140	18.1
			160	19.6
			180	20.4
			200	20.7
			220	20.9
			240	20.9
			260	21.2
			280	21.6
			300	22.9
			320	23.0
			340	21.5
			360	12.3
			380	5.5
			388	0.0
01-22-86	0045	1,746.27	108	0.0
			120	7.4
			145	17.5
			170	20.4
			195	21.6
			220	21.9
			245	21.9
			270	22.1
			295	23.2
			320	23.5
			345	18.0
			370	7.9
			391	0.0
01-22-86	0202	1,746.26	108	0.0
			125	9.5
			150	18.9
			175	20.5
			200	22.0
			225	22.1
			250	21.6
			275	22.1
			300	23.6
			325	23.7
			350	18.1
			375	6.8
			389	0.0
01-22-86	0312	1746.11	108	0.0
			125	8.9
			150	19.0
			175	20.9
			200	20.9
			225	22.2
			250	22.3
			275	22.1
			300	22.9
			325	23.5
			350	17.9
			375	7.1
			389	0.0
01-22-86	0428	1,745.78	108	0.0
			125	9.0
			150	18.7
			175	20.2
			200	21.3
			225	21.6
			250	21.4
			275	22.2
			300	23.2
			325	22.9
			350	17.5
			375	6.4
			389	0.0
01-22-86	0528	1,745.51	109	0.0
			125	8.8
			150	18.5
			175	20.0
			200	21.0
			225	21.4
			250	20.9
			275	21.3
			300	22.8
			325	22.6
			350	17.3
			375	6.7
			389	0.0
01-22-86	1325	1,744.84	105	0.0
			120	5.8
			150	13.7
			180	18.7
			210	20.6
			240	21.1
			270	20.6
			300	21.7
			330	22.5
			360	10.9
			387	0.0
01-22-86	1400	1,745.48	105	0.0
			120	5.4
			150	18.0
			180	19.1
			210	20.5
			240	21.4
			270	20.9
			300	21.3
			330	23.1
			360	20.7
			388	0.0
01-22-86	1854	1,747.51	104	0.0
			115	5.4
			135	16.8
			155	20.9
			175	22.1
			195	22.8
			215	23.4
			235	23.6
			255	23.2
			275	24.0

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-22-86	1854	(Continued)	295	24.6
			315	25.0
			335	24.9
			355	16.1
			375	8.5
			389	0.0
01-22-86	2245	1,747.89	105	0.0
			115	6.4
			130	14.0
			145	22.2
			160	21.9
			175	22.5
			190	22.9
			205	22.9
			220	22.9
			235	23.4
			250	23.4
			265	23.6
			280	24.2
			295	24.8
			310	25.4
			325	25.5
			340	23.4
			355	16.9
			370	9.5
			389	0.0
01-23-86	0158	1,747.57	104	0.0
			120	8.3
			140	20.2
			160	21.4
			180	22.4
			200	22.8
			220	22.8
			240	23.7
			260	23.5
			280	23.8
			300	24.8
			320	24.7
			340	23.8
			360	13.7
			380	7.4
			390	0.0
01-23-86	0544	1,746.29	105	0.0
			120	7.2
			145	19.0
			170	20.7
			195	21.8
			220	22.3
			245	22.4
			270	22.0
			295	23.4
			320	23.4
			345	18.2
			370	7.5
			389	0.0
01-23-86	0656	1,745.97	106	0.0
			125	8.9
			150	18.5
01-23-86	0656	(Continued)	175	20.4
			200	21.0
			225	21.1
			250	21.2
			275	21.6
			300	22.6
			325	22.9
			350	17.2
			375	6.2
			389	0.0
01-23-86	1252	1,745.43	387	0.0
			370	6.8
			345	17.3
			320	22.3
			295	22.0
			270	21.4
			245	20.0
			220	20.8
			195	20.5
			170	20.6
			145	17.5
			120	6.8
			107	0.0
01-23-86	1328	1,745.63	388	0.0
			370	7.5
			345	17.3
			320	22.3
			295	22.2
			270	21.3
			245	20.2
			220	21.4
			195	20.5
			170	19.8
			145	16.8
			120	6.2
			107	0.0
01-23-86	1500	1,745.95	387	0.0
			370	7.0
			345	17.6
			320	22.5
			295	22.3
			270	21.2
			245	21.6
			220	20.8
			195	20.8
			170	20.0
			145	18.0
			120	5.4
			106	0.0
01-23-86	1556	1,745.98	389	0.0
			370	7.0
			345	18.8
			320	22.7
			295	22.7
			270	20.8
			245	21.2
			220	21.4
			195	20.4

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-23-86	1556	(Continued)	170	19.8
			145	17.5
			120	6.9
			107	0.0
01-23-86	1915	1,746.05	108	0.0
			125	9.1
			150	18.6
			175	20.5
			200	21.6
			225	21.9
			250	22.1
			275	22.4
			300	23.1
			325	23.5
			350	16.9
			375	6.6
			390	0.0
01-23-86	2018	1,746.33	108	0.0
			125	9.1
			150	19.3
			175	20.7
			200	21.5
			225	22.3
			250	22.3
			275	22.9
			300	23.5
			325	23.6
			350	17.5
			375	7.3
			390	0.0
01-25-86	1110	1,745.74	390	0.0
			340	21.5
			320	22.8
			300	22.8
			280	21.4
			260	20.7
			240	21.4
			220	21.2
			200	21.3
			180	20.5
			160	19.5
			105	0.0
01-25-86	1545	1,748.30	102	0.0
			150	20.8
			170	22.5
			190	23.3
			210	24.0
			230	24.4
			250	24.4
			270	23.5
			290	25.0
			310	25.7
			330	25.8
			390	0.0
01-25-86	2320	1,749.24	390	0.0
			330	26.7
			310	26.8
01-25-86	2320	(Continued)	290	26.3
			270	25.3
			250	24.9
			230	25.6
			210	24.4
			190	24.4
			170	23.6
			150	22.1
			99	0.0
01-26-86	0915	1,747.74	104	0.0
			160	21.5
			180	22.6
			200	23.2
			220	23.8
			240	23.5
			260	23.5
			280	24.3
			300	25.0
			320	25.2
			340	23.5
			390	0.0
01-26-86	1040	1,748.00	391	0.0
			340	20.9
			320	25.4
			300	25.1
			280	24.5
			260	23.2
			240	23.3
			220	23.5
			200	23.4
			180	23.0
			160	21.9
			101	0.0
01-26-86	1145	1,748.28	391	0.0
			360	14.8
			345	20.2
			330	26.0
			315	26.0
			300	25.7
			285	25.1
			270	24.8
			255	24.4
			240	24.6
			225	24.5
			210	24.4
			195	24.0
			180	23.5
			165	22.8
			150	21.5
			135	18.5
			104	0.0
01-26-86	1320	1,748.59	101	0.0
			160	22.5
			180	23.2
			200	24.2
			220	24.5
			240	24.6
			260	24.4

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-26-86	1320	(Continued)	280	24.8
			300	25.8
			320	25.6
			393	0.0
01-26-86	1410	1,748.70	101	0.0
			150	21.5
			165	23.0
			180	23.4
			195	23.0
			210	23.8
			225	23.8
			240	24.4
			255	25.0
			270	25.0
			285	25.2
			300	25.8
			315	25.7
			330	26.4
			393	0.0
01-26-86	1710	1,748.85	101	0.0
			150	21.9
			165	23.4
			180	23.4
			195	24.0
			210	24.6
			225	24.3
			240	24.7
			255	24.0
			270	24.8
			285	25.4
			300	25.8
			315	26.3
			330	26.3
			393	0.0
01-26-86	2000	1,749.05	100	0.0
			150	22.2
			165	23.3
			180	23.7
			195	24.4
			210	24.8
			225	25.0
			240	25.4
			255	25.4
			270	25.2
			285	25.8
			300	26.2
			315	26.0
			330	26.8
			393	0.0
01-26-86	2300	1,749.22	100	0.0
			150	22.1
			165	23.3
			180	23.8
			195	24.4
			210	25.0
			225	24.8
			240	25.4
			255	25.5
01-26-86	2300	(Continued)	270	25.4
			285	26.1
			300	26.2
			315	26.5
			330	26.8
			393	0.0
01-27-86	1110	1,748.29	101	0.0
			150	21.6
			170	22.8
			190	23.5
			210	24.0
			230	23.8
			250	24.0
			270	24.4
			290	25.3
			310	26.0
			330	26.4
			390	0.0
01-27-86	1250	1,748.94	391	0.0
			360	14.9
			345	21.1
			330	26.8
			315	26.4
			300	26.0
			285	25.5
			270	25.5
			255	24.3
			240	24.2
			225	25.0
			210	24.9
			195	24.5
			180	24.2
			165	23.2
			150	22.0
			135	15.8
			100	0.0
01-27-86	1435	1,749.48	391	0.0
			360	16.2
			345	21.3
			330	26.9
			315	27.0
			300	26.7
			285	26.2
			270	24.7
			255	26.0
			240	25.4
			225	25.7
			210	25.4
			195	24.3
			180	24.8
			165	24.0
			150	22.7
			135	18.6
			100	0.0
01-27-86	1745	1,749.67	392	0.0
			360	16.3
			345	21.5
			330	27.7

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-27-86	1745	(Continued)	315	27.3
			300	27.0
			285	26.5
			270	26.5
			255	26.2
			240	26.1
			225	26.0
			210	25.3
			195	24.7
			180	24.5
			165	24.4
			150	23.1
			135	18.6
			100	0.0
01-27-86	2200	1,749.78	392	0.0
			360	16.0
			345	21.9
			330	27.7
			315	27.3
			300	27.2
			285	26.7
			270	25.8
			255	25.7
			240	25.5
			225	24.8
			210	25.5
			195	25.0
			180	24.8
			165	24.2
			150	23.0
			135	16.8
			100	0.0
01-28-86	0740	1,748.73	100	0.0
			150	21.6
			165	22.5
			180	23.5
			195	23.3
			210	24.7
			225	24.2
			240	24.2
			255	24.2
			270	24.6
			285	25.0
			300	25.6
			315	26.0
			393	0.0
01-28-86	1125	1,749.02	101	0.0
			150	22.1
			165	23.2
			180	23.8
			195	24.5
			210	25.1
			225	24.9
			240	25.3
			255	24.8
			270	24.7
			285	25.8
			300	26.2
			315	26.3
01-28-86	1125	(Continued)	393	0.0
01-28-86	1330	1,749.04	390	0.0
			350	21.4
			335	26.7
			320	26.4
			305	26.8
			290	26.1
			275	25.3
			260	25.1
			245	25.3
			230	25.4
			215	25.2
			200	24.8
			185	24.5
			170	23.5
			155	22.7
			140	21.2
			125	12.2
			100	0.0
01-28-86	1630	1,748.99	100	0.0
			125	11.7
			140	19.2
			155	22.6
			170	23.0
			185	23.8
			200	24.3
			215	25.0
			230	25.2
			245	25.0
			260	24.2
			275	25.0
			290	25.8
			305	26.3
			320	25.8
			335	26.1
			350	20.2
			390	0.0
01-28-86	1730	1,749.01	100	0.0
			125	11.7
			140	18.9
			155	22.3
			170	23.1
			185	23.9
			200	23.5
			215	24.2
			230	23.8
			245	23.9
			260	24.5
			275	25.3
			290	26.0
			305	26.1
			320	26.1
			335	26.7
			350	20.5
			390	0.0
01-28-86	2005	1,749.21	100	0.0
			125	12.5
			140	19.5

Table 62.--Cross-section geometry at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-28-86	2005	(Continued)	155	23.1	01-28-86	2125	(Continued)	125	13.2
			170	23.8				140	19.4
			185	24.0				155	23.2
			200	24.2				170	24.0
			215	24.6				185	24.8
			230	24.5				200	25.0
			245	25.0				215	25.0
			260	25.5				230	25.2
			275	25.7				245	25.7
			290	26.4				260	25.0
			305	27.0				275	25.9
			320	26.7				290	26.4
			335	25.4				305	26.5
			350	20.9				320	26.6
			390	0.0				335	25.5
								350	21.4
01-28-86	2125	1,749.26	100	0.0				390	0.0

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-22-85	2155	1,350.34	252	0.0
			125	39.1
			115	37.2
			105	26.8
			95	20.3
			85	14.6
			75	11.0
			65	7.4
			55	5.1
			48	0.0
10-23-85	2150	1,350.62	249	0.0
			240	6.6
			220	16.8
			200	34.4
			180	41.5
			160	41.0
			140	40.3
			120	40.5
			100	25.8
			80	14.5
			60	9.0
			49	0.0
10-24-85	0215	1,349.74	250	0.0
			240	4.8
			220	16.2
			200	33.0
			180	42.0
			160	41.0
			140	39.5
			120	37.0
			100	21.8
			80	14.2
			60	5.4
			45	0.0
10-24-85	1740	1,351.53	251	0.0
			245	4.4
			230	12.7
			215	19.5
			200	34.6
			185	41.6
			170	42.0
			155	41.5
			140	41.4
			125	41.5
			110	31.3
			95	20.5
			80	15.0
			65	10.4
			46	0.0
10-25-85	0520	1,348.71	249	0.0
			240	4.2
			225	12.6
			210	17.0
			195	37.8
			180	39.0
			165	39.2
			150	37.9
			135	37.9
10-25-85	0520	(Continued)	120	35.5
			105	24.8
			90	18.0
			75	9.0
			-1	0.0
10-29-85	0615	1,349.50	49	0.0
			85	12.9
			100	20.9
			115	28.1
			130	38.3
			145	38.3
			160	39.1
			175	40.2
			190	38.2
			205	19.4
			220	15.0
			250	0.0
10-30-85	0130	1,351.20	44	0.0
			85	15.6
			100	27.7
			115	32.1
			130	40.7
			145	40.3
			160	41.8
			175	42.4
			190	40.3
			205	21.5
			220	16.8
			255	0.0
10-30-85	1210	1,352.65	43	0.0
			60	9.4
			80	16.7
			100	25.3
			120	43.4
			140	42.2
			160	42.4
			180	43.7
			200	32.4
			220	18.2
			240	6.6
			258	0.0
10-31-85	0110	1,350.80	45	0.0
			85	15.2
			100	27.4
			115	29.8
			130	40.2
			145	40.0
			160	41.3
			175	41.7
			190	40.0
			205	19.8
			220	16.7
			252	0.0
10-31-85	2300	1,350.55	45	0.0
			60	3.8
			80	15.0
			100	26.4

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
10-31-85	2300	(Continued)	120	37.5
			140	39.8
			160	41.5
			180	41.5
			200	31.0
			220	16.8
			240	6.8
			256	0.0
11-01-85	0440	1,350.30	45	0.0
			85	14.2
			100	24.2
			115	27.9
			130	39.3
			145	40.0
			160	40.2
			175	41.5
			190	39.5
			205	20.8
			220	16.1
			252	0.0
11-22-85	0925	1,352.24	144	0.0
			160	7.0
			190	20.7
			220	44.4
			250	43.5
			280	42.6
			310	21.6
			340	9.1
			354	0.0
11-22-85	1640	1,351.80	258	0.0
			240	7.5
			215	20.0
			190	41.4
			165	45.0
			140	43.2
			115	41.4
			90	20.8
			65	11.0
			45	0.0
11-23-85	0650	1,352.37	261	0.0
			245	6.0
			220	18.7
			195	37.5
			170	44.0
			145	43.2
			120	35.7
			95	21.3
			70	10.0
			44	0.0
11-23-85	0728	1,352.50	44	0.0
			70	12.7
			95	22.2
			120	43.0
			145	43.5
			170	44.6
			195	39.2
			220	18.0
11-23-85	0728	(Continued)	245	5.0
			261	0.0
11-23-85	1030	1,352.69	261	0.0
			250	2.7
			225	16.2
			200	35.7
			175	45.4
			150	42.6
			125	43.3
			100	24.8
			75	12.7
			-1	0.0
11-23-85	1322	1,352.46	45	0.0
			60	5.4
			80	16.1
			100	27.7
			120	37.3
			140	44.7
			160	44.6
			180	44.5
			200	34.1
			220	18.4
			240	8.2
			255	0.0
11-24-85	0535	1,350.24	252	0.0
			240	5.8
			225	14.0
			210	18.2
			195	35.5
			180	42.2
			165	42.0
			150	41.0
			135	40.5
			120	36.8
			105	27.0
			90	18.7
			75	11.1
			60	6.8
			45	0.0
11-24-85	0710	1,350.54	252	0.0
			240	6.1
			220	16.2
			200	34.0
			180	42.2
			160	42.0
			140	41.8
			120	33.8
			100	25.8
			80	14.4
			60	7.4
			44	0.0
11-24-85	2220	1,350.53	43	0.0
			60	3.5
			80	15.0
			100	23.5
			120	36.1
			140	42.2

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-24-85	2220	(Continued)	160	42.1
			180	42.5
			200	31.0
			220	16.4
			240	5.7
			252	0.0
11-25-85	0150	1,349.93	250	0.0
			240	5.3
			225	14.0
			210	18.6
			195	34.6
			180	41.9
			165	42.4
			150	40.9
			135	40.7
			120	40.4
			105	26.1
			90	16.5
			75	10.4
			60	3.1
			48	0.0
11-25-85	0755	1,351.02	249	0.0
			235	9.2
			215	16.1
			195	35.2
			175	44.4
			155	43.2
			135	42.0
			115	28.5
			95	21.1
			75	11.9
			55	6.1
			42	0.0
11-25-85	0902	1,351.10	42	0.0
			55	5.4
			75	12.1
			95	21.4
			115	27.2
			135	42.0
			155	43.1
			175	44.1
			195	37.1
			215	18.7
			235	9.2
			251	0.0
11-29-85	0715	1,348.50	48	0.0
			95	17.4
			110	28.4
			125	37.1
			140	38.7
			155	38.4
			170	39.8
			185	40.9
			200	30.5
			215	13.9
			247	0.0
11-29-85	1205	1,348.90	48	0.0
11-29-85	1205	(Continued)	80	7.1
			95	18.4
			110	29.1
			125	37.5
			140	38.8
			155	39.4
			170	40.5
			185	36.4
			200	32.0
			215	17.0
			230	9.1
			245	0.0
11-29-85	1355	1,349.90	45	0.0
			90	19.5
			110	29.6
			130	40.2
			150	40.9
			170	41.8
			190	39.2
			210	19.2
			252	0.0
11-30-85	0930	1,348.15	248	0.0
			210	16.9
			190	37.1
			170	39.3
			150	38.2
			130	38.0
			110	28.8
			90	14.1
			47	0.0
11-30-85	1430	1,347.62	49	0.0
			80	11.4
			100	23.5
			120	34.0
			140	38.1
			160	38.8
			180	39.5
			200	30.5
			220	13.9
			245	0.0
11-30-85	1530	1,347.78	49	0.0
			80	8.2
			100	22.5
			120	33.9
			140	38.6
			160	39.3
			180	40.1
			200	28.4
			220	14.0
			247	0.0
11-30-85	1650	1,348.20	50	0.0
			85	12.1
			100	24.3
			115	27.2
			130	38.1
			145	38.5
			160	39.4

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
11-30-85	1650	(Continued)	175	40.3
			190	37.5
			205	18.7
			220	14.8
			245	0.0
11-30-85	2005	1,349.30	51	0.0
			85	13.9
			100	15.5
			115	36.8
			130	39.6
			145	40.1
			160	40.6
			175	41.6
			190	38.4
			205	19.5
			220	15.4
			250	0.0
11-30-85	2155	1,349.40	51	0.0
			85	13.4
			100	23.2
			115	27.6
			130	39.7
			145	40.0
			160	40.9
			175	41.4
			190	38.6
			205	19.4
			220	15.6
			250	0.0
12-01-85	0700	1,348.46	48	0.0
			100	19.5
			115	34.4
			130	38.4
			145	39.0
			160	39.4
			175	40.5
			190	37.0
			248	0.0
12-01-85	1115	1,350.15	49	0.0
			80	13.8
			100	25.2
			120	39.1
			140	40.2
			160	41.6
			180	42.1
			200	33.5
			220	16.7
			254	0.0
12-01-85	1715	1,352.50	44	0.0
			85	16.4
			100	27.2
			115	30.0
			130	43.0
			145	43.8
			160	44.8
			175	45.4
			190	42.3
12-01-85	1715	(Continued)	205	22.2
			220	18.3
			260	0.0
12-02-85	1130	1,349.40	48	0.0
			80	13.5
			100	26.2
			120	35.9
			140	39.2
			160	40.0
			180	40.9
			200	32.4
			220	15.0
			249	0.0
12-02-85	1405	1,349.95	45	0.0
			80	14.0
			100	23.6
			120	37.4
			140	40.1
			160	41.0
			180	41.8
			200	33.3
			220	15.9
			252	0.0
12-02-85	1515	1,350.05	45	0.0
			80	10.8
			100	21.8
			120	37.3
			140	40.5
			160	41.4
			180	41.8
			200	33.6
			220	16.0
			252	0.0
12-02-85	1630	1,350.20	45	0.0
			85	14.4
			100	22.9
			115	27.5
			130	40.3
			145	40.5
			160	41.4
			175	41.8
			190	39.7
			205	19.7
			220	16.2
			252	0.0
12-24-85	1135	1,347.82	51	0.0
			55	3.8
			80	11.5
			105	23.6
			130	37.4
			155	38.3
			180	39.1
			205	18.0
			230	8.3
			250	0.0
12-25-85	0330	1,345.85	242	0.0

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
12-25-85	0330	(Continued)	235	4.2
			220	12.2
			205	16.4
			190	35.1
			175	38.2
			160	37.2
			145	36.9
			130	36.1
			115	30.3
			100	16.6
			85	10.2
			70	6.4
			54	0.0
12-25-85	1342	1,349.54	250	0.0
			225	13.1
			200	29.2
			175	41.4
			150	40.3
			125	38.4
			100	21.3
			75	9.7
			50	2.3
			45	0.0
12-25-85	1417	1,350.68	255	0.0
			240	5.9
			210	18.4
			180	42.6
			150	41.6
			120	34.1
			90	19.4
			60	3.6
			43	0.0
12-26-85	1100	1,351.13	255	0.0
			240	7.1
			220	17.0
			200	31.1
			180	42.6
			160	42.6
			140	42.1
			120	41.9
			100	22.4
			80	15.1
			60	9.0
			43	0.0
12-26-85	1532	1,351.79	258	0.0
			240	7.0
			225	16.3
			210	19.9
			195	36.7
			180	44.1
			165	44.1
			150	43.1
			135	42.6
			120	35.1
			105	27.8
			90	18.6
			75	11.9
			60	4.3
12-26-85	1532	(Continued)	46	0.0
12-31-85	1500	1,350.20	45	0.0
			85	13.9
			100	22.5
			115	27.5
			130	40.3
			145	40.5
			160	41.3
			175	42.7
			190	39.4
			205	21.3
			220	16.6
			260	0.0
12-31-85	1630	1,350.80	45	0.0
			85	24.6
			100	26.6
			115	28.4
			130	35.9
			145	41.1
			160	42.4
			175	42.8
			190	40.4
			205	20.9
			220	16.8
			260	0.0
01-01-86	1030	1,350.40	255	0.0
			220	15.8
			205	19.5
			190	39.2
			175	41.9
			160	41.0
			145	41.0
			130	41.4
			115	28.3
			100	22.7
			85	14.9
			44	0.0
01-01-86	1115	1,351.55	44	0.0
			85	15.2
			100	23.7
			115	28.5
			130	42.2
			145	42.4
			160	42.4
			175	43.6
			190	42.0
			205	21.2
			220	17.6
			261	0.0
01-01-86	1305	1,352.00	45	0.0
			80	15.8
			102	29.5
			120	42.4
			140	43.0
			160	43.0
			180	43.5
			200	34.3

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-01-86	1305	(Continued)	220	17.7
			260	0.0
01-02-86	0220	1,349.50	45	0.0
			85	13.0
			100	23.0
			115	27.8
			130	39.6
			145	39.4
			160	39.8
			175	40.7
			190	38.0
			205	19.6
			220	15.1
			255	0.0
01-02-86	0950	1,348.00	50	0.0
			85	11.8
			100	20.7
			115	28.4
			130	38.0
			145	38.3
			160	38.7
			175	39.5
			190	37.1
			205	18.1
			220	14.3
			250	0.0
01-02-86	1140	1,350.20	48	0.0
			85	13.7
			100	21.6
			115	27.8
			130	40.2
			145	40.4
			160	41.3
			175	42.4
			190	40.2
			205	21.2
			220	16.8
			259	0.0
01-02-86	1320	1,352.40	43	0.0
			85	16.3
			100	18.0
			115	30.8
			130	33.2
			145	43.0
			160	44.1
			175	44.8
			190	42.0
			205	23.2
			220	18.8
			260	0.0
01-03-86	0820	1,348.32	48	0.0
			80	12.3
			95	17.7
			110	28.6
			125	36.8
			140	37.7
			155	38.7
01-03-86	0820	(Continued)	170	39.6
			185	35.7
			200	30.5
			215	15.7
			230	9.2
			250	0.0
01-03-86	1140	1,347.79	50	0.0
			80	11.7
			95	17.4
			110	26.5
			125	26.5
			140	36.4
			150	37.8
			165	38.5
			170	39.5
			185	35.2
			200	24.9
			215	16.5
			230	9.2
			248	0.0
01-03-86	1710	1,348.42	50	0.0
			85	11.8
			100	19.8
			115	27.2
			130	37.8
			145	38.2
			160	39.0
			175	39.9
			190	38.0
			205	18.8
			220	14.9
			251	0.0
01-03-86	1805	1,349.20	46	0.0
			85	12.8
			100	20.9
			115	28.0
			130	38.8
			145	38.9
			160	40.7
			175	41.1
			190	38.5
			205	19.8
			220	15.5
			255	0.0
01-03-86	2005	1,350.00	46	0.0
			85	13.8
			100	22.6
			115	28.5
			130	40.3
			145	40.0
			160	41.2
			175	41.8
			190	38.9
			205	20.2
			220	16.2
			259	0.0
01-26-86	0415	1,354.82	260	0.0

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-26-86	0415	(Continued)	250	5.5
			230	16.3
			210	22.2
			190	45.2
			170	45.4
			150	43.6
			130	42.8
			110	34.0
			90	24.8
			70	13.0
			50	7.5
			45	0.0
01-26-86	0643	1,355.05	260	0.0
			250	5.2
			225	19.5
			200	37.5
			175	45.4
			150	46.6
			125	43.4
			100	27.5
			75	14.2
			50	7.6
			45	0.0
01-26-86	2245	1,354.52	261	0.0
			250	5.4
			235	12.7
			220	20.1
			205	30.0
			190	41.5
			175	45.4
			160	47.0
			145	45.8
			130	42.6
			115	36.0
			100	27.2
			85	18.3
			70	12.2
			55	8.8
			45	0.0
01-26-86	2400	1,354.66	45	0.0
			55	9.0
			70	12.2
			85	18.8
			100	27.5
			115	31.5
			130	43.8
			145	47.1
			160	46.7
			175	45.5
			190	40.4
			205	25.0
			220	21.3
			235	12.7
			250	5.0
			261	0.0
01-27-86	0128	1,354.72	260	0.0
			250	9.5
			230	15.9
01-27-86	0128	(Continued)	210	21.8
			190	40.4
			170	47.6
			150	45.7
			130	42.3
			110	34.0
			90	23.8
			70	15.1
			50	7.1
			44	0.0
01-27-86	0255	1,354.81	44	0.0
			55	8.4
			70	12.1
			85	19.0
			100	25.9
			115	38.0
			130	42.1
			145	42.9
			160	43.7
			175	45.1
			190	40.9
			205	25.2
			220	20.2
			235	13.2
			250	10.1
			260	0.0
01-27-86	0427	1,354.88	260	0.0
			250	9.6
			235	12.4
			220	20.5
			205	24.9
			190	42.4
			175	45.8
			160	45.1
			145	44.2
			130	43.2
			115	31.9
			100	27.4
			85	20.0
			70	11.9
			55	8.2
			44	0.0
01-27-86	0539	1,354.92	44	0.0
			55	8.1
			70	12.3
			85	19.0
			100	27.4
			115	33.2
			130	42.2
			145	45.2
			160	46.2
			175	46.3
			190	45.1
			205	24.8
			220	20.1
			235	12.6
			250	9.5
			260	0.0

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-27-86	0702	1,355.00	260	0.0
			245	11.5
			230	17.5
			215	22.4
			200	35.0
			185	47.2
			170	46.6
			155	45.0
			140	42.9
			125	43.1
			110	33.7
			95	25.6
			80	19.1
			65	10.5
			50	8.7
			42	0.0
01-27-86	2000	1,354.26	263	0.0
			245	10.3
			215	23.2
			185	44.5
			155	42.4
			125	41.4
			95	24.4
			65	13.3
			44	0.0
01-27-86	2115	1,354.58	262	0.0
			245	10.5
			220	20.2
			195	39.3
			170	44.6
			145	43.1
			120	42.8
			95	24.8
			70	17.4
			43	0.0
01-27-86	2210	1,354.86	263	0.0
			245	10.7
			220	21.8
			195	39.5
			170	46.1
			145	43.5
			120	41.3
			95	24.9
			70	14.5
			43	0.0
01-28-86	0050	1,355.34	261	0.0
			250	9.2
			230	18.7
			210	23.2
			190	46.4
			170	48.8
			150	45.0
			130	43.8
			110	33.4
			90	24.7
			70	13.5
			50	7.6
			45	0.0
01-28-86	0612	1,355.80	262	0.0
			250	9.8
			230	19.7
			210	23.5
			190	46.2
			170	50.3
			150	49.2
			130	44.9
			110	34.9
			90	24.8
			70	13.0
			50	7.2
			44	0.0
01-28-86	1005	1,355.24	261	0.0
			250	8.9
			235	16.2
			220	21.0
			205	25.0
			190	45.7
			175	46.4
			160	45.9
			145	45.0
			130	43.2
			115	31.5
			100	28.5
			85	20.3
			70	12.8
			55	9.7
			45	0.0
01-28-86	1135	1,355.08	261	0.0
			250	8.9
			235	13.2
			220	21.3
			205	25.1
			190	43.0
			175	47.5
			160	45.8
			145	43.5
			130	43.3
			115	32.8
			100	27.8
			85	20.0
			70	12.9
			55	10.9
			45	0.0
01-28-86	1245	1,354.96	260	0.0
			250	8.9
			230	18.4
			210	22.5
			190	45.5
			170	46.5
			150	44.0
			130	41.8
			110	34.9
			90	24.6
			70	15.2
			50	7.4
			43	0.0

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-28-86	1610	1,354.73	260	0.0
			240	12.4
			220	21.1
			200	36.1
			180	45.9
			160	43.7
			140	42.1
			120	42.4
			100	30.1
			80	18.2
			60	7.1
			43	0.0
01-28-86	2035	1,354.84	260	0.0
			250	9.0
			235	12.8
			220	20.7
			205	24.1
			190	45.3
			175	47.4
			160	47.2
			145	44.6
			130	42.2
			115	31.1
			100	27.7
			85	18.7
			70	11.9
			55	8.9
			44	0.0
01-28-86	2250	1,354.96	260	0.0
			250	8.4
			235	12.9
			220	20.4
			205	24.2
			190	43.6
			175	46.5
			160	46.0
			145	45.5
			130	43.8
			115	31.5
			100	27.5
			85	18.1
			70	12.4
			44	0.0
01-29-86	0445	1,355.01	45	0.0
			60	10.6
			75	14.7
			90	23.7
			105	31.2
			120	41.9
			135	43.4
			150	46.5
			165	46.6
			180	46.8
			195	39.7
			210	22.1
			225	20.7
			240	12.5
			260	0.0
01-30-86	2120	1,352.92	43	0.0
			80	16.1
			90	22.1
			100	25.3
			110	31.2
			120	36.1
			130	39.5
			140	40.0
			150	40.8
			160	41.9
			170	42.7
			180	42.1
			190	42.7
			200	36.1
			210	41.0
			262	0.0
01-30-86	2300	1,353.29	45	0.0
			80	15.9
			90	22.3
			100	27.1
			110	31.1
			120	42.0
			130	40.4
			140	40.3
			150	42.6
			160	43.1
			170	44.0
			180	43.2
			190	43.0
			200	36.0
			210	22.0
			262	0.0
01-31-86	0150	1,353.98	45	0.0
			80	17.3
			90	20.5
			100	29.9
			110	32.4
			120	42.3
			130	41.9
			140	42.5
			150	44.5
			160	48.2
			170	45.0
			180	45.2
			190	37.1
			200	32.0
			210	23.0
			262	0.0
01-31-86	0345	1,354.30	45	0.0
			85	18.8
			100	30.2
			115	33.1
			130	42.4
			145	45.0
			160	45.5
			175	45.2
			190	39.2
			205	24.3
			262	0.0

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
01-31-86	1325	1,353.68	43	0.0
			85	17.4
			100	27.7
			115	32.3
			130	40.3
			145	41.8
			160	41.8
			175	42.7
			190	40.0
			205	22.2
			220	19.3
			262	0.0
01-31-86	1730	1,352.95	43	0.0
			85	17.0
			100	28.3
			115	30.9
			130	39.2
			145	39.3
			160	40.5
			175	43.7
			190	39.3
			205	22.7
			220	18.9
			261	0.0
01-31-86	2210	1,352.85	43	0.0
			85	16.6
			100	25.9
			115	31.4
			130	39.5
			145	41.0
			160	40.8
			175	41.2
			190	43.0
			205	22.8
			220	19.7
			262	0.0
01-31-86	2340	1,353.46	43	0.0
			85	17.3
			100	26.4
			115	30.3
			130	40.5
			145	42.2
			160	42.0
			175	42.6
			190	37.3
			205	23.8
			220	19.4
			262	0.0
02-01-86	0130	1,354.28	43	0.0
			80	17.2
			90	23.2
			100	26.4
			110	33.8
			120	40.6
			130	40.8
			140	43.0
			150	43.5
			160	41.8
02-01-86	0130	(Continued)	170	42.8
			180	43.6
			190	40.6
			200	32.1
			210	22.2
			262	0.0
02-01-86	0310	1,354.73	43	0.0
			80	18.5
			90	23.4
			100	27.3
			110	32.8
			120	41.5
			130	41.4
			140	42.9
			150	42.9
			160	43.8
			170	44.8
			180	42.7
			190	40.2
			200	37.5
			210	22.3
			263	0.0
02-01-86	0635	1,354.95	43	0.0
			80	19.9
			90	24.7
			100	27.9
			110	33.6
			120	35.2
			130	40.2
			140	40.7
			150	40.6
			160	44.4
			170	44.2
			180	42.9
			190	41.3
			200	37.5
			210	21.4
			262	0.0
02-01-86	2240	1,352.35	46	0.0
			85	16.4
			100	24.8
			115	32.2
			130	38.8
			145	40.2
			160	41.2
			175	40.3
			190	42.0
			205	22.4
			260	0.0
02-01-86	2335	1,352.60	46	0.0
			85	16.2
			100	28.2
			115	29.2
			130	39.2
			145	39.8
			160	41.1
			175	41.6
			190	42.1

Table 63.--Cross-section geometry at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet
02-01-86	2335	(Continued)	205	21.4
			260	0.0
02-02-86	0105	1,352.92	43	0.0
			85	16.6
			100	28.4
			115	29.2
			130	38.8
			145	39.6
			160	40.8
			175	41.6
			190	42.9
			205	23.3
			220	20.0
			262	0.0
02-02-86	0510	1,353.12	43	0.0
			85	17.3
			100	26.2
			115	31.7
			130	40.3
			145	40.3
			160	41.6
			175	41.2
			190	37.7
			205	23.0
			220	19.0
02-02-86	0510	(Continued)	262	0.0
02-02-86	0740	1,352.96	43	0.0
			85	16.9
			100	28.3
			115	30.3
			130	40.3
			145	40.8
			160	41.9
			175	41.4
			190	38.0
			205	22.4
			220	19.7
			261	0.0
02-02-86	1150	1,352.82	43	0.0
			85	16.9
			100	27.7
			115	31.4
			130	40.4
			145	39.2
			160	39.7
			175	39.9
			190	36.3
			205	23.4
			220	18.8
			262	0.0

Table 64.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-02-85	0235	8.57	165	0.0	0.00
			190	9.1	-0.27
			230	14.6	0.40
			270	18.2	1.42
			310	19.6	2.73
			350	19.1	3.06
			390	19.1	2.68
			430	21.9	2.96
			470	26.1	2.82
			510	23.6	2.60
			550	11.5	1.99
			569	0.0	0.00
11-02-85	1815	9.57	165	0.0	0.00
			200	9.4	0.31
			225	14.6	0.32
			250	17.1	0.76
			275	18.9	1.62
			300	20.4	2.26
			325	20.3	2.44
			350	20.2	2.25
			375	20.1	2.21
			400	20.6	2.30
			425	22.1	2.28
			450	26.5	2.11
			475	26.9	2.22
			500	24.8	2.00
			525	19.8	1.90
			550	12.5	1.28
			571	0.0	0.00
11-03-85	0200	8.84	570	0.0	0.00
			550	11.5	0.84
			500	23.8	1.64
			450	25.9	1.82
			400	19.6	2.06
			350	19.0	1.88
			300	19.5	1.88
			250	15.9	0.58
			200	8.4	0.37
			175	0.0	0.00
11-08-85	2315	10.23	161	0.0	0.00
			270	19.5	1.66
			300	21.2	2.44
			330	21.4	2.60

Table 64.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-08-85	2315	(Continued)	360	21.0	2.64
			390	20.8	2.74
			420	22.1	2.59
			450	27.4	2.26
			480	28.2	2.47
			510	25.3	2.36
			540	16.4	1.69
			575	0.0	0.00
11-09-85	0155	9.20	572	0.0	0.00
			530	19.6	1.54
			490	26.4	1.74
			450	26.9	1.88
			410	20.5	2.13
			370	20.0	2.02
			330	20.6	1.73
			290	20.0	1.42
			250	16.8	0.43
			210	8.1	0.15
			165	0.0	0.00
11-09-85	2220	10.72	163	0.0	0.00
			270	20.6	2.14
			300	21.9	3.08
			330	21.9	3.09
			360	21.8	3.21
			390	22.1	2.84
			420	23.0	2.86
			450	28.4	2.84
			480	28.8	2.72
			510	25.9	2.94
			540	17.5	2.16
			576	0.0	0.00
12-03-85	1600	8.96	570	0.0	0.00
			550	11.8	1.14
			520	20.5	1.82
			490	26.2	1.68
			460	26.1	1.93
			430	20.6	2.14
			400	19.7	2.20
			370	19.6	2.06
			340	19.3	2.06
			310	19.5	1.90
			280	15.7	1.51
			250	16.4	0.57

Table 64.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-03-85	2052	10.08	220	13.0	0.25
			190	9.2	0.24
			167	0.0	0.00
			164	0.0	0.00
			180	9.2	-0.18
			210	9.0	0.20
			240	17.8	0.72
			270	19.4	1.88
			300	21.0	2.51
			330	21.1	2.54
			360	20.8	2.78
			390	21.8	2.82
			420	21.3	2.96
			450	24.1	2.71
			480	28.6	2.56
			510	25.4	2.77
			540	17.4	1.73
			574	0.0	0.00
12-03-85	2215	10.26	574	0.0	0.00
			550	13.7	1.54
			520	21.9	2.65
			490	27.3	2.74
			460	27.1	2.90
			430	22.1	2.77
			400	21.0	2.92
			370	21.4	2.80
			340	21.1	2.69
			310	20.6	2.87
			280	20.6	2.15
			250	18.1	1.10
			220	14.8	0.36
			190	11.6	0.00
			164	0.0	0.00
01-05-86	0505	6.80	165	0.0	0.00
			180	5.9	0.11
			220	11.2	0.18
			260	15.5	0.30
			300	18.6	0.79
			340	17.4	1.11
			380	18.3	0.96
			420	19.9	0.90
			460	20.7	0.80
			500	21.7	0.47
			540	12.6	0.11
			568	0.0	0.00

Table 64.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-05-86	0620	6.20	568	0.0	0.00
			550	10.1	0.34
			510	20.7	0.66
			470	20.5	0.69
			430	19.0	0.66
			390	17.3	0.70
			350	16.7	0.70
			310	16.7	0.58
			270	15.0	0.39
			230	11.5	0.11
			190	6.2	0.11
			165	0.0	0.00
01-09-86	2100	11.14	65	0.0	0.00
			275	21.5	2.94
			300	22.5	3.20
			325	22.4	3.60
			350	22.0	3.40
			375	22.7	3.70
			400	23.8	3.48
			425	25.0	3.40
			450	25.5	3.54
			475	26.4	3.36
			500	26.7	3.51
			525	23.4	3.06
			575	0.0	0.00
01-10-86	0200	9.25	573	0.0	0.00
			540	15.8	1.69
			510	25.0	2.37
			480	25.5	2.22
			450	24.2	2.10
			420	23.4	2.12
			390	21.0	2.44
			360	19.8	1.96
			330	20.2	1.96
			300	20.3	1.79
			270	18.3	0.99
			165	0.0	0.00
01-10-86	0525	6.70	575	0.0	0.00
			540	13.2	0.47
			510	22.0	0.82
			480	22.6	0.77
			450	21.6	0.79
			420	21.1	0.83
			390	18.4	0.90

Table 64.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River at Lees Ferry, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-10-86	0525	(Continued)	360	17.4	0.81
			330	17.7	0.82
			300	17.6	0.47
			270	16.1	0.09
			168	0.0	0.00

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-07-85	2155	2,723.95	466	0.0	0.00
			450	13.7	0.26
			420	15.3	1.16
			390	13.9	1.94
			360	12.8	2.40
			330	13.4	2.33
			300	13.2	2.33
			270	11.8	2.11
			240	11.1	1.86
			210	9.0	1.73
			180	8.2	0.70
			140	0.0	0.00
10-08-85	1735	2,725.49	463	0.0	0.00
			450	15.6	0.36
			420	15.8	1.49
			390	15.6	2.32
			360	14.5	3.14
			330	15.8	2.90
			300	15.1	2.94
			270	13.5	2.59
			240	12.7	2.56
			210	12.2	1.94
			180	9.5	1.43
			150	5.7	0.78
			137	0.0	0.00
10-12-85	0600	2,726.61	405	0.0	0.00
			360	11.8	1.89
			330	13.5	2.93
			300	14.2	3.47
			270	14.9	3.94
			240	15.8	4.36
			210	17.2	4.84
			180	16.3	3.58
			150	17.0	3.78
			120	17.5	2.83
			90	17.1	1.35
			62	0.0	0.00
10-12-85	1415	2,726.35	62	0.0	0.00
			90	16.0	0.36
			120	16.8	1.80
			150	15.6	3.08
			180	15.1	3.74
			210	16.3	3.70
			240	15.7	3.44

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-12-85	1415	(Continued)	270	14.1	3.40
			300	13.2	3.10
			330	12.5	2.71
			360	11.2	1.66
			390	4.7	0.70
			402	0.0	0.00
10-12-85	1845	2,724.85	397	0.0	0.00
			372	8.4	0.91
			347	10.2	1.64
			322	10.6	2.10
			297	11.8	2.48
			272	12.8	2.37
			247	13.9	2.76
			222	13.9	3.01
			197	14.1	3.06
			172	13.5	2.88
			147	14.7	2.25
			122	14.8	1.66
			97	15.5	0.63
			72	8.0	0.00
			59	0.0	0.00
10-13-85	1810	2,724.80	397	0.0	0.00
			360	19.0	1.12
			330	10.8	2.05
			300	11.8	2.36
			270	13.0	2.75
			240	13.6	3.01
			210	13.9	3.02
			180	13.2	3.00
			150	13.8	2.40
			120	14.6	1.54
			90	14.0	0.32
			65	0.0	0.00
10-14-85	0700	2,723.60	392	0.0	0.00
			380	5.4	0.67
			350	8.1	1.12
			320	9.2	1.45
			290	10.0	1.86
			260	11.2	2.00
			230	13.2	2.39
			200	13.2	2.54
			170	13.1	2.25
			140	13.4	2.10
			110	14.9	1.01

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-14-85	0700	(Continued)	80	11.2	0.31
			66	0.0	0.00
10-14-85	1440	2,725.00	399	0.0	0.00
			360	9.2	1.23
			330	10.4	2.20
			300	11.5	2.32
			270	12.6	2.96
			240	14.0	2.99
			210	14.7	3.12
			180	13.8	3.18
			150	14.4	2.63
			120	16.0	0.56
			90	15.0	0.23
			62	0.0	0.00
10-15-85	0630	2,728.30	402	0.0	0.00
			370	11.9	1.62
			340	12.9	3.11
			310	14.5	3.93
			280	15.5	4.19
			250	16.7	4.56
			220	17.5	5.05
			69	0.0	0.00
10-15-85	1455	2,726.10	402	0.0	0.00
			360	10.8	1.60
			330	12.1	2.88
			300	13.7	3.36
			270	14.1	3.39
			240	15.3	4.13
			210	16.1	3.68
			180	14.8	4.01
			150	15.9	3.17
			120	16.4	1.82
			90	16.1	0.55
			63	0.0	0.00
10-15-85	1710	2,725.30	402	0.0	0.00
			360	10.0	1.52
			330	11.3	2.71
			300	12.2	2.75
			270	12.7	3.00
			240	14.5	3.29
			210	15.0	3.24
			180	14.2	3.88
			150	14.7	2.80

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-15-85	1710	(Continued)	120	15.7	1.72
			90	15.2	0.67
			64	0.0	0.00
11-05-85	1405	2,726.63	401	0.0	0.00
			370	10.4	1.17
			330	12.5	2.59
			290	13.9	3.32
			250	15.2	3.28
			210	16.3	3.84
			170	15.5	3.61
			130	16.8	2.49
			90	16.5	0.65
			61	0.0	0.00
11-05-85	2135	2,724.07	70	0.0	0.00
			90	13.3	0.55
			130	13.6	1.66
			170	12.9	2.27
			210	13.5	2.27
			250	12.2	2.24
			290	10.6	2.09
			330	9.1	1.80
			370	7.2	0.76
			397	0.0	0.00
11-06-85	0540	2,727.06	63	0.0	0.00
			80	14.6	0.41
			110	16.8	1.42
			140	16.3	3.42
			170	14.4	4.18
			200	15.6	3.90
			230	15.8	4.10
			260	14.8	3.53
			290	14.7	3.58
			320	12.6	3.21
			350	7.4	2.23
			380	9.0	1.09
			400	0.0	0.00
11-06-85	1432	2,726.90	401	0.0	0.00
			375	9.8	1.14
			350	11.9	2.00
			325	12.5	2.78
			300	13.3	3.50
			275	14.5	3.64
			250	15.5	3.77

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-06-85	1432	(Continued)	225	16.4	3.80
			200	15.7	3.98
			175	15.5	3.89
			150	16.5	3.39
			125	16.5	2.30
			100	16.6	0.97
			75	11.2	0.44
			70	0.0	0.00
11-06-85	1640	2,726.27	71	0.0	0.00
			85	15.9	0.48
			110	16.8	1.34
			135	16.2	2.46
			160	15.2	3.84
			185	15.2	3.94
			210	15.7	3.58
			235	15.1	3.63
			260	14.3	3.19
			285	13.4	2.84
			310	12.4	2.80
			335	11.7	2.47
			360	10.3	1.77
			385	6.4	0.78
			400	0.0	0.00
11-06-85	2205	2,725.88	69	0.0	0.00
			80	11.8	0.48
			100	17.5	1.06
			120	16.4	1.88
			140	15.1	2.61
			160	14.1	3.23
			180	15.2	3.56
			200	14.8	3.03
			220	16.8	3.60
			240	16.6	3.45
			260	14.2	3.20
			280	13.1	3.20
			300	12.4	2.83
			320	12.0	2.50
			340	11.6	2.24
			360	9.7	1.43
			380	8.4	0.97
			400	0.0	0.00
11-07-85	0255	2,727.06	68	0.0	0.00
			90	16.4	0.98
			130	16.5	2.62

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-07-85	0255	(Continued)	170	15.2	4.11
			210	16.4	4.25
			250	15.4	3.88
			290	13.7	3.65
			330	12.4	3.36
			370	10.2	1.22
			401	0.0	0.00
11-07-85	0425	2,727.19	68	0.0	0.00
			90	17.0	1.18
			130	16.8	2.74
			170	15.8	4.32
			210	16.6	4.58
			250	15.4	3.90
			290	14.2	3.60
			330	11.7	3.01
			370	10.9	1.53
			402	0.0	0.00
11-07-85	1525	2,726.77	69	0.0	0.00
			80	13.3	0.54
			110	17.1	1.76
			140	17.0	3.10
			170	15.1	3.06
			200	15.8	3.96
			230	16.4	4.14
			260	14.8	3.70
			290	15.7	3.36
			320	12.8	2.96
			350	11.4	1.94
			401	0.0	0.00
11-07-85	2010	2,725.02	67	0.0	0.00
			80	10.9	0.27
			105	14.8	1.00
			130	15.1	2.00
			155	13.8	2.80
			180	13.2	3.18
			205	13.9	3.09
			230	14.1	3.12
			255	12.8	2.68
			280	11.8	2.87
			305	10.8	2.42
			330	9.7	2.02
			355	9.0	1.44
			399	0.0	0.00

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-07-85	2205	2,724.54	70	0.0	0.00
			80	10.4	0.23
			105	14.8	0.79
			130	14.4	1.82
			155	13.8	2.30
			180	13.1	2.81
			205	13.8	2.89
			230	13.8	2.53
			255	12.4	2.50
			280	11.4	2.30
			305	10.9	2.17
			330	9.8	1.92
			355	9.1	1.21
			396	0.0	0.00
11-08-85	0445	2,727.60	68	0.0	0.00
			85	17.2	0.96
			115	17.8	2.20
			145	17.2	3.70
			175	16.1	4.58
			205	17.0	4.78
			235	16.9	4.70
			265	15.4	3.82
			295	14.2	3.97
			325	13.3	3.40
			355	12.3	2.50
			385	7.4	0.91
			403	0.0	0.00
11-08-85	0625	2,728.00	69	0.0	0.00
			80	14.1	1.05
			105	18.1	2.30
			130	17.8	3.06
			155	18.2	4.11
			180	16.7	4.67
			205	17.4	4.72
			230	17.9	4.79
			255	16.4	4.52
			280	15.1	4.22
			305	14.5	4.13
			330	13.8	3.56
			355	12.2	2.40
			380	10.5	1.54
			403	0.0	0.00
11-08-85	1435	2,727.27	70	0.0	0.00
			90	16.9	0.99

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-08-85	1435	(Continued)	120	17.2	3.14
			150	16.5	4.17
			180	16.4	4.25
			210	16.4	4.38
			240	16.1	4.08
			270	14.5	3.53
			300	13.4	3.20
			330	12.1	2.78
			360	10.9	1.71
			390	4.7	0.70
			401	0.0	0.00
11-08-85	1555	2,726.68	401	0.0	0.00
			390	4.7	0.54
			360	10.4	1.72
			330	12.0	2.71
			300	12.9	3.47
			270	13.9	3.78
			240	15.3	3.97
			210	16.1	4.06
			180	15.0	3.88
			150	15.6	3.29
			120	16.2	1.85
			90	15.7	0.88
			70	0.0	0.00
11-08-85	2000	2,725.29	400	0.0	0.00
			390	5.6	1.01
			360	9.8	1.65
			330	10.5	2.15
			300	11.4	2.58
			270	12.3	2.89
			240	13.9	3.15
			210	14.0	3.23
			180	14.4	3.16
			150	15.2	2.42
			120	15.1	1.54
			90	13.2	0.68
			69	0.0	0.00
11-12-85	1805	2,726.00	399	0.0	0.00
			350	11.0	1.90
			320	12.1	2.78
			290	13.1	3.09
			260	14.2	3.18
			230	15.6	3.64
			200	14.8	3.99

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-12-85	1805	(Continued)	170	14.5	3.82
			140	15.3	2.56
			110	16.3	1.34
			80	11.9	0.28
			68	0.0	0.00
11-12-85	2150	2,726.00	399	0.0	0.00
			350	10.5	1.71
			320	11.5	2.39
			290	12.7	2.84
			260	14.1	2.69
			230	14.9	3.48
			200	14.8	3.64
			170	14.2	3.58
			140	15.6	2.74
			110	16.2	1.68
			80	12.6	0.85
			70	0.0	0.00
11-13-85	1715	2,725.80	399	0.0	0.00
			350	10.5	2.18
			320	11.4	2.36
			290	12.7	2.89
			260	14.0	3.04
			230	15.0	3.60
			200	14.7	3.56
			170	13.6	3.27
			140	15.0	2.50
			110	15.9	1.29
			65	0.0	0.00
11-14-85	1410	2,727.10	62	0.0	0.00
			100	17.6	1.58
			130	17.1	2.52
			160	16.3	3.72
			190	16.1	4.32
			220	16.3	3.97
			250	15.4	4.09
			280	14.1	3.51
			310	12.8	3.50
			340	11.8	2.58
			370	10.2	1.52
			402	0.0	0.00
11-14-85	1535	2,726.70	62	0.0	0.00
			100	17.1	1.58
			130	16.6	2.52

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-14-85	1535	(Continued)	160	15.6	3.82
			190	15.3	4.36
			220	15.9	4.04
			250	15.2	3.72
			280	13.8	3.50
			310	12.6	3.09
			340	11.5	2.58
			370	10.2	1.52
			402	0.0	0.00
11-14-85	1810	2,726.00	400	0.0	0.00
			350	10.9	1.92
			320	11.7	2.87
			290	13.2	3.10
			260	14.0	2.90
			230	15.2	3.46
			200	15.1	3.70
			170	14.2	3.50
			140	15.3	2.68
			110	16.2	1.42
			67	0.0	0.00
11-15-85	1355	2,727.10	62	0.0	0.00
			100	17.5	1.32
			130	17.1	2.68
			160	16.4	4.01
			190	16.0	4.21
			220	16.5	4.42
			250	15.5	4.01
			280	14.1	3.61
			310	13.0	2.85
			340	12.1	2.54
			370	10.2	1.44
			400	0.0	0.00
11-15-85	1455	2,726.80	400	0.0	0.00
			370	10.2	1.44
			340	12.1	2.54
			310	12.9	3.08
			280	14.3	3.64
			250	15.3	3.56
			220	16.4	4.02
			190	15.6	4.41
			160	15.5	3.89
			130	16.5	2.62
			100	16.8	1.19
			63	0.0	0.00

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-15-85	1825	2,726.10	400	0.0	0.00
			320	11.7	2.84
			300	12.8	2.97
			280	12.9	3.39
			260	14.0	3.39
			240	14.6	3.70
			220	15.5	3.69
			200	15.4	3.68
			180	14.8	3.58
			160	15.3	3.32
			140	15.0	2.84
			120	16.3	1.56
			67	0.0	0.00
12-06-85	1110	2,728.43	68	0.0	0.00
			80	14.4	0.89
			110	18.8	2.89
			140	18.2	4.32
			170	17.2	4.72
			200	17.4	4.86
			230	18.0	4.91
			260	16.8	4.14
			290	15.4	3.92
			320	14.1	3.42
			350	13.0	2.80
			380	10.2	1.30
			404	0.0	0.00
12-06-85	1412	2,727.40	68	0.0	0.00
			80	13.3	0.73
			105	17.6	1.62
			130	16.8	2.80
			155	16.4	3.97
			180	15.8	4.36
			205	16.6	4.38
			230	16.3	4.12
			255	15.3	4.14
			280	14.5	3.77
			305	15.4	3.20
			330	11.9	3.04
			355	11.3	2.15
			380	8.7	1.11
			401	0.0	0.00
12-06-85	1537	2,725.82	401	0.0	0.00
			385	6.9	1.03
			360	10.9	1.82

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-06-85	1537	(Continued)	335	12.2	2.54
			310	12.9	3.02
			285	14.1	3.61
			260	15.0	3.64
			235	15.9	3.85
			210	16.2	4.12
			185	15.5	4.06
			160	15.6	3.62
			135	16.4	2.83
			110	17.0	1.56
			85	15.4	0.54
			70	0.0	0.00
12-07-85	1015	2,728.24	66	0.0	0.00
			80	14.5	0.89
			115	18.5	2.74
			150	18.2	4.22
			185	17.2	4.80
			220	17.6	5.15
			255	16.8	4.46
			290	15.2	2.74
			325	14.0	3.60
			360	12.5	2.24
			390	6.2	1.32
			406	0.0	0.00
12-07-85	1140	2,727.88	66	0.0	0.00
			80	14.8	0.48
			110	18.2	1.98
			140	17.4	3.68
			170	16.4	4.73
			200	17.1	4.60
			230	17.1	4.70
			260	15.9	3.82
			290	14.8	3.75
			320	13.3	3.32
			350	12.8	2.44
			380	9.9	1.23
			405	0.0	0.00
12-07-85	1340	2,727.26	67	0.0	0.00
			80	13.0	0.48
			110	17.4	1.98
			140	16.4	3.42
			170	15.3	4.02
			200	16.0	4.38
			230	16.2	4.28

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-07-85	1340	(Continued)	260	15.0	4.08
			290	13.9	3.68
			320	12.6	3.32
			350	11.5	2.29
			380	8.1	1.01
			401	0.0	0.00
12-07-85	1455	2,726.63	401	0.0	0.00
			380	8.1	1.01
			350	11.5	2.24
			320	12.1	3.00
			290	13.4	3.58
			260	14.5	3.60
			230	15.4	3.90
			200	15.3	3.88
			170	14.7	4.09
			140	15.9	2.98
			110	16.5	1.88
			80	12.8	0.42
			68	0.0	0.00
12-08-85	0320	2,723.90	68	0.0	0.00
			85	9.6	0.12
			110	13.6	0.88
			135	13.1	1.79
			160	12.8	2.62
			185	11.9	2.82
			210	13.4	2.81
			235	13.2	2.84
			260	12.2	2.48
			285	11.4	2.54
			310	10.3	2.25
			335	9.7	2.08
			360	9.1	1.25
			385	4.9	0.93
			399	0.0	0.00
12-08-85	0515	2,726.00	399	0.0	0.00
			385	5.2	0.73
			360	9.7	1.50
			335	10.3	2.50
			310	11.6	2.71
			285	12.7	2.85
			260	13.7	2.92
			235	14.6	3.74
			210	15.3	3.77
			185	14.5	3.86

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-08-85	0515	(Continued)	160	15.2	3.40
			135	15.7	2.38
			110	16.4	1.69
			85	14.9	0.70
			65	0.0	0.00
12-08-85	0952	2,727.49	68	0.0	0.00
			80	14.2	0.76
			100	17.4	1.79
			120	17.6	2.44
			140	17.1	3.68
			160	17.0	4.41
			180	16.5	4.54
			200	16.8	4.62
			220	17.1	4.63
			240	16.6	4.50
			260	15.6	4.06
			280	15.0	4.22
			300	13.9	3.61
			320	13.6	3.39
			340	12.8	2.83
			360	11.8	2.05
			380	9.1	1.30
			404	0.0	0.00
12-08-85	1142	2,727.36	404	0.0	0.00
			380	9.8	1.38
			350	12.3	2.42
			320	13.6	3.46
			290	14.6	3.61
			260	15.9	3.84
			230	16.6	4.38
			200	16.3	4.38
			170	15.8	4.48
			140	16.8	3.14
			110	17.4	1.82
			80	13.4	0.39
			68	0.0	0.00
12-08-85	1335	2,726.94	67	0.0	0.00
			80	12.6	0.61
			110	17.0	1.82
			140	16.2	2.99
			170	15.0	3.64
			200	15.6	4.18
			230	16.1	4.18
			260	15.2	3.84

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-08-85	1335	(Continued)	290	13.8	3.33
			320	12.5	3.12
			350	12.0	2.12
			380	8.5	0.91
			395	2.8	0.45
			402	0.0	0.00
12-08-85	1500	2,726.36	68	0.0	0.00
			80	13.0	0.50
			105	16.6	1.32
			130	16.4	2.51
			155	15.5	3.39
			180	15.2	3.74
			205	15.5	3.90
			230	15.5	3.82
			255	14.8	3.12
			280	13.3	3.24
			305	12.7	3.08
			330	11.8	2.49
			355	10.4	1.88
			380	7.5	1.29
			395	2.2	0.46
			401	0.0	0.00
12-08-85	2055	2,724.08	71	0.0	0.00
			85	13.4	0.41
			110	14.5	1.04
			135	13.7	1.92
			160	13.4	2.53
			185	12.9	2.47
			210	13.6	2.60
			235	13.0	2.64
			260	12.1	2.18
			285	11.0	1.90
			310	10.3	1.88
			335	9.1	1.52
			360	8.3	1.10
			385	4.1	0.80
			394	0.0	0.00
12-08-85	2220	2,723.55	394	0.0	0.00
			380	6.9	0.76
			350	8.4	1.10
			320	9.4	1.75
			290	10.5	1.86
			260	11.6	2.00
			230	12.9	2.37

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-08-85	2220	(Continued)	200	13.0	2.52
			170	12.0	2.20
			140	13.0	1.88
			110	13.8	0.88
			80	9.7	0.39
			74	0.0	0.00
12-09-85	0405	2,723.09	-1	0.0	0.00
			90	12.4	0.48
			130	12.8	1.46
			170	11.3	2.24
			210	12.3	2.06
			250	11.0	1.95
			290	9.4	1.75
			330	8.0	1.32
			370	6.3	0.78
			390	0.0	0.00
12-09-85	1648	2,725.30	72	0.0	0.00
			80	10.9	0.29
			110	15.4	1.40
			140	14.1	2.61
			170	13.5	2.91
			200	14.5	3.00
			230	14.5	3.24
			260	13.5	2.66
			290	12.1	2.63
			320	10.9	2.64
			350	10.4	1.72
			380	7.8	0.80
			400	0.0	0.00
12-09-85	2015	2,724.03	68	0.0	0.00
			80	10.4	0.25
			105	14.0	0.86
			130	14.1	1.74
			155	13.2	2.33
			180	12.3	2.48
			205	12.8	2.69
			230	12.8	2.60
			255	11.7	1.82
			280	10.6	2.08
			305	10.1	2.00
			330	9.0	1.50
			355	7.9	1.15
			380	5.4	0.84
			392	0.0	0.00

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-12-85	1340	2,727.30	404	0.0	0.00
			350	12.0	2.38
			320	13.2	3.37
			290	14.3	3.59
			260	15.2	4.06
			230	16.3	4.46
			200	15.9	4.67
			170	15.4	4.14
			140	16.7	3.18
			110	17.3	1.86
			80	12.9	0.74
			69	0.0	0.00
12-12-85	1540	2,726.60	401	0.0	0.00
			350	11.3	2.05
			320	12.5	2.76
			290	13.5	3.50
			260	14.6	3.25
			230	15.7	3.80
			200	15.4	4.04
			170	14.5	3.82
			140	15.8	2.77
			110	16.4	1.41
			80	12.3	0.52
			71	0.0	0.00
12-12-85	1715	2,725.90	400	0.0	0.00
			350	10.8	1.94
			320	11.8	2.60
			290	12.8	3.18
			260	14.3	3.22
			230	15.2	3.56
			200	15.0	3.64
			170	14.1	3.28
			140	15.0	2.65
			110	15.9	1.27
			80	12.0	0.49
			65	0.0	0.00
12-13-85	1315	2,728.20	406	0.0	0.00
			375	11.2	1.60
			350	13.2	2.56
			325	14.3	3.57
			300	14.9	4.16
			275	15.9	4.37
			250	16.5	4.20
			225	17.8	4.89

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-13-85	1315	(Continued)	200	17.0	4.78
			175	16.5	4.36
			150	17.4	3.96
			125	17.9	2.77
			100	18.0	1.32
			61	0.0	0.00
12-13-85	1520	2,727.05	65	0.0	0.00
			100	17.1	1.53
			125	16.8	2.77
			150	16.7	2.32
			175	15.8	4.08
			200	15.8	4.41
			225	16.5	4.32
			250	15.0	3.63
			275	14.7	3.70
			300	13.2	3.40
			325	12.7	2.93
			350	7.3	2.12
			375	9.2	1.02
			400	0.0	0.00
12-14-85	1015	2,729.00	409	0.0	0.00
			350	13.9	2.96
			320	15.0	3.78
			290	16.1	4.92
			260	17.3	4.70
			230	18.6	5.71
			200	18.0	5.59
			170	17.7	4.92
			140	18.2	3.74
			110	18.7	2.86
			80	15.2	0.88
			65	0.0	0.00
12-14-85	1420	2,727.08	405	0.0	0.00
			350	12.3	2.27
			325	13.3	3.02
			290	14.3	3.30
			260	14.9	3.58
			230	16.1	4.47
			200	15.9	4.25
			170	15.5	4.18
			140	16.4	3.34
			110	17.0	1.63
			80	13.4	0.51
			65	0.0	0.00

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-14-85	1600	2,726.28	65	0.0	0.00
			80	13.0	0.38
			110	16.8	1.56
			140	16.0	2.75
			170	14.7	3.72
			200	15.5	3.65
			230	15.5	3.88
			260	14.3	3.04
			290	13.3	3.16
			320	12.2	2.48
			350	11.0	1.75
			400	0.0	0.00
12-15-85	1305	2,727.60	398	0.0	0.00
			350	12.6	2.78
			320	13.6	3.40
			290	14.7	3.84
			260	15.9	3.96
			230	17.0	4.42
			200	16.3	4.59
			170	16.0	4.12
			140	16.8	3.28
			110	17.5	1.86
			80	13.6	0.63
			70	0.0	0.00
12-15-85	1755	2,725.60	401	0.0	0.00
			350	10.5	1.92
			320	11.6	2.44
			290	12.7	2.99
			260	13.8	2.97
			230	14.9	3.40
			200	14.7	3.43
			170	13.6	3.29
			140	14.7	2.44
			110	15.6	1.03
			80	12.0	0.47
			68	0.0	0.00
12-15-85	2055	2,724.30	395	0.0	0.00
			350	9.2	1.38
			320	10.3	1.92
			290	11.4	2.28
			260	12.2	2.38
			230	13.7	2.63
			200	13.3	2.72
			170	12.9	2.56

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-15-85	2055	(Continued)	140	13.3	2.05
			110	14.2	1.07
			80	10.4	0.26
			67	0.0	0.00
01-08-86	0910	2,727.74	65	0.0	0.00
			85	16.6	1.12
			115	17.8	2.38
			145	17.4	3.61
			175	16.3	4.79
			205	17.3	4.70
			235	17.2	4.53
			265	15.4	4.21
			295	14.2	3.70
			325	13.7	3.48
			355	12.0	2.42
			385	6.7	1.44
			402	0.0	0.00
01-08-86	1320	2,726.87	69	0.0	0.00
			80	13.3	0.50
			120	17.0	2.02
			160	16.0	3.96
			200	16.0	4.20
			240	15.7	4.02
			280	14.0	3.61
			320	12.5	3.10
			360	11.0	1.72
			380	8.2	1.21
			402	0.0	0.00
01-08-86	1500	2,726.25	70	0.0	0.00
			85	15.3	0.52
			115	16.9	1.77
			145	16.1	3.20
			175	15.0	3.77
			205	15.5	3.82
			235	15.2	3.70
			265	14.1	3.50
			295	12.7	3.23
			325	11.8	2.69
			355	10.7	1.64
			385	6.1	0.97
			400	0.0	0.00
01-08-86	1955	2,724.22	72	0.0	0.00
			85	12.9	0.35

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-08-86	1955	(Continued)	110	14.4	0.98
			135	14.0	1.86
			160	13.3	2.60
			185	12.6	2.77
			210	14.0	2.78
			235	13.5	2.76
			260	12.6	2.46
			285	11.5	2.14
			310	10.6	1.97
			335	9.5	1.71
			360	8.6	1.10
			385	3.9	0.55
			395	0.0	0.00
01-08-86	2245	2,723.38	72	0.0	0.00
			85	12.2	0.29
			115	13.5	1.13
			145	12.9	1.65
			175	12.0	2.12
			205	13.1	2.22
			235	12.4	2.18
			265	11.2	1.85
			295	10.1	1.66
			325	9.1	1.48
			355	7.8	1.46
			385	3.4	0.38
			493	0.0	0.00
01-09-86	1020	2,727.96	408	0.0	0.00
			390	5.5	1.06
			360	12.5	2.06
			330	13.9	3.32
			300	14.4	3.64
			270	15.5	4.53
			240	17.0	4.48
			210	17.6	4.60
			180	16.9	4.44
			150	17.9	4.01
			120	18.2	2.64
			90	16.9	1.23
			70	0.0	0.00
01-09-86	1351	2,726.88	68	0.0	0.00
			80	13.6	0.58
			105	17.0	1.48
			130	16.6	2.71
			155	16.3	3.70

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-09-86	1351	(Continued)	180	15.4	3.57
			205	15.7	4.28
			230	15.8	4.46
			255	14.9	3.83
			280	13.8	3.68
			305	12.8	3.32
			330	11.8	2.59
			355	10.5	1.82
			380	8.7	1.06
			400	0.0	0.00
01-09-86	1610	2,725.91	69	0.0	0.00
			80	12.4	0.43
			110	15.9	1.52
			140	15.0	2.62
			170	14.0	3.52
			200	14.5	3.63
			230	14.6	3.68
			260	13.4	3.06
			290	12.4	2.86
			320	11.4	2.58
			350	10.2	1.79
			380	6.6	1.23
			399	0.0	0.00
01-09-86	1915	2,724.56	65	0.0	0.00
			85	13.2	0.60
			110	14.3	1.14
			140	13.3	2.10
			170	12.7	2.62
			200	14.7	2.88
			230	13.9	2.98
			260	12.9	2.32
			290	11.6	2.40
			320	11.0	2.17
			350	9.1	1.41
			380	5.6	0.76
			396	0.0	0.00
01-10-86	1225	2,728.24	66	0.0	0.00
			80	14.5	1.20
			110	18.8	2.39
			140	17.8	3.96
			170	16.9	4.54
			200	17.3	4.76
			230	17.6	4.85
			260	16.3	4.32

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-10-86	1225	(Continued)	290	14.9	4.02
			320	13.9	3.58
			350	13.0	2.71
			380	9.5	1.52
			404	0.0	0.00
01-10-86	1400	2,727.40	68	0.0	0.00
			90	17.1	0.83
			120	17.9	2.35
			150	17.5	3.68
			180	16.1	4.32
			210	16.9	4.25
			240	16.2	4.06
			270	15.0	3.87
			300	13.9	3.51
			330	12.9	3.28
			360	11.4	1.98
			390	5.9	1.11
			405	0.0	0.00
01-10-86	1955	2,724.52	70	0.0	0.00
			90	13.1	2.90
			130	14.3	2.86
			170	12.2	2.34
			210	13.4	2.72
			250	12.8	2.60
			290	11.4	2.72
			330	10.0	2.02
			370	7.6	0.99
			398	0.0	0.00
01-10-86	2220	2,723.88	70	0.0	0.00
			90	12.3	0.43
			130	13.6	1.44
			170	12.0	2.51
			210	13.2	2.54
			250	11.9	1.98
			290	10.1	1.93
			330	9.0	1.56
			370	6.2	0.67
			392	0.0	0.00
01-11-86	1105	2,728.60	64	0.0	0.00
			90	17.3	1.53
			120	18.4	2.90
			130	18.2	3.99
			180	17.5	4.91

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-11-86	1105	(Continued)	200	17.9	4.37
			225	18.7	5.00
			250	17.0	4.86
			280	15.8	4.32
			310	15.0	4.21
			340	13.6	3.32
			370	11.8	1.89
			401	0.0	0.00
01-11-86	1322	2,727.61	68	0.0	0.00
			80	13.8	0.75
			110	17.6	2.04
			140	16.8	3.28
			170	16.3	4.32
			200	17.1	4.83
			230	17.3	4.42
			260	16.0	4.18
			290	14.6	3.97
			320	13.7	3.22
			350	12.4	2.50
			380	9.1	1.09
			405	0.0	0.00
01-11-86	2030	2,724.22	72	0.0	0.00
			85	13.4	0.24
			115	14.6	1.24
			145	13.9	2.27
			175	13.1	2.63
			205	13.9	2.78
			265	12.0	2.44
			-1	0.0	0.00
01-13-86	1310	2,727.40	405	0.0	0.00
			350	12.1	2.50
			320	13.2	3.21
			290	14.0	3.97
			260	15.6	3.82
			230	16.7	4.53
			200	16.0	4.50
			170	15.7	4.36
			140	16.7	3.40
			110	16.8	1.72
			66	0.0	0.00
01-13-86	1505	2,726.65	403	0.0	0.00
			350	11.7	2.10
			320	12.6	2.80

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-13-86	1505	(Continued)	290	13.6	3.30
			260	15.0	3.50
			230	16.0	3.82
			200	15.7	3.96
			170	14.8	4.06
			150	15.8	2.99
			120	16.8	1.96
			64	0.0	0.00
01-13-86	2030	2,724.32	396	0.0	0.00
			350	9.3	1.40
			320	10.0	1.70
			290	11.1	2.16
			260	12.4	2.15
			230	13.4	2.64
			200	13.2	2.66
			170	12.6	2.60
			140	13.4	1.88
			110	14.3	1.05
			67	0.0	0.00
01-14-86	1025	2,728.35	65	0.0	0.00
			100	17.8	2.08
			130	17.5	3.46
			160	17.5	4.36
			190	17.0	4.90
			220	17.4	4.92
			250	16.5	4.14
			280	14.9	4.47
			310	14.7	4.22
			340	13.3	3.12
			370	11.5	1.79
			404	0.0	0.00
01-14-86	1330	2,727.60	405	0.0	0.00
			350	12.7	2.50
			325	13.5	3.44
			300	14.3	3.92
			275	15.2	3.86
			250	16.2	3.93
			225	17.0	4.53
			200	16.4	4.61
			175	16.4	4.20
			150	17.3	3.72
			125	17.3	2.68
			100	17.4	1.28
			65	0.0	0.00

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-14-86	1620	2,726.20	403	0.0	0.00
			355	11.3	1.60
			330	12.0	2.83
			305	12.8	3.42
			280	13.6	3.24
			255	14.5	3.27
			230	15.3	3.60
			205	15.6	3.84
			180	14.9	3.50
			155	15.3	3.00
			130	16.2	2.10
			105	16.1	1.22
			80	12.2	0.33
			66	0.0	0.00
01-14-86	2110	2,724.10	396	0.0	0.00
			355	8.6	1.28
			330	9.7	1.75
			305	10.6	2.16
			280	11.3	2.20
			255	12.4	2.03
			230	13.4	2.60
			205	13.8	2.68
			180	12.6	2.48
			155	13.2	2.24
			130	13.9	1.49
			105	14.3	0.85
			80	10.0	0.14
			66	0.0	0.00
01-15-86	1035	2,728.28	408	0.0	0.00
			355	13.1	2.27
			330	13.9	3.40
			305	14.7	3.80
			280	15.7	4.50
			255	16.5	4.12
			230	17.2	4.92
			205	17.7	4.59
			180	17.0	4.78
			155	17.9	4.37
			130	18.2	3.28
			105	18.0	2.22
			62	0.0	0.00
01-15-86	1435	2,726.65	404	0.0	0.00
			370	9.8	1.68

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-15-86	1435	(Continued)	340	11.3	2.68
			310	12.3	3.36
			280	13.5	3.48
			250	14.5	3.90
			220	15.7	4.15
			190	15.0	3.96
			160	15.2	3.46
			130	16.1	2.38
			100	16.3	1.09
			66	0.0	0.00
01-15-86	2040	2,724.00	65	0.0	0.00
			100	13.9	0.58
			130	14.0	1.58
			160	13.6	2.47
			190	12.9	2.54
			220	13.4	2.42
			250	12.4	2.28
			280	11.3	2.08
			310	10.0	1.82
			340	9.1	1.43
			370	6.6	0.78
			395	0.0	0.00
01-16-86	1130	2,728.90	407	0.0	0.00
			350	13.8	3.06
			320	14.9	4.22
			290	15.9	4.64
			260	17.1	4.84
			230	18.5	5.30
			200	18.0	5.46
			170	17.6	5.30
			140	18.4	4.08
			110	18.8	2.22
			80	15.1	1.07
			67	0.0	0.00
01-16-86	1520	2,727.50	406	0.0	0.00
			355	12.2	2.30
			330	13.1	3.21
			305	13.9	3.74
			280	14.5	3.84
			255	15.8	3.84
			230	16.7	4.42
			205	16.7	4.32
			180	16.3	4.41
			155	16.8	3.82

Table 65.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Little Colorado River, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-16-86	1520	(Continued)	130	17.2	2.96
			104	17.5	1.50
			62	0.0	0.00
01-16-86	1725	2,727.10	406	0.0	0.00
			355	11.3	2.04
			330	12.6	3.00
			305	13.6	3.42
			280	14.1	3.33
			255	15.2	3.76
			230	16.2	4.22
			205	16.1	4.32
			180	15.7	3.96
			155	16.5	3.48
			130	16.9	2.68
			105	16.8	1.56
			64	0.0	0.00

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-11-85	1335	9.60	104	0.0	0.00
			110	2.9	0.39
			125	10.9	1.98
			140	17.0	2.33
			155	22.5	3.08
			170	22.4	3.36
			185	21.8	3.32
			200	20.5	3.34
			215	20.9	3.28
			230	20.8	3.36
			245	17.4	3.32
			260	18.9	3.35
			275	18.6	3.42
			290	18.8	3.24
			305	18.5	3.17
			320	18.6	3.07
			335	18.2	2.80
			350	18.5	3.17
			365	18.4	2.62
			380	19.0	2.26
			390	0.0	0.00
10-11-85	1820	8.32	390	0.0	0.00
			380	19.0	1.67
			365	18.3	2.54
			350	17.6	2.80
			335	17.6	2.65
			320	17.5	2.96
			305	18.0	2.94
			290	17.7	2.96
			275	17.6	3.14
			260	18.0	3.00
			245	18.4	3.10
			230	18.2	2.93
			215	18.5	3.17
			200	21.0	3.01
			185	21.8	3.06
			170	22.8	2.90
			155	20.5	2.84
			140	16.0	1.87
			125	9.2	1.36
			107	0.0	0.00
10-17-85	2240	7.00	392	0.0	0.00
			365	16.9	2.14
			340	16.2	2.40
			315	16.1	2.40

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-17-85	2240	(Continued)	290	16.5	2.68
			265	16.4	2.68
			240	16.7	2.65
			215	17.3	2.65
			190	18.2	2.68
			165	19.7	2.58
			140	14.0	1.76
			109	0.0	0.00
10-18-85	0800	8.30	393	0.0	0.00
			365	17.6	2.30
			340	17.1	2.74
			315	17.4	2.72
			290	17.7	2.77
			265	17.4	2.96
			240	18.2	3.10
			215	18.9	3.02
			190	19.9	3.07
			165	21.0	3.10
			140	16.6	2.12
			103	0.0	0.00
10-18-85	1715	8.22	115	0.0	0.00
			140	16.1	2.48
			165	21.2	3.02
			190	20.3	3.00
			215	19.0	3.07
			240	18.3	3.08
			265	17.9	3.39
			290	17.9	2.78
			315	17.5	2.82
			340	17.6	2.86
			365	18.0	2.48
			390	0.0	0.00
10-19-85	0550	8.42	393	0.0	0.00
			365	18.9	2.09
			340	17.1	2.80
			315	18.1	2.71
			290	20.3	2.77
			265	18.7	3.14
			240	18.8	3.00
			215	19.6	2.83
			190	20.4	3.06
			165	21.3	2.96
			140	16.2	2.40
			103	0.0	0.00

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-19-85	1115	9.90	101	0.0	0.00
			120	10.3	0.62
			140	17.9	2.62
			160	22.3	3.35
			180	22.4	3.25
			200	20.7	3.25
			220	20.0	3.55
			240	19.5	3.55
			260	19.4	3.55
			280	19.2	3.35
			300	19.3	3.25
			320	18.7	2.94
			340	18.6	3.07
			360	19.1	2.70
			380	19.5	1.83
			392	0.0	0.00
10-19-85	1470	9.74	102	0.0	0.00
			140	17.7	2.86
			165	22.5	3.30
			190	21.7	3.61
			215	20.0	3.50
			240	19.5	3.32
			265	18.9	3.46
			290	19.0	3.42
			315	18.9	3.06
			340	18.6	3.21
			365	19.1	2.65
			392	0.0	0.00
10-20-85	0525	5.28	393	0.0	0.00
			370	15.2	1.44
			345	14.4	1.80
			320	14.4	1.77
			295	14.7	1.96
			270	14.8	1.98
			245	15.2	2.20
			220	15.2	2.12
			195	16.2	2.04
			170	17.7	2.22
			145	13.9	1.64
			111	0.0	0.00
10-20-85	0910	5.86	391	0.0	0.00
			365	14.8	2.05
			340	14.8	1.96
			315	14.9	2.02

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-20-85	0910	(Continued)	290	15.0	2.17
			265	15.3	2.24
			240	15.7	2.32
			215	16.3	2.36
			190	17.6	2.22
			165	18.5	2.19
			140	12.5	1.64
			110	0.0	0.00
10-20-85	1100	6.90	393	0.0	0.00
			365	16.3	2.02
			340	15.6	2.18
			315	15.7	2.35
			290	15.9	2.59
			265	16.4	2.56
			240	16.6	2.64
			215	17.1	2.57
			190	18.7	2.66
			165	19.2	2.68
			140	15.4	1.84
			108	0.0	0.00
10-20-85	1405	8.29	105	0.0	0.00
			140	14.8	2.44
			165	20.2	3.17
			190	19.5	2.90
			215	18.4	2.75
			240	17.9	2.90
			265	17.4	2.93
			290	17.1	2.94
			315	17.4	2.65
			340	16.9	2.74
			365	17.7	2.40
			393	0.0	0.00
10-20-85	1640	8.50	393	0.0	0.00
			365	17.8	2.37
			340	17.2	2.56
			315	17.5	2.77
			290	17.6	3.00
			265	17.6	2.98
			240	18.4	3.07
			215	18.6	2.86
			190	19.7	2.89
			165	21.0	2.91
			140	15.5	2.46
			103	0.0	0.00

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-20-85	2230	7.35	393	0.0	0.00
			365	17.2	2.04
			340	16.6	2.52
			315	16.9	2.62
			290	16.6	2.55
			265	16.9	2.74
			240	17.2	2.87
			215	17.8	2.86
			190	18.8	2.50
			165	19.9	2.68
			140	14.4	2.10
			107	0.0	0.00
11-10-85	0925	10.95	100	0.0	0.00
			110	4.0	-0.47
			140	18.0	2.92
			170	22.4	3.68
			200	20.9	3.73
			230	19.8	3.71
			260	19.3	3.68
			290	19.2	3.44
			320	18.9	3.46
			350	18.6	3.28
			380	19.7	2.04
			389	0.0	0.00
11-10-85	2030	8.30	101	0.0	0.00
			110	4.1	0.48
			130	14.1	2.25
			150	20.5	2.80
			170	21.4	3.43
			190	21.0	3.16
			210	19.9	3.21
			230	18.9	3.36
			250	18.9	3.40
			270	19.5	3.22
			290	19.7	3.18
			310	18.7	3.04
			330	18.8	2.96
			350	18.8	2.96
			370	20.2	2.54
			394	0.0	0.00
11-11-85	0530	6.65	110	0.0	0.00
			125	10.6	1.20
			155	19.6	2.32
			185	18.3	2.47

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-11-85	0530	(Continued)	215	16.6	2.51
			245	16.4	2.56
			275	15.6	2.52
			305	15.9	2.42
			335	15.3	2.24
			365	16.1	1.99
			388	0.0	0.00
11-11-85	2015	7.80	110	0.0	0.00
			125	11.6	1.24
			150	20.1	2.34
			175	20.1	2.70
			200	18.8	2.80
			225	18.2	2.63
			250	17.4	2.77
			275	17.3	2.74
			300	17.3	2.60
			325	16.3	2.46
			350	16.5	2.56
			375	17.8	1.76
			392	0.0	0.00
11-11-85	2135	7.55	392	0.0	0.00
			375	17.8	1.84
			345	16.1	2.38
			315	16.6	2.40
			285	16.6	2.77
			255	16.4	2.83
			225	17.2	2.76
			195	17.8	2.42
			165	19.2	2.74
			135	12.5	2.02
			108	0.0	0.00
11-12-85	0952	9.30	104	0.0	0.00
			120	7.5	1.04
			145	17.8	2.50
			170	21.2	3.20
			195	19.8	3.16
			220	18.7	3.00
			245	18.8	3.04
			270	18.5	3.21
			295	18.5	2.94
			320	17.8	2.84
			345	17.8	2.90
			370	19.0	2.38
			390	0.0	0.00

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-12-85	1400	9.89	101	0.0	0.00
			110	3.6	0.50
			125	11.5	1.63
			140	17.8	2.52
			155	23.0	3.06
			170	22.5	3.50
			185	22.3	3.43
			200	20.7	3.50
			215	20.4	3.61
			230	20.1	3.43
			245	19.9	3.50
			260	19.5	3.42
			275	19.4	3.42
			290	19.4	3.26
			305	19.1	3.43
			320	19.0	3.25
			335	18.2	3.20
			350	18.5	2.74
			365	19.2	2.89
			380	19.8	2.24
			389	0.0	0.00
11-12-85	1535	9.83	389	0.0	0.00
			380	19.1	1.84
			355	19.4	2.90
			330	19.0	2.87
			305	19.2	3.24
			280	19.3	3.36
			255	19.2	3.61
			230	19.8	3.52
			205	20.2	3.28
			180	22.2	3.36
			155	22.6	3.15
			130	14.8	2.33
			105	0.0	0.00
11-12-85	1725	9.40	103	0.0	0.00
			120	10.0	1.20
			140	17.1	2.28
			160	21.7	3.36
			180	21.8	3.21
			200	20.1	3.24
			220	19.5	3.36
			240	19.2	3.21
			260	18.6	3.28
			270	18.5	3.12
			280	18.5	3.10

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-12-85	1725	(Continued)	300	18.2	2.92
			320	18.2	2.94
			340	18.6	2.62
			360	18.5	2.55
			380	19.0	1.67
			388	0.0	0.00
11-12-85	2200	8.00	107	0.0	0.00
			120	8.4	1.13
			140	16.1	2.06
			160	20.8	2.60
			180	20.5	2.87
			200	18.5	2.86
			220	18.0	2.90
			240	17.9	2.69
			260	17.4	2.80
			280	17.0	2.65
			300	17.1	2.70
			320	17.0	2.60
			340	17.0	2.30
			360	17.0	2.32
			380	17.5	1.59
			388	0.0	0.00
11-13-85	0310	7.57	395	0.0	0.00
			380	17.0	1.54
			360	16.8	2.27
			340	16.5	2.48
			320	16.5	2.54
			300	16.6	2.48
			280	16.3	2.65
			260	16.4	2.47
			240	16.8	2.78
			220	17.0	2.68
			200	17.5	2.68
			180	19.4	2.59
			160	19.8	2.54
			140	13.7	2.20
			120	5.3	0.78
			108	0.0	0.00
11-13-85	0645	9.36	395	0.0	0.00
			375	19.0	2.15
			345	17.9	2.80
			315	18.4	3.07
			285	18.4	3.13
			255	18.7	3.35

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-13-85	0645	(Continued)	225	19.0	3.00
			195	19.9	3.14
			165	21.8	3.18
			135	15.0	2.50
			102	0.0	0.00
11-13-85	1452	9.64	100	0.0	0.00
			110	4.0	0.40
			130	15.1	2.47
			150	21.9	2.89
			170	22.1	3.32
			190	21.2	3.42
			210	20.4	3.50
			230	19.4	3.21
			250	18.9	3.13
			270	19.0	3.32
			290	18.9	3.32
			310	19.1	2.94
			330	18.1	3.21
			350	18.4	2.84
			370	19.6	2.48
			388	0.0	0.00
11-13-85	1935	8.27	107	0.0	0.00
			120	7.7	0.98
			140	15.2	2.14
			160	20.6	2.94
			180	20.4	2.82
			200	18.3	2.96
			220	18.3	3.14
			240	17.7	2.90
			260	17.1	3.02
			280	18.8	2.86
			300	17.2	2.90
			320	17.1	2.56
			340	17.1	2.50
			360	17.0	2.38
			380	17.5	1.62
			391	0.0	0.00
11-17-85	2245	7.91	104	0.0	0.00
			135	15.0	2.20
			160	20.2	2.77
			185	19.5	2.60
			210	18.2	3.06
			235	17.3	2.84
			260	16.7	2.90

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-17-85	2245	(Continued)	285	16.8	2.57
			310	16.5	2.66
			335	16.2	2.54
			360	16.7	2.22
			390	0.0	0.00
11-19-85	1655	9.67	102	0.0	0.00
			135	16.3	2.59
			160	21.8	2.42
			185	21.2	2.98
			210	19.8	3.54
			235	19.2	3.46
			260	18.8	3.44
			285	18.4	3.44
			310	18.6	3.24
			335	17.8	2.88
			360	18.8	3.02
			392	0.0	0.00
11-19-85	1810	9.39	392	0.0	0.00
			360	18.7	2.68
			385	17.9	2.96
			310	18.6	1.94
			285	18.2	3.10
			260	18.5	3.35
			235	18.7	3.39
			210	19.9	2.99
			185	20.5	3.12
			160	21.3	3.16
			135	15.0	2.56
			105	0.0	0.00
11-19-85	2255	7.61	390	0.0	0.00
			360	17.2	2.38
			335	15.9	2.54
			310	16.3	2.64
			285	16.4	2.70
			260	16.7	2.87
			235	17.1	2.74
			210	17.7	2.99
			185	19.3	2.48
			160	19.8	2.50
			135	13.7	2.17
			108	0.0	0.00
11-20-85	0110	7.15	391	0.0	0.00
			360	16.1	2.33

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-20-85	0110	(Continued)	330	16.2	2.33
			300	16.4	2.45
			270	16.5	2.65
			240	16.7	2.59
			210	17.5	2.83
			180	19.2	2.50
			150	19.4	2.19
			120	6.5	0.23
			109	0.0	0.00
11-20-85	1800	9.35	102	0.0	0.00
			135	12.4	1.60
			160	21.8	3.22
			185	21.6	3.08
			210	20.5	3.46
			235	19.2	3.32
			260	18.7	3.28
			285	18.7	3.14
			310	18.1	2.91
			335	17.2	2.84
			360	18.2	2.84
			392	0.0	0.00
11-20-85	2115	8.30	103	0.0	0.00
			135	14.4	2.65
			160	20.8	3.01
			185	21.0	2.78
			210	18.8	3.00
			235	18.4	3.00
			260	17.8	3.06
			285	17.8	2.86
			310	18.7	2.74
			335	16.6	2.42
			360	17.3	2.59
			392	0.0	0.00
12-11-85	1655	10.43	100	0.0	0.00
			115	7.2	0.53
			140	17.8	3.04
			165	22.7	3.28
			190	22.5	3.45
			215	20.9	3.85
			240	20.3	3.63
			265	20.0	3.55
			290	19.8	3.70
			315	19.6	3.28
			340	19.5	3.14

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-11-85	1655	(Continued)	365	19.7	2.74
			390	0.0	0.00
12-11-85	2100	8.52	104	0.0	0.00
			120	7.8	1.06
			150	20.9	2.50
			180	20.8	2.96
			210	19.1	3.04
			240	18.5	3.02
			270	18.0	2.90
			300	18.0	2.88
			330	17.6	2.83
			360	17.3	2.49
			390	0.0	0.00
12-11-85	2315	7.46	107	0.0	0.00
			140	14.7	1.88
			170	20.5	2.60
			200	18.4	2.63
			230	17.5	2.89
			260	17.0	2.63
			290	16.9	2.61
			320	16.3	2.51
			350	16.4	2.35
			380	17.0	1.44
			387	0.0	0.00
12-12-85	1535	10.10	101	0.0	0.00
			115	6.2	0.97
			140	17.4	2.56
			165	22.3	3.58
			190	21.6	3.29
			215	20.5	4.02
			240	20.2	3.51
			265	19.2	3.78
			290	19.3	3.61
			315	19.0	3.32
			340	18.9	2.96
			365	19.2	2.84
			380	20.4	1.87
			388	0.0	0.00
12-12-85	1650	9.68	102	0.0	0.00
			115	6.2	1.01
			140	17.9	2.52
			165	22.3	3.58
			190	21.3	3.27

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-12-85	1650	(Continued)	215	19.7	3.48
			240	19.5	3.62
			265	18.9	3.39
			290	18.8	3.42
			315	18.5	3.24
			340	18.5	2.91
			365	19.0	2.65
			380	19.2	1.84
			389	0.0	0.00
12-12-85	2040	8.04	391	0.0	0.00
			380	18.2	1.62
			350	16.7	2.44
			320	16.3	2.74
			290	16.7	2.84
			260	16.8	2.94
			230	17.3	2.88
			200	18.2	2.74
			170	19.9	3.00
			140	14.8	2.08
			107	0.0	0.00
12-13-85	0140	6.14	110	0.0	0.00
			120	4.9	0.73
			140	13.9	1.40
			160	18.7	2.40
			180	18.5	2.14
			200	17.1	2.27
			220	16.2	2.52
			240	15.9	2.32
			260	15.4	2.42
			280	15.4	2.35
			300	15.5	2.22
			320	15.3	2.10
			340	15.0	2.06
			360	15.3	1.98
			380	15.6	1.25
			387	0.0	0.00
12-13-85	1518	11.12	98	0.0	0.00
			110	5.1	0.78
			140	19.7	3.18
			170	24.1	4.32
			200	22.4	3.94
			230	21.6	4.18
			260	21.6	4.08
			290	20.8	3.82

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-13-85	1518	(Continued)	320	20.1	3.72
			350	20.2	3.61
			380	21.3	2.34
			392	0.0	0.00
12-14-85	0135	7.19	111	0.0	0.00
			125	10.0	0.92
			140	15.5	1.63
			165	18.7	2.56
			185	18.7	2.37
			205	16.6	2.34
			225	16.5	2.62
			245	16.3	3.04
			265	15.8	2.86
			285	15.9	2.54
			305	15.8	2.54
			330	15.4	2.28
			355	16.0	2.12
			380	16.7	1.42
			388	0.0	0.00
12-14-85	1140	12.08	390	0.0	0.00
			380	21.5	2.45
			350	20.3	3.98
			320	20.6	4.13
			290	20.8	4.08
			260	21.4	4.22
			230	21.6	4.45
			200	22.2	4.41
			170	24.3	4.62
			140	19.6	3.20
			110	5.7	1.03
			99	0.0	0.00
12-14-85	2105	7.54	108	0.0	0.00
			125	12.0	1.16
			160	20.7	2.78
			195	18.6	2.94
			230	17.9	2.90
			265	17.1	2.83
			300	17.0	2.68
			335	16.4	2.38
			370	17.4	1.71
			386	0.0	0.00
12-14-85	2215	6.93	386	0.0	0.00
			370	17.2	1.75

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-14-85	2215	(Continued)	340	16.5	2.22
			310	16.4	2.45
			280	16.4	2.56
			250	16.8	2.68
			220	17.2	2.71
			190	18.5	2.62
			160	19.8	2.58
			130	11.7	1.50
			110	0.0	0.00
12-17-85	2020	8.44	105	0.0	0.00
			135	15.8	2.47
			160	21.4	3.10
			185	20.5	2.89
			210	18.9	2.88
			235	18.0	3.00
			260	17.8	2.93
			285	17.6	2.76
			310	17.0	2.70
			335	16.8	2.70
			360	17.2	2.38
			393	0.0	0.00
12-17-85	2205	7.38	393	0.0	0.00
			360	16.7	2.10
			335	16.1	2.35
			310	16.3	2.44
			285	16.7	2.62
			260	16.8	2.74
			235	17.4	2.71
			210	18.1	2.76
			185	19.8	2.70
			160	20.6	2.68
			135	14.1	2.27
			110	0.0	0.00
12-18-85	0120	5.66	391	0.0	0.00
			360	15.3	1.98
			340	14.2	2.10
			320	14.9	2.22
			300	15.2	2.12
			280	15.2	2.14
			260	15.3	2.34
			240	15.3	2.30
			220	15.7	2.36
			200	16.3	2.18
			180	17.6	2.27

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-18-85	0120	(Continued)	160	17.9	2.12
			140	12.2	1.58
			111	0.0	0.00
12-18-85	1600	10.00	101	0.0	0.00
			140	18.1	2.44
			165	22.9	3.70
			190	22.1	3.55
			215	20.9	3.70
			240	20.0	3.51
			265	19.7	3.62
			290	19.6	3.42
			315	19.4	3.06
			340	19.0	3.10
			365	19.3	2.72
			393	0.0	0.00
12-18-85	1715	9.60	99	0.0	0.00
			140	17.5	2.76
			165	22.0	3.46
			190	21.4	3.52
			215	19.8	3.51
			240	19.0	3.39
			265	18.8	3.50
			290	18.5	3.32
			315	18.4	3.12
			340	18.5	2.91
			365	18.6	2.87
			393	0.0	0.00
12-18-85	2025	8.00	393	0.0	0.00
			365	17.6	2.45
			340	16.9	2.59
			315	17.2	2.70
			290	17.3	2.99
			265	17.0	3.00
			240	17.2	3.10
			215	18.2	2.90
			190	19.2	2.74
			165	20.0	2.89
			140	15.0	2.30
			107	0.0	0.00
12-19-85	0340	4.45	112	0.0	0.00
			135	10.4	1.44
			160	17.3	1.92
			185	16.7	2.15

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-19-85	0340	(Continued)	210	15.2	2.08
			235	14.7	1.99
			260	13.9	1.97
			285	13.9	1.77
			310	13.2	1.77
			335	13.2	1.68
			360	13.5	1.54
			393	0.0	0.00
12-19-85	1710	8.88	392	0.0	0.00
			340	18.0	2.99
			320	18.3	3.00
			300	18.6	3.07
			280	18.5	3.40
			260	18.6	3.32
			240	18.7	3.28
			220	19.2	3.24
			200	19.7	3.25
			180	21.2	2.96
			160	21.3	2.96
			140	17.2	2.46
			105	0.0	0.00
12-19-85	2020	7.60	392	0.0	0.00
			360	17.4	2.35
			340	17.0	2.49
			320	17.2	2.64
			300	17.3	2.92
			280	17.3	2.76
			260	17.3	2.92
			240	17.4	2.90
			220	17.8	2.99
			200	18.6	2.86
			180	20.0	2.70
			160	20.4	2.68
			140	14.5	2.00
			107	0.0	0.00
12-19-85	2345	6.70	392	0.0	0.00
			340	15.9	2.34
			320	15.9	2.27
			300	16.1	2.40
			280	15.8	2.42
			260	16.1	2.62
			240	16.4	2.56
			220	16.8	2.56
			200	17.5	2.49

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-19-85	2345	(Continued)	180	19.0	2.59
			160	19.2	2.47
			110	0.0	0.00
12-20-85	1000	8.90	393	0.0	0.00
			365	18.1	2.49
			340	17.6	2.71
			315	18.3	2.76
			290	17.4	3.10
			265	17.3	3.12
			240	18.4	3.36
			215	18.6	3.24
			190	20.4	3.10
			165	21.4	3.06
			140	16.9	2.22
			105	0.0	0.00
12-20-85	1740	8.60	103	0.0	0.00
			135	14.5	2.34
			160	21.2	3.36
			185	20.4	3.36
			210	19.0	2.99
			235	18.1	3.20
			260	17.8	3.10
			285	17.8	3.00
			310	17.7	2.86
			335	17.4	2.77
			360	17.3	2.42
			393	0.0	0.00
12-20-85	2000	7.50	108	0.0	0.00
			135	15.8	2.03
			160	20.5	2.54
			185	19.9	2.89
			210	18.8	2.62
			235	17.7	2.86
			260	17.0	2.70
			285	16.6	2.80
			310	16.9	2.65
			335	16.3	2.67
			360	16.9	2.08
			393	0.0	0.00
12-20-85	2145	6.60	393	0.0	0.00
			360	16.2	2.27
			335	15.9	2.30
			310	15.9	2.48

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-20-85	2145	(Continued)	285	16.1	2.51
			260	16.2	2.54
			235	16.5	2.62
			210	16.8	2.49
			185	18.6	2.46
			160	19.3	2.52
			135	13.5	1.73
			109	0.0	0.00
01-15-86	1330	10.92	100	0.0	0.00
			105	3.6	0.48
			130	15.8	2.66
			155	24.3	3.56
			180	23.6	3.90
			205	21.9	3.98
			230	20.9	3.99
			255	20.4	3.74
			280	20.4	3.68
			305	20.3	3.70
			330	19.6	3.51
			355	19.8	3.24
			380	20.7	2.03
			393	0.0	0.00
01-15-86	1548	10.02	103	0.0	0.00
			115	7.2	0.83
			140	18.1	3.06
			165	22.8	3.58
			180	21.8	3.68
			215	21.5	3.62
			240	20.0	3.50
			265	19.6	3.58
			280	19.5	3.39
			315	18.8	3.37
			340	18.8	3.10
			365	19.5	2.80
			380	18.9	1.34
			391	0.0	0.00
01-15-86	2006	8.10	107	0.0	0.00
			115	4.2	0.45
			140	14.7	2.32
			165	19.9	3.06
			190	18.8	2.72
			215	17.7	2.56
			240	17.3	2.70
			265	16.8	2.86

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-15-86	2006	(Continued)	290	17.3	2.65
			315	16.7	2.47
			340	16.4	2.62
			365	16.8	2.04
			393	0.0	0.00
01-15-86	2226	6.81	110	0.0	0.00
			120	6.8	0.97
			145	16.3	1.48
			170	19.1	2.80
			195	16.8	2.56
			220	16.3	2.54
			245	15.9	2.62
			270	15.5	2.48
			295	15.5	2.36
			320	15.0	2.27
			345	14.4	2.10
			370	16.2	1.79
			393	0.0	0.00
01-16-86	1430	11.65	96	0.0	0.00
			125	14.8	2.80
			150	23.8	3.53
			175	24.0	3.99
			200	22.4	4.06
			225	21.8	4.36
			250	21.2	4.13
			275	20.9	4.22
			300	20.5	3.90
			325	20.4	3.46
			350	20.2	3.58
			375	21.3	2.44
			390	0.0	0.00
01-16-86	1742	10.35	102	0.0	0.00
			110	4.2	-0.38
			140	17.7	2.39
			170	23.1	3.42
			200	21.4	3.48
			230	20.0	3.51
			260	19.7	3.22
			290	19.7	3.08
			310	19.1	2.77
			340	19.3	2.90
			370	19.9	1.21
			389	0.0	0.00

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-16-86	2030	9.35	105	0.0	0.00
			125	10.4	0.50
			155	22.4	2.52
			185	21.3	2.93
			215	19.6	3.20
			245	19.1	3.04
			275	18.8	3.18
			305	18.3	2.90
			335	17.9	2.80
			365	18.5	2.08
			388	0.0	0.00
01-18-86	1600	11.93	393	0.0	0.00
			360	21.5	3.66
			340	21.3	4.04
			320	20.0	4.16
			300	21.5	4.22
			280	21.3	4.18
			260	21.4	4.32
			240	21.3	4.18
			220	22.0	4.18
			200	22.7	4.14
			180	24.3	4.08
			160	24.2	3.78
			99	0.0	0.00
01-18-86	1750	11.01	394	0.0	0.00
			340	20.3	3.36
			320	19.5	3.70
			300	20.5	3.80
			280	20.5	3.72
			260	20.5	3.63
			240	20.8	3.90
			220	21.2	3.78
			200	21.5	3.63
			180	23.5	3.85
			160	23.7	3.56
			101	0.0	0.00
01-18-86	2200	9.40	103	0.0	0.00
			160	21.9	3.32
			180	22.2	3.25
			200	20.3	3.50
			220	19.5	3.39
			240	19.3	3.28
			260	18.8	3.40
			280	18.8	3.14

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-18-86	2200	(Continued)	300	18.5	2.87
			320	18.3	3.12
			340	18.2	2.80
			360	18.5	2.66
			393	0.0	0.00
01-19-86	1430	12.12	95	0.0	0.00
			130	17.8	3.27
			155	25.3	3.86
			180	24.9	4.50
			205	22.8	4.36
			230	22.1	4.46
			255	21.8	4.08
			280	21.3	3.94
			305	21.1	3.83
			330	20.7	3.63
			355	21.4	3.72
			393	0.0	0.00
01-19-86	1745	10.90	100	0.0	0.00
			130	15.7	2.92
			155	24.0	3.63
			180	23.6	3.68
			205	21.5	3.98
			230	20.5	3.65
			255	19.7	3.72
			280	20.0	3.73
			305	19.4	3.72
			330	19.4	3.32
			355	19.8	3.21
			393	0.0	0.00
01-19-86	2000	9.95	105	0.0	0.00
			130	14.4	2.12
			155	22.7	3.32
			180	22.2	3.63
			205	20.5	3.54
			230	19.6	3.54
			255	18.9	3.50
			280	18.6	3.24
			305	18.8	3.14
			330	18.3	3.22
			355	18.6	2.90
			393	0.0	0.00
01-20-86	1650	10.65	101	0.0	0.00
			160	23.6	3.73

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-20-86	1650	(Continued)	190	22.6	3.63
			220	21.6	3.78
			250	20.6	3.68
			280	20.1	3.60
			310	19.5	3.54
			340	19.4	3.50
			393	0.0	0.00
01-20-86	2020	9.32	103	0.0	0.00
			160	21.8	3.00
			190	21.0	3.26
			220	19.5	3.28
			250	19.3	3.39
			280	18.5	3.14
			310	18.5	3.14
			340	18.0	2.89
			393	0.0	0.00
01-21-86	1620	9.95	393	0.0	0.00
			360	19.5	2.88
			340	19.0	3.22
			320	19.2	3.32
			300	19.5	3.29
			280	19.4	3.54
			260	19.5	3.61
			240	19.8	3.58
			220	20.2	3.42
			200	20.7	3.54
			180	22.3	3.32
			160	22.3	3.36
			103	0.0	0.00
01-21-86	1800	9.40	393	0.0	0.00
			360	19.0	2.82
			340	18.5	3.18
			320	18.7	3.15
			300	18.5	3.32
			280	18.8	3.35
			260	18.8	3.43
			240	19.3	3.36
			220	19.5	3.32
			200	20.0	3.32
			180	21.5	3.32
			160	21.7	3.35
			104	0.0	0.00
01-21-86	2035	8.45	393	0.0	0.00

Table 66.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River near Grand Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from right bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-21-86	2035	(Continued)	340	17.5	2.60
			320	18.0	2.80
			300	18.0	3.01
			280	18.0	3.10
			260	18.0	3.04
			240	18.0	3.07
			220	18.6	3.18
			200	19.0	3.02
			180	20.8	2.98
			160	21.0	3.02
			107	0.0	0.00

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-17-85	1710	1,740.66	118	0.0	-----
			140	10.8	-0.44
			155	14.0	-----
			170	15.0	2.68
			185	15.1	-----
			200	16.2	3.06
			215	16.1	-----
			230	16.5	3.11
			245	16.3	-----
			260	16.1	3.26
			275	16.5	-----
			290	16.5	3.06
			305	17.5	-----
			320	17.6	1.57
			335	17.1	-----
			350	12.5	0.37
			382	0.0	-----
10-18-85	0640	1,744.21	108	0.0	-----
			120	4.9	-0.57
			140	15.6	1.07
			160	17.8	2.54
			180	18.8	3.87
			200	19.4	3.58
			220	19.6	4.12
			240	19.7	4.12
			260	20.2	3.79
			280	20.4	4.10
			300	20.7	3.64
			320	20.7	2.76
			340	20.5	1.01
			360	10.4	-0.52
			380	4.4	-0.18
			389	0.0	-----
10-18-85	1435	1,741.82	115	0.0	-----
			125	5.1	-0.48
			140	14.4	0.52
			155	15.2	1.72
			170	16.2	3.24
			185	16.8	3.17
			200	17.4	3.29
			215	17.9	3.77
			230	17.8	3.68
			245	17.5	3.28
			260	17.3	3.27
			275	17.8	3.54

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-18-85	1435	(Continued)	290	18.0	3.16
			305	18.9	2.72
			320	19.0	2.82
			335	18.2	0.80
			350	13.8	0.27
			365	5.2	-0.76
			382	0.0	-----
10-19-85	1120	1,742.67	113	0.0	-----
			125	6.2	-0.29
			140	13.5	0.71
			155	16.1	1.89
			170	17.0	3.39
			185	17.8	3.39
			200	18.3	3.75
			215	18.7	3.66
			230	18.2	3.84
			245	18.6	4.09
			260	18.4	3.79
			275	18.6	3.55
			290	18.7	3.40
			305	19.7	3.17
			320	19.7	1.96
			335	19.0	1.56
			350	14.7	0.52
			365	6.3	-0.45
			384	0.0	-----
10-19-85	2045	1,744.69	111	0.0	-----
			125	3.4	-----
			145	14.4	1.36
			165	18.4	3.75
			185	19.2	4.11
			205	20.1	4.64
			225	20.2	4.24
			245	20.2	4.25
			265	20.3	4.29
			285	20.8	4.06
			305	21.7	3.16
			325	22.2	2.05
			345	16.7	0.64
			365	8.9	-----
			388	0.0	-----
10-20-85	0125	1,745.49	106	0.0	-----
			115	4.0	-0.37
			130	10.8	0.50

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-20-85	0125	(Continued)	145	17.8	1.79
			160	18.8	3.25
			175	19.4	4.42
			190	20.2	4.12
			205	20.9	4.59
			220	20.9	4.51
			235	20.9	4.57
			250	21.3	4.81
			265	21.1	4.65
			280	21.4	4.70
			295	21.8	3.79
			310	22.4	3.10
			325	22.4	2.22
			340	21.4	1.33
			355	14.4	-0.56
			370	6.9	-0.97
			385	3.1	-0.70
			389	0.0	-----
10-23-85	2015	1,741.41	381	0.0	-----
			350	12.8	0.33
			330	18.7	0.69
			310	18.3	2.62
			290	17.3	3.13
			270	17.1	3.11
			250	17.1	3.60
			230	17.2	4.02
			210	17.1	3.84
			190	16.2	3.43
			170	16.0	3.10
			116	0.0	-----
10-24-85	0705	1,743.96	387	0.0	-----
			350	15.9	0.40
			325	21.1	2.02
			300	20.7	3.68
			275	19.9	4.24
			250	19.7	4.03
			225	19.8	3.99
			200	18.9	3.48
			175	17.7	3.98
			150	16.5	1.80
			125	6.0	0.76
			109	0.0	-----
10-24-85	0940	1,743.02	111	0.0	-----
			135	12.8	0.35

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-24-85	0940	(Continued)	160	16.3	2.39
			185	17.4	3.50
			210	18.2	3.88
			235	18.4	3.87
			260	18.4	3.64
			285	19.0	2.40
			310	20.3	2.64
			335	19.8	0.92
			360	9.6	-0.43
			385	0.0	-----
10-24-85	1405	1,741.34	380	0.0	-----
			350	13.5	0.38
			330	19.1	1.03
			310	18.8	2.72
			290	17.4	2.96
			270	17.2	3.16
			250	17.3	3.54
			230	17.1	3.51
			210	17.1	3.32
			190	16.3	3.12
			170	15.3	3.14
			150	14.2	1.24
			130	7.1	0.34
			115	0.0	-----
10-24-85	2235	1,741.94	381	0.0	-----
			350	13.1	0.17
			330	18.4	1.15
			310	18.4	2.35
			290	19.2	3.40
			270	18.1	3.36
			250	18.5	4.06
			230	17.8	4.18
			210	18.3	4.11
			190	18.1	3.64
			170	17.7	3.36
			109	0.0	-----
10-25-85	0352	1,744.94	388	0.0	-----
			350	16.9	0.45
			325	22.4	2.08
			300	21.8	3.26
			275	20.6	4.42
			250	21.4	4.58
			225	20.7	4.48
			200	19.9	4.23

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-25-85	0352	(Continued)	175	19.0	4.18
			150	18.2	1.66
			125	6.9	0.65
			105	0.0	-----
10-25-85	0622	1,744.36	386	0.0	-----
			350	16.2	0.41
			325	21.6	2.14
			300	21.4	3.86
			275	20.4	4.12
			250	20.1	4.42
			225	20.1	4.56
			200	19.6	4.21
			175	18.6	4.31
			150	16.8	1.89
			125	6.5	0.54
			107	0.0	-----
10-25-85	0940	1,743.38	386	0.0	-----
			360	11.0	0.49
			340	19.2	0.63
			320	20.3	2.36
			300	20.2	3.42
			280	19.7	3.90
			260	19.0	3.80
			240	19.1	4.62
			220	18.9	4.27
			200	18.6	3.96
			180	17.2	3.72
			160	16.9	2.96
			140	15.5	1.10
			111	0.0	-----
10-25-85	1115	1,742.78	385	0.0	-----
			360	9.0	-0.41
			340	20.2	0.82
			320	19.6	2.33
			300	19.7	3.02
			280	18.8	3.58
			260	18.5	3.82
			240	18.5	4.13
			220	18.5	3.77
			200	18.2	3.80
			180	17.4	3.62
			160	16.6	2.65
			140	15.2	0.92
			110	0.0	-----

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-25-85	1545	1,741.54	386	0.0	-----
			365	5.9	0.41
			340	17.8	0.68
			315	18.9	2.28
			290	17.8	3.27
			265	17.0	3.22
			240	17.2	3.68
			215	17.1	3.58
			190	16.4	3.15
			165	15.2	2.17
			140	12.5	0.34
			114	0.0	-----
10-25-85	1830	1,741.81	382	0.0	-----
			350	13.2	0.49
			330	19.0	1.26
			310	18.8	2.38
			290	18.0	3.50
			270	17.5	3.41
			250	17.5	3.96
			230	17.3	3.56
			210	17.5	3.74
			190	17.0	3.42
			170	16.0	3.40
			115	0.0	-----
10-25-85	2315	1,745.48	389	0.0	-----
			350	17.3	0.77
			330	23.2	1.76
			310	22.8	3.18
			290	23.0	4.50
			270	21.8	4.73
			250	21.5	5.08
			230	21.8	5.10
			210	21.7	5.16
			190	21.0	4.48
			170	20.1	4.26
			108	0.0	-----
10-26-85	0510	1,745.04	388	0.0	-----
			350	7.5	0.36
			325	22.3	2.50
			300	22.0	3.48
			275	21.6	4.40
			250	20.9	4.06
			225	20.7	4.80
			200	20.1	4.36

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-26-85	0510	(Continued)	175	19.1	4.31
			150	17.7	2.04
			125	7.7	0.38
			107	0.0	-----
10-26-85	0615	1,744.67	388	0.0	-----
			350	17.1	0.76
			325	22.0	1.74
			300	21.9	3.61
			275	21.0	4.42
			250	20.2	4.54
			225	20.5	4.50
			200	19.7	4.06
			175	19.1	4.22
			150	17.4	1.60
			125	7.6	0.37
			108	0.0	-----
10-26-85	1120	1,743.10	387	0.0	-----
			360	9.3	0.42
			340	18.6	0.88
			320	20.1	2.24
			300	20.0	3.29
			280	19.3	3.84
			260	18.7	4.02
			240	18.8	4.11
			220	18.6	3.96
			200	18.3	4.11
			180	17.3	3.58
			160	16.7	2.49
			140	15.0	0.71
			111	0.0	-----
10-26-85	2030	1,742.80	111	0.0	-----
			170	17.4	3.48
			190	18.0	4.20
			210	19.1	4.16
			230	19.0	4.37
			250	19.6	4.28
			270	19.8	3.85
			290	20.8	4.32
			310	21.5	2.93
			330	22.2	1.72
			350	16.6	0.40
			385	0.0	-----
10-26-85	2205	1,744.80	385	0.0	-----

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-26-85	2205	(Continued)	350	16.5	0.52
			330	22.3	1.61
			310	22.1	2.98
			290	20.6	4.31
			270	20.4	4.68
			250	21.4	4.56
			230	21.2	5.00
			210	20.8	4.89
			190	20.6	4.44
			170	19.4	4.31
			109	0.0	-----
11-16-85	1020	1,743.74	387	0.0	-----
			380	3.7	0.24
			360	10.2	0.27
			340	19.4	0.89
			320	20.3	2.38
			300	20.1	3.35
			280	19.7	3.94
			260	19.8	4.29
			240	19.3	4.28
			220	18.9	4.23
			200	18.9	3.64
			180	18.2	4.08
			160	17.0	3.36
			140	13.7	0.59
			120	3.8	0.26
			110	0.0	-----
11-16-85	1500	1,742.81	113	0.0	-----
			125	5.6	0.27
			145	14.2	0.99
			165	16.9	2.65
			185	17.6	3.66
			205	18.4	3.72
			225	18.5	3.80
			245	18.8	3.75
			265	18.5	3.56
			285	19.3	3.56
			305	20.0	3.12
			325	20.1	1.07
			345	15.0	0.52
			365	5.2	0.67
			385	0.0	-----
11-17-85	0515	1,746.26	105	0.0	-----
			125	9.4	-0.74

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-17-85	0515	(Continued)	155	19.1	3.40
			185	21.3	4.27
			215	21.9	4.58
			245	22.2	5.00
			275	22.0	4.70
			305	23.4	3.52
			335	23.4	1.58
			375	9.5	-0.32
			389	0.0	-----
11-17-85	0615	1,745.92	389	0.0	-----
			370	7.6	-1.43
			340	21.4	1.38
			310	23.1	3.24
			280	22.2	4.83
			250	21.9	5.00
			220	21.3	5.00
			190	20.9	4.32
			160	19.5	3.36
			130	11.5	0.40
			106	0.0	-----
11-17-85	0950	1,744.56	110	0.0	-----
			125	7.8	-0.50
			155	18.2	2.28
			185	19.2	4.27
			215	20.6	4.44
			245	20.1	4.68
			275	20.5	4.28
			305	21.6	3.28
			335	21.9	1.20
			365	7.8	-0.56
			388	0.0	-----
11-17-85	1430	1,742.81	113	0.0	-----
			130	8.3	0.27
			150	15.2	1.44
			170	16.4	3.10
			190	17.6	3.50
			210	17.3	3.63
			230	18.6	3.84
			250	18.5	4.04
			270	18.3	3.66
			290	18.8	3.07
			310	20.1	2.21
			330	19.6	1.24
			350	14.3	0.36

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-17-85	1430	(Continued)	370	4.7	0.18
			385	0.0	-----
11-17-85	2115	1,742.77	112	0.0	-----
			125	12.3	0.38
			155	16.2	1.86
			185	18.2	3.78
			215	18.3	3.96
			245	18.6	3.87
			275	19.0	3.74
			305	20.0	2.84
			335	21.8	0.91
			365	6.6	0.56
			384	0.0	-----
11-18-85	0730	1,744.71	109	0.0	-----
			120	5.6	-0.52
			140	17.0	0.81
			160	18.5	3.07
			180	19.5	4.26
			200	20.2	4.56
			220	20.8	4.52
			240	20.5	4.72
			260	20.7	4.40
			280	21.0	4.36
			300	21.7	3.73
			320	21.8	3.00
			340	22.5	1.22
			360	11.0	-0.76
			380	4.8	-0.39
			387	0.0	-----
11-18-85	1005	1,744.02	110	0.0	-----
			130	9.8	0.45
			160	17.8	2.80
			190	19.0	3.98
			220	19.8	4.32
			250	19.8	3.87
			280	20.3	4.16
			310	21.2	3.12
			340	20.1	1.26
			370	5.6	0.99
			388	0.0	-----
11-18-85	1340	1,742.93	111	0.0	-----
			125	5.3	0.48
			150	15.4	1.61

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-18-85	1340	(Continued)	175	16.9	3.54
			200	18.0	3.39
			225	18.2	3.97
			250	18.8	3.83
			275	18.5	3.66
			300	19.6	3.06
			325	20.1	1.88
			350	14.5	0.52
			375	3.2	0.55
			386	0.0	-----
11-18-85	2110	1,742.79	112	0.0	-----
			130	8.4	0.49
			160	16.2	2.64
			190	17.2	3.77
			220	18.3	3.71
			250	18.7	3.72
			280	18.9	3.72
			310	20.1	2.66
			340	18.4	1.10
			370	4.5	0.50
			386	0.0	-----
11-19-85	0245	1,743.89	111	0.0	-----
			125	6.7	0.46
			160	17.3	2.93
			195	19.1	3.76
			230	19.7	3.99
			265	19.7	4.26
			300	20.9	3.62
			335	21.7	1.19
			370	6.5	0.91
			386	0.0	-----
11-19-85	0736	1,743.95	110	0.0	-----
			120	5.2	0.23
			140	16.0	1.27
			160	17.5	2.86
			180	18.3	3.72
			200	19.2	3.93
			220	19.6	4.13
			240	19.8	4.46
			260	19.3	3.92
			280	20.7	3.75
			300	20.7	3.56
			320	20.8	2.78
			340	21.8	0.70

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-19-85	0736	(Continued)	360	10.4	0.37
			387	0.0	-----
11-19-85	1100	1,743.00	388	0.0	-----
			360	5.0	0.86
			350	16.5	0.50
			330	20.9	1.52
			310	20.5	2.78
			290	19.4	3.69
			270	18.6	3.89
			250	18.7	4.09
			230	18.5	4.18
			210	18.4	3.97
			190	17.5	3.53
			170	17.2	3.42
			150	15.5	1.62
			130	8.5	0.32
			113	0.0	-----
11-19-85	1345	1,742.26	116	0.0	-----
			130	7.8	0.18
			160	16.2	2.32
			190	16.8	3.50
			220	18.0	3.83
			250	18.1	3.28
			280	18.4	3.48
			310	19.6	2.96
			340	17.6	0.84
			370	4.1	0.39
			385	0.0	-----
11-19-85	1550	1,742.07	118	0.0	-----
			130	8.0	0.21
			150	14.8	1.54
			170	16.3	3.14
			190	17.0	3.21
			210	17.6	3.52
			230	17.9	3.74
			250	17.6	3.42
			270	18.0	3.36
			290	18.4	3.24
			310	19.2	2.50
			330	19.5	1.46
			350	14.1	0.52
			370	4.3	0.62
			383	0.0	-----

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-19-85	2205	1,744.93	388	0.0	-----
			380	4.8	-0.52
			360	11.0	0.67
			340	23.4	1.03
			320	21.8	2.92
			300	22.0	3.72
			280	21.4	4.47
			260	20.8	4.52
			240	21.0	4.34
			210	20.5	4.06
			200	20.4	4.29
			180	19.5	4.36
			160	18.7	3.21
			140	17.6	1.12
			120	5.8	-0.23
			108	0.0	-----
11-23-85	1350	1,742.72	385	0.0	-----
			350	14.4	-0.59
			330	20.5	0.98
			310	20.0	2.48
			290	18.9	3.25
			270	18.5	4.08
			250	18.6	4.10
			230	18.5	4.04
			210	18.2	3.99
			190	17.5	3.75
			170	16.5	3.22
			115	0.0	-----
11-24-85	1055	1,743.14	385	0.0	-----
			350	14.9	0.60
			330	21.0	1.68
			310	20.4	2.49
			290	19.6	3.58
			270	18.9	4.11
			250	18.7	4.14
			230	18.8	3.75
			210	18.5	4.22
			190	17.8	3.70
			170	16.9	3.40
			112	0.0	-----
11-24-85	1400	1,742.11	386	0.0	-----
			340	20.0	0.91
			320	19.2	1.92
			300	18.8	3.10

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-24-85	1400	(Continued)	280	18.4	3.51
			260	17.7	3.74
			240	17.4	3.51
			220	17.8	3.75
			200	17.1	3.50
			180	16.3	3.48
			160	15.3	2.38
			113	0.0	-----
11-25-85	0925	1,744.17	386	0.0	-----
			340	19.9	0.60
			320	21.5	2.64
			300	21.2	3.32
			280	20.4	4.18
			260	19.6	4.56
			240	20.0	4.72
			220	19.8	4.56
			200	19.3	4.41
			180	18.7	3.82
			160	17.5	2.84
			111	0.0	-----
11-25-85	1105	1,743.64	386	0.0	-----
			340	20.7	0.99
			320	20.9	2.18
			300	20.5	3.30
			280	20.0	4.10
			260	18.9	4.22
			240	19.5	4.28
			220	19.3	4.14
			200	18.8	4.22
			180	18.2	3.83
			160	16.9	2.56
			113	0.0	-----
11-25-85	1325	1,742.88	386	0.0	-----
			340	18.1	0.63
			320	19.9	1.96
			300	19.5	3.10
			280	18.6	3.92
			260	18.2	4.14
			240	18.2	4.18
			220	18.3	4.15
			200	17.8	3.82
			180	16.9	3.62
			160	16.0	2.26
			116	0.0	-----

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-26-85	0355	1,741.63	117	0.0	-----
			150	14.5	1.22
			170	15.6	2.80
			190	16.3	3.24
			210	16.9	3.38
			230	17.0	3.90
			250	17.4	3.64
			270	17.3	3.60
			290	17.5	3.70
			310	18.8	2.51
			330	19.2	1.19
			350	13.4	-0.35
			383	0.0	-----
11-26-85	1110	1,742.50	386	0.0	-----
			340	17.9	0.83
			320	19.7	1.80
			300	19.7	3.32
			280	18.7	3.90
			260	18.0	3.69
			240	18.2	4.04
			220	18.0	3.84
			200	17.7	3.50
			180	16.3	3.84
			160	15.8	2.36
			115	0.0	-----
11-26-85	1435	1,742.08	385	0.0	-----
			340	17.9	0.40
			320	18.3	1.78
			300	18.1	3.20
			280	17.4	3.42
			260	16.9	3.55
			240	17.2	3.56
			220	16.8	3.53
			200	16.7	3.24
			180	15.4	3.13
			160	14.7	2.22
			115	0.0	-----
12-18-85	1135	1,743.05	115	0.0	-----
			125	6.3	-0.38
			150	16.6	1.64
			175	17.7	3.78
			200	17.8	3.84
			225	19.0	4.18
			250	19.1	3.66

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-18-85	1135	(Continued)	275	18.9	3.72
			300	20.0	3.24
			325	20.3	1.74
			350	14.2	0.23
			375	3.4	-0.26
			385	0.0	-----
12-18-85	1315	1,742.31	106	0.0	-----
			120	7.2	-0.31
			150	15.1	1.56
			180	16.7	3.54
			210	18.1	3.88
			240	18.4	3.44
			270	18.0	3.75
			300	19.2	3.44
			330	19.8	1.53
			360	8.1	-0.30
			385	0.0	-----
12-19-85	0537	1,745.44	107	0.0	-----
			120	6.6	-0.57
			145	18.8	2.65
			170	19.9	4.42
			195	20.6	4.46
			220	21.2	5.04
			245	21.3	4.84
			270	21.4	4.79
			295	22.5	3.98
			320	22.6	2.24
			345	17.5	1.41
			370	7.4	-0.32
			389	0.0	-----
12-19-85	0715	1,744.77	109	0.0	-----
			120	5.2	0.38
			145	16.8	1.54
			170	19.6	3.63
			195	19.5	4.25
			220	19.7	4.60
			245	19.8	4.47
			270	20.1	4.42
			295	21.2	4.06
			320	21.3	2.49
			345	17.3	1.04
			370	6.3	0.75
			387	0.0	-----

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-19-85	1005	1,743.55	110	0.0	-----
			125	5.7	0.33
			150	16.2	1.56
			175	17.8	3.82
			200	18.6	3.68
			225	19.2	4.02
			250	19.3	4.13
			275	19.3	3.75
			300	20.0	3.31
			325	20.7	1.82
			350	13.3	0.34
			388	0.0	-----
12-19-85	1110	1,743.09	388	0.0	-----
			370	4.8	0.55
			345	15.0	0.97
			320	20.2	1.98
			295	20.0	3.58
			270	19.2	3.76
			245	18.8	3.97
			220	18.5	3.72
			195	18.2	3.68
			170	16.6	3.46
			145	15.2	0.93
			120	3.6	0.36
			116	0.0	-----
12-19-85	1338	1,741.95	117	0.0	-----
			130	7.6	-0.40
			155	15.3	1.86
			180	16.6	3.43
			205	17.5	3.64
			230	17.8	3.56
			255	17.9	3.40
			280	17.6	3.18
			305	19.1	2.68
			330	19.5	1.48
			355	11.6	-0.33
			384	0.0	-----
12-19-85	1502	1,741.38	384	0.0	-----
			370	4.1	-0.28
			345	13.1	0.63
			320	18.3	1.94
			295	18.5	2.82
			270	16.3	3.33
			245	16.8	3.60

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-19-85	1502	(Continued)	220	16.9	3.46
			195	16.4	3.15
			170	15.3	3.04
			145	12.9	1.03
			119	0.0	-----
12-19-85	1620	1,740.85	381	0.0	-----
			365	4.3	-0.48
			340	16.2	0.56
			315	17.7	2.30
			290	17.1	3.00
			265	16.5	3.15
			240	16.4	3.40
			215	16.3	3.32
			190	16.3	3.08
			165	14.9	2.17
			140	10.9	-0.46
			120	0.0	-----
12-19-85	1800	1,740.27	120	0.0	-----
			130	6.1	-0.29
			160	14.2	1.76
			190	15.4	3.06
			220	15.8	3.28
			250	15.8	3.36
			280	16.2	3.14
			310	17.5	2.10
			340	15.5	0.56
			370	2.7	-0.48
			377	0.0	-----
12-20-85	0520	1,744.80	388	0.0	-----
			370	4.6	-0.66
			345	17.0	0.81
			320	21.9	2.94
			295	21.6	4.18
			270	20.7	4.20
			245	20.5	4.74
			220	20.2	4.65
			195	19.7	4.21
			170	18.8	4.02
			145	17.2	1.11
			120	5.0	-0.53
			108	0.0	-----
12-20-85	1130	1,742.77	386	0.0	-----
			370	4.7	0.45

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-20-85	1130	(Continued)	340	17.2	1.10
			310	19.5	2.72
			280	18.6	3.74
			250	18.4	3.68
			220	18.0	3.70
			190	17.4	3.78
			160	16.2	2.65
			130	8.4	0.32
			115	0.0	-----
12-20-85	1335	1,742.33	116	0.0	-----
			125	6.0	0.45
			145	13.5	1.05
			165	16.2	2.74
			185	17.0	3.44
			205	17.9	3.72
			225	18.1	3.60
			245	17.7	3.66
			265	17.6	3.68
			285	18.4	3.36
			305	19.6	2.51
			325	19.7	1.40
			345	13.8	0.76
			365	5.6	0.56
			385	0.0	-----
12-20-85	1513	1,742.59	117	0.0	-----
			125	5.6	0.36
			150	15.6	1.46
			175	17.2	3.46
			200	17.6	3.72
			225	18.0	3.86
			250	17.9	4.06
			275	18.3	3.58
			300	19.4	3.10
			325	19.9	1.80
			350	14.4	0.42
			380	3.2	0.56
			386	0.0	-----
12-21-85	0525	1,744.61	109	0.0	-----
			125	8.0	-0.41
			150	17.8	1.74
			175	19.0	4.01
			200	20.0	4.38
			225	20.5	4.32
			250	20.7	4.48

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-21-85	0525	(Continued)	275	20.7	4.14
			300	21.5	3.78
			325	22.2	2.15
			350	16.0	0.59
			375	5.4	-0.86
			387	0.0	-----
12-21-85	0718	1,744.09	110	0.0	-----
			125	7.1	-0.29
			150	17.0	1.87
			175	19.1	3.94
			200	19.4	3.94
			225	19.6	4.77
			250	19.9	4.40
			275	20.8	3.96
			300	21.0	3.53
			325	21.4	2.14
			350	15.2	0.42
			375	4.3	-0.72
			388	0.0	-----
12-21-85	0942	1,743.15	115	0.0	-----
			125	6.4	-0.56
			150	16.4	1.84
			175	18.0	3.73
			200	18.6	3.80
			225	18.8	4.04
			250	18.6	4.22
			275	19.3	3.64
			300	20.0	3.23
			325	20.3	1.73
			350	15.1	0.34
			375	3.5	0.38
			388	0.0	-----
12-21-85	1108	1,742.63	388	0.0	-----
			370	4.4	-0.78
			345	14.7	0.59
			320	20.2	2.08
			295	19.2	3.54
			270	18.6	3.74
			245	18.1	3.72
			220	17.7	4.12
			195	17.5	3.72
			170	16.8	3.58
			145	15.1	1.16
			118	0.0	-----

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-21-85	1247	1,741.97	117	0.0	-----
			130	7.3	0.39
			160	15.2	2.08
			190	16.7	3.50
			220	17.0	3.82
			250	17.6	3.56
			280	17.8	3.32
			310	18.7	3.06
			340	16.9	0.87
			370	3.8	-0.38
			382	0.0	-----
12-21-85	1447	1,741.21	119	0.0	-----
			130	6.4	-0.31
			160	14.6	2.26
			190	15.7	2.78
			220	16.2	3.36
			250	16.3	3.46
			280	17.1	3.11
			310	18.2	2.60
			340	16.4	0.48
			370	3.2	-0.21
			384	0.0	-----
12-24-85	1530	1,735.55	363	0.0	-----
			330	13.1	0.15
			310	12.8	1.29
			290	11.9	1.86
			270	11.1	2.02
			250	11.8	2.01
			230	11.1	2.00
			210	11.1	2.24
			190	10.7	1.89
			170	10.0	1.34
			129	0.0	-----
12-24-85	2100	1,734.95	361	0.0	-----
			330	12.5	0.34
			310	12.2	0.97
			290	10.7	1.77
			270	10.5	1.85
			250	10.5	1.73
			230	10.0	1.98
			210	10.1	1.91
			190	9.6	1.79
			170	9.0	1.34
			129	0.0	-----

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-25-85	0620	1,744.33	110	0.0	-----
			140	16.1	0.95
			165	17.8	3.42
			190	19.3	4.40
			215	19.5	4.84
			240	19.8	4.36
			265	19.4	4.42
			290	20.3	3.86
			315	21.0	2.69
			340	21.2	1.15
			365	7.2	-0.50
			389	0.0	-----
12-25-85	1300	1,742.09	385	0.0	-----
			350	13.7	0.53
			330	20.0	1.57
			310	19.5	2.77
			290	18.5	3.39
			270	18.0	3.53
			250	17.8	3.61
			230	17.7	3.58
			210	17.5	3.64
			190	16.7	3.08
			170	16.0	3.13
			115	0.0	-----
12-25-85	1940	1,739.71	378	0.0	-----
			350	11.3	0.15
			330	17.4	0.82
			310	17.0	1.92
			290	15.9	2.78
			270	15.5	2.78
			250	15.3	3.18
			230	15.3	3.18
			210	14.8	3.21
			190	14.5	2.74
			170	13.6	2.29
			120	0.0	-----
12-26-85	0620	1,744.55	389	0.0	-----
			350	16.6	0.48
			330	22.2	1.71
			310	21.7	2.68
			290	20.6	3.94
			270	20.5	4.61
			250	20.1	4.56
			230	20.3	3.99

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-26-85	0620	(Continued)	210	19.7	4.25
			190	19.1	3.90
			170	19.0	3.39
			150	16.9	1.84
			108	0.0	-----
12-26-85	0945	1,743.10	388	0.0	-----
			350	14.8	0.20
			330	20.8	1.44
			310	20.5	2.42
			290	19.4	3.68
			270	18.6	3.87
			250	18.6	2.86
			230	18.8	3.80
			210	18.4	3.84
			190	17.5	3.47
			170	16.8	3.36
			150	15.6	1.27
			112	0.0	-----
12-26-85	1410	1,741.33	115	0.0	-----
			135	10.6	0.35
			160	15.3	1.86
			185	16.2	3.26
			210	16.7	3.39
			235	17.1	3.40
			260	16.9	3.20
			285	17.4	3.03
			310	18.4	2.20
			335	19.4	1.13
			360	7.2	-0.67
			383	0.0	-----
12-26-85	1615	1,740.57	119	0.0	-----
			150	14.0	1.06
			170	14.9	2.68
			190	15.8	3.09
			210	16.1	3.32
			230	16.2	2.48
			250	16.3	3.27
			270	16.2	2.96
			290	16.5	3.02
			310	17.4	2.24
			330	18.1	0.77
			350	12.3	0.35
			380	0.0	-----

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-27-85	0120	1,737.95	371	0.0	-----
			340	13.8	-0.20
			320	15.2	1.06
			300	15.0	1.88
			280	13.8	2.52
			260	13.7	2.60
			240	13.4	2.76
			220	13.3	2.74
			200	13.2	2.64
			180	12.2	2.40
			160	11.6	1.21
			123	0.0	-----
12-27-85	0350	1,737.30	368	0.0	-----
			340	13.2	-0.15
			320	14.7	0.76
			300	14.5	1.73
			280	13.3	2.38
			260	13.3	2.48
			240	13.0	2.56
			220	12.8	2.42
			200	12.8	2.44
			180	11.7	2.08
			160	11.0	1.28
			125	0.0	-----
12-27-85	0940	1,736.32	364	0.0	-----
			340	12.0	0.25
			320	13.7	0.86
			300	13.4	1.62
			280	12.3	2.17
			260	12.2	2.28
			240	12.0	2.38
			220	11.7	2.18
			200	11.5	2.16
			180	10.9	1.90
			160	9.8	0.98
			128	0.0	-----
01-20-86	1115	1,744.43	107	0.0	-----
			125	7.2	0.25
			150	17.3	2.08
			175	18.8	4.36
			200	19.8	4.65
			225	20.0	4.61
			250	20.4	4.46
			275	20.5	4.47

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-20-86	1115	(Continued)	300	21.6	3.43
			325	21.9	1.75
			350	16.9	0.44
			375	5.0	0.18
			387	0.0	-----
01-21-86	1140	1,744.79	109	0.0	-----
			120	5.7	-0.27
			140	15.1	1.18
			160	18.5	3.32
			180	19.4	3.85
			200	20.0	4.29
			220	20.1	4.62
			240	20.4	4.56
			260	20.7	4.29
			280	21.3	4.35
			300	21.8	4.22
			320	22.4	2.91
			340	20.3	1.04
			360	11.0	0.28
			380	4.1	-0.24
			387	0.0	-----
01-21-86	1947	1,746.10	106	0.0	-----
			120	6.1	0.78
			150	18.9	2.69
			180	20.6	4.38
			210	21.7	5.30
			240	21.9	4.91
			270	21.4	5.00
			300	22.8	4.83
			330	23.7	1.94
			360	12.7	0.60
			387	0.0	-----
01-22-86	0712	1,744.99	388	0.0	-----
			370	6.2	0.37
			345	16.8	0.70
			320	21.5	2.80
			295	21.4	4.25
			270	20.5	4.38
			245	20.0	4.62
			220	19.8	4.72
			195	19.6	4.26
			170	18.7	4.08
			145	17.0	1.27
			120	4.5	-0.31

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-22-86	0712	(Continued)	107	0.0	-----
01-22-86	1000	1,744.13	110	0.0	-----
			125	7.0	0.31
			150	16.8	1.92
			175	18.3	3.82
			200	19.8	3.77
			225	19.0	4.16
			250	19.2	3.88
			275	19.2	4.28
			300	20.7	3.49
			325	21.2	2.23
			350	15.2	0.96
			375	5.0	0.23
			388	0.0	-----
01-23-86	0328	1,747.13	104	0.0	-----
			120	7.6	-0.42
			145	20.2	2.18
			170	21.4	4.96
			195	22.7	5.00
			220	22.2	5.25
			245	22.2	5.40
			270	23.3	5.05
			295	24.1	4.76
			320	24.3	2.63
			345	19.2	1.14
			370	8.8	0.00
			390	0.0	-----
01-26-86	0130	1,748.91	391	0.0	-----
			340	25.0	1.90
			320	26.3	3.56
			300	26.3	4.84
			280	26.0	6.06
			260	25.0	5.94
			240	25.5	6.06
			220	25.2	5.81
			200	24.4	5.94
			180	23.8	5.56
			160	22.8	5.21
			102	0.0	-----
01-26-86	0345	1,748.36	391	0.0	-----
			340	24.3	1.64
			320	25.6	2.83
			300	25.9	5.04

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-26-86	0345	(Continued)	280	25.1	5.68
			260	24.4	5.80
			240	24.4	6.14
			220	23.8	5.96
			200	23.6	5.52
			180	23.4	5.70
			160	22.3	4.66
			104	0.0	-----
01-26-86	0740	1,747.70	390	0.0	-----
			340	23.5	1.30
			320	25.0	3.08
			300	24.8	4.50
			280	24.2	5.68
			260	22.8	5.52
			240	23.2	5.63
			220	23.9	5.76
			200	23.0	5.22
			180	22.9	5.15
			160	21.7	4.32
			102	0.0	-----
01-27-86	0140	1,748.96	392	0.0	-----
			330	26.8	2.05
			310	26.9	4.37
			290	26.0	6.02
			270	25.8	5.98
			250	25.2	6.21
			230	25.5	6.23
			210	25.2	6.14
			190	24.1	5.68
			170	23.4	5.68
			150	22.0	3.42
			100	0.0	-----
01-27-86	0350	1,748.57	391	0.0	-----
			330	26.2	2.79
			310	26.1	4.10
			290	25.5	5.63
			270	24.3	6.14
			250	23.7	6.06
			230	23.8	6.06
			210	23.8	6.12
			190	23.5	5.62
			170	23.0	5.27
			150	21.4	3.44
			101	0.0	-----

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-27-86	0715	1,747.86	390	0.0	-----
			330	23.0	2.40
			310	25.4	3.42
			290	24.8	5.20
			270	23.9	5.68
			250	23.0	5.98
			230	23.6	5.46
			210	23.8	5.39
			190	22.5	5.12
			170	22.4	5.39
			150	20.4	3.42
			102	0.0	-----
01-27-86	2355	1,749.62	392	0.0	-----
			340	25.5	1.36
			320	27.0	2.90
			300	27.4	5.27
			280	26.5	6.08
			260	25.9	6.40
			240	25.8	6.64
			220	25.2	6.33
			200	25.7	5.94
			180	24.8	5.64
			160	23.8	5.27
			140	21.5	2.35
			100	0.0	-----
01-28-86	0215	1,749.29	100	0.0	-----
			160	23.6	5.26
			180	24.0	5.46
			200	24.9	5.88
			220	25.3	6.55
			240	25.9	6.64
			260	25.4	6.62
			280	26.3	5.90
			300	26.4	5.33
			320	26.4	3.28
			340	25.6	1.70
			392	0.0	-----
01-28-86	0530	1,748.78	100	0.0	-----
			160	22.6	4.65
			180	23.8	5.52
			200	23.6	5.51
			220	24.2	6.35
			240	25.0	5.60
			260	24.9	6.06

Table 67.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above National Canyon, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-28-86	0530	(Continued)	280	25.6	5.41
			300	25.8	4.85
			320	25.8	3.58
			393	0.0	-----
01-28-86	0945	1,748.90	101	0.0	-----
			150	21.7	3.50
			170	22.9	5.30
			190	24.4	5.60
			210	24.7	5.76
			230	24.3	6.44
			250	25.4	6.21
			270	25.6	5.68
			290	26.2	5.30
			310	26.5	3.50
			393	0.0	-----

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-23-85	0615	1,349.60	49	0.0	0.00
			60	9.0	0.24
			70	10.1	-0.16
			80	14.5	-0.49
			90	18.4	1.03
			100	25.8	1.37
			110	30.1	1.79
			120	36.2	2.08
			130	39.2	3.02
			140	39.3	2.81
			150	39.4	2.66
			160	39.6	2.80
			170	40.4	2.83
			180	40.6	2.36
			190	38.7	1.76
			200	33.2	0.67
			210	18.4	1.08
			220	15.4	0.53
			230	10.4	0.41
			240	5.0	0.31
			250	0.0	0.00
10-23-85	1125	1,351.80	253	0.0	0.00
			240	7.1	0.53
			225	15.5	1.02
			210	20.2	1.57
			195	35.6	2.62
			180	42.5	3.51
			165	42.9	3.97
			150	41.9	3.64
			135	42.1	3.90
			120	42.0	3.26
			105	29.1	2.64
			90	21.0	1.92
			75	13.0	0.33
			60	8.0	-0.17
			44	0.0	0.00
10-24-85	2135	1,350.31	250	0.0	0.00
			240	5.5	0.53
			230	11.2	0.44
			220	16.5	0.61
			210	18.6	1.25
			200	34.1	0.93
			190	39.0	1.90
			180	41.6	2.74
			170	41.7	3.22

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-24-85	2135	(Continued)	160	40.4	3.28
			150	39.7	3.15
			140	40.2	2.68
			130	40.0	2.86
			120	40.0	2.20
			110	30.9	2.20
			100	25.7	1.51
			90	19.4	1.29
			80	14.4	0.51
			70	10.7	0.14
			46	0.0	0.00
10-25-85	0210	1,349.27	253	0.0	0.00
			245	2.5	0.00
			230	10.3	0.32
			215	16.6	0.66
			200	24.6	1.20
			185	37.2	1.90
			170	39.7	2.78
			155	39.4	2.70
			140	38.8	2.52
			125	38.1	2.30
			110	29.5	1.81
			95	19.5	1.21
			80	12.6	0.30
			65	5.7	0.00
			52	0.0	0.00
10-25-85	1025	1,350.25	252	0.0	0.00
			240	4.9	0.25
			225	13.3	1.44
			210	17.5	1.24
			195	33.1	2.80
			180	40.3	3.14
			165	40.4	3.73
			150	39.5	3.78
			135	39.4	3.30
			120	36.6	2.93
			105	24.9	2.44
			90	16.7	1.62
			75	10.5	1.99
			49	0.0	0.00
10-28-85	1800	1,350.70	42	0.0	0.00
			60	9.9	0.18
			80	15.4	0.50
			100	22.4	1.91

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-28-85	1800	(Continued)	120	40.2	2.17
			140	40.0	3.48
			160	40.9	3.82
			180	41.4	3.02
			200	33.5	0.83
			220	16.3	0.81
			240	6.1	0.44
			254	0.0	0.00
10-28-85	2105	1,350.28	252	0.0	0.00
			240	5.9	0.26
			220	16.6	0.69
			200	33.8	0.80
			180	41.8	2.94
			160	40.5	2.97
			140	39.2	2.89
			120	39.7	2.40
			100	26.0	1.71
			80	14.7	0.80
			60	8.5	0.00
			44	0.0	0.00
10-29-85	0140	1,349.60	49	0.0	0.00
			60	3.0	0.00
			80	14.3	0.70
			100	21.3	1.56
			120	36.6	2.32
			140	39.2	2.96
			160	39.3	2.69
			180	40.3	2.47
			200	33.4	0.93
			220	15.5	0.69
			240	5.0	0.27
			250	0.0	0.00
10-29-85	1055	1,350.86	49	0.0	0.00
			90	17.7	1.55
			100	22.5	2.09
			110	31.0	2.54
			120	33.8	3.20
			130	40.2	3.61
			140	40.3	3.28
			150	40.9	3.52
			160	41.2	3.63
			170	42.0	3.89
			180	42.2	3.39
			190	40.9	2.74

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-29-85	1055	(Continued)	200	30.9	1.88
			210	20.3	1.39
			250	0.0	0.00
10-29-85	1715	1,351.98	45	0.0	0.00
			60	9.0	0.36
			80	16.5	0.92
			100	23.0	2.52
			120	41.8	3.04
			140	41.3	3.94
			160	42.7	4.31
			180	43.2	3.77
			200	33.3	1.44
			220	17.5	1.32
			240	6.3	0.00
			259	0.0	0.00
10-29-85	2000	1,351.55	256	0.0	0.00
			240	7.7	0.73
			220	17.4	1.21
			200	34.8	1.07
			180	42.8	3.59
			160	42.0	3.86
			140	41.2	3.68
			120	41.6	3.02
			102	26.0	2.20
			80	16.0	0.89
			60	4.0	0.00
			45	0.0	0.00
10-29-85	2335	1,351.18	245	0.0	0.00
			240	6.8	0.70
			220	16.8	1.17
			200	34.3	1.68
			180	41.7	3.36
			160	40.5	3.78
			140	40.8	3.64
			120	37.5	3.23
			102	26.3	2.26
			80	15.6	0.94
			60	4.0	0.56
			45	0.0	0.00
10-30-85	0505	1,350.00	44	0.0	0.00
			85	15.5	1.58
			100	26.7	2.54
			115	30.0	3.18

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-30-85	0505	(Continued)	130	41.1	3.90
			145	41.9	4.14
			160	43.4	4.11
			175	43.6	3.62
			190	39.0	3.26
			205	22.2	2.22
			220	18.1	1.01
			258	0.0	0.00
10-30-85	1525	1,352.20	44	0.0	0.00
			60	5.5	0.20
			80	15.9	0.49
			100	22.8	2.90
			120	32.1	3.72
			140	41.5	4.14
			160	44.2	4.46
			180	43.0	4.12
			200	35.2	1.15
			220	17.5	1.36
			240	7.0	0.49
			258	0.0	0.00
10-30-85	1740	1,351.80	255	0.0	0.00
			240	7.6	0.57
			220	18.1	0.94
			200	34.8	1.08
			180	42.9	3.48
			160	41.6	4.12
			140	41.6	3.99
			120	36.5	3.45
			102	27.2	2.56
			80	15.9	0.69
			60	4.2	0.41
			45	0.0	0.00
10-30-85	2220	1,351.05	255	0.0	0.00
			240	6.1	0.00
			220	17.1	0.53
			200	34.0	0.36
			180	41.3	2.57
			160	40.5	3.54
			140	40.0	3.66
			120	34.0	2.96
			100	27.3	2.26
			80	14.8	0.34
			60	3.8	0.00
			45	0.0	0.00

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-31-85	1400	1,352.45	44	0.0	0.00
			60	5.5	0.13
			80	16.6	1.27
			100	27.9	2.69
			120	34.2	3.58
			140	42.8	4.03
			160	43.9	4.53
			180	43.6	3.64
			200	35.5	1.49
			220	18.4	1.24
			240	8.0	0.77
			259	0.0	0.00
10-31-85	1705	1,351.75	256	0.0	0.00
			240	7.8	0.00
			220	18.0	1.24
			200	35.2	1.84
			180	42.6	3.13
			160	44.0	4.06
			140	41.3	3.89
			120	35.1	3.73
			102	27.5	2.29
			80	15.9	1.17
			60	8.6	0.70
			45	0.0	0.00
10-31-85	2000	1,351.15	45	0.0	0.00
			70	11.6	1.49
			90	19.5	2.48
			110	31.5	2.38
			130	40.8	3.52
			150	41.0	3.38
			170	42.6	3.90
			190	38.7	2.64
			210	18.8	1.20
			230	12.0	0.47
			250	1.7	0.00
			256	0.0	0.00
10-31-85	2210	1,350.72	256	0.0	0.00
			240	6.8	0.00
			220	16.8	0.73
			200	31.0	1.41
			180	41.5	2.96
			160	41.5	3.72
			140	39.8	3.32
			120	37.5	2.81

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
10-31-85	2210	(Continued)	100	26.4	1.86
			80	15.0	0.69
			60	3.8	0.00
			45	0.0	0.00
11-01-85	0610	1,350.60	45	0.0	0.00
			85	14.7	1.36
			100	25.4	2.07
			115	27.8	2.60
			130	39.5	2.98
			145	40.0	3.02
			160	40.8	3.73
			175	41.8	3.24
			190	39.7	2.51
			205	19.2	1.81
			220	16.8	1.13
			253	0.0	0.00
11-01-85	1000	1,351.58	45	0.0	0.00
			60	8.5	0.26
			80	15.1	1.22
			100	23.0	2.50
			120	35.7	3.58
			140	41.4	3.99
			160	42.8	3.88
			180	42.9	3.58
			200	35.9	1.22
			220	17.5	1.30
			240	7.2	0.60
			257	0.0	0.00
11-01-85	1145	1,351.80	45	0.0	0.00
			60	7.4	0.13
			80	15.7	1.19
			100	23.1	2.28
			120	34.6	3.23
			140	41.5	4.08
			160	42.7	4.42
			180	43.6	3.73
			200	33.6	1.47
			220	17.4	1.37
			240	7.7	0.81
			257	0.0	0.00
11-22-85	1100	1,352.27	256	0.0	0.00
			240	8.0	0.51
			220	17.6	1.42

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-22-85	1100	(Continued)	200	35.4	1.21
			180	44.5	3.74
			160	44.0	4.56
			140	43.7	3.88
			120	43.2	3.38
			100	28.0	2.39
			80	15.9	1.57
			60	9.1	0.29
			45	0.0	0.00
11-22-85	1535	1,351.95	43	0.0	0.00
			60	8.9	0.17
			80	16.1	0.85
			100	24.5	2.65
			120	37.0	3.56
			140	43.2	3.80
			160	43.3	3.83
			180	43.4	3.56
			200	33.4	1.37
			220	17.8	1.05
			240	7.4	0.65
			258	0.0	0.00
11-22-85	2105	1,350.97	255	0.0	0.00
			240	6.6	0.42
			220	16.6	1.10
			200	34.3	1.10
			180	43.2	3.07
			160	42.2	3.21
			140	41.4	3.63
			120	34.5	2.89
			100	22.0	1.92
			80	14.7	0.80
			60	7.3	0.00
			44	0.0	0.00
11-22-85	2310	1,350.60	252	0.0	0.00
			240	6.7	0.56
			220	17.2	0.80
			200	33.2	2.99
			180	42.2	3.11
			160	42.7	3.36
			140	41.3	3.20
			120	37.2	2.62
			100	21.5	1.71
			80	14.3	1.00
			60	6.8	0.14

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-22-85	2310	(Continued)	45	0.0	0.00
11-23-85	0310	1,350.76	255	0.0	0.00
			240	6.2	0.76
			215	16.3	1.18
			190	39.0	2.40
			165	42.7	3.39
			140	41.1	3.68
			115	30.7	2.96
			90	19.5	1.58
			65	6.2	0.00
			44	0.0	0.00
11-23-85	0430	1,351.51	45	0.0	0.00
			60	8.7	0.18
			80	15.3	0.52
			100	26.7	1.70
			120	41.4	2.96
			140	42.3	3.63
			160	42.6	4.32
			180	44.4	3.13
			200	35.2	1.04
			220	17.9	1.66
			240	7.0	0.53
			256	0.0	0.00
11-23-85	1555	1,352.04	255	0.0	0.00
			240	7.4	0.76
			220	17.9	1.16
			200	35.7	0.96
			180	44.4	3.80
			160	44.2	4.46
			140	43.9	4.06
			120	35.6	3.98
			100	25.0	2.54
			80	15.9	1.48
			60	5.4	0.18
			43	0.0	0.00
11-23-85	2005	1,351.28	253	0.0	0.00
			240	7.0	0.49
			220	18.4	0.85
			200	35.4	1.16
			180	43.5	3.26
			160	42.8	4.02
			140	42.8	3.72
			120	34.9	3.16

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-23-85	2005	(Continued)	100	23.6	1.95
			80	15.5	0.79
			60	8.1	0.00
			46	0.0	0.00
11-23-85	2330	1,350.59	252	0.0	0.00
			245	4.0	0.26
			230	11.7	0.45
			215	17.9	1.29
			200	31.8	1.27
			185	38.9	2.83
			170	42.5	3.35
			155	42.2	3.46
			140	41.4	3.43
			135	41.4	3.06
			110	30.5	2.22
			95	20.9	1.65
			80	15.1	0.74
			65	6.9	0.00
			50	3.7	0.00
			44	0.0	0.00
11-24-85	1650	1,351.66	253	0.0	0.00
			240	6.8	0.52
			220	16.8	0.92
			200	22.5	2.08
			180	43.3	3.42
			160	42.6	3.94
			140	42.3	4.27
			120	33.3	3.58
			100	25.7	2.13
			80	15.3	0.66
			60	4.4	0.21
			45	0.0	0.00
11-24-85	1730	1,351.48	45	0.0	0.00
			60	4.8	0.00
			80	15.8	1.07
			100	23.3	2.17
			120	35.6	3.75
			140	43.1	4.04
			160	43.4	3.70
			180	43.2	3.43
			200	41.9	1.23
			220	17.0	0.91
			240	6.8	0.16
			255	0.0	0.00

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
11-29-85	2255	1,350.20	45	0.0	0.00
			80	15.0	1.65
			95	21.0	1.62
			110	30.8	2.10
			125	40.0	3.28
			140	40.2	3.09
			155	41.0	3.24
			170	42.2	3.00
			185	37.6	2.15
			200	31.6	0.77
			215	17.0	0.95
			248	0.0	0.00
11-30-85	0210	1,349.45	44	0.0	0.00
			80	14.3	0.47
			95	20.5	1.52
			110	30.0	1.84
			125	38.5	2.40
			140	40.6	2.87
			155	40.5	2.57
			170	42.8	2.74
			185	37.5	1.72
			200	29.4	0.70
			215	15.5	0.65
			250	0.0	0.00
11-30-85	0640	1,348.55	50	0.0	0.00
			100	21.4	1.28
			115	26.5	1.54
			130	38.7	2.20
			145	39.0	2.36
			160	39.5	2.44
			175	41.0	2.00
			190	37.4	1.42
			205	17.4	0.81
			48	0.0	0.00
12-01-85	0125	1,349.08	47	0.0	0.00
			100	22.5	1.43
			115	27.8	2.08
			130	39.1	2.68
			145	39.6	2.78
			160	40.6	2.83
			175	40.8	2.71
			190	38.2	1.92
			205	18.1	0.93
			250	0.0	0.00

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-01-85	0555	1,348.58	47	0.0	0.00
			100	19.6	1.28
			115	26.5	1.76
			130	38.6	2.32
			145	38.9	2.30
			160	39.4	2.54
			175	40.4	2.12
			190	37.4	1.50
			248	0.0	0.00
12-01-85	2015	1,351.60	44	0.0	0.00
			85	15.9	2.20
			100	24.5	2.48
			115	30.6	3.25
			130	42.5	3.64
			145	42.3	3.98
			160	43.6	4.18
			175	43.6	4.02
			190	41.2	3.10
			205	21.5	1.67
			220	17.4	0.78
			259	0.0	0.00
12-01-85	2155	1,351.20	45	0.0	0.00
			85	15.4	1.34
			100	24.7	2.18
			115	28.5	3.00
			130	41.8	3.48
			145	42.1	3.64
			160	43.8	3.85
			175	43.5	3.86
			190	40.0	2.56
			205	20.9	1.38
			220	17.2	0.90
			255	0.0	0.00
12-02-85	0325	1,349.85	45	0.0	0.00
			80	14.4	0.92
			95	20.0	1.36
			110	30.2	1.88
			125	38.9	2.71
			140	40.3	2.83
			155	40.7	3.02
			170	41.0	2.92
			185	37.7	2.30
			200	30.0	0.73

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-02-85	0325	(Continued)	215	16.9	0.62
			250	0.0	0.00
12-02-85	0610	1,349.15	48	0.0	0.00
			85	12.4	1.17
			100	21.0	1.52
			115	29.5	1.90
			130	39.6	2.56
			145	39.4	2.74
			160	40.1	2.66
			175	41.9	2.27
			190	35.0	1.67
			205	17.0	0.86
			47	0.0	0.00
12-02-85	2225	1,350.00	45	0.0	0.00
			85	14.8	0.77
			100	23.3	1.66
			115	27.8	2.52
			130	40.2	2.86
			145	40.5	3.02
			160	41.3	3.32
			175	42.0	3.06
			190	38.7	1.80
			205	20.0	1.04
			220	15.8	0.62
			251	0.0	0.00
12-24-85	1328	1,347.50	243	0.0	0.00
			230	8.2	0.40
			210	16.5	0.67
			190	36.5	1.44
			170	39.1	1.96
			150	38.4	1.89
			130	37.4	1.56
			110	28.0	1.04
			90	13.9	0.84
			70	5.2	0.29
			50	0.0	0.00
12-24-85	1638	1,347.15	53	0.0	0.00
			70	5.2	0.15
			90	13.5	0.54
			110	27.3	0.98
			130	37.0	1.60
			150	38.0	1.72
			170	38.4	1.77

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-24-85	1638	(Continued)	190	36.1	0.84
			210	16.0	0.43
			230	7.8	0.37
			243	0.0	0.00
12-25-85	0835	1,345.75	240	0.0	0.00
			225	10.0	0.21
			210	14.5	0.42
			195	34.5	0.60
			180	37.8	0.94
			165	36.8	1.40
			150	36.9	1.31
			135	35.9	1.06
			120	33.0	0.83
			105	22.9	0.45
			50	0.0	0.00
12-25-85	1140	1,346.00	240	0.0	0.00
			220	12.0	0.18
			200	29.0	0.27
			170	37.5	0.71
			150	36.4	1.08
			130	35.7	0.98
			100	21.4	0.49
			80	10.5	0.24
			50	0.0	0.00
12-26-85	0440	1,348.92	257	0.0	0.00
			240	4.3	0.12
			220	14.4	0.58
			200	19.5	0.87
			180	40.8	2.00
			160	40.0	2.84
			140	39.2	2.47
			120	34.9	2.68
			100	20.0	1.11
			80	12.2	0.32
			60	1.6	0.00
			44	0.0	0.00
12-26-85	1705	1,351.43	258	0.0	0.00
			240	7.2	0.64
			220	17.3	1.01
			200	33.3	1.51
			180	43.5	3.54
			160	42.4	4.08
			140	42.2	4.01

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-26-85	1705	(Continued)	120	34.9	3.33
			100	23.8	2.28
			80	15.8	0.92
			60	7.8	0.14
			45	0.0	0.00
12-26-85	1950	1,350.82	243	0.0	0.00
			240	6.2	0.37
			220	16.3	1.00
			200	34.9	0.97
			180	42.8	3.22
			160	43.2	3.53
			140	41.0	3.56
			120	40.8	2.88
			100	25.5	1.48
			80	15.3	0.18
			45	0.0	0.00
12-26-85	2200	1,350.31	257	0.0	0.00
			240	5.7	0.34
			220	16.6	0.78
			200	34.0	0.73
			180	41.7	2.89
			160	42.3	3.36
			140	40.8	3.20
			110	30.2	2.32
			100	26.0	2.26
			90	18.8	1.21
			45	0.0	0.00
12-27-85	0130	1,349.55	50	0.0	0.00
			65	6.5	0.21
			90	16.2	1.28
			115	27.3	2.37
			140	39.8	2.74
			165	41.3	2.70
			190	38.5	1.96
			215	17.0	0.58
			240	4.3	0.38
			252	0.0	0.00
12-27-85	0300	1,349.22	252	0.0	0.00
			240	4.9	0.34
			215	16.3	0.75
			190	38.2	1.62
			165	40.5	3.40
			140	39.2	2.96

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-27-85	0300	(Continued)	115	28.5	2.22
			90	17.9	1.15
			65	5.4	0.26
			50	0.0	0.00
12-27-85	0450	1,348.85	50	0.0	0.00
			70	5.6	0.18
			90	16.2	0.87
			110	29.1	1.78
			130	38.8	2.44
			150	39.0	2.54
			170	40.4	2.36
			190	37.5	1.49
			210	16.9	0.91
			230	9.0	0.29
			250	0.0	0.00
12-27-85	0655	1,348.39	252	0.0	0.00
			235	6.5	0.29
			215	15.6	0.42
			195	31.5	1.87
			175	40.4	2.27
			155	39.7	2.61
			135	38.7	1.98
			115	26.5	1.56
			95	17.8	1.02
			75	9.1	0.23
			50	0.0	0.00
12-27-85	0940	1,347.92	251	0.0	0.00
			240	3.5	0.39
			220	14.4	0.28
			200	28.6	0.84
			180	39.6	1.66
			160	39.0	2.42
			140	38.2	2.05
			120	33.8	1.70
			100	19.6	1.04
			80	12.0	0.16
			60	5.5	0.00
			51	0.0	0.00
12-27-85	1220	1,347.59	50	0.0	0.00
			65	4.3	0.16
			85	11.3	0.32
			105	22.6	1.21
			125	34.3	1.78

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
12-27-85	1220	(Continued)	145	37.1	1.80
			165	38.4	1.90
			185	34.6	1.22
			205	16.5	0.60
			225	10.0	0.46
			243	0.0	0.00
12-27-85	1448	1,347.26	244	0.0	0.00
			230	8.9	0.29
			210	15.4	0.52
			190	35.5	0.85
			170	38.4	1.98
			150	37.4	1.88
			130	37.4	1.58
			110	27.0	1.19
			90	15.9	0.55
			70	5.5	0.18
			52	0.0	0.00
12-31-85	1145	1,347.86	50	0.0	0.00
			80	8.9	0.00
			101	21.7	1.12
			120	33.7	1.46
			140	37.7	2.05
			160	38.9	2.03
			180	39.8	1.50
			200	29.7	0.77
			220	13.3	0.27
			251	0.0	0.00
12-31-85	2205	1,350.20	45	0.0	0.00
			85	14.2	1.05
			100	23.7	1.84
			115	28.1	2.49
			130	40.5	2.92
			145	40.3	2.98
			160	41.5	3.46
			175	42.2	3.15
			190	39.3	2.35
			205	19.3	1.01
			220	16.1	0.72
			256	0.0	0.00
01-01-86	0800	1,348.38	50	0.0	0.00
			85	12.0	0.62
			100	19.3	1.23
			115	27.4	1.58

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-01-86	0800	(Continued)	130	38.9	2.14
			145	38.4	2.35
			160	38.4	2.20
			175	40.0	2.22
			190	36.9	1.39
			205	18.2	0.73
			220	14.1	0.54
			248	0.0	0.00
01-01-86	1640	1,351.55	260	0.0	0.00
			220	16.8	1.02
			200	34.5	1.10
			180	42.7	3.51
			160	42.6	3.68
			140	42.1	3.68
			120	38.4	3.31
			100	37.1	1.72
			80	15.1	1.00
			45	0.0	0.00
01-01-86	1950	1,350.75	259	0.0	0.00
			220	17.0	0.89
			200	32.0	1.05
			180	42.4	2.82
			160	41.4	3.72
			140	40.7	3.36
			120	34.0	2.62
			100	22.8	2.06
			80	15.4	0.72
			45	0.0	0.00
01-01-86	2245	1,350.05	45	0.0	0.00
			80	14.5	0.61
			100	22.0	1.68
			120	37.1	2.38
			140	39.9	2.99
			160	41.7	3.22
			180	41.9	2.86
			200	32.8	0.82
			220	16.4	1.01
			257	0.0	0.00
01-02-86	0435	1,348.80	45	0.0	0.00
			85	12.7	0.71
			100	20.8	1.27
			115	27.6	2.08
			130	39.0	2.49

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-02-86	0435	(Continued)	145	39.0	2.36
			160	39.4	2.51
			175	40.4	2.56
			190	37.7	1.46
			205	18.6	0.68
			220	14.6	0.39
			253	0.0	0.00
01-02-86	0725	1,348.20	253	0.0	0.00
			220	14.2	0.45
			205	18.7	0.70
			190	37.1	1.20
			175	39.4	2.29
			160	38.8	2.68
			145	38.5	2.21
			130	38.0	1.76
			115	27.0	1.40
			100	22.3	0.88
			85	11.7	0.72
			49	0.0	0.00
01-02-86	1540	1,352.40	43	0.0	0.00
			85	16.1	1.70
			100	24.8	2.36
			115	30.0	3.72
			130	42.8	3.88
			145	42.8	4.38
			160	43.6	4.02
			175	44.8	3.88
			190	42.6	2.96
			205	21.5	2.36
			220	18.2	1.24
			260	0.0	0.00
01-02-86	1715	1,351.95	43	0.0	0.00
			85	15.4	1.41
			100	27.3	1.94
			115	30.5	3.28
			130	42.5	3.72
			145	42.2	4.22
			160	43.7	4.13
			175	43.6	4.04
			190	41.4	2.70
			205	41.0	1.88
			220	18.0	1.02
			261	0.0	0.00

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-02-86	2010	1,351.20	43	0.0	0.00
			85	15.3	1.31
			100	22.9	2.00
			115	28.0	2.94
			130	41.4	3.33
			145	42.4	3.64
			160	42.3	3.68
			175	43.0	3.12
			190	40.2	2.59
			205	18.6	1.42
			220	16.7	1.13
			261	0.0	0.00
01-03-86	0335	1,349.35	46	0.0	0.00
			80	13.3	0.35
			100	21.5	1.82
			120	36.2	2.44
			140	39.1	2.74
			160	40.7	2.54
			180	41.0	2.30
			200	30.8	0.97
			220	14.8	0.58
			255	0.0	0.00
01-03-86	1330	1,347.57	249	0.0	0.00
			220	13.2	0.23
			205	18.0	0.78
			190	36.3	1.35
			175	38.9	1.75
			160	37.9	2.14
			145	37.2	1.78
			130	37.2	1.81
			115	26.2	1.36
			100	19.4	0.89
			85	11.3	0.35
			50	0.0	0.00
01-26-86	1325	1,354.42	262	0.0	0.00
			250	4.8	0.38
			230	15.8	0.77
			210	22.0	2.72
			190	44.3	4.29
			170	44.3	6.08
			150	44.4	5.48
			130	42.7	5.30
			110	31.5	4.16
			90	23.4	2.45

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-26-86	1325	(Continued)	70	12.0	0.63
			50	6.2	0.23
			43	0.0	0.00
01-26-86	1540	1,354.08	262	0.0	0.00
			250	4.7	0.17
			225	17.8	1.18
			200	34.0	2.90
			175	45.4	5.20
			150	45.2	5.20
			125	42.5	4.76
			100	26.6	3.35
			75	14.3	0.97
			50	6.3	0.19
			45	0.0	0.00
01-27-86	1100	1,354.84	43	0.0	0.00
			60	8.9	0.18
			80	18.9	1.98
			100	28.6	3.86
			120	37.3	5.30
			140	44.7	6.00
			160	45.5	5.52
			180	46.6	5.33
			200	36.9	2.12
			220	20.5	1.96
			240	11.1	1.04
			260	0.0	0.00
01-27-86	1314	1,354.55	260	0.0	0.00
			250	8.6	0.40
			230	16.2	1.04
			210	22.4	2.90
			190	42.1	4.36
			170	44.7	5.68
			150	44.4	5.80
			130	41.8	5.16
			110	33.0	3.68
			90	23.6	2.55
			70	11.5	0.67
			45	0.0	0.00
01-27-86	1555	1,354.17	260	0.0	0.00
			250	8.3	0.36
			235	11.4	0.62
			220	19.6	2.12
			205	23.9	3.68

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-27-86	155	(Continued)	190	41.6	4.44
			175	44.3	5.40
			160	44.9	5.52
			145	42.4	5.81
			130	41.1	5.16
			115	31.3	4.02
			100	29.9	2.96
			85	17.2	2.17
			70	10.3	0.57
			45	0.0	0.00
01-28-86	1430	1,354.82	43	0.0	0.00
			60	7.4	0.27
			80	18.9	1.94
			100	30.4	3.28
			120	43.1	4.62
			140	43.7	6.18
			160	46.4	5.70
			180	45.5	4.95
			200	34.1	2.92
			220	20.2	1.82
			240	11.2	1.16
			260	0.0	0.00
01-29-86	0159	1,354.92	45	0.0	0.00
			60	7.2	0.24
			75	15.0	1.28
			90	23.2	2.30
			105	35.4	3.58
			120	42.5	5.03
			135	43.4	5.22
			150	44.4	5.80
			165	46.1	6.26
			180	45.0	5.68
			195	37.7	4.46
			210	23.2	3.86
			225	19.5	1.67
			240	11.7	1.00
			260	0.0	0.00
01-29-86	1328	1,354.20	262	0.0	0.00
			250	7.7	0.44
			230	17.5	0.99
			210	23.2	2.89
			190	40.3	3.94
			170	44.4	5.06
			150	44.6	5.62

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-29-86	1328	(Continued)	130	41.4	5.51
			110	33.4	3.35
			90	23.5	2.52
			70	11.8	0.40
			50	6.2	0.15
			43	0.0	0.00
01-29-86	1535	1,353.86	263	0.0	0.00
			250	6.9	0.55
			230	17.1	0.71
			210	21.8	2.38
			190	44.5	4.06
			170	46.0	5.05
			150	46.7	5.24
			130	40.8	5.26
			110	33.1	3.58
			90	22.9	2.20
			70	11.7	0.38
			50	5.5	0.16
			43	0.0	0.00
01-30-86	1435	1,353.89	42	0.0	0.00
			85	18.0	1.96
			100	29.0	3.06
			115	32.1	4.44
			130	32.5	5.20
			145	42.0	5.65
			160	42.5	5.70
			175	33.8	5.46
			190	44.5	4.18
			205	34.1	1.61
			263	0.0	0.00
01-30-86	1720	1,353.22	45	0.0	0.00
			85	17.1	1.63
			100	28.1	2.55
			115	31.6	4.08
			130	40.4	4.80
			145	40.1	5.00
			160	41.1	4.74
			175	42.2	4.42
			190	36.4	3.46
			205	23.1	2.69
			263	0.0	0.00
01-31-86	1025	1,354.05	45	0.0	0.00
			85	18.2	2.01

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
01-31-86	1025	(Continued)	100	27.0	3.33
			115	32.3	4.37
			130	41.8	4.70
			145	44.5	5.24
			160	42.9	5.53
			175	44.6	5.27
			190	40.4	4.36
			205	22.8	2.86
			262	0.0	0.00
02-01-86	1010	1,354.51	43	0.0	0.00
			85	19.1	2.02
			100	27.3	3.42
			115	34.9	4.52
			130	40.8	5.35
			145	42.1	5.74
			160	43.6	5.30
			175	41.8	5.30
			190	43.7	4.14
			205	20.8	2.89
			262	0.0	0.00
02-01-86	1400	1,353.70	262	0.0	0.00
			205	23.3	3.02
			190	37.0	4.32
			175	41.2	5.33
			160	39.9	5.14
			145	40.0	5.50
			130	38.9	5.05
			115	30.6	4.22
			100	29.1	3.36
			85	17.2	2.32
			45	0.0	0.00
02-01-86	1635	1,353.00	45	0.0	0.00
			85	16.9	1.91
			100	28.2	3.04
			115	31.1	3.99
			130	38.4	4.46
			145	39.5	4.86
			160	40.0	4.78
			175	41.2	4.40
			190	26.5	4.02
			205	21.9	2.60
			260	0.0	0.00
02-01-86	1740	1,352.43	43	0.0	0.00

Table 68.--Cross-section geometry and velocity at time of suspended-sediment sample, Colorado River above Diamond Creek, 1985-86--Continued

Date	Time	Gage height, in feet	Distance from left bank reference point, in feet	Depth, in feet	Mean velocity in vertical column, in feet per second
02-01-86	1740	(Continued)	85	16.4	1.64
			100	27.2	2.50
			115	29.5	3.56
			130	39.7	4.46
			145	39.8	4.22
			160	40.3	4.56
			175	39.8	4.56
			190	35.8	3.24
			205	21.4	2.50
			262	0.0	0.00
02-02-86	1440	1,352.63	43	0.0	0.00
			85	16.0	1.47
			100	25.2	2.82
			115	32.5	3.86
			130	39.5	4.27
			145	39.0	4.46
			160	39.2	4.61
			175	39.5	4.70
			190	36.8	3.58
			205	22.2	2.04
			262	0.0	0.00

Table 69.--Daily mean discharge at station 09380000, Colorado River at Lees Ferry, 1983 and 1985-86

[Values are in cubic feet per second]

	1983					1985			1986	
Day	July	August	September	October	November	October	November	December	January	February
1	85,600	39,800	27,100	26,600	26,500	12,900	12,800	4,920	8,020	20,600
2	84,100	36,600	26,900	27,500	25,700	12,100	11,600	10,100	12,500	------
3	83,100	36,500	26,800	27,200	27,000	13,400	7,970	12,100	14,900	------
4	83,500	36,400	27,000	27,000	26,400	11,700	11,400	12,600	13,600	------
5	81,500	36,200	26,900	26,900	26,800	9,430	11,300	15,000	10,300	------
6	73,900	36,000	25,700	26,600	24,400	9,000	13,300	13,800	9,490	------
7	69,000	35,900	27,200	27,000	23,500	12,100	13,000	10,200	10,800	------
8	58,600	34,200	27,300	27,400	23,500	11,300	12,600	8,380	11,700	------
9	51,500	35,700	26,800	26,900	23,400	11,700	13,500	12,000	13,000	------
10	51,400	33,500	25,600	26,700	22,800	11,800	11,600	13,300	14,700	------
11	52,900	29,400	25,200	23,800	23,400	10,800	13,300	15,200	14,000	------
12	54,800	26,800	25,600	23,400	23,400	10,200	13,600	15,900	13,200	------
13	55,200	26,600	26,300	24,200	23,900	6,420	12,200	16,400	13,100	------
14	55,200	26,500	26,600	23,600	23,000	12,400	13,300	12,200	14,100	------
15	55,500	26,500	26,400	23,400	22,100	11,000	13,900	8,370	13,400	------
16	55,600	26,600	26,000	24,000	22,700	11,000	12,800	11,400	18,000	------
17	53,900	26,900	26,500	24,000	21,900	11,300	12,000	12,300	20,600	------
18	50,800	26,900	26,500	23,900	22,600	12,800	13,100	11,500	19,100	------
19	48,000	26,900	26,400	24,400	23,500	10,100	14,300	12,800	16,100	------
20	42,500	26,800	26,700	24,400	23,900	11,200	14,400	11,100	16,600	------
21	40,200	26,800	27,300	24,000	22,200	12,400	14,400	10,600	17,400	------
22	40,000	26,500	27,400	23,800	23,500	11,900	12,700	3,690	17,500	------
23	40,700	26,800	27,000	24,700	23,500	10,700	12,300	9,070	18,900	------
24	42,800	26,800	26,500	26,900	23,500	12,700	9,950	11,100	20,600	------
25	41,000	25,400	26,900	26,600	23,500	13,300	12,000	3,790	22,700	------
26	42,600	26,800	27,700	25,900	23,400	10,600	10,900	7,820	23,800	------
27	40,300	26,900	27,300	26,900	23,400	11,400	9,170	11,900	24,000	------
28	40,200	27,100	27,300	26,900	23,500	15,600	6,680	11,600	22,500	------
29	41,400	26,800	27,400	26,800	23,400	15,600	8,750	9,030	20,100	------
30	41,500	26,700	26,700	26,400	23,500	12,900	8,270	10,800	20,700	------
31	41,500	27,000	------	26,800	------	13,100	------	10,400	17,300	------

Table 70.--Daily mean discharge at station 09402500, Colorado River near Grand Canyon, 1983 and 1985-86

[Values are in cubic feet per second]

	1983					1985			1986	
Day	July	August	September	October	November	October	November	December	January	February
1	86,400	40,500	26,900	32,100	26,600	19,200	13,100	9,700	11,600	18,100
2	84,700	36,200	26,800	30,600	26,400	12,800	13,000	5,550	7,960	------
3	84,300	35,500	26,500	29,600	26,800	12,800	11,700	11,600	13,900	------
4	83,800	35,500	26,600	29,600	26,900	13,200	8,010	13,100	15,800	------
5	84,400	36,000	26,600	29,900	27,300	12,300	11,800	13,500	14,000	------
6	78,200	35,800	26,700	28,300	26,600	10,100	11,900	15,600	10,700	------
7	72,000	36,200	25,400	27,400	24,000	9,200	13,400	14,100	9,650	------
8	66,300	35,100	26,900	27,800	23,900	12,600	13,300	10,500	11,400	------
9	53,000	34,300	26,700	27,300	24,100	11,200	12,600	8,620	12,400	------
10	52,300	35,800	26,100	27,200	23,500	12,300	14,800	13,000	14,100	------
11	53,100	30,000	24,700	26,100	23,400	12,400	10,900	14,700	15,300	------
12	55,600	27,300	25,900	23,500	23,900	11,400	14,100	15,300	14,900	------
13	55,900	26,200	25,800	23,400	23,900	10,300	13,700	17,300	13,900	------
14	54,800	25,900	25,900	24,200	24,200	6,880	13,000	16,800	13,900	------
15	54,900	26,100	26,400	23,300	22,500	13,500	13,700	12,800	14,600	------
16	55,300	25,600	25,900	23,300	22,100	11,300	14,900	8,290	15,700	------
17	54,800	25,900	26,100	23,900	23,100	11,400	12,800	12,600	19,700	------
18	51,500	26,000	26,600	23,700	22,300	11,600	11,900	12,600	21,600	------
19	49,300	26,600	26,500	24,000	23,200	13,300	13,900	11,800	19,900	------
20	44,500	27,000	26,300	24,500	24,100	10,200	15,000	13,200	16,800	------
21	39,400	27,100	26,300	24,000	24,200	11,300	14,600	11,500	16,500	------
22	39,300	26,900	26,600	23,900	22,500	12,900	14,900	11,200	19,300	------
23	39,300	27,000	26,500	23,900	24,000	11,700	12,700	4,350	18,700	------
24	41,500	26,900	27,700	26,000	23,900	11,200	13,200	9,830	19,900	------
25	41,200	26,300	26,400	26,600	24,200	13,200	9,570	11,500	23,400	------
26	43,300	26,000	26,900	26,100	23,900	13,400	12,500	4,260	24,100	------
27	42,100	27,000	26,600	27,200	23,900	10,700	11,200	8,630	26,000	------
28	38,500	26,800	26,900	27,200	24,100	12,700	9,550	12,800	23,800	------
29	40,100	26,800	26,900	27,200	24,100	15,400	7,060	11,700	23,000	------
30	41,200	26,500	28,800	26,700	23,900	15,400	12,400	9,300	20,900	------
31	41,000	26,900	------	27,200	------	13,200	------	11,200	21,500	------

Table 71.--Daily mean discharge at station 09404120, Colorado River above National Canyon, 1983 and 1985-86

[Values are in cubic feet per second]

	1983					1985			1986
Day	July	August	September	October	November	October	November	December	January
1	------	42,400	27,300	31,400	27,600	------	13,700	13,200	11,600
2	------	39,900	27,400	32,300	27,000	12,400	13,400	9,910	12,300
3	------	37,900	27,000	30,300	26,400	13,100	12,600	7,740	9,780
4	------	37,500	26,900	30,300	27,700	14,500	11,100	13,500	15,600
5	------	37,500	27,100	30,400	27,300	12,700	9,660	13,400	15,100
6	------	37,700	26,900	29,500	27,700	12,100	11,900	15,300	13,100
7	------	37,400	25,700	27,900	25,300	10,700	13,600	15,200	11,200
8	------	37,700	27,300	28,200	24,500	11,400	13,200	12,300	10,500
9	------	35,500	27,300	28,200	24,500	12,800	13,400	11,100	12,300
10	------	37,700	26,800	27,700	24,300	12,100	13,700	10,600	13,300
11	------	34,400	26,000	27,700	23,500	13,700	14,300	14,200	15,600
12	------	32,000	25,400	24,800	24,300	12,700	13,100	16,600	15,000
13	------	29,700	25,900	24,100	24,400	11,500	14,400	16,300	14,700
14	------	28,400	26,600	24,400	22,700	10,700	13,100	17,600	14,200
15	------	29,200	26,900	24,300	21,700	10,400	14,100	14,000	15,300
16	------	28,100	26,900	23,900	22,500	13,000	14,000	12,400	14,200
17	------	28,800	26,300	24,100	23,300	11,900	14,400	9,330	18,900
18	------	29,500	26,900	24,500	23,500	12,600	13,100	13,500	21,500
19	------	29,100	26,800	24,400	23,600	12,900	13,000	12,900	20,500
20	------	28,800	26,800	24,700	25,200	12,300	14,800	13,900	17,600
21	------	27,700	26,800	25,200	25,700	11,900	15,500	11,700	18,000
22	------	27,400	27,000	25,100	24,200	12,200	15,000	11,700	17,700
23	------	27,200	27,300	24,500	25,000	13,000	13,800	12,500	18,500
24	------	27,400	27,900	25,000	24,200	11,400	13,300	------	19,700
25	------	27,200	28,000	27,700	------	12,900	12,500	11,500	21,400
26	------	25,500	27,100	27,300	------	13,700	10,700	12,400	23,900
27	------	27,200	27,400	26,400	------	------	12,800	------	24,900
28	------	27,200	27,400	27,900	------	11,100	10,800	10,900	25,300
29	------	27,200	27,400	27,700	------	15,500	10,100	13,100	19,700
30	------	27,000	28,700	27,600	------	16,100	8,410	11,900	------
31	43,200	27,200	------	27,300	------	------	------	------	------

Table 72.--Daily mean discharge at station 09404200, Colorado River above Diamond Creek, 1983 and 1985-86

[Values are in cubic feet per second]

	1983				1985			1986	
Day	August	September	October	November	October	November	December	January	February
1	------	16,500	21,900	17,200	------	13,600	12,700	------	22,000
2	------	16,900	25,800	15,900	------	14,100	11,000	------	19,200
3	------	16,400	24,100	15,200	------	13,900	------	------	------
4	------	15,600	22,900	16,900	------	12,500	------	------	------
5	------	15,900	23,000	16,800	------	8,660	14,200	------	------
6	------	15,900	23,400	17,500	12,600	12,400	14,600	------	------
7	------	15,700	19,000	15,200	10,400	12,500	16,800	------	------
8	------	15,500	18,100	12,300	9,490	14,400	15,400	------	------
9	------	17,200	18,800	12,100	13,000	14,200	11,700	------	------
10	------	16,300	17,900	12,400	11,800	13,500	9,740	------	------
11	------	14,500	17,300	11,800	12,800	15,200	14,100	------	------
12	------	12,700	14,600	11,800	13,200	12,100	15,800	------	------
13	------	14,400	12,000	12,100	12,100	15,100	16,900	------	------
14	------	14,800	12,000	12,100	11,000	14,800	18,300	------	------
15	------	14,500	12,400	12,300	7,520	13,800	18,000	------	------
16	------	16,200	11,900	11,400	13,900	14,800	14,100	------	------
17	------	14,300	11,900	------	12,200	15,900	9,510	------	------
18	------	15,000	12,200	------	12,200	13,900	13,100	------	------
19	------	15,600	12,100	------	12,500	13,100	10,600	------	------
20	------	15,400	12,200	------	14,100	14,900	------	------	------
21	------	15,400	12,800	------	11,100	16,100	------	------	------
22	------	15,200	12,200	------	12,200	15,900	------	------	------
23	16,800	15,600	12,100	------	13,700	16,100	------	------	------
24	17,300	16,500	12,200	------	12,600	14,000	------	------	------
25	17,300	18,700	15,600	------	11,900	14,200	------	------	------
26	15,300	16,100	15,900	------	14,000	10,900	------	24,000	------
27	16,500	16,700	14,800	------	14,400	13,500	------	24,500	------
28	17,200	16,700	17,200	------	11,100	11,900	------	26,000	------
29	17,000	17,200	17,400	------	13,200	10,500	------	23,700	------
30	16,600	18,400	17,300	------	16,500	8,330	------	23,200	------
31	15,800	------	16,500	------	16,600	------	------	21,500	------

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