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SEDIMENT DATA FOR STREAMS
NEAR MOUNT ST. HELENS,
WASHINGTON
VOLUME 3.
WATER YEARS 1984-1987



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SEDIMENT DATA FOR STREAMS NEAR MOUNT ST. HELENS, WASHINGTON

Volume 3. Water Years 1984-87

By Randy L. Dinehart

U.S. GEOLOGICAL SURVEY

Open-File Report 91-219

Vancouver, Washington
1992



UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

COVER: The Toutle River upstream from bridge at Tower Road, February 24, 1987.
Photo by Lyn Topinka.

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FOR WHICH DATA ARE PUBLISHED**

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TABLE

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<u>Flow</u>		
cubic foot per second (ft^3s^{-1})	0.0283	cubic meter per second
ton	0.9072	tonne, metric
<u>Area</u>		
square mile (mi^2)	2.59	square kilometer
<u>Length</u>		
inch (in)	2.54	centimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer

Sediment discharge and stream discharge data in the U.S. Geological Survey data repository, WATSTORE, are stored in inch-pound units, and sediment concentrations and grain diameters are stored in SI units.

In this report, gage-datum elevations are relative to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

SEDIMENT DATA FOR STREAMS NEAR MOUNT ST. HELENS, WASHINGTON

Volume 3. Water Years 1984-87

By Randy L. Dinehart

ABSTRACT

This report presents fluvial sediment data collected from October 1983 through September 1987 at streams affected by the 1980 eruptions of Mount St. Helens. To provide daily sediment discharge values, and to document the sediment-transport characteristics of impacted streams near Mount St. Helens, the U.S. Geological Survey collected sediment data at gaging stations in the Cowlitz and Lewis River basins during this period. Three types of sediment data are presented for each gaging station:

- (1) Daily suspended-sediment discharges;
- (2) Particle-size distributions, concentrations, water and sediment discharges, and water temperatures, for instantaneous suspended-sediment samples; and
- (3) Particle-size distributions of bed material samples.

Standard methods of sediment data collection and analysis were used. Sediment data were collected on a biweekly or monthly schedule during normal river flows and at hourly intervals during many storm periods. Hazardous stream conditions hindered data collection during some storm flows, and shifting streambeds limited the accuracy of storm-period sediment discharges.

INTRODUCTION

Two major river basins in Washington State, the Cowlitz River and Lewis River basins, were affected by excessive sediment loads following the May 18, 1980, eruption of Mount St. Helens. The Cowlitz River **drainage basin**¹ has an area of 2,480 mi² and includes the Toutle River basin, which was severely altered by the eruption and was inundated by mudflows. Prior to the eruption, the Toutle River was a typical Cascades Range stream, having a cobble bed, forested watershed, and headwaters at several glaciers. Devastation of the upper basin by the volcanic blast, the massive collapse of the volcano's north face into the North Fork Toutle River valley, and deposits from the resulting debris flows and mudflows provided enormous supplies of **sediment** for transport. Storm flows immediately eroded large volumes from the debris avalanche and mudflow deposits, and induced widespread collapse of unprotected bank material along the Toutle River. Gullying and channel extension on the North Fork Toutle River debris avalanche made additional volumes of sediment available for transport in subsequent years (Meyer and Janda, 1985). Intensive and periodic sediment sampling began in the Toutle River basin immediately following the eruption.

During water years 1981-83, the average annual **suspended-sediment yield** measured at Toutle River at Tower Road near Silver Lake, Wash., was 74,000 tons mi⁻². During water years 1984-87, the average annual yield decreased to 26,600 tons mi⁻². Annual suspended-sediment yields from other affected streams near Mount St. Helens decreased during the same period. The annual **suspended-sediment discharge** totals for each long-term **gaging station** are summarized in Table 1. The obvious decrease in annual yields is primarily the result of natural recovery processes, but the decrease also has been affected by sediment control measures and short-term climatic variability (Childers and Janda, 1987). Most of the Toutle River sediment yield comes from about one-third of the 512 mi² drainage basin.

The Lewis River basin has a drainage area of 1,046 mi². The headwaters of several tributaries to the Lewis River are on Mount St. Helens. Two tributaries, the Muddy River and Pine Creek, were inundated by mudflows during the May 18, 1980, eruption (Christiansen and Peterson, 1981; Pierson, 1985). The Clearwater River basin, while not affected by mudflows, received heavy **tephra** deposits with the eruption blast. Annual suspended-sediment yields for the Muddy River, Pine Creek, Clearwater Creek, and other Lewis River tributaries increased from pre-eruption levels. Swift Reservoir, on the Lewis River, is downstream from these tributaries, and most of the mudflow sediment was deposited there.

¹Terms defined in the glossary are in bold print where first used in the main body of this report.

TABLE 1.--Summary of annual suspended-sediment discharge totals (English tons)

	14216300 Clearwater Creek near mouth near Cougar	14216500 Muddy River below Clear Creek near Cougar ¹	14240800 Green River above Beaver Creek near Kid Valley	14241100 North Fork Toutle River at Kid Valley	14241490 South Fork Toutle River at Camp 12 near Toutle	14242580 Toutle River at Tower Road near Silver Lake	14216900 Pine Creek at mouth near Cougar	14243000 Cowlitz River at Castle Rock
1982	---	3,790,000	495,000	34,400,000	1,450,000	40,700,000	712,000	36,600,000
1983	572,000	3,090,000	181,000	29,300,000	1,620,000	39,700,000	257,000	34,000,000
1984	122,000	1,500,000	209,000	22,100,000	476,000	24,700,000	396,000	25,300,000
1985	33,700	339,000	36,100	9,120,000	41,500	9,370,000	---	---
1986	98,600	903,000	277,000	7,990,000	189,000	7,630,000	---	---
1987	141,000	1,120,000	78,800	6,950,000	606,000	8,770,000	---	---

¹ 1982 and 1983 totals from 14216350--Muddy River above Clear Creek near Cougar, Wash. Sediment discharge from Clear Creek is negligible.

Problems that high sediment yields from the Mount St. Helens area have created are discussed in other publications (Dunne and Leopold, 1981; U.S. Army Corps of Engineers, 1981; Cowlitz County, 1983). To provide daily **sediment discharge** values and to document the sediment-transport characteristics of impacted streams near Mount St. Helens, the U.S. Geological Survey (USGS) collected sediment data on a regular basis at a number of gaging stations. The station locations are shown in Figure 1. Some stations were operated discontinuously during water years 1984-87. Sediment data for water year 1980 are presented in OFR 81-822 (Dinehart and others, 1981), and sediment data for water years 1981-83 are presented in OFR 85-632 (Dinehart, 1986). This report presents fluvial sediment data collected from October 1983 through September 1987 at streams affected by the 1980 eruptions of Mount St. Helens.

Sediment transport data have also been released in other Open-File Reports (see for example, Dinehart, 1987; Childers and others, 1988; Hammond, 1989). Miscellaneous sediment transport observations made during water years 1984-87 are not presented here, including: **bedload** measurements, statistical relations of water and suspended-sediment discharge, and detailed sediment investigations at miscellaneous sites. Information on the availability of unpublished data or statistical analyses may be obtained from the U.S. Geological Survey, Water Resources Division, Cascades Volcano Observatory, 5400 MacArthur Boulevard, Vancouver, Washington, 98661.

Description of Mount St. Helens Area

Mount St. Helens is an active volcano located on the westward side of the Cascade Range in southwest Washington State. The landslide and volcanic blast of the May 18, 1980, eruption devastated a 232 mi² area north of the mountain by destroying vegetation and depositing volcanic debris (Christiansen and Peterson, 1981). Mudflow, tephra, and blast deposits were also emplaced in several drainages south and east of the mountain.

Altitudes in the Mount St. Helens area range from 8,365 ft at the present summit of Mount St. Helens to less than 10 ft above sea level at the mouth of the Cowlitz River. Annual precipitation in the Mount St. Helens area ranges from 45 inches at Kelso, Wash., to 140 inches at the summit of Mount St. Helens (U.S. Weather Bureau, 1965). At high altitudes, precipitation usually falls as snow from November through March and as rain during the rest of the year. Winter floods are caused by intense rainstorms and rainfall on snow. Streamflow from all sides of the mountain eventually flows to the Columbia River by the Cowlitz, Kalama, and Lewis Rivers.

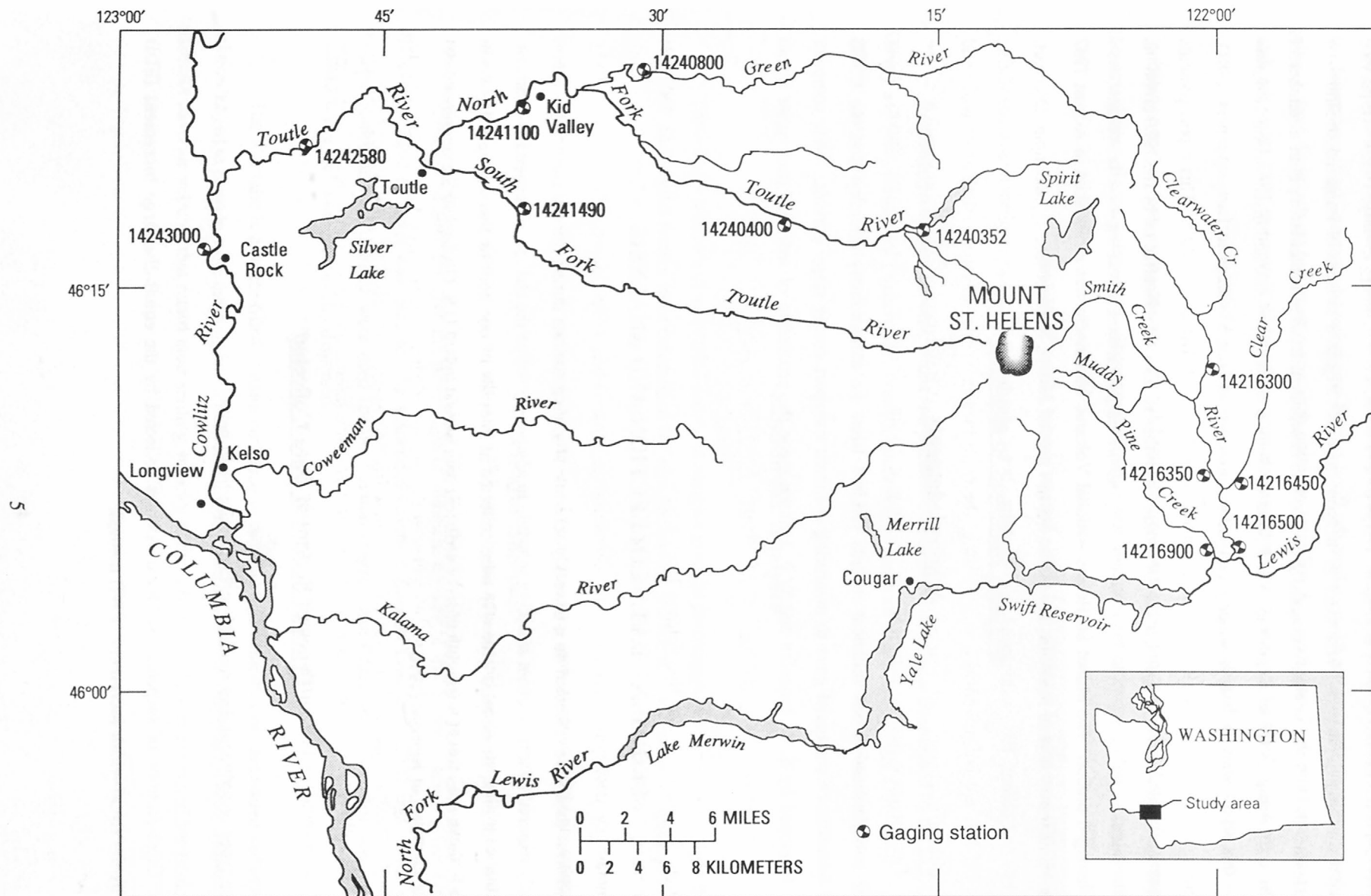


Figure 1.--Location of gaging stations on streams in Mount St. Helens area.

Most of the Mount St. Helens area is rural or forested and is sparsely populated. Nearest the mountain are the small towns of Kid Valley, Toutle, and Cougar. The more populous towns of Castle Rock, Kelso and Longview are farther downstream on the Cowlitz River, where the flood hazard was believed increased by the potential for sediment aggradation from the Toutle River. A sediment-retention dam was constructed on the North Fork Toutle River by the U.S. Army Corps of Engineers, which began retaining sediment in November 1987 (after the data presented in this report were collected).

Heavily forested areas near the mountain had been used for outdoor recreation and timber harvesting. Following the eruption, public access to the mountain was curtailed temporarily and logging activity was increased to salvage damaged timber. The Mount St. Helens National Volcanic Monument was established in August 1982 to protect a 110,000-acre area of scientific and public interest around Mount St. Helens.

Acknowledgments

The completeness of the sediment records resulted from the extraordinary attention that the USGS Hydrologic Surveillance personnel gave to measuring sediment transport during storm periods. New computer procedures developed by S. D. Finneran and W.P. Johnson made the processing of sediment data easier for all involved.

SEDIMENT DATA COLLECTION AND ANALYSIS

Sediment data were collected on a biweekly schedule at gaging stations during normal river flow. Storm runoff usually required a more frequent sampling schedule to adequately define the change of **suspended-sediment concentration** with time, so samples generally were collected at intervals of one hour or less during many storm periods. Field techniques used for the collection of sediment data were standard U.S. Geological Survey procedures as described by Guy and Norman (1970).

Types of Sediment Data Collected

The types of sediment data routinely collected are listed below.

1. Cross-sections of suspended-sediment samples collected by the **equal-discharge increment** (EDI) method or by the **equal-width increment** (EWI) method;

2. Samples collected at a single **sampling vertical** by U.S. Geological Survey personnel;
3. Samples collected at a single sampling vertical by observers (private citizens instructed by U.S. Geological Survey personnel in collection of suspended-sediment samples);
4. Fixed-point samples collected by **automatic pumping samplers**; and
5. Bed material samples collected at several sampling verticals (usually determined by the EDI method) in conjunction with suspended-sediment measurements.

Methods of Sediment Analysis

Suspended-sediment concentrations and **particle-size distributions** were determined by the U.S. Geological Survey sediment laboratory (Vancouver, Wash.), according to methods described by Guy (1969).

Sand-break Analyses

Sand-break analyses of suspended-sediment samples give the percentage of sediment by weight that is finer than 0.062 mm. Sand breaks were determined for samples having sufficient sand, and were usually done by wet sieving.

Particle-size Analyses

Particle-size analyses give the percentage of sediment by weight that is finer than a given **fall** or **sieve diameter**. Pipet analysis was used for the suspended-sediment fraction finer than 0.062 mm. Wet sieving or visual-accumulation (VA) tubes were used for the fraction coarser than 0.062 mm. Samples were analyzed in distilled water and were chemically dispersed.

The VA tube is a water-filled column equipped to measure **fall velocities** of **suspended sediment**, and is acknowledged to provide more meaningful particle-size distributions than wet sieving (Guy, 1969). However, pumice particles have air vesicles that retard their settling velocity in the VA tube (which is calibrated for particles with

specific gravity 2.65) and cause the percentage of fine particles to be over-represented (Smith and Smith, 1985). This property prevented the use of the VA tube for suspended-sediment samples having visually-significant amounts of pumice.

Bed material samples were dried and sieved to obtain particle-size distributions. Observers' samples and automatic pumping samples were usually analyzed for sediment concentration only (no particle size or sand break).

Computation of Daily Suspended-Sediment Discharge

Techniques for the computation of suspended-sediment discharge are described by Porterfield (1972). Suspended-sediment discharge is computed by the formula:

$$Q_s = 0.0027 \times Q_w \times C$$

where

Q_s = suspended-sediment discharge (tons day⁻¹);

Q_w = water discharge (ft³s⁻¹); and

C = mean concentration (mgL⁻¹),

and where 0.0027 is a conversion factor for inch-pound units.

Daily suspended-sediment discharge represents the total tons of suspended sediment (inch-pound units, dry weight) that passed the stream-measuring transect in one day. The most accurate sediment discharges are obtained when all available sediment concentrations are plotted against time, and the coincident water discharge is used to compute the sediment discharge. Examples of sediment-concentration graphs are shown in figures 2 to 6. If there is substantial variation in the sediment concentration or water discharge, the daily period is subdivided into smaller time increments; otherwise, the daily mean sediment concentration is used with the daily mean discharge to compute the daily suspended-sediment discharge. When no samples were available, the suspended-sediment concentration curve was interpolated. For periods where interpolation was insufficient to define a suspended-sediment concentration curve, plots of suspended-sediment discharge against water discharge ("sediment transport curves") were used to derive the daily suspended-sediment discharge.

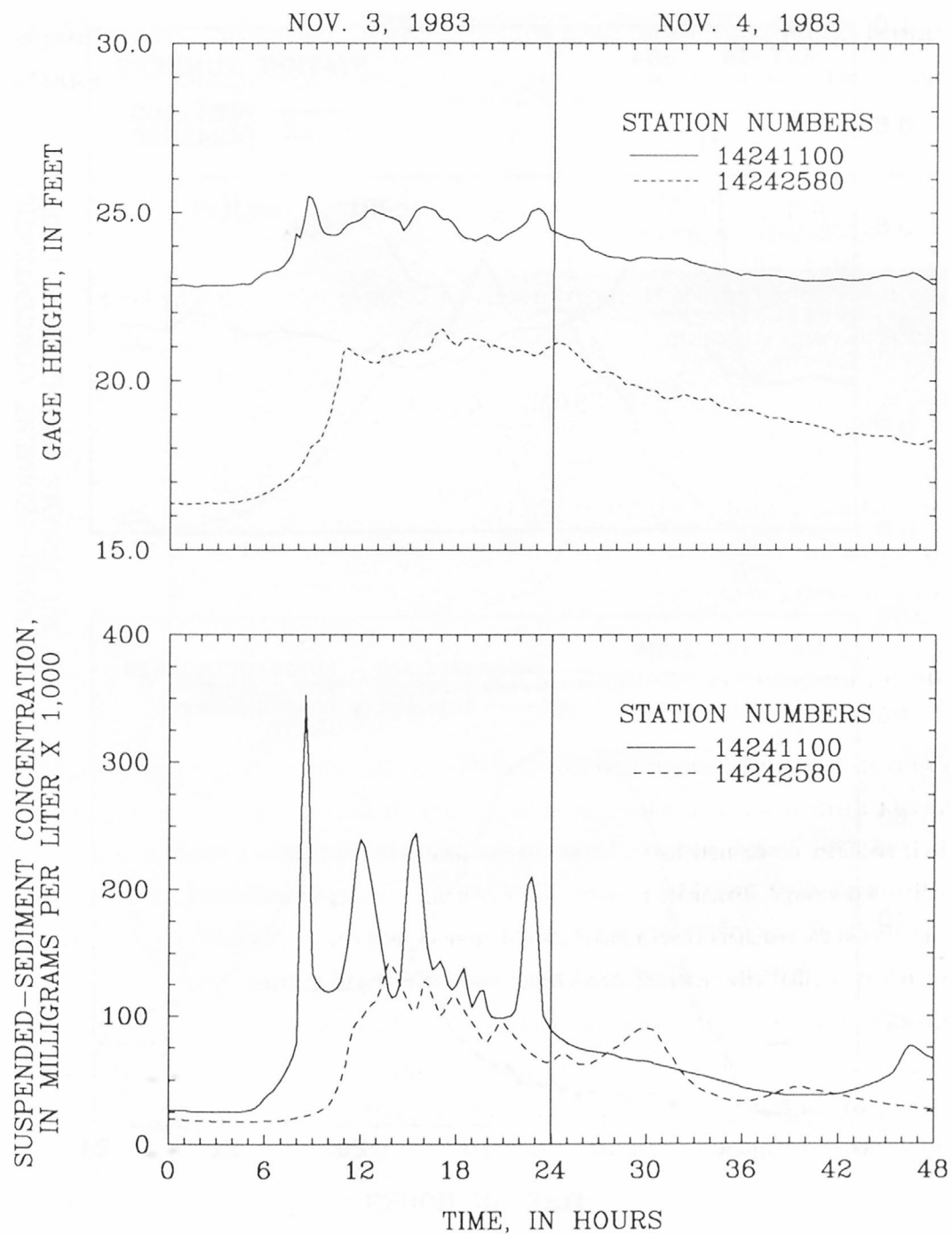


Figure 2.--Suspended-sediment concentration and stream discharge hydrograph, Nov. 3-4, 1983, for North Fork Toutle River at Kid Valley, Wash. (14241100) and Toutle River at Tower Road near Silver Lake, Wash. (14242580).

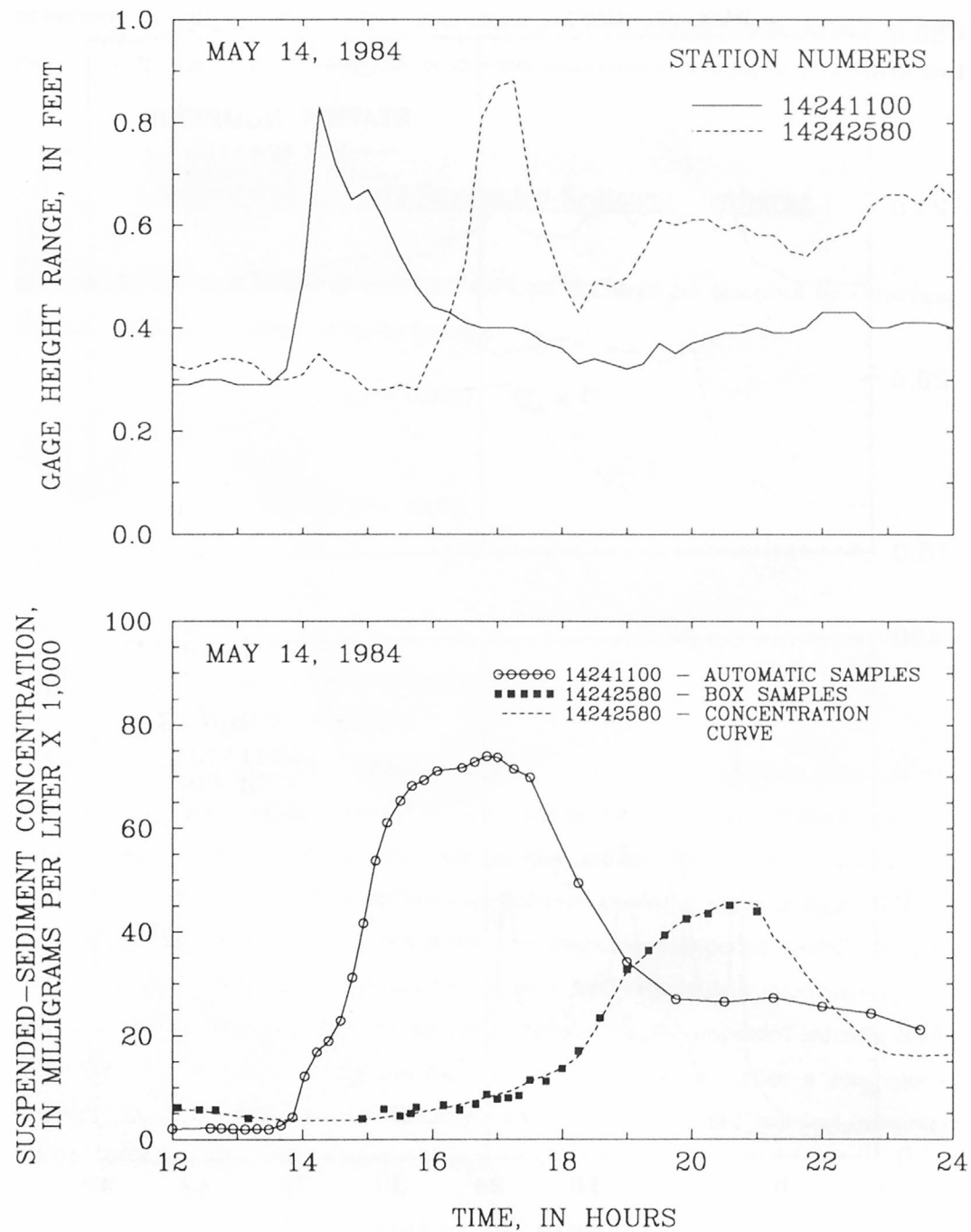


Figure 3.--Gage height and suspended-sediment concentration hydrograph, May 14, 1984, for North Fork Toutle River at Kid Valley (14241100) and Toutle River at Tower Road near Silver Lake, Wash. (14242580).

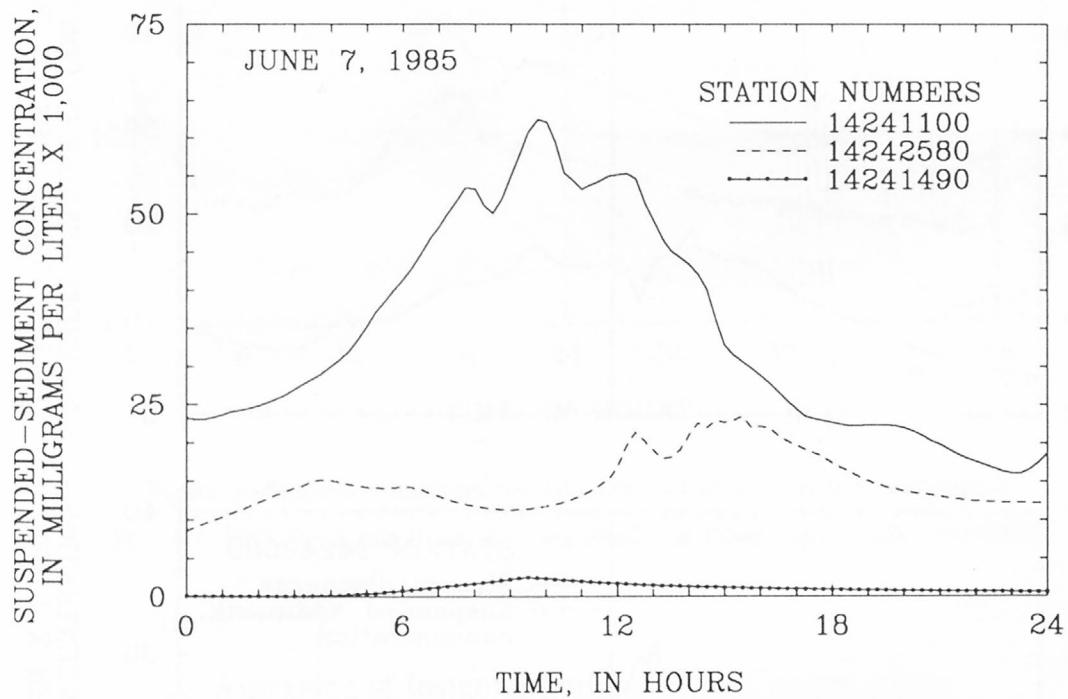


Figure 4.--Suspended-sediment concentration hydrograph, June 7, 1985, for North Fork Toutle River at Kid Valley, Wash. (14241100), South Fork Toutle River at Camp 12 near Toutle, Wash. (14241490), and Toutle River at Tower Road near Silver Lake, Wash. (14242580).

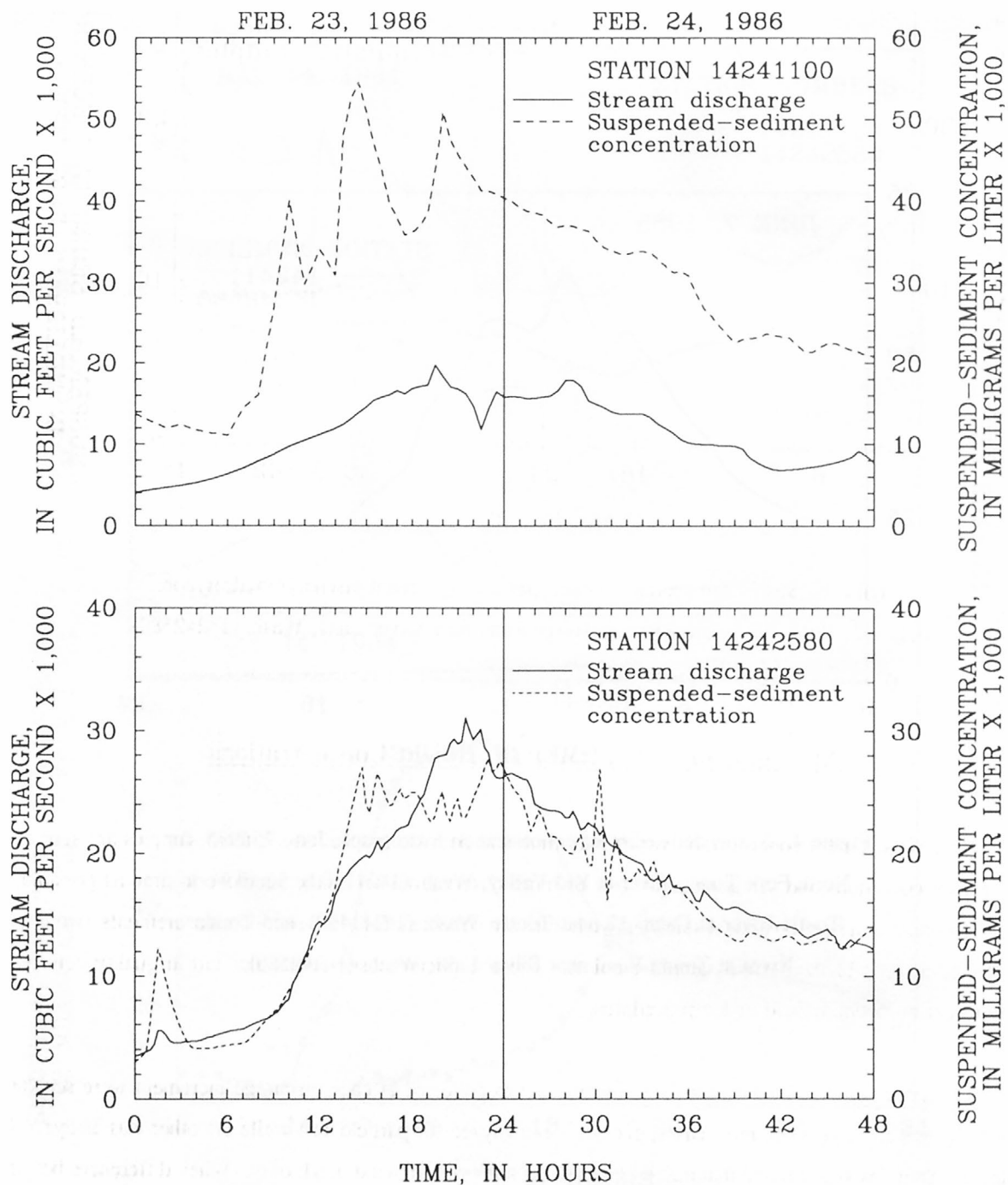


Figure 5.--Suspended-sediment concentration and stream discharge hydrograph, Feb. 23-24, 1986, for North Fork Toutle River at Kid Valley, Wash. (14241100) and Toutle River at Tower Road near Silver Lake, Wash. (14242580).

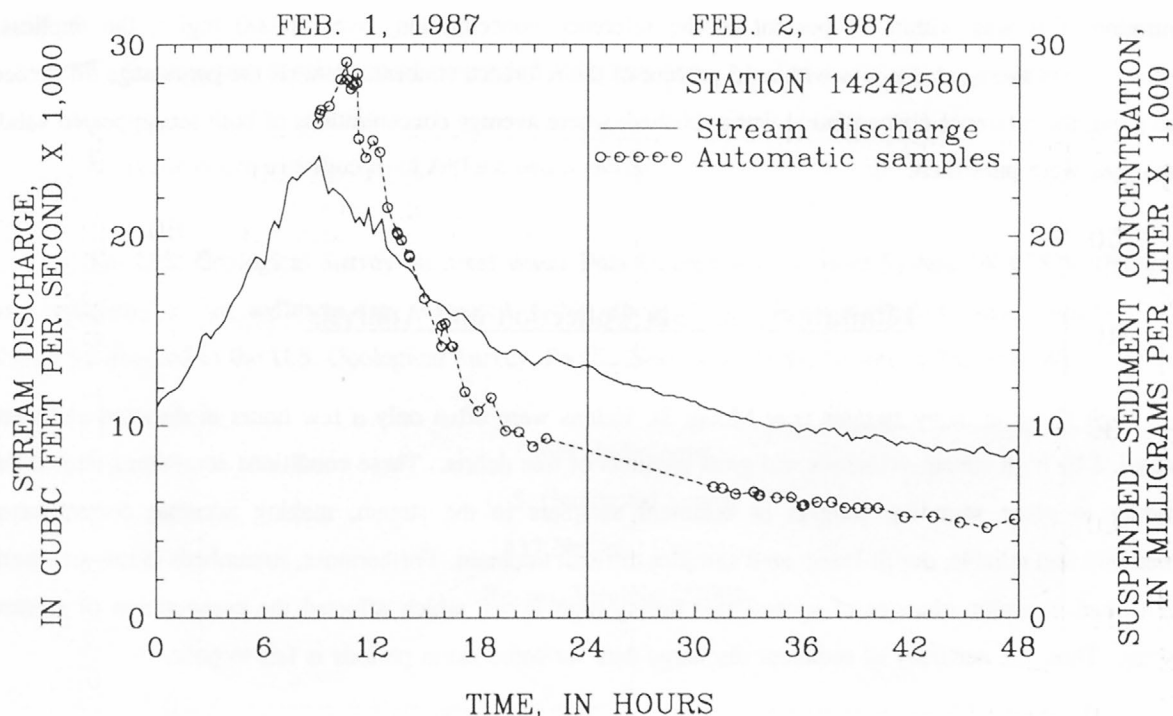


Figure. 6--Suspended-sediment concentration and stream discharge hydrograph, Feb. 1-2, 1987, for Toutle River at Tower Road near Silver Lake, Wash. (14242580).

Averaging of Instantaneous Sediment Concentrations

Because sediment concentration varies with time and because suspended-sediment samples are subject to erratic stream conditions and sampling error, two or more observations are made, as close in time as possible, to define a sample. For a **single-vertical sample**, two bottles are collected; for cross-section measurements, two bottles are collected at each of the several sampling points. These duplicate observations also aid in quality control by helping to detect errors in field or lab procedures.

Cross-section samples that consisted of two bottles collected at each discharge increment were separated into two representative sets. In most cases, one set was analyzed for particle size while the other was analyzed for sand break. Samples with limited material (< 1 gm) were analyzed for sand break only. When differences between average concentrations of both sets were not caused by obvious procedural errors, the concentrations were averaged if the percentage difference between the "reference" and "duplicate" sets was within certain, arbitrary limits. The reference concentration was considered to be the analysis with the least division of material by the lab (for example, a sample with a sand-break analysis is divided less than a sample with a complete particle-size analysis). For

concentrations under 10,000 mgL⁻¹, a second (duplicate) concentration was averaged with the first (reference) concentration if it was within 25 percent of the reference concentration; over 10,000 mgL⁻¹, the duplicate concentration was averaged if it was within 15 percent of the reference concentration. If the percentage difference was too great, the reference concentration was published; where average concentrations of both sets appeared valid, both analyses were published.

Limitations in Data Collection and Analysis

High flows in many streams near Mount St. Helens were often only a few hours in duration and were accompanied by high stream velocities and great amounts of tree debris. These conditions sometimes limited the opportunity to place sounding weights or sediment samplers in the stream, making accurate current-meter measurements and reliable, **depth-integrated samples** difficult to obtain. Furthermore, streambeds in this area were subject to bed elevation changes of several feet during high flows, which affected the computation of **stream discharge**. Thus, the accuracy of sediment discharge data for some storm periods is fair to poor.

Examples of Storm Hydrographs

Selected storm hydrographs of gage height, stream discharge, and suspended-sediment concentration in the Toutle River basin are presented in figures 2 to 6. The hydrographs show significant storm flows where suspended-sediment concentration curves were well-defined by automatic sampling and cross-section samples. Figure 3 shows gage height and sediment concentrations at two gaging stations during the passage of a flow generated on May 14, 1984, from an eruptive event in the crater of Mount St. Helens (Pringle and Cameron, 1986).

EXPLANATION OF SEDIMENT DATA TABLES

Sediment data from gaging stations near Mount St. Helens are presented by station in downstream order. Basic descriptions are given for each gaging station. Graphs of cumulative daily suspended-sediment discharge and daily mean water discharge are provided on the station description pages to show major sediment transport episodes during water years 1984-87 (figs. 7-11). Then, three types of data tables for water years 1984-87 are presented, with data in each table in chronological order. The tables are:

1. Daily suspended-sediment discharge;
2. Particle-size distribution of suspended sediment; and
3. Particle-size distribution of surface bed material.

The U.S. Geological Survey National Water Data Storage and Retrieval System (WATSTORE) was used as a repository for the sediment data presented in this report. Inquiries about obtaining data from WATSTORE should be directed to the U.S. Geological Survey, Pacific Northwest District office in Tacoma, Wash., or to:

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

Daily Suspended-Sediment Discharge: Tables

Suspended-sediment discharge tables list daily water discharge, daily mean suspended-sediment concentration, and daily suspended-sediment discharge. Mean concentration is listed only for days when suspended-sediment samples were collected; a blank indicates that the suspended-sediment discharge was estimated. When daily suspended-sediment discharge is computed by subdivision, the product of water discharge, mean concentration, and the conversion factor (0.0027), may not equal the suspended-sediment discharge. This difference occurs because subdivision gives a more representative weighting of time increments than mean values do, for periods of peak flow.

Particle Size of Suspended Sediment: Tables

Instantaneous suspended-sediment concentrations are listed with the concurrent water discharge, water temperature, number of sampling points in the cross section that the sample represents, the sampling-method code, and the results of any particle-size analyses.

Particle-size headings include Fall Diameter and Sieve Diameter. Some samples have information listed for both types of analyses. Equal-width increment (EWI) cross-section samples are denoted in the tables by Sampling-Method Code "10"; equal-discharge increment (EDI) cross-section samples are denoted by Sampling-Method Code "20." Tables with two pages of particle-size parameters are arranged on facing pages.

Particle Size of Surface Bed Material: Tables

Bed material samples from a cross-section measurement are given as individual analyses. The sample for each vertical of the cross-section is listed in a group of proximal times for one day, most often in groups of five. The number of bed material sampling points may not equal the number of concurrent suspended-sediment sampling points because the surface bed material could not be sampled at some verticals.

Surface bed material was sampled using a U.S. BM-54 sampler (F.I.A.S.P., 1964). The sampler rotates a 175 cm³ bucket into the streambed to a depth of 4.3 cm (1.7 in). Sand and fine gravel can be sampled without loss of material, but larger gravel and cobbles can cause incomplete closure of the scoop. Predominantly coarse material or a bed armored with imbricated cobbles can prevent proper operation of the U.S. BM-54 sampler, and a sample may not have been taken at those points. Therefore, the bed material data represent only points of equal-discharge increments where samples could be collected. The bed material data should be used with the limitation in mind that the coarser bed material is not fully represented.

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GLOSSARY

The following are definitions of terms used in this report. Most are adapted from the "National Handbook of Recommended Methods for Water Data Acquisition" (Office of Water Data Coordination, 1977).

Automatic pumping sampler.--A sediment sampler with an intake placed at a desired sampling point where the water-sediment mixture is withdrawn through a pipe or hose. Samples are usually collected at regular, predetermined intervals, but can be collected on a river stage-dependent basis. U.S. Geological Survey model PS-69 pumping samplers were used at Mount St. Helens area gaging stations.

Bedload.--Sedimentary material moving on or near the streambed by rolling, sliding, and becoming intermittently suspended in the flow a few grain diameters above the bed.

Depth-integrated sample.--A discharge-weighted (velocity-weighted) sample of water-sediment mixture collected at one or more verticals in accordance with the technique of depth integration.

Depth integrating, suspended-sediment sampler.--An instrument capable of collecting a water-sediment mixture isokinetically as its intake is traversed across the flow: hence, a sampler suitable for performing depth integration.

Depth integration.--A method of sampling at every point throughout the sampled depth, whereby a water-sediment mixture is collected so that the contribution to the sample from each point is proportional to the stream velocity at the point.

Drainage basin.--The area tributary to or draining to a lake, stream, or measuring site.

Equal-discharge increment (EDI) method.--A procedure for obtaining the discharge-weighted suspended-sediment concentration of flow at a transect by: (1) performing depth integration at the centers of equal-flow segments across the transect, and (2) using a vertical transit rate at each sampling vertical that provides equal sample volumes from all flow segments.

Equal-width increment (EWI) method.--A procedure for obtaining the discharge-weighted suspended-sediment concentration of flow at a transect by: (1) performing depth integration at a series of verticals equally spaced across the transect, and (2) using the same vertical transit rate at all sampling verticals.

Fall diameter.--The diameter of a sphere that has a specific gravity of 2.65 and has the same standard fall velocity as the particle.

GLOSSARY--Continued

Fall velocity.--The falling or settling rate of a particle in a given medium.

Gaging station.--A selected cross section of a stream channel where one or more variables is measured continuously or periodically to index discharge and other parameters.

Lahar-runout flow.--Streamflow that evolves from a lahar (volcanic debris flow or mudflow). The flow mixture contains from 40 to 80 percent sediment by weight, which corresponds to concentrations of 530,000 to 1,590,000 mgL⁻¹.

Particle size.--A linear dimension, usually designated as "diameter," used to characterize the size of a particle.

Particle-size distribution.--The frequency distribution of the relative amounts of particles in a sample that are within specified size ranges, or a cumulative frequency distribution of the relative amounts of particles coarser or finer than specified sizes. Relative amounts are expressed in this report as percentages by metric weight.

Sampling vertical.--An approximately vertical path from the water surface to the streambed, along which one or more samples are collected to define various properties of the flow, such as sediment concentration.

Sediment.--Particles derived from rocks or biological materials that have been transported by a fluid.

Sediment discharge.--The weight or volume of sediment passing a stream transect in a unit of time. The term may be qualified, for example, as suspended-sediment discharge, bedload discharge, or total-sediment discharge. Instantaneous sediment discharge is the quantity of sediment passing a stream transect at the time the sediment sample is collected. Daily sediment discharge is the quantity of sediment passing a stream transect on that day. In this report, instantaneous and daily quantities are expressed as inch-pound units of weight in tons per day.

Sieve diameter.--The smallest standard sieve opening through which a particle of sediment will pass.

Single-vertical sample.--A depth-integrated sample collected at only one sampling vertical in the cross section of a stream.

Specific gravity.--Ratio of the mass of any volume of a substance to the mass of an equal volume of water at 4°C. The specific gravity of quartz sediment particles is 2.65.

GLOSSARY--Continued

Stream discharge.--The quantity of flow passing a stream transect in a unit of time. The flow quantity includes dissolved solids and sediment.

Suspended sediment.--Sediment that is carried in suspension by the turbulent components of the fluid.

Suspended-sediment concentration.--The ratio of the mass (nominally equivalent to weight in the metric system) of dry sediment in a water-sediment mixture to the mass of the mixture. This ratio is expressed in this report as milligrams per liter. Calculation of suspended-sediment discharge from concentration includes a gravity term to express weight in tons; in inch-pound units, the term "mass" is not equivalent to "weight."

Suspended-sediment discharge.--The quantity of suspended sediment passing a transect in a unit of time, expressed in this report in inch-pound units as weight in tons per day.

Suspended-sediment sample.--A quantity of water-sediment mixture or deposited sediment that is collected to characterize some property or properties of the sampled medium.

Suspended-sediment yield.--The total sediment outflow from a drainage basin in a specific period of time. It can include bedload as well as suspended load and is expressed in this report as inch-pound units of weight in tons per unit of land area.

Tephra.--Molten or solid volcanic materials, including ash, lapilli, pumice, bombs, and blocks, which are ejected into the air during a volcanic eruption.

Total-sediment discharge.--The total quantity of sediment passing a section in a unit of time. This quantity is usually computed by mathematical methods using sediment and hydraulic data collected at the stream transect.

Transect, stream.--A sample area, cross section, or line across a stream channel chosen as the basis for studying one or more characteristics of a stream.

Water discharge.--The quantity of water passing a stream transect in a unit of time. As sediment concentration increases in the stream, the stream discharge becomes greater than the water discharge. For computing sediment discharge in this study, the measured stream discharge was assumed equal to the water discharge. See stream discharge.

14216300 CLEARWATER CREEK NEAR MOUTH NEAR COUGAR, WA

LOCATION.--Lat 46°12'07", long 122°00'54", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T.8 N., R.6 E., Skamania County, Hydrologic Unit 17080002, Gifford Pinchot National Forest, 3 mi upstream from mouth, and 17.0 mi northeast of Cougar.

DRAINAGE AREA.--33 mi².

PERIOD OF SEDIMENT DATA.--October 1981 through September 1987.

GAGE.--Water-stage recorder. Altitude of gage is 1,520 ft, from topographic map.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended-sediment concentration, mgL ⁻¹
1981	Nov. 21, 1980	1120	5,240
1982	Feb. 16, 1982	1403	3,980
1983	Dec. 27, 1982	1405	941
1984	Nov. 16, 1984	1415	3,850
1985	Jun. 8, 1985	1340	395
1986	Feb. 27, 1986	1500	706
1987	Feb. 4, 1987	1315	733

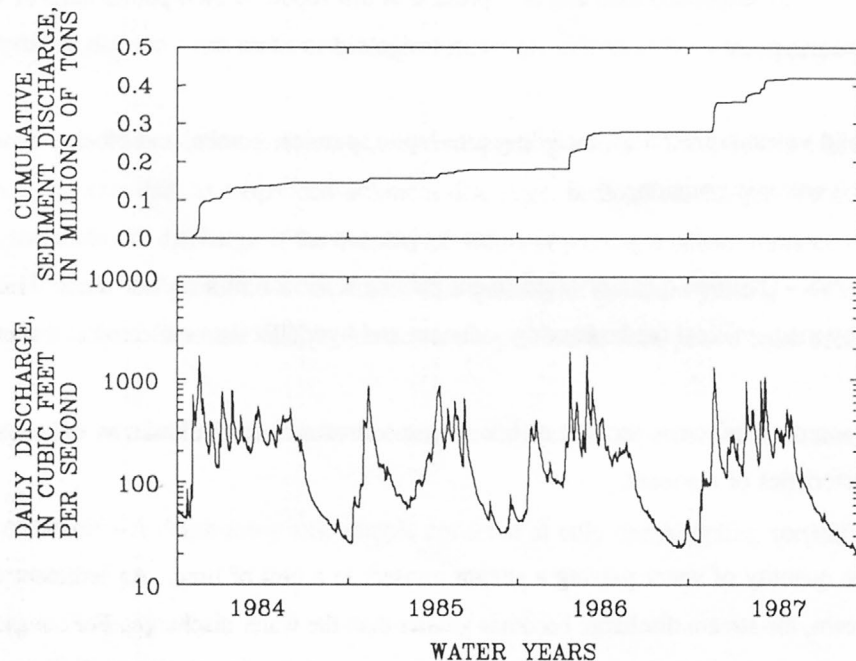


Figure 7.--Cumulative daily suspended-sediment discharge and daily mean stream discharge, water years 1984-87, Clearwater Creek near mouth near Cougar, Wash. (14216300).

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	52	6	0.84	70	126	24	283	---	180
2	52	10	1.4	159	773	356	257	---	150
3	52	7	.98	698	2,910	5,480	235	---	130
4	52	3	.42	516	840	1,170	220	---	110
5	51	5	.69	408	585	644	221	---	90
6	49	7	.93	475	655	840	200	---	75
7	49	6	.79	434	291	341	187	114	58
8	49	5	.66	386	277	289	202	---	70
9	49	4	.53	350	254	240	235	---	100
10	48	4	.52	437	1,370	1,620	389	---	1,000
11	47	5	.63	566	1,590	2,430	362	---	900
12	46	5	.62	576	610	949	343	---	800
13	46	4	.50	598	517	835	365	---	800
14	46	3	.37	703	901	1,880	377	---	700
15	45	4	.49	1,080	3,230	9,420	348	---	500
16	45	6	.73	1,490	4,160	16,700	314	---	300
17	46	8	.99	1,680	5,040	35,300	283	---	200
18	45	10	1.2	1,300	1,360	4,770	257	---	150
19	44	9	1.1	1,050	---	3,500	229	---	100
20	44	10	1.2	881	---	2,500	197	---	80
21	44	14	1.7	684	---	1,500	160	---	70
22	85	114	26	542	---	750	147	---	60
23	54	33	4.8	454	---	500	138	---	50
24	49	11	1.5	641	---	2,000	139	---	50
25	48	14	1.8	571	---	1,000	144	---	45
26	47	14	1.8	506	---	700	138	---	40
27	46	17	2.1	454	---	500	137	---	35
28	45	14	1.7	403	---	350	137	---	30
29	45	12	1.5	355	264	253	202	---	200
30	92	84	21	322	---	200	290	---	500
31	68	64	12	---	---	---	262	---	400
TOTAL	1,580	---	91.49	18,789	---	97,041	7,398	---	7,973
JANUARY			FEBRUARY			MARCH			
1	219	---	300	321	159	138	222	86	52
2	262	---	600	291	127	100	218	39	23
3	626	---	3,000	272	108	79	206	---	20
4	751	---	4,000	263	106	75	196	---	20
5	713	---	2,500	254	79	54	189	---	20
6	638	---	1,500	246	85	56	196	40	21
7	569	---	1,000	233	76	48	196	52	28
8	497	---	600	238	84	54	210	48	27
9	422	310	353	242	110	72	225	105	64
10	432	262	306	250	87	59	250	98	66
11	407	261	287	254	100	69	263	83	59
12	382	259	267	400	272	294	321	300	260
13	342	254	235	439	221	262	342	174	161
14	291	225	177	400	131	141	388	267	280
15	265	200	143	370	106	106	426	122	140
16	246	194	129	331	108	97	446	180	217
17	225	---	120	291	102	80	453	135	165
18	210	---	100	268	91	66	432	94	110
19	203	---	80	246	---	50	400	78	84
20	199	---	70	263	---	60	446	191	230
21	199	---	70	272	---	60	541	324	473
22	222	---	100	259	---	50	525	128	181
23	259	---	500	250	---	45	510	116	160
24	525	---	2,000	246	---	40	466	93	117
25	778	---	5,000	233	---	35	426	82	94
26	717	---	1,000	222	---	30	407	77	85
27	767	---	700	210	---	25	342	76	70
28	466	---	500	210	---	25	331	61	55
29	394	---	300	203	56	31	306	63	52
30	365	217	214	---	---	---	286	64	49
31	348	192	180	---	---	---	277	67	50
TOTAL	12,939	---	26,331	7,977	---	2,301	10,442	---	3,433

14216300 CLEARWATER CREEK NEAR MOUTH NEAR COUGAR, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	272	42	31	277	462	346	370	102	102
2	259	40	28	359	1,220	1,180	342	83	77
3	254	40	27	348	183	172	321	66	57
4	246	48	32	342	118	109	311	69	58
5	246	55	37	326	99	87	296	64	51
6	233	33	21	301	103	84	286	82	63
7	238	50	32	291	113	89	272	74	54
8	229	33	20	291	110	86	277	50	37
9	229	50	31	296	85	68	263	43	31
10	229	31	19	296	76	61	254	47	32
11	225	34	21	337	168	153	254	44	30
12	242	46	30	382	202	208	263	203	144
13	233	33	21	420	292	331	272	256	188
14	259	129	90	439	286	339	267	136	98
15	301	170	138	426	188	216	267	88	63
16	311	266	223	388	120	126	254	68	47
17	316	270	230	382	84	87	229	68	42
18	316	153	131	376	75	76	214	64	37
19	311	115	97	388	90	94	203	49	27
20	296	83	66	407	100	110	197	69	37
21	291	69	54	407	80	88	257	44	31
22	291	75	59	388	76	80	224	32	19
23	281	81	61	407	90	99	204	36	20
24	267	62	45	407	80	88	205	30	17
25	254	70	48	394	75	80	198	31	17
26	238	74	48	413	80	89	192	26	13
27	225	63	38	413	100	112	177	35	17
28	222	59	35	420	190	215	161	30	13
29	214	58	34	474	324	415	162	25	11
30	214	84	49	517	345	482	146	16	6.3
31	---	---	---	446	150	181	---	---	---
TOTAL	7,742	---	1,796	11,758	---	5,951	7,338	---	1,439.3
JULY			AUGUST			SEPTEMBER			
1	109	14	4.1	50	2	0.27	34	2	0.18
2	103	13	3.6	49	2	.26	34	2	.18
3	100	11	3.0	48	3	.39	33	2	.18
4	98	13	3.4	48	3	.39	32	2	.17
5	94	10	2.5	47	2	.25	36	5	.49
6	90	10	2.4	46	4	.50	42	7	.79
7	88	9	2.1	46	3	.37	43	6	.70
8	84	8	1.8	46	3	.37	43	6	.70
9	80	8	1.7	45	4	.49	38	6	.62
10	76	7	1.4	44	3	.36	36	6	.58
11	73	6	1.2	44	---	.35	35	5	.47
12	72	5	.97	44	---	.35	34	3	.28
13	70	4	.76	44	---	.35	33	2	.18
14	69	4	.75	43	---	.35	31	2	.17
15	67	3	.54	43	4	.46	31	1	.08
16	65	4	.70	42	4	.45	31	4	.33
17	64	4	.69	42	2	.23	30	4	.32
18	63	3	.51	42	4	.45	29	1	.08
19	62	3	.50	39	4	.42	29	2	.16
20	60	3	.49	39	4	.42	29	4	.31
21	59	2	.32	39	4	.42	28	3	.23
22	58	2	.31	38	4	.41	30	1	.08
23	57	2	.31	38	4	.41	30	2	.16
24	56	3	.45	38	4	.41	30	1	.08
25	56	3	.45	37	3	.30	29	1	.08
26	55	3	.45	35	3	.28	28	6	.45
27	54	4	.58	35	4	.38	27	4	.29
28	53	3	.43	35	3	.28	27	1	.07
29	52	3	.42	34	3	.28	26	4	.28
30	51	2	.28	34	4	.37	26	1	.07
31	50	2	.27	34	3	.28	---	---	---
TOTAL	2,188	---	37.38	1,288	---	11.30	964	---	8.76
YEAR	90,403	146,414.23 TONS							

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	26	1	0.07	93	50	13	192	44	23
2	26	2	.14	367	1,340	1,490	178	---	20
3	25	2	.14	397	457	490	167	---	18
4	26	2	.14	387	206	215	154	---	15
5	26	2	.14	360	157	153	143	---	10
6	26	2	.14	359	125	121	139	26	9.8
7	26	2	.14	361	107	104	141	24	9.1
8	25	3	.20	345	110	102	151	35	14
9	26	2	.14	336	91	83	148	20	8.0
10	54	37	6.0	421	363	492	145	21	8.2
11	55	8	1.2	521	283	398	141	17	6.5
12	58	16	2.5	749	1,010	2,040	138	22	8.2
13	69	15	2.8	859	917	2,130	138	17	6.3
14	71	8	1.5	813	478	1,050	148	35	14
15	66	3	.53	686	411	761	148	20	8.0
16	62	3	.50	557	302	454	137	15	5.5
17	59	2	.32	454	215	264	133	14	5.0
18	58	3	.47	441	181	216	112	---	2.0
19	57	3	.46	385	167	174	103	---	1.0
20	57	2	.31	358	134	130	105	---	1.0
21	56	2	.30	322	112	97	106	---	1.0
22	56	3	.45	296	95	76	119	---	2.5
23	56	3	.45	308	175	146	141	---	8.0
24	56	6	.91	289	93	73	133	---	5.0
25	80	30	6.5	263	59	42	125	---	3.0
26	87	39	9.2	244	64	42	122	---	3.0
27	92	16	4.0	233	69	43	122	---	2.0
28	94	---	3.0	232	69	43	117	---	2.5
29	92	---	2.0	226	57	35	117	---	2.5
30	92	---	2.0	208	50	28	117	---	2.5
31	91	6	1.5	---	---	---	110	---	1.5
TOTAL	1,750	---	48.15	11,870	---	11,505	4,190	---	226.1
JANUARY			FEBRUARY			MARCH			
1	104	---	1.0	62	---	0.50	105	---	3.0
2	101	---	1.0	63	---	.50	105	---	3.0
3	101	---	1.0	58	---	.50	103	---	3.0
4	96	3	.78	54	---	.50	103	---	3.0
5	91	3	.74	58	---	.50	103	---	3.0
6	91	---	.50	58	---	.50	98	---	3.0
7	91	---	.50	58	---	.50	92	---	3.0
8	89	---	.50	58	---	.50	91	---	3.0
9	84	---	.50	57	---	.50	92	---	3.0
10	79	---	.50	56	---	.50	94	---	3.0
11	74	---	.50	65	---	.50	99	---	3.0
12	73	---	.50	72	4	.78	104	---	3.0
13	73	---	.50	66	4	.71	106	---	3.0
14	74	---	.50	66	4	.71	113	17	5.2
15	74	---	.50	70	2	.38	121	23	7.5
16	73	---	.50	69	1	.19	131	37	13
17	74	---	.50	68	1	.18	146	49	19
18	76	---	.50	68	1	.18	158	57	24
19	75	---	.50	68	2	.37	165	43	19
20	74	---	.50	68	2	.37	173	46	21
21	74	---	.50	69	6	1.1	177	44	21
22	74	---	.50	76	6	1.2	171	22	10
23	72	---	.50	85	10	2.3	192	153	87
24	69	---	.50	99	9	2.4	193	46	24
25	66	---	.50	104	4	1.1	179	25	12
26	64	---	.50	98	6	1.6	173	21	9.8
27	63	---	.50	97	13	3.4	170	17	7.8
28	64	---	.50	99	---	3.0	159	18	7.7
29	64	---	.50	---	---	---	157	---	7.5
30	61	---	.50	---	---	---	170	---	7.5
31	62	---	.50	---	---	---	198	---	5.0
TOTAL	2,400	---	17.52	1,989	---	25.47	4,241	---	347.0

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	231	120	75	324	134	124	175	66	31
2	273	166	122	413	198	221	161	56	24
3	317	166	142	520	243	341	149	54	22
4	315	83	71	491	147	195	141	---	11
5	322	119	103	423	126	144	142	---	11
6	360	174	169	367	95	94	217	---	42
7	410	220	244	332	98	88	650	---	700
8	463	234	293	310	76	64	621	390	654
9	537	333	483	295	65	52	500	223	301
10	628	417	707	290	78	61	370	184	184
11	742	559	1,120	280	71	54	293	128	101
12	769	496	1,030	259	58	41	277	110	82
13	772	---	1,100	250	54	36	253	88	60
14	788	---	1,200	248	45	30	231	83	52
15	846	---	1,400	256	69	48	211	63	36
16	868	---	1,500	356	224	243	193	54	28
17	728	---	1,000	559	473	714	180	50	24
18	611	---	660	619	573	958	170	45	21
19	494	---	400	572	572	883	162	38	17
20	392	---	230	475	247	317	152	30	12
21	318	---	130	411	210	233	145	34	13
22	281	---	95	405	186	203	140	---	11
23	268	---	90	413	177	197	133	---	9.0
24	232	89	56	439	202	239	126	---	7.0
25	215	81	47	401	153	166	120	---	6.0
26	210	68	39	341	152	140	114	---	5.0
27	226	104	63	302	126	103	109	9	2.6
28	264	90	64	257	117	81	104	14	3.9
29	280	84	64	227	101	62	100	6	1.6
30	289	71	55	200	89	48	95	8	2.1
31	---	---	---	181	72	35	---	---	---
TOTAL	13,449	---	12,752	11,216	---	6,215	6,434	---	2,474.2
JULY			AUGUST			SEPTEMBER			
1	90	6	1.5	65	35	6.1	32	8	0.69
2	85	8	1.8	54	18	2.6	33	4	.36
3	80	8	1.7	54	14	2.0	32	4	.35
4	76	6	1.2	52	11	1.5	32	9	.78
5	73	3	.59	50	8	1.1	33	14	1.2
6	72	4	.78	48	8	1.0	36	16	1.6
7	70	4	.76	47	8	1.0	36	22	2.1
8	68	2	.37	47	6	.76	34	14	1.3
9	66	4	.71	44	7	.83	35	13	1.2
10	64	4	.69	43	8	.93	45	17	2.1
11	63	2	.34	42	7	.79	40	10	1.1
12	62	1	.17	40	6	.65	55	12	1.8
13	61	2	.33	39	8	.84	65	15	2.6
14	60	1	.16	39	6	.63	75	21	4.3
15	60	2	.32	37	4	.40	65	9	1.6
16	61	1	.16	37	6	.60	55	15	2.2
17	59	1	.16	36	7	.68	55	12	1.8
18	57	1	.15	35	9	.85	60	11	1.8
19	56	1	.15	35	6	.57	59	7	1.1
20	53	1	.14	35	6	.57	55	3	.45
21	52	1	.14	34	6	.55	52	4	.56
22	50	4	.54	34	8	.73	51	4	.55
23	49	2	.26	32	7	.60	49	3	.40
24	48	2	.26	32	7	.60	48	3	.39
25	47	8	1.0	32	6	.52	47	5	.63
26	45	4	.49	32	5	.43	45	3	.36
27	44	1	.12	32	10	.86	44	2	.24
28	44	4	.48	32	9	.78	43	3	.35
29	42	2	.23	32	7	.60	42	3	.34
30	42	6	.68	32	9	.78	42	3	.34
31	43	2	.23	32	6	.52	---	---	---
TOTAL	1,842	---	16.61	1,235	---	31.37	1,395	---	34.59
YEAR	62,011		33,693.01 TONS						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	41	---	0.20	264	93	66	100	---	2.0
2	41	---	.20	256	84	58	101	---	1.0
3	42	1	.11	251	74	50	117	---	4.0
4	42	4	.45	268	92	67	120	---	4.0
5	42	1	.11	268	68	49	124	---	5.0
6	42	1	.11	332	140	125	145	---	10
7	43	1	.12	392	210	222	157	---	10
8	42	1	.11	398	144	155	139	---	5.0
9	41	2	.22	374	104	105	130	---	5.0
10	42	1	.11	340	124	114	124	---	2.0
11	47	2	.25	291	---	80	113	6	1.8
12	48	1	.13	254	---	50	108	---	1.0
13	45	1	.12	229	40	25	108	---	1.0
14	48	3	.39	210	---	24	106	---	1.0
15	50	2	.27	215	---	22	104	---	1.0
16	53	3	.43	210	---	21	104	---	1.0
17	50	4	.54	195	---	20	104	---	1.0
18	49	2	.26	180	---	18	108	---	1.0
19	59	8	1.3	174	---	17	102	---	1.0
20	98	73	19	167	---	16	96	---	1.0
21	90	---	10	155	---	15	97	---	1.0
22	134	---	40	143	---	14	97	---	1.0
23	145	---	20	131	---	12	102	---	1.0
24	205	---	100	129	---	11	104	---	1.0
25	293	---	150	124	---	10	102	---	1.0
26	324	---	150	124	---	8.0	100	---	1.0
27	334	---	140	122	---	7.0	97	---	1.0
28	346	---	130	115	---	6.0	97	---	1.0
29	324	133	116	107	---	4.0	98	---	1.0
30	312	116	98	104	---	4.0	95	---	1.0
31	277	112	84	---	---	---	94	---	1.0
TOTAL	3,749	---	1,062.43	6,522	---	1,395.0	3,393	---	69.8
JANUARY				FEBRUARY			MARCH		
1	100	---	1.0	543	585	858	556	380	570
2	96	---	1.0	594	387	621	481	310	403
3	93	---	1.0	596	423	681	423	299	341
4	88	---	1.0	541	333	486	386	236	246
5	114	---	15	469	291	368	365	201	198
6	126	---	15	393	310	329	357	161	155
7	105	23	6.5	331	315	282	688	735	1370
8	140	45	18	277	221	165	831	442	992
9	199	125	72	245	132	87	701	314	594
10	229	109	72	224	122	74	583	268	422
11	250	60	40	206	117	65	565	242	369
12	238	34	22	191	145	75	549	204	302
13	229	32	20	179	172	83	508	208	285
14	223	18	11	176	136	65	445	202	243
15	219	32	19	256	---	150	390	197	207
16	284	190	172	318	---	150	344	162	150
17	333	180	171	235	---	100	305	126	104
18	1,080	5,650	21,700	218	---	100	281	109	83
19	1,850	3,000	16,100	216	---	90	256	75	52
20	1,220	957	3,150	201	---	80	238	60	39
21	630	716	1,220	195	---	70	243	57	37
22	550	498	740	213	---	80	228	57	35
23	500	504	680	875	---	4,100	283	221	213
24	331	356	318	1,710	---	15,000	375	211	214
25	280	334	253	1,560	---	10,000	359	102	99
26	257	326	226	1,160	---	3,000	386	90	94
27	276	319	238	848	860	1,970	397	73	78
28	257	224	155	651	479	842	417	94	106
29	257	196	136	---	---	---	410	79	87
30	374	601	607	---	---	---	424	110	126
31	461	380	473	---	---	---	396	76	81
TOTAL	11,389	---	46,653.5	13,621	---	39,971	13,170	---	8,295

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	359	88	85	159	23	9.9	157	27	11
2	312	56	47	170	27	12	147	21	8.3
3	275	52	39	174	34	16	138	28	10
4	247	49	33	182	24	12	133	19	6.8
5	222	44	26	214	50	29	130	20	7.0
6	207	38	21	203	36	20	125	17	5.7
7	203	39	21	191	12	12	115	15	4.7
8	213	40	23	183	20	9.9	97	13	3.4
9	219	29	17	188	22	11	88	15	3.6
10	221	34	20	192	27	14	83	14	3.1
11	224	27	16	190	22	11	80	10	2.2
12	211	27	15	188	21	11	76	7	1.4
13	191	28	14	206	32	18	73	10	2.0
14	173	26	12	199	23	12	72	18	3.5
15	169	18	8.2	195	21	11	71	6	1.2
16	177	21	10	193	16	8.3	71	5	.96
17	167	22	9.9	198	17	9.1	71	6	1.2
18	154	22	9.1	211	26	15	73	6	1.2
19	143	23	8.9	220	30	18	71	6	1.2
20	142	26	10	245	36	24	65	5	.88
21	151	33	13	245	30	20	62	5	.84
22	177	61	29	215	24	14	60	4	.65
23	185	30	15	186	20	10	57	6	.92
24	184	38	19	174	15	7.0	56	6	.91
25	183	36	18	176	14	6.7	55	8	1.2
26	177	30	14	191	17	8.8	54	4	.58
27	197	50	27	192	27	14	53	4	.57
28	182	31	15	184	14	7.0	53	4	.57
29	169	30	14	179	12	5.8	53	7	1.0
30	160	28	12	174	16	7.5	52	9	1.3
31	---	---	---	164	38	17	---	---	---
TOTAL	5,994	---	621.1	5,981	---	401.0	2,491	---	87.88
JULY			AUGUST			SEPTEMBER			
1	51	8	1.1	33	3	0.27	24	1	0.06
2	51	6	.83	32	2	.17	24	1	.06
3	50	4	.54	32	2	.17	24	1	.06
4	53	4	.57	31	2	.17	24	1	.06
5	50	6	.81	31	1	.08	23	2	.12
6	48	8	1.0	32	2	.17	23	2	.12
7	47	7	.89	31	1	.08	23	2	.12
8	46	6	.75	31	2	.17	23	1	.06
9	45	5	.61	31	4	.33	27	2	.15
10	48	4	.52	30	8	.65	25	2	.14
11	47	2	.25	30	8	.65	24	2	.13
12	44	3	.36	30	5	.41	24	2	.13
13	42	1	.11	30	7	.57	23	1	.06
14	41	2	.22	29	3	.23	23	2	.12
15	41	1	.11	28	2	.15	23	2	.12
16	44	2	.24	27	3	.22	23	1	.06
17	44	2	.24	27	6	.44	24	2	.13
18	41	3	.33	27	4	.29	25	2	.14
19	39	3	.32	27	2	.15	24	2	.13
20	38	4	.41	27	2	.15	25	5	.34
21	37	3	.30	26	---	.20	25	---	.40
22	36	2	.19	26	4	.28	25	4	.27
23	36	2	.19	26	2	.14	30	8	.65
24	36	2	.19	26	2	.14	34	8	.73
25	35	2	.19	26	2	.14	36	8	.83
26	34	2	.18	25	2	.14	42	10	1.2
27	35	4	.38	24	2	.13	35	3	.33
28	35	3	.28	24	2	.13	35	3	.28
29	34	3	.28	24	2	.13	42	11	1.4
30	34	3	.28	24	2	.13	40	5	.50
31	34	4	.37	24	2	.13	---	---	---
TOTAL	1,296	---	13.04	871	---	7.21	822	---	8.90
YEAR	69,299		98,585.86 TONS						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	36	2	0.19	104	---	15	377	---	460
2	34	3	.28	98	---	11	314	227	192
3	32	3	.26	95	26	6.7	265	178	127
4	31	4	.33	91	46	11	228	117	72
5	30	2	.16	98	42	11	207	82	46
6	30	2	.16	98	69	18	185	71	35
7	29	2	.16	110	25	7.4	169	63	29
8	29	1	.08	99	35	9.4	162	56	24
9	29	1	.08	96	33	8.6	151	61	25
10	28	2	.15	91	24	5.9	137	44	16
11	28	1	.08	98	29	7.7	135	---	15
12	28	1	.08	98	---	8.0	135	---	14
13	28	1	.08	95	---	6.0	134	---	13
14	27	1	.07	94	---	5.0	137	33	12
15	27	2	.15	92	---	5.0	128	---	9.0
16	27	2	.15	103	---	10	121	25	8.2
17	27	1	.07	115	---	25	117	31	9.8
18	27	1	.07	176	---	290	112	---	6.0
19	27	1	.07	218	---	520	110	---	6.0
20	27	1	.07	448	---	2,800	109	---	6.0
21	26	1	.07	620	---	5,600	116	---	9.0
22	26	1	.07	660	---	6,100	178	---	26
23	26	1	.07	862	---	10,500	219	83	49
24	26	1	.07	1,310	---	22,000	199	71	38
25	46	178	41	1,060	---	12,000	188	49	25
26	71	125	25	833	---	6,000	192	---	25
27	85	106	24	776	---	4,800	186	---	25
28	58	---	5.0	657	---	2,900	199	---	25
29	53	---	4.0	537	---	1,500	273	---	120
30	126	---	200	447	---	800	275	168	125
31	120	---	37	---	---	---	273	---	120
TOTAL	1,244	---	339.02	10,279	---	75,980.7	5,731	---	1,712.0
JANUARY				FEBRUARY			MARCH		
1	267	---	110	951	---	10,000	156	---	58
2	246	---	82	646	---	3,400	188	---	76
3	286	---	134	492	---	1,600	803	---	4,700
4	282	---	132	421	747	849	969	---	4,400
5	250	---	83	376	---	700	692	---	1,200
6	227	---	58	368	667	663	620	---	850
7	204	---	41	341	463	426	418	---	250
8	187	---	32	327	442	390	307	---	120
9	166	---	23	321	546	473	274	---	100
10	163	---	22	322	403	350	354	---	170
11	166	---	22	340	323	297	410	---	240
12	237	---	55	336	288	261	878	---	7,000
13	204	---	36	496	540	723	1,050	---	8,000
14	168	---	20	485	341	447	939	---	3,800
15	146	35	14	503	290	394	698	---	1,200
16	146	---	14	464	207	259	526	---	480
17	148	---	15	382	---	160	479	---	370
18	148	---	15	337	---	130	411	---	240
19	145	---	14	312	---	120	367	---	180
20	140	---	13	272	---	110	332	---	150
21	134	---	11	255	---	100	301	---	120
22	124	---	9.0	234	---	94	278	---	100
23	116	---	7.0	215	153	89	276	---	100
24	117	---	7.0	185	---	75	258	174	121
25	115	---	7.0	169	---	67	240	121	78
26	193	---	42	158	---	58	226	114	70
27	251	---	90	150	---	53	208	118	66
28	268	---	110	146	---	48	192	96	50
29	256	---	94	---	---	---	182	---	45
30	261	---	100	---	---	---	173	---	40
31	292	---	150	---	---	---	174	---	35
TOTAL	6,053	---	1,562.0	10,004	---	22,336	13,379	---	34,409

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	176	76	36	458	199	246	118	---	6.0
2	213	131	75	396	178	190	107	---	4.0
3	272	164	120	308	---	150	102	---	3.0
4	304	141	116	269	---	73	100	---	3.0
5	323	142	124	288	---	87	99	---	3.0
6	306	121	100	355	164	157	97	---	3.0
7	315	106	90	433	149	174	94	---	2.0
8	336	133	121	456	124	153	94	---	2.0
9	306	102	84	428	103	119	91	---	2.0
10	315	77	65	379	99	101	89	---	2.0
11	311	---	65	313	121	102	86	7	1.6
12	286	---	50	336	94	85	83	4	.90
13	260	---	40	268	90	65	81	3	.66
14	248	---	35	235	77	49	79	3	.64
15	252	---	37	203	73	40	77	4	.83
16	290	---	54	181	60	29	76	10	2.1
17	322	---	120	164	58	26	75	3	.61
18	295	---	56	150	33	13	71	4	.77
19	261	---	40	139	28	11	69	3	.56
20	228	---	31	124	21	7.0	69	2	.37
21	216	---	29	117	19	6.0	73	3	.59
22	231	---	31	110	---	5.0	69	2	.37
23	265	---	42	107	---	4.0	65	2	.35
24	295	---	56	104	---	4.0	62	3	.50
25	286	---	50	102	---	3.0	59	3	.48
26	282	---	48	101	---	3.0	58	4	.63
27	324	---	130	98	---	3.0	56	2	.30
28	427	278	321	96	---	3.0	55	4	.59
29	514	333	462	90	---	2.0	56	2	.30
30	494	240	320	126	---	7.0	55	2	.30
31	---	---	---	139	---	10	---	---	---
TOTAL	8,953	---	2,948	7,073	---	1,927.0	2,365	---	43.45
JULY			AUGUST			SEPTEMBER			
1	54	1	0.15	35	4	0.38	26	1	0.07
2	52	3	.42	34	4	.37	26	2	.14
3	52	2	.28	34	4	.37	25	---	.10
4	51	1	.14	33	4	.36	24	2	.13
5	52	1	.14	34	3	.28	24	2	.13
6	52	1	.14	34	3	.28	24	---	.10
7	50	1	.14	33	4	.36	24	---	.10
8	50	1	.14	32	4	.35	24	---	.10
9	48	1	.13	31	4	.33	24	---	.10
10	48	1	.13	31	6	.50	24	2	.13
11	46	1	.12	31	---	.40	23	3	.19
12	44	2	.24	31	4	.33	23	2	.12
13	43	4	.46	32	3	.26	23	2	.12
14	42	10	1.1	33	3	.27	24	5	.32
15	41	4	.44	33	4	.36	26	2	.14
16	42	4	.45	32	4	.35	25	5	.34
17	43	4	.46	30	3	.24	24	10	.65
18	50	4	.54	30	3	.24	24	2	.13
19	46	6	.75	29	4	.31	23	3	.19
20	42	6	.68	29	4	.31	23	5	.31
21	42	5	.57	29	4	.31	22	3	.18
22	41	5	.55	29	5	.39	22	2	.12
23	41	4	.44	29	4	.31	21	2	.11
24	41	5	.55	28	2	.15	21	1	.06
25	39	5	.53	28	2	.15	21	6	.34
26	39	4	.42	28	6	.45	21	2	.11
27	38	4	.41	27	2	.15	21	3	.17
28	37	4	.40	27	3	.22	21	4	.23
29	36	3	.29	26	2	.14	20	1	.05
30	35	3	.28	26	1	.07	20	1	.05
31	35	4	.38	26	3	.21	---	---	---
TOTAL	1,372	---	11.87	944	---	9.20	693	---	5.03
YEAR	68,090		141,283.27 TONS						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT									
18...	1635	5.0	39	10.0	8	0.85	--	--	--
NOV									
03...	1625	--	490	20.0	1,950	2,580	--	--	--
04...	1050	--	442	20.0	830	991	--	--	--
16...	1415	--	2,080	20.0	3,850	21,600	5	5	9
17...	1145	--	2,100	20.0	3,800	21,500	--	--	--
17...	1250	--	2,120	20.0	3,440	19,700	3	4	7
29...	1525	--	357	20.0	264	254	--	--	--
DEC									
07...	1225	--	196	10.0	114	60	--	--	--
JAN									
09...	1505	--	478	10.0	310	400	--	--	--
30...	1620	--	373	20.0	198	199	--	--	--
FEB									
01...	1515	--	304	10.0	264	217	--	--	--
29...	1325	4.0	198	10.0	41	22	--	--	--
MAR									
06...	1000	4.5	192	10.0	36	19	--	--	--
27...	1145	5.5	351	10.0	80	76	--	--	--
27...	1545	--	348	20.0	144	135	--	--	--
MAY									
16...	1530	9.0	400	10.0	106	114	--	--	--
JUN									
28...	1215	12.0	133	10.0	28	10	--	--	--
JUL									
27...	1350	--	54	10.0	2	0.29	--	--	--
AUG									
15...	1215	11.0	42	10.0	3	0.34	--	--	--
SEP									
12...	1345	9.5	34	10.0	2	0.18	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 18...	--	--	42	--	--	--	--	--
NOV 03...	--	--	54	64	73	82	92	98
04...	--	--	46	61	75	85	93	97
16...	15	22	30	46	66	81	91	97
17...	--	--	21	31	49	69	86	95
17...	11	16	22	32	51	70	85	96
29...	--	--	28	39	56	77	91	98
DEC 07...	--	--	30	--	--	--	--	--
JAN 09...	--	--	24	--	--	--	--	--
30...	--	--	21	--	--	--	--	--
FEB 01...	--	--	11	--	--	--	--	--
29...	--	--	26	--	--	--	--	--
MAR 06...	--	--	19	--	--	--	--	--
27...	--	--	25	--	--	--	--	--
27...	--	--	12	21	35	54	72	89
MAY 16...	--	--	--	--	--	--	--	--
JUN 28...	--	--	--	--	--	--	--	--
JUL 27...	--	--	--	--	--	--	--	--
AUG 15...	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT												
10...	1410	--	63	10.0	122	21	92	--	--	--	--	--
31...	1345	4.0	87	10.0	4	0.94	63	--	--	--	--	--
NOV												
05...	1330	8.5	353	20.0	156	149	35	--	--	--	--	--
DEC												
06...	1340	1.0	140	10.0	27	10	--	--	--	--	--	--
FEB												
12...	1240	0.0	68	10.0	8	1.5	--	--	--	--	--	--
APR												
01...	1335	10.0	221	10.0	125	75	--	--	--	--	--	--
MAY												
01...	1335	7.0	313	10.0	70	59	--	--	--	--	--	--
17...	1410	6.0	568	20.0	349	535	32	39	54	72	88	98
JUN												
08...	1340	9.5	561	10.0	395	598	--	--	--	--	--	--
28...	1150	10.0	104	10.0	9	2.5	--	--	--	--	--	--
AUG												
02...	1205	13.0	52	10.0	12	1.7	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

OCT												
29...	1440	6.5	326	20.0	134	118	37	--	--	--	--	--
NOV												
13...	1335	3.0	229	10.0	41	25	51	--	--	--	--	--
DEC												
11...	1250	2.0	107	10.0	6	1.7	33	--	--	--	--	--
JAN												
07...	1220	3.5	104	10.0	6	1.7	52	--	--	--	--	--
24...	1445	4.5	331	20.0	336	300	31	43	60	76	87	94
FEB												
07...	1420	4.0	326	20.0	380	334	17	--	--	--	--	--
27...	1500	7.0	789	20.0	706	1,500	--	--	--	--	--	--
28...	1415	7.5	633	20.0	438	749	--	--	--	--	--	--
MAR												
19...	1110	5.5	254	10.0	73	50	--	--	--	--	--	--
APR												
18...	1430	7.0	154	20.0	22	9.1	--	--	--	--	--	--
MAY												
23...	1310	8.5	185	10.0	28	14	38	--	--	--	--	--
JUN												
09...	1230	11.0	90	10.0	12	2.9	--	--	--	--	--	--
JUL												
09...	1350	12.0	46	10.0	4	0.50	--	--	--	--	--	--
AUG												
14...	1225	13.5	29	10.0	2	0.16	--	--	--	--	--	--

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
02...	1415	10.0	34	10.0	2	0.18	--
16...	1310	7.5	29	10.0	1	0.08	--
NOV							
03...	1330	8.5	96	10.0	8	2.1	--
DEC							
02...	1340	5.0	316	20.0	222	189	22
30...	1435	4.5	272	20.0	168	123	11
JAN							
15...	1320	2.0	140	10.0	35	13	16
FEB							
04...	1315	5.0	429	20.0	733	849	21
06...	1330	5.5	353	20.0	682	650	18
23...	1425	5.0	204	10.0	146	80	12
MAR							
24...	1320	7.0	250	20.0	168	113	21
APR							
02...	1130	7.5	209	10.0	96	54	24
28...	1350	11.0	419	20.0	273	309	32
MAY							
06...	1310	14.0	348	10.0	131	123	--
JUN							
11...	1340	13.5	90	10.0	8	1.9	--
JUL							
16...	1230	10.0	43	10.0	2	0.23	--
AUG							
24...	1340	13.5	28	10.0	2	0.15	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
FEB											
29...	1335	0	0	1	11	28	50	69	81	93	100
29...	1340	0	0	2	9	18	34	62	87	99	100
29...	1345	0	0	1	6	12	23	40	56	85	100
29...	1350	0	0	2	12	39	59	70	77	100	--
29...	1355	0	1	8	27	49	61	72	85	92	100
JUN											
28...	1230	0	1	5	13	19	28	40	58	76	100
28...	1232	0	2	9	22	34	48	65	81	94	100
28...	1234	0	3	14	34	53	67	75	82	88	100
28...	1236	0	1	7	26	60	75	80	84	90	100
AUG											
15...	1230	1	4	13	27	40	50	55	57	60	100
15...	1232	0	2	10	24	36	53	67	78	89	100
15...	1234	0	1	4	16	34	41	47	55	75	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED	BED	BED	BED	BED	BED	BED	BED	BED	
		MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	
		SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	
		DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	
		% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	
THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN		
.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM		
FEB											
29...	1335	0	0	1	11	28	50	69	81	93	100
29...	1340	0	0	2	9	18	34	62	87	99	100
29...	1345	0	0	1	6	12	23	40	56	85	100
29...	1350	0	0	2	12	39	59	70	77	100	--
29...	1355	0	1	8	27	49	61	72	85	92	100
JUN											
28...	1230	0	1	5	13	19	28	40	58	76	100
28...	1232	0	2	9	22	34	48	65	81	94	100
28...	1234	0	3	14	34	53	67	75	82	88	100
28...	1236	0	1	7	26	60	75	80	84	90	100
AUG											
15...	1230	1	4	13	27	40	50	55	57	60	100
15...	1232	0	2	10	24	36	53	67	78	89	100
15...	1234	0	1	4	16	34	41	47	55	75	100

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

LOCATION.--Lat 46°07'03", long 122°00'24", in NW ¼ SE ¼ sec. 1, T.7 N., R.6 E., Skamania County, Hydrologic Unit 17080002, Gifford Pinchot National Forest, on right bank 0.25 mi downstream from Forest Service Road 125, approximately 14 mi northeast of Cougar.

DRAINAGE AREA.--84.1 mi².

PERIOD OF SEDIMENT DATA.--August 1980 to July 1984.

GAGE.--Water-stage recorder. Altitude of gage is 1,200 ft, from topographic map.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended- sediment concentration, mgL ⁻¹
1981	Nov. 7, 1980	1250	178,000
1982	Oct. 6, 1981	1645	82,500
1983	Dec. 3, 1982	1250	49,800

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT									
07...	1155	6.5	156	10.0	356	150	--	--	--
NOV									
01...	1235	8.5	184	10.0	2,020	1,000	--	--	--
03...	1600	10.5	2,600	20.0	15,200	107,000	4	6	11
03...	2155	10.5	2,610	20.0	13,400	94,400	5	6	9
18...	1235	6.5	3,490	20.0	4,180	39,400	3	4	7
MAY									
08...	1625	11.0	879	20.0	404	959	--	--	--
09...	1430	7.5	784	20.0	638	1,350	--	--	--
10...	1350	8.0	792	20.0	362	774	--	--	--
11...	1715	10.5	1,400	20.0	1,420	5,370	--	--	--
14...	1525	8.0	1,070	20.0	788	2,280	--	--	--
JUL									
13...	1250	14.0	241	10.0	52	34	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
OCT								
07...	--	--	4	6	11	28	63	90
NOV								
01...	--	--	32	55	81	96	99	100
03...	16	26	36	53	75	91	97	99
03...	15	22	28	42	65	86	96	99
18...	12	17	37	68	92	99	100	--
MAY								
08...	--	--	18	25	38	62	86	96
09...	--	--	19	--	--	--	--	--
10...	--	--	16	--	--	--	--	--
11...	--	--	48	--	--	--	--	--
14...	--	--	21	30	47	74	93	97
JUL								
13...	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT											
07...	1203	0	0	0	7	23	42	62	85	99	100
07...	1204	0	0	0	10	54	91	99	100	--	--
07...	1205	0	0	0	2	18	50	72	88	98	100
07...	1206	0	0	1	4	10	30	60	85	99	100

14216450 CLEAR CREEK NEAR COUGAR, WA

LOCATION.--Lat 46°07'40", long 121°59'20", in NE ¼ NW ¼ sec. 6, T.7 N., R.7 E., Skamania County, Hydrologic Unit 17080002, Gifford Pinchot National Forest, at bridge crossing on Forest Service Road, on right bank, 1.3 mi upstream from mouth and 15.8 mi northeast of Cougar, WA.

DRAINAGE AREA.--46.9 mi².

PERIOD OF SEDIMENT DATA.--October 1983 to June 1985.

GAGE.--Water-stage recorder. Altitude of gage is 1,240 ft, from topographic map.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended- sediment concentration, mgL ⁻¹
1984	Nov. 15, 1983	1510	181
1985	Apr. 16, 1985	1235	12

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
07...	1135	8.0	29	10.0	8	0.63	48	--	--	--	--
NOV											
03...	1655	--	971	20.0	176	461	39	--	--	--	--
04...	1530	--	--	10.0	83	---	30	39	50	64	100
15...	1510	--	1,680	10.0	181	821	34	--	--	--	--
17...	1435	6.0	2,360	20.0	148	943	38	47	61	79	100
18...	1250	6.5	1,680	20.0	101	458	31	--	--	--	--
JAN											
12...	1200	4.0	380	10.0	4	4.1	42	--	--	--	--
FEB											
08...	1200	6.5	232	10.0	1	0.63	--	--	--	--	--
13...	1450	--	812	20.0	54	118	--	--	--	--	--
MAR											
22...	1350	5.5	747	20.0	16	32	--	--	--	--	--
MAY											
02...	1525	4.5	452	10.0	12	15	--	--	--	--	--
08...	1110	6.0	329	20.0	1	0.89	--	--	--	--	--
09...	1110	6.0	366	20.0	1	0.99	40	--	--	--	--
10...	1035	5.5	355	20.0	1	0.96	42	--	--	--	--
11...	1105	6.0	438	20.0	8	9.5	31	--	--	--	--
14...	1036	6.0	562	20.0	8	12	--	--	--	--	--
JUN											
27...	1240	45.0	284	10.0	3	2.3	--	--	--	--	--
JUL											
13...	1030	11.0	102	10.0	2	0.55	--	--	--	--	--
SEP											
06...	1425	13.0	40	10.0	2	0.22	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
27...	1415	2.0	276	10.0	2	1.5
FEB						
07...	1435	1.0	61	10.0	2	0.33
MAR						
15...	1310	5.0	116	10.0	1	0.31
APR						
16...	1235	5.0	944	20.0	12	31
JUN						
18...	1135	--	288	10.0	8	6.2

14216500 MUDDY RIVER BELOW CLEAR CREEK NEAR COUGAR, WA

LOCATION.--Lat 46°04'33", long 121°59'51", in NE ¼ SE ¼ sec. 24, T.7 N., R.6 E., Skamania County, Hydrologic Unit 17080002, Gifford Pinchot National Forest, on left bank 3.9 mi downstream from Clear Creek, approximately 14 mi northeast of Cougar, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--135 mi².

PERIOD OF SEDIMENT DATA.--October 1983 through September 1987. The gaging station was moved from above Clear Creek to below Clear Creek, with records at the new location beginning with the 1984 water year. Suspended-sediment data were collected at Clear Creek to measure the intervening suspended-sediment discharge, which was found to be insignificant relative to the suspended-sediment discharge of Muddy River above Clear Creek.

GAGE.--Water-stage recorder. Altitude of gage is 1,080 ft, from topographic map.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended-sediment concentration, mgL ⁻¹
1984	Nov. 3, 1983	1045	28,500
1985	Nov. 2, 1984	1200	9,160
1986	Feb. 23, 1986	1300	11,600
1987	Nov. 20, 1986	0925	21,300

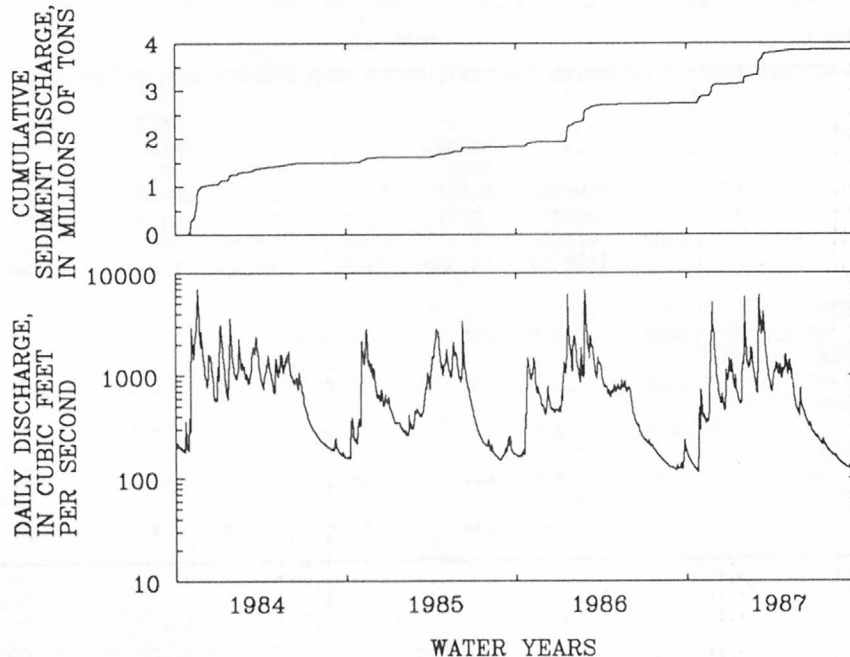


Figure 8.--Cumulative daily suspended-sediment discharge and daily mean stream discharge, water years 1984-87, Muddy River below Clear Creek near Cougar, Wash. (14216500).

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	218	104	61	292	3,270	3,040	1,180	---	1,500
2	216	101	59	663	7,350	14,000	1,070	410	1,180
3	216	132	77	2,910	23,800	198,000	978	371	980
4	218	152	89	2,150	4,970	28,900	918	344	853
5	211	108	62	1,700	---	10,000	924	333	831
6	206	96	53	1,980	---	15,000	835	291	656
7	206	96	53	1,810	1,720	8,410	780	264	556
8	204	93	51	1,610	---	5,000	842	349	793
9	204	95	52	1,460	1,280	5,050	979	595	1,570
10	199	95	51	1,820	4,730	26,200	1,620	1,480	6,470
11	195	74	39	2,360	4,980	31,700	1,510	658	2,680
12	193	71	37	2,400	5,920	38,400	1,430	493	1,900
13	193	76	40	2,490	6,830	45,900	1,520	551	2,260
14	191	78	40	2,930	3,960	31,300	1,570	522	2,210
15	186	70	35	4,500	7,220	87,700	1,450	360	1,410
16	186	77	39	6,210	6,500	109,000	1,310	316	1,120
17	191	209	108	6,980	6,340	119,000	1,180	264	841
18	186	125	63	5,400	4,370	63,700	1,070	249	719
19	182	108	53	4,390	3,460	41,000	954	---	650
20	182	108	53	3,670	2,490	24,700	820	285	631
21	185	669	334	2,850	1,300	10,000	665	---	600
22	354	6,410	6,510	2,260	924	5,640	612	---	550
23	223	377	227	1,890	805	4,110	576	---	500
24	206	218	121	2,670	3,920	30,000	580	---	500
25	199	160	86	2,380	1,180	7,580	600	---	500
26	197	141	75	2,110	885	5,040	576	---	500
27	193	137	71	1,890	737	3,760	570	---	450
28	188	139	71	1,680	650	2,950	570	---	450
29	186	124	62	1,480	549	2,190	840	---	1,500
30	385	16,900	31,500	1,340	---	2,000	1,210	---	3,000
31	283	3,280	3,160	---	---	---	1,090	---	2,500
TOTAL	6,582	---	43,332	78,275	---	979,270	30,829	---	40,860
JANUARY			FEBRUARY			MARCH			
1	912	---	2,000	1,180	314	1,000	1,040	---	650
2	1,090	---	2,500	1,100	285	846	1,010	---	600
3	2,610	---	15,000	1,030	268	753	900	---	500
4	3,130	2,360	19,900	996	281	756	858	---	500
5	2,970	1,610	12,900	972	270	709	835	---	450
6	2,660	1,170	8,400	966	266	694	852	---	550
7	2,370	994	6,360	924	274	684	858	---	600
8	2,070	742	4,150	959	397	1,030	906	---	700
9	1,760	571	2,710	1,010	437	1,200	990	---	850
10	1,590	501	2,150	1,030	412	1,150	1,090	---	1,000
11	1,420	470	1,810	1,150	537	1,670	1,120	703	2,130
12	1,260	392	1,330	2,280	2,610	18,700	1,480	838	3,350
13	1,120	254	768	2,160	1,330	7,760	1,570	1,020	4,320
14	978	---	650	1,820	906	4,450	1,810	---	5,000
15	852	---	550	1,600	614	2,650	1,900	---	6,500
16	795	---	450	1,360	595	2,180	1,830	---	5,000
17	720	---	400	1,220	470	1,550	1,730	882	4,120
18	655	---	350	1,160	437	1,370	1,620	882	3,860
19	624	---	300	1,140	441	1,380	1,670	777	3,500
20	596	---	250	1,320	598	2,150	1,970	918	5,170
21	589	---	250	1,270	---	1,500	2,380	897	5,760
22	967	---	4,000	1,160	408	1,290	2,280	560	3,450
23	1,470	2,730	16,800	1,180	397	1,260	2,100	465	2,640
24	2,780	3,810	28,600	1,230	414	1,390	1,820	470	2,310
25	3,620	3,570	34,900	1,120	366	1,120	1,650	470	2,090
26	2,840	1,270	9,740	1,010	310	854	1,480	428	1,710
27	2,260	795	4,850	920	244	613	1,280	328	1,130
28	1,850	584	2,920	950	---	650	1,180	360	1,150
29	1,620	488	2,130	900	---	550	1,080	267	779
30	1,400	419	1,580	---	---	---	1,020	302	832
31	1,260	380	1,290	---	---	---	960	292	757
TOTAL	50,838	---	189,988	35,117	---	61,909	43,269	---	71,958

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	906	280	685	1,120	---	1,500	1,170	281	888
2	846	---	750	1,470	540	2,140	1,060	353	1,010
3	820	390	863	1,360	459	1,690	980	360	953
4	800	450	972	1,230	306	1,020	1,020	405	1,120
5	800	399	862	1,140	---	750	985	331	880
6	743	409	820	1,040	---	650	955	356	918
7	982	742	1,970	970	---	600	930	389	977
8	979	455	1,200	1,080	322	939	885	407	973
9	984	616	1,640	1,140	313	955	865	433	1,010
10	1,100	626	1,860	1,080	225	650	830	366	820
11	1,090	1,190	3,500	1,450	555	2,170	834	419	944
12	1,280	795	2,750	1,540	---	2,000	882	1,040	2,690
13	1,210	318	1,040	1,580	---	2,000	907	1,750	4,290
14	1,290	413	1,440	1,600	460	1,990	915	720	1,780
15	1,570	727	3,080	1,480	---	1,500	960	546	1,420
16	1,540	434	1,800	1,290	---	1,500	905	420	1,030
17	1,420	---	1,500	1,150	298	925	810	---	550
18	1,310	---	1,500	1,070	340	982	756	---	350
19	1,220	---	1,500	1,190	---	2,000	732	120	237
20	1,110	---	1,000	1,270	503	1,720	822	334	741
21	1,070	---	1,000	1,210	---	1,000	1,070	275	794
22	1,030	---	950	1,310	478	1,690	934	124	313
23	984	---	900	1,510	547	2,230	850	92	211
24	906	318	778	1,370	351	1,300	855	83	192
25	846	312	713	1,360	---	1,500	825	86	192
26	775	312	653	1,600	671	2,900	800	105	227
27	705	290	552	1,510	242	987	736	112	223
28	708	257	491	1,520	324	1,330	672	108	196
29	674	---	400	1,640	681	3,020	676	104	190
30	713	---	350	1,720	705	3,270	608	60	98
31	---	---	---	1,470	308	1,220	---	---	---
TOTAL	30,411	---	37,519	41,470	---	48,128	26,229	---	26,217
JULY			AUGUST			SEPTEMBER			
1	546	52	77	248	---	35	196	40	21
2	514	36	50	246	---	35	190	35	18
3	498	44	59	242	---	35	187	40	20
4	489	40	53	238	---	30	185	41	20
5	470	40	51	234	---	30	208	163	116
6	450	31	38	230	48	30	235	330	209
7	440	36	43	228	---	30	246	311	207
8	420	40	45	228	---	30	230	291	181
9	400	26	28	226	---	25	207	73	41
10	380	24	25	222	---	25	196	52	28
11	365	---	25	220	---	25	192	42	22
12	360	28	27	220	---	25	194	34	18
13	350	33	31	218	---	25	185	27	13
14	343	46	43	216	---	25	180	38	18
15	336	50	45	214	---	25	178	---	15
16	326	48	42	210	---	25	176	30	14
17	322	---	45	210	---	25	173	42	20
18	314	---	40	208	---	20	173	---	20
19	310	---	45	205	---	20	171	43	20
20	298	---	40	203	---	20	170	44	20
21	295	---	45	201	---	20	166	32	14
22	290	---	45	201	---	20	181	139	68
23	286	---	45	201	---	20	178	38	18
24	281	57	43	199	34	18	176	135	64
25	278	---	40	198	35	19	165	31	14
26	274	---	40	196	---	20	163	15	6.6
27	271	---	40	196	---	20	160	18	7.8
28	264	---	40	192	41	21	160	18	7.8
29	259	---	40	190	43	22	158	15	6.4
30	257	---	35	190	---	25	158	15	6.4
31	252	---	35	190	47	24	---	---	---
TOTAL	10,938	---	1,300	6,620	---	769	5,537	---	1,254.0
YEAR	366,115		1,502,504 TONS						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	158	18	7.7	330	508	453	962	137	356
2	158	19	8.1	2,110	5,890	33,600	833	118	265
3	157	25	11	2,170	953	5,580	744	---	220
4	162	174	76	1,930	593	3,090	685	---	200
5	162	64	28	1,570	411	1,740	642	---	170
6	157	17	7.2	1,490	346	1,390	611	---	150
7	158	20	8.5	1,540	341	1,420	608	---	150
8	157	47	20	1,340	291	1,050	649	101	177
9	171	528	244	1,290	294	1,020	630	126	214
10	360	3,750	4,080	1,700	804	4,150	618	90	150
11	315	981	895	1,950	851	4,480	573	49	76
12	313	1,370	1,430	2,540	1,160	7,960	581	53	83
13	389	573	602	2,820	1,180	8,980	568	61	94
14	346	152	142	2,310	627	3,910	718	163	316
15	290	130	102	1,870	610	3,080	726	100	196
16	260	108	76	1,500	474	1,920	634	52	89
17	243	104	68	1,240	374	1,250	604	59	96
18	236	74	47	1,390	735	2,760	530	---	80
19	231	88	55	1,270	417	1,430	506	---	60
20	238	86	55	1,250	367	1,240	507	---	60
21	227	67	41	1,160	299	936	518	---	70
22	219	73	43	1,080	250	729	573	---	100
23	217	78	46	1,300	566	2,210	655	60	106
24	219	70	41	1,200	314	1,020	605	54	88
25	294	677	612	1,060	243	695	569	30	46
26	339	341	312	952	220	565	554	28	42
27	365	249	245	974	234	615	569	44	68
28	380	185	190	1,180	283	902	536	79	114
29	343	138	128	1,130	169	516	567	111	170
30	337	167	152	1,090	163	480	618	97	162
31	320	122	105	---	---	---	543	134	196
TOTAL	7,921	---	9,877.5	44,736	---	99,171	19,236	---	4,364
JANUARY				FEBRUARY			MARCH		
1	500		150	290		10	472	---	60
2	485		100	285		10	447	---	60
3	466		40	278		10	436	---	50
4	448		25	293		20	441	---	50
5	444		20	263		10	436	---	50
6	437		20	265		10	423	---	50
7	425		20	270		10	405	---	40
8	408		20	267		10	402	---	40
9	392		20	263		10	404	---	40
10	375		20	264		10	401	---	40
11	356		20	303		25	414	---	45
12	347		20	411		50	429	---	50
13	347		20	322		20	434	---	50
14	345		20	314		20	451	---	60
15	345		20	343		30	482	62	81
16	339		20	323		20	528	105	150
17	343		30	308		20	620	154	258
18	352		40	304		20	696	163	306
19	348		60	307		20	732	141	279
20	353		60	305		20	769	142	295
21	348		60	306		20	782	104	220
22	346		60	349		40	746	79	159
23	340		60	387		50	999	344	1,100
24	329		50	450		60	1,070	307	887
25	316		40	456		60	952	189	486
26	307		30	434		50	924	135	337
27	302		20	428		50	894	115	278
28	307		20	443		50	789	95	202
29	302		15	---			729	87	171
30	282		15	---			867	249	668
31	288		10	---			1,050	341	967
TOTAL	11,322		1,125	9,231		735	19,624	---	7,529

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	1,190	497	1,600	1,350	308	1,120	965	---	420
2	1,380	665	2,480	1,550	616	2,580	919	---	370
3	1,530	579	2,390	1,780	1,070	5,140	871	---	300
4	1,480	338	1,350	1,630	522	2,300	949	156	400
5	1,490	422	1,700	1,440	366	1,420	932	180	453
6	1,560	488	2,060	1,300	324	1,140	1,400	1,760	9,200
7	1,740	608	2,860	1,200	374	1,210	3,380	5,990	58,000
8	1,950	523	2,750	1,140	322	991	2,590	645	4,510
9	2,130	579	3,330	1,090	219	645	1,820	326	1,600
10	2,410	637	4,140	1,080	240	700	1,460	328	1,290
11	2,640	918	6,540	1,030	280	779	1,280	294	1,020
12	2,820	578	4,400	973	241	633	1,200	233	755
13	2,680	434	3,140	966	334	871	1,100	176	523
14	2,630	439	3,120	984	300	797	1,010	141	385
15	2,670	508	3,660	1,010	292	796	932	121	304
16	2,550	448	3,080	1,280	857	3,200	868	103	241
17	2,230	390	2,350	1,820	2,060	10,100	817	101	223
18	1,940	324	1,700	2,090	983	5,550	784	91	193
19	1,670	274	1,240	2,050	613	3,390	761	86	177
20	1,450	229	897	1,800	355	1,730	727	79	155
21	1,260	200	680	1,620	315	1,380	687	76	141
22	1,200	218	706	1,570	262	1,110	646	70	122
23	1,280	331	1,140	1,600	248	1,070	606	76	124
24	1,100	216	642	1,670	252	1,140	573	56	87
25	1,040	204	573	1,560	219	922	543	46	67
26	1,010	213	581	1,400	---	800	515	45	63
27	1,170	377	1,190	1,300	---	650	493	50	67
28	1,280	359	1,240	1,190	---	540	470	45	57
29	1,280	359	1,240	1,100	---	470	446	44	53
30	1,290	227	791	1,000	---	400	423	46	53
31	---	---	---	941	---	360	---	---	---
TOTAL	52,050	---	63,570	42,514	---	53,934	30,167	---	81,353
JULY			AUGUST			SEPTEMBER			
1	402	61	66	239		300	163	---	200
2	385	63	65	215		200	168	---	200
3	370	81	81	204		160	167	---	200
4	355	86	82	195		140	168	---	200
5	339	67	61	188		120	177	---	200
6	326	63	55	183		100	195	---	300
7	313	71	60	187		150	181	---	250
8	302	108	88	212		200	178	---	250
9	296	143	114	188		150	186	---	250
10	287	156	121	182		150	212	1,770	1,080
11	280	123	93	179		150	185	407	203
12	272	96	71	177		150	226	2,750	1,800
13	264	103	73	174		150	238	1,340	861
14	258	104	72	171		150	253	1,520	1,040
15	251	110	75	169		150	219	403	238
16	248	288	193	167		150	210	524	327
17	243	152	100	165		150	255	663	456
18	237	262	168	164		150	215	253	147
19	233	311	196	163		150	196	181	96
20	228	325	200	161		150	188	149	76
21	223	199	120	159		150	183	140	69
22	218	209	123	157		150	179	136	66
23	217	279	163	155		150	176	127	60
24	214	242	140	153		160	174	119	56
25	212	---	140	152		180	173	110	51
26	209	---	140	151		200	172	---	50
27	208	---	140	151		200	172	---	50
28	206	---	140	153		200	170	---	50
29	205	---	140	155		200	168	---	50
30	205	---	140	158		200	168	---	50
31	222	---	180	161		200	---	---	---
TOTAL	8,228	---	3,600	5,388		5,160	5,715	---	8,926
YEAR	256,132		339,344.5	TONS					

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	167	99	45	926	357	893	415	---	25
2	167	99	45	913	303	747	420	---	30
3	165	101	45	935	321	810	457	---	40
4	162	88	38	1,040	417	1,170	474	---	40
5	161	95	41	1,040	387	1,090	496	---	50
6	164	114	50	1,310	803	2,840	697	---	175
7	167	119	54	1,480	895	3,580	791	---	275
8	165	92	41	1,440	570	2,220	687	---	160
9	162	71	31	1,310	419	1,480	611	---	110
10	163	97	43	1,110	328	983	578	64	100
11	177	437	209	897	---	420	546	---	65
12	175	168	79	774	---	250	518	---	50
13	166	88	39	709	---	180	495	---	35
14	172	186	86	675	---	150	476	---	30
15	174	164	77	761	---	240	464	---	25
16	188	---	665	777	---	250	460	---	25
17	176	190	90	710	---	180	465	---	25
18	170	119	55	668	---	150	476	---	30
19	214	---	1,420	670	---	150	465	---	25
20	419	---	8,750	653	---	130	447	---	20
21	310	689	577	614	---	110	435	---	15
22	567	3,630	5,560	579	---	90	437	---	15
23	545	1,460	2,150	526	---	65	457	---	20
24	1,010	---	22,100	511	---	60	466	---	25
25	1,490	---	15,800	516	---	60	468	---	25
26	1,300	1,580	5,550	518	39	55	466	---	25
27	1,240	1,290	4,320	510	---	50	456	18	22
28	1,260	980	3,330	479	---	45	453	---	20
29	1,100	654	1,940	447	---	35	456	---	20
30	1,010	498	1,360	433	---	30	447	---	20
31	932	388	976	---	---	---	443	---	20
TOTAL	14,438	---	75,566	23,931	---	18,513	15,422	---	1,562
JANUARY			FEBRUARY			MARCH			
1	496	---	35	2,430	2,010	13,200	2,500	683	4,610
2	469	---	30	2,380	1,320	8,480	2,120	566	3,240
3	479	---	30	2,400	1,160	7,520	1,880	491	2,490
4	444	---	20	2,180	907	5,340	1,780	418	2,010
5	561	---	100	1,920	809	4,190	1,620	371	1,620
6	713	---	310	1,630	587	2,580	1,490	314	1,260
7	572	---	65	1,420	474	1,820	2,350	---	15,000
8	708	---	310	1,280	401	1,390	2,460	---	10,000
9	1,010	---	1,100	1,180	---	1,100	2,200	---	7,000
10	1,150	764	2,370	1,120	---	1,000	1,940	---	4,100
11	1,330	---	2,800	1,050	---	850	1,990	755	4,060
12	1,250	---	1,500	980	---	700	1,950	690	3,630
13	1,140	---	760	915	---	600	1,840	613	3,050
14	1,080	160	467	853	---	500	1,720	501	2,330
15	1,050	104	295	1,130	---	8,000	1,520	409	1,680
16	1,310	214	757	1,860	---	6,000	1,340	354	1,280
17	1,620	---	1,000	1,370	---	2,500	1,200	301	975
18	4,910	---	150,000	1,140	---	1,500	1,110	268	803
19	6,140	7,140	127,000	1,040	---	1,000	1,030	259	720
20	3,570	3,000	28,900	982	---	800	977	241	636
21	2,640	1,560	11,100	968	---	750	1,010	293	799
22	2,290	981	6,070	1,070	---	1,500	939	248	629
23	2,080	746	4,190	4,120	6,470	86,100	1,170	1,490	6,580
24	1,880	568	2,880	6,780	3,940	72,100	1,510	1,160	4,730
25	1,660	448	2,010	5,770	2,740	42,700	1,350	559	2,040
26	1,450	---	1,740	4,370	1,560	18,400	1,370	603	2,230
27	1,250	---	1,630	3,460	1,210	11,300	1,330	464	1,670
28	1,100	519	1,540	2,880	915	7,120	1,310	402	1,420
29	1,150	492	1,530	---	---	---	1,290	360	1,250
30	1,810	1,750	8,550	---	---	---	1,300	398	1,400
31	2,020	1,150	6,270	---	---	---	1,190	335	1,080
TOTAL	49,332	---	365,359	58,678	---	309,040	48,786	---	94,322

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	1,090	279	821	693	116	217	696	---	140
2	1,000	253	683	738	171	341	639	---	100
3	917	229	567	736	127	252	586	---	75
4	860	198	460	743	157	315	532	---	50
5	808	175	382	821	446	989	474	33	42
6	778	159	334	771	201	418	444	22	26
7	778	171	359	739	---	375	428	19	22
8	796	223	479	732	---	350	411	21	23
9	789	188	400	741	---	350	395	26	28
10	779	207	435	743	---	350	382	56	58
11	779	186	391	720	---	300	370	91	91
12	758	---	350	725	---	300	361	98	96
13	704	---	300	893	297	716	350	92	87
14	660	---	250	811	177	388	343	95	88
15	663	---	250	778	111	233	331	50	45
16	720	---	300	763	97	200	326	44	39
17	692	---	275	761	99	203	322	25	22
18	645	---	225	790	117	250	335	37	33
19	613	---	200	811	98	215	320	40	35
20	613	---	200	879	191	453	298	---	50
21	651	---	250	840	116	263	289	---	50
22	713	---	300	785	102	216	281	---	50
23	698	---	275	714	73	141	277	---	50
24	674	---	250	690	56	104	270	70	51
25	702	---	300	705	60	114	263	105	75
26	702	---	300	755	71	145	257	161	112
27	815	---	425	759	61	125	252	62	42
28	780	237	499	747	62	125	250	110	74
29	734	144	285	744	105	211	245	53	35
30	701	132	250	766	155	321	241	63	41
31	---	---	---	745	---	170	---	---	---
TOTAL	22,612	---	10,795	23,638	---	9,150	10,968	---	1,730
JULY			AUGUST			SEPTEMBER			
1	236	112	71	164	---	100	125	821	277
2	234	86	54	162	---	100	124	1110	372
3	231	66	41	160	---	100	123	1600	531
4	237	50	32	158	---	100	122	927	305
5	227	30	18	156	---	100	122	594	196
6	222	36	22	155	---	100	121	503	164
7	222	103	62	153	---	100	120	555	180
8	221	201	120	152	---	100	122	486	160
9	216	144	84	150	---	100	133	---	180
10	228	147	90	150	---	100	126	---	200
11	236	250	159	147	---	100	124	---	200
12	215	68	39	145	---	100	123	---	200
13	209	67	38	143	---	120	122	---	200
14	205	96	53	141	---	140	123	---	200
15	202	37	20	139	444	167	124	---	200
16	210	45	26	139	457	172	125	---	200
17	208	27	15	138	293	109	129	---	200
18	203	19	10	136	285	105	140	---	200
19	199	72	39	135	398	145	128	---	200
20	196	183	97	133	483	173	125	---	200
21	192	148	77	132	709	253	123	---	200
22	189	155	79	131	746	264	124	---	200
23	187	264	133	129	683	238	162	---	300
24	185	271	135	129	676	235	193	935	487
25	181	339	166	129	606	211	231	2,360	1,580
26	178	203	98	128	632	218	236	1,350	911
27	174	97	46	126	707	241	190	380	195
28	174	146	69	126	937	319	183	328	162
29	170	---	80	126	1,740	592	196	484	256
30	168	---	100	128	---	340	183	257	127
31	166	---	100	127	1,410	483	---	---	---
TOTAL	6,321	---	2,173	4,367	---	5,725	4,322	---	8,983
YEAR	282,815		902,918 TONS						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	171	200	92	567	357	2,500	1,370	440	1,630
2	167	167	75	477	303	1,600	1,180	324	1,030
3	161	160	70	438	845	999	1,030	---	680
4	159	174	75	395	605	645	934	---	500
5	155	1,190	498	388	754	790	873	191	450
6	152	485	199	383	526	544	783	---	370
7	148	276	110	413	758	845	718	---	310
8	146	236	93	368	514	511	668	---	260
9	143	165	64	357	347	334	612	---	210
10	140	147	56	340	328	270	579	64	160
11	138	89	33	369	---	340	550	---	120
12	135	87	32	373	466	469	536	---	96
13	133	190	68	365	---	470	544	---	85
14	131	75	27	359	---	390	665	---	180
15	129	192	67	351	---	300	657	---	230
16	127	96	33	387	---	300	561	---	150
17	126	54	18	451	---	570	519	---	130
18	124	47	16	787	3,170	8,990	492	---	120
19	123	60	20	884	1,040	2,480	478	81	105
20	121	---	16	2,020	5,210	32,300	453	---	82
21	119	689	15	2,220	2,290	13,700	490	---	110
22	118	3,630	14	2,200	1,540	9,150	763	---	460
23	116	37	12	3,220	4,400	44,300	1,120	---	1,400
24	115	64	20	5,130	4,580	63,400	935	---	800
25	212	10,800	14,500	3,510	1,850	17,500	902	---	680
26	361	37,800	39,600	2,720	1,400	10,300	959	---	830
27	479	21,600	30,700	2,850	2,110	17,900	891	18	610
28	334	3,500	3,160	2,450	969	6,410	974	---	800
29	294	3,590	2,850	1,990	661	3,550	1,450	---	2,400
30	717	16,000	31,000	1,620	507	2,220	1,300	---	1,700
31	704	3,600	6,840	---	---	---	1,180	---	1,200
TOTAL	6,398	---	130,373	38,382	---	244,077	25,166	---	17,888
JANUARY			FEBRUARY			MARCH			
1	1,130	---	1,000	5,820	6,170	97,000	807	144	314
2	1,060	---	820	3,880	1,960	20,500	1,360	925	4,140
3	1,330	---	1,500	2,710	996	7,290	5,180	9,760	156,000
4	1,400	---	1,700	2,030	768	4,210	6,070	5,720	93,700
5	1,210	---	1,100	1,730	620	2,900	4,570	2,630	32,500
6	1,040	---	630	1,470	512	2,030	4,060	1,880	20,600
7	943	---	460	1,310	500	1,770	3,400	---	13,000
8	866	---	330	1,240	465	1,560	2,790	---	8,500
9	794	112	240	1,190	408	1,310	2,540	---	6,400
10	757	764	210	1,180	371	1,180	2,690	---	8,100
11	738	---	190	1,240	469	1,570	2,750	755	8,600
12	1,010	---	480	1,220	412	1,360	4,090	690	25,000
13	844	---	280	1,670	1,290	5,820	4,180	613	27,000
14	768	160	210	1,860	907	4,550	3,740	501	22,000
15	697	104	160	1,800	742	3,610	2,940	409	12,000
16	668	214	130	1,810	570	2,790	2,350	354	6,900
17	648	---	120	1,570	410	1,740	2,100	301	5,000
18	624	---	110	1,390	294	1,100	1,780	268	3,400
19	584	7,140	86	1,220	252	830	1,540	541	2,250
20	564	3,000	110	1,100	240	713	1,440	471	1,830
21	550	1,560	68	1,020	291	801	1,310	399	1,410
22	534	42	61	991	---	700	1,200	351	1,140
23	524	746	63	905	6,470	490	1,100	333	989
24	544	568	78	820	3,940	350	998	292	787
25	568	448	98	759	2,740	270	936	232	586
26	974	---	580	717	1,560	210	888	209	501
27	1,240	---	1,200	683	96	177	818	176	389
28	1,330	519	1,500	675	111	202	765	163	337
29	1,280	492	1,500	---	---	---	727	360	300
30	1,370	1,750	1,900	---	---	---	701	398	280
31	1,680	1,150	3,500	---	---	---	696	335	280
TOTAL	28,269	---	20,414	44,010	---	167,033	70,516	---	464,233

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	727	279	340	1,460	444	1,750	600	159	258
2	834	253	520	1,320	466	1,660	533	112	161
3	1,000	229	950	1,120	383	1,160	504	100	136
4	1,080	198	1,200	1,020	334	920	491	65	86
5	1,110	175	1,400	1,050	295	836	483	50	65
6	1,100	159	1,400	1,190	421	1,350	461	47	59
7	1,130	171	1,600	1,390	456	1,710	445	63	76
8	1,320	223	2,400	1,420	416	1,590	441	52	62
9	1,190	578	1,860	1,330	364	1,310	418	40	45
10	1,280	763	2,640	1,170	301	951	399	31	33
11	1,310	686	2,430	1,030	278	773	391	33	35
12	1,210	517	1,690	1,150	555	1,720	380	35	36
13	1,090	407	1,200	944	281	716	370	44	44
14	1,020	366	1,010	894	214	517	363	69	68
15	1,050	384	1,090	802	174	377	353	54	51
16	1,140	432	1,330	724	108	211	342	32	30
17	1,290	401	1,400	661	99	230	332	51	46
18	1,240	333	1,110	613	117	160	323	39	34
19	1,100	259	769	574	98	120	320	29	25
20	985	228	606	536	47	68	321	---	23
21	938	244	618	509	40	55	344	---	71
22	983	323	857	486	30	39	319	---	31
23	1,080	378	1,100	468	28	35	304	17	14
24	1,160	365	1,140	460	25	31	293	17	13
25	1,140	295	908	453	23	28	287	30	23
26	1,120	358	1,080	444	24	29	283	47	36
27	1,220	441	1,450	430	21	24	281	97	74
28	1,460	800	3,150	423	21	24	277	166	124
29	1,580	682	2,910	405	20	22	273	147	108
30	1,560	579	2,440	698	822	1,990	269	116	84
31	---	---	---	754	413	841	---	---	---
TOTAL	34,447	---	42,598	25,928	---	21,247	11,200	---	1,951
JULY			AUGUST			SEPTEMBER			
1	264	133	95	182	70	34	133	821	46
2	257	163	113	180	92	45	133	1,110	46
3	254	77	53	179	126	61	133	1,600	46
4	253	103	70	176	178	85	132	927	46
5	259	97	68	174	175	82	131	594	45
6	250	67	45	172	140	65	129	503	45
7	248	55	37	171	124	57	129	555	45
8	243	55	36	170	162	74	128	486	45
9	239	41	26	167	234	106	128	---	45
10	238	40	26	165	223	99	127	---	45
11	231	54	34	165	136	61	127	---	45
12	226	150	92	163	174	77	125	---	44
13	225	557	338	166	295	132	125	---	44
14	221	401	239	168	216	98	131	---	45
15	215	281	163	163	444	82	136	---	47
16	211	177	101	159	457	74	129	---	45
17	213	179	103	156	293	68	126	---	44
18	242	1,020	666	154	285	66	123	---	44
19	226	389	237	152	398	62	121	---	43
20	213	92	53	150	483	60	120	---	43
21	220	611	399	148	709	58	119	---	43
22	216	527	307	147	746	56	119	---	43
23	209	224	126	146	683	55	118	---	43
24	210	558	316	145	676	54	118	935	43
25	202	357	195	142	606	50	118	2,360	43
26	198	203	190	140	128	48	118	1,350	43
27	194	97	150	140	707	48	116	380	42
28	191	146	110	139	937	47	115	328	42
29	186	---	78	138	1,740	47	114	484	42
30	185	102	51	136	---	47	114	257	42
31	185	62	31	135	1,410	47	---	---	---
TOTAL	6,924	---	4,548	4,888	---	2,045	3,735	---	1,324
YEAR	299,863		1,117,731	TONS					

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT									
07...	1350	9.0	212	10.0	106	61	--	--	--
17...	1450	9.5	195	10.0	364	192	--	--	--
28...	1110	6.0	188	10.0	144	73	--	--	--
NOV									
02...	1040	8.5	595	20.0	6,690	10,700	--	--	--
03...	1045	11.0	3,290	20.0	28,500	253,000	--	--	--
03...	1415	10.5	3,100	20.0	16,200	136,000	--	--	--
03...	1710	10.0	2,990	20.0	11,600	93,600	--	--	--
03...	2030	9.0	3,410	20.0	11,900	110,000	--	--	--
04...	1345	--	2,180	10.0	6,060	35,700	--	--	--
07...	1245	6.5	1,760	20.0	1,600	7,600	--	--	--
14...	1205	6.0	2,750	20.0	2,620	19,500	--	--	--
16...	1210	--	6,700	20.0	6,770	122,000	3	5	7
16...	1435	--	7,040	20.0	6,360	121,000	--	--	--
17...	1125	6.0	6,820	20.0	5,470	101,000	--	--	--
18...	1130	7.0	5,360	20.0	4,360	63,100	3	3	5
21...	1410	6.5	2,750	20.0	1,300	9,650	--	--	--
28...	1330	6.0	1,670	20.0	672	3,030	--	--	--
DEC									
07...	1200	3.0	755	20.0	311	634	--	--	--
20...	1135	--	810	20.0	285	623	--	--	--
29...	1245	0.5	745	20.0	423	851	--	--	--
30...	1145	--	1,180	20.0	846	2,700	--	--	--
JAN									
04...	1110	4.0	3,060	20.0	2,240	18,500	--	--	--
13...	1225	3.0	1,130	20.0	254	775	--	--	--
23...	1700	3.0	1,940	20.0	4,420	23,200	--	--	--
24...	1400	4.0	2,800	20.0	3,260	24,600	--	--	--
25...	1105	5.0	3,380	20.0	2,700	24,600	--	--	--
31...	1130	3.0	1,240	10.0	392	1,310	--	--	--
FEB									
13...	1250	4.5	2,130	20.0	1,460	8,400	--	--	--
27...	1455	9.0	906	20.0	177	433	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT								
07...	--	--	38	60	74	92	98	100
17...	--	--	32	40	49	57	67	81
28...	--	--	34	45	68	95	100	--
NOV								
02...	--	--	41	73	94	99	100	--
03...	--	--	50	66	89	97	99	100
03...	--	--	38	54	82	95	99	100
03...	--	--	34	51	77	96	99	100
03...	--	--	30	--	--	--	--	--
04...	--	--	27	--	--	--	--	--
07...	--	--	22	34	61	89	99	100
14...	--	--	19	32	59	84	97	100
16...	14	23	31	48	72	90	97	100
16...	--	--	30	45	70	87	96	99
17...	--	--	23	--	--	--	--	--
18...	10	15	20	32	55	82	96	99
21...	--	--	15	24	41	69	92	100
28...	--	--	22	29	49	77	93	98
DEC								
07...	--	--	27	29	36	68	87	100
20...	--	--	16	19	28	53	77	89
29...	--	--	5	8	11	22	64	91
30...	--	--	21	28	44	71	92	100
JAN								
04...	--	--	17	24	43	73	92	98
13...	--	--	32	39	54	79	96	100
23...	--	--	60	66	78	90	97	99
24...	--	--	43	51	66	83	95	99
25...	--	--	29	40	61	86	97	100
31...	--	--	24	--	--	--	--	--
FEB								
13...	--	--	16	22	38	68	89	98
27...	--	--	31	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
MAR												
12...	1345	6.0	1,590	20.0	1,020	4,380	27	38	59	84	96	100
22...	1300	7.0	2,300	20.0	588	3,650	24	--	--	--	--	--
APR												
10...	1155	4.5	1,050	20.0	246	697	30	--	--	--	--	--
MAY												
02...	1550	8.0	1,350	20.0	580	2,110	32	41	58	84	97	100
08...	1405	7.0	1,120	20.0	335	1,010	12	16	22	35	68	95
09...	1405	8.0	1,140	20.0	313	963	41	--	--	--	--	--
10...	1320	--	1,080	20.0	216	630	30	--	--	--	--	--
11...	1335	8.0	1,550	20.0	1,140	4,770	30	--	--	--	--	--
14...	1350	8.0	1,600	20.0	460	1,990	27	35	51	78	93	97
17...	1305	8.0	1,150	20.0	277	860	--	--	--	--	--	--
31...	1315	10.5	1,470	20.0	298	1,180	31	--	--	--	--	--
JUN												
19...	1405	17.5	724	20.0	94	184	--	--	--	--	--	--
JUL												
13...	0930	15.0	353	10.0	24	23	--	--	--	--	--	--
24...	1240	14.0	281	10.0	57	43	--	--	--	--	--	--
AUG												
06...	1340	15.0	230	10.0	48	30	--	--	--	--	--	--
SEP												
06...	0855	9.0	262	10.0	590	417	75	89	97	100	--	--
25...	1045	8.0	165	10.0	31	14	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
OCT												
10...	1250	10.0	530	20.0	6,640	9,500	14	17	21	39	60	--
26...	1250	6.5	330	10.0	266	237	--	--	--	--	--	--
NOV												
02...	1200	5.0	2,730	20.0	9,160	67,500	7	12	17	26	39	--
14...	1345	6.0	2,290	20.0	816	5,050	--	--	--	--	--	--
20...	1120	5.0	1,240	20.0	330	1,100	--	--	--	--	--	--
27...	1145	2.0	973	20.0	228	599	--	--	--	--	--	--
JAN												
04...	1310	1.0	440	20.0	20	24	--	--	--	--	--	--
21...	1205	2.0	345	10.0	324	302	--	--	--	--	--	--
FEB												
07...	1130	2.0	267	10.0	8	5.8	--	--	--	--	--	--
13...	1350	3.0	315	10.0	21	18	--	--	--	--	--	--
28...	1245	2.0	433	10.0	40	47	--	--	--	--	--	--
MAR												
18...	1400	7.0	684	20.0	140	259	--	--	--	--	--	--
APR												
01...	1130	6.0	1,110	20.0	323	968	--	--	--	--	--	--
15...	1120	7.0	2,630	20.0	530	3,760	--	--	--	--	--	--
MAY												
01...	1105	7.0	1,280	20.0	215	743	--	--	--	--	--	--
16...	1220	10.0	1,200	20.0	352	1,140	--	--	--	--	--	--
JUN												
04...	1140	10.0	1,040	20.0	60	168	--	--	--	--	--	--
07...	1405	11.5	3,560	20.0	3,290	31,600	--	--	--	--	--	39
10...	1210	9.0	1,450	20.0	357	1,400	--	--	--	--	--	--
25...	1200	11.0	546	20.0	51	75	--	--	--	--	--	--
JUL												
08...	1310	16.0	305	10.0	82	68	--	--	--	--	--	--
22...	1040	15.0	220	10.0	216	128	--	--	--	--	--	--
AUG												
06...	1000	11.0	185	10.0	218	109	--	--	--	--	--	--
26...	1240	14.5	152	10.0	477	196	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
10...	78	--	91	--	98	--	100	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
02...	53	--	70	--	86	--	95	--	99	--	100
14...	27	--	--	--	--	--	--	--	--	--	--
20...	33	--	--	--	--	--	--	--	--	--	--
27...	39	--	--	--	--	--	--	--	--	--	--
JAN											
04...	43	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
FEB											
07...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
MAR											
18...	35	--	--	--	--	--	--	--	--	--	--
APR											
01...	23	--	--	--	--	--	--	--	--	--	--
15...	27	--	--	--	--	--	--	--	--	--	--
MAY											
01...	26	--	--	--	--	--	--	--	--	--	--
16...	47	--	--	--	--	--	--	--	--	--	--
JUN											
04...	52	--	--	--	--	--	--	--	--	--	--
07...	37	53	--	73	--	89	--	96	--	100	--
10...	38	--	--	--	--	--	--	--	--	--	--
25...	58	--	--	--	--	--	--	--	--	--	--
JUL											
08...	68	--	--	--	--	--	--	--	--	--	--
22...	60	--	--	--	--	--	--	--	--	--	--
AUG											
06...	49	--	--	--	--	--	--	--	--	--	--
26...	70	--	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
SEP							
10...	1340	11.0	220	20.0	2,940	1,750	53
25...	0955	8.5	172	20.0	111	52	39

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT									
01...	1315	10.0	169	20.0	98	45	--	--	--
21...	1345	8.0	292	20.0	483	381	--	--	--
25...	1240	11.0	1,390	20.0	2,030	7,620	--	--	--
31...	1350	5.5	928	20.0	348	872	--	--	--
NOV									
07...	1305	7.0	1,550	20.0	896	3,750	--	--	--
26...	1405	3.0	517	20.0	39	54	--	--	--
DEC									
10...	1350	2.0	575	20.0	64	99	--	--	--
27...	1530	1.0	452	20.0	18	22	--	--	--
JAN									
10...	1140	4.0	1,060	20.0	456	1,310	--	--	--
10...	1355	4.0	1,050	20.0	244	692	--	--	--
14...	1450	4.5	1,070	20.0	155	448	--	--	--
19...	1115	4.5	6,130	20.0	5,960	98,600	4	5	10
19...	1330	5.0	5,900	20.0	5,030	80,100	--	--	--
19...	1545	4.5	5,600	20.0	4,700	71,100	4	6	10
21...	1240	4.5	2,580	20.0	1,480	10,300	--	--	--
21...	1500	5.0	2,670	20.0	1,420	10,300	--	--	--
28...	1355	6.0	1,070	20.0	434	1,250	--	--	--
FEB									
23...	1300	3.5	4,720	20.0	11,600	148,000	5	7	12
23...	1435	3.5	5,020	20.0	9,320	126,000	--	--	--
23...	1550	3.5	5,300	20.0	8,340	119,000	--	--	--
23...	1815	3.5	6,890	20.0	8,420	157,000	3	5	10
24...	0835	4.5	7,280	20.0	3,920	77,100	6	9	12
24...	1150	6.0	6,750	20.0	3,880	70,700	--	--	--
25...	1240	6.5	5,810	20.0	2,650	41,600	--	--	--
MAR									
11...	1345	6.5	2,010	20.0	584	3,170	--	--	--
25...	1420	6.5	1,320	20.0	736	2,620	--	--	--
APR									
28...	1545	7.0	748	20.0	163	329	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
OCT									
01...	--	--	--	31	--	--	--	--	--
21...	--	--	--	45	--	--	--	--	--
25...	--	--	--	22	--	--	--	--	--
31...	--	--	--	36	--	--	--	--	--
NOV									
07...	--	--	22	23	35	65	87	100	--
26...	--	--	--	49	--	--	--	--	--
DEC									
10...	--	--	--	41	--	--	--	--	--
27...	--	--	--	42	--	--	--	--	--
JAN									
10...	--	--	--	27	--	--	--	--	--
10...	--	--	--	28	--	--	--	--	--
14...	--	--	--	33	--	--	--	--	--
19...	16	23	33	29	50	77	93	99	100
19...	--	--	31	28	48	75	92	99	100
19...	16	23	32	29	49	77	96	100	--
21...	--	--	29	30	41	65	91	100	--
21...	--	--	--	31	--	--	--	--	--
28...	--	--	--	36	--	--	--	--	--
FEB									
23...	21	32	46	41	62	83	95	100	--
23...	--	--	38	37	53	76	90	97	100
23...	--	--	36	35	52	77	92	100	--
23...	17	27	37	36	55	77	92	99	100
24...	15	22	31	28	46	72	90	99	100
24...	--	--	28	23	42	70	92	99	100
25...	--	--	--	24	--	--	--	--	--
MAR									
11...	--	--	--	51	--	--	--	--	--
25...	--	--	--	33	--	--	--	--	--
APR									
28...	--	--	--	28	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY							
02...	1435	8.0	731	20.0	150	296	34
13...	1300	8.0	903	20.0	310	756	44
JUN							
05...	1630	16.0	456	20.0	22	27	44
24...	1440	18.0	267	20.0	42	30	90
JUL							
10...	1445	12.5	236	20.0	140	89	--
10...	1630	12.5	234	20.0	167	106	--
AUG							
15...	1355	17.5	140	20.0	236	89	--
29...	1155	12.5	128	20.0	628	217	--
2...	1410	13.0	126	20.0	570	194	--
SEP							
24...	1235	11.0	195	20.0	1,000	526	60

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT									
01...	1245	11.0	171	20.0	170	78	--	--	--
01...	1315	11.0	171	10.0	191	88	--	--	--
23...	1545	10.5	118	10.0	36	11	--	--	--
27...	0825	10.0	564	20.0	19,800	30,200	9	10	11
27...	0935	10.0	517	20.0	12,000	16,800	7	8	9
27...	1045	10.0	494	20.0	8,780	11,700	5	6	7
27...	1355	11.0	449	20.0	5,900	7,150	--	--	--
28...	0910	10.0	338	20.0	3,260	2,980	--	--	--
31...	1210	9.5	694	20.0	3,520	6,600	--	--	--
NOV									
12...	1510	6.5	365	20.0	443	437	--	--	--
12...	1540	6.5	365	10.0	456	449	--	--	--
18...	1110	7.5	1,030	20.0	10,200	28,400	8	9	12
18...	1315	7.5	1,270	20.0	11,000	37,700	9	10	14
18...	1455	7.0	1,070	20.0	6,680	19,300	10	10	18
20...	0925	7.5	2,540	20.0	21,300	146,000	13	13	23
20...	1110	7.5	2,300	20.0	8,100	50,300	8	9	13
20...	1410	7.0	2,250	20.0	4,620	28,100	2	4	7
20...	1610	7.0	2,350	20.0	3,640	23,100	3	4	8
21...	1315	5.5	1,960	20.0	1,650	8,730	--	--	--
24...	1040	6.5	5,980	20.0	5,440	87,800	2	3	6
24...	1315	6.5	5,340	20.0	4,170	60,100	2	3	6
24...	1550	6.5	5,040	20.0	3,360	45,700	2	3	6
25...	1345	6.0	3,340	20.0	1,580	14,200	--	--	--
DEC									
05...	1420	3.5	867	20.0	191	447	--	--	--
19...	1025	3.0	478	20.0	95	123	--	--	--
JAN									
09...	1440	2.5	783	20.0	101	214	--	--	--
22...	1330	3.5	528	20.0	42	60	--	--	--
FEB									
01...	1232	6.5	6,060	20.0	6,680	109,000	7	8	10
01...	1233	6.5	6,060	20.0	7,040	115,000	--	--	--
01...	1455	5.5	5,910	20.0	5,260	83,900	--	--	--
02...	1030	4.0	3,860	20.0	2,020	21,100	--	--	--
03...	1510	5.0	2,530	20.0	928	6,340	--	--	--
27...	1430	5.0	676	20.0	127	232	--	--	--
MAR									
04...	1005	5.0	6,090	20.0	5,680	93,400	5	6	8
04...	1305	5.0	5,810	20.0	4,690	73,600	--	--	--
19...	1530	6.5	1,520	20.0	529	2,170	--	--	--
APR									
09...	1155	6.5	1,190	20.0	580	1,860	--	--	--
21...	1450	8.0	912	20.0	226	557	--	--	--
MAY									
20...	1340	--	538	10.0	39	57	--	--	--
JUN									
23...	1405	14.0	298	10.0	20	16	--	--	--
JUL									
30...	1405	15.0	186	10.0	122	61	--	--	--
AUG									
26...	1320	--	142	10.0	128	49	--	--	--

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

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
OCT									
01...	--	--	--	31	--	--	--	--	--
01...	--	--	--	22	--	--	--	--	--
23...	--	--	--	36	--	--	--	--	--
27...	23	36	56	--	87	99	100	--	--
27...	17	27	43	--	78	99	100	--	--
27...	13	21	36	--	74	97	99	100	--
27...	--	--	36	--	77	98	100	--	--
28...	--	--	25	--	63	96	99	100	--
31...	--	--	21	--	47	86	98	100	--
NOV									
12...	--	--	--	22	--	--	--	--	--
12...	--	--	--	15	--	--	--	--	--
18...	22	34	51	--	77	95	99	100	--
18...	23	37	53	--	78	95	100	--	--
18...	30	43	56	--	80	96	100	--	--
20...	34	50	69	--	86	96	99	99	100
20...	24	35	50	--	70	89	97	100	--
20...	13	19	28	--	45	76	94	100	--
20...	13	--	30	--	49	79	94	99	100
21...	--	--	24	--	39	67	94	100	--
24...	11	17	26	--	44	74	93	100	--
24...	10	14	22	--	38	69	92	99	100
24...	9	14	21	--	36	66	89	99	100
25...	--	--	22	--	35	60	83	99	100
DEC									
05...	--	--	--	40	--	--	--	--	--
19...	--	--	--	47	--	--	--	--	--
JAN									
09...	--	--	--	42	--	--	--	--	--
22...	--	--	--	44	--	--	--	--	--
FEB									
01...	18	27	--	37	52	75	91	98	100
01...	--	--	--	36	50	71	87	96	99
01...	--	--	--	33	47	70	89	97	99
02...	--	--	--	39	63	89	99	100	--
03...	--	--	--	28	--	--	--	--	--
27...	--	--	--	49	--	--	--	--	--
MAR									
04...	16	24	--	34	48	72	91	97	99
04...	--	--	--	33	49	72	92	98	100
19...	--	--	--	30	--	--	--	--	--
APR									
09...	--	--	--	28	--	--	--	--	--
21...	--	--	--	24	--	--	--	--	--
MAY									
20...	--	--	--	--	--	--	--	--	--
JUN									
23...	--	--	--	--	--	--	--	--	--
JUL									
30...	--	--	--	--	--	--	--	--	--
AUG									
26...	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT											
17...	1452	0	0	2	13	29	48	65	83	98	100
17...	1454	0	0	0	2	14	35	66	91	100	--
28...	1127	0	0	1	25	44	70	87	96	100	--
28...	1130	0	0	1	7	30	53	73	90	99	100
DEC											
07...	1230	0	0	0	8	42	71	90	97	100	--
JAN											
13...	1234	0	0	1	9	45	71	81	88	93	100
13...	1237	1	1	2	4	10	20	27	43	66	100
24...	1430	0	0	1	9	38	69	87	97	99	100
MAR											
12...	1430	0	0	2	18	18	58	90	94	96	100
12...	1432	0	0	0	3	14	51	76	83	83	100
12...	1434	0	0	1	3	5	16	46	77	93	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

AUG											
26...	1252	0	0	5	34	63	78	96	97	100	--
26...	1254	0	0	3	14	26	36	50	68	91	100
26...	1255	0	0	2	5	22	46	75	95	99	100
SEP											
10...	1353	0	1	6	9	14	32	69	89	99	100
10...	1354	0	1	7	26	61	84	95	99	100	--
10...	1356	0	1	9	39	79	93	97	99	100	--
25...	1007	0	0	1	4	21	46	70	90	99	100
25...	1009	0	0	3	15	33	50	64	78	94	100
25...	1011	0	0	7	50	78	91	96	99	100	--
25...	1012	0	0	6	31	49	57	60	62	68	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT												
01...	1335	0	0	0	3	15	36	65	88	98	100	--
01...	1337	0	0	1	13	25	37	51	72	94	100	--
31...	1407	0	0	0	1	2	14	48	86	100	--	--
31...	1410	0	0	0	1	2	9	23	47	74	100	--
31...	1415	0	0	0	4	15	33	52	74	86	100	--
31...	1421	0	0	1	8	41	72	85	96	98	100	--
NOV												
07...	1325	0	0	0	0	0	0	0	0	0	100	--
07...	1328	0	0	0	1	2	7	22	50	77	100	--
07...	1334	0	0	1	3	10	24	39	53	70	100	--
07...	1340	0	0	1	10	45	77	85	89	92	100	--
DEC												
10...	1417	0	0	0	1	2	4	12	30	48	60	100
10...	1419	0	0	0	0	0	0	14	62	100	--	--
10...	1423	0	0	0	1	5	10	17	38	71	100	--
10...	1427	0	0	0	4	28	67	88	96	100	--	--
JAN												
10...	1432	0	0	1	6	32	52	63	73	82	100	--
10...	1437	0	0	1	9	30	54	71	86	94	100	--
21...	1524	0	0	0	0	0	0	2	100	--	--	--
21...	1532	0	0	0	2	8	23	41	50	56	78	100
21...	1537	0	0	1	9	43	74	93	99	100	--	--
FEB												
25...	1605	0	0	0	1	4	8	13	16	21	28	100
MAR												
11...	1356	0	0	0	7	41	67	81	92	97	100	--
11...	1359	0	0	0	1	3	18	49	80	98	100	--
25...	1434	0	0	0	5	35	74	92	99	100	--	--
25...	1436	0	0	0	2	5	20	51	78	92	100	--
25...	1440	0	0	0	1	4	34	80	99	100	--	--
MAY												
13...	1311	0	0	1	13	42	66	79	90	98	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
SEP											
24...	1249	0	1	11	35	58	82	95	100	--	--
24...	1250	0	2	11	30	42	49	57	78	99	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

OCT											
01...	1341	0	1	21	65	83	93	97	100	--	--
01...	1343	0	1	21	84	97	99	100	--	--	--
01...	1345	0	0	7	23	34	41	49	67	94	100
23...	1611	0	0	8	47	65	78	89	98	100	--
23...	1612	0	0	2	35	72	84	91	97	100	--
23...	1613	0	0	4	17	34	55	71	90	99	100
23...	1614	0	1	11	34	63	92	99	100	--	--
27...	1016	0	3	38	92	99	100	--	--	--	--
27...	1019	0	6	60	95	99	100	--	--	--	--
27...	1021	0	4	38	84	96	99	100	--	--	--
28...	1030	0	2	24	88	99	100	--	--	--	--
28...	1035	0	2	33	82	94	98	100	--	--	--
28...	1040	1	6	48	86	94	98	100	--	--	--
31...	1232	0	0	3	6	10	15	23	50	100	--
31...	1233	0	1	5	26	75	96	100	--	--	--
31...	1236	0	1	15	74	96	99	100	--	--	--
31...	1239	0	1	10	67	94	98	100	--	--	--
NOV											
12...	1612	0	1	4	20	47	48	50	55	64	100
12...	1614	0	0	2	13	28	40	49	60	100	--
12...	1616	0	1	12	47	80	93	98	100	--	--
12...	1618	0	0	3	26	61	85	94	98	100	--
18...	1336	1	5	10	12	14	16	18	25	25	100
18...	1340	0	1	5	19	45	73	90	97	100	--
18...	1342	0	3	19	67	95	100	--	--	--	--
20...	1156	0	0	2	9	40	74	89	97	100	--
20...	1200	0	1	10	63	98	100	--	--	--	--
21...	1402	0	0	0	1	1	1	3	10	10	100
21...	1408	0	0	0	2	3	8	18	34	63	100
21...	1412	0	0	0	3	18	63	86	95	98	100
21...	1415	0	0	1	5	11	20	33	52	72	100
24...	1354	0	0	0	0	0	0	0	0	15	100
24...	1358	0	0	1	5	19	40	52	58	66	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
DEC												
05...	1446	0	0	0	4	12	19	28	50	78	100	--
05...	1449	0	0	0	6	11	16	27	42	100	--	--
05...	1459	0	0	0	6	36	80	97	99	100	--	--
FEB												
02...	1100	0	0	0	0	0	0	0	0	0	0	100
02...	1107	0	0	0	1	2	3	7	17	44	100	--
02...	1112	0	0	1	10	37	60	70	75	84	100	--
MAR												
19...	1607	0	0	0	0	3	17	50	91	100	--	--
19...	1615	0	0	1	9	34	55	66	72	78	100	--
APR												
09...	1230	0	0	0	0	1	4	27	64	86	100	--
09...	1235	1	1	3	15	30	49	74	89	100	--	--
09...	1240	0	0	0	2	4	9	19	42	76	100	--
09...	1245	0	0	1	9	26	41	55	74	89	100	--
09...	1250	0	0	0	8	49	92	99	100	--	--	--

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

LOCATION.--Lat 46°04'24", long 122°00'57", in NW $\frac{1}{4}$ SW $\frac{1}{4}$, T.7 N., R.6 E., Skamania County, Hydrologic Unit 17080002, at U.S. Forest Service Road 125 bridge, approximately 13 mi. east of Cougar.

DRAINAGE AREA.--26.0 mi²

PERIOD OF SEDIMENT DATA.--March 1980 to October 1984.

GAGE.--Water-stage recorder. Altitude of gage is 1,040 ft, from topographic map.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended- sediment concentration, mgL ⁻¹
1981	Nov. 7, 1980	1730	108,000
1982	Oct. 6, 1981	1125	69,200
1983	Dec. 3, 1982	1640	24,400
1984	Nov. 3, 1983	1145	37,800

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	130	---	4.5	201	---	40	238	---	15
2	132	---	6.0	460	---	15,000	234	---	15
3	136	---	8.0	700	30,300	57,300	219	---	15
4	139	---	9.0	540	---	25,000	202	---	10
5	139	---	15	440	---	8,000	202	---	10
6	138	---	15	475	---	10,000	188	---	10
7	138	40	15	430	---	4,500	185	---	10
8	138	---	15	385	---	1,500	202	---	15
9	137	---	15	350	---	500	219	32	19
10	137	---	10	420	---	1,000	356	---	100
11	136	---	10	500	---	2,000	361	---	100
12	136	30	11	525	---	2,500	332	---	70
13	133	---	10	550	---	3,500	371	---	150
14	132	---	10	575	---	4,500	382	---	200
15	128	---	10	590	3,850	6,130	346	---	90
16	128	---	10	1,490	---	70,000	300	---	35
17	132	---	10	1,680	---	90,000	249	---	15
18	128	---	10	1,380	---	25,000	226	---	6.5
19	126	---	10	1,080	---	7,500	216	---	5.5
20	126	---	10	780	---	2,000	198	7	3.7
21	128	---	10	475	285	366	188	---	3.5
22	244	---	60	530	---	500	176	---	3.0
23	154	---	20	585	---	700	170	---	3.0
24	142	---	20	640	---	1,000	170	---	3.0
25	137	---	20	580	---	350	170	---	3.0
26	136	45	17	525	---	300	167	---	3.0
27	133	---	15	470	---	150	158	---	3.0
28	130	---	15	410	---	70	152	---	3.0
29	128	---	15	350	---	35	205	---	4.0
30	266	---	70	295	---	20	216	---	5.5
31	195	---	40	---	---	---	226	---	6.5
TOTAL	4,462	---	515.5	18,411	---	339,461	7,224	---	935.2
JANUARY				FEBRUARY			MARCH		
1	198	---	3.5	296	---	60	223	---	30
2	229	---	7.0	270	---	45	234	---	35
3	620	---	7,000	253	---	40	230	---	35
4	603	---	5,000	234	---	30	223	---	30
5	485	---	1,000	219	---	25	219	---	30
6	404	---	300	209	---	20	212	---	25
7	371	---	150	192	---	15	209	---	20
8	346	---	90	176	31	15	209	---	20
9	327	---	60	179	---	15	212	---	25
10	309	47	39	188	---	15	246	---	40
11	253	---	15	218	---	25	270	---	60
12	234	---	8.5	498	---	1,500	404	306	334
13	223	---	6.5	531	---	2,000	418	---	450
14	216	---	5.5	444	712	854	466	---	850
15	202	---	4.0	382	---	300	487	---	1,000
16	195	---	3.5	337	---	150	444	---	150
17	188	---	3.5	296	---	85	403	---	95
18	182	---	3.0	261	---	50	389	---	80
19	179	---	3.0	249	---	45	406	---	100
20	170	---	3.0	257	---	60	459	---	200
21	170	---	3.0	249	---	45	533	---	750
22	237	---	9.0	242	---	40	484	220	287
23	389	1,480	2,400	242	---	40	366	---	60
24	783	4,020	8,500	238	---	35	314	---	35
25	995	4,720	13,400	226	---	30	296	---	30
26	747	---	3,500	219	---	30	265	---	20
27	597	---	750	212	---	30	238	---	15
28	498	---	350	216	48	28	238	---	15
29	433	---	200	212	---	25	219	---	15
30	361	---	100	---	---	---	205	---	10
31	327	---	80	---	---	---	202	---	10
TOTAL	11,471	---	42,997.0	7,745	---	5,652	9,723	---	4,856

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	192	---	10	290	---	30	261	---	7.0
2	188	---	10	351	53	50	265	---	7.0
3	192	---	10	351	---	40	242	---	6.0
4	188	---	10	332	---	30	261	---	6.0
5	188	---	10	327	---	20	246	---	5.5
6	179	19	9.2	287	---	15	230	---	5.0
7	221	---	15	278	---	10	223	---	5.0
8	204	---	10	282	---	10	219	---	4.5
9	218	---	15	282	---	10	223	---	4.5
10	244	---	20	276	---	10	219	---	4.0
11	251	---	20	344	---	15	209	---	4.0
12	314	---	35	323	---	15	212	---	3.5
13	312	---	35	314	---	15	205	---	3.5
14	311	---	35	305	---	15	192	---	3.0
15	309	---	35	296	---	15	188	---	3.0
16	300	---	30	282	---	10	185	---	3.0
17	287	---	30	274	---	10	185	---	3.0
18	278	---	25	265	---	10	182	---	3.0
19	265	---	20	278	---	10	182	6	2.9
20	257	---	20	265	---	10	198	---	4.0
21	245	---	20	250	---	10	198	---	4.0
22	242	---	20	288	---	9.5	182	---	3.0
23	234	---	15	314	---	9.0	179	---	3.0
24	226	---	15	284	---	8.5	179	---	3.0
25	223	---	15	305	10	8.2	179	---	3.0
26	216	---	15	356	---	10	179	---	3.0
27	212	---	15	327	---	9.5	179	---	3.0
28	212	---	15	309	---	9.0	176	---	3.0
29	212	---	15	314	---	8.5	179	---	3.5
30	227	---	15	309	---	8.0	173	---	3.5
31	---	---	---	270	---	7.5	---	---	---
TOTAL	7,147	---	564.2	9,328	---	447.7	6,130	---	119.4
JULY			AUGUST			SEPTEMBER			
1	170	---	3.5	142		4.0	142	---	7.0
2	167	---	3.5	142		4.0	137	---	6.0
3	164	---	3.5	142		4.0	134	---	5.0
4	164	---	3.5	142		4.0	137	---	5.0
5	164	---	3.5	139		4.0	147	---	7.0
6	158	---	3.5	139		4.0	152	24	9.8
7	158	---	3.5	137		4.0	164	---	13
8	158	---	3.5	137		4.0	161	---	12
9	155	---	3.5	139		4.0	142	---	7.0
10	152	---	3.5	139		4.0	139	---	7.0
11	149	---	3.5	139		4.0	137	---	7.0
12	149	---	3.5	137		4.0	142	---	7.0
13	149	9	3.6	137		4.0	137	---	7.0
14	147	---	3.5	137		4.0	137	---	7.0
15	147	---	3.5	137		4.0	137	---	7.0
16	147	---	3.5	139		4.0	137	---	7.0
17	147	---	3.5	139		4.0	134	---	7.0
18	144	---	3.5	139		4.0	134	---	7.0
19	147	---	4.0	139		4.0	134	---	7.0
20	147	---	4.0	137		4.0	134	---	7.0
21	144	---	4.0	137		4.0	134	---	7.0
22	144	---	4.0	137		4.0	139	---	7.0
23	147	---	4.0	137		4.0	137	---	7.0
24	147	10	4.0	137		4.0	134	---	7.0
25	144	---	4.0	139		4.0	134	---	7.0
26	144	---	4.0	139		4.0	134	---	7.0
27	142	---	4.0	139		4.0	132	---	7.0
28	144	---	4.0	139		4.0	132	---	7.0
29	142	---	4.0	139		4.0	132	---	7.0
30	142	---	4.0	137		4.0	130	---	7.0
31	142	---	4.0	134		4.0	---	---	---
TOTAL	4,665	---	115.1	4,292		124.0	4,156	---	218.8
YEAR	94,754		396,005.9 TONS						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT									
07...	1510	10.0	138	10.0	40	15	--	--	--
12...	1440	9.0	135	10.0	30	11	--	--	--
26...	1325	8.5	136	10.0	45	17	--	--	--
NOV									
03...	1145	10.0	820	20.0	37,800	83,700	4	5	8
04...	1630	--	540	20.0	7,100	10,400	--	--	--
15...	1500	9.0	592	20.0	3,850	6,150	--	--	--
21...	1310	6.0	473	20.0	285	364	--	--	--
DEC									
09...	1500	5.5	222	20.0	32	19	--	--	--
20...	1250	3.0	195	10.0	7	3.7	--	--	--
JAN									
10...	1445	5.5	286	20.0	47	36	--	--	--
23...	1305	4.5	257	20.0	410	284	--	--	--
24...	0905	4.0	726	20.0	3,620	7,100	--	--	--
24...	1535	5.0	726	20.0	3,170	6,210	6	6	10
25...	1800	4.5	904	20.0	3,110	7,590	4	4	5
FEB									
08...	1505	9.0	174	10.0	31	15	--	--	--
14...	1235	5.0	451	10.0	712	867	--	--	--
28...	1410	8.5	225	10.0	48	29	--	--	--
MAR									
12...	1255	7.0	417	10.0	306	345	--	--	--
22...	1115	6.0	501	20.0	220	298	--	--	--
APR									
06...	1310	7.0	180	10.0	19	9.2	--	--	--
MAY									
02...	1230	7.5	361	20.0	53	52	--	--	--
25...	1210	8.0	277	20.0	10	7.5	--	--	--
JUN									
19...	1005	9.0	184	10.0	6	3.0	--	--	--
JUL									
13...	1225	13.0	149	10.0	9	3.6	--	--	--
24...	1445	14.0	140	10.0	10	3.8	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT								
07...	--	--	14	28	52	75	89	100
12...	--	--	9	--	--	--	--	--
26...	--	--	21	34	53	74	87	100
NOV								
03...	15	23	32	44	73	91	97	100
04...	--	--	17	27	51	83	96	99
15...	--	--	13	23	40	66	87	97
21...	--	--	13	--	--	--	--	--
DEC								
09...	--	--	46	--	--	--	--	--
20...	--	--	43	--	--	--	--	--
JAN								
10...	--	--	37	49	72	100	--	--
23...	--	--	76	83	88	93	97	100
24...	--	--	27	--	--	--	--	--
24...	17	24	30	42	63	82	95	99
25...	9	13	18	29	51	75	91	97
FEB								
08...	--	--	--	--	--	--	--	--
14...	--	--	41	--	--	--	--	--
28...	--	--	15	28	54	77	100	--
MAR								
12...	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--
APR								
06...	--	--	--	--	--	--	--	--
MAY								
02...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
JUN								
19...	--	--	--	--	--	--	--	--
JUL								
13...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
SEP						
06...	1145	9.5	148	10.0	*24	9.6

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT											
10...	0945	8.0	179	20.0	350	169	92	94	96	98	100

14240352 COLDWATER LAKE CANAL NEAR SPIRIT LAKE, WA

LOCATION.--Lat 46°17'16", long 122°16'10", in NW ¼ SE ¼ sec. 2, T.9 N., R.4 E., Cowlitz County, Hydrologic Unit 17080005, Mount St. Helens National Volcanic Monument, on right bank 1,000 ft downstream from outlet of Coldwater Lake, 5.8 mi west of Spirit Lake, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--36.2 mi², since April 1985. Prior to April 1985, 17.5 mi².

PERIOD OF SEDIMENT DATA.--January 1984 to September 1986.

GAGE.--Water-stage recorder. Altitude of gage is 2,500 ft, from topographic map.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended- sediment concentration, mgL ⁻¹
1985	May 21, 1985	1620	3,880
1986	Mar. 24, 1986	1250	2,830

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
JAN 11...	1400	3.0	--	10.0	3	---
AUG 27...	1220	18.5	19	10.0	1	0.05

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 09...	1315	6.0	131	10.0	34	12	--
JAN 11...	1400	3.0	55	10.0	3	0.45	--
JAN 22...	1315	3.5	64	10.0	8	1.4	--
FEB 04...	1255	2.0	47	10.0	4	0.51	--
MAR 01...	1300	3.5	77	10.0	7	1.5	--
MAR 12...	1215	5.0	58	10.0	42	6.6	--
MAR 29...	1200	5.0	79	10.0	22	4.7	--
APR 09...	1225	10.0	229	10.0	76	47	--
APR 11...	1720	--	488	10.0	130	171	43
APR 12...	1640	9.5	350	10.0	84	79	96
APR 19...	1220	6.0	197	10.0	108	57	100
APR 25...	1535	--	113	10.0	18	5.5	--
APR 27...	1405	7.5	113	10.0	506	154	100
APR 27...	1515	7.5	117	20.0	290	92	99
APR 27...	1625	7.5	114	20.0	270	83	99
APR 27...	1755	7.0	124	10.0	746	250	100
APR 27...	1845	--	130	10.0	512	180	100

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
MAY									
06...	1330	7.5	150	20.0	544	220	--	--	--
06...	1700	8.0	159	20.0	1,180	507	--	--	--
07...	1350	9.0	213	10.0	1,270	733	--	--	--
09...	1250	10.0	292	10.0	958	755	26	42	66
11...	1440	--	315	10.0	1,020	868	--	--	--
14...	1210	9.5	233	10.0	2,330	1,470	--	--	--
14...	1230	8.0	226	10.0	742	453	--	--	--
14...	1340	8.0	232	10.0	2,200	1,380	29	44	70
14...	1500	8.5	218	10.0	3,080	1,810	--	--	--
14...	1600	8.5	239	10.0	3,400	2,190	29	42	67
14...	1755	9.0	248	10.0	1,500	1,000	--	--	--
15...	1155	9.0	280	10.0	1,320	998	--	--	--
16...	1115	--	367	10.0	1,040	1,040	--	--	--
17...	1340	13.0	449	10.0	1,190	1,440	--	--	--
19...	1140	9.0	548	10.0	1,300	1,920	--	--	--
21...	1120	--	370	10.0	72	72	--	--	--
21...	1310	14.0	372	10.0	2,180	2,190	24	33	52
21...	1410	14.0	375	10.0	2,540	2,570	--	--	--
21...	1500	14.5	380	10.0	3,420	3,510	--	--	--
21...	1620	14.5	393	10.0	3,880	4,120	26	41	61
21...	1655	14.0	393	10.0	3,660	3,880	--	--	--
23...	1140	--	542	10.0	1,900	2,780	--	--	--
25...	1250	--	820	10.0	3,090	6,850	--	--	--
27...	1415	--	744	10.0	3,520	7,070	--	--	--
28...	1345	11.0	659	10.0	1,850	3,290	17	27	40
JUN									
04...	1240	10.0	172	10.0	204	95	--	--	--
07...	1115	10.5	389	10.0	2,480	2,610	--	--	--
11...	1300	15.0	543	10.0	3,290	4,820	--	--	--
19...	1145	17.0	504	10.0	3,000	4,090	--	--	--
28...	1435	17.0	469	10.0	2,290	2,900	--	--	--

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUL								
10...	1350	20.5	427	10.0	984	1,130	--	32
15...	1340	21.5	312	20.0	710	598	--	25
23...	1330	20.5	365	10.0	432	426	--	16
AUG								
02...	1205	18.5	418	10.0	2,940	3,320	62	--
02...	1220	18.5	418	20.0	2,830	3,190	62	--
15...	1120	19.0	323	10.0	488	426	26	--
27...	1310	18.0	222	10.0	265	159	21	--
SEP								
04...	1500	18.0	131	10.0	271	96	--	5
23...	1145	--	183	10.0	1,960	968	--	99
24...	1415	15.5	189	10.0	270	138	--	12

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
MAY								
06...	--	--	--	99	--	--	--	--
06...	--	--	--	100	--	--	--	--
07...	--	--	--	98	--	--	--	--
09...	85	96	--	99	--	100	--	--
11...	--	--	--	98	--	--	--	--
14...	--	--	--	--	--	--	--	--
14...	--	--	--	100	--	--	--	--
14...	91	98	--	100	--	--	--	--
14...	--	--	--	100	--	--	--	--
14...	88	98	--	100	--	--	--	--
14...	--	--	--	100	--	--	--	--
15...	--	--	--	100	--	--	--	--
16...	--	--	--	100	--	--	--	--
17...	--	--	--	100	--	--	--	--
19...	--	--	--	97	--	--	--	--
21...	--	--	--	98	--	99	--	100
21...	75	95	--	100	--	--	--	--
21...	--	--	--	100	--	--	--	--
21...	--	--	--	100	--	--	--	--
21...	82	97	--	100	--	--	--	--
21...	--	--	--	100	--	--	--	--
23...	--	--	--	--	--	--	--	--
25...	--	--	--	98	--	--	--	--
27...	--	--	--	89	--	--	--	--
28...	56	73	85	--	97	--	100	--
JUN								
04...	--	--	--	75	--	--	--	--
07...	--	--	--	80	--	--	--	--
11...	--	--	--	52	--	--	--	--
19...	--	--	--	47	--	--	--	--
28...	--	--	55	--	89	--	100	--
JUL								
10...	--	--	--	--	--	--	--	--
15...	--	43	--	88	--	98	100	--
23...	--	36	--	87	--	99	100	--
AUG								
02...	87	--	100	--	--	--	--	--
02...	88	--	100	--	--	--	--	--
15...	56	--	96	--	100	--	--	--
27...	57	--	97	--	100	--	--	--
SEP								
04...	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
16...	1230	10.5	175	10.0	153	72	14
28...	1320	9.5	362	10.0	901	881	31
NOV							
14...	1300	7.0	267	10.0	472	340	14
DEC							
03...	1225	3.5	163	10.0	109	48	28
19...	1155	4.5	156	10.0	14	5.9	39
31...	1235	4.0	135	10.0	4	1.5	50
JAN							
27...	1255	4.5	196	10.0	233	123	33
FEB							
28...	1330	6.0	382	10.0	1,070	1,110	40
MAR							
03...	1245	--	279	10.0	773	582	--
04...	1250	7.5	356	10.0	2,830	2,720	8
APR							
02...	1505	--	281	10.0	213	162	20
10...	1540	9.0	284	10.0	188	144	9
MAY							
08...	1425	9.0	264	10.0	126	90	22
JUN							
09...	1400	16.0	244	10.0	74	49	--
JUL							
03...	1500	17.0	137	10.0	9	3.3	--
28...	1335	18.5	94	10.0	7	1.8	--
SEP							
29...	1245	12.5	115	10.0	139	43	89

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAY												
09...	1230	2	3	9	20	35	46	54	62	78	100	--
JUL												
10...	1315	1	17	93	99	100	--	--	--	--	--	--
10...	1320	1	22	99	100	--	--	--	--	--	--	--
10...	1325	0	3	33	56	65	72	80	88	95	100	--
10...	1330	0	1	20	46	59	70	89	91	95	100	--
10...	1335	0	0	12	47	70	84	91	95	98	100	--
15...	1245	0	2	32	90	99	100	--	--	--	--	--
15...	1250	0	1	11	61	90	97	99	100	--	--	--
15...	1255	0	1	19	51	65	74	79	86	94	100	--
15...	1300	0	1	9	39	69	84	92	99	100	--	--
15...	1305	0	1	5	34	70	87	94	98	100	--	--
23...	1355	0	1	14	37	58	77	89	95	100	--	--
23...	1400	0	0	4	16	37	68	91	98	100	--	--
23...	1405	0	1	28	76	89	96	98	100	--	--	--
23...	1410	0	0	7	37	62	80	89	96	99	100	--
23...	1415	0	1	19	73	90	96	98	100	--	--	--
AUG												
02...	1215	0	1	6	28	51	70	84	94	100	--	--
02...	1220	0	1	16	37	49	57	64	75	81	100	--
02...	1225	0	2	13	26	35	42	49	61	75	100	--
02...	1230	1	15	91	99	100	--	--	--	--	--	--
02...	1235	2	20	91	99	100	--	--	--	--	--	--
15...	1230	0	0	11	60	94	98	100	--	--	--	--
15...	1235	0	1	31	92	99	100	--	--	--	--	--
15...	1240	0	1	28	79	89	95	98	99	100	--	--
15...	1245	0	0	3	24	53	77	91	98	100	--	--
15...	1250	1	6	34	77	92	97	99	100	--	--	--
27...	1330	0	0	8	52	83	92	96	99	100	--	--
27...	1335	0	0	8	40	71	88	95	99	100	--	--
27...	1340	0	0	10	40	68	89	96	99	100	--	--
27...	1345	0	3	53	97	100	--	--	--	--	--	--
SEP												
04...	1445	0	1	15	44	63	77	86	93	98	100	--
04...	1450	0	1	11	38	58	76	88	97	100	--	--
04...	1455	0	1	10	47	63	73	82	88	94	100	--
04...	1500	0	0	6	36	56	72	83	90	97	100	--
04...	1505	0	1	10	36	50	59	70	83	95	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

OCT												
16...	1300	0	0	3	26	62	82	91	97	100	--	--
16...	1305	0	0	5	24	46	66	80	91	98	100	--
16...	1310	0	0	6	21	33	45	58	73	90	100	--
16...	1315	0	0	4	22	43	61	74	83	88	91	100
16...	1320	0	1	10	26	39	52	67	85	97	100	--
28...	1400	0	1	6	10	15	19	23	30	41	69	100
28...	1405	0	0	5	31	53	69	83	96	100	--	--
28...	1410	0	0	10	57	75	83	88	95	99	100	--
28...	1415	0	0	2	11	31	50	67	84	97	100	--
28...	1420	0	0	3	15	44	73	87	94	99	100	--

**14240400 NORTH FORK TOUTLE RIVER ABOVE BEAR CREEK
NEAR KID VALLEY, WA**

LOCATION.--Lat 46°16'48", long 122°22'17", in SE ¼ SE ¼ sec. 7, T.9 N., R.4 E., Cowlitz County, Hydrologic Unit 17080005, Mount St. Helens National Volcanic Monument, on left bank, 14.6 mi southeast of Kid Valley.

DRAINAGE AREA.--79.2 mi².

PERIOD OF SEDIMENT DATA.--August 1984 through September 1987.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended- sediment concentration, mgL ⁻¹
1985	June 7, 1985	1150	124,000
1986	Oct. 25, 1985	1130	28,300
1987	Nov. 24, 1986	0915	61,800

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
DEC												
28...	1040	3.0	701	20.0	7,010	13,300	--	--	--	--	--	--
JAN												
03...	1400	4.0	499	20.0	5,690	7,670	--	--	--	--	--	--
08...	1655	5.0	478	20.0	1,050	1,360	--	--	--	--	--	--
10...	1340	6.0	406	20.0	702	770	--	--	--	--	--	--
17...	1300	8.0	482	20.0	486	632	--	--	--	--	--	--
23...	1330	7.0	466	20.0	872	1,100	--	--	--	--	--	--
FEB												
01...	1450	3.0	415	20.0	326	365	--	--	--	--	--	--
08...	1415	--	399	20.0	340	366	--	--	--	--	--	--
11...	1345	6.5	418	20.0	840	948	--	--	--	--	--	--
19...	1335	4.5	663	20.0	8,690	15,600	--	--	--	--	--	--
27...	1300	9.0	705	20.0	6,840	13,000	--	--	--	--	--	--
MAR												
05...	1345	7.0	444	20.0	712	854	--	--	--	--	--	--
12...	1300	8.0	478	20.0	206	266	--	--	--	--	--	--
22...	1400	8.0	560	20.0	910	1,380	--	--	--	--	--	20
29...	1230	7.0	564	20.0	5,780	8,800	3	4	5	9	12	23
APR												
04...	1210	8.0	510	20.0	716	986	--	--	--	--	--	--
11...	1440	9.0	1,410	20.0	28,800	110,000	7	8	12	20	29	--
19...	1245	5.0	567	20.0	16,100	24,600	--	--	--	--	--	--
27...	1235	9.0	444	20.0	794	952	--	--	--	--	--	37
27...	1645	9.0	444	20.0	2,160	2,590	--	--	--	--	--	--
MAY												
06...	1250	10.5	363	20.0	760	745	--	--	--	--	--	--
07...	1115	12.0	474	20.0	1,120	1,430	15	18	27	36	41	46
10...	1400	9.0	525	20.0	3,380	4,790	5	9	14	19	23	27
17...	1545	11.0	991	20.0	23,000	61,500	7	7	12	18	26	--
23...	1155	13.5	1,090	20.0	23,700	69,700	10	12	15	26	36	49
25...	1420	--	1,570	10.0	64,300	273,000	--	--	--	--	--	--
25...	1425	--	1,570	10.0	64,300	273,000	--	--	--	--	--	--
28...	1440	12.0	1,690	10.0	34,200	156,000	8	9	14	21	32	--
JUN												
07...	1150	13.0	1,820	20.0	124,000	609,000	8	9	14	23	33	--
07...	1325	13.0	1,820	20.0	75,400	371,000	6	9	15	23	34	--
11...	1345	18.5	931	20.0	19,600	49,300	--	--	--	--	--	--
19...	1315	20.0	748	20.0	9,160	18,500	--	--	--	--	--	35
JUL												
01...	1130	17.0	845	10.0	8,500	19,400	--	--	--	--	--	27
12...	1240	19.0	605	10.0	6,880	11,200	--	--	--	--	--	23
AUG												
01...	1240	19.0	638	10.0	12,900	22,200	7	9	15	21	32	--
21...	1325	16.0	339	20.0	808	740	--	--	--	--	--	--
SEP												
06...	1400	11.5	194	10.0	1,880	985	--	--	--	--	--	80

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DEC											
28...	30	--	40	--	59	--	81	--	94	--	99
JAN											
03...	31	--	43	--	66	--	90	--	99	--	100
08...	30	--	42	--	59	--	76	--	90	--	98
10...	32	--	43	--	59	--	75	--	90	--	95
17...	34	--	--	--	--	--	--	--	--	--	--
23...	27	--	36	--	54	--	74	--	93	--	100
FEB											
01...	25	--	--	--	--	--	--	--	--	--	--
08...	45	--	--	--	--	--	--	--	--	--	--
11...	40	--	51	--	66	--	81	--	82	--	92
19...	22	--	29	--	45	--	67	--	88	--	97
27...	19	--	26	--	40	--	63	--	84	--	96
MAR											
05...	19	--	28	--	43	--	63	--	81	--	91
12...	32	--	--	--	--	--	--	--	--	--	--
22...	22	27	--	41	--	60	--	95	--	100	--
29...	44	30	--	42	--	59	--	88	--	--	--
APR											
04...	29	--	--	--	--	--	--	--	--	--	--
11...	39	--	53	--	76	--	89	--	96	--	99
19...	12	--	28	--	37	--	60	--	84	--	96
27...	39	51	--	65	--	83	--	93	--	100	--
27...	36	--	--	--	--	--	--	--	--	--	--
MAY											
06...	--	--	--	--	--	--	--	--	--	--	--
07...	55	49	--	58	--	68	--	93	--	100	--
10...	26	34	--	45	--	63	--	85	--	100	--
17...	33	--	47	--	66	--	83	--	94	--	99
23...	45	73	--	90	--	98	--	100	--	--	--
25...	49	--	68	--	88	--	97	--	99	--	100
25...	48	--	66	--	87	--	97	--	99	--	100
28...	41	--	59	--	80	--	94	--	99	--	100
JUN											
07...	44	--	54	--	82	--	93	--	98	--	100
07...	43	--	56	--	79	--	94	--	98	--	99
11...	28	--	40	--	63	--	84	--	95	--	99
19...	40	52	--	74	--	88	--	97	--	100	--
JUL											
01...	29	42	--	64	--	82	--	96	--	100	--
12...	21	35	--	56	--	77	--	94	--	100	--
AUG											
01...	42	--	54	--	71	--	85	--	94	--	98
21...	7	--	14	--	30	--	51	--	63	--	69
SEP											
06...	82	87	--	93	--	98	--	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
OCT												
03...	1225	13.5	281	20.0	1,320	1,000	--	--	--	--	--	--
25...	1130	10.0	1,020	10.0	28,300	77,900	5	7	10	17	28	--
25...	1500	10.0	1,100	10.0	22,000	65,300	--	--	--	--	--	--
NOV												
04...	1355	8.0	1,070	10.0	11,400	32,900	--	--	--	--	--	27
07...	1310	8.0	1,500	10.0	21,600	87,500	--	--	--	--	--	--
13...	1110	6.0	592	10.0	6,380	10,200	--	--	--	--	--	--
DEC												
03...	1447	5.5	340	20.0	1,850	1,700	--	--	--	--	--	49
19...	1530	8.5	331	20.0	147	131	--	--	--	--	--	--
31...	1520	7.0	304	20.0	58	48	--	--	--	--	--	--
JAN												
10...	1315	--	420	20.0	622	705	--	--	--	--	--	--
16...	1300	7.5	420	20.0	590	669	--	--	--	--	--	--
16...	1445	8.0	--	20.0	11,900	--	--	--	--	--	--	32
16...	1525	8.0	--	20.0	17,400	--	--	--	--	--	--	41
16...	1625	7.5	--	20.0	9,040	--	--	--	--	--	--	38
21...	1415	6.0	980	10.0	18,300	48,400	--	--	--	--	--	30
MAR												
07...	1450	--	1,680	10.0	26,100	118,000	--	--	--	--	--	--
07...	1525	--	1,680	10.0	23,200	105,000	--	--	--	--	--	--
APR												
03...	1125	--	785	10.0	6,480	13,700	--	--	--	--	--	--
18...	1400	--	558	10.0	2,720	4,100	--	--	--	--	--	--
23...	1320	10.5	690	10.0	1,300	2,420	--	--	--	--	--	--
MAY												
14...	1300	12.0	750	10.0	4,170	8,440	--	--	--	--	--	--
JUN												
02...	1445	23.0	673	10.0	3,120	5,670	--	--	--	--	--	--
JUL												
17...	1530	16.0	270	10.0	1,480	1,080	--	--	--	--	--	25
SEP												
23...	1125	12.0	199	10.0	1,290	693	--	--	--	--	--	--

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

OCT												
23...	1310	--	163	10.0	56	25	--	--	--	--	--	--
29...	1310	11.0	163	10.0	8,760	3,860	--	--	--	--	--	18
NOV												
13...	1355	9.5	357	10.0	2,390	2,300	--	--	--	--	--	11
20...	1100	--	1,630	10.0	56,700	250,000	7	8	14	23	32	--
20...	1535	7.5	1,770	10.0	31,500	151,000	7	7	13	20	28	--
24...	0915	6.0	3,540	10.0	61,800	591,000	6	6	11	17	25	--
24...	1315	6.5	3,000	10.0	40,600	329,000	6	6	9	15	20	--
24...	1625	7.0	--	10.0	41,800	--	7	7	10	15	20	--
25...	1120	7.5	1,790	10.0	32,700	158,000	4	5	7	11	15	--
DEC												
11...	1405	7.0	576	10.0	7,160	11,100	--	--	--	--	--	--
23...	1315	7.0	837	10.0	9,170	20,700	--	--	--	--	--	--
30...	1230	6.0	824	10.0	7,290	16,200	--	--	--	--	--	--
JAN												
21...	1220	7.5	439	10.0	294	348	--	--	--	--	--	--
27...	1450	--	658	10.0	3,180	5,650	--	--	--	--	--	--
FEB												
06...	1125	8.0	843	10.0	12,300	28,000	--	--	--	--	--	--
12...	1330	13.5	635	10.0	13,600	23,300	--	--	--	--	--	--
19...	1525	13.5	627	10.0	6,270	10,600	--	--	--	--	--	--
MAR												
04...	1135	8.0	1,470	10.0	41,700	166,000	--	--	--	--	--	--
17...	1445	8.0	1,240	10.0	15,200	50,900	--	--	--	--	--	--
26...	1520	7.5	926	10.0	6,220	15,600	--	--	--	--	--	--
APR												
02...	1130	14.5	539	10.0	6,020	8,760	--	--	--	--	--	--
09...	1545	12.5	848	10.0	4,670	10,700	--	--	--	--	--	--
21...	1445	16.0	536	10.0	2,980	4,310	--	--	--	--	--	--
29...	1240	16.0	729	10.0	2,000	3,940	--	--	--	--	--	22
MAY												
21...	1500	15.0	413	20.0	2,470	2,750	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
03...	21	--	--	--	--	--	--	--	--	--	--
25...	35	--	51	--	75	--	88	--	96	--	99
25...	41	--	56	--	79	--	93	--	98	--	100
NOV											
04...	--	41	--	65	--	86	--	99	--	100	--
07...	34	--	43	--	62	--	81	--	94	--	99
13...	16	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	60	--	73	--	87	--	99	--	100	--
19...	22	--	--	--	--	--	--	--	--	--	--
31...	25	--	--	--	--	--	--	--	--	--	--
JAN											
10...	18	--	28	--	46	--	65	--	87	--	96
16...	10	--	16	--	29	--	46	--	66	--	87
16...	--	45	--	65	--	83	--	97	--	100	--
16...	--	50	--	65	--	79	--	96	--	100	--
16...	--	49	--	68	--	83	--	96	--	100	--
21...	--	43	--	64	--	82	--	95	--	100	--
MAR											
07...	41	--	--	--	--	--	--	--	--	--	--
07...	44	--	--	--	--	--	--	--	--	--	--
APR											
03...	16	--	--	--	--	--	--	--	--	--	--
18...	13	--	--	--	--	--	--	--	--	--	--
23...	18	--	--	--	--	--	--	--	--	--	--
MAY											
14...	14	--	--	--	--	--	--	--	--	--	--
JUN											
02...	23	--	--	--	--	--	--	--	--	--	--
JUL											
17...	--	32	--	46	--	65	--	97	--	100	--
SEP											
23...	--	--	--	--	--	--	--	--	--	--	--

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

OCT											
23...	--	--	--	--	--	--	--	--	--	--	--
29...	--	29	--	52	--	75	--	92	--	100	--
NOV											
13...	--	17	--	33	--	63	--	99	--	100	--
20...	45	--	64	--	81	--	91	--	96	--	99
20...	38	--	55	--	75	--	90	--	97	--	99
24...	35	--	54	--	75	--	89	--	96	--	99
24...	29	--	46	--	69	--	87	--	95	--	99
24...	27	--	39	--	55	--	72	--	87	--	97
25...	20	--	38	--	58	--	80	--	93	--	99
DEC											
11...	10	--	15	--	27	--	53	--	80	--	96
23...	19	--	26	--	42	--	70	--	89	--	98
30...	14	--	20	--	36	--	69	--	87	--	98
JAN											
21...	12	--	15	--	41	--	57	--	79	--	100
27...	15	--	22	--	33	--	58	--	77	--	96
FEB											
06...	23	--	32	--	52	--	80	--	93	--	99
12...	16	--	24	--	43	--	70	--	88	--	97
19...	29	--	41	--	62	--	85	--	95	--	99
MAR											
04...	30	--	45	--	67	--	86	--	95	--	99
17...	22	--	30	--	46	--	68	--	87	--	98
26...	18	--	27	--	46	--	70	--	90	--	98
APR											
02...	11	--	16	--	30	--	55	--	82	--	96
09...	9	--	13	--	22	--	43	--	71	--	92
21...	15	--	22	--	36	--	59	--	83	--	94
29...	--	43	--	64	--	98	--	100	--	--	--
MAY											
21...	20	--	--	--	--	--	--	--	--	--	--

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUN							
12...	1310	--	428	10.0	2240	2,590	15
26...	1135	22.0	382	10.0	1050	1,080	20
JUL							
08...	1105	15.0	221	10.0	320	191	14
AUG							
13...	1330	18.0	237	10.0	157	100	32
28...	1230	21.0	200	10.0	172	93	--
SEP							
18...	0940	15.0	209	10.0	207	117	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
FEB												
19...	1355	0	2	8	30	59	81	85	87	89	100	--
19...	1400	0	1	3	13	31	53	69	91	100	--	--
19...	1405	0	0	3	8	19	51	87	97	100	--	--
AUG												
01...	1330	0	2	13	40	66	78	83	88	90	100	--
01...	1335	0	1	3	12	34	66	84	93	98	100	--
01...	1340	0	1	4	13	31	52	72	89	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

NOV												
13...	1325	0	0	2	10	26	56	82	98	100	--	--
13...	1330	0	2	13	63	91	95	96	97	98	100	--
24...	1215	1	2	4	7	9	14	32	62	95	100	--
24...	1220	1	3	9	24	50	78	89	95	100	--	--
24...	1225	1	2	4	8	9	11	22	71	96	100	--
24...	1230	1	3	8	19	30	39	51	70	93	100	--
24...	1235	1	4	10	16	22	31	48	76	89	100	--
DEC												
11...	1215	0	0	2	7	18	38	55	70	83	100	--
11...	1227	0	0	3	10	24	46	63	74	85	100	--
11...	1244	1	1	8	22	40	62	76	88	100	--	--
11...	1258	0	1	5	18	36	57	73	90	90	100	--
23...	1345	0	0	2	5	10	18	31	51	79	100	--
23...	1400	0	1	3	14	41	75	90	97	100	--	--
23...	1405	0	1	5	15	30	47	59	73	82	100	--
30...	1500	0	1	6	24	56	78	90	97	100	--	--
30...	1505	0	0	1	2	3	10	30	63	96	100	--
JAN												
21...	1300	0	0	2	9	34	76	94	100	--	--	--
21...	1346	0	0	1	4	7	9	12	17	19	100	--
FEB												
06...	1215	0	1	5	22	48	62	67	70	72	81	100
06...	1220	0	1	5	17	38	65	84	99	100	--	--
06...	1225	1	1	5	27	66	93	99	99	100	--	--
19...	1622	1	2	7	16	24	31	37	45	60	75	83
APR												
02...	1200	0	1	2	3	3	4	6	11	20	55	100
09...	1200	0	0	3	12	28	48	60	68	76	87	100
21...	1600	0	0	1	2	4	13	22	40	66	87	98

**14240800 GREEN RIVER ABOVE BEAVER CREEK
NEAR KID VALLEY, WA**

LOCATION.--Lat 46°22'55", long 122°31'21", in SE ¼ NW ¼ sec. 2, T.10 N., R.2 E., Cowlitz County, Hydrologic Unit 17080005, on right bank 0.1 mi downstream from logging bridge, 4.5 mi northeast of Kid Valley.

DRAINAGE AREA.--129 mi².

PERIOD OF SEDIMENT DATA.--October 1980 through September 1987.

GAGE.--Water-stage recorder. Datum of gage is 824.60 ft National Geodetic Vertical Datum of 1929.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended- sediment concentration, mgL ⁻¹
1981	Nov. 2, 1980	1545	25,200
1982	Dec. 2, 1981	1200	4,910
1983	Oct. 29, 1982	1425	2,040
1984	Nov. 3, 1983	1410	2,880
1985	June 7, 1985	1515	1,880
1986	Feb. 24, 1986	1625	2,440
1987	Nov. 24, 1986	0920	2,050

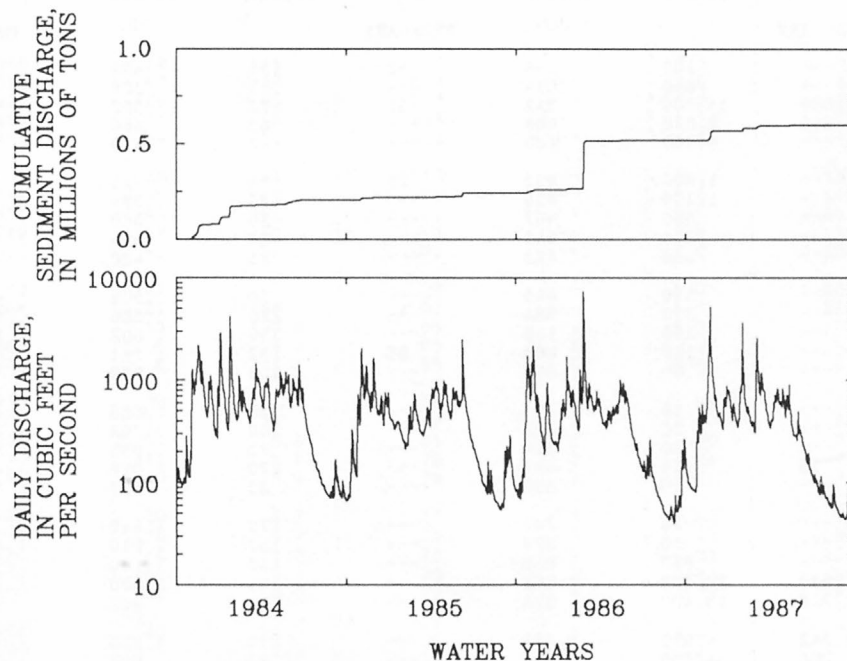


Figure 9.--Cumulative daily suspended-sediment discharge and daily mean stream discharge, water years 1984-87, Green River above Beaver Creek near Kid Valley, Wash. (14240800).

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	109	---	1.0	168	---	70	632	---	85
2	105	---	1.0	225	---	180	584	---	70
3	107	---	1.0	1,130	1,210	5,180	536	---	50
4	138	14	5.2	1,270	1,030	3,800	475	---	35
5	125	15	5.1	843	---	1,900	460	---	35
6	113	10	3.1	920	---	2,200	445	---	30
7	109	3	.88	955	---	2,300	435	---	30
8	107	2	.58	850	---	1,800	542	---	55
9	103	1	.28	722	---	1,300	548	---	55
10	99	1	.27	850	---	1,800	957	---	340
11	97	1	.26	1,020	---	2,500	906	---	290
12	95	7	1.8	906	---	2,000	815	---	230
13	93	4	1.0	1,080	---	2,800	976	---	350
14	97	4	1.0	1,240	---	3,400	1,090	---	470
15	99	1	.27	1,420	---	4,300	955	---	340
16	97	1	.26	1,810	---	6,400	822	---	220
17	109	6	1.8	2,180	1,480	8,710	696	---	140
18	111	7	2.1	2,110	1,970	11,200	608	---	95
19	101	6	1.6	1,770	1,830	8,750	548	---	70
20	103	3	.83	1,810	---	1,500	475	---	45
21	99	4	1.1	1,370	---	800	376	---	20
22	283	240	241	1,060	191	547	331	---	15
23	189	189	96	920	216	537	311	14	12
24	150	51	21	1,530	272	1,120	288	---	9.0
25	132	33	12	1,330	172	618	331	---	15
26	122	23	7.6	1,110	134	402	323	---	15
27	115	37	11	1,050	---	340	292	---	10
28	113	---	10	955	---	270	270	---	5.0
29	113	---	10	829	---	180	780	---	450
30	113	---	10	722	---	120	864	291	679
31	204	---	140	---	---	---	682	---	340
TOTAL	3,750	---	589.03	34,155	---	77,024	18,353	---	4,605.0
JANUARY				FEBRUARY			MARCH		
1	560	---	180	696	82	154	492	---	95
2	855	---	680	614	74	123	508	---	100
3	2,770	1,680	15,700	542	51	75	502	---	100
4	2,870	1,240	9,610	486	---	65	460	---	90
5	2,100	---	4,600	460	---	40	430	---	85
6	1,440	---	1,800	455	25	31	420	75	85
7	1,210	---	1,100	420	---	25	394	41	44
8	990	---	660	407	---	20	380	13	13
9	836	---	390	445	---	30	394	---	15
10	794	---	350	425	---	25	480	---	20
11	794	---	350	445	---	30	502	---	20
12	722	---	270	884	---	220	566	---	25
13	638	---	180	1,100	---	350	602	---	30
14	554	---	120	983	95	252	741	---	45
15	497	---	80	836	---	200	829	---	60
16	460	---	60	715	---	150	689	---	35
17	398	---	35	602	---	100	702	---	40
18	362	---	20	524	---	75	656	---	35
19	335	15	14	497	---	70	696	---	40
20	323	---	10	590	---	95	937	---	90
21	323	---	10	787	---	170	1,440	308	1,200
22	444	---	50	728	---	150	1,210	---	350
23	1,030	---	670	656	---	130	1,150	---	250
24	4,180	2,530	28,600	663	---	140	1,030	---	150
25	3,980	1,710	18,400	626	---	130	962	---	100
26	2,460	742	4,930	572	---	110	1,050	---	150
27	1,820	306	1,500	514	---	95	962	---	100
28	1,370	272	1,010	514	---	95	982	---	100
29	1,110	172	515	486	---	90	927	---	85
30	934	140	353	---	---	---	822	---	60
31	794	144	309	---	---	---	734	---	40
TOTAL	37,953	---	92,556	17,672	---	3,240	22,649	---	3,652

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	676	---	35	486	---	15	644	174	303
2	656	---	35	722	---	100	584	147	232
3	590	---	25	815	---	200	542	---	100
4	548	---	25	715	---	100	602	---	250
5	572	---	25	734	---	100	682	---	450
6	530	---	20	767	---	150	608	---	250
7	736	---	40	676	42	77	845	---	800
8	885	---	70	741	---	100	1,030	---	1,000
9	850	28	64	774	---	150	998	---	1,000
10	934	12	30	722	---	100	913	---	850
11	906	11	27	919	---	300	836	---	700
12	906	11	27	1,200	---	800	794	62	133
13	850	8	18	1,090	---	500	822	275	610
14	850	---	20	1,100	---	500	794	142	304
15	1,040	---	100	983	75	199	808	239	521
16	969	---	80	913	55	136	715	118	228
17	840	---	55	787	---	70	578	72	112
18	680	---	35	708	---	45	572	84	130
19	560	---	25	760	---	60	566	76	116
20	520	13	18	892	---	100	761	115	250
21	492	6	8.0	774	---	65	1,400	571	2,160
22	460	6	7.5	866	---	100	1,090	132	388
23	455	---	7.0	1,200	---	800	927	103	258
24	407	---	4.5	1,050	---	700	899	102	248
25	394	---	3.0	941	---	550	801	84	182
26	358	---	3.0	976	---	800	760	58	119
27	319	---	2.5	934	---	550	682	48	88
28	327	---	2.5	934	---	550	596	35	56
29	394	---	3.0	1,070	---	2,000	829	82	184
30	389	---	3.0	1,130	---	2,500	670	55	99
31	---	---	---	850	---	900	---	---	---
TOTAL	19,093	---	818.0	27,229	---	13,317	23,348	---	12,121
JULY			AUGUST			SEPTEMBER			
1	536	72	104	132	---	6.5	92	35	8.7
2	514	42	58	130	---	6.0	84	3	.68
3	480	28	36	120	---	5.0	75	6	1.2
4	465	34	43	113	---	4.5	71	3	.58
5	445	34	41	111	---	4.0	76	8	1.6
6	407	28	31	113	---	4.0	157	82	35
7	348	49	46	105	---	3.0	148	21	8.4
8	331	46	41	101	---	2.5	165	29	13
9	319	47	40	97	---	2.0	132	77	27
10	315	43	37	95	---	2.0	109	18	5.3
11	295	21	17	93	---	2.0	101	9	2.5
12	284	21	16	93	---	1.5	113	6	1.8
13	278	13	9.8	95	---	1.0	97	4	1.0
14	264	6	4.3	90	4	.97	87	4	.94
15	253	6	4.1	85	8	1.8	81	4	.87
16	250	76	51	84	3	.68	76	4	.82
17	242	17	11	82	3	.66	76	4	.82
18	232	11	6.9	81	3	.66	75	7	1.4
19	210	11	6.2	79	4	.85	73	4	.79
20	195	10	5.3	78	3	.63	72	7	1.4
21	180	18	8.7	76	3	.62	71	3	.58
22	168	6	2.7	75	3	.61	95	28	7.2
23	162	8	3.5	75	4	.81	103	7	1.9
24	160	21	9.1	75	3	.61	90	3	.73
25	160	22	9.5	73	4	.79	82	3	.66
26	162	25	11	71	6	1.2	76	3	.62
27	150	---	9.5	71	17	3.3	73	3	.59
28	142	---	8.5	81	4	.87	71	2	.38
29	138	---	8.5	73	28	5.5	68	3	.55
30	132	---	7.5	71	6	1.2	66	2	.36
31	130	---	7.0	73	11	2.2	---	---	---
TOTAL	8,347	---	694.1	2,791	---	67.96	2,755	---	127.37
YEAR	218,095		208,811.46	TONS					

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	68	2	0.37	421	146	314	1,090	---	100
2	68	2	.37	1,700	981	4,500	868	---	50
3	67	2	.36	2,020	367	2,000	720	15	29
4	69	2	.37	1,670	200	902	637	7	12
5	76	2	.41	1,230	160	531	564	4	6.1
6	72	4	.78	974	37	97	501	6	8.1
7	73	3	.59	843	24	55	465	5	6.3
8	72	7	1.4	710	24	46	506	5	6.8
9	90	18	4.4	652	16	28	485	5	6.5
10	116	10	3.1	708	32	61	503	4	5.4
11	134	10	3.6	789	36	77	453	2	2.4
12	140	14	5.3	983	65	173	490	4	5.3
13	328	71	63	1,380	139	518	527	5	7.1
14	294	13	10	1,320	68	242	621	15	25
15	231	5	3.1	1,060	45	129	700	13	25
16	185	1	.50	874	24	57	585	7	11
17	160	1	.43	739	15	30	512	8	11
18	144	1	.39	743	17	34	438	---	10
19	135	1	.36	666	14	25	399	---	8.0
20	132	1	.36	623	12	20	366	---	6.0
21	125	3	1.0	564	10	15	360	---	6.0
22	118	4	1.3	498	7	9.4	554	---	22
23	115	3	.93	722	17	33	718	---	57
24	131	5	1.8	767	16	33	748	---	70
25	458	150	340	635	13	22	653	---	40
26	724	90	176	538	19	28	591	---	33
27	579	30	47	724	26	51	591	---	33
28	552	20	30	1,510	93	436	546	---	25
29	448	10	12	1,630	115	506	594	---	34
30	399	10	11	1,380	33	123	751	---	77
31	367	10	9.9	---	---	---	605	---	39
TOTAL	6,670	---	730.12	29,073	---	11,095.4	18,141	---	777.0
JANUARY			FEBRUARY			MARCH			
1	495	---	21	252	4	2.7	478	11	14
2	440	---	14	257	1	.69	429	14	16
3	423	---	12	232	1	.63	398	10	11
4	420	---	12	211	---	1.0	409	13	14
5	411	---	11	244	---	2.0	382	9	9.3
6	405	---	12	232	---	2.0	361	8	7.8
7	409	---	12	237	---	2.0	337	6	5.5
8	411	---	12	227	---	1.5	320	8	6.9
9	392	---	10	235	---	2.0	312	10	8.4
10	367	9	8.9	232	---	2.0	308	6	5.0
11	354	---	8.0	380	---	7.0	301	---	5.0
12	341	---	7.0	453	8	9.8	307	11	9.1
13	331	---	6.0	313	8	6.8	298	4	3.2
14	334	---	6.0	352	15	14	292	2	1.6
15	368	---	8.0	545	14	21	289	3	2.3
16	351	---	7.0	430	5	5.8	295	2	1.6
17	374	8	8.1	371	5	5.0	323	3	2.6
18	393	---	10	332	8	7.2	331	3	2.7
19	387	---	10	336	7	6.4	338	4	3.7
20	395	---	10	387	8	8.4	363	5	4.9
21	392	---	10	399	10	11	386	9	9.4
22	375	---	8.0	613	17	28	370	8	8.0
23	361	---	7.0	616	15	25	531	27	45
24	342	---	6.0	730	34	67	540	13	19
25	323	---	5.0	710	26	50	478	8	10
26	310	---	4.0	618	21	35	436	8	9.4
27	302	---	4.0	543	12	18	422	7	8.0
28	295	---	4.0	493	12	16	385	4	4.2
29	283	---	3.0	---	---	---	357	3	2.9
30	255	---	2.0	---	---	---	434	13	18
31	252	---	2.0	---	---	---	609	26	43
TOTAL	11,291	---	260.0	10,980	---	357.92	11,819	---	311.5

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	694	28	52	731	---	53	618	23	38
2	742	30	60	831	---	67	611	14	23
3	826	46	103	914	---	50	557	18	27
4	748	21	42	771	---	44	629	32	54
5	673	16	29	664	---	36	627	20	34
6	670	28	51	576	17	26	640	321	658
7	735	30	60	535	13	19	2,480	2,030	13,600
8	813	45	99	513	10	14	1,740	360	1,690
9	847	60	137	479	11	14	1,170	160	505
10	818	169	373	498	10	13	948	90	230
11	955	128	330	489	10	13	769	60	125
12	963	84	218	438	10	12	711	---	67
13	833	53	119	415	13	15	675	---	55
14	802	49	106	493	17	23	589	---	39
15	814	49	108	442	12	14	584	---	39
16	826	52	116	534	170	245	521	25	35
17	689	40	74	813	180	395	468	---	28
18	607	33	54	846	84	192	468	20	25
19	564	27	41	804	67	145	456	26	32
20	499	27	36	706	61	116	429	17	20
21	439	26	31	646	49	85	393	17	18
22	435	24	28	682	50	92	354	16	15
23	600	30	49	720	72	140	314	12	10
24	600	22	36	766	---	85	282	9	6.9
25	590	23	37	791	---	84	262	10	7.1
26	554	---	43	647	---	44	258	9	6.3
27	750	37	75	588	---	33	261	9	6.3
28	980	24	64	564	---	27	250	4	2.7
29	891	28	67	629	---	42	238	4	2.6
30	781	---	55	632	---	42	228	4	2.5
31	---	---	---	552	21	31	---	---	---
TOTAL	21,738	---	2,693	19,709	---	2,211	18,530	---	17,401.4
JULY			AUGUST			SEPTEMBER			
1	213	5	2.9	160	54	23	58	2	0.31
2	211	5	2.8	111	22	6.6	61	4	.66
3	213	8	4.6	92	8	2.0	57	5	.77
4	207	4	2.2	84	8	1.8	57	1	.15
5	196	6	3.2	80	4	.86	81	5	1.1
6	184	2	.99	77	5	1.0	203	53	32
7	174	4	1.9	81	6	1.3	146	30	12
8	168	4	1.8	132	7	2.5	113	8	2.4
9	165	4	1.8	104	4	1.1	132	8	2.9
10	159	2	.86	95	5	1.3	224	39	28
11	153	4	1.7	87	6	1.4	166	4	1.8
12	144	2	.78	81	5	1.1	144	3	1.2
13	138	3	1.1	77	4	.83	162	1	.44
14	132	3	1.1	73	9	1.8	193	6	3.1
15	127	4	1.4	70	2	.38	206	5	2.8
16	123	4	1.3	68	4	.73	171	6	2.8
17	120	4	1.3	66	10	1.8	287	58	48
18	118	5	1.6	64	2	.35	261	30	21
19	106	4	1.1	64	1	.17	196	---	12
20	100	2	.54	64	1	.17	164	---	6.5
21	96	2	.52	63	3	.51	146	---	4.2
22	95	5	1.3	62	3	.50	133	---	2.9
23	93	7	1.8	60	4	.65	120	---	1.9
24	96	6	1.6	58	2	.31	111	---	1.4
25	93	8	2.0	58	6	.94	105	---	1.1
26	87	7	1.6	56	4	.60	97	---	.85
27	83	8	1.8	55	1	.15	94	---	.85
28	83	8	1.8	56	1	.15	89	---	.95
29	80	8	1.7	55	4	.59	85	---	.95
30	78	6	1.3	54	1	.15	82	---	.95
31	84	6	1.4	62	5	.84	---	---	---
TOTAL	4,119	---	51.79	2,369	---	55.58	4,144	---	195.98
YEAR	158,583		36,140.69	TONS					

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	86	3	0.70	642	168	308	189	---	2.0
2	83	---	.40	778	372	781	211	---	3.0
3	84	---	.50	828	199	445	406	---	19
4	78	---	.60	1,450	219	857	421	---	21
5	72	---	.40	1,200	101	327	462	---	28
6	72	---	.40	1,910	326	1,680	780	---	130
7	99	6	1.6	2,160	367	2,140	929	---	230
8	81	2	.44	1,780	169	812	800	---	90
9	72	1	.19	1,400	95	359	640	12	21
10	69	1	.19	1,080	58	169	528	---	22
11	84	3	.68	831	25	56	450	---	20
12	100	7	1.9	672	---	45	392	---	18
13	89	3	.72	571	---	29	351	---	13
14	81	6	1.3	492	---	25	321	---	10
15	106	14	4.0	566	25	38	295	---	8.0
16	135	23	9.1	712	39	75	277	---	6.0
17	132	19	6.8	636	16	27	263	---	5.0
18	113	3	.92	556	13	20	257	---	5.0
19	160	78	42	509	10	14	250	---	5.0
20	324	214	187	465	10	13	246	---	4.0
21	351	56	53	410	---	8.0	240	---	4.0
22	415	190	213	369	---	6.0	235	---	4.0
23	680	252	463	327	---	5.0	236	---	4.0
24	932	218	619	310	---	5.0	246	---	4.0
25	1,720	815	4,090	296	---	3.0	252	---	5.0
26	1,220	232	764	267	---	2.0	247	---	4.0
27	1,070	175	539	254	---	2.0	239	---	4.0
28	1,310	161	611	239	---	1.0	226	---	3.0
29	936	70	177	220	---	1.0	220	---	3.0
30	788	53	113	205	---	1.0	211	---	3.0
31	668	30	54	---	---	---	202	---	2.0
TOTAL	12,210	---	7,955.84	22,135	---	8,254.0	11,022	---	700.0
JANUARY				FEBRUARY			MARCH		
1	290	---	7.0	796	67	144	908	---	180
2	266	8	5.7	731	49	97	746	---	95
3	347	8	7.5	654	32	57	635	---	50
4	271	1	.73	595	21	34	556	---	30
5	326	12	15	588	18	29	529	---	26
6	535	32	50	522	18	25	540	---	28
7	412	6	6.2	471	14	18	757	---	100
8	452	25	33	430	11	13	935	---	200
9	549	11	16	400	10	11	819	---	130
10	644	22	38	374	8	8.1	680	32	59
11	652	23	40	353	7	6.7	703	31	59
12	567	12	18	332	8	7.2	708	25	48
13	510	8	11	322	7	6.1	676	25	46
14	469	5	6.3	354	20	22	661	24	43
15	441	4	4.3	761	102	210	590	20	32
16	479	15	21	1,260	209	744	539	19	28
17	527	---	36	948	43	110	493	22	29
18	1,180	---	1,300	768	20	41	536	19	27
19	1,690	506	2,510	655	14	25	555	19	28
20	1,110	164	492	589	20	32	513	23	32
21	876	87	206	596	16	29	557	24	36
22	808	65	142	957	63	200	521	14	20
23	957	76	196	7,310	5,890	167,000	529	14	22
24	835	54	122	5,800	3,710	67,700	779	72	151
25	729	36	71	2,650	1,250	8,940	658	23	41
26	638	29	50	2,050	519	2,870	652	19	33
27	597	26	42	1,390	232	871	614	19	31
28	548	16	24	1,080	---	330	608	21	34
29	546	18	27	---	---	---	566	16	24
30	738	46	92	---	---	---	666	42	76
31	731	40	79	---	---	---	580	27	42
TOTAL	19,720	---	5,668.73	33,736	---	249,580.1	19,809	---	1,780

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	526	15	21	457	8	9.9	530	52	74
2	508	14	19	493	10	13	485	33	43
3	454	14	17	504	9	12	450	23	28
4	436	12	14	508	9	12	406	19	21
5	406	12	13	577	13	20	362	16	16
6	378	11	11	519	10	14	341	13	12
7	370	10	10	478	7	9.0	342	12	11
8	380	8	8.2	471	8	10	305	9	7.4
9	379	20	20	486	10	13	276	8	6.0
10	362	8	7.8	562	14	21	274	8	5.9
11	373	17	17	625	17	29	276	7	5.2
12	398	14	15	614	13	22	271	8	5.9
13	369	10	10	1,010	158	467	251	6	4.1
14	334	9	8.1	1,010	90	245	244	7	4.6
15	351	6	5.7	881	44	105	230	7	4.3
16	365	3	3.0	774	30	63	210	6	3.4
17	430	9	10	700	22	42	207	6	3.4
18	503	11	15	713	23	44	237	11	7.5
19	432	6	7.0	738	26	52	239	11	7.9
20	412	4	4.4	933	109	275	197	4	2.1
21	432	10	12	864	54	126	188	4	2.0
22	493	20	27	763	31	64	176	4	1.9
23	427	12	14	643	17	30	174	5	2.3
24	379	8	8.2	588	14	22	172	4	1.9
25	417	9	10	669	28	51	165	3	1.3
26	413	7	7.8	781	58	122	156	3	1.3
27	481	12	16	716	37	72	147	2	.79
28	548	19	28	655	41	73	142	4	1.5
29	531	13	19	666	27	49	146	3	1.2
30	482	10	13	630	43	73	138	2	.75
31	---	---	---	580	66	103	---	---	---
TOTAL	12,769	---	391.2	20,608	---	2,262.9	7,737	---	287.64
JULY			AUGUST			SEPTEMBER			
1	129	2	0.70	81	1	0.22	52	1	0.14
2	129	6	2.1	78	1	.21	49	---	.10
3	128	4	1.4	74	1	.20	48	---	.10
4	161	8	3.5	72	1	.19	46	---	.10
5	135	3	1.1	72	2	.39	43	---	.10
6	120	3	.97	71	1	.19	43	---	.10
7	113	3	.92	69	1	.19	40	---	.10
8	111	5	1.5	67	1	.18	43	---	.10
9	109	5	1.5	66	---	.20	74	---	.10
10	150	16	7.9	64	1	.17	63	---	.10
11	183	14	7.7	62	2	.33	57	1	.15
12	141	3	1.1	61	3	.49	53	---	.10
13	127	3	1.0	60	1	.16	52	1	.14
14	116	6	1.9	57	2	.31	52	---	.10
15	125	11	3.7	52	1	.14	52	1	.14
16	243	24	16	51	1	.14	57	1	.15
17	261	30	23	51	1	.14	59	1	.16
18	187	4	2.0	49	---	.10	74	4	.80
19	153	2	.83	49	1	.13	71	3	.58
20	133	2	.72	49	1	.13	63	4	.68
21	123	2	.66	48	1	.13	60	3	.49
22	115	2	.62	47	---	.10	57	---	.30
23	116	1	.31	46	1	.12	95	27	10
24	114	2	.62	46	1	.12	206	67	41
25	106	1	.29	46	1	.10	134	4	1.4
26	102	1	.28	45	---	.10	181	26	13
27	100	3	.81	43	---	.10	137	2	.74
28	96	1	.26	44	---	.10	170	3	1.4
29	90	1	.24	46	---	.10	262	64	53
30	87	1	.23	52	---	.10	256	22	16
31	83	1	.22	58	1	.16	---	---	---
TOTAL	4,086	---	84.08	1,776	---	5.44	2,649	---	141.37
YEAR	168,257		277,111.30	TONS					

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	189	---	8.0	446	39	47	911	34	84
2	159	---	5.0	374	23	23	794	31	66
3	140	6	2.3	328	15	13	705	18	34
4	126	---	1.7	298	24	19	637	15	26
5	118	---	1.1	321	13	11	710	7	13
6	110	2	.59	368	12	12	634	13	22
7	102	1	.28	573	71	120	570	8	12
8	98	1	.26	452	12	15	526	12	17
9	96	2	.52	421	9	10	483	12	16
10	97	1	.26	380	7	7.2	453	14	17
11	94	1	.25	389	12	14	440	---	16
12	91	1	.25	452	15	18	440	---	15
13	88	1	.24	429	9	10	440	---	14
14	89	3	.72	417	9	10	480	---	17
15	88	1	.24	386	13	14	450	---	15
16	86	2	.46	444	28	41	430	---	14
17	85	1	.23	608	57	105	400	---	12
18	86	1	.23	647	196	409	390	---	10
19	85	1	.23	873	143	337	370	---	9.0
20	85	1	.23	1,420	628	2,410	350	---	7.0
21	82	1	.22	2,160	434	2,760	330	---	5.0
22	82	1	.22	2,540	667	5,120	442	6	7.2
23	81	1	.22	2,850	961	9,080	655	---	30
24	81	1	.22	5,200	1,420	19,900	568	---	20
25	102	2	.68	2,670	635	4,580	554	---	15
26	188	32	17	1,790	250	1,210	685	---	35
27	318	55	47	1,570	192	814	588	---	20
28	306	27	22	1,440	135	525	558	---	15
29	246	12	8.0	1,170	77	243	784	---	55
30	340	44	44	1,010	47	128	870	---	85
31	531	123	176	---	---	---	757	---	55
TOTAL	4,469	---	338.65	32,426	---	48,005.2	17,404	---	778.2
JANUARY			FEBRUARY			MARCH			
1	780	---	60	3,640	1,100	10,800	518	20	30
2	757	---	55	2,120	370	2,120	758	57	117
3	792	---	60	1,380	150	559	2,100	539	4,020
4	752	---	50	1,020	49	135	2,560	601	4,150
5	669	---	35	826	25	56	1,720	253	1,170
6	603	14	23	700	16	30	1,410	149	567
7	561	---	18	629	16	27	1,050	72	204
8	515	---	13	574	12	19	861	35	81
9	458	---	8.0	535	11	16	764	18	37
10	416	---	6.0	505	11	15	771	22	46
11	405	---	4.0	503	12	16	711	18	35
12	566	---	14	478	17	22	910	52	128
13	573	---	14	499	17	23	1,130	91	278
14	591	10	16	548	20	30	1,180	58	185
15	508	---	10	474	14	18	992	28	75
16	461	---	7.0	451	14	17	890	20	48
17	430	---	5.0	432	16	19	851	18	41
18	414	---	5.0	398	16	17	803	19	41
19	392	---	4.0	383	15	16	789	15	32
20	371	---	3.0	367	14	14	758	14	29
21	356	---	3.0	354	11	11	681	13	24
22	347	---	3.0	384	17	18	610	12	20
23	360	---	3.0	396	9	9.6	588	9	14
24	415	---	6.0	370	9	9.0	529	9	13
25	423	---	6.0	338	9	8.2	486	10	13
26	486	---	10	321	10	8.7	482	16	21
27	720	---	42	311	11	9.2	444	19	23
28	851	34	78	307	8	6.6	414	8	8.9
29	765	---	68	---	---	---	386	9	9.4
30	767	---	60	---	---	---	369	13	13
31	1,070	---	420	---	---	---	355	14	13
TOTAL	17,574	---	1,109.0	19,243	---	14,049.3	26,870	---	11,486.3

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL				MAY				JUNE	
1	345	10	9.3	701	46	87	398	13	14
2	340	12	11	583	44	69	337	7	6.4
3	390	16	17	489	36	48	303	8	6.5
4	410	17	19	436	46	54	313	6	5.1
5	405	29	32	452	25	31	326	8	7.0
6	400	30	32	554	60	90	296	6	4.8
7	410	12	13	706	91	173	280	8	6.0
8	607	15	26	702	56	106	279	5	3.8
9	524	6	9.1	671	53	96	261	6	4.2
10	550	9	13	592	39	62	242	5	3.3
11	673	12	22	518	25	35	228	4	2.5
12	711	16	31	897	98	250	220	4	2.4
13	637	7	12	607	39	64	215	3	1.7
14	618	6	10	535	25	36	211	4	2.3
15	690	17	32	503	20	27	200	4	2.2
16	724	25	49	428	24	28	187	3	1.5
17	826	25	56	388	13	14	173	4	1.9
18	786	23	49	359	11	11	160	4	1.7
19	702	13	25	336	10	9.1	156	4	1.7
20	635	11	19	306	10	8.3	153	4	1.7
21	591	12	19	290	10	7.8	177	4	1.9
22	584	15	24	289	9	6.7	191	5	2.6
23	594	---	21	287	7	5.4	162	4	1.7
24	619	15	25	288	6	4.7	146	4	1.6
25	583	12	19	286	5	4.2	138	3	1.1
26	547	13	19	293	6	4.7	133	5	1.8
27	629	27	46	277	6	4.1	128	3	1.0
28	824	101	225	270	5	3.6	127	3	1.0
29	738	83	165	258	5	3.8	122	5	1.6
30	705	51	97	326	11	10	116	5	1.6
31	---	---	---	486	33	43	---	---	---
TOTAL	17,797	---	1,146.4	14,113	---	1,396.4	6,378	---	96.6
JULY				AUGUST				SEPTEMBER	
1	112	8	2.4	71	3	0.58	46	2	0.25
2	107	6	1.7	68	5	.92	46	3	.37
3	106	6	1.7	65	---	.80	50	2	.27
4	100	7	1.9	63	5	.85	48	11	1.4
5	120	8	2.6	60	3	.49	47	3	.38
6	120	2	.65	63	5	.85	46	2	.25
7	106	1	.29	63	4	.68	44	3	.36
8	102	1	.28	58	5	.78	44	8	.95
9	97	1	.26	57	3	.46	44	3	.36
10	105	1	.28	56	4	.60	44	3	.36
11	95	1	.26	57	4	.62	44	5	.59
12	88	2	.48	57	4	.62	46	2	.25
13	83	1	.22	63	3	.51	47	3	.38
14	81	1	.22	94	5	1.3	51	5	.69
15	77	1	.21	86	6	1.4	83	5	1.1
16	76	---	.20	74	4	.80	65	3	.53
17	79	1	.21	68	3	.55	54	4	.58
18	100	4	1.1	63	2	.34	48	3	.39
19	114	2	.62	60	5	.81	46	3	.37
20	91	2	.49	58	2	.31	45	3	.36
21	82	1	.22	57	3	.46	44	2	.24
22	78	3	.63	56	2	.30	41	7	.77
23	80	2	.43	54	2	.29	40	4	.43
24	93	1,100	276	53	3	.43	39	4	.42
25	84	328	74	52	2	.28	43	3	.35
26	81	16	3.5	50	2	.27	58	9	1.4
27	76	4	.82	49	4	.53	52	5	.70
28	72	2	.39	48	2	.26	45	5	.61
29	71	3	.58	47	4	.51	42	4	.45
30	70	3	.57	47	11	1.4	41	2	.22
31	71	4	.77	46	2	.25	---	---	---
TOTAL	2,817	---	373.98	1,863	---	19.25	1,433	---	15.78
YEAR	162,387		78,815.06	TONS					

DATE	TIME	TEMPER- ATURE WATER (DEG C)	CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SUSP. FALL DIAM. % FINER THAN .002 MM	SUSP. FALL DIAM. % FINER THAN .004 MM	SUSP. FALL DIAM. % FINER THAN .008 MM
OCT									
04...	1200	6.0	159	10.0	14	6.0	--	--	--
27...	1050	7.0	114	10.0	11	3.4	--	--	--
NOV									
03...	1410	8.5	1,370	20.0	2,880	10,700	8	10	21
03...	1810	8.5	1,800	20.0	2,000	9,720	6	7	21
04...	1205	7.5	1,260	20.0	660	2,250	--	--	--
17...	1400	6.0	2,090	20.0	1,290	7,280	--	--	--
20...	1515	--	1,740	20.0	300	1,410	--	--	--
21...	1150	8.5	1,380	20.0	221	823	--	--	--
DEC									
23...	1330	0.0	304	20.0	14	11	--	--	--
30...	1500	2.5	876	20.0	160	378	--	--	--
JAN									
04...	1420	7.0	2,620	20.0	1,320	9,340	--	--	--
19...	1430	0.5	339	10.0	15	14	--	--	--
24...	1210	5.5	4,010	20.0	1,910	20,700	--	--	--
25...	1315	5.5	3,860	20.0	1,620	16,900	--	--	--
FEB									
06...	1410	7.5	484	20.0	25	33	--	--	--
14...	1410	4.5	958	20.0	86	222	--	--	--
MAR									
06...	1300	--	410	10.0	75	83	--	--	--
21...	1215	5.5	1,400	20.0	235	888	--	--	--
APR									
09...	1340	6.0	836	20.0	28	63	--	--	--
20...	1215	6.0	520	10.0	18	25	--	--	--
MAY									
15...	1255	7.0	938	20.0	80	203	--	--	--
JUN									
12...	1220	8.5	788	20.0	59	126	--	--	--
21...	1250	9.0	1,480	20.0	610	2,440	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT								
04...	--	--	50	--	--	--	--	--
27...	--	--	66	--	--	--	--	--
NOV								
03...	35	49	57	68	83	94	98	100
03...	35	47	54	62	76	91	98	100
04...	--	--	44	54	71	90	98	100
17...	--	--	19	--	--	--	--	--
20...	--	--	20	38	61	81	96	100
21...	--	--	26	--	--	--	--	--
DEC								
23...	--	--	--	--	--	--	--	--
30...	--	--	66	77	89	98	100	--
JAN								
04...	--	--	34	48	65	84	94	98
19...	--	--	46	68	91	100	--	--
24...	--	--	59	69	80	91	98	99
25...	--	--	28	41	57	75	95	99
FEB								
06...	--	--	54	73	90	100	--	--
14...	--	--	40	60	81	96	100	--
MAR								
06...	--	--	45	69	100	--	--	--
21...	--	--	41	57	75	92	100	--
APR								
09...	--	--	25	43	77	100	--	--
20...	--	--	37	55	71	86	100	--
MAY								
15...	--	--	49	60	75	91	100	--
JUN								
12...	--	--	10	--	--	--	--	--
21...	--	--	18	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUL							
05...	1500	14.5	451	10.0	25	30	13
12...	1340	14.0	289	10.0	16	12	36
18...	1345	18.0	239	10.0	11	7.1	42
AUG							
14...	1540	15.0	90	10.0	1	0.24	--
SEP							
06...	1240	12.0	165	10.0	40	18	70
26...	1315	12.0	76	10.0	3	0.62	33

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
OCT									
12...	1200	12.0	128	10.0	26	9.0	--	77	--
NOV									
02...	1425	7.5	2,050	20.0	1,570	8,690	--	23	--
DEC									
03...	1250	3.5	700	10.0	17	32	--	20	--
JAN									
10...	1325	2.0	360	20.0	9	8.7	--	51	--
FEB									
01...	1410	2.5	249	20.0	4	2.7	--	52	--
12...	1445	4.0	421	20.0	16	18	--	54	--
MAR									
12...	1445	6.5	312	20.0	8	6.7	--	56	--
APR									
02...	1340	8.5	736	20.0	46	91	--	36	--
11...	1435	8.5	985	20.0	101	269	--	51	--
11...	1436	8.5	985	20.0	127	338	50	--	69
25...	1355	8.0	580	20.0	20	31	--	43	--
25...	1356	8.0	580	20.0	11	17	--	16	--
MAY									
15...	1310	11.0	447	20.0	12	14	--	--	--
JUN									
07...	1515	9.0	3,760	20.0	1,880	19,100	--	36	--
26...	1440	15.0	270	20.0	31	23	--	--	--
JUL									
18...	1215	19.5	119	10.0	2	0.64	--	42	--
AUG									
13...	1210	20.0	76	10.0	4	0.82	--	52	--
SEP									
10...	1440	17.5	293	20.0	60	47	--	92	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
OCT									
01...	1525	--	85	10.0	2	0.46	--	91	--
25...	1425	--	1,710	20.0	698	3,220	--	48	--
30...	1600	--	800	20.0	50	108	--	12	--
NOV									
07...	1320	--	2,260	20.0	337	2,060	--	21	--
15...	1305	--	552	10.0	25	37	--	12	--
DEC									
09...	1320	--	628	20.0	12	20	--	30	--
JAN									
02...	1300	2.5	239	10.0	2	1.3	--	--	--
19...	1145	--	1,500	20.0	450	1,820	--	53	--
23...	1320	5.5	984	20.0	74	197	--	--	--
FEB									
24...	1625	--	4,750	20.0	2,440	31,300	33	29	49
26...	1530	--	2,050	20.0	457	2,530	--	36	--
27...	1420	9.0	1,250	20.0	215	726	--	42	--
MAR									
21...	1540	9.0	563	20.0	24	36	--	76	--
APR									
15...	1430	8.5	380	20.0	6	6.2	--	--	--
MAY									
13...	1530	7.5	1,100	20.0	213	633	--	55	--
JUN									
17...	1425	13.0	204	20.0	12	6.6	--	--	--
JUL									
17...	1500	12.5	246	20.0	9	6.0	--	--	--
AUG									
14...	1145	21.0	59	10.0	2	0.3	--	--	--
SEP									
18...	1245	--	75	10.0	1	0.20	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.
	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.
	SIEVE	FALL	SIEVE	FALL	SIEVE	FALL	SIEVE	SIEVE
	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN
	.125 MM	.250 MM	.250 MM	.500 MM	.500 MM	1.00 MM	1.00 MM	2.00 MM
OCT								
12...	--	--	--	--	--	--	--	--
NOV								
02...	40	--	69	--	90	--	96	98
DEC								
03...	--	--	--	--	--	--	--	--
JAN								
10...	67	--	82	--	100	--	--	--
FEB								
01...	79	--	100	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
MAR								
12...	--	--	--	--	--	--	--	--
APR								
02...	--	--	--	--	--	--	--	--
11...	63	--	82	--	95	--	100	--
11...	--	94	--	99	--	100	--	--
25...	70	--	100	--	--	--	--	--
25...	44	--	85	--	95	--	100	--
MAY								
15...	--	--	--	--	--	--	--	--
JUN								
07...	46	--	65	--	86	--	98	100
26...	--	--	--	--	--	--	--	--
JUL								
18...	61	--	77	--	100	--	--	--
AUG								
13...	--	--	--	--	--	--	--	--
SEP								
10...	100	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.
	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.
	SIEVE	FALL	SIEVE	FALL	SIEVE	FALL	SIEVE	FALL	SIEVE
	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN
	.125 MM	.250 MM	.250 MM	.500 MM	.500 MM	1.00 MM	1.00 MM	2.00 MM	2.00 MM
OCT									
01...	--	--	--	--	--	--	--	--	--
25...	57	--	74	--	92	--	98	--	100
30...	32	--	49	--	82	--	100	--	--
NOV									
07...	33	--	58	--	85	--	96	--	100
15...	47	--	100	--	--	--	--	--	--
DEC									
09...	--	--	--	--	--	--	--	--	--
JAN									
02...	--	--	--	--	--	--	--	--	--
19...	67	--	82	--	94	--	99	--	100
23...	--	--	--	--	--	--	--	--	--
FEB									
24...	--	75	--	92	--	99	--	100	--
26...	46	--	73	--	91	--	100	--	--
27...	52	--	77	--	94	--	100	--	--
MAR									
21...	--	--	--	--	--	--	--	--	--
APR									
15...	--	--	--	--	--	--	--	--	--
MAY									
13...	--	--	--	--	--	--	--	--	--
JUN									
17...	--	--	--	--	--	--	--	--	--
JUL									
17...	--	--	--	--	--	--	--	--	--
AUG									
14...	--	--	--	--	--	--	--	--	--
SEP									
18...	--	--	--	--	--	--	--	--	--

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
OCT												
06...	1525	--	109	10.0	2	0.59	--	--	--	--	--	--
31...	1335	9.5	563	20.0	93	141	--	--	--	--	--	--
NOV												
20...	1615	--	2,100	20.0	1,220	6,920	--	--	--	--	--	47
21...	0845	--	1,990	20.0	468	2,510	--	--	--	--	--	--
22...	1125	8.5	2,610	20.0	535	3,770	--	--	--	--	--	--
22...	1340	8.0	2,160	20.0	472	2,750	--	--	--	--	--	--
24...	0920	--	6,850	20.0	2,050	37,900	4	4	9	15	22	32
25...	1320	7.0	2,610	20.0	601	4,240	--	--	--	--	--	--
DEC												
22...	1400	7.0	332	20.0	6	5.4	--	--	--	--	--	--
JAN												
28...	1355	5.5	872	20.0	37	87	--	--	--	--	--	--
FEB												
01...	1125	--	4,340	20.0	1,240	14,500	--	--	--	--	--	--
02...	1040	--	2,160	20.0	360	2,100	--	--	--	--	--	--
02...	1310	--	2,020	20.0	333	1,820	--	--	--	--	--	--
MAR												
03...	1415	7.0	2,320	20.0	606	3,800	--	--	--	--	--	39
04...	1140	7.0	2,550	20.0	497	3,420	--	--	--	--	--	--
04...	1425	7.0	2,430	20.0	432	2,830	--	--	--	--	--	--
APR												
07...	1620	8.0	403	20.0	4	4.4	--	--	--	--	--	--
MAY												
14...	1610	--	574	20.0	30	46	--	--	--	--	--	--
JUL												
06...	1320	--	117	20.0	2	0.63	--	--	--	--	--	--
AUG												
05...	1525	--	62	10.0	3	0.50	--	--	--	--	--	--
SEP												
21...	1420	--	43	10.0	2	0.23	--	--	--	--	--	--

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

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
06...	--	--	--	--	--	--	--	--	--	--	--
31...	72	--	--	--	--	--	--	--	--	--	--
NOV											
20...	--	58	--	72	--	95	--	100	--	--	--
21...	30	--	--	--	--	--	--	--	--	--	--
22...	24	--	--	--	--	--	--	--	--	--	--
22...	22	--	--	--	--	--	--	--	--	--	--
24...	--	44	--	64	--	91	--	98	--	100	--
25...	29	--	--	--	--	--	--	--	--	--	--
DEC											
22...	--	--	--	--	--	--	--	--	--	--	--
JAN											
28...	--	--	--	--	--	--	--	--	--	--	--
FEB											
01...	33	--	44	--	58	--	84	--	94	--	99
02...	26	--	--	--	--	--	--	--	--	--	--
02...	33	--	--	--	--	--	--	--	--	--	--
MAR											
03...	--	59	--	85	--	98	--	100	--	--	--
04...	34	--	--	--	--	--	--	--	--	--	--
04...	36	--	--	--	--	--	--	--	--	--	--
APR											
07...	--	--	--	--	--	--	--	--	--	--	--
MAY											
14...	--	--	--	--	--	--	--	--	--	--	--
JUL											
06...	--	--	--	--	--	--	--	--	--	--	--
AUG											
05...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
JAN											
19...	1240	4	8	9	16	20	24	30	35	41	100
19...	1245	2	9	24	48	77	93	99	100	--	--

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

LOCATION.--Lat 46°21'55", long 122°37'40", in NE ¼ SW ¼ sec. 12, T.10 N., R.1 E., Cowlitz County, Hydrologic Unit 17080005, on right bank at downstream side of bridge on State Highway 504, 0.8 mi southwest of Kid Valley, and 6.9 mi upstream from confluence with South Fork.

DRAINAGE AREA.--284 mi², of which approximately 21 mi² is noncontributing. Prior to July 7, 1981, the noncontributing portion was approximately 40 mi².

PERIOD OF SEDIMENT DATA.--June 1980 through September 1987.

GAGE.--Water-stage recorder. Datum of gage is 575.80 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--(Mar. 20, 1982 is lahar-runout flow.)

Water Year	Date	Time	Suspended-sediment concentration, mgL ⁻¹
1981	Nov. 21, 1980	1400	319,000
1982	Feb. 20, 1982	1935	197,000
1982	Mar. 20, 1982	0010	1,160,000
1983	Dec. 3, 1982	2100	171,000
1984	Nov. 3, 1983	1250	196,000
1985	Nov. 2, 1984	1520	38,200
1986	Feb. 24, 1986	1155	31,300
1987	Feb. 1, 1987	1010	46,400

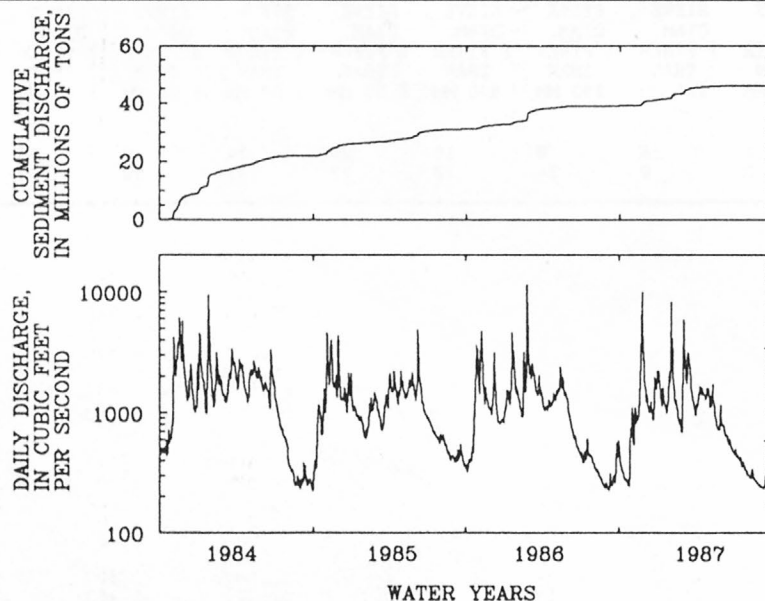


Figure 10.--Cumulative daily suspended-sediment discharge and daily mean stream discharge, water years 1984-87, North Fork Toutle River at Kid Valley, Wash. (14241100).

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	456	---	10,000	825	19,000	42,300	1,840	---	53,000
2	463	---	10,000	1,000	---	62,000	1,740	---	49,000
3	449	---	9,700	4,190	112,000	1,640,000	1,580	---	44,000
4	479	---	9,800	3,360	55,700	538,000	1,390	---	38,000
5	474	---	9,500	2,130	---	230,000	1,300	10,000	35,100
6	470	---	9,000	2,270	32,000	196,000	1,260	10,200	34,700
7	475	---	8,700	2,360	26,000	166,000	1,350	10,900	39,700
8	482	---	8,500	2,170	20,000	117,000	1,330	10,200	36,600
9	480	---	8,000	2,020	---	93,000	1,400	9,540	36,100
10	487	---	7,800	2,530	---	140,000	1,800	16,400	79,700
11	459	---	7,300	2,980	---	210,000	1,850	11,600	57,900
12	469	---	7,300	2,810	---	190,000	2,080	10,100	56,700
13	484	---	7,400	3,840	---	350,000	2,380	8,240	53,000
14	518	---	7,800	3,470	30,800	289,000	2,480	8,400	56,200
15	518	---	7,800	3,810	---	320,000	2,190	8,190	48,400
16	526	---	8,000	4,730	---	450,000	1,860	7,470	37,500
17	593	---	12,000	6,090	41,900	689,000	1,630	6,610	29,100
18	441	---	6,100	5,350	28,500	412,000	1,480	5,280	21,100
19	464	---	6,300	3,760	---	210,000	1,360	5,760	21,200
20	514	---	7,600	3,760	21,800	235,000	1,200	---	17,000
21	461	5,100	6,350	2,970	---	120,000	1,080	4,900	14,300
22	716	---	17,000	2,670	12,900	93,000	1,090	---	14,000
23	584	---	13,000	3,370	---	110,000	1,070	---	14,000
24	560	---	13,000	5,750	---	280,000	1,010	---	13,000
25	640	---	17,000	4,220	---	150,000	1,060	---	13,000
26	600	---	15,000	3,250	---	100,000	1,120	---	13,000
27	601	---	14,000	2,780	---	86,000	1,100	---	12,000
28	622	---	15,000	2,500	11,000	74,300	1,100	---	12,000
29	641	---	16,000	2,180	---	65,000	1,870	---	53,000
30	713	---	20,000	1,930	---	56,000	2,550	21,600	149,000
31	848	---	49,000	---	---	---	1,740	16,400	77,000
TOTAL	16,687	---	363,950	95,075	---	7,713,600	48,290	---	1,228,300
JANUARY			FEBRUARY			MARCH			
1	1,550	---	65,000	1,800	---	69,000	1,380	---	32,000
2	2,120	16,900	96,700	1,570	---	58,000	1,400	---	29,000
3	4,530	40,900	628,000	1,400	---	49,000	1,360	---	29,000
4	4,480	23,500	284,000	1,290	---	41,000	1,280	---	27,000
5	4,040	23,400	255,000	1,210	---	34,000	1,250	---	27,000
6	3,080	19,200	160,000	1,110	8,500	25,500	1,230	---	27,000
7	2,600	16,900	119,000	1,140	---	24,000	1,220	---	26,000
8	2,330	14,700	92,500	1,240	---	24,000	1,220	7,800	25,700
9	2,030	12,600	69,100	1,490	---	31,000	1,270	---	27,000
10	1,960	14,200	75,100	1,570	---	30,000	1,430	---	32,000
11	1,910	13,800	71,200	1,800	---	39,000	1,440	---	28,000
12	1,800	14,500	70,500	3,150	---	120,000	1,700	---	35,000
13	1,810	12,300	60,100	3,040	13,700	112,000	1,700	---	32,000
14	1,640	---	53,000	2,660	---	89,000	2,060	---	46,000
15	1,470	---	44,000	2,380	---	69,000	2,110	---	36,000
16	1,330	---	36,000	2,130	---	52,000	1,950	---	31,000
17	1,160	---	31,000	1,900	---	38,000	2,010	---	28,000
18	1,040	9,000	25,300	1,790	---	28,000	1,920	---	22,000
19	981	---	24,000	1,690	---	24,000	1,980	---	20,000
20	1,010	---	30,000	1,830	---	43,000	2,500	4,440	31,900
21	1,280	---	43,000	2,010	10,000	54,300	3,370	6,390	58,100
22	1,950	23,000	121,000	1,790	---	38,000	2,990	5,050	40,800
23	3,730	31,200	522,000	1,760	---	34,000	2,980	5,780	46,500
24	9,380	46,100	1,230,000	1,820	---	48,000	2,700	---	35,000
25	8,930	41,500	1,120,000	1,610	---	33,000	2,560	---	40,000
26	5,880	18,800	298,000	1,500	---	30,000	2,600	6,720	47,200
27	4,610	17,000	212,000	1,400	7,200	27,200	2,460	6,860	45,600
28	3,320	17,800	160,000	1,390	---	27,000	2,580	7,560	52,700
29	2,650	15,800	113,000	1,360	---	30,000	2,300	6,160	38,300
30	2,310	---	95,000	---	---	---	2,020	5,980	32,600
31	2,020	14,600	79,600	---	---	---	1,900	5,980	30,700
TOTAL	88,931	---	6,283,100	50,830	---	1,321,000	60,870	---	1,059,100

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	1,840	6,380	31,700	1,660	8,640	38,700	1,650	10,200	45,400
2	1,890	6,090	31,100	2,120	10,800	61,800	1,570	13,500	57,200
3	1,670	5,600	25,300	2,170	6,900	40,400	1,500	13,200	53,500
4	1,560	5,130	21,600	2,130	6,210	35,700	1,560	12,400	52,200
5	1,680	---	23,000	2,260	7,130	43,500	1,630	10,400	45,800
6	1,780	---	25,000	2,170	6,440	37,700	1,570	9,880	41,900
7	2,760	---	83,000	2,010	5,520	30,000	1,680	11,800	53,500
8	2,680	---	63,000	2,200	5,290	31,400	1,770	8,100	38,700
9	2,520	6,580	44,800	2,160	5,060	29,500	1,770	8,190	39,100
10	2,580	7,120	49,600	2,080	4,370	24,500	1,670	6,600	29,800
11	2,380	5,880	37,800	2,430	6,210	40,700	1,600	6,400	27,600
12	2,480	7,290	48,800	2,660	5,880	42,200	1,550	6,600	27,600
13	2,300	5,830	36,200	2,400	4,940	32,000	1,540	9,020	37,500
14	2,330	5,980	37,600	2,440	22,600	149,000	1,510	7,770	31,700
15	2,480	7,750	51,900	2,370	18,000	115,000	1,460	7,350	29,000
16	2,290	7,600	47,000	2,330	12,800	80,500	1,410	7,740	29,500
17	2,050	7,760	43,000	2,070	10,500	58,700	1,250	8,100	27,300
18	1,870	---	33,000	1,930	10,100	52,600	1,160	7,120	22,300
19	1,780	---	32,000	1,980	10,300	55,100	1,090	8,140	24,000
20	1,640	5,670	25,100	2,100	9,000	51,000	1,520	10,400	42,700
21	1,560	5,800	24,400	1,910	8,000	41,300	3,310	10,400	92,900
22	1,510	5,620	22,900	2,110	9,900	56,400	2,680	6,710	48,600
23	1,490	6,670	26,800	2,360	8,920	56,800	2,340	5,990	37,800
24	1,430	7,200	27,800	2,200	7,220	42,900	2,200	6,080	36,100
25	1,380	7,250	27,000	2,000	8,200	44,300	2,060	6,020	33,500
26	1,280	6,630	22,900	2,200	8,360	49,700	1,980	6,300	33,700
27	1,220	5,200	17,100	2,000	8,220	44,400	1,830	6,510	32,200
28	1,250	4,840	16,300	1,850	7,250	36,200	1,690	5,940	27,100
29	1,360	6,250	23,000	1,920	---	34,000	1,830	8,000	39,500
30	1,340	6,250	22,600	1,980	---	39,000	1,520	5,600	23,000
31	---	---	---	1,820	---	39,000	---	---	---
TOTAL	56,380	---	1,021,300	66,020	---	1,534,000	51,900	---	1,160,700
JULY			AUGUST			SEPTEMBER			
1	1,360	5,200	19,100	420	2,800	3,180	276	---	970
2	1,290	5,000	17,400	401	---	2,900	268	---	970
3	1,250	5,200	17,600	368	---	2,600	264	---	860
4	1,210	5,400	17,600	363	---	2,500	251	1,190	806
5	1,170	5,300	16,700	364	---	2,400	280	---	1,500
6	1,120	5,200	15,700	357	---	2,200	265	---	1,900
7	1,040	5,000	14,000	345	---	2,000	280	---	2,200
8	995	5,000	13,400	341	---	1,900	383	---	4,400
9	943	5,000	12,700	328	2,020	1,790	338	---	2,900
10	929	5,200	13,000	333	---	1,700	340	---	2,900
11	892	6,000	14,500	336	---	1,500	359	---	3,500
12	846	5,800	13,200	328	---	1,400	318	---	1,900
13	811	5,700	12,500	322	---	1,300	297	---	1,400
14	776	---	11,000	309	1,420	1,180	277	---	1,000
15	749	---	11,000	291	---	1,100	254	---	960
16	730	---	10,000	271	---	1,000	248	---	940
17	750	---	11,000	260	---	950	249	---	870
18	740	---	10,000	248	---	900	261	---	920
19	710	---	10,000	254	---	930	270	1,340	977
20	680	---	10,000	258	---	910	271	---	950
21	660	---	9,100	262	---	920	278	---	980
22	650	---	9,000	248	---	840	280	---	980
23	630	---	8,500	252	---	850	280	---	980
24	620	---	8,400	295	---	1,000	270	---	950
25	620	5,020	8,400	287	---	930	260	---	910
26	620	---	8,200	275	---	890	254	---	960
27	590	---	7,500	262	---	810	237	---	960
28	580	---	7,000	251	---	780	244	---	990
29	560	---	6,400	241	---	720	224	---	910
30	540	---	5,800	231	---	690	236	---	960
31	510	---	4,700	247	---	800	---	---	---
TOTAL	25,571	---	353,400	9,348	---	43,570	8,312	---	42,413
YEAR	578,214		22,124,433						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	250	---	1,200	1,410	13,400	77,900	2,900	---	78,000
2	300	---	2,000	4,570	38,000	469,000	2,230	---	54,000
3	350	---	3,200	4,270	18,600	214,000	1,780	---	36,000
4	400	4,360	4,710	2,970	14,700	118,000	1,480	6,000	24,000
5	355	---	3,400	2,320	12,300	77,000	1,330	---	17,000
6	356	---	3,400	2,100	10,500	59,500	1,270	4,740	16,300
7	347	---	3,200	1,960	10,400	55,000	1,280	5,160	17,800
8	356	---	3,400	1,700	11,100	50,900	1,320	5,880	21,000
9	394	---	4,300	1,900	12,600	64,600	1,310	5,250	18,600
10	700	---	17,000	3,300	17,400	155,000	1,320	5,670	20,200
11	950	---	32,000	3,920	15,000	159,000	1,260	5,120	17,400
12	1,000	---	36,000	3,700	15,000	150,000	1,300	6,150	21,600
13	1,150	---	48,000	4,000	15,200	164,000	1,320	4,720	16,800
14	1,150	---	48,000	3,230	9,430	82,200	1,610	---	23,000
15	1,100	---	42,000	2,410	8,750	56,900	1,510	---	21,000
16	1,050	---	38,000	1,860	7,560	38,000	1,350	---	17,000
17	1,000	---	34,000	1,640	4,320	19,100	1,290	---	17,000
18	950	---	30,000	1,750	8,480	40,100	1,170	---	14,000
19	830	---	23,000	1,630	---	29,000	1,090	4,400	12,900
20	694	---	15,000	1,620	---	28,000	1,030	---	12,000
21	652	---	14,000	1,700	---	32,000	1,010	3,990	10,900
22	667	---	13,000	1,680	---	30,000	1,480	4,680	18,700
23	685	---	15,000	2,010	---	60,000	2,110	3,840	21,900
24	675	---	14,000	1,690	---	41,000	2,050	2,880	15,900
25	1,060	11,800	36,700	1,430	---	32,000	1,820	2,310	11,400
26	1,560	8,100	34,100	1,340	7,700	27,900	1,660	2,550	11,400
27	1,380	---	28,000	1,760	---	52,000	1,590	2,880	12,400
28	1,320	---	23,000	3,660	---	160,000	1,390	2,340	8,780
29	1,130	---	17,000	4,330	---	150,000	1,830	5,440	26,900
30	1,070	---	14,000	3,700	---	110,000	2,110	---	39,000
31	1,010	---	12,000	---	---	---	1,650	---	20,000
TOTAL	24,891	---	612,610	75,560	---	2,802,100	47,850	---	672,880
JANUARY			FEBRUARY			MARCH			
1	1,380	---	13,000	642	---	5,500	1,280	3,240	11,200
2	1,180	---	9,800	631	---	5,500	1,170	3,360	10,600
3	1,040	2,880	8,090	610	---	5,300	1,050	2,700	7,650
4	1,030	3,180	8,840	726	---	24,000	1,080	2,610	7,610
5	1,030	3,140	8,730	638	---	7,200	1,040	---	7,300
6	1,050	2,610	7,400	657	---	5,900	994	2,600	6,980
7	1,090	3,240	9,540	734	3,150	6,240	947	---	6,600
8	1,120	3,540	10,700	748	---	5,500	934	---	6,300
9	1,090	3,070	9,040	760	---	6,100	912	---	6,200
10	1,060	2,950	8,440	776	---	7,300	849	---	5,500
11	1,010	2,520	6,870	1,110	7,120	23,300	799	---	5,200
12	947	---	6,000	1,190	3,860	12,400	770	---	4,800
13	933	---	7,500	1,000	3,380	9,130	720	2,300	4,470
14	947	---	10,000	1,070	6,130	17,700	718	---	4,100
15	951	---	11,000	1,330	4,510	16,200	731	---	3,800
16	930	3,590	9,010	1,160	3,540	11,100	750	---	4,000
17	922	3,780	9,410	1,090	3,670	10,800	790	---	4,500
18	867	2,880	6,740	1,030	2,900	8,060	830	---	4,900
19	870	---	7,000	1,040	7,300	20,500	873	2,640	6,220
20	934	---	9,000	1,080	5,660	16,500	1,090	3,700	10,900
21	911	---	8,400	1,060	5,110	14,600	1,200	3,450	11,200
22	913	3,380	8,330	1,280	7,420	25,600	1,110	---	8,400
23	927	3,640	9,110	1,330	4,980	17,900	1,310	---	21,000
24	895	---	8,700	1,460	6,750	26,600	1,400	---	21,000
25	852	---	8,300	1,390	5,440	20,400	1,330	---	20,000
26	819	---	8,000	1,340	4,270	15,400	1,250	5,600	18,900
27	789	---	7,200	1,300	3,240	11,400	1,240	6,270	21,000
28	746	---	7,000	1,280	3,060	10,600	1,170	5,310	16,800
29	706	---	6,300	---	---	---	1,090	5,100	15,000
30	654	---	5,800	---	---	---	1,320	7,000	24,900
31	632	3,100	5,290	---	---	---	1,900	5,000	25,700
TOTAL	29,225	---	258,540	28,462	---	366,730	32,647	---	332,730

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	2,080	---	34,000	1,650	3,940	17,600	1,390	---	41,000
2	2,030	---	33,000	1,720	4,400	20,400	1,340	---	33,000
3	2,060	---	37,000	1,800	6,350	30,900	1,250	---	31,000
4	1,740	4,070	19,100	1,600	4,440	19,200	1,440	---	47,000
5	1,520	4,250	17,400	1,500	3,320	13,400	1,590	---	50,000
6	1,490	3,900	15,700	1,480	3,200	12,800	1,820	---	65,000
7	1,500	4,550	18,400	1,420	---	13,000	4,870	33,600	469,000
8	1,480	4,500	18,000	1,350	2,940	10,700	4,130	14,400	161,000
9	1,480	4,000	16,000	1,320	---	10,000	3,410	12,700	117,000
10	1,620	4,380	19,200	1,390	---	13,000	2,400	10,700	69,300
11	2,190	11,100	65,600	1,370	---	13,000	2,020	---	49,000
12	2,180	7,280	42,900	1,330	---	13,000	1,920	---	47,000
13	1,910	6,120	31,600	1,360	---	14,000	1,740	---	40,000
14	1,680	5,000	22,700	1,470	---	17,000	1,620	---	37,000
15	1,610	5,100	22,200	1,420	---	17,000	1,750	---	44,000
16	1,640	4,720	20,900	1,570	---	22,000	1,510	---	35,000
17	1,430	4,400	17,000	1,680	5,920	26,900	1,330	---	28,000
18	1,360	4,440	16,300	1,860	7,440	37,400	1,220	---	25,000
19	1,420	4,410	16,900	1,820	7,500	36,900	1,210	---	24,000
20	1,300	5,000	17,600	1,730	6,820	31,900	1,170	7,400	23,400
21	1,180	5,380	17,100	1,610	5,180	22,500	1,160	---	23,000
22	1,250	5,640	19,000	1,740	5,800	27,200	1,090	---	23,000
23	1,500	4,740	19,200	1,730	---	29,000	1,040	---	22,000
24	1,450	3,020	11,800	1,850	10,000	50,000	1,010	---	22,000
25	1,490	2,140	8,610	2,140	19,300	112,000	984	---	21,000
26	1,390	1,870	7,020	1,900	19,100	98,000	961	---	21,000
27	1,710	3,490	17,400	1,720	---	78,000	951	---	20,000
28	2,200	3,300	19,600	1,650	17,100	76,200	955	---	21,000
29	1,880	3,630	18,400	1,730	17,400	81,300	956	---	22,000
30	1,670	3,530	15,900	1,690	17,600	80,300	912	---	22,000
31	---	---	---	1,390	12,200	45,800	---	---	---
TOTAL	49,440	---	655,530	49,990	---	1,090,400	49,149	---	1,652,700
JULY			AUGUST			SEPTEMBER			
1	888	---	21,000	660	---	9,600	420	---	2,600
2	902	---	23,000	621	---	8,200	410	---	2,400
3	904	---	23,000	604	---	7,800	400	---	2,300
4	890	---	23,000	623	---	8,500	390	---	2,200
5	849	---	22,000	600	---	7,800	400	---	2,300
6	846	---	22,000	600	---	7,800	430	---	3,600
7	821	---	21,000	625	---	8,500	400	---	2,300
8	812	---	21,000	654	5,250	9,270	388	---	2,200
9	799	9,500	20,500	581	---	7,100	406	---	2,400
10	767	---	18,000	582	---	6,900	489	---	3,400
11	766	---	18,000	567	---	6,600	419	2,210	2,500
12	763	---	17,000	537	---	5,700	401	---	2,400
13	725	---	15,000	547	---	5,700	419	---	2,500
14	691	---	14,000	538	---	5,300	437	---	2,700
15	679	---	13,000	529	---	5,100	442	---	2,700
16	685	---	13,000	514	---	4,700	445	---	2,800
17	693	---	13,000	478	---	4,300	543	---	4,000
18	693	---	12,000	458	---	3,600	496	---	3,400
19	671	---	11,000	456	---	3,400	492	---	3,300
20	652	---	10,000	469	---	3,600	468	---	3,000
21	644	---	10,000	464	---	3,300	450	---	2,800
22	638	---	9,400	449	---	3,100	429	---	2,500
23	623	---	8,700	423	2,400	2,740	405	---	2,200
24	615	4,950	8,220	411	---	2,600	398	---	2,100
25	620	---	8,500	403	---	2,400	391	---	2,000
26	611	---	8,200	416	---	2,600	375	---	1,800
27	590	---	7,500	426	---	2,600	361	---	1,700
28	587	---	7,500	432	---	2,800	363	---	1,700
29	552	---	6,700	440	---	2,900	357	---	1,700
30	571	---	7,000	440	---	2,900	350	---	1,600
31	644	---	9,000	435	---	2,900	---	---	---
TOTAL	22,191	---	441,220	15,982	---	160,310	12,574	---	75,100
YEAR	437,961		9,120,850 TONS						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	369	1,800	1,790	1,590	---	20,000	960	---	8,800
2	348	---	1,600	1,430	---	16,000	1,010	---	9,600
3	340	---	1,500	1,590	---	19,000	1,300	---	15,000
4	323	---	1,400	3,030	---	56,000	1,270	4,000	13,700
5	336	---	1,500	3,660	4,720	46,600	1,360	3,600	13,200
6	356	---	1,600	4,700	6,930	87,900	2,240	6,330	38,300
7	408	---	2,000	4,450	7,790	93,600	3,140	7,300	61,900
8	407	1,800	1,980	3,980	7,220	77,600	2,450	5,500	36,400
9	397	---	1,900	3,010	6,080	49,400	1,940	4,200	22,000
10	390	---	1,800	2,320	4,750	29,800	1,640	3,800	16,800
11	411	---	2,000	1,850	---	23,000	1,430	3,700	14,300
12	413	---	2,000	1,580	---	19,000	1,250	3,400	11,500
13	399	---	2,000	1,330	---	14,000	1,100	3,200	9,500
14	399	---	2,000	1,180	3,700	11,800	993	2,800	7,510
15	415	---	2,100	1,300	---	14,000	904	2,500	6,100
16	518	---	3,000	1,620	---	21,000	862	2,700	6,280
17	484	---	2,800	1,530	---	19,000	846	2,700	6,170
18	463	---	2,700	1,380	---	15,000	825	2,500	5,570
19	518	---	3,200	1,330	---	14,000	820	2,500	5,530
20	804	---	7,300	1,320	3,900	13,900	823	2,500	5,560
21	1,030	---	12,000	1,240	---	13,000	819	2,200	4,860
22	1,430	---	22,000	1,200	---	12,000	820	2,200	4,870
23	1,620	6,500	28,400	1,130	---	11,000	820	2,200	4,870
24	2,160	---	41,000	1,090	---	10,000	843	2,500	5,690
25	3,640	11,500	113,000	1,100	---	10,000	862	2,500	5,820
26	2,410	7,780	50,600	1,080	---	10,000	873	2,300	5,420
27	2,140	5,600	38,700	1,100	---	10,000	882	2,200	5,240
28	3,380	7,340	67,000	1,080	---	10,000	868	2,300	5,390
29	2,260	4,940	30,100	1,050	---	10,000	863	2,000	4,660
30	1,840	5,600	27,800	1,010	---	9,600	846	1,900	4,340
31	1,740	---	24,000	---	---	---	829	1,900	4,250
TOTAL	32,148	---	500,770	55,260	---	766,200	36,488	---	369,130
JANUARY			FEBRUARY			MARCH			
1	1,010	3,300	9,000	1,520	4,600	18,900	2,310	---	55,000
2	1,020	2,800	7,710	1,420	4,600	17,600	2,140	---	47,000
3	1,140	3,300	10,200	1,370	4,200	15,500	2,090	---	42,000
4	1,060	2,200	6,300	1,290	3,600	12,500	2,110	---	37,000
5	1,160	2,500	7,830	1,300	4,200	14,700	2,050	---	33,000
6	1,530	3,460	14,300	1,170	3,900	12,300	1,920	---	29,000
7	1,310	2,500	15,000	1,110	3,600	10,800	2,300	10,800	67,100
8	1,350	2,700	9,840	1,100	3,600	10,700	2,550	9,900	68,200
9	1,440	2,700	10,500	1,050	3,600	10,200	2,430	8,140	53,400
10	1,520	2,900	11,900	1,020	3,300	9,090	2,040	6,600	36,400
11	1,450	3,300	12,900	958	3,000	7,760	2,200	10,400	61,800
12	1,300	3,100	10,900	924	3,000	7,480	2,070	10,100	56,400
13	1,230	3,000	9,960	921	3,000	7,460	2,070	9,600	53,700
14	1,180	3,100	9,880	988	3,300	8,890	1,940	8,800	46,100
15	1,180	2,900	9,240	2,310	5,700	35,600	1,760	7,200	34,200
16	1,430	3,800	14,700	3,190	7,630	65,700	1,570	6,800	28,800
17	1,630	4,400	19,400	2,190	5,200	30,700	1,480	7,600	30,400
18	3,430	11,800	109,000	1,780	5,400	26,000	1,510	8,400	34,200
19	4,610	18,200	128,000	1,540	6,000	24,900	1,490	6,800	27,400
20	3,310	11,400	102,000	1,490	5,500	22,100	1,410	6,400	24,400
21	2,340	9,990	63,100	1,530	6,600	27,300	1,440	6,400	24,900
22	2,530	10,700	73,100	2,460	8,300	55,100	1,390	6,000	22,500
23	3,240	10,700	93,600	11,200	31,000	1,100,000	1,500	6,800	27,500
24	2,570	7,900	54,800	11,500	29,700	986,000	2,020	7,000	38,200
25	2,090	7,200	40,600	5,890	20,200	321,000	1,820	5,600	27,500
26	1,790	6,800	32,900	4,720	13,500	172,000	1,710	4,600	21,200
27	1,630	5,600	24,600	3,490	11,600	109,000	1,590	4,200	18,000
28	1,500	5,600	22,700	2,740	9,840	72,800	1,510	4,000	16,300
29	1,460	5,600	22,100	---	---	---	1,400	4,700	17,800
30	1,640	5,200	23,000	---	---	---	1,520	5,400	22,200
31	1,420	4,900	18,800	---	---	---	1,370	5,100	18,900
TOTAL	55,500	---	997,860	72,181	---	3,212,080	56,710	---	1,120,500

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	1,330	5,100	18,300	1,270	3,520	12,100	1,190	3,440	11,100
2	1,320	4,600	16,400	1,310	4,400	15,600	1,080	2,730	7,960
3	1,150	3,900	12,100	1,270	3,960	13,600	1,010	---	6,600
4	1,110	3,300	9,890	1,270	4,350	14,900	949	---	6,300
5	1,080	3,300	9,620	1,530	5,220	21,600	917	---	6,100
6	1,050	3,300	9,360	1,440	3,480	13,500	904	---	5,900
7	1,040	3,000	8,420	1,410	3,040	11,600	877	---	5,800
8	1,060	2,700	7,730	1,460	3,440	13,600	825	---	5,100
9	1,110	3,300	9,890	1,590	3,220	13,800	776	---	4,700
10	1,100	3,300	9,800	1,480	3,820	15,300	748	---	4,400
11	1,120	3,600	10,900	1,550	3,610	15,100	737	---	4,400
12	1,130	3,300	10,100	1,530	3,150	13,000	716	---	4,100
13	1,120	3,000	9,070	2,380	6,720	43,200	683	---	3,800
14	1,040	2,400	6,740	2,390	4,560	29,400	668	---	3,700
15	1,100	2,700	8,020	2,220	4,100	24,600	632	---	3,300
16	1,180	3,600	11,500	1,880	3,690	18,700	608	1,930	3,170
17	1,270	3,600	12,300	1,700	3,440	15,800	613	---	3,200
18	1,270	4,200	14,400	1,600	3,200	13,800	650	---	3,600
19	1,180	4,200	13,400	1,610	2,760	12,000	639	---	3,400
20	1,120	3,800	11,500	1,960	5,070	26,800	591	---	3,000
21	1,130	4,000	12,200	1,780	3,660	17,600	581	---	2,800
22	1,170	4,600	14,500	1,640	3,230	14,300	545	---	2,300
23	1,140	3,800	11,700	1,480	2,960	11,800	522	---	2,100
24	1,150	3,500	10,900	1,380	2,520	9,390	516	---	2,100
25	1,230	4,400	14,600	1,410	2,620	9,970	512	---	2,000
26	1,210	4,400	14,400	1,490	3,740	15,000	505	---	1,800
27	1,290	4,400	15,300	1,430	2,970	11,500	484	---	1,700
28	1,450	4,800	18,800	1,330	2,400	8,620	473	---	1,600
29	1,430	4,400	17,000	1,310	2,790	9,870	473	---	1,500
30	1,340	3,600	13,000	1,330	3,420	12,300	461	---	1,400
31	---	---	---	1,300	3,300	11,600	---	---	---
TOTAL	35,420	---	361,840	48,730	---	489,950	20,885	---	118,930
JULY			AUGUST			SEPTEMBER			
1	448	---	1,400	383	---	510	249	---	75
2	439	---	1,300	375	---	430	244	---	70
3	430	---	1,100	359	---	390	238	---	65
4	469	---	1,400	349	---	370	233	---	60
5	425	---	1,100	342	---	310	231	---	60
6	404	---	950	343	---	310	229	---	55
7	395	---	950	329	290	258	228	---	55
8	384	---	870	327	---	250	251	---	130
9	388	---	920	332	---	260	314	575	487
10	445	---	1,200	338	---	270	276	---	150
11	473	---	1,400	330	---	250	261	---	120
12	427	---	1,100	316	---	200	253	---	75
13	417	---	1,000	318	---	200	249	---	60
14	407	899	988	307	---	180	252	---	60
15	415	---	1,000	299	---	170	251	---	60
16	582	---	2,400	295	---	160	275	---	75
17	607	---	2,500	290	---	140	276	119	89
18	526	---	1,900	285	---	130	299	376	304
19	484	---	1,600	283	---	120	285	157	121
20	458	---	1,400	273	---	110	282	381	290
21	441	---	1,300	267	---	110	268	---	95
22	436	1,120	1,320	262	---	100	261	---	85
23	442	---	1,300	257	---	90	367	---	740
24	451	---	1,200	254	---	80	564	955	1,450
25	446	---	1,100	251	---	75	509	---	1,100
26	444	---	1,100	244	---	70	556	---	1,300
27	435	---	1,000	240	---	65	433	---	750
28	425	---	840	238	100	64	472	---	900
29	408	---	720	241	---	65	589	---	1,500
30	391	---	580	255	---	80	566	---	1,400
31	382	---	540	260	---	80	---	---	---
TOTAL	13,724	---	37,478	9,242	---	5,897	9,761	---	11,781
YEAR	446,049		7,992,416 TONS						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	502	---	1,200	880	2,450	5,820	1,640	6,060	26,800
2	434	---	830	732	---	3,200	1,520	6,120	25,100
3	400	---	680	616	---	2,000	1,270	6,090	20,900
4	377	---	580	541	---	1,400	1,230	5,160	17,100
5	359	---	500	550	---	1,300	1,410	6,400	24,400
6	351	---	470	665	---	1,800	1,250	4,280	14,400
7	337	---	400	1,100	4,360	12,900	1,170	4,060	12,800
8	331	---	390	1,070	1,640	4,740	1,110	3,710	11,100
9	324	---	350	948	1,470	3,760	1,050	---	10,000
10	316	384	328	820	1,080	2,390	1,010	---	9,800
11	302	---	270	833	1,490	3,350	1,020	---	9,900
12	290	---	220	913	1,910	4,710	1,020	---	9,900
13	285	---	200	887	1,720	4,120	1,060	---	10,000
14	280	---	190	877	1,510	3,580	1,230	---	14,000
15	278	---	180	879	1,340	3,180	1,140	4,110	12,700
16	274	---	170	993	2,670	7,800	1,070	---	11,000
17	272	---	160	1,340	4,210	15,200	1,020	---	9,900
18	276	---	170	1,480	6,960	30,800	957	---	8,800
19	277	---	180	1,650	5,580	24,900	912	---	7,600
20	261	---	140	2,990	11,100	103,000	872	---	6,600
21	254	---	120	4,640	9,570	120,000	895	---	6,000
22	250	---	110	6,100	7,680	126,000	1,280	8,260	37,500
23	247	---	100	6,830	11,300	220,000	1,950	8,320	46,500
24	246	---	100	9,860	13,100	349,000	1,660	4,620	20,700
25	320	---	450	5,270	9,300	132,000	1,600	4,380	18,900
26	519	---	19,000	3,520	8,290	78,800	1,900	5,680	29,100
27	738	---	30,000	2,870	8,310	64,400	1,710	3,340	15,400
28	699	---	8,000	2,580	7,480	52,100	1,560	3,190	13,400
29	643	---	3,400	1,970	6,080	32,300	2,130	7,210	44,600
30	921	6,970	17,300	1,660	6,000	26,900	2,200	4,930	29,300
31	1,090	4,270	12,600	---	---	---	1,760	4,380	20,800
TOTAL	12,453	---	98,788	66,064	---	1,441,450	41,606	---	555,000
JANUARY			FEBRUARY			MARCH			
1	1,870	4,870	24,600	8,210	28,700	711,000	1,310	6,700	23,700
2	1,850	3,710	18,500	5,130	12,400	172,000	2,240	8,770	53,000
3	2,210	6,410	38,200	3,350	---	100,000	5,870	28,000	501,000
4	1,990	5,470	29,400	4,080	---	140,000	5,490	19,900	312,000
5	1,720	4,610	21,400	2,910	---	92,000	3,700	13,800	138,000
6	1,450	3,740	14,600	2,050	---	52,000	3,010	12,400	101,000
7	1,350	---	15,000	1,790	---	40,000	2,490	9,790	65,800
8	1,300	4,070	14,300	1,630	---	34,000	2,180	8,020	47,200
9	1,190	4,110	13,200	1,470	---	29,000	1,900	8,740	44,800
10	1,140	---	9,500	1,290	---	22,000	1,960	---	58,000
11	1,150	---	9,000	1,230	5,900	19,600	1,740	---	43,000
12	1,610	5,560	24,200	1,160	---	18,000	2,180	11,200	65,900
13	1,510	4,220	17,200	1,270	---	20,000	2,800	9,840	74,400
14	1,520	4,030	16,500	1,270	---	20,000	3,150	6,720	57,200
15	1,290	---	10,000	1,100	---	17,000	3,010	5,770	46,900
16	1,200	---	9,000	1,090	---	17,000	2,730	5,680	41,900
17	1,160	---	8,100	1,010	---	16,000	2,650	6,850	49,000
18	1,170	---	7,800	916	---	15,000	2,500	7,460	50,400
19	1,110	---	6,700	881	5,940	14,100	2,250	6,070	36,900
20	1,060	---	5,900	833	6,180	13,900	1,920	5,310	27,500
21	1,030	---	5,500	807	5,080	11,100	1,660	5,200	23,300
22	1,000	---	5,100	885	5,790	13,800	1,480	5,430	21,700
23	1,050	---	5,700	873	4,760	11,200	1,480	5,500	22,000
24	1,230	---	8,500	801	4,060	8,780	1,440	4,390	17,100
25	1,240	---	8,800	742	3,650	7,310	1,320	4,050	14,400
26	1,420	---	12,000	698	3,370	6,350	1,260	4,180	14,200
27	1,850	5,560	27,800	690	---	5,600	1,220	4,060	13,400
28	2,190	5,280	31,200	699	5,360	10,100	1,180	4,260	13,600
29	1,880	3,450	17,500	---	---	---	1,120	3,810	11,500
30	1,810	3,340	16,300	---	---	---	1,050	2,900	8,220
31	2,640	5,670	49,200	---	---	---	1,000	2,840	7,670
TOTAL	46,190	---	500,700	48,865	---	1,636,840	69,290	---	2,004,690

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL				MAY				JUNE	
1	956	3,050	7,870	1,560	---	10,000	969	2,950	7,720
2	958	3,100	8,020	1,580	---	10,000	829	2,540	5,690
3	1,110	4,560	13,700	1,480	---	8,900	785	2,720	5,770
4	1,170	4,000	12,600	1,230	---	5,800	787	2,120	4,500
5	1,160	3,290	10,300	1,100	---	4,400	800	2,440	5,270
6	1,130	3,870	11,800	1,170	1,800	5,690	794	2,140	4,590
7	1,160	2,730	8,550	1,350	---	9,000	780	2,440	5,140
8	1,430	4,020	15,500	1,200	---	6,800	755	2,440	4,970
9	1,370	2,590	9,580	1,120	---	6,200	733	2,290	4,530
10	1,440	3,440	13,400	1,230	---	8,700	697	2,080	3,910
11	1,590	3,540	15,200	1,320	---	10,000	657	2,220	3,940
12	1,630	2,860	12,600	1,720	4,030	18,700	638	2,580	4,440
13	1,600	---	12,000	1,280	---	11,000	640	2,930	5,060
14	1,600	4,180	18,100	1,250	---	11,000	650	2,610	4,580
15	1,610	3,940	17,100	1,200	---	10,000	648	2,510	4,390
16	1,410	3,690	14,000	1,080	---	8,500	641	1,900	3,290
17	1,590	4,400	18,900	994	---	6,600	615	1,770	2,940
18	1,430	4,620	17,800	913	---	5,600	572	1,500	2,320
19	1,470	3,570	14,200	902	---	5,700	549	1,370	2,030
20	1,420	3,220	12,300	820	---	4,400	547	1,650	2,440
21	1,400	2,870	10,800	787	---	4,000	588	1,910	3,030
22	1,400	2,430	9,190	776	---	4,100	596	1,300	2,090
23	1,360	1,740	6,390	747	---	3,600	560	1,070	1,620
24	1,380	2,080	7,750	724	---	3,600	537	1,040	1,510
25	1,290	---	6,400	726	---	4,000	523	1,290	1,820
26	1,320	---	6,900	739	---	4,400	511	1,220	1,680
27	1,400	---	7,800	730	2,300	4,530	501	1,140	1,540
28	1,580	---	10,000	743	2,720	5,460	497	978	1,310
29	1,470	---	8,800	726	2,100	4,120	488	1,030	1,360
30	1,430	---	8,200	889	4,520	11,800	477	1,050	1,350
31	---	---	---	1,150	4,930	15,300	---	---	---
TOTAL	41,264	---	346,150	33,236	---	232,500	19,364	---	104,830
JULY				AUGUST				SEPTEMBER	
1	472	971	1,240	325	441	387	242	93	61
2	467	1,170	1,480	316	472	403	245	98	65
3	459	986	1,220	310	451	377	248	99	66
4	449	1,100	1,330	303	438	358	243	72	47
5	496	1,380	1,850	303	434	355	241	73	48
6	474	802	1,030	304	451	370	239	55	35
7	448	---	820	298	425	342	236	62	40
8	440	748	889	292	356	281	236	56	36
9	432	1,000	1,170	287	322	250	236	49	31
10	446	521	627	286	289	223	235	41	26
11	428	339	392	288	270	210	235	48	30
12	419	268	303	285	310	239	243	41	27
13	419	280	317	303	546	447	246	41	27
14	420	303	344	338	1,040	949	257	122	93
15	408	---	360	321	---	460	300	324	262
16	410	316	350	304	---	330	271	111	81
17	405	---	370	293	269	213	256	134	93
18	424	---	580	286	193	149	249	68	46
19	395	---	320	279	174	131	244	55	36
20	363	---	300	276	179	133	243	47	31
21	356	205	197	275	176	131	241	46	30
22	359	153	148	270	177	129	239	36	23
23	370	143	143	269	188	137	237	35	22
24	390	1,320	1,390	267	148	107	237	33	21
25	374	719	726	260	209	147	244	41	27
26	365	523	515	258	142	99	267	102	74
27	355	504	483	256	122	84	256	51	35
28	346	466	435	253	109	74	245	37	24
29	341	459	423	252	81	55	237	35	22
30	335	451	408	250	97	65	235	35	22
31	332	460	412	247	102	68	---	---	---
TOTAL	12,597	---	20,572	8,854	---	7,703	7,383	---	1,481
YEAR	407,166	6,950,704 TONS							

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT									
21...	1115	11.0	446	10.0	5,100	6,140	--	--	--
NOV									
01...	1450	11.5	834	20.0	18,900	42,600	--	--	--
03...	1250	13.0	5,800	20.0	196,000	3,070,000	11	12	18
03...	1810	--	3,830	20.0	128,000	1,320,000	--	--	--
04...	1235	--	2,850	20.0	43,800	337,000	5	6	11
08...	1450	--	2,140	20.0	18,100	105,000	--	--	--
14...	1310	6.0	3,400	20.0	27,200	250,000	--	--	--
17...	1130	8.0	5,250	20.0	34,000	482,000	7	8	11
17...	1515	8.0	5,290	20.0	33,000	471,000	3	5	9
18...	1345	--	5,000	20.0	25,200	340,000	--	--	--
20...	1320	--	3,610	20.0	17,700	173,000	--	--	--
22...	1605	7.0	2,650	20.0	12,300	88,000	--	--	--
28...	1215	8.0	2,500	20.0	10,800	72,900	--	--	--
DEC									
05...	1345	5.5	1,280	20.0	9,790	33,800	--	--	--
13...	1215	7.5	2,620	20.0	11,600	82,100	--	--	--
21...	1355	--	1,060	20.0	4,610	13,200	7	10	14
30...	1120	4.0	2,220	20.0	17,200	103,000	10	11	15
JAN									
04...	1240	8.5	4,390	20.0	22,200	263,000	--	--	--
06...	1515	8.5	2,920	20.0	17,200	136,000	--	--	--
10...	1300	7.0	2,000	10.0	15,800	85,300	--	--	--
18...	1305	0.1	1,040	20.0	8,950	25,100	--	--	--
24...	1355	7.0	8,830	20.0	40,000	954,000	8	8	14
25...	1300	6.5	7,940	20.0	29,600	635,000	7	8	12
31...	1355	6.0	1,990	20.0	14,600	78,400	--	--	--
FEB									
06...	1115	7.5	1,100	20.0	8,530	25,300	--	--	--
13...	1326	6.5	3,140	20.0	13,400	114,000	--	--	--
13...	1328	6.5	3,140	20.0	14,400	122,000	7	8	9
21...	1310	6.0	1,950	20.0	9,360	49,300	--	--	--
27...	1320	6.5	1,400	20.0	7,120	26,900	--	--	--
MAR									
08...	1405	9.0	1,210	20.0	7,760	25,400	--	--	--
21...	1345	4.5	3,310	20.0	6,010	53,700	--	--	--
26...	1320	7.5	2,710	20.0	7,040	51,500	--	--	--
29...	1115	6.5	2,270	20.0	6,120	37,500	--	--	--
APR									
04...	1200	7.5	1,520	20.0	5,610	23,000	--	--	--
04...	1205	--	1,520	20.0	4,990	20,500	--	--	--
10...	1345	5.0	2,630	20.0	6,830	48,500	--	--	--
20...	1200	8.5	1,630	20.0	5,750	24,600	--	--	--
27...	1135	11.0	1,220	20.0	5,100	16,800	--	--	--
MAY									
03...	1440	9.0	2,150	20.0	6,560	38,100	--	--	--
14...	1325	--	2,330	20.0	4,780	30,100	--	--	--
14...	1450	11.5	2,870	20.0	44,300	343,000	21	23	38
14...	1610	--	2,480	20.0	82,700	554,000	13	20	35
22...	1510	9.0	2,040	20.0	13,500	74,400	--	--	--
JUN									
01...	1410	12.0	1,630	20.0	10,100	44,500	--	--	--
12...	1345	12.5	1,550	20.0	6,820	28,500	--	--	--
21...	1250	11.0	3,720	20.0	10,200	102,000	--	--	--
29...	1320	13.0	1,920	20.0	8,760	45,400	--	--	--
JUL									
12...	1350	15.0	860	20.0	5,380	12,500	--	--	--
25...	1215	20.0	620	20.0	5,020	8,400	--	--	--
AUG									
01...	1315	17.0	410	20.0	3,120	3,450	--	--	--
09...	1250	16.5	327	10.0	2,020	1,780	--	--	--
14...	1410	22.0	310	10.0	1,420	1,190	--	--	--
SEP									
04...	1345	19.5	244	10.0	1,160	764	--	--	--
19...	1105	16.0	270	10.0	1,420	1,040	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT								
21...	--	--	37	58	86	98	100	--
NOV								
01...	--	--	61	--	--	--	--	--
03...	31	45	61	76	93	99	100	--
03...	--	--	62	82	96	99	100	--
04...	18	28	38	46	74	98	100	--
08...	--	--	29	--	--	--	--	--
14...	--	--	42	59	83	97	100	--
17...	19	28	38	50	80	97	100	--
17...	15	23	33	48	75	96	100	--
18...	--	--	--	--	--	--	--	--
20...	--	--	37	55	82	96	100	--
22...	--	--	34	49	73	96	99	100
28...	--	--	37	55	80	97	100	--
DEC								
05...	--	--	37	53	79	96	100	--
13...	--	--	31	43	71	92	98	100
21...	19	25	30	39	66	94	100	--
30...	28	39	50	64	86	98	100	--
JAN								
04...	--	--	43	59	80	85	98	100
06...	--	--	35	50	74	93	98	99
10...	--	--	33	46	73	93	98	99
18...	--	--	39	53	75	94	99	100
24...	24	35	47	61	79	94	99	100
25...	20	29	42	56	84	96	99	100
31...	--	--	39	--	--	--	--	--
FEB								
06...	--	--	29	47	74	95	100	--
13...	--	--	39	54	81	97	100	--
13...	18	26	36	51	76	94	99	100
21...	--	--	35	55	78	95	99	100
27...	--	--	35	49	76	94	99	100
MAR								
08...	--	--	41	55	81	96	100	--
21...	--	--	40	55	81	96	100	--
26...	--	--	36	50	76	93	99	100
29...	--	--	28	41	66	90	98	100
APR								
04...	--	--	37	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
10...	--	--	34	51	77	81	99	100
20...	--	--	45	--	--	--	--	--
27...	--	--	40	--	--	--	--	--
MAY								
03...	--	--	39	55	80	96	99	100
14...	--	--	34	49	71	91	98	100
14...	60	78	91	95	98	99	100	--
14...	54	74	85	92	97	99	100	--
22...	--	--	38	55	78	93	99	100
JUN								
01...	--	--	43	45	74	94	100	--
12...	--	--	46	--	--	--	--	--
21...	--	--	36	53	78	95	99	100
29...	--	--	39	--	--	--	--	--
JUL								
12...	--	--	42	59	85	98	100	--
25...	--	--	50	66	88	99	100	--
AUG								
01...	--	--	30	42	72	96	97	98
09...	--	--	31	48	81	97	100	--
14...	--	--	38	54	82	98	100	--
SEP								
04...	--	--	28	--	--	--	--	--
19...	--	--	21	32	67	94	99	100

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
OCT											
04...	1215	13.5	400	10.0	4,360	4,710	--	--	--	--	--
25...	1705	11.0	1,530	20.0	18,600	76,800	--	--	--	--	--
NOV											
01...	1330	6.0	1,060	20.0	6,500	18,600	--	--	--	--	--
02...	1520	--	4,990	20.0	38,200	515,000	9	12	17	30	45
03...	1440	7.5	4,540	20.0	17,700	217,000	--	--	--	--	--
08...	1430	6.5	1,580	20.0	15,300	65,300	--	--	--	--	--
16...	1355	5.5	1,770	20.0	8,320	39,800	--	--	--	--	--
26...	1420	7.5	1,340	20.0	7,240	26,200	--	--	--	--	--
DEC											
04...	1240	3.0	1,440	20.0	5,980	23,300	--	--	--	--	--
12...	1345	4.0	1,300	20.0	5,400	19,000	--	--	--	--	--
19...	1435	0.5	1,090	20.0	4,560	13,400	--	--	--	--	--
JAN											
03...	1505	4.5	1,030	20.0	2,680	7,450	--	--	--	--	--
09...	1350	3.0	1,100	20.0	3,200	9,500	--	--	--	--	--
16...	1345	5.0	925	20.0	3,590	8,970	--	--	--	--	--
23...	1305	3.5	935	20.0	3,640	9,190	--	--	--	--	--
31...	1025	2.5	635	20.0	3,080	5,280	--	--	--	--	--
FEB											
07...	1400	2.5	725	10.0	2,880	5,640	--	--	--	--	--
13...	1245	2.5	995	20.0	3,140	8,440	--	--	--	--	--
21...	1140	5.5	1,030	20.0	3,380	9,400	3	5	9	15	21
21...	1325	5.5	1,040	20.0	3,950	11,100	--	--	--	--	--
28...	1330	5.5	1,270	20.0	3,380	11,600	--	--	--	--	--
MAR											
06...	1120	4.0	1,000	20.0	2,600	7,020	--	--	--	--	--
13...	1350	7.0	715	20.0	2,350	4,540	--	--	--	--	--
21...	1300	4.5	1,160	20.0	3,420	10,700	--	--	--	--	--
26...	1120	4.0	1,270	20.0	4,350	14,900	--	--	--	--	--
APR											
05...	1235	9.5	1,490	20.0	3,850	15,500	--	--	--	--	--
11...	1410	11.5	2,140	20.0	9,040	52,200	--	--	--	--	--
18...	1300	7.5	1,350	20.0	4,020	14,700	--	--	--	--	--
23...	1155	6.0	1,500	20.0	4,020	16,300	--	--	--	--	--
30...	1330	9.0	1,660	20.0	3,160	14,200	--	--	--	--	--
MAY											
08...	1320	--	1,340	20.0	3,020	10,900	--	--	--	--	--
17...	1400	14.0	1,720	20.0	5,400	25,100	--	--	--	--	--
28...	1425	13.0	1,620	20.0	19,400	84,900	13	15	20	34	48
31...	1245	10.5	1,370	20.0	12,600	46,600	--	--	--	--	--
JUN											
07...	1555	11.0	6,050	20.0	29,100	475,000	10	12	18	29	43
08...	1145	9.5	4,000	20.0	15,200	164,000	7	8	14	23	33
10...	1340	12.0	2,320	20.0	10,300	64,500	9	11	14	22	31
20...	1640	19.0	1,150	20.0	7,510	23,300	--	--	--	--	--
JUL											
09...	1340	20.0	805	20.0	10,600	23,000	--	--	--	--	--
24...	1330	17.0	625	20.0	4,810	8,120	--	--	--	--	--
AUG											
08...	1415	19.0	670	20.0	5,540	10,000	--	--	--	--	--
23...	1415	18.5	420	20.0	2,150	2,440	--	--	--	--	--
SEP											
11...	1310	12.5	415	20.0	2,150	2,410	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
04...	--	39	--	57	--	86	--	97	--	99	100
25...	--	47	--	68	--	89	--	99	--	100	--
NOV											
01...	--	32	--	45	--	72	--	95	--	100	--
02...	--	57	--	76	--	92	--	98	--	100	--
03...	--	40	--	61	--	84	--	95	--	99	100
08...	--	45	--	61	--	84	--	98	--	100	--
16...	--	40	--	55	--	78	--	95	--	99	100
26...	--	38	--	55	--	80	--	97	--	100	--
DEC											
04...	--	33	--	49	--	75	--	93	--	100	--
12...	--	33	--	51	--	82	--	97	--	99	100
19...	--	29	--	45	--	76	--	95	--	99	100
JAN											
03...	--	37	--	52	--	79	--	95	--	99	100
09...	--	21	--	33	--	61	--	88	--	98	100
16...	--	26	--	44	--	73	--	95	--	100	--
23...	--	26	--	44	--	76	--	97	--	100	--
31...	--	25	--	42	--	74	--	96	--	100	--
FEB											
07...	--	22	--	33	--	71	--	96	--	100	--
13...	--	38	--	47	--	66	--	95	--	100	--
21...	--	30	--	43	--	67	--	93	--	100	--
21...	--	34	--	--	--	--	--	--	--	--	--
28...	--	28	--	40	--	65	--	93	--	99	100
MAR											
06...	--	26	--	38	--	63	--	90	--	99	100
13...	--	24	--	36	--	63	--	92	--	99	100
21...	29	29	48	--	76	--	94	--	100	--	--
26...	42	42	58	--	79	--	95	--	100	--	--
APR											
05...	26	19	42	--	70	--	92	--	100	--	--
11...	61	60	73	--	88	--	97	--	100	--	--
18...	36	38	56	--	79	--	93	--	100	--	--
23...	25	27	44	--	75	--	94	--	100	--	--
30...	19	20	30	--	59	--	90	--	100	--	--
MAY											
08...	30	33	43	--	69	--	91	--	100	--	--
17...	56	53	69	--	86	--	96	--	100	--	--
28...	63	61	81	--	93	--	99	--	100	--	--
31...	51	53	73	--	90	--	99	--	100	--	--
JUN											
07...	--	57	--	73	--	90	--	98	--	99	100
08...	49	49	69	--	87	--	98	--	100	--	--
10...	46	48	70	--	91	--	99	--	100	--	--
20...	38	42	60	--	85	--	98	--	100	--	--
JUL											
09...	48	51	72	--	91	--	98	--	100	--	--
24...	38	37	63	--	91	--	100	--	--	--	--
AUG											
08...	32	36	53	--	84	--	98	--	100	--	--
23...	29	31	51	--	86	--	99	--	100	--	--
SEP											
11...	80	31	84	--	95	--	100	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
OCT												
01...	1555	--	375	10.0	1,800	1,820	--	--	--	--	--	25
08...	1405	--	400	20.0	1,760	1,900	--	--	--	--	--	24
23...	1555	--	1,610	20.0	6,440	28,000	--	--	--	--	--	28
25...	1505	--	3,710	20.0	10,100	101,000	7	7	14	22	32	--
30...	1610	--	1,770	20.0	5,460	26,100	--	--	--	--	--	32
NOV												
07...	1635	--	4,440	20.0	7,980	95,700	--	--	--	--	--	39
08...	1420	--	3,930	20.0	7,820	83,000	--	--	--	--	--	37
14...	1325	--	1,160	20.0	3,730	11,700	--	--	--	--	--	23
20...	1300	--	1,330	20.0	3,740	13,400	--	--	--	--	--	19
DEC												
04...	1550	--	1,300	20.0	4,010	14,100	--	--	--	--	--	--
18...	1540	--	825	20.0	2,390	5,320	--	--	--	--	--	--
JAN												
06...	1425	--	1,450	20.0	2,820	11,000	--	--	--	--	--	--
16...	1655	--	1,460	20.0	3,840	15,100	--	--	--	--	--	26
19...	1115	--	4,370	20.0	14,600	172,000	10	11	15	28	41	60
19...	1335	--	4,360	20.0	15,000	177,000	--	--	--	--	--	53
21...	1550	--	2,280	20.0	8,940	55,000	--	--	--	--	--	--
29...	1700	--	1,460	20.0	5,590	22,000	--	--	--	--	--	--
FEB												
13...	1335	2.0	920	20.0	2,980	7,400	--	--	--	--	--	25
16...	1810	--	2,760	20.0	6,360	47,400	--	--	--	--	--	--
18...	1335	5.0	1,700	20.0	5,020	23,000	--	--	--	--	--	--
24...	1155	--	10,200	20.0	31,300	862,000	--	--	--	--	--	--
24...	1455	--	9,760	20.0	21,900	577,000	7	8	12	22	31	--
24...	1705	--	7,150	20.0	22,200	429,000	--	--	--	--	--	--
26...	1345	8.5	4,480	20.0	12,500	151,000	--	--	--	--	--	43
MAR												
12...	1505	--	2,070	20.0	10,200	57,000	--	--	--	--	--	38
APR												
02...	1335	--	1,330	20.0	4,620	16,600	--	--	--	--	--	29
21...	1355	--	1,140	20.0	3,960	12,200	--	--	--	--	--	22
30...	1410	--	1,380	20.0	3,560	13,300	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
01...	28	41	--	79	--	98	--	100	--	--	--
08...	31	40	--	81	--	99	--	100	--	--	--
23...	28	50	--	81	--	86	--	96	--	100	--
25...	41	--	56	--	83	--	96	--	99	--	100
30...	32	47	--	70	--	89	--	99	--	100	--
NOV											
07...	34	60	--	85	--	98	--	100	--	--	--
08...	37	55	--	77	--	91	--	99	--	100	--
14...	25	36	--	67	--	89	--	99	--	100	--
20...	18	32	--	61	--	89	--	98	--	100	--
DEC											
04...	20	--	--	--	--	--	--	--	--	--	--
18...	20	--	--	--	--	--	--	--	--	--	--
JAN											
06...	26	--	--	--	--	--	--	--	--	--	--
16...	29	41	--	65	--	90	--	99	--	100	--
19...	59	79	--	93	--	99	--	100	--	--	--
19...	53	70	--	86	--	97	--	100	--	--	--
21...	41	--	54	--	73	--	92	--	99	--	100
29...	24	--	37	--	61	--	86	--	98	--	100
FEB											
13...	24	40	--	74	--	95	--	99	--	100	--
16...	31	--	43	--	64	--	85	--	96	--	99
18...	27	--	38	--	58	--	85	--	98	--	100
24...	35	--	54	--	75	--	90	--	97	--	99
24...	42	--	61	--	83	--	95	--	99	--	100
24...	42	--	59	--	80	--	93	--	98	--	100
26...	41	65	--	88	--	97	--	100	--	--	--
MAR											
12...	38	62	--	87	--	97	--	100	--	--	--
APR											
02...	32	45	--	72	--	93	--	100	--	--	--
21...	33	35	--	66	--	91	--	100	--	--	--
30...	21	--	34	--	64	--	87	--	99	--	100

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
MAY												
21...	1410	1,700	20.0	3120	14,300	23	34	34	60	84	96	100
JUN												
02...	1340	1,090	20.0	2730	8,030	40	44	54	80	96	100	--
16...	1350	615	20.0	1930	3,200	--	32	--	--	--	--	--
JUL												
14...	1655	408	10.0	899	990	--	--	--	--	--	--	--
22...	1335	441	20.0	1120	1,330	--	28	--	--	--	--	--
AUG												
07...	1450	330	20.0	287	256	--	35	--	--	--	--	--
28...	1325	241	10.0	100	65	--	27	--	--	--	--	--
SEP												
09...	1225	313	10.0	428	362	--	35	--	--	--	--	--
17...	1520	275	10.0	104	77	--	27	--	--	--	--	--
24...	1510	570	20.0	948	1,460	--	46	--	--	--	--	--

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
OCT												
10...	1225	--	316	20.0	384	328	--	--	--	--	--	--
31...	1400	--	1,110	20.0	4,140	12,400	2	5	9	14	22	34
NOV												
11...	1425	--	830	20.0	1,810	4,060	--	--	--	--	--	32
20...	1225	--	3,470	20.0	24,400	229,000	--	--	--	--	--	63
20...	1615	8.5	3,870	20.0	15,800	165,000	--	--	--	--	--	55
21...	1545	--	4,300	20.0	8,780	102,000	5	6	9	15	22	32
22...	1310	--	5,000	20.0	7,760	105,000	6	7	10	17	26	39
22...	1445	--	4,950	20.0	6,980	93,300	--	--	--	--	--	36
24...	1050	--	12,600	20.0	16,100	548,000	6	7	12	16	25	38
24...	1530	--	9,730	20.0	12,000	315,000	--	--	--	--	--	41
25...	1140	--	5,340	20.0	9,580	138,000	--	--	--	--	--	44
DEC												
04...	1335	--	1,210	20.0	4,460	14,600	--	--	--	--	--	28
15...	1330	--	1,140	20.0	4,000	12,300	--	--	--	--	--	--
29...	1410	--	2,180	20.0	7,060	41,600	--	--	--	--	--	--
JAN												
13...	1420	--	1,450	20.0	3,680	14,400	--	--	--	--	--	--
27...	1315	--	1,740	20.0	3,880	18,200	--	--	--	--	--	--
FEB												
01...	1010	--	9,280	20.0	46,400	1,160,000	--	--	--	--	--	--
01...	1150	--	9,130	20.0	30,100	742,000	--	--	--	--	--	--
01...	1530	--	7,080	20.0	20,100	384,000	7	8	10	19	28	--
02...	1400	--	4,670	20.0	12,400	156,000	--	--	--	--	--	--
11...	1340	--	1,260	20.0	5,940	20,200	--	--	--	--	--	--
MAR												
02...	1300	--	2,220	20.0	8,750	52,400	--	--	--	--	--	26
04...	1015	--	5,830	20.0	17,800	280,000	9	9	12	23	33	47
04...	1245	--	5,170	20.0	17,900	250,000	--	--	--	--	--	48
09...	1305	--	1,830	20.0	9,050	44,700	--	--	--	--	--	32
26...	1615	--	1,260	20.0	3,850	13,100	--	--	--	--	--	31
APR												
02...	1425	--	958	20.0	2,900	7,500	--	--	--	--	--	--
16...	1315	--	1,390	20.0	3,560	13,400	--	--	--	--	--	--

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
MAY									
06...	1315	16.5	1,170	20.0	1,770	5,590	--	34	--
12...	1350	12.5	1,780	20.0	4,500	21,600	--	35	--
27...	1315	11.0	737	20.0	2,280	4,540	--	26	--
JUN									
10...	1255	17.0	726	20.0	2,130	4,180	--	43	--
29...	1255	23.0	501	20.0	1,020	1,380	--	49	--
JUL									
06...	1415	18.5	472	20.0	637	812	30	--	42
06...	1416	18.5	472	20.0	645	822	29	--	42
06...	1422	18.5	472	20.0	619	789	--	29	--
06...	1423	18.5	476	20.0	686	882	--	26	--
06...	1435	18.5	476	20.0	690	887	--	33	--
16...	1440	16.0	411	20.0	334	371	--	28	--
21...	1525	23.5	356	20.0	148	142	--	--	--
24...	1220	17.5	368	20.0	890	884	--	82	--
AUG									
04...	1320	21.0	307	20.0	435	361	--	35	--
SEP									
08...	1300	--	237	10.0	55	35	--	60	--

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

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
10...	23	--	--	--	--	--	--	--	--	--	--
31...	--	56	--	83	--	95	--	99	--	100	--
NOV											
11...	--	49	--	75	--	95	--	100	--	--	--
20...	--	77	--	92	--	99	--	100	--	--	--
20...	--	74	--	94	--	99	--	99	--	100	--
21...	--	50	--	79	--	97	--	99	--	100	--
22...	--	61	--	87	--	97	--	99	--	100	--
22...	--	56	--	84	--	98	--	99	--	100	--
24...	--	58	--	82	--	93	--	98	--	100	--
24...	--	59	--	80	--	96	--	99	--	100	--
25...	--	62	--	83	--	96	--	99	--	100	--
DEC											
04...	--	45	--	71	--	95	--	100	--	--	--
15...	26	--	37	--	67	--	93	--	99	--	100
29...	30	--	48	--	72	--	93	--	99	--	100
JAN											
13...	16	--	24	--	44	--	86	--	98	--	100
27...	22	--	31	--	52	--	84	--	97	--	100
FEB											
01...	49	--	--	--	--	--	--	--	--	--	--
01...	45	--	65	--	84	--	96	--	99	--	100
01...	38	--	56	--	76	--	91	--	98	--	99
02...	40	--	57	--	77	--	93	--	100	--	--
11...	30	--	46	--	71	--	92	--	98	--	99
MAR											
02...	--	45	--	76	--	94	--	99	--	100	--
04...	--	69	--	91	--	98	--	100	--	--	--
04...	--	69	--	89	--	98	--	99	--	100	--
09...	--	48	--	76	--	94	--	98	--	100	--
26...	--	47	--	80	--	99	--	100	--	--	--
APR											
02...	40	--	--	--	--	--	--	--	--	--	--
16...	25	--	--	--	--	--	--	--	--	--	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
MAY								
06...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--
JUN								
10...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
JUL								
06...	--	74	--	97	--	100	--	--
06...	--	77	--	99	--	100	--	--
06...	39	--	68	--	94	--	98	100
06...	36	--	63	--	89	--	93	96
06...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
AUG								
04...	--	--	--	--	--	--	--	--
SEP								
08...	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
DEC											
30...	1140	0	3	13	39	70	88	95	99	100	--
30...	1145	0	2	12	37	58	73	85	93	100	--
30...	1150	0	2	9	21	33	50	64	75	86	100
30...	1155	0	0	3	7	14	60	90	98	100	--
JAN											
04...	1255	1	5	21	62	80	86	90	92	96	100
04...	1300	0	1	5	16	40	60	75	88	100	--
04...	1305	1	2	7	20	41	62	78	87	94	100
04...	1310	0	2	6	20	42	64	81	91	100	--
04...	1315	0	1	2	3	6	17	49	84	96	100
10...	1320	0	1	9	32	57	73	80	85	89	100
10...	1325	0	2	12	34	67	82	88	94	100	--
25...	1355	0	1	2	10	46	80	95	99	100	--
25...	1400	1	5	13	20	26	30	35	38	41	100
25...	1405	1	2	8	16	29	49	72	87	100	--
25...	1410	0	2	6	18	50	72	81	88	97	100
25...	1415	0	1	2	3	5	14	36	66	92	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
JAN												
16...	1430	0	0	0	0	11	65	94	100	--	--	--
16...	1432	0	0	1	1	2	18	59	96	100	--	--
16...	1434	0	0	1	1	1	2	3	4	13	13	100
16...	1436	0	2	15	40	65	73	76	78	87	87	100
31...	1108	0	0	1	1	7	47	91	100	--	--	--
31...	1110	0	0	2	4	6	23	49	72	97	100	--
31...	1112	0	1	6	29	61	77	82	87	93	100	--
31...	1114	0	0	4	27	64	86	93	97	98	100	--
FEB												
07...	1430	0	0	1	1	12	53	92	98	100	--	--
07...	1432	0	0	5	10	16	38	61	81	94	100	--
07...	1434	0	0	3	22	60	88	95	97	100	--	--
07...	1436	0	0	3	17	38	50	59	73	83	100	--
13...	1310	0	0	0	0	3	30	75	94	100	--	--
13...	1315	0	0	2	3	6	31	60	80	98	100	--
13...	1320	0	0	2	10	23	34	40	47	59	85	100
13...	1325	1	1	7	33	58	69	72	80	100	--	--
20...	1200	13	38	76	95	99	100	--	--	--	--	--
20...	1205	8	28	65	92	98	100	--	--	--	--	--
20...	1210	9	22	53	93	99	100	--	--	--	--	--
20...	1215	9	20	45	91	99	100	--	--	--	--	--
20...	1220	9	24	60	91	98	99	100	--	--	--	--
21...	1615	0	2	13	31	37	40	41	41	41	100	--
21...	1617	0	1	6	20	36	50	59	78	100	--	--
21...	1619	0	0	1	4	7	10	12	21	48	64	100
21...	1621	0	0	2	14	45	70	80	90	100	--	--
21...	1623	0	0	1	1	2	10	28	54	87	100	--
28...	1355	0	0	1	1	11	51	89	98	100	--	--
28...	1400	0	0	2	13	34	48	57	67	89	100	--
28...	1405	0	0	1	9	25	43	52	60	71	100	--
28...	1410	0	0	1	3	6	8	10	10	24	100	--
28...	1415	0	2	18	72	92	96	98	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAR												
03...	1420	0	0	1	1	1	13	53	91	100	--	--
03...	1423	0	0	6	41	85	96	98	100	--	--	--
03...	1427	0	1	5	36	75	89	94	97	100	--	--
06...	1411	0	0	2	12	38	55	62	69	73	100	--
06...	1425	0	0	2	12	29	38	46	61	76	100	--
06...	1428	0	0	3	5	6	20	45	70	94	100	--
06...	1442	0	0	2	11	30	41	49	59	91	100	--
21...	1320	0	0	0	1	1	19	54	86	98	100	--
21...	1322	0	0	2	11	26	37	46	61	83	100	--
21...	1324	0	0	0	1	1	1	1	1	1	1	100
21...	1326	0	0	4	17	35	44	48	55	74	100	--
26...	1138	0	1	5	23	44	55	60	66	74	100	--
26...	1140	0	1	5	27	63	88	97	100	--	--	--
26...	1143	0	0	1	2	3	11	38	60	77	100	--
26...	1147	0	0	0	1	1	8	20	34	72	100	--
APR												
05...	1315	0	0	3	22	71	93	98	100	--	--	--
05...	1320	0	0	3	20	58	80	90	96	100	--	--
11...	1444	0	3	22	83	93	94	95	100	--	--	--
11...	1448	0	1	5	20	52	69	78	83	92	100	--
11...	1450	0	0	2	5	15	36	59	78	92	100	--
11...	1453	0	0	1	1	5	23	51	83	97	100	--
18...	1320	0	0	2	5	8	21	45	73	90	100	--
18...	1325	0	1	2	6	16	45	66	79	100	--	--
23...	1331	0	0	1	7	24	64	82	99	100	--	--
23...	1340	0	0	2	9	24	35	44	51	100	--	--
30...	1520	0	0	2	14	44	64	75	84	88	100	--
30...	1525	0	0	1	4	10	18	27	40	78	100	--
30...	1529	0	0	1	8	24	37	50	67	80	100	--
30...	1533	0	0	1	4	7	15	30	66	95	100	--
MAY												
08...	1340	0	0	2	14	32	49	62	80	93	100	--
08...	1342	0	0	1	7	17	27	39	61	86	100	--
08...	1345	0	0	2	9	18	22	25	35	75	100	--
08...	1350	0	0	0	1	2	3	4	7	16	26	100
28...	1447	0	1	2	6	11	17	28	64	100	--	--
28...	1455	1	4	12	23	35	44	51	60	90	100	--
28...	1458	0	1	2	11	30	49	67	86	98	100	--
28...	1504	1	1	6	23	43	62	80	94	100	--	--
31...	1305	0	1	3	12	32	55	66	72	80	100	--
31...	1312	0	1	3	11	29	53	74	92	100	--	--
31...	1319	0	1	3	10	23	35	55	84	93	100	--
31...	1322	0	3	9	25	44	59	74	94	100	--	--
JUN												
07...	1635	0	2	8	20	27	30	33	37	57	100	--
07...	1642	0	2	12	36	64	79	86	91	97	100	--
07...	1648	0	2	9	21	38	55	66	71	80	100	--
07...	1652	0	1	3	9	23	54	81	96	100	--	--
07...	1658	0	1	1	2	4	26	75	91	94	100	--
08...	1325	1	3	9	26	64	83	90	96	100	--	--
08...	1331	0	1	9	29	46	58	66	73	81	81	100
08...	1336	0	1	13	39	62	78	87	95	100	--	--
08...	1341	0	1	3	7	13	23	35	49	66	100	--
08...	1345	0	0	1	1	3	14	36	58	83	100	--
20...	1708	2	14	64	99	100	--	--	--	--	--	--
20...	1714	0	6	42	72	80	85	92	100	--	--	--
20...	1717	0	4	23	55	82	91	95	98	100	--	--
20...	1723	0	0	2	6	15	26	37	55	84	100	--
20...	1726	0	1	3	6	11	23	45	70	94	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
JUL												
09...	1400	1	6	32	50	55	61	70	81	100	--	--
09...	1402	1	4	20	52	74	86	93	99	100	--	--
09...	1406	2	7	24	58	82	92	97	99	100	--	--
09...	1409	0	1	3	10	26	43	59	78	96	100	--
09...	1414	0	2	11	22	38	60	79	94	100	--	--
24...	1353	0	2	11	19	23	28	34	43	63	100	--
24...	1356	0	4	24	60	78	88	94	98	100	--	--
24...	1358	1	6	26	60	87	95	97	99	100	--	--
24...	1400	1	5	16	38	65	79	89	97	100	--	--
24...	1404	0	1	5	7	17	61	93	100	--	--	--
AUG												
08...	1444	0	2	18	65	84	88	91	93	94	100	--
08...	1448	0	1	8	31	51	60	68	77	88	100	--
08...	1452	0	0	3	7	22	39	50	63	84	100	--
08...	1455	0	1	4	8	13	33	59	80	90	100	--
23...	1425	0	2	20	61	85	97	100	--	--	--	--
23...	1427	0	0	2	17	62	94	99	100	--	--	--
23...	1429	0	0	2	6	14	22	29	46	70	100	--
23...	1431	0	1	11	53	78	84	87	92	100	--	--
23...	1433	0	0	2	7	13	20	25	35	59	74	100
SEP												
11...	1330	0	1	10	17	22	31	48	66	100	--	--
11...	1334	0	1	12	42	66	79	86	93	100	--	--
11...	1336	0	3	19	69	93	97	99	100	--	--	--
11...	1339	0	2	13	50	86	95	98	99	100	--	--
11...	1344	0	3	11	17	21	24	25	27	33	65	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT												
08...	1427	0	0	1	1	7	37	74	97	100	--	--
08...	1431	0	0	5	23	41	50	57	66	82	91	100
08...	1434	0	1	14	63	94	98	100	--	--	--	--
08...	1437	0	1	6	21	36	45	54	68	98	100	--
08...	1439	0	0	3	12	31	48	64	78	91	100	--
23...	1615	2	12	60	94	98	99	100	--	--	--	--
23...	1620	1	2	10	20	24	27	29	29	29	100	--
23...	1632	0	0	2	8	15	26	41	58	77	100	--
23...	1638	0	1	3	9	23	46	64	74	88	100	--
23...	1644	0	0	2	7	18	40	61	80	93	100	--
25...	1528	0	1	4	18	50	77	90	96	100	--	--
25...	1532	0	2	11	27	46	59	69	82	100	--	--
25...	1535	0	1	8	26	48	70	84	96	100	--	--
25...	1544	0	0	1	3	10	28	46	60	71	86	100
25...	1556	0	0	0	0	1	7	27	66	92	100	--
30...	1625	0	1	5	24	56	74	82	90	98	100	--
30...	1629	1	3	23	48	57	62	66	70	78	100	--
30...	1634	0	1	4	21	41	53	61	69	82	100	--
30...	1635	0	1	3	16	43	63	74	83	100	--	--
30...	1641	0	0	1	3	8	20	39	68	91	100	--
NOV												
08...	1435	0	0	1	3	12	26	43	68	93	100	--
08...	1442	0	1	6	21	56	79	86	92	100	--	--
08...	1449	0	0	5	36	76	86	88	88	88	100	--
08...	1454	0	0	1	4	10	23	40	57	82	100	--
08...	1458	0	0	0	1	1	4	24	76	100	--	--
14...	1351	0	1	7	26	61	83	91	97	99	100	--
14...	1355	0	0	3	15	48	75	83	89	97	100	--
14...	1358	0	0	1	4	11	23	45	77	97	100	--
20...	1330	0	0	1	4	9	13	16	25	64	100	--
20...	1335	0	0	2	13	34	51	66	83	100	--	--
20...	1337	0	0	1	3	14	48	81	98	100	--	--
20...	1340	0	0	1	4	13	36	77	96	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
DEC												
04...	1618	0	0	3	15	28	40	57	80	97	100	--
04...	1623	0	0	2	8	13	17	19	21	25	100	--
04...	1626	0	0	3	21	55	81	93	100	--	--	--
04...	1630	0	0	2	9	22	46	68	83	96	100	--
18...	1605	0	0	6	18	32	45	58	74	100	--	--
18...	1608	0	0	1	11	25	36	44	60	83	100	--
18...	1610	0	0	2	9	20	25	28	32	45	100	--
18...	1617	0	0	1	6	22	40	51	60	72	75	100
18...	1620	0	0	2	5	14	38	67	93	98	100	--
JAN												
16...	1715	0	1	11	42	76	93	99	100	--	--	--
16...	1718	0	0	2	13	39	66	83	93	100	--	--
16...	1724	0	0	1	10	27	37	46	55	63	100	--
16...	1727	0	0	1	3	11	36	63	86	98	100	--
16...	1730	0	0	0	1	2	10	48	85	92	100	--
19...	1354	0	1	2	4	7	14	24	43	67	100	--
19...	1358	1	3	12	38	62	78	87	92	100	--	--
19...	1404	0	0	2	7	16	25	30	34	41	46	100
19...	1416	0	1	3	8	13	23	32	40	59	71	100
19...	1423	0	2	7	10	12	17	29	62	100	--	--
21...	1615	0	1	6	20	45	65	76	83	93	100	--
21...	1618	0	1	4	27	64	81	89	95	100	--	--
21...	1626	0	0	3	13	30	43	47	52	62	100	--
21...	1628	0	0	2	11	29	48	61	72	83	100	--
21...	1631	0	0	1	2	7	27	50	72	82	100	--
FEB												
13...	1346	0	0	0	1	12	31	55	73	87	87	100
13...	1352	0	1	8	34	74	89	94	97	100	--	--
13...	1353	0	0	3	26	80	95	99	100	--	--	--
13...	1357	0	0	1	5	12	21	36	55	82	100	--
13...	1400	0	3	14	38	62	83	93	100	--	--	--
18...	1350	0	0	1	3	6	24	53	81	96	100	--
18...	1352	0	0	2	8	28	53	70	82	88	100	--
18...	1355	0	0	1	2	6	12	19	28	60	100	--
18...	1359	0	0	2	13	47	83	93	96	100	--	--
18...	1402	1	3	12	32	54	74	89	96	100	--	--
24...	1623	0	2	9	29	70	92	97	100	--	--	--
24...	1627	0	1	5	15	30	41	51	63	85	100	--
24...	1631	0	1	4	13	30	47	58	74	91	100	--
24...	1635	0	1	3	9	28	51	65	76	92	100	--
24...	1638	0	0	1	1	1	5	19	57	87	100	--
26...	1404	0	1	2	4	9	24	45	68	89	100	--
26...	1413	0	1	6	13	18	22	28	33	37	100	--
26...	1417	0	1	1	2	4	5	6	6	15	100	--
26...	1422	0	1	6	18	38	59	74	88	97	100	--
APR												
02...	1401	0	0	4	27	66	85	90	94	99	100	--
02...	1406	0	1	5	18	34	43	45	46	53	100	--
02...	1408	0	0	2	14	40	70	81	86	92	100	--
02...	1411	0	0	1	1	4	13	26	52	95	100	--
18...	1320	0	0	2	5	8	22	45	71	90	100	--
18...	1325	0	0	1	6	16	45	66	76	100	--	--
21...	1418	0	1	8	38	83	95	98	99	100	--	--
21...	1425	0	0	3	15	34	47	56	67	80	88	100
21...	1429	0	0	2	7	27	50	66	78	85	100	--
21...	1433	0	0	1	1	4	17	37	67	98	100	--
30...	1434	0	1	5	23	55	69	73	79	88	100	--
30...	1440	0	0	2	10	31	50	61	71	76	100	--
30...	1442	0	0	2	10	33	65	81	93	100	--	--
30...	1445	0	0	0	0	1	5	31	73	98	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAY												
06...	1358	0	1	7	36	81	96	98	100	--	--	--
06...	1401	0	1	7	24	52	80	90	95	100	--	--
06...	1409	0	1	3	6	11	18	27	45	70	100	--
06...	1413	0	0	0	0	1	7	27	59	91	100	--
21...	1455	0	0	1	1	1	1	1	1	1	12	100
21...	1505	0	0	3	16	40	55	62	67	81	100	--
21...	1511	0	0	1	5	13	23	28	33	39	61	100
21...	1515	0	0	0	1	2	17	44	78	90	100	--
21...	1519	0	0	0	0	0	10	41	69	94	100	--
JUN												
02...	1408	0	0	3	24	57	69	74	78	89	100	--
02...	1410	0	0	3	15	42	61	70	80	89	100	--
02...	1413	0	0	0	1	9	28	47	70	86	100	--
02...	1415	0	0	0	0	0	0	0	0	1	1	100
16...	1414	0	0	5	29	54	64	69	76	89	100	--
16...	1416	0	1	6	36	73	87	93	97	100	--	--
16...	1419	0	0	0	3	21	51	73	86	100	--	--
16...	1422	0	0	0	1	6	24	45	71	91	100	--
JUL												
22...	1400	0	0	2	15	41	66	77	84	96	100	--
22...	1403	0	0	1	13	33	51	64	77	89	100	--
22...	1405	0	0	1	4	19	39	54	69	85	100	--
22...	1408	0	0	1	2	8	32	65	86	95	100	--
AUG												
07...	1525	0	0	1	9	23	34	42	54	74	100	--
07...	1530	0	0	1	7	38	75	90	97	98	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT												
31...	1420	0	1	4	19	41	49	52	55	61	100	--
31...	1423	0	0	1	4	8	11	11	12	16	41	100
31...	1425	0	0	1	3	10	26	37	52	88	100	--
31...	1427	0	0	1	2	4	25	51	76	96	100	--
NOV												
11...	1439	0	0	2	28	86	94	95	96	98	100	--
11...	1443	0	0	1	11	36	58	67	77	100	--	--
11...	1445	0	0	1	3	14	35	55	78	94	100	--
11...	1447	0	0	1	1	3	23	53	80	95	100	--
21...	1603	0	2	8	23	51	72	85	95	100	--	--
21...	1605	0	1	5	22	48	65	72	78	84	100	--
21...	1609	0	1	17	86	100	--	--	--	--	--	--
21...	1615	0	1	3	12	31	54	68	79	91	100	--
22...	1325	0	1	4	13	35	73	91	98	100	--	--
22...	1329	0	1	4	15	35	50	58	66	85	100	--
22...	1333	0	0	3	8	13	18	22	27	35	35	100
22...	1339	0	0	1	3	5	12	19	26	39	54	100
22...	1343	0	0	1	3	6	19	37	67	92	100	--
24...	1118	0	2	8	24	64	84	89	93	97	100	--
24...	1126	0	1	2	4	9	14	21	36	69	100	--
24...	1131	0	1	3	11	25	44	60	79	92	100	--
24...	1138	0	1	3	6	12	26	47	66	82	100	--
24...	1144	0	0	1	2	3	11	31	62	94	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
DEC												
04...	1359	0	1	7	52	92	97	98	99	99	100	--
04...	1400	0	1	4	18	55	79	86	92	98	100	--
04...	1403	0	0	0	1	5	27	43	64	88	100	--
04...	1405	0	0	0	1	1	9	26	60	98	100	--
15...	1348	0	0	0	1	1	1	1	1	1	1	100
15...	1350	0	1	9	53	89	94	96	96	97	100	--
15...	1352	0	1	5	20	51	76	87	95	100	--	--
15...	1359	0	0	1	1	8	36	58	77	88	100	--
15...	1401	0	0	0	1	6	45	81	92	94	100	--
29...	1433	0	2	11	46	81	90	93	97	98	100	--
29...	1442	0	1	3	13	31	47	57	71	85	100	--
29...	1446	0	0	1	2	7	19	39	67	86	100	--
29...	1449	0	0	1	1	1	4	14	38	72	87	100
JAN												
13...	1450	0	0	1	7	13	24	34	49	68	72	100
13...	1456	0	0	3	17	37	50	56	65	89	100	--
13...	1459	0	0	1	6	23	38	45	53	63	100	--
13...	1503	0	0	1	7	31	58	73	85	91	100	--
27...	1335	0	1	5	19	49	77	89	96	100	--	--
27...	1338	0	0	2	12	32	47	55	63	80	100	--
27...	1343	0	0	2	11	31	51	64	78	92	100	--
27...	1348	0	0	1	2	7	29	56	87	100	--	--
28...	1430	0	0	1	6	14	20	24	31	49	100	--
FEB												
01...	1205	1	1	3	4	6	14	31	50	77	100	--
01...	1210	0	2	4	7	13	21	31	49	84	100	--
01...	1215	3	4	10	19	30	40	47	56	80	100	--
01...	1220	1	3	7	17	27	40	49	62	93	100	--
01...	1225	1	4	11	21	28	34	38	41	50	100	--
MAR												
04...	1200	0	2	6	22	56	75	82	87	92	100	--
04...	1205	1	1	3	10	24	36	46	62	82	84	100
04...	1213	1	2	10	29	51	67	78	90	100	--	--
04...	1218	1	1	4	12	25	40	51	63	77	100	--
04...	1221	0	1	2	5	9	21	34	57	77	100	--
09...	1459	0	0	2	8	21	34	43	53	64	71	100
09...	1503	0	1	5	23	50	73	85	94	100	--	--
09...	1507	0	0	2	8	18	31	44	56	66	76	100
09...	1511	0	0	0	2	7	21	39	60	80	86	100
13...	1420	0	0	1	1	2	27	65	82	91	100	--
13...	1524	0	0	1	1	1	11	37	74	92	100	--
13...	1530	0	0	1	1	1	17	52	76	87	100	--
13...	1536	0	0	2	2	4	21	47	73	90	100	--
13...	1540	0	1	2	3	4	12	26	42	68	100	--
26...	1639	0	1	8	44	72	79	82	84	86	100	--
26...	1641	0	0	4	23	56	75	85	92	98	100	--
26...	1643	0	0	2	5	27	62	79	87	95	100	--
26...	1646	0	1	2	2	4	18	46	76	92	100	--
APR												
02...	1444	0	2	17	61	84	93	97	99	100	--	--
02...	1448	0	0	2	13	28	41	52	64	88	100	--
02...	1455	0	0	1	8	44	69	79	89	97	100	--
02...	1459	0	1	3	4	5	20	41	72	98	100	--
16...	1337	0	0	5	25	45	58	68	79	95	100	--
16...	1345	0	0	3	19	46	63	72	79	90	100	--
16...	1347	0	0	2	12	29	46	64	82	92	100	--
16...	1355	0	0	2	4	5	10	28	73	98	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAY												
06...	1334	0	1	6	41	66	68	68	68	68	81	100
06...	1338	0	0	0	3	6	8	10	11	14	100	--
06...	1346	0	0	1	5	20	53	69	76	83	100	--
06...	1350	0	0	0	1	2	23	55	83	97	100	--
27...	1329	0	0	1	3	9	33	68	91	100	--	--
27...	1331	0	0	1	6	16	39	64	87	100	--	--
27...	1337	0	2	8	30	61	77	85	92	100	--	--
27...	1340	0	1	8	38	74	90	95	98	100	--	--
JUN												
10...	1442	0	0	0	0	0	0	0	1	18	100	--
10...	1445	1	2	10	53	94	99	100	--	--	--	--
10...	1449	0	0	3	19	45	71	82	91	99	100	--
10...	1453	0	0	1	2	8	36	67	90	100	--	--
10...	1458	0	0	0	0	1	18	58	92	100	--	--
29...	1345	0	0	0	0	1	21	70	96	100	100	--
29...	1347	0	2	9	32	61	78	85	90	94	100	--
29...	1351	0	0	6	36	68	84	90	96	98	100	--
29...	1354	0	0	2	3	6	21	36	48	52	52	100
JUL												
06...	1544	0	0	1	2	7	16	29	49	86	100	--
06...	1548	1	5	24	65	92	98	99	100	--	--	--
06...	1552	0	1	5	24	46	62	70	82	92	100	--
06...	1555	0	0	0	0	3	32	67	95	100	--	--
06...	1557	0	0	2	2	4	26	63	89	96	100	--
24...	1228	0	0	0	0	0	0	0	0	0	0	100
24...	1233	8	8	8	8	8	11	13	17	30	100	--
24...	1236	0	0	1	8	17	24	30	40	68	100	--
24...	1240	0	0	0	4	18	44	71	88	97	100	--
24...	1243	5	5	5	5	5	8	11	21	28	100	--

14241490 SOUTH FORK TOUTLE RIVER AT CAMP 12 NEAR TOUTLE, WA

LOCATION.--Lat 46°19'05", long 122°40'01", in NE ¼ SW ¼ sec. 35, T.10 N., R.1 E., Cowlitz County, Hydrologic Unit 17080005, on right bank 0.9 mi downstream from Johnson Creek, 1.2 mi southeast of Toutle, and at mile 3.4.

DRAINAGE AREA.--117 mi².

PERIOD OF SEDIMENT DATA.--October 1980 through September 1987.

GAGE.--Water-stage recorder. Altitude of gage is 510 ft from topographic map. Prior to Dec. 22, 1982, gage located 1.6 mi upstream at different datum.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended-sediment concentration, mgL ⁻¹
1981	Dec. 26, 1980	1345	34,600
1982	Oct. 6, 1981	1735	25,800
1983	Dec. 3, 1982	1635	29,800
1984	Nov. 3, 1983	1110	21,600
1985	Nov. 2, 1984	1155	1,940
1986	Feb. 24, 1986	0600	2,400
1987	Feb. 1, 1987	1230	6,980

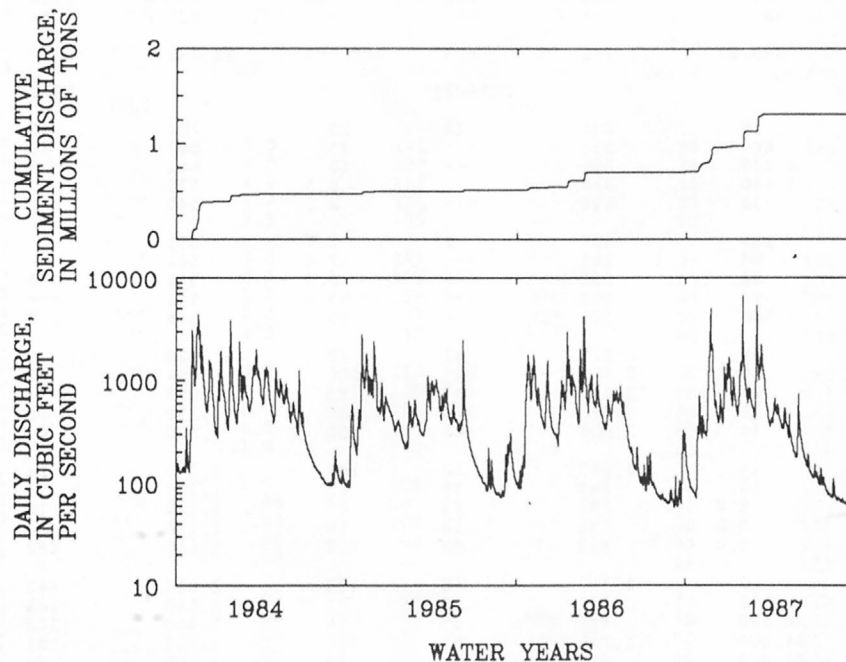


Figure 11.--Cumulative daily suspended-sediment discharge and daily mean stream discharge, water years 1984-87, South Fork Toutle River at Camp 12 near Toutle, Wash. (14241490).

14241490 SOUTH FORK TOUTLE RIVER AT CAMP 12 NEAR TOUTLE, WA
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	131	11	3.9	337	297	336	674	18	33
2	134	12	4.3	641	834	1,660	621	17	29
3	134	11	4.0	3,050	6,810	66,200	557	14	21
4	154	5	2.1	2,520	2,900	21,900	504	14	19
5	134	4	1.4	1,460	---	5,800	533	17	24
6	131	6	2.1	1,450	---	5,200	497	14	19
7	128	4	1.4	1,300	846	2,970	511	35	56
8	128	2	.69	1,040	503	1,410	759	39	80
9	125	4	1.4	893	302	728	789	35	75
10	128	4	1.4	892	476	1,150	1,570	366	1,550
11	128	2	.69	1,220	987	3,250	1,460	112	442
12	128	4	1.4	1,350	1,310	5,450	1,320	99	353
13	128	5	1.7	2,380	2,950	22,000	1,390	62	233
14	140	14	5.3	3,280	2,470	21,900	1,450	76	298
15	133	4	1.4	3,190	2,790	24,000	1,180	36	115
16	128	1	.35	3,510	4,080	38,700	965	35	91
17	144	---	1.5	4,380	5,020	59,400	799	37	80
18	138	---	1.0	3,300	5,330	47,500	701	---	40
19	132	---	1.0	2,570	3,740	27,500	611	---	13
20	136	---	1.0	3,050	1,940	16,800	518	6	8.4
21	129	---	1.5	1,970	662	3,520	434	---	7.0
22	341	---	440	1,410	312	1,190	380	---	6.0
23	210	---	40	1,190	357	1,150	323	---	5.0
24	169	---	6.0	2,190	990	5,850	300	---	5.0
25	147	---	3.0	2,020	398	2,170	330	56	50
26	147	4	1.6	1,480	113	452	340	31	28
27	137	---	1.5	1,270	63	216	310	22	18
28	134	---	1.0	1,110	51	153	280	---	15
29	128	---	1.0	930	32	80	480	---	80
30	197	---	95	789	32	68	985	166	441
31	332	377	367	---	---	---	820	54	120
TOTAL	4,733	---	995.63	56,172	---	388,703	22,391	---	4,354.4
JANUARY			FEBRUARY			MARCH			
1	643	22	38	602	18	29	701	12	23
2	800	82	201	533	---	15	696	10	19
3	1,760	469	2,370	490	---	10	641	6	10
4	1,920	282	1,460	448	---	8.5	576	7	11
5	1,530	128	529	418	---	8.0	525	---	9.5
6	1,190	58	186	407	7	7.7	511	---	7.5
7	1,010	36	98	381	---	7.0	504	---	7.0
8	857	27	62	398	---	8.5	511	5	6.9
9	733	22	44	506	---	35	541	---	9.0
10	771	48	100	520	---	25	634	9	15
11	747	18	36	679	41	82	629	5	8.5
12	666	---	30	2,380	625	5,600	864	21	52
13	597	---	27	2,350	438	2,780	910	21	52
14	532	---	22	1,560	246	1,040	1,310	65	244
15	479	---	18	1,260	148	503	1,390	47	176
16	440	---	14	1,040	58	163	1,210	21	69
17	396	---	10	845	18	41	1,190	21	67
18	368	---	8.0	732	23	45	1,140	16	49
19	348	6	5.6	653	10	18	1,140	20	62
20	332	---	5.0	869	63	180	1,460	182	1,000
21	350	---	10	1,110	46	138	2,010	440	2,390
22	557	---	210	901	29	71	1,640	169	748
23	1,220	951	6,570	836	25	56	1,460	102	402
24	3,770	2,090	24,200	1,100	51	151	1,200	61	198
25	3,850	1,820	20,600	986	21	56	1,090	52	153
26	2,310	560	3,670	829	8	18	1,220	70	231
27	1,580	212	904	723	7	14	1,050	37	105
28	1,200	97	314	707	9	17	1,080	52	152
29	970	46	120	656	12	21	977	32	84
30	813	31	68	---	---	---	852	25	58
31	683	25	46	---	---	---	749	22	44
TOTAL	33,422	---	61,975.6	24,919	---	11,147.7	30,411	---	6,462.4

14241490 SOUTH FORK TOUTLE RIVER AT CAMP 12 NEAR TOUTLE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	692	21	39	821	36	109	454	---	1.0
2	683	16	30	1,320	48	171	415	---	1.0
3	639	16	28	1,130	18	55	393	1	1.1
4	593	20	32	881	---	25	489	1	1.3
5	611	20	33	856	---	25	477	1	1.3
6	606	---	25	818	---	20	465	1	1.3
7	1,180	72	271	721	---	15	532	3	4.3
8	1,270	26	89	797	---	15	564	4	6.1
9	1,040	17	48	781	---	15	619	6	10
10	1,190	16	51	691	---	10	553	4	6.0
11	1,200	13	42	910	---	50	507	2	2.7
12	1,330	22	79	1,030	---	50	465	1	1.3
13	1,170	10	32	938	---	40	438	3	3.5
14	1,090	9	26	937	---	40	420	5	5.7
15	1,230	16	53	906	15	37	386	4	4.2
16	1,030	9	25	797	6	13	357	3	2.9
17	835	5	11	688	1	1.9	333	3	2.7
18	755	5	10	611	1	1.6	312	5	4.2
19	695	8	15	661	4	7.1	300	4	3.2
20	629	7	12	704	2	3.8	507	63	106
21	587	---	10	596	1	1.6	1,250	124	418
22	557	---	10	713	8	19	837	15	34
23	530	---	8.5	916	9	22	635	10	17
24	491	---	8.0	767	2	4.1	522	7	9.9
25	470	---	7.5	710	1	1.9	450	6	7.3
26	425	6	6.9	843	1	2.3	439	7	8.3
27	389	4	4.2	724	1	2.0	404	---	6.5
28	396	6	6.4	651	1	1.8	363	---	5.0
29	422	4	4.6	610	1	1.6	492	18	24
30	473	5	6.4	600	1	1.6	398	---	8.5
31	---	---	---	525	---	1.5	---	---	---
TOTAL	23,208	---	1,023.5	24,653	---	763.8	14,776	---	708.3
JULY			AUGUST			SEPTEMBER			
1	344	---	5.5	131	---	0.70	125	---	0.70
2	319	---	4.5	130	---	.70	107	---	.60
3	299	---	4.0	127	---	.70	101	---	.55
4	283	---	4.0	125	---	.70	98	---	.55
5	270	---	3.5	125	---	.70	121	10	3.3
6	255	---	3.0	127	---	1.0	184	28	14
7	243	---	2.5	120	---	.95	185	13	6.5
8	232	---	2.5	116	---	.95	205	---	5.5
9	223	---	2.5	113	---	.90	147	---	3.0
10	216	---	2.5	112	---	.90	130	---	2.5
11	210	---	2.0	110	---	.90	129	---	2.5
12	206	4	2.2	109	---	.90	147	---	3.0
13	198	---	2.0	111	---	.90	125	---	2.0
14	192	---	1.5	105	---	.85	115	---	1.5
15	188	---	1.5	103	3	.83	110	---	1.5
16	184	---	1.0	101	---	.80	108	---	1.0
17	181	2	.98	101	---	.80	104	---	.85
18	175	---	.95	100	---	.80	104	3	.84
19	171	---	.90	98	---	.80	101	---	.80
20	167	---	.90	97	---	.80	101	---	.80
21	162	---	.85	96	---	.75	99	---	.80
22	158	---	.85	96	---	.70	131	---	2.5
23	152	---	.80	97	---	.65	125	---	1.5
24	148	---	.80	100	---	.60	122	---	1.5
25	144	---	.80	97	---	.55	110	4	1.2
26	146	---	.80	95	---	.50	107	---	1.5
27	140	---	.75	96	2	.52	104	---	1.5
28	140	---	.75	100	---	.55	101	---	2.0
29	137	---	.75	96	---	.50	96	---	2.0
30	134	---	.70	94	---	.50	96	---	2.0
31	131	---	.70	100	---	.55	---	---	---
TOTAL	6,148	---	56.98	3,328	---	22.95	3,638	---	68.49
YEAR	247,799		476,282.75 TONS						

14241490 SOUTH FORK TOUTLE RIVER AT CAMP 12 NEAR TOUTLE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	95	10	2.6	497	38	51	1,420	---	200
2	93	---	2.0	2,790	933	8,250	1,240	---	100
3	92	---	2.0	2,410	864	5,620	1,060	---	55
4	104	---	3.0	1,690	788	3,820	880	---	30
5	105	---	3.0	1,170	110	347	575	---	9.0
6	95	---	3.0	971	21	55	528	---	7.5
7	91	---	2.0	960	17	44	509	---	7.0
8	95	---	3.0	863	11	26	542	---	8.0
9	141	---	10	842	15	34	510	5	6.9
10	356	79	93	1,190	113	363	534	---	7.5
11	491	37	49	1,380	152	566	477	---	6.0
12	466	22	28	1,700	136	624	525	---	7.5
13	582	22	35	1,810	184	899	540	---	8.0
14	537	9	13	1,460	110	434	744	---	15
15	430	4	4.6	1,100	24	71	942	---	35
16	332	4	3.6	867	12	28	790	---	20
17	283	7	5.3	745	12	24	650	---	10
18	254	6	4.1	1,090	32	94	484	---	6.5
19	231	4	2.5	1,050	34	96	444	---	4.0
20	248	6	4.0	1,050	14	40	414	---	3.0
21	218	3	1.8	869	7	16	413	---	3.0
22	197	---	2.0	733	4	7.9	555	13	19
23	188	---	2.0	1,020	68	187	683	8	15
24	192	---	3.0	985	---	60	701	15	28
25	279	14	11	817	8	18	647	3	5.2
26	431	19	22	695	---	15	630	---	5.0
27	470	8	10	1,430	---	890	610	---	5.0
28	521	6	8.4	2,370	---	2,500	590	---	5.0
29	420	4	4.5	2,000	185	999	575	---	4.5
30	374	5	5.0	1,600	83	359	560	---	4.5
31	343	3	2.8	---	---	---	540	---	4.5
TOTAL	8,754	---	345.2	38,154	---	26,537.9	20,312	---	644.6
JANUARY			FEBRUARY			MARCH			
1	520	---	4.0	247	---	1.5	442	6	7.2
2	504	---	4.0	241	---	1.5	404	6	6.5
3	493	3	4.0	217	---	1.0	371	5	5.0
4	478	---	4.0	219	---	1.0	409	8	8.8
5	460	---	3.5	217	---	1.0	397	6	6.4
6	450	---	3.5	217	---	1.0	369	7	7.0
7	453	---	4.0	253	---	1.0	340	6	5.5
8	430	---	4.0	227	2	1.2	322	6	5.2
9	403	---	4.0	221	---	1.0	314	8	6.8
10	375	5	5.1	242	---	1.5	309	8	6.7
11	350	3	2.8	577	80	184	302	6	4.9
12	334	---	2.5	620	26	44	306	9	7.4
13	321	---	2.5	407	6	6.6	295	---	5.0
14	335	---	2.5	412	6	6.7	293	---	5.0
15	355	---	3.0	554	9	13	290	---	4.5
16	341	---	3.0	458	6	7.4	305	---	5.0
17	378	---	4.0	396	6	6.4	355	---	6.0
18	393	---	4.0	355	4	3.8	371	---	6.0
19	389	---	4.0	363	8	7.8	370	---	6.0
20	412	---	5.5	380	4	4.1	393	---	7.0
21	393	---	4.0	377	6	6.1	422	---	7.0
22	371	---	3.5	517	8	11	420	---	7.0
23	355	---	3.0	557	7	11	1,030	---	100
24	335	---	2.5	640	13	22	1,090	---	100
25	318	---	2.5	633	8	14	859	---	40
26	303	---	2.5	551	6	8.9	724	---	30
27	288	---	2.0	490	6	7.9	675	---	20
28	282	---	2.0	457	5	6.2	579	---	20
29	269	---	1.5	---	---	---	516	---	10
30	247	---	1.5	---	---	---	699	---	20
31	247	---	1.5	---	---	---	911	---	50
TOTAL	11,582	---	100.4	11,045	---	382.6	14,882	---	525.9

14241490 SOUTH FORK TOUTLE RIVER AT CAMP 12 NEAR TOUTLE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	976	---	70	628	8	14	370	5	5.0
2	990	---	85	718	12	23	388	2	2.1
3	983	---	80	821	15	33	339	1	.92
4	817	---	30	657	8	14	405	8	8.7
5	719	---	20	564	5	7.6	366	5	4.9
6	749	---	25	507	6	8.2	454	30	37
7	870	---	40	476	6	7.7	2,470	1,170	9,290
8	871	---	40	455	5	6.1	1,490	385	1,650
9	872	---	40	423	6	6.9	949	120	307
10	933	---	55	435	6	7.0	709	57	109
11	1,020	42	116	432	6	7.0	572	25	39
12	934	23	58	381	4	4.1	494	13	17
13	808	14	31	375	6	6.1	444	16	19
14	777	10	21	428	3	3.5	407	9	9.9
15	784	10	21	391	1	1.1	383	8	8.3
16	774	11	23	466	5	6.3	339	6	5.5
17	631	8	14	584	8	13	307	6	5.0
18	565	6	9.2	585	5	7.9	287	6	4.6
19	518	6	8.4	524	3	4.2	273	5	3.7
20	466	6	7.5	451	2	2.4	258	6	4.2
21	416	5	5.6	407	1	1.1	241	7	4.6
22	435	5	5.9	406	1	1.1	228	3	1.8
23	721	18	35	416	2	2.2	218	2	1.2
24	599	9	15	419	3	3.4	209	3	1.7
25	561	6	9.1	400	2	2.2	201	2	1.1
26	516	4	5.6	371	2	2.0	192	2	1.0
27	597	7	11	344	2	1.9	184	4	2.0
28	752	7	14	325	2	1.8	180	1	1.49
29	686	8	15	368	10	9.9	175	3	1.4
30	626	7	12	370	1	1.0	175	2	.95
31	---	---	---	320	1	.86	---	---	---
TOTAL	21,966	---	922.3	14,447	---	210.56	13,707	---	11,547.06
JULY			AUGUST			SEPTEMBER			
1	166	2	0.90	218	63	37	77	---	0.40
2	159	---	.85	145	42	16	77	---	.40
3	152	---	.80	114	---	4.0	75	---	.40
4	149	---	.80	99	---	.80	75	---	.40
5	148	---	.80	96	---	.50	91	---	.50
6	145	---	.80	88	---	.50	189	---	20
7	142	---	.75	93	---	.50	129	---	5.0
8	138	---	.75	165	---	7.5	103	---	3.0
9	133	---	.70	125	---	1.5	106	---	3.0
10	127	---	.70	111	---	.60	235	95	8.5
11	126	---	.70	101	---	.55	149	---	9.0
12	123	---	.65	93	---	.50	158	---	7.5
13	120	---	.65	91	---	.50	227	40	25
14	119	---	.65	85	---	.45	245	28	19
15	114	---	.60	83	---	.45	244	22	14
16	113	---	.60	82	---	.45	208	12	6.7
17	114	---	.60	80	---	.45	303	41	34
18	111	---	.60	78	---	.40	273	13	9.6
19	106	---	.55	79	---	.45	223	8	4.8
20	102	---	.55	80	---	.45	190	5	2.6
21	101	---	.55	81	---	.45	169	---	2.0
22	101	---	.55	81	---	.45	155	---	1.5
23	100	---	.55	77	---	.40	141	---	1.0
24	100	---	.55	77	---	.40	133	---	1.0
25	97	---	.50	77	---	.40	125	---	1.0
26	91	---	.50	74	---	.40	119	---	.65
27	86	---	.45	73	---	.40	113	---	.60
28	86	---	.45	75	---	.40	107	---	.60
29	85	---	.45	73	---	.40	104	---	.50
30	86	---	.45	74	---	.40	101	---	.40
31	130	---	5.0	84	---	.45	---	---	---
TOTAL	3,670	---	24.00	2,952	---	78.10	4,644	---	183.05
YEAR	166,115		41,501.67 TONS						

14241490 SOUTH FORK TOUTLE RIVER AT CAMP 12 NEAR TOUTLE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	98	1	0.26	656	18	32	342	---	1.9
2	98	---	.30	704	17	32	365	---	2.2
3	100	---	.30	778	22	46	653	---	27
4	93	---	.20	1,310	176	688	669	---	33
5	89	---	.20	1,160	---	50	707	---	49
6	90	---	.20	1,690	---	1,300	1,350	---	660
7	131	---	2.0	1,770	218	1,040	1,540	---	1,000
8	99	---	.30	1,520	---	480	1,160	---	120
9	89	---	.20	1,280	---	180	845	13	30
10	89	---	.20	1,050	---	72	700	---	23
11	117	---	1.1	845	---	28	595	9	14
12	146	---	2.8	740	---	17	518	5	7.0
13	120	---	1.5	657	---	12	458	4	4.9
14	117	---	1.1	575	---	7.0	422	4	4.6
15	139	---	2.8	678	---	13	391	3	3.2
16	183	---	7.5	849	---	30	360	2	1.9
17	163	---	4.4	783	---	21	346	1	.93
18	142	---	2.6	689	---	14	333	2	1.8
19	217	---	18	634	---	10	326	2	1.8
20	570	223	343	604	---	8.5	321	1	.87
21	726	251	552	544	---	6.2	314	---	.85
22	1,160	899	3,200	500	---	5.0	303	2	1.6
23	873	210	495	448	---	3.6	302	2	1.6
24	1,180	761	2,840	440	---	3.4	300	1	.81
25	1,760	1,120	6,080	432	---	3.2	302	1	.82
26	1,340	556	2,210	392	---	2.5	301	1	.81
27	1,280	321	1,320	384	---	2.4	286	---	.77
28	1,420	1,070	4,390	377	---	2.3	270	---	.73
29	1,010	238	649	356	---	2.0	258	3	2.1
30	823	87	193	346	---	1.9	243	2	1.3
31	704	63	120	---	---	---	232	1	.63
TOTAL	15,166	---	22,437.96	23,191	---	4,113.0	15,512	---	1,999.12
JANUARY			FEBRUARY			MARCH			
1	391	15	18	1,010	42	115	813	20	44
2	384	6	8.2	906	23	56	703	14	27
3	569	27	46	938	26	66	641	7	12
4	432	2	2.3	902	18	44	610	5	8.2
5	633	35	93	862	16	37	535	5	7.2
6	985	77	219	738	15	30	491	10	13
7	718	9	17	637	8	14	753	55	132
8	705	16	30	561	5	7.6	863	43	100
9	809	17	41	504	4	5.4	956	54	139
10	907	18	44	461	2	2.5	824	17	38
11	830	12	27	423	2	2.3	994	46	123
12	691	6	11	395	1	1.1	1,130	83	253
13	596	5	8.0	380	1	1.0	1,060	34	97
14	536	4	5.8	403	3	3.3	880	20	48
15	522	6	8.5	940	98	334	741	10	20
16	737	38	87	2,010	263	1,520	646	6	10
17	838	54	122	1,370	41	152	591	6	9.6
18	2,490	2,740	23,100	1,060	18	52	595	7	11
19	2,940	4,100	37,600	883	12	29	596	10	16
20	1,660	431	1,930	780	6	13	567	4	6.1
21	1,080	218	636	782	14	30	613	7	12
22	1,070	385	1,220	1,080	56	163	551	4	6.0
23	1,600	480	2,070	4,160	3,590	55,900	640	16	46
24	1,250	172	580	4,200	1,760	22,900	1,150	47	146
25	978	67	177	2,440	278	1,830	940	22	56
26	818	41	91	1,760	---	880	882	14	33
27	771	28	58	1,200	75	243	713	5	9.6
28	721	17	33	976	43	113	632	5	8.5
29	751	20	41	---	---	---	565	3	4.6
30	1,120	121	366	---	---	---	602	8	13
31	1,020	43	118	---	---	---	511	2	2.8
TOTAL	29,552	---	68,807.8	32,761	---	84,544.2	22,788	---	1,451.6

14241490 SOUTH FORK TOUTLE RIVER AT CAMP 12 NEAR TOUTLE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	497	3	4.0	634	3	5.1	246	---	2.7
2	501	3	4.1	735	4	7.9	230	---	2.5
3	464	2	2.5	727	4	7.9	217	---	2.3
4	458	2	2.5	660	4	7.1	211	---	2.3
5	430	2	2.3	783	7	15	202	---	2.2
6	402	2	2.2	706	3	5.7	199	---	1.8
7	382	2	2.1	652	3	5.3	222	---	2.1
8	366	1	.99	624	2	3.4	200	---	1.6
9	358	4	3.9	599	6	9.7	180	---	1.5
10	335	1	.90	624	5	8.4	165	---	1.3
11	346	4	3.7	649	3	5.3	155	---	1.3
12	384	2	2.1	648	4	7.0	147	---	1.2
13	372	5	5.0	870	9	21	138	---	.75
14	337	1	.91	816	5	11	144	---	.78
15	399	3	3.2	721	2	3.9	147	---	.79
16	513	8	11	587	2	3.2	134	---	.72
17	644	10	17	524	2	2.8	146	---	.79
18	618	3	5.0	489	2	2.6	212	---	1.1
19	547	2	3.0	467	1	1.3	220	2	1.2
20	514	5	6.9	617	4	6.7	156	1	.42
21	501	2	2.7	567	4	6.1	145	1	.39
22	480	5	6.5	512	4	5.5	131	1	.35
23	438	1	1.2	456	2	2.5	120	1	.32
24	402	2	2.2	430	1	1.2	111	1	.30
25	452	3	3.7	387	3	3.1	108	---	.29
26	507	7	9.6	375	1	1.0	103	---	.28
27	670	11	20	357	2	1.9	100	---	.27
28	786	5	11	347	3	2.8	103	---	.28
29	757	5	10	299	2	1.6	114	1	.31
30	683	4	7.4	273	3	2.2	103	---	.28
31	---	---	---	258	6	4.2	---	---	---
TOTAL	14,543	---	157.60	17,393	---	172.4	4,809	---	32.42
JULY			AUGUST			SEPTEMBER			
1	95	---	0.26	77	---	0.21	74	---	36
2	97	---	.26	76	---	.21	69	---	32
3	100	---	.27	74	---	.20	69	---	30
4	149	1	.40	73	---	.20	67	---	27
5	107	---	.29	73	---	.20	62	144	24
6	93	---	.25	75	---	.20	59	---	22
7	86	---	.23	72	---	.19	58	---	20
8	85	---	.23	70	---	.19	63	---	21
9	85	---	.23	70	---	.19	115	---	35
10	148	3	1.2	69	---	.19	78	---	22
11	178	1	.48	72	---	.19	70	---	18
12	118	---	.32	77	---	.21	62	---	14
13	102	---	.27	74	---	.20	59	---	12
14	96	---	.26	72	---	.19	62	---	11
15	103	---	.28	70	---	.19	61	---	10
16	177	1	.48	67	---	.18	81	50	11
17	191	1	.52	67	---	.18	74	---	8.2
18	137	1	.37	68	---	.18	105	---	9.1
19	114	---	.31	69	1	.19	75	---	4.7
20	102	---	.27	68	---	.18	82	---	3.1
21	97	---	.26	64	---	.17	68	---	.92
22	94	---	.25	64	---	.17	63	---	.17
23	97	---	.26	63	---	.17	150	827	720
24	100	---	.27	63	---	.17	255	2,390	1,900
25	93	---	.25	65	---	.18	269	1,040	919
26	89	---	.24	65	---	.18	324	561	565
27	91	---	.25	63	---	.17	211	80	46
28	89	---	.24	65	---	.18	210	35	20
29	85	---	.23	73	---	.20	297	983	885
30	82	---	.22	83	---	44	300	177	143
31	79	---	.21	84	---	43	---	---	---
TOTAL	3,359	---	9.86	2,185	---	92.46	3,592	---	5,569.19
YEAR	184,851		189,387.61	TONS					

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	195	30	16	510	4,370	6,020	851	---	80
2	174	26	12	380	5,360	5,500	706	23	44
3	154	15	6.2	330	1,100	980	612	6	9.9
4	138	12	4.5	292	---	660	548	5	7.4
5	132	13	4.6	289	---	650	633	8	14
6	123	---	4.0	273	---	600	574	4	6.2
7	115	---	4.0	446	---	3,700	508	1	1.4
8	107	---	4.0	375	---	1,000	463	1	1.3
9	104	---	3.5	360	---	900	430	1	1.2
10	101	---	3.5	319	---	750	404	2	2.2
11	93	---	3.5	305	---	700	387	2	2.1
12	90	---	3.0	311	874	734	393	1	1.1
13	89	---	3.0	304	---	700	441	4	4.8
14	88	---	3.0	299	---	700	731	25	49
15	86	---	2.5	287	---	650	713	15	29
16	85	---	2.5	331	---	800	590	10	16
17	84	---	2.0	496	958	1,280	508	20	27
18	83	---	2.0	714	3,630	8,950	454	20	25
19	81	---	2.0	925	1,610	4,020	423	16	18
20	80	---	1.5	1,590	2,900	13,400	385	---	10
21	76	---	1.5	1,820	2,490	12,200	392	---	10
22	76	---	1.5	2,360	1,370	8,730	704	237	810
23	74	---	1.0	3,750	3,540	49,300	1,330	306	1,230
24	71	---	1.0	4,980	2,910	39,100	1,000	47	127
25	103	---	1,500	2,640	1,250	9,420	878	73	229
26	200	33,000	17,800	1,970	849	4,520	1,120	120	411
27	350	---	20,000	2,230	960	5,780	866	26	61
28	330	---	10,000	1,890	494	2,520	777	20	42
29	300	1,960	1,590	1,400	101	382	1,440	383	1,730
30	700	7,340	13,900	1,070	---	200	1,360	229	841
31	695	3,890	7,300	---	---	---	1,030	56	156
TOTAL	5,177	---	72,182.3	33,246	---	184,846	21,651	---	5,996.6
JANUARY			FEBRUARY			MARCH			
1	1,130	90	275	6,650	6,380	128,000	654	31	55
2	1,120	67	203	2,870	1,990	15,400	1,420	1,020	4,920
3	1,660	375	1,680	1,980	793	4,240	5,360	5,540	96,000
4	1,530	195	806	1,500	305	1,240	3,890	4,050	47,800
5	1,170	61	193	1,270	166	569	2,100	1,270	7,200
6	932	10	25	1,090	143	421	1,640	668	2,960
7	780	12	25	963	69	179	1,210	309	1,010
8	677	6	11	854	48	111	1,020	183	504
9	602	5	8.1	770	44	91	1,020	187	515
10	563	3	4.6	698	30	57	1,380	352	1,310
11	561	4	6.1	689	38	71	1,290	159	554
12	1,070	103	320	606	28	46	2,160	1,470	8,570
13	1,020	43	118	733	131	288	2,220	924	5,540
14	978	24	63	835	139	313	2,050	425	2,350
15	778	6	13	752	62	126	1,560	189	796
16	676	5	9.1	829	101	226	1,250	111	375
17	605	4	6.5	793	48	103	1,340	129	467
18	571	2	3.1	700	36	68	1,190	56	180
19	530	4	5.7	641	31	54	1,080	40	117
20	490	4	5.3	594	23	37	1,020	32	88
21	467	3	3.8	553	15	22	877	44	104
22	453	4	4.9	559	20	30	761	29	60
23	481	4	5.2	545	10	15	710	---	50
24	671	6	11	509	10	14	627	---	37
25	714	5	9.6	471	10	13	561	---	27
26	938	75	262	447	10	12	536	---	20
27	1,340	108	391	435	15	18	488	---	14
28	1,510	94	383	439	10	12	446	---	10
29	1,300	41	144	---	---	---	411	---	4.5
30	1,240	32	107	---	---	---	384	4	4.1
31	1,820	380	3,280	---	---	---	366	1	1.0
TOTAL	28,377	---	8,382.0	29,775	---	151,776	41,021	---	181,642.6

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL				MAY			JUNE		
1	358	1	0.97	437	8	9.4	563	13	20
2	375	3	3.0	533	---	8.0	438	9	11
3	414	5	5.6	524	---	7.0	364	6	5.9
4	427	3	3.5	452	---	5.5	318	4	3.4
5	394	2	2.1	405	4	4.4	293	6	4.7
6	394	1	1.1	379	4	4.1	280	5	3.8
7	389	1	1.1	366	4	4.0	251	4	2.7
8	579	12	19	342	5	4.6	233	---	2.5
9	470	2	2.5	318	6	5.2	222	---	2.0
10	578	8	12	293	6	4.7	213	---	2.0
11	660	5	8.9	277	8	6.0	198	---	2.0
12	595	2	3.2	460	22	27	188	---	1.5
13	528	1	1.4	328	10	8.9	181	---	1.5
14	487	1	1.3	319	8	6.9	173	---	1.0
15	479	1	1.3	298	8	6.4	165	2	.89
16	469	1	1.3	270	7	5.1	160	---	.80
17	585	1	1.6	251	6	4.1	154	---	.75
18	554	1	1.5	240	4	2.6	148	---	.70
19	509	1	1.4	233	5	3.1	143	---	.60
20	465	1	1.3	223	7	4.2	144	---	.50
21	430	1	1.2	210	4	2.3	189	---	2.0
22	410	2	2.2	204	5	2.8	178	4	1.9
23	396	4	4.3	198	7	3.7	149	5	2.0
24	387	3	3.1	188	---	4.0	137	8	3.0
25	363	7	6.9	184	8	4.0	131	1	.35
26	341	6	5.5	179	3	1.4	127	2	.69
27	340	13	12	179	3	1.4	126	3	1.0
28	366	8	7.9	189	6	3.1	122	3	.99
29	347	5	4.7	184	5	2.5	121	2	.65
30	342	14	13	424	48	79	117	2	.63
31	---	---	---	730	40	79	---	---	---
TOTAL	13,431	---	134.87	9,817	---	314.4	6,226	---	81.45
JULY				AUGUST			SEPTEMBER		
1	114	5	1.5	83		1.0	65	---	7.5
2	112	4	1.2	79		1.0	67	40	7.2
3	112	5	1.5	77		1.0	70	---	10
4	115	3	.93	77		.95	64	---	7.5
5	150	---	.85	77		.90	64	---	7.5
6	133	---	.75	79		.85	64	---	7.5
7	118	---	.65	76		.75	64	---	7.5
8	115	---	.60	74		.70	64	---	7.5
9	114	---	.50	73		.60	64	---	7.5
10	127	---	1.5	73		.55	62	---	6.5
11	113	---	1.5	74		.45	63	---	7.0
12	106	---	1.0	72		.40	69	---	10
13	101	---	1.0	87		1.0	65	---	7.5
14	99	---	.95	110		45	75	---	15
15	97	---	.80	97		30	133	---	85
16	96	---	.65	88		20	86	---	20
17	99	---	.50	80		15	72	---	10
18	137	4	1.5	75		15	66	---	8.5
19	132	6	2.1	73		10	64	---	7.5
20	107	---	1.0	71		10	64	---	7.5
21	98	---	.55	69		10	63	---	7.0
22	96	1	.26	68		9.0	63	---	7.0
23	102	---	.85	71		10	63	---	7.0
24	113	---	3.0	72		10	63	---	7.0
25	101	18	4.9	70		10	66	---	8.5
26	98	7	1.9	69		10	82	---	15
27	95	6	1.5	69		10	71	---	10
28	89	4	.96	69		10	65	---	7.5
29	86	6	1.4	66		8.5	63	---	7.0
30	84	---	1.5	67		9.0	63	---	7.0
31	83	---	1.5	66		8.5	---	---	---
TOTAL	3,342	---	39.30	2,351		260.15	2,067	---	337.2
YEAR	196,481		605,992.87	TONS					

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
OCT											
26...	1240	9.5	130	10.0	4	1.4	--	--	--	--	--
31...	1310	11.5	306	10.0	238	197	--	--	--	--	--
NOV											
01...	1235	7.5	294	10.0	535	425	--	--	--	--	--
03...	1025	9.5	3,810	20.0	13,600	140,000	10	19	29	49	69
03...	1110	9.5	3,600	20.0	21,600	210,000	15	19	25	45	68
03...	1345	9.5	3,780	20.0	9,330	95,200	7	8	10	22	37
03...	1710	9.5	4,290	20.0	6,240	72,300	5	6	11	20	31
04...	1015	9.5	2,510	20.0	3,040	20,600	3	4	7	13	19
08...	1315	8.5	1,280	10.0	436	1,510	--	--	--	--	--
14...	1015	8.0	2,970	20.0	2,190	17,600	--	--	--	--	--
14...	1205	8.0	2,990	20.0	1,880	15,200	--	--	--	--	--
14...	1500	8.0	3,310	20.0	2,310	20,600	--	--	--	--	--
17...	0800	8.0	4,450	20.0	5,050	60,700	--	--	--	--	--
17...	1000	8.0	4,240	20.0	4,440	50,800	--	--	--	--	--
21...	1150	7.5	1,990	20.0	624	3,350	--	--	--	--	--
30...	1345	4.5	769	10.0	32	66	--	--	--	--	--
DEC											
13...	1145	7.0	1,400	20.0	56	212	--	--	--	--	--
20...	1330	2.0	526	10.0	6	8.5	--	--	--	--	--
30...	1345	--	893	20.0	104	251	--	--	--	--	--
JAN											
03...	1050	8.0	2,350	20.0	1,300	8,250	--	--	--	--	--
03...	1220	8.0	2,290	20.0	1,060	6,550	--	--	--	--	--
19...	1155	2.5	348	10.0	4	3.8	--	--	--	--	--
24...	0915	6.0	3,880	20.0	1,610	16,900	--	--	--	--	--
24...	1130	6.0	3,680	20.0	1,450	14,400	--	--	--	--	--
25...	1715	6.0	3,400	20.0	1,230	11,300	--	--	--	--	--
FEB											
01...	1210	5.5	614	20.0	8	13	--	--	--	--	--
13...	1125	6.0	2,390	20.0	460	2,970	--	--	--	--	--
24...	1335	6.0	1,090	10.0	52	153	--	--	--	--	--
MAR											
08...	1045	7.0	501	10.0	5	6.8	58	--	--	--	--
22...	1420	9.0	1,580	20.0	130	555	14	24	46	85	100
APR											
05...	1255	7.0	590	10.0	11	18	36	--	--	--	--
05...	1257	7.0	590	10.0	11	18	36	--	--	--	--
09...	1330	6.0	945	10.0	20	51	28	--	--	--	--
26...	1145	9.0	426	20.0	22	25	45	--	--	--	--
MAY											
15...	1225	8.0	883	20.0	12	29	45	--	--	--	--
JUN											
08...	1305	8.5	563	10.0	3	4.6	95	--	--	--	--
21...	1015	10.0	1,600	20.0	160	691	27	--	--	--	--
21...	1230	10.0	1,500	20.0	103	417	33	--	--	--	--
JUL											
12...	1215	14.5	204	10.0	2	1.1	73	--	--	--	--
17...	1420	17.0	185	10.0	2	1.0	70	--	--	--	--
AUG											
15...	1140	17.0	103	10.0	3	0.83	77	--	--	--	--
27...	1610	16.0	93	10.0	2	0.50	--	--	--	--	--
SEP											
06...	1425	15.0	165	10.0	17	7.6	54	--	--	--	--
18...	1310	16.0	102	10.0	3	0.83	36	--	--	--	--
25...	1325	12.5	110	10.0	4	1.2	85	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
OCT											
26...	--	68	--	--	--	--	--	--	--	--	--
31...	--	99	--	100	--	--	--	--	--	--	--
NOV											
01...	--	27	--	--	--	--	--	--	--	--	--
03...	--	85	--	92	--	97	--	99	--	100	--
03...	--	85	--	95	--	98	--	100	--	--	--
03...	--	56	--	82	--	95	--	99	--	100	--
03...	--	46	--	70	--	91	--	99	--	100	--
04...	--	29	--	47	--	78	--	96	--	100	--
08...	--	19	--	31	--	60	--	97	--	100	--
14...	22	23	39	--	75	--	97	--	99	--	100
14...	30	23	45	--	80	--	98	--	100	--	--
14...	22	23	37	--	72	--	99	--	100	--	--
17...	31	30	54	--	86	--	99	--	100	--	--
17...	33	30	55	--	86	--	99	--	100	--	--
21...	--	11	--	--	--	--	--	--	--	--	--
30...	--	26	--	--	--	--	--	--	--	--	--
DEC											
13...	--	17	--	--	--	--	--	--	--	--	--
20...	--	36	--	--	--	--	--	--	--	--	--
30...	--	35	--	49	--	69	--	100	--	--	--
JAN											
03...	--	47	--	62	--	81	--	100	--	--	--
03...	--	54	--	67	--	85	--	100	--	--	--
19...	--	66	--	--	--	--	--	--	--	--	--
24...	--	24	--	37	--	65	--	94	--	100	--
24...	--	27	--	--	--	--	--	--	--	--	--
25...	--	29	--	--	--	--	--	--	--	--	--
FEB											
01...	--	40	--	--	--	--	--	--	--	--	--
13...	--	25	--	37	--	65	--	94	--	100	--
24...	--	20	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
OCT								
01...	1300	12.0	99	10.0	10	2.7	--	--
11...	1350	10.5	455	10.0	32	39	--	--
18...	1245	7.0	256	10.0	3	2.1	--	--
NOV								
02...	1015	8.0	3,200	20.0	1,360	11,800	--	--
02...	1155	8.0	3,930	20.0	1,940	20,600	6	8
23...	1350	7.0	1,480	20.0	177	707	--	--
30...	1140	6.0	1,600	20.0	83	359	--	--
JAN								
03...	1630	4.0	497	10.0	3	4.0	--	--
FEB								
08...	1300	2.0	229	20.0	2	1.2	--	--
MAR								
12...	1355	8.5	306	10.0	9	7.4	--	--
APR								
11...	1400	10.0	1,260	10.0	90	306	--	--
MAY								
14...	1415	9.0	428	10.0	2	2.3	--	--
JUN								
04...	1235	13.5	483	10.0	8	10	--	--
07...	1345	11.0	3,160	20.0	1,730	14,800	--	--
12...	1305	16.0	497	10.0	11	15	--	--
JUL								
01...	1315	17.5	169	10.0	2	0.91	--	--
AUG								
02...	1310	17.5	140	10.0	8	3.0	--	--
SEP								
10...	1320	12.5	339	10.0	202	185	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
OCT												
01...	1310	12.0	98	10.0	1	0.26	--	--	--	--	--	--
25...	1315	9.0	1,700	20.0	711	3,260	--	--	--	--	--	--
NOV												
04...	1415	8.5	1,410	20.0	196	746	--	--	--	--	--	--
07...	1155	8.5	1,860	20.0	246	1,240	--	--	--	--	--	--
DEC												
09...	1255	2.0	835	10.0	14	32	--	--	--	--	--	--
26...	1255	2.5	302	10.0	0	0.0	--	--	--	--	--	--
JAN												
21...	1440	6.0	1,030	20.0	204	567	--	--	--	--	--	--
29...	1350	9.0	718	20.0	169	328	--	--	--	--	--	--
FEB												
07...	1315	5.0	620	10.0	6	10	--	--	--	--	--	--
14...	1305	3.5	377	10.0	10	10	--	--	--	--	--	--
24...	0600	9.0	4,800	20.0	2,400	31,100	33	30	50	82	98	100
27...	1350	10.0	1,150	10.0	94	292	--	--	--	--	--	--
MAR												
07...	1315	10.5	917	10.0	100	248	--	--	--	--	--	--
31...	1305	10.0	522	10.0	2	2.8	--	--	--	--	--	--
APR												
28...	1300	--	646	10.0	8	14	--	--	--	--	--	--
MAY												
29...	1415	19.5	291	10.0	4	3.1	--	--	--	--	--	--
JUN												
19...	1350	--	202	10.0	4	2.2	--	--	--	--	--	--
JUL												
16...	1300	--	157	10.0	4	1.7	--	--	--	--	--	--
AUG												
19...	1250	19.0	70	10.0	1	0.19	--	--	--	--	--	--
SEP												
05...	1200	19.0	62	10.0	144	24	--	--	--	--	--	--
16...	1220	15.0	86	10.0	50	12	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
OCT								
01...	--	--	--	40	--	--	--	--
11...	--	--	--	66	--	--	--	--
18...	--	--	--	--	--	--	--	--
NOV								
02...	--	--	--	45	62	83	97	100
02...	10	18	28	40	61	84	97	100
23...	--	--	--	19	--	--	--	--
30...	--	--	--	13	--	--	--	--
JAN								
03...	--	--	--	--	--	--	--	--
FEB								
08...	--	--	--	--	--	--	--	--
MAR								
12...	--	--	--	--	--	--	--	--
APR								
11...	--	--	--	--	--	--	--	--
MAY								
14...	--	--	--	--	--	--	--	--
JUN								
04...	--	--	--	--	--	--	--	--
07...	--	--	--	62	--	--	--	--
12...	--	--	--	--	--	--	--	--
JUL								
01...	--	--	--	--	--	--	--	--
AUG								
02...	--	--	--	--	--	--	--	--
SEP								
10...	--	--	--	--	--	--	--	--

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
OCT											
01...	1250	18.0	194	10.0	30	16	--	--	--	--	--
29...	1335	--	272	10.0	1,960	1,440	--	--	--	--	--
30...	1330	9.5	533	10.0	4,700	6,760	3	4	5	10	18
NOV											
03...	1200	9.5	316	10.0	1,070	913	--	--	--	--	--
12...	1340	7.5	341	20.0	834	768	--	--	--	--	--
17...	1055	--	491	10.0	1,110	1,470	--	--	--	--	--
19...	1240	8.0	896	10.0	1,460	3,530	--	--	--	--	--
21...	1355	8.5	1,790	20.0	1,080	5,220	--	--	--	--	--
22...	1200	8.0	2,670	20.0	1,800	13,000	--	--	--	--	--
23...	1310	--	3,090	20.0	1,860	15,500	--	--	--	--	--
24...	1538	8.0	5,190	20.0	2,830	39,700	--	--	--	--	--
24...	1541	--	5,190	20.0	3,020	42,300	3	5	9	14	22
25...	1230	7.0	2,590	20.0	1,110	7,760	--	--	--	--	--
DEC											
02...	1505	5.0	695	10.0	28	53	--	--	--	--	--
22...	1340	--	567	10.0	41	63	--	--	--	--	--
JAN											
07...	1305	3.0	768	10.0	12	25	--	--	--	--	--
30...	1455	--	1,250	10.0	40	135	--	--	--	--	--
FEB											
01...	1230	7.0	6,570	20.0	6,980	124,000	--	--	--	--	--
01...	1350	7.0	5,980	20.0	5,840	94,300	--	--	--	--	--
01...	1535	7.0	5,270	20.0	5,000	71,100	--	--	--	--	--
02...	0935	6.0	2,950	20.0	1,880	15,000	--	--	--	--	--
09...	1315	--	770	10.0	44	91	--	--	--	--	--
12...	1245	8.0	601	10.0	28	45	--	--	--	--	--
MAR											
04...	1205	8.0	3,710	20.0	3,460	34,700	--	--	--	--	--
10...	1340	10.0	1,370	20.0	292	1,080	--	--	--	--	--
30...	1440	14.5	397	10.0	4	4.3	--	--	--	--	--
MAY											
05...	1250	13.5	405	10.0	4	4.4	--	--	--	--	--

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
JUN						
15...	1310	15.0	165	10.0	2	0.89
JUL						
22...	1400	17.5	96	10.0	1	0.26
SEP						
02...	1325	20.0	73	10.0	40	7.9

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

DATE	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.
	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.
	FALL	FALL	FALL	FALL	FALL	FALL	FALL	FALL	FALL	FALL	FALL
	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN
	.062 MM	.062 MM	.125 MM	.125 MM	.250 MM	.250 MM	.500 MM	.500 MM	1.00 MM	1.00 MM	2.00 MM
OCT											
01...	--	--	--	--	--	--	--	--	--	--	--
29...	--	43	--	--	--	--	--	--	--	--	--
30...	38	--	86	--	100	--	--	--	--	--	--
NOV											
03...	19	--	50	--	88	--	99	--	100	--	--
12...	--	13	--	--	--	--	--	--	--	--	--
17...	--	20	--	--	--	--	--	--	--	--	--
19...	--	21	--	--	--	--	--	--	--	--	--
21...	28	--	47	--	81	--	99	--	100	--	--
22...	19	--	31	--	64	--	98	--	100	--	--
23...	25	--	44	--	71	--	91	--	100	--	--
24...	37	--	59	--	88	--	99	--	100	--	--
24...	33	--	54	--	84	--	99	--	100	--	--
25...	28	--	43	--	80	--	100	--	--	--	--
DEC											
02...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
JAN											
07...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
FEB											
01...	--	37	--	58	--	82	--	98	--	100	--
01...	--	36	--	56	--	84	--	99	--	100	--
01...	--	36	--	53	--	81	--	99	--	100	--
02...	--	27	--	38	--	64	--	97	--	100	--
09...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
MAR											
04...	33	--	52	--	88	--	99	--	100	--	--
10...	16	--	28	--	62	--	97	--	100	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	BED	BED	BED	BED	BED	BED	BED
		MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.
		SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
		DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
		% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
		THAN	THAN	THAN	THAN	THAN	THAN	THAN
		.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM
OCT								
01...	1258	86	99	100	--	--	--	--
01...	1302	66	74	82	95	98	99	100
01...	1306	57	97	100	--	--	--	--
30...	1442	40	52	83	99	100	--	--
30...	1444	1	15	69	97	99	100	--
30...	1446	3	25	83	99	100	--	--
30...	1448	1	17	87	100	--	--	--
30...	1450	2	19	86	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	BED	BED	BED	BED	BED	BED	BED	BED	BED	BED	BED
		MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.
		SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
		DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
		% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
		THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN
		.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	64.0 MM
NOV												
03...	1230	0	4	55	100	--	--	--	--	--	--	--
03...	1235	0	5	51	98	100	--	--	--	--	--	--
03...	1240	0	4	46	96	100	--	--	--	--	--	--
03...	1245	29	49	65	86	97	99	100	--	--	--	--
03...	1250	9	13	42	87	98	99	99	99	100	--	--
12...	1415	0	0	5	30	35	35	35	35	36	62	100
12...	1420	0	1	17	69	98	100	--	--	--	--	--
12...	1425	0	2	21	80	99	100	--	--	--	--	--
12...	1430	0	1	12	73	99	100	--	--	--	--	--
12...	1435	0	1	8	61	99	100	--	--	--	--	--
17...	1130	0	1	13	75	99	100	--	--	--	--	--
17...	1135	0	2	17	81	99	100	--	--	--	--	--
17...	1140	2	3	11	41	75	83	85	87	91	100	--
17...	1157	2	2	11	47	69	71	72	74	76	100	--
17...	1206	0	3	23	85	99	100	--	--	--	--	--
19...	1315	1	5	26	84	99	100	--	--	--	--	--
19...	1320	0	1	13	74	99	100	--	--	--	--	--
19...	1325	0	2	17	80	99	100	--	--	--	--	--
19...	1330	1	1	9	52	95	100	--	--	--	--	--
19...	1335	1	2	18	52	91	99	100	--	--	--	--
21...	1430	0	1	4	22	79	96	97	97	100	--	--
21...	1435	0	4	29	95	100	--	--	--	--	--	--
21...	1440	0	4	35	88	99	100	--	--	--	--	--
21...	1445	1	4	48	96	100	--	--	--	--	--	--
22...	1441	0	1	18	74	91	91	91	91	91	100	--
22...	1449	0	1	9	58	95	99	100	--	--	--	--
25...	1300	0	0	9	65	97	98	99	99	100	--	--
25...	1305	0	0	2	7	12	21	32	52	81	100	--
25...	1310	0	0	1	3	4	5	5	5	8	31	100
MAR												
04...	1230	1	3	21	82	100	--	--	--	--	--	--
04...	1235	0	0	5	32	50	61	75	88	97	100	--
04...	1240	0	0	1	2	3	3	4	6	22	100	--

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

LOCATION.--Lat 46°20'02", long 122°50'20", in NW ¼ SW ¼ sec. 20, T.10 N., R.1 W., Cowlitz County, Hydrologic Unit 17080005, on right bank 10 mi downstream from confluence of North and South Forks, 2.9 mi northwest of Silver Lake, and at mile 6.5.

DRAINAGE AREA.--496 mi², of which approximately 21 mi² is noncontributing. Prior to July 7, 1981, the noncontributing portion was approximately 40 mi².

PERIOD OF SEDIMENT DATA.--February 1981 through September 1987.

GAGE.--Water-stage recorder. Datum of gage is 109.12 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--(Mar. 20, 1982 is lahar-runout flow.)

Water Year	Date	Time	Suspended-sediment concentration, mgL ⁻¹
1981	Feb. 19, 1981	1830	32,600
1982	Feb. 20, 1982	1230	104,000
1982	Mar. 20, 1982	0048	1,160,000
1983	Dec. 3, 1982	1805	113,000
1984	Nov. 3, 1983	1405	128,000
1985	Nov. 2, 1984	1115	24,800
1986	Feb. 23, 1986	1810	25,400
1987	Feb. 1, 1987	1045	28,100

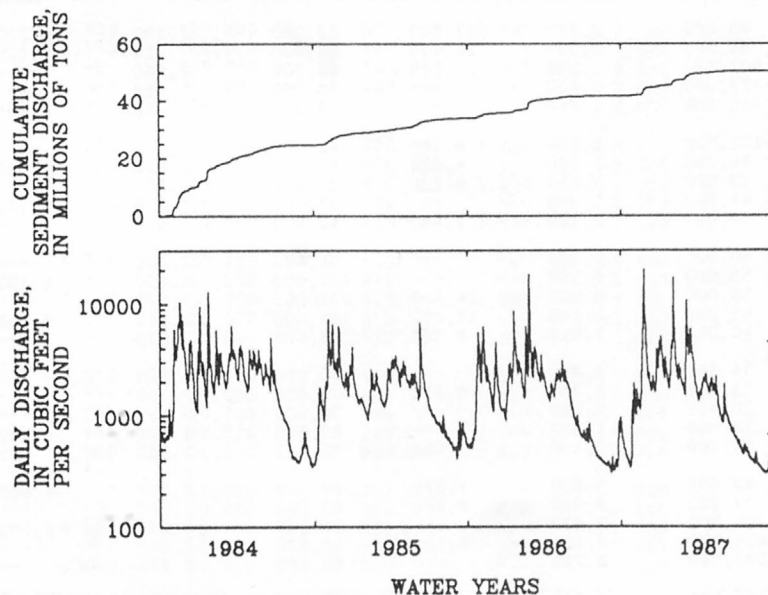


Figure 12.--Cumulative daily suspended-sediment discharge and daily mean stream discharge, water years 1984-87, Toutle River at Tower Road near Silver Lake, Wash. (14242580).

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	668	---	11,000	1,060	---	39,000	2,760	7,380	55,000
2	682	---	12,000	1,370	22,000	81,400	2,520	7,520	51,200
3	666	6,410	11,500	5,870	61,700	1,270,000	2,300	---	49,000
4	718	---	12,000	5,910	48,300	771,000	2,000	---	47,000
5	680	5,320	9,770	3,260	---	140,000	2,020	8,730	47,600
6	655	---	9,700	4,000	---	190,000	1,840	9,360	46,500
7	641	10,800	18,700	4,170	18,000	203,000	1,790	6,490	31,400
8	629	---	12,000	3,740	---	82,000	2,380	---	70,000
9	620	---	10,000	3,180	7,900	67,800	2,360	10,400	66,300
10	607	5,900	9,670	3,420	---	120,000	4,430	---	200,000
11	584	---	9,000	4,420	19,300	230,000	4,150	---	120,000
12	594	5,770	9,250	4,510	---	210,000	4,160	8,900	100,000
13	597	4,920	7,930	6,190	---	350,000	4,680	---	130,000
14	638	5,670	9,770	6,850	21,500	398,000	4,720	9,360	119,000
15	631	---	9,500	6,330	16,600	284,000	4,050	---	69,000
16	616	---	9,000	7,750	16,000	335,000	3,490	4,630	43,600
17	665	9,180	16,500	10,300	26,800	745,000	2,920	---	40,000
18	651	---	10,000	10,300	19,400	577,000	2,470	---	35,000
19	642	4,710	8,160	6,130	---	190,000	2,220	5,360	32,100
20	652	---	9,000	8,150	17,700	411,000	1,910	---	26,000
21	624	5,690	9,590	5,960	13,100	211,000	1,570	---	21,000
22	1,150	---	110,000	4,540	10,900	134,000	1,390	---	17,000
23	968	---	60,000	4,000	9,400	102,000	1,260	---	15,000
24	825	4,870	10,800	7,080	---	410,000	1,150	---	14,000
25	731	---	11,000	5,840	14,100	222,000	1,280	---	17,000
26	697	5,930	11,200	4,060	---	82,000	1,310	7,340	26,000
27	681	---	10,000	4,160	---	84,000	1,210	---	25,000
28	671	4,910	8,900	4,020	7,200	78,100	1,080	8,100	23,600
29	666	---	8,500	3,590	---	68,000	1,850	---	70,000
30	737	---	16,000	3,170	9,900	84,700	3,760	19,000	193,000
31	1,110	12,700	38,100	---	---	---	3,000	---	65,000
TOTAL	21,696	---	508,540	153,330	---	8,170,000	78,030	---	1,865,300
JANUARY			FEBRUARY			MARCH			
1	2,400	---	35,000	2,370	13,600	87,000	2,490	6,200	41,700
2	3,140	9,400	88,200	2,080	14,400	80,900	2,510	7,820	53,000
3	7,810	22,900	601,000	1,900	11,800	60,500	2,460	---	50,000
4	9,430	14,800	377,000	1,800	---	50,000	2,180	---	40,000
5	6,800	---	230,000	1,740	---	45,000	2,040	6,160	33,900
6	4,540	10,000	123,000	1,680	9,360	42,500	1,900	---	33,000
7	3,310	---	80,000	1,580	4,580	19,500	1,830	6,580	32,500
8	2,840	---	60,000	1,650	6,220	27,700	1,790	---	25,000
9	2,320	7,150	44,800	1,980	---	37,000	1,810	5,170	25,300
10	2,470	---	50,000	2,120	7,480	42,800	1,970	---	29,000
11	3,010	7,480	60,800	2,500	---	54,000	2,000	---	30,000
12	2,780	---	55,000	5,150	---	170,000	2,420	6,190	40,400
13	2,660	---	50,000	5,800	14,800	232,000	2,520	---	34,000
14	2,310	---	45,000	4,440	12,000	144,000	3,110	7,110	59,700
15	1,970	---	40,000	3,610	8,580	83,600	3,630	---	76,000
16	1,800	7,020	34,100	2,890	---	55,000	3,320	---	45,000
17	1,570	---	25,000	2,330	5,850	36,800	3,300	---	40,000
18	1,460	5,180	20,400	2,020	---	30,000	3,130	---	35,000
19	1,300	---	20,000	1,910	---	25,000	3,190	4,330	37,300
20	1,200	9,620	31,200	2,450	7,980	52,800	3,920	---	63,000
21	1,210	---	30,000	3,600	7,070	68,700	6,350	14,000	240,000
22	1,920	---	77,000	3,010	8,000	65,000	5,040	---	150,000
23	3,610	19,500	290,000	2,820	---	55,000	4,340	9,000	105,000
24	12,800	40,900	1,410,000	3,690	6,580	65,600	3,640	---	80,000
25	12,500	30,400	1,090,000	3,230	---	60,000	3,280	---	60,000
26	8,310	13,800	310,000	2,920	---	55,000	3,860	7,930	82,600
27	5,580	12,900	194,000	2,720	6,860	50,400	3,460	---	65,000
28	3,450	---	110,000	2,520	5,940	40,400	3,650	7,350	72,400
29	2,740	---	90,000	2,240	6,700	40,500	3,510	6,360	60,300
30	2,950	---	95,000	---	---	---	3,010	8,280	67,300
31	2,770	---	90,000	---	---	---	2,730	---	45,000
TOTAL	122,960	---	5,856,500	78,750	---	1,876,700	94,390	---	1,851,400

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	2,430	---	25,000	2,490	---	42,000	2,160	6,380	37,200
2	2,500	3,940	26,600	3,880	5,360	56,200	2,000	---	32,000
3	2,310	---	24,000	3,500	7,020	66,300	1,890	---	30,000
4	2,130	3,840	22,100	3,050	5,920	48,800	2,120	6,600	37,800
5	2,230	---	26,000	3,100	---	50,000	2,190	---	39,000
6	2,110	4,960	28,300	3,140	---	50,000	2,140	---	37,000
7	3,370	---	100,000	2,620	6,360	45,000	2,360	7,060	45,000
8	3,970	---	120,000	2,870	---	45,000	2,950	---	55,000
9	3,470	6,620	62,000	2,890	3,260	25,400	2,940	---	55,000
10	4,030	6,050	65,800	2,600	---	21,000	2,650	---	50,000
11	3,870	5,750	60,100	3,080	---	35,000	2,450	---	45,000
12	4,220	---	65,000	3,850	---	45,000	2,300	---	45,000
13	3,710	4,050	40,600	3,470	---	35,000	2,340	---	45,000
14	3,440	---	35,000	3,610	11,600	113,000	2,210	---	40,000
15	3,820	---	60,000	3,490	13,400	126,000	2,150	---	40,000
16	3,480	5,850	55,000	3,260	10,100	88,900	2,000	6,880	37,200
17	2,940	---	45,000	2,690	7,250	52,700	1,840	---	34,000
18	2,670	5,350	38,600	2,380	6,160	39,600	1,730	6,770	31,600
19	2,330	---	30,000	2,530	---	45,000	1,670	6,760	30,500
20	2,220	4,210	25,200	2,840	---	60,000	2,190	9,640	57,000
21	2,090	---	25,000	2,390	5,620	36,300	4,920	10,000	133,000
22	2,040	---	25,000	2,620	---	45,000	3,570	5,120	49,400
23	2,030	4,880	26,700	3,830	8,350	86,300	2,930	---	40,000
24	1,920	4,280	22,200	3,180	8,150	70,000	2,610	---	35,000
25	1,860	4,670	23,500	2,970	4,410	35,400	2,390	4,730	30,500
26	1,730	---	19,000	3,270	---	50,000	2,220	---	28,000
27	1,650	3,350	14,900	2,910	---	40,000	2,010	4,510	24,500
28	1,670	---	15,000	2,700	5,200	37,900	1,950	---	24,000
29	1,820	---	29,000	2,730	---	40,000	2,580	5,640	39,300
30	1,750	5,700	26,900	2,900	8,160	63,900	2,170	---	28,000
31	---	---	---	2,600	---	53,000	---	---	---
TOTAL	79,810	---	1,181,500	93,440	---	1,647,700	71,630	---	1,255,000
JULY			AUGUST			SEPTEMBER			
1	1,950	4,620	24,300	571	2,580	3,980	524	---	1,400
2	1,780	4,260	20,500	548	---	3,600	508	---	1,300
3	1,700	---	20,000	521	2,230	3,140	507	952	1,300
4	1,660	---	19,000	499	---	2,700	532	---	1,300
5	1,610	---	19,000	489	---	2,600	576	896	1,390
6	1,530	4,260	17,600	482	1,880	2,450	700	---	3,000
7	1,410	---	16,000	456	---	2,200	692	1,480	2,770
8	1,350	---	16,000	434	1,630	1,910	699	---	2,800
9	1,290	4,290	14,900	421	---	1,700	585	---	2,300
10	1,250	---	15,000	414	1,410	1,580	526	1,460	2,070
11	1,190	4,740	15,200	410	---	1,500	516	1,500	2,090
12	1,180	---	15,000	412	---	1,500	543	1,280	1,880
13	1,150	4,830	15,000	428	1,380	1,590	488	---	1,700
14	1,120	---	15,000	413	---	1,200	455	1,250	1,540
15	1,090	---	15,000	412	1,010	1,120	444	---	1,200
16	1,060	5,240	15,000	406	876	960	442	---	1,200
17	1,060	---	15,000	408	825	909	434	784	919
18	1,040	5,240	14,700	404	---	900	424	---	880
19	1,000	---	13,000	395	---	900	398	777	835
20	953	4,500	11,600	388	1,340	1,400	384	---	750
21	928	---	11,000	381	---	900	360	682	663
22	917	---	10,000	381	840	864	380	---	750
23	885	4,060	9,700	383	---	900	373	---	800
24	872	---	11,000	379	920	941	346	1,020	953
25	867	4,900	11,500	380	---	940	348	---	900
26	868	---	11,000	397	---	1,000	360	818	795
27	837	4,850	11,000	413	1,040	1,160	365	---	800
28	828	---	11,000	434	---	1,500	364	832	818
29	809	---	11,000	429	1,260	1,460	362	---	800
30	789	4,720	10,100	446	---	1,300	363	---	810
31	749	---	9,000	467	987	1,240	---	---	---
TOTAL	35,722	---	443,100	13,401	---	50,044	13,998	---	40,713
YEAR	857,157		24,746,497	TONS					

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	367	1,260	1,250	1,860	4,360	24,800	3,790	3,810	39,000
2	375	906	917	6,840	17,900	331,000	3,000	3,450	27,900
3	427	2,370	2,730	7,320	12,300	243,000	2,480	3,450	23,100
4	446	---	2,600	5,500	---	150,000	2,330	---	15,000
5	461	2,220	2,760	3,800	7,610	78,100	2,260	2,560	15,600
6	451	---	3,000	3,300	---	65,000	2,070	3,010	16,800
7	465	---	3,500	3,320	6,700	60,100	1,870	3,870	19,500
8	489	2,770	3,660	2,830	---	50,000	1,950	4,320	22,700
9	580	---	4,500	2,880	5,710	44,400	1,870	4,080	20,600
10	1,060	5,910	19,100	3,680	7,570	79,000	1,910	5,010	25,800
11	1,440	---	26,000	4,270	6,580	75,900	1,750	---	20,000
12	1,470	5,790	23,000	5,180	6,980	97,600	1,920	4,590	23,800
13	1,750	---	25,000	6,500	9,860	173,000	1,960	4,700	24,900
14	1,710	---	20,000	5,800	11,300	177,000	2,270	5,500	36,300
15	1,600	3,610	15,600	4,020	8,220	89,200	2,430	---	35,000
16	1,440	---	13,000	2,860	6,400	49,400	2,060	---	20,000
17	1,310	3,050	10,800	2,610	7,630	53,800	1,970	3,210	17,100
18	1,220	---	10,000	3,000	10,400	84,200	1,770	---	15,000
19	1,170	3,380	10,700	2,820	8,380	63,800	1,610	---	15,000
20	1,150	---	11,000	2,750	9,390	69,700	1,540	---	15,000
21	1,050	---	8,500	2,570	3,470	24,100	1,500	4,600	18,600
22	970	2,560	6,700	2,470	---	20,000	2,010	---	25,000
23	902	---	7,000	3,220	6,750	69,400	2,650	---	35,000
24	891	3,390	8,160	3,060	---	45,000	2,830	---	35,000
25	1,100	---	20,000	2,510	---	30,000	2,530	---	30,000
26	1,850	10,300	51,400	2,220	3,850	23,100	2,320	4,260	26,700
27	1,830	---	35,000	3,440	---	60,000	2,570	4,340	30,100
28	2,000	---	35,000	6,260	11,400	193,000	2,380	4,050	26,000
29	1,760	3,630	17,200	5,900	---	150,000	3,180	5,480	50,200
30	1,800	---	20,000	5,160	5,690	79,300	4,110	4,330	48,100
31	1,740	---	18,000	---	---	---	3,050	3,740	30,800
TOTAL	35,274	---	436,077	117,950	---	2,752,900	71,940	---	803,600
JANUARY			FEBRUARY			MARCH			
1	2,600	3,540	24,900	1,040	2,140	6,010	1,830	3,890	19,200
2	2,210	2,860	17,100	1,020	2,050	5,650	1,710	---	20,000
3	1,980	---	15,000	921	1,790	4,450	1,600	---	15,000
4	1,870	3,390	17,100	912	---	8,500	1,720	3,780	17,600
5	1,800	---	15,000	1,040	1,620	4,550	1,630	---	15,000
6	1,730	---	15,000	1,030	1,510	4,200	1,530	2,320	9,580
7	1,650	2,640	11,800	1,240	2,230	7,470	1,430	2,320	8,960
8	1,580	---	10,000	1,200	1,770	5,730	1,350	2,010	7,330
9	1,510	2,290	9,340	1,220	1,830	6,030	1,330	1,940	6,970
10	1,460	2,380	9,380	1,320	1,880	6,700	1,300	1,920	6,740
11	1,400	2,340	8,850	2,140	5,390	36,500	1,260	1,880	6,400
12	1,330	---	8,500	2,580	5,020	35,000	1,270	1,860	6,380
13	1,290	---	8,000	1,800	3,780	18,400	1,230	1,840	6,110
14	1,290	2,330	8,120	1,750	2,860	13,500	1,210	1,790	5,850
15	1,330	---	9,500	2,390	4,780	30,800	1,200	2,070	6,710
16	1,280	3,100	10,700	1,980	---	20,000	1,220	1,740	5,730
17	1,350	3,160	11,500	1,820	---	15,000	1,330	2,240	8,040
18	1,400	3,450	13,000	1,710	2,240	10,300	1,370	2,030	7,510
19	1,370	---	10,000	1,690	---	10,000	1,350	2,120	7,730
20	1,440	---	15,000	1,760	2,560	12,200	1,430	2,500	9,650
21	1,400	3,510	13,300	1,680	2,400	10,900	1,680	3,220	14,600
22	1,330	---	10,000	2,030	4,390	24,100	1,720	2,760	12,800
23	1,300	3,270	11,500	2,110	4,340	24,700	2,600	5,090	40,700
24	1,270	---	10,000	2,400	5,050	32,700	2,630	4,950	35,100
25	1,240	2,600	8,700	2,330	4,520	28,400	2,370	3,770	24,100
26	1,190	---	8,500	2,130	4,400	25,300	2,200	3,170	18,800
27	1,170	---	8,500	1,990	3,700	19,900	2,240	3,350	20,300
28	1,120	2,720	8,230	1,870	3,230	16,300	2,070	3,000	16,800
29	1,100	---	7,500	---	---	---	1,980	2,860	15,300
30	1,040	---	6,500	---	---	---	2,310	3,790	24,900
31	1,030	2,070	5,760	---	---	---	2,880	3,980	30,900
TOTAL	45,060	---	346,280	47,103	---	443,290	52,980	---	450,790

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	3,040	3,660	30,000	2,340	2,390	15,100	1,620	9,590	41,900
2	3,050	2,870	23,600	2,470	---	15,000	1,570	5,670	24,000
3	3,190	3,040	26,200	2,760	3,590	26,800	1,390	3,880	14,600
4	2,910	2,430	19,100	2,430	2,400	15,700	1,530	4,790	19,800
5	2,680	2,160	15,600	2,230	1,860	11,200	1,480	4,030	16,100
6	2,650	2,070	14,800	2,020	1,790	9,760	1,520	4,490	18,400
7	3,030	2,820	23,100	1,990	1,930	10,400	6,720	17,100	327,000
8	3,140	3,000	25,400	2,040	---	15,000	5,820	11,400	179,000
9	3,160	---	28,000	2,020	---	15,000	4,130	7,910	88,200
10	3,280	3,160	28,000	2,040	2,070	11,400	3,280	7,960	70,500
11	3,410	7,390	68,000	2,020	---	15,000	2,900	8,910	69,800
12	3,080	5,710	47,500	1,850	---	9,500	2,660	8,690	62,400
13	2,650	4,450	31,800	1,800	---	8,500	2,550	9,100	62,700
14	2,640	3,570	25,400	1,960	2,510	13,300	2,310	8,410	52,500
15	2,680	3,580	25,900	1,790	2,060	9,960	2,250	7,350	44,700
16	2,700	3,960	28,900	1,960	---	15,000	2,040	7,070	38,900
17	2,280	3,650	22,500	2,360	5,610	35,700	1,910	6,560	33,800
18	2,100	2,970	16,800	2,360	6,010	38,300	1,760	6,380	30,300
19	2,040	3,180	17,500	2,210	6,380	38,100	1,680	6,070	27,500
20	1,920	3,160	16,400	2,040	5,720	31,500	1,610	5,910	25,700
21	1,830	2,770	13,700	1,860	5,000	25,100	1,630	5,120	22,500
22	1,830	2,060	10,200	1,960	6,000	31,800	1,560	5,450	23,000
23	2,590	2,020	14,100	2,070	6,940	38,800	1,510	5,790	23,600
24	2,360	4,130	26,300	2,230	9,650	58,100	1,480	6,840	27,300
25	2,360	3,650	23,300	2,400	16,900	110,000	1,430	6,940	26,800
26	2,220	2,680	16,100	2,210	15,300	91,300	1,360	6,540	24,000
27	2,530	3,350	22,900	2,060	14,400	80,100	1,260	6,550	22,300
28	3,080	5,070	42,200	1,970	14,300	76,100	1,190	7,370	23,700
29	2,700	3,360	24,500	1,970	15,600	83,000	1,200	6,590	21,400
30	2,450	2,400	15,900	1,930	14,400	75,000	1,150	6,220	19,300
31	---	---	---	1,630	10,800	47,500	---	---	---
TOTAL	79,580	---	743,700	64,980	---	1,077,020	64,500	---	1,481,700
JULY			AUGUST			SEPTEMBER			
1	1,100	6,210	18,400	999	8,360	22,500	501	---	4,000
2	1,090	6,080	17,900	887	6,920	16,600	504	---	3,500
3	1,100	6,310	18,700	826	---	11,000	476	2,280	2,930
4	1,080	7,220	21,100	759	---	8,400	412	2,110	2,350
5	1,010	5,260	14,300	688	4,020	7,470	451	2,510	3,060
6	996	---	20,000	643	3,800	6,600	726	7,180	14,100
7	982	---	25,000	640	3,540	6,120	591	3,860	6,160
8	982	11,300	30,000	730	5,690	11,200	493	2,490	3,310
9	1,020	8,280	22,800	652	4,360	7,680	516	4,500	6,270
10	982	---	25,000	644	4,990	8,680	867	5,560	13,000
11	942	8,850	22,500	634	4,490	7,690	678	1,970	3,610
12	942	---	20,000	601	3,550	5,760	491	1,730	2,290
13	923	---	20,000	629	4,660	7,910	558	2,360	3,560
14	867	---	15,000	628	4,540	7,700	635	2,070	3,550
15	847	6,440	14,700	627	5,340	9,040	702	1,750	3,320
16	853	---	15,000	616	4,690	7,800	671	1,900	3,440
17	873	5,420	12,800	588	4,100	6,510	834	3,960	8,920
18	866	---	15,000	559	---	5,500	854	2,380	5,490
19	862	5,830	13,600	560	3,150	4,760	775	1,940	4,060
20	821	---	15,000	559	---	5,000	718	1,990	3,860
21	832	---	15,000	569	3,260	5,010	682	1,740	3,200
22	857	5,750	13,300	564	2,860	4,360	684	1,850	3,420
23	854	---	13,000	544	2,350	3,450	660	1,980	3,530
24	844	---	12,000	530	2,250	3,220	650	2,160	3,790
25	783	---	11,000	507	2,360	3,230	626	2,090	3,530
26	765	4,830	9,980	486	1,810	2,380	583	1,840	2,900
27	732	---	7,500	506	---	3,000	560	1,630	2,460
28	737	---	7,000	506	2,830	3,870	545	1,970	2,900
29	696	3,360	6,310	496	---	4,000	530	1,630	2,330
30	705	---	9,000	502	3,360	4,550	519	1,580	2,210
31	785	5,140	10,900	524	---	4,500	---	---	---
TOTAL	27,728	---	491,790	19,203	---	215,490	18,492	---	131,050
YEAR	644,790		9,373,687	TONS					

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	535	1,460	2,110	1,960	4,970	26,300	1,090	---	3,000
2	540	1,680	2,450	2,080	3,220	18,100	1,150	---	3,500
3	543	1,840	2,700	2,140	4,080	23,600	2,040	3,120	17,200
4	526	2,070	2,940	3,940	7,110	75,600	2,050	1,780	9,850
5	510	3,140	4,320	3,720	4,850	48,700	2,200	1,890	11,200
6	517	2,110	2,950	5,560	5,830	87,500	3,620	3,760	36,800
7	571	2,300	3,550	6,200	6,250	105,000	4,500	2,930	35,600
8	533	1,940	2,790	5,470	6,200	91,600	4,030	2,140	23,300
9	509	2,170	2,980	4,290	5,210	60,300	3,130	2,000	16,900
10	515	1,820	2,530	3,420	5,910	54,600	2,450	2,220	14,700
11	575	3,380	5,250	3,050	4,520	37,200	2,120	2,540	14,500
12	625	2,470	4,170	2,680	3,840	27,800	1,870	2,010	10,100
13	598	1,620	2,620	2,210	3,690	22,000	1,760	2,270	10,800
14	594	2,210	3,540	2,010	3,010	16,300	1,630	1,550	6,820
15	653	---	6,000	2,180	3,120	18,400	1,590	1,330	5,710
16	702	4,500	8,530	2,770	4,870	36,400	1,330	910	3,270
17	762	2,650	5,450	2,520	3,610	24,600	1,240	---	3,000
18	690	1,960	3,650	2,280	2,970	18,300	1,180	1,040	3,310
19	787	2,840	6,030	2,120	2,460	14,100	1,140	---	3,000
20	1,450	7,170	28,100	2,050	2,030	11,200	1,120	---	3,000
21	1,860	5,560	27,900	2,010	1,610	8,740	1,110	---	2,500
22	2,590	7,830	54,600	1,910	---	8,000	1,100	---	2,500
23	2,570	5,000	34,700	1,780	---	7,000	1,110	664	1,990
24	3,170	6,250	57,700	1,670	---	6,000	1,120	---	2,000
25	5,510	9,580	143,000	1,540	---	5,000	1,150	---	2,000
26	3,920	5,690	60,200	1,390	1,140	4,280	1,130	624	1,900
27	3,390	4,830	44,200	1,310	1,460	5,160	1,090	---	1,500
28	4,250	6,400	73,400	1,240	876	2,930	1,020	---	1,500
29	2,930	5,910	46,800	1,160	1,250	3,920	948	---	1,500
30	2,320	5,320	33,300	1,120	---	3,500	919	451	1,120
31	2,120	4,010	23,000	---	---	---	903	---	1,000
TOTAL	47,365	---	701,460	77,780	---	872,130	52,840	---	255,070
JANUARY			FEBRUARY			MARCH			
1	1,240	1,050	3,800	2,990	---	20,000	3,310	4,770	42,600
2	1,290	---	3,000	2,740	---	15,000	2,820	3,170	24,100
3	1,950	1,270	6,690	2,670	2,060	14,900	2,410	3,180	20,700
4	1,480	894	3,570	2,490	---	15,000	2,230	---	20,000
5	1,570	1,370	7,540	2,590	2,500	17,500	2,210	3,670	21,900
6	2,840	3,720	30,400	2,260	2,260	13,800	2,200	3,200	19,000
7	2,260	1,680	10,300	2,040	2,180	12,000	3,270	5,340	47,100
8	2,230	1,670	10,100	1,850	1,840	9,190	4,080	5,140	56,600
9	2,500	1,810	12,200	1,730	1,630	7,610	4,050	4,780	52,300
10	2,930	1,790	14,200	1,630	1,550	6,820	3,260	3,930	34,600
11	2,820	1,210	9,210	1,530	1,410	5,820	3,350	4,660	42,100
12	2,430	1,050	6,890	1,440	1,590	6,180	3,750	5,160	52,200
13	2,200	1,060	6,300	1,430	1,630	6,290	3,490	4,700	44,300
14	2,020	1,110	6,050	1,520	1,600	6,570	3,170	4,180	35,800
15	1,930	1,020	5,320	3,200	4,150	35,900	2,750	3,130	23,200
16	2,300	1,460	9,070	6,180	6,390	107,000	2,450	2,900	19,200
17	2,590	1,980	13,800	4,620	3,840	47,900	2,310	2,870	17,900
18	5,470	6,440	101,000	3,600	2,580	25,100	2,280	3,400	20,900
19	8,540	9,410	217,000	2,960	1,800	14,400	2,290	2,950	18,200
20	5,700	5,800	89,300	2,510	1,450	9,830	2,200	2,580	15,300
21	4,220	4,700	53,600	2,230	1,480	8,910	2,140	2,740	15,800
22	3,990	4,410	47,500	2,870	3,450	26,700	2,000	2,000	10,800
23	4,590	6,850	84,900	14,800	15,000	816,000	2,060	2,130	11,800
24	3,830	4,810	49,700	18,200	17,000	873,000	3,460	4,610	43,100
25	3,150	4,010	34,100	10,300	12,700	353,000	2,840	3,290	25,200
26	2,720	2,950	21,700	7,420	9,200	184,000	2,820	2,660	20,300
27	2,600	2,460	17,300	5,290	6,760	96,600	2,500	2,310	15,600
28	2,440	2,630	17,300	4,150	6,410	71,800	2,300	2,470	15,300
29	2,360	3,020	19,200	---	---	---	2,130	2,000	11,500
30	3,110	---	30,000	---	---	---	2,380	---	15,000
31	2,950	2,600	20,700	---	---	---	2,250	2,550	15,500
TOTAL	92,250	---	961,740	117,240	---	2,826,820	84,760	---	827,900

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	2,100	---	15,000	2,030	2,670	14,600	1,630	3,160	13,900
2	2,090	3,340	18,800	2,220	2,930	17,600	1,500	2,760	11,200
3	1,890	---	15,000	2,210	2,780	16,600	1,360	2,470	9,070
4	1,760	2,140	10,200	2,120	2,880	16,500	1,270	2,330	7,990
5	1,710	---	9,500	2,500	3,560	24,000	1,190	2,240	7,200
6	1,630	---	9,000	2,330	2,830	17,800	1,130	2,150	6,560
7	1,580	2,050	8,750	2,170	2,420	14,200	1,160	2,510	7,860
8	1,530	---	8,500	2,120	2,360	13,500	1,080	1,830	5,340
9	1,520	1,890	7,760	2,010	2,340	12,700	1,000	1,540	4,160
10	1,440	1,750	6,800	2,150	2,780	16,100	964	2,010	5,230
11	1,430	2,090	8,070	2,280	2,970	18,300	945	2,130	5,430
12	1,550	2,730	11,400	2,230	2,430	14,600	924	2,100	5,240
13	1,460	2,040	8,040	3,060	5,020	41,500	879	1,950	4,630
14	1,340	1,670	6,040	3,030	3,860	31,600	871	2,060	4,840
15	1,450	2,520	9,870	2,620	3,720	26,300	861	1,470	3,420
16	1,640	3,530	15,600	2,310	3,040	19,000	804	1,480	3,210
17	1,830	3,540	17,500	2,120	2,460	14,100	810	1,390	3,040
18	1,940	3,690	19,300	2,030	2,480	13,600	952	2,580	6,630
19	1,740	2,690	12,600	2,000	2,340	12,600	981	3,090	8,180
20	1,650	2,230	9,930	2,530	3,590	24,500	828	1,220	2,730
21	1,630	2,410	10,600	2,440	3,080	20,300	815	1,100	2,420
22	1,670	2,700	12,200	2,370	2,730	17,500	772	1,470	3,060
23	1,590	2,550	10,900	2,100	2,550	14,500	741	1,440	2,880
24	1,470	2,270	9,010	1,950	2,230	11,700	720	---	2,500
25	1,630	2,970	13,100	1,940	2,100	11,000	702	---	2,000
26	1,710	2,970	13,700	1,990	2,970	16,000	683	---	2,000
27	1,980	3,630	19,400	1,940	2,720	14,200	658	795	1,410
28	2,360	4,560	29,100	1,810	2,490	12,200	649	---	1,500
29	2,370	3,340	21,400	1,730	2,480	11,600	664	---	2,000
30	2,180	2,940	17,300	1,730	2,710	12,700	648	1,240	2,170
31	---	---	---	1,710	3,210	14,800	---	---	---
TOTAL	51,870	---	384,370	67,780	---	536,200	28,191	---	147,800
JULY			AUGUST			SEPTEMBER			
1	623	---	2,000	457	1,340	1,650	358	215	208
2	627	1,020	1,730	452	992	1,210	347	235	220
3	644	726	1,260	439	830	984	346	234	219
4	720	---	2,500	428	828	957	336	262	238
5	649	---	2,500	428	940	1,090	323	288	251
6	612	---	2,000	428	1,100	1,270	320	180	156
7	595	---	2,000	422	1,120	1,280	308	182	151
8	595	996	1,600	416	1,240	1,390	321	259	224
9	591	1,030	1,640	407	1,270	1,400	417	1,050	1,180
10	675	1,820	3,500	401	928	1,000	357	410	395
11	752	2,060	4,180	408	1,170	1,290	338	419	382
12	619	1,290	2,160	411	1,310	1,450	336	227	206
13	581	1,380	2,160	400	951	1,030	320	176	152
14	569	1,340	2,060	404	1,070	1,170	319	174	150
15	580	974	1,530	396	769	822	324	193	169
16	789	2,460	5,240	382	664	685	362	282	276
17	832	2,330	5,230	385	636	661	349	209	197
18	687	1,900	3,520	376	492	499	397	477	511
19	636	1,110	1,910	382	478	493	362	267	261
20	627	---	1,500	381	539	554	364	273	268
21	613	---	1,500	377	515	524	345	204	190
22	592	965	1,540	371	350	351	344	173	161
23	582	1,180	1,850	365	295	291	445	395	618
24	573	1,050	1,620	359	291	282	847	1,940	4,440
25	553	886	1,320	357	215	207	747	808	1,630
26	528	908	1,290	358	175	169	875	1,260	2,980
27	521	1,270	1,790	360	187	182	704	578	1,100
28	508	1,390	1,910	352	240	228	743	684	1,370
29	491	980	1,300	357	262	253	922	---	4,000
30	479	1,310	1,690	378	441	450	942	---	3,000
31	472	944	1,200	379	468	479	---	---	---
TOTAL	18,915	---	67,230	12,216	---	24,301	13,818	---	25,303
YEAR	665,025		7,630,324	TONS					

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER				DECEMBER	
1	788	680	1,450	1,520	4,200	17,200	3,100	3,090	25,900
2	706	626	1,190	1,280	3,180	11,000	2,620	2,660	18,800
3	657	557	988	1,150	2,400	7,450	2,320	---	16,000
4	608	425	698	1,050	2,030	5,760	2,120	2,310	13,200
5	573	411	636	1,020	2,330	6,420	2,390	3,120	20,100
6	546	371	547	1,050	2,770	7,850	2,260	2,370	14,500
7	514	---	530	1,700	6,430	32,000	2,040	2,010	11,100
8	494	391	522	1,450	3,070	12,000	1,870	---	11,000
9	490	271	359	1,340	2,600	9,410	1,780	2,920	14,000
10	485	278	364	1,220	2,250	7,410	1,690	1,920	8,760
11	460	218	271	1,200	2,110	6,840	1,650	1,710	7,620
12	439	243	288	1,340	3,050	11,000	1,700	1,460	6,700
13	424	235	269	1,250	2,280	7,690	1,770	1,660	7,930
14	417	159	179	1,220	2,360	7,770	2,230	3,270	19,700
15	419	209	236	1,130	1,840	5,610	2,160	2,340	13,600
16	397	197	211	1,240	2,410	8,070	1,970	2,060	11,000
17	389	160	168	1,940	4,680	24,500	1,880	2,100	10,700
18	386	157	164	2,060	4,170	26,600	1,770	1,590	7,600
19	367	191	189	2,950	4,620	36,800	1,720	1,580	7,340
20	363	172	169	5,060	8,540	140,000	1,610	1,470	6,390
21	345	140	130	6,830	7,580	140,000	1,650	1,540	6,860
22	343	146	135	9,880	8,590	243,000	2,040	3,250	21,800
23	353	87	83	10,400	7,950	263,000	3,910	6,610	69,800
24	366	67	66	20,100	13,900	754,000	3,070	3,240	26,900
25	452	714	940	11,500	7,520	233,000	2,710	2,660	19,500
26	889	16,000	38,400	7,930	5,020	107,000	3,850	4,850	53,200
27	1,330	16,700	60,000	7,340	5,070	100,000	2,910	2,550	20,000
28	1,110	5,330	16,000	6,180	4,390	140,000	2,650	2,500	17,900
29	843	3,130	7,120	4,890	3,970	52,400	4,380	4,540	57,700
30	1,410	8,930	38,200	3,710	3,280	243,000	4,650	3,290	41,300
31	1,910	7,470	38,500	---	---	---	3,840	2,440	25,300
TOTAL	19,273	---	209,002	120,930	---	2,666,780	76,310	---	612,200
JANUARY				FEBRUARY				MARCH	
1	4,010	3,110	33,700	17,000	15,900	793,000	2,230	3,840	23,100
2	4,250	2,340	26,900	10,100	7,840	214,000	3,890	5,730	60,200
3	5,100	3,450	47,500	7,040	5,680	108,000	10,000	11,500	368,000
4	4,750	2,790	35,800	5,130	4,760	65,900	10,700	12,400	358,000
5	3,710	2,550	25,500	4,150	4,200	47,100	7,000	7,600	144,000
6	3,190	1,980	17,100	3,500	3,400	32,100	5,980	8,100	131,000
7	2,850	1,740	13,400	2,960	3,760	30,000	4,570	6,310	77,900
8	2,550	---	10,000	2,580	3,200	22,300	3,780	5,420	55,300
9	2,300	1,260	7,820	2,320	---	19,000	3,450	6,810	63,400
10	2,190	---	6,900	2,200	---	17,000	4,110	8,460	93,900
11	2,160	---	6,400	2,210	3,130	18,700	3,620	5,390	52,700
12	3,140	2,060	17,500	2,070	3,170	17,700	5,010	7,510	102,000
13	3,140	---	15,000	2,350	4,650	29,500	5,710	6,140	94,700
14	3,290	2,220	19,700	2,850	5,100	39,200	5,940	5,450	87,400
15	2,710	1,740	12,700	2,410	3,600	23,400	4,610	3,860	48,000
16	2,450	1,760	11,600	2,630	4,250	30,200	3,900	3,960	41,700
17	2,280	1,850	11,400	2,550	3,740	25,700	3,760	4,820	48,900
18	2,170	1,510	8,850	2,260	2,960	18,100	3,420	4,330	40,000
19	2,030	1,490	8,170	2,110	2,780	15,800	3,090	3,850	32,100
20	1,860	2,040	10,200	1,940	2,530	13,300	2,970	3,210	25,700
21	1,780	2,890	13,900	1,820	2,510	12,300	2,570	2,890	20,100
22	1,740	2,290	10,800	1,880	2,610	13,200	2,290	2,560	15,800
23	1,820	2,180	10,700	1,920	2,560	13,300	2,180	2,800	16,500
24	2,220	---	18,000	1,740	2,120	9,960	2,010	2,570	13,900
25	2,330	---	19,000	1,630	1,770	7,790	1,880	2,330	11,800
26	2,650	---	24,000	1,560	1,570	6,610	1,840	2,480	12,300
27	3,790	3,970	40,600	1,540	1,480	6,150	1,710	2,240	10,300
28	4,610	4,190	52,200	1,530	1,460	6,030	1,610	2,220	9,650
29	4,020	2,800	30,400	---	---	---	1,520	2,080	8,540
30	3,930	2,800	29,700	---	---	---	1,440	1,910	7,430
31	5,260	3,780	63,500	---	---	---	1,400	1,780	6,730
TOTAL	94,280	---	658,940	93,980	---	1,655,340	118,190	---	2,081,050

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA--Continued
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	1,350	1,670	6,090	2,070	3,160	17,700	1,590	2,640	11,300
2	1,380	1,810	6,740	2,140	3,240	18,700	1,270	2,230	7,650
3	1,560	2,400	10,100	2,020	2,740	14,900	1,120	2,270	6,860
4	1,620	---	12,000	1,770	2,220	10,600	1,090	2,220	6,530
5	1,530	---	8,500	1,640	2,110	9,340	1,050	1,990	5,640
6	1,520	1,940	7,960	1,650	2,090	9,310	1,020	1,820	5,010
7	1,510	1,970	8,030	1,830	3,160	15,600	995	1,810	4,860
8	1,910	3,110	16,000	1,880	3,870	19,600	970	1,650	4,320
9	1,730	2,370	11,100	1,830	3,760	18,600	942	1,690	4,300
10	1,840	3,030	15,100	1,710	3,730	17,200	898	1,920	4,660
11	2,140	3,280	19,000	1,540	3,120	13,000	865	1,680	3,920
12	2,160	2,870	16,700	2,240	5,680	34,400	837	1,830	4,140
13	2,060	2,440	13,600	1,920	3,770	19,500	830	1,910	4,280
14	2,000	2,540	13,700	1,690	3,700	16,900	820	2,270	5,030
15	2,040	2,400	13,200	1,620	3,750	16,400	799	1,730	3,730
16	1,990	2,360	12,700	1,410	2,900	11,000	760	1,610	3,300
17	2,290	3,470	21,500	1,280	2,700	9,330	743	1,100	2,210
18	2,310	2,950	18,400	1,200	2,500	8,100	718	---	1,900
19	2,160	2,530	14,800	1,160	2,320	7,270	705	---	2,100
20	2,020	2,300	12,500	1,100	2,370	7,040	698	---	2,900
21	1,850	2,050	10,200	1,050	1,900	5,390	752	2,370	4,810
22	1,750	1,860	8,790	1,000	2,040	5,510	753	1,530	3,110
23	1,730	1,870	8,730	968	2,050	5,360	689	1,150	2,140
24	1,700	1,720	7,890	950	2,060	5,280	663	---	2,000
25	1,650	1,650	7,350	899	---	4,500	656	---	2,000
26	1,590	1,730	7,430	889	---	4,400	642	---	1,900
27	1,620	1,860	8,140	863	---	4,200	640	---	2,000
28	1,870	2,540	12,800	877	1,760	4,170	621	---	1,800
29	1,950	2,590	13,600	871	1,520	3,570	622	---	1,800
30	1,840	2,770	13,800	1,130	2,990	10,600	612	---	1,800
31	---	---	---	1,880	4,690	23,800	---	---	---
TOTAL	54,670	---	356,450	45,077	---	371,270	25,370	---	118,000
JULY			AUGUST			SEPTEMBER			
1	599	---	1,800	418	213	240	313	178	150
2	573	---	1,600	407	247	271	310	162	136
3	576	---	1,700	406	148	162	316	213	182
4	548	---	1,500	396	147	157	306	118	97
5	586	---	1,800	395	140	149	304	109	89
6	559	---	1,600	397	142	152	306	106	88
7	527	---	1,400	391	157	166	306	116	96
8	514	---	1,300	386	191	199	307	90	75
9	503	---	1,200	380	187	192	308	95	79
10	519	973	1,360	375	174	176	305	98	81
11	489	569	751	377	182	185	308	129	107
12	470	741	940	367	229	227	322	145	126
13	467	692	873	395	370	395	323	142	124
14	463	422	528	461	525	653	330	170	151
15	455	510	627	430	453	526	437	758	894
16	449	352	427	399	279	301	363	394	386
17	459	391	485	383	209	216	337	286	260
18	521	712	1,000	376	361	366	333	150	135
19	540	768	1,120	366	235	232	327	107	94
20	496	470	629	358	210	203	319	101	87
21	485	378	495	355	190	182	315	88	75
22	473	382	488	351	129	122	316	90	77
23	477	280	361	349	101	95	309	112	93
24	507	870	1,190	346	160	149	307	122	101
25	477	532	685	341	366	337	314	142	120
26	466	384	483	335	183	166	352	243	231
27	462	434	541	334	191	172	334	165	149
28	448	340	411	328	296	262	312	101	85
29	430	321	373	321	335	290	307	84	70
30	422	339	386	319	181	156	303	76	62
31	418	378	427	317	137	117	---	---	---
TOTAL	15,378	---	28,480	11,559	---	7,216	9,649	---	4,500
YEAR	684,666		8,769,228	TONS					

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST.	SAM- PLING METHOD, CODES	SEDI- MENT,	SEDI- MENT,	SED. SUSP.	SED. SUSP.	SED. SUSP.
			CUBIC		MENT,	DIS- CHARGE,	FALL	FALL	FALL
			FEET		SUS- PENDE	SUS- PENDE	DIAM.	DIAM.	DIAM.
			PER		(MG/L)	(T/DAY)	% FINER THAN .002 MM	% FINER THAN .004 MM	% FINER THAN .008 MM
OCT									
05...	1225	10.0	699	20.0	5,320	10,000	--	--	--
14...	1315	11.0	652	20.0	5,670	9,980	--	--	--
28...	1420	11.0	679	20.0	4,910	9,000	--	--	--
31...	1205	11.0	1,140	20.0	12,700	39,100	--	--	--
NOV									
03...	1405	12.0	7,890	20.0	128,000	2,730,000	14	16	24
03...	1530	12.0	7,870	20.0	95,000	2,020,000	11	13	23
03...	1945	12.0	8,790	20.0	74,400	1,770,000	10	15	20
03...	2250	12.0	8,560	20.0	67,000	1,550,000	9	10	16
04...	0935	10.0	6,440	20.0	40,900	711,000	6	7	11
07...	1235	9.0	4,020	20.0	18,000	195,000	--	--	--
14...	1120	8.0	5,940	20.0	19,500	313,000	--	--	--
14...	1340	8.0	6,190	20.0	20,000	334,000	--	--	--
17...	0920	8.0	10,500	20.0	28,600	811,000	7	9	13
17...	1110	8.0	10,000	20.0	25,200	680,000	8	9	10
17...	1315	8.0	9,830	20.0	24,800	658,000	6	7	9
18...	0945	7.0	11,700	20.0	20,400	644,000	6	7	11
20...	1040	--	7,850	20.0	16,200	343,000	--	--	--
22...	1130	7.0	4,550	20.0	10,900	134,000	--	--	--
25...	1125	6.0	5,860	20.0	14,200	225,000	--	--	--
DEC									
01...	1150	2.5	2,740	20.0	7,110	52,600	--	--	--
05...	1145	5.0	2,090	20.0	8,730	49,300	--	--	--
12...	1305	6.0	3,660	20.0	6,740	66,600	--	--	--
19...	1225	4.0	2,210	20.0	5,360	32,000	--	--	--
30...	1340	3.5	3,300	20.0	13,100	117,000	10	11	15

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.
	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.
	FALL	FALL	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN
	.016 MM	.031 MM	.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM
OCT								
05...	--	--	50	72	95	100	--	--
14...	--	--	45	70	93	99	100	--
28...	--	--	51	74	95	99	100	--
31...	--	--	67	79	94	99	99	99
NOV								
03...	38	53	66	77	97	99	100	--
03...	36	54	71	87	98	100	--	--
03...	33	47	59	80	96	99	100	--
03...	28	42	57	70	94	99	100	--
04...	17	26	41	60	89	98	100	--
07...	--	--	34	59	87	99	100	--
14...	--	--	32	52	80	95	99	100
14...	--	--	29	46	81	99	100	--
17...	21	31	41	53	77	93	99	100
17...	20	29	38	51	79	95	99	100
17...	16	23	32	43	77	97	100	--
18...	17	25	34	50	79	92	99	100
20...	--	--	27	44	74	95	100	--
22...	--	--	28	37	63	93	99	100
25...	--	--	31	47	73	96	100	--
DEC								
01...	--	--	30	41	60	90	99	100
05...	--	--	33	--	--	--	--	--
12...	--	--	33	--	--	--	--	--
19...	--	--	26	36	58	90	99	100
30...	25	35	46	60	78	93	99	100

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
JAN									
03...	1315	8.0	12,400	20.0	52,600	1,760,000	13	14	20
06...	1220	8.0	4,230	20.0	10,700	122,000	--	--	--
11...	1225	7.0	3,030	20.0	8,580	70,200	--	--	--
18...	1425	0.5	1,400	20.0	5,320	20,100	--	--	--
24...	1030	7.0	13,200	20.0	30,400	1,080,000	9	10	15
24...	1235	7.0	12,600	20.0	28,700	976,000	6	8	10
24...	1530	7.0	12,200	20.0	33,000	1,090,000	9	11	16
25...	1220	7.0	12,000	20.0	27,000	875,000	8	10	13
25...	1450	7.0	12,100	20.0	24,000	784,000	8	10	11
26...	1345	6.5	7,910	20.0	17,600	376,000	--	--	--
FEB									
01...	1140	5.5	2,350	20.0	9,760	61,900	--	--	--
07...	1255	6.0	1,540	20.0	4,320	18,000	--	--	--
13...	1235	7.0	5,750	20.0	10,600	165,000	--	--	--
14...	1110	6.0	4,260	20.0	9,140	105,000	--	--	--
21...	1350	6.5	3,470	20.0	6,710	62,900	--	--	--
28...	1205	7.0	2,550	20.0	5,700	39,200	--	--	--
MAR									
09...	1140	10.0	1,800	20.0	5,640	27,400	--	--	--
14...	1350	8.0	3,120	20.0	8,360	70,400	--	--	--
23...	1110	9.0	4,700	20.0	7,590	96,300	--	--	--
29...	1010	7.0	3,500	20.0	6,480	61,200	--	--	--
APR									
06...	1250	8.0	2,140	20.0	4,620	26,700	--	--	--
10...	1155	6.5	3,900	20.0	5,380	56,700	--	--	--
18...	1350	10.0	2,770	20.0	5,280	39,500	--	--	--
24...	1100	7.0	1,910	20.0	4,080	21,000	--	--	--
MAY									
03...	1025	8.0	3,530	20.0	7,020	66,900	--	--	--
14...	1240	12.0	3,490	20.0	5,120	48,200	4	5	9
14...	1835	12.0	3,540	20.0	22,800	218,000	18	24	36
15...	1105	9.5	3,350	20.0	14,100	128,000	10	11	20
24...	1035	9.0	3,180	20.0	8,620	74,000	--	--	--
JUN									
07...	1250	11.5	2,250	20.0	7,060	42,900	--	--	--
19...	1515	13.5	1,660	20.0	6,700	30,000	--	--	--
21...	1410	12.5	5,940	20.0	10,400	167,000	5	7	9
JUL									
01...	1420	15.0	1,970	20.0	4,620	24,600	--	--	--
20...	1315	15.0	963	20.0	4,710	12,200	--	--	--
27...	1430	16.5	866	20.0	4,990	11,700	--	--	--
AUG									
03...	1440	18.5	523	10.0	1,800	2,540	--	--	--
10...	1225	18.0	413	10.0	1,410	1,570	--	--	--
17...	1240	21.0	413	10.0	825	920	--	--	--
24...	1120	16.0	371	10.0	1,040	1,040	--	--	--
SEP									
07...	1430	14.0	737	20.0	6,430	12,800	--	--	--
11...	1225	10.0	509	20.0	1,500	2,060	--	--	--
21...	1210	14.0	357	10.0	682	657	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.
	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.
	FALL	FALL	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
	% FINER THAN .016 MM	% FINER THAN .031 MM	% FINER THAN .062 MM	% FINER THAN .125 MM	% FINER THAN .250 MM	% FINER THAN .500 MM	% FINER THAN 1.00 MM	% FINER THAN 2.00 MM
JAN								
03...	35	56	64	76	93	99	100	--
06...	--	--	44	58	81	96	99	100
11...	--	--	43	56	78	96	100	--
18...	--	--	29	39	64	90	98	100
24...	24	35	47	67	90	98	100	--
24...	16	24	33	42	73	94	99	100
24...	26	38	47	61	83	97	99	100
25...	22	32	42	53	84	95	99	100
25...	21	31	40	57	83	96	99	100
26...	--	--	26	39	66	81	81	100
FEB								
01...	--	--	42	55	78	94	99	100
07...	--	--	31	48	82	98	100	--
13...	--	--	28	42	68	90	98	100
14...	--	--	28	41	67	91	99	--
21...	--	--	29	44	73	95	100	--
28...	--	--	32	45	68	93	99	100
MAR								
09...	--	--	35	47	71	95	100	--
14...	--	--	28	45	73	93	99	100
23...	--	--	27	40	64	85	98	100
29...	--	--	20	30	53	81	96	99
APR								
06...	--	--	32	42	64	88	98	100
10...	--	--	23	35	62	90	99	100
18...	--	--	35	46	65	84	98	100
24...	--	--	39	50	70	90	99	100
MAY								
03...	--	--	27	38	62	88	98	--
14...	14	20	28	41	65	88	99	100
14...	55	70	78	84	92	98	100	--
15...	33	47	58	72	85	95	99	100
24...	--	--	32	45	69	89	98	99
JUN								
07...	--	--	45	59	79	93	99	--
19...	--	--	42	--	--	--	--	--
21...	16	23	34	53	81	96	99	100
JUL								
01...	--	--	41	--	--	--	--	--
20...	--	--	35	44	66	87	96	100
27...	--	--	37	--	--	--	--	--
AUG								
03...	--	--	19	27	54	88	97	99
10...	--	--	30	42	73	96	100	100
17...	--	--	30	46	83	99	100	100
24...	--	--	23	63	77	98	100	100
SEP								
07...	--	--	16	27	52	89	99	99
11...	--	--	18	27	51	64	100	--
21...	--	--	31	45	84	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
OCT												
02...	1220	12.0	362	10.0	768	751	--	--	--	--	--	--
NOV												
02...	1115	8.0	7,530	20.0	24,800	504,000	7	9	18	31	48	--
02...	1455	8.5	9,020	20.0	24,500	597,000	7	7	14	24	35	--
03...	1150	7.5	7,890	20.0	13,700	292,000	5	7	11	18	28	--
16...	1415	7.0	2,840	20.0	6,110	46,900	--	--	--	--	--	--
23...	1340	7.0	3,070	20.0	6,650	55,100	--	--	--	--	--	--
26...	1325	6.0	2,210	20.0	3,820	22,800	--	--	--	--	--	--
30...	1255	6.0	5,130	20.0	5,370	74,400	--	--	--	--	--	--
DEC												
12...	1215	4.0	1,960	20.0	4,680	24,800	--	--	--	--	--	--
27...	1215	4.0	2,630	20.0	4,160	29,500	--	--	--	--	--	--
JAN												
09...	1310	8.0	1,510	20.0	2,180	8,890	4	4	7	14	20	--
17...	1215	5.0	1,350	20.0	3,000	10,900	4	4	5	10	16	--
31...	1340	3.0	1,030	20.0	2,080	5,780	5	5	7	13	18	--
FEB												
11...	1335	5.5	2,060	20.0	5,420	30,100	2	2	3	7	12	--
21...	1150	5.5	1,650	20.0	2,430	10,800	5	6	10	17	24	--
MAR												
06...	1345	7.5	1,480	20.0	2,280	9,110	--	--	--	--	--	--
22...	1345	6.5	1,720	20.0	2,760	12,800	--	--	--	--	--	22
23...	1610	8.5	3,210	20.0	7,140	61,900	--	--	--	--	--	36
27...	1145	6.5	2,200	20.0	2,960	17,600	6	7	12	18	26	--
APR												
02...	1300	10.5	2,960	20.0	3,050	24,400	--	--	--	--	--	--
11...	1205	11.0	3,270	20.0	6,860	60,600	9	11	23	37	52	63
30...	1340	9.5	1,930	20.0	2,340	12,200	4	5	6	11	17	25
MAY												
17...	1400	14.5	2,320	20.0	5,050	31,600	--	--	--	--	--	47
24...	1450	14.0	2,260	20.0	9,660	58,900	12	19	24	40	54	64
28...	1155	12.5	2,030	20.0	14,400	78,900	13	14	19	33	47	64
31...	1145	12.0	1,640	20.0	10,700	47,400	8	13	17	27	41	56

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
JUN											
07...	1220	12.0	9,440	20.0	21,200	540,000	8	11	17	28	42
07...	1325	12.0	9,170	20.0	23,600	584,000	11	12	22	34	50
07...	1635	12.0	8,920	20.0	23,000	554,000	11	14	24	40	56
08...	1410	13.0	5,660	20.0	10,400	159,000	10	12	17	28	41
10...	1310	12.5	3,400	20.0	7,920	72,700	6	9	15	24	35
27...	1525	16.5	1,250	20.0	6,360	21,500	--	--	--	--	--
AUG											
05...	1325	17.0	675	20.0	3,930	7,160	--	--	--	--	--
23...	1245	27.0	551	20.0	2,390	3,560	--	--	--	--	--
SEP											
03...	1610	18.5	481	20.0	2,240	2,910	--	--	--	--	--
10...	1530	13.5	1,240	20.0	7,580	25,400	6	7	8	15	25
24...	1335	15.0	597	20.0	2,200	3,550	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
02...	27	--	38	--	71	--	96	--	100	--	--
NOV											
02...	62	--	78	--	95	--	99	--	100	--	--
02...	46	--	59	--	73	--	79	--	93	--	98
03...	41	--	62	--	86	--	97	--	100	--	--
16...	29	--	--	--	--	--	--	--	--	--	--
23...	39	--	--	--	--	--	--	--	--	--	--
26...	44	--	--	--	--	--	--	--	--	--	--
30...	30	--	--	--	--	--	--	--	--	--	--
DEC											
12...	31	--	--	--	--	--	--	--	--	--	--
27...	25	--	--	--	--	--	--	--	--	--	--
JAN											
09...	27	--	39	--	66	--	92	--	99	--	100
17...	24	--	40	--	69	--	93	--	100	--	--
31...	26	--	40	--	69	--	94	--	100	--	--
FEB											
11...	24	--	46	--	78	--	96	--	100	--	--
21...	32	--	43	--	67	--	91	--	99	--	100
MAR											
06...	23	--	33	--	57	--	86	--	99	--	100
22...	23	38	--	68	--	92	--	100	--	--	--
23...	33	63	--	88	--	97	--	100	--	--	--
27...	37	--	49	--	70	--	90	--	100	--	--
APR											
02...	26	--	--	--	--	--	--	--	--	--	--
11...	63	75	--	89	--	98	--	99	--	100	--
30...	24	39	--	66	--	93	--	96	--	100	--
MAY											
17...	48	62	--	85	--	95	--	100	--	--	--
24...	64	76	--	89	--	98	--	100	--	--	--
28...	62	83	--	93	--	99	--	100	--	--	--
31...	56	74	--	90	--	99	--	100	--	--	--
JUN											
07...	--	56	--	77	--	95	--	99	--	--	100
07...	68	65	85	--	97	--	100	--	--	--	--
07...	72	69	86	--	96	--	100	--	--	--	--
08...	52	51	73	--	90	--	99	--	100	--	--
10...	48	48	68	--	86	--	99	--	100	--	--
27...	--	44	--	--	--	--	--	--	--	--	--
AUG											
05...	--	42	--	--	--	--	--	--	--	--	--
23...	--	24	--	--	--	--	--	--	--	--	--
SEP											
03...	--	20	--	--	--	--	--	--	--	--	--
10...	--	41	--	67	--	91	--	98	--	100	--
24...	--	33	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE (DEG C)	DIS- CHARGE, CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
OCT												
02...	1200	--	580	20.0	1,720	2,690	--	--	--	--	--	--
16...	1550	--	703	20.0	5,400	10,200	--	--	--	--	--	--
23...	1525	10.0	2,760	20.0	5,120	38,200	--	--	--	--	--	--
25...	1235	11.0	6,190	20.0	10,600	177,000	7	9	16	24	35	--
25...	1745	12.0	5,240	20.0	7,860	111,000	--	--	--	--	--	42
NOV												
06...	1235	8.5	5,590	20.0	5,720	86,300	--	--	--	--	--	33
08...	1210	7.0	5,340	20.0	6,290	90,700	--	--	--	--	--	34
21...	1320	2.5	2,010	20.0	1,620	8,790	--	--	--	--	--	27
29...	1315	0.5	1,160	20.0	1,250	3,910	--	--	--	--	--	--
DEC												
09...	1335	3.5	3,000	20.0	1,980	16,000	--	--	--	--	--	27
23...	1300	--	1,110	20.0	664	1,990	--	--	--	--	--	--
JAN												
03...	1255	4.5	2,020	20.0	1,240	6,760	--	--	--	--	--	--
10...	1230	6.0	2,880	20.0	1,220	9,490	--	--	--	--	--	--
16...	1215	8.0	2,130	20.0	970	5,580	--	--	--	--	--	--
19...	1140	7.5	8,310	20.0	9,780	219,000	11	14	17	33	49	66
21...	1345	5.0	4,080	20.0	4,840	53,300	--	--	--	--	--	53
29...	1210	6.5	2,280	20.0	2,570	15,800	--	--	--	--	--	34
FEB												
11...	1345	4.0	1,540	20.0	1,480	6,150	--	--	--	--	--	37
16...	1635	4.5	5,780	20.0	4,240	66,200	--	--	--	--	--	33
18...	1545	5.0	3,210	20.0	2,420	21,000	--	--	--	--	--	--
23...	1810	--	23,700	20.0	25,400	1,630,000	6	9	16	27	39	58
24...	1020	9.5	17,700	20.0	17,400	832,000	9	9	16	26	32	--
26...	1530	11.0	7,060	20.0	8,180	156,000	--	--	--	--	--	46
MAR												
07...	1445	12.0	3,360	20.0	7,700	69,900	7	10	16	24	35	49
07...	1450	12.0	3,330	20.0	7,160	64,400	8	10	18	27	37	52
14...	1205	7.5	2,980	20.0	4,900	39,400	--	--	--	--	--	49
28...	1435	11.5	2,300	20.0	2,460	15,300	--	--	--	--	--	51

DATE	TIME	TEMPER- ATURE (DEG C)	DIS- CHARGE, CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
APR							
09...	1400	11.5	1,480	20.0	2,000	7,990	--
24...	1245	6.5	1,430	20.0	2,460	9,500	25
MAY							
09...	1315	10.0	1,970	20.0	2,310	12,300	22
21...	1315	14.0	2,380	20.0	2,640	17,000	24
JUN							
10...	1220	19.5	970	20.0	2,030	5,320	--
JUL							
02...	1345	19.5	637	10.0	1,020	1,750	--
22...	1230	17.5	584	10.0	895	1,410	--
AUG							
07...	1110	20.5	425	10.0	1,060	1,220	--
21...	1215	--	371	10.0	726	727	--
SEP							
08...	1210	16.0	302	10.0	312	254	--
24...	1200	12.0	864	10.0	3,170	7,390	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
02...	27	--	--	--	--	--	--	--	--	--	--
16...	46	--	--	--	--	--	--	--	--	--	--
23...	36	--	--	--	--	--	--	--	--	--	--
25...	46	--	66	--	89	--	99	--	100	--	--
25...	44	64	--	87	--	98	--	100	--	--	--
NOV											
06...	33	57	--	83	--	94	--	99	--	100	--
08...	33	52	--	80	--	95	--	99	--	100	--
21...	27	39	--	62	--	83	--	98	--	100	--
29...	45	--	--	--	--	--	--	--	--	--	--
DEC											
09...	30	42	--	77	--	93	--	99	--	100	--
23...	45	--	--	--	--	--	--	--	--	--	--
JAN											
03...	35	--	46	--	71	--	92	--	100	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
16...	41	--	59	--	83	--	96	--	99	--	100
19...	64	84	--	94	--	99	--	100	--	--	--
21...	52	73	--	92	--	99	--	99	--	100	--
29...	33	52	--	82	--	97	--	100	--	--	--
FEB											
11...	37	52	--	80	--	96	--	100	--	--	--
16...	37	50	--	69	--	83	--	98	--	100	--
18...	40	--	55	--	78	--	96	--	99	--	100
23...	56	81	--	96	--	99	--	100	--	--	--
24...	49	--	71	--	91	--	99	--	100	--	--
26...	44	69	--	93	--	100	--	--	--	--	--
MAR											
07...	--	67	--	88	--	98	--	100	--	--	--
07...	--	72	--	93	--	99	--	100	--	--	--
14...	47	73	--	95	--	100	--	--	--	--	--
28...	50	71	--	90	--	99	--	100	--	--	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
APR						
09...	43	--	--	--	--	--
24...	30	40	75	95	99	100
MAY						
09...	21	36	79	99	100	--
21...	28	39	75	98	100	--
JUN						
10...	34	--	--	--	--	--
JUL						
02...	37	--	--	--	--	--
22...	23	--	--	--	--	--
AUG						
07...	10	--	--	--	--	--
21...	4	--	--	--	--	--
SEP						
08...	13	--	--	--	--	--
24...	32	--	--	--	--	--

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
OCT												
08...	1340	12.5	485	10.0	363	475	--	--	--	--	--	--
22...	1450	14.0	355	10.0	166	159	--	--	--	--	--	--
31...	1240	12.0	1,890	20.0	5,410	27,600	5	5	8	14	23	39
NOV												
14...	1325	9.5	1,180	20.0	2,250	7,170	--	--	--	--	--	19
19...	1125	9.5	3,060	20.0	4,340	35,900	--	--	--	--	--	39
21...	1440	9.5	6,370	20.0	7,540	130,000	--	--	--	--	--	32
22...	1255	--	9,170	20.0	6,810	169,000	--	--	--	--	--	--
24...	0950	10.0	22,900	20.0	16,200	1,000,000	--	--	--	--	--	34
24...	1120	9.5	24,200	20.0	13,800	902,000	--	--	--	--	--	38
24...	1405	9.5	22,900	20.0	15,000	927,000	5	6	11	17	26	40
24...	1655	9.5	19,600	20.0	13,400	709,000	--	--	--	--	--	36
24...	1710	9.5	19,400	20.0	13,000	681,000	--	--	--	--	--	35
25...	1125	8.5	11,300	20.0	7,330	224,000	--	--	--	--	--	42
DEC												
15...	1355	8.5	2,140	20.0	2,420	14,000	--	--	--	--	--	--
JAN												
05...	1255	6.5	3,700	20.0	2,550	25,500	--	--	--	--	--	--
14...	1340	--	3,190	20.0	2,200	18,900	--	--	--	--	--	--
28...	1055	7.5	4,730	20.0	4,300	54,900	--	--	--	--	--	--
FEB												
01...	1045	8.5	21,400	20.0	28,100	1,620,000	8	14	17	31	47	--
01...	1345	8.5	18,400	20.0	19,800	984,000	11	13	16	28	44	--
01...	1600	8.0	16,200	20.0	15,600	682,000	8	9	12	22	34	--
01...	1615	8.0	15,900	20.0	14,800	635,000	8	8	11	21	33	45
02...	0915	7.5	10,200	20.0	8,380	231,000	--	--	--	--	--	--
12...	1030	7.0	2,070	20.0	3,410	19,100	--	--	--	--	--	--
MAR												
02...	1340	8.0	3,960	20.0	5,480	58,600	--	--	--	--	--	--
04...	1035	9.0	11,000	20.0	12,600	374,000	8	9	11	24	36	54
09...	1215	8.0	3,320	20.0	5,400	48,400	--	--	--	--	--	--
APR												
02...	1140	12.0	1,380	20.0	1,720	6,410	--	--	--	--	--	--
29...	1505	--	1,940	20.0	2,460	12,900	--	--	--	--	--	--
DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
MAY												
11...	1430	--			1,590		20.0	3,110	13,400	24		
28...	1300	--			870		20.0	1,820	4,280	33		
JUN												
09...	1510	--			949		20.0	1,720	4,410	33		
JUL												
13...	1145	--			457		10.0	474	585	36		
31...	1215	--			412		10.0	353	393	--		
SEP												
03...	1210	18.0			316		10.0	156	133	52		

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

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
08...	23	--	--	--	--	--	--	--	--	--	--
22...	11	--	--	--	--	--	--	--	--	--	--
31...	--	67	--	83	--	92	--	100	--	--	--
NOV											
14...	--	33	--	68	--	92	--	99	--	100	--
19...	--	63	--	89	--	98	--	100	--	--	--
21...	--	51	--	82	--	98	--	100	--	--	--
22...	37	--	--	--	--	--	--	--	--	--	--
24...	--	51	--	75	--	88	--	99	--	100	--
24...	--	61	--	87	--	96	--	98	--	100	--
24...	--	63	--	89	--	98	--	99	--	100	--
24...	--	55	--	80	--	89	--	99	--	100	--
24...	--	54	--	81	--	98	--	99	--	100	--
25...	--	62	--	90	--	99	--	100	--	100	--
DEC											
15...	32	--	--	--	--	--	--	--	--	--	--
JAN											
05...	26	--	--	--	--	--	--	--	--	--	--
14...	28	--	--	--	--	--	--	--	--	--	--
28...	21	--	33	--	55	--	88	--	99	--	100
FEB											
01...	62	--	78	--	90	--	97	--	100	--	--
01...	58	--	77	--	93	--	99	--	100	--	--
01...	47	--	67	--	84	--	97	--	99	--	100
01...	--	71	--	89	--	94	--	98	--	100	--
02...	40	--	56	--	80	--	96	--	99	--	100
12...	44	--	--	--	--	--	--	--	--	--	--
MAR											
02...	31	--	--	--	--	--	--	--	--	--	--
04...	--	77	--	93	--	99	--	100	--	100	--
09...	38	--	--	--	--	--	--	--	--	--	--
APR											
02...	36	--	--	--	--	--	--	--	--	--	--
29...	38	--	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED	BED	BED	BED	BED	BED	BED	BED	BED	BED	
		MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	
		SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	
		DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	
		% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	
		THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	
		.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	64.0 MM
OCT												
05...	1140	0	0	2	3	11	60	94	100	--	--	--
05...	1145	1	6	37	83	96	99	100	--	--	--	--
05...	1150	0	3	26	84	99	100	--	--	--	--	--
05...	1155	0	1	5	18	32	41	49	65	92	100	--
05...	1200	0	0	2	2	8	56	92	99	100	--	--
14...	1220	0	1	2	4	26	76	95	99	100	--	--
14...	1225	0	3	18	45	62	70	75	78	82	100	--
14...	1230	0	1	9	39	76	91	95	97	100	--	--
14...	1235	0	1	10	33	52	64	73	86	95	100	--
14...	1240	0	0	2	3	12	52	88	99	100	--	--
28...	1340	0	1	6	8	13	40	71	94	100	--	--
28...	1345	0	2	24	67	83	90	92	94	98	100	--
28...	1350	0	2	17	68	94	98	99	99	100	--	--
28...	1355	0	1	4	17	72	94	97	98	100	--	--
28...	1400	0	0	1	1	3	20	52	89	100	--	--
31...	1125	1	4	23	52	71	83	91	96	100	--	--
31...	1130	0	1	9	41	83	95	98	99	100	--	--
31...	1135	0	1	8	32	68	84	91	96	100	--	--
31...	1140	0	1	2	2	7	26	43	59	76	86	100
31...	1145	0	1	4	6	8	20	34	54	83	100	--
NOV												
04...	1130	1	13	73	98	100	--	--	--	--	--	--
04...	1135	1	4	17	61	95	99	100	--	--	--	--
04...	1140	1	4	12	29	42	46	47	47	47	47	100
04...	1145	0	2	5	11	26	78	96	99	100	--	--
04...	1150	0	3	5	6	6	7	12	22	43	100	--
22...	1315	0	2	29	92	99	100	--	--	--	--	--
22...	1320	0	0	5	34	80	93	95	96	100	--	--
22...	1325	0	1	6	24	43	53	60	66	82	100	--
22...	1330	0	1	2	3	4	4	4	4	9	31	100
22...	1335	2	7	33	71	81	85	88	90	100	--	--
DEC												
05...	1100	0	2	10	51	77	81	83	86	91	100	--
05...	1105	0	1	8	41	84	96	98	100	--	--	--
05...	1110	0	1	6	33	66	75	79	85	94	100	--
05...	1115	0	1	5	19	42	62	75	87	98	100	--
05...	1120	2	14	68	97	99	100	--	--	--	--	--
12...	1215	0	1	5	36	77	92	95	98	100	--	--
12...	1220	0	1	6	32	70	88	94	98	100	--	--
12...	1225	0	0	3	12	29	52	66	73	82	100	--
12...	1230	0	2	6	15	25	33	38	52	74	100	--
19...	1020	0	0	2	19	51	67	76	85	96	100	--
19...	1025	0	1	5	45	85	93	95	96	100	--	--
19...	1030	0	0	4	34	85	98	100	--	--	--	--
19...	1035	0	0	2	7	18	40	62	76	87	100	--
19...	1040	3	13	29	34	37	40	43	48	59	100	--
30...	1245	0	0	2	12	34	52	62	72	85	100	--
30...	1250	0	1	4	25	59	76	82	87	92	100	--
30...	1255	0	1	4	18	34	51	63	73	94	100	--
30...	1300	0	1	3	10	19	33	48	62	79	90	100
30...	1305	5	13	17	20	23	28	37	55	84	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
JAN												
06...	1115	0	1	2	13	28	35	40	49	60	100	--
06...	1120	0	1	14	63	95	98	99	100	--	--	--
06...	1125	0	2	12	45	70	77	79	81	86	100	--
06...	1130	0	1	4	9	15	24	38	59	96	100	--
06...	1135	0	3	11	21	23	25	30	44	69	100	--
11...	1120	0	1	5	14	38	67	84	96	100	--	--
11...	1125	0	1	6	34	81	93	96	98	100	--	--
11...	1130	0	1	11	59	90	96	97	99	100	--	--
11...	1135	0	1	18	76	90	94	97	99	100	--	--
11...	1140	0	5	27	57	61	64	68	70	76	100	--
18...	1330	0	1	6	30	84	99	100	--	--	--	--
18...	1335	0	0	3	17	47	71	83	89	96	100	--
18...	1340	0	2	14	61	95	99	100	--	--	--	--
18...	1345	0	1	11	64	96	99	100	--	--	--	--
18...	1350	0	2	20	64	82	91	93	94	96	100	--
24...	1645	1	3	27	94	100	--	--	--	--	--	--
24...	1650	0	2	16	78	96	97	98	98	98	100	--
24...	1655	0	2	11	48	98	100	--	--	--	--	--
24...	1700	0	1	3	4	7	24	38	47	61	87	100
24...	1705	0	2	5	7	10	27	54	77	96	100	--
25...	1410	0	2	28	91	95	96	97	99	100	--	--
25...	1415	0	2	14	72	98	99	99	99	100	--	--
25...	1420	0	1	4	23	89	100	--	--	--	--	--
25...	1425	0	1	3	5	7	21	47	70	93	100	--
25...	1430	0	1	3	4	4	6	9	21	50	100	--
26...	1430	0	2	21	79	93	94	94	97	100	--	--
26...	1435	0	1	10	60	99	100	--	--	--	--	--
26...	1440	0	1	9	33	74	90	92	93	95	100	--
26...	1445	0	2	9	22	42	58	64	68	79	100	--
26...	1450	0	1	10	30	40	46	61	84	100	--	--
FEB												
01...	1100	0	1	20	90	100	--	--	--	--	--	--
01...	1105	0	0	6	37	85	94	95	96	97	100	--
01...	1110	0	1	4	23	56	82	87	90	96	100	--
01...	1115	0	2	6	17	32	43	49	56	78	100	--
01...	1120	0	2	12	28	32	38	48	63	82	100	--
07...	1215	0	1	9	34	45	47	49	51	55	100	--
07...	1220	0	1	10	61	93	98	99	100	--	--	--
07...	1225	0	0	4	25	81	99	100	--	--	--	--
07...	1230	0	0	4	29	80	94	96	98	98	100	--
07...	1235	2	7	21	37	41	44	55	79	96	100	--
13...	1130	0	3	28	92	100	--	--	--	--	--	--
13...	1135	0	1	9	51	84	87	89	90	94	100	--
13...	1140	0	0	4	16	56	83	86	89	94	100	--
13...	1145	0	1	3	6	15	42	62	78	100	--	--
13...	1150	0	1	5	12	18	36	45	58	74	100	--
21...	1245	0	6	55	100	--	--	--	--	--	--	--
21...	1250	0	0	2	26	69	82	86	90	94	100	--
21...	1255	0	1	2	7	19	42	54	61	71	100	--
21...	1300	0	1	4	8	14	17	19	24	31	100	--
21...	1305	2	8	27	41	43	45	49	59	79	100	--
28...	1300	0	2	20	80	91	92	92	94	94	100	--
28...	1305	0	0	1	3	5	6	7	8	10	23	23
28...	1310	0	0	1	5	17	27	34	44	67	100	--
28...	1315	0	1	6	29	70	90	96	98	100	--	--
28...	1320	0	2	10	20	23	27	34	49	78	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAR											
14...	1245	0	4	24	85	100	--	--	--	--	--
14...	1250	0	1	6	24	60	83	92	96	100	--
14...	1255	0	1	3	12	34	54	62	72	94	100
14...	1300	0	1	4	11	21	25	26	27	33	100
14...	1305	1	7	22	32	32	33	37	47	70	100
23...	1040	0	3	41	99	100	--	--	--	--	--
23...	1045	0	0	5	33	80	96	99	100	--	--
23...	1050	0	0	2	5	13	25	36	50	69	100
23...	1055	0	1	2	6	11	16	21	41	90	100
23...	1100	2	15	73	95	96	96	96	98	100	--
29...	1130	0	0	2	8	30	48	60	76	95	100
29...	1135	0	1	9	49	91	98	99	100	--	--
29...	1140	0	0	2	7	15	24	32	43	56	100
29...	1145	1	6	34	83	98	100	--	--	--	--
29...	1150	2	13	50	69	70	71	73	76	87	100
APR											
06...	1200	0	0	4	14	36	65	81	93	100	--
06...	1205	0	2	18	70	98	100	--	--	--	--
06...	1210	0	0	5	29	59	69	72	76	82	100
06...	1215	0	1	12	32	35	36	36	36	43	100
18...	1300	0	0	1	8	27	40	50	62	81	100
18...	1305	0	0	5	28	65	82	88	93	98	100
18...	1310	0	1	8	37	74	90	93	94	96	100
MAY											
17...	1015	0	0	2	6	23	50	68	79	95	100
17...	1020	0	1	5	27	58	75	82	88	94	100
17...	1025	1	3	8	15	22	26	29	34	44	100
17...	1030	2	8	19	33	52	67	76	86	100	--
17...	1035	3	17	58	95	97	99	99	100	--	--
JUN											
07...	1205	0	1	4	15	33	49	63	82	92	100
07...	1210	0	1	3	24	56	69	75	84	92	100
07...	1215	0	1	8	33	78	94	96	97	100	--
07...	1220	2	8	25	59	89	97	100	--	--	--
07...	1225	5	19	62	88	95	98	100	--	--	--
19...	1320	0	0	1	2	3	7	14	34	71	100
19...	1325	0	1	4	15	45	78	90	97	100	--
19...	1330	0	2	14	61	94	99	100	--	--	--
19...	1335	0	2	16	71	93	94	94	94	96	100
19...	1340	1	3	13	28	33	33	33	33	33	100
21...	1240	0	1	6	19	43	58	67	77	84	100
21...	1245	0	1	8	30	53	66	75	85	96	100
21...	1250	0	0	1	3	6	10	15	28	54	100
21...	1255	0	1	3	8	19	29	36	47	65	100
21...	1300	2	12	61	100	--	--	--	--	--	--
JUL											
06...	1255	0	0	1	2	5	12	23	44	84	100
06...	1300	0	2	10	49	91	98	99	99	100	--
06...	1305	0	2	9	42	74	85	89	93	98	100
06...	1310	0	3	30	95	100	--	--	--	--	--
06...	1315	0	3	30	85	100	--	--	--	--	--
11...	1310	0	1	5	16	25	35	49	70	93	100
20...	1205	0	1	5	14	21	28	45	72	96	100
20...	1210	0	0	3	14	39	56	64	72	82	100
20...	1215	0	0	3	23	65	85	91	94	100	--
20...	1220	0	1	7	58	97	100	--	--	--	--
20...	1225	0	3	41	99	100	--	--	--	--	--
27...	1310	0	1	4	15	26	36	50	68	87	100
27...	1315	--	0	3	18	54	73	80	85	87	100
27...	1320	0	0	3	22	75	97	99	100	--	--
27...	1325	0	1	7	57	97	99	100	--	--	--
27...	1330	0	5	54	100	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
AUG												
03...	1440	--	0	0	0	0	0	0	0	2	26	100
03...	1445	--	0	0	0	0	0	1	1	2	7	100
03...	1450	3	16	56	96	100	--	--	--	--	--	--
03...	1455	0	1	16	79	98	99	99	100	--	--	--
03...	1500	0	1	21	87	99	100	--	--	--	--	--
24...	1250	6	12	29	59	77	88	94	100	--	--	--
24...	1255	1	2	4	17	53	77	88	100	--	--	--
24...	1335	--	0	2	11	30	43	56	73	90	100	--
24...	1340	0	1	19	88	98	100	--	--	--	--	--
24...	1345	--	1	17	82	98	100	--	--	--	--	--
SEP												
07...	1240	0	2	9	39	78	92	97	100	--	--	--
07...	1245	0	2	11	70	96	99	100	--	--	--	--
07...	1250	0	1	13	47	70	79	84	90	100	--	--
07...	1255	0	1	3	7	28	57	72	83	91	100	--
07...	1300	0	8	33	55	69	90	100	--	--	--	--
11...	1155	0	0	3	15	63	86	96	99	100	--	--
11...	1159	0	1	13	54	86	97	99	100	--	--	--
11...	1203	0	0	5	51	94	99	100	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

NOV												
07...	1330	0	1	3	12	31	49	68	89	98	100	--
07...	1332	0	2	11	49	78	85	88	93	100	--	--
07...	1334	0	1	5	16	36	49	55	64	87	100	--
07...	1336	0	1	2	3	3	4	4	4	4	100	--
07...	1338	0	19	63	85	89	93	93	100	--	--	--
23...	1421	1	7	42	91	100	--	--	--	--	--	--
23...	1425	0	1	5	21	44	63	76	91	96	100	--
23...	1430	0	1	6	35	69	80	86	92	100	--	--
23...	1436	0	1	3	11	37	62	76	90	100	--	--
23...	1446	0	1	2	4	13	26	39	54	96	100	--
JAN												
09...	1340	0	0	2	9	51	87	92	93	94	100	--
09...	1345	0	0	3	27	84	99	100	--	--	--	--
09...	1350	0	0	1	16	54	78	88	94	98	100	--
09...	1355	0	0	6	66	100	--	--	--	--	--	--
09...	1400	0	0	0	5	18	28	33	38	45	58	100
17...	1240	0	0	1	2	9	29	50	68	91	100	--
17...	1242	0	0	3	17	68	89	94	97	100	--	--
17...	1244	0	0	2	15	47	61	68	74	87	100	--
17...	1246	0	0	1	9	25	42	54	70	90	100	--
17...	1248	0	0	5	42	97	100	--	--	--	--	--
31...	1407	0	0	3	19	75	94	97	100	--	--	--
31...	1409	0	0	4	34	56	61	63	66	79	100	--
31...	1411	0	0	3	15	29	49	61	70	83	100	--
31...	1413	0	0	5	35	64	84	94	98	100	--	--
FEB												
21...	1210	0	0	1	6	24	45	59	74	93	100	--
21...	1212	0	0	1	8	34	52	62	74	94	100	--
21...	1214	0	0	2	19	59	85	93	98	100	--	--
21...	1216	0	0	2	18	35	46	53	59	73	100	--
21...	1218	0	0	3	16	36	64	82	91	94	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAR											
06...	1545	0	0	1	6	33	60	75	88	97	100
06...	1547	0	0	2	21	70	85	89	93	98	100
06...	1549	0	0	4	37	79	91	95	98	100	--
06...	1551	0	0	3	19	39	58	75	89	100	--
22...	1405	0	0	1	5	13	22	30	46	67	100
22...	1407	0	0	1	5	19	36	48	59	68	100
22...	1409	0	0	2	13	42	70	85	93	97	100
22...	1411	0	1	2	11	20	24	29	42	63	100
22...	1413	0	1	10	64	81	87	91	96	100	--
23...	1625	0	1	2	5	10	16	24	34	60	100
23...	1627	0	1	2	10	33	45	52	61	78	100
23...	1629	0	1	6	35	72	83	88	93	95	100
23...	1631	0	0	3	9	14	21	29	48	74	100
23...	1633	0	3	27	93	100	--	--	--	--	--
27...	1215	0	0	1	8	36	52	60	72	91	100
27...	1217	0	0	1	7	28	58	77	89	98	100
27...	1219	0	0	6	56	99	100	--	--	--	--
APR											
02...	1330	0	0	1	10	29	42	51	62	73	100
02...	1332	0	0	2	15	50	76	85	91	95	100
02...	1334	0	2	42	98	100	--	--	--	--	--
11...	1245	0	0	1	5	16	28	43	68	92	100
11...	1247	0	1	4	21	54	75	84	89	96	100
11...	1249	0	1	11	59	99	100	--	--	--	--
30...	1300	0	0	4	26	61	73	79	85	94	100
30...	1302	0	0	2	12	39	65	82	92	100	--
30...	1304	0	1	13	90	100	--	--	--	--	--
MAY											
23...	1045	0	1	4	21	46	60	68	78	90	100
24...	1315	0	3	24	96	100	--	--	--	--	--
24...	1320	0	0	3	23	58	78	87	93	100	--
24...	1325	0	0	3	20	53	67	75	84	96	100
24...	1330	0	0	2	10	31	49	60	77	93	100
24...	1335	0	0	1	4	15	36	56	78	95	100
28...	1045	0	0	2	6	30	64	83	94	100	--
28...	1050	0	1	3	18	48	60	66	75	86	100
28...	1055	0	1	15	81	100	--	--	--	--	--
31...	1215	0	0	2	7	24	44	60	79	100	--
31...	1220	0	1	3	22	70	87	92	96	100	--
31...	1225	0	1	7	43	75	82	86	91	96	100
31...	1230	0	1	5	16	22	27	33	44	67	100
31...	1235	0	0	3	13	39	83	95	98	100	--
JUN											
07...	1410	0	1	4	6	8	15	30	57	80	100
07...	1412	0	1	5	15	27	47	68	89	100	--
07...	1414	0	1	3	6	14	27	41	52	77	100
07...	1416	0	1	3	5	13	39	61	75	93	100
08...	1453	0	1	7	28	56	66	72	80	92	100
08...	1500	0	1	11	43	72	85	92	97	100	--
08...	1504	0	0	1	3	9	22	56	88	97	100
08...	1511	0	1	5	11	18	27	39	58	69	100
20...	1355	0	1	17	59	75	87	95	100	--	--
20...	1358	0	1	8	48	80	88	91	96	100	--
20...	1401	0	1	5	23	55	72	78	84	91	100
20...	1406	0	2	9	28	65	87	96	99	99	100
27...	1545	0	3	16	45	82	97	99	100	--	--
27...	1550	0	3	12	36	69	89	97	100	--	--
27...	1555	1	3	27	80	96	99	99	100	--	--
27...	1600	1	7	49	85	90	93	96	99	100	--
27...	1605	4	25	89	100	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
AUG											
23...	1300	0	0	4	29	61	73	78	82	86	100
23...	1305	0	2	15	52	85	97	99	100	--	--
23...	1310	0	2	17	63	90	97	98	98	100	--
23...	1315	2	13	61	96	100	--	--	--	--	--
23...	1320	0	0	6	20	33	41	50	70	94	100
SEP											
03...	1540	1	8	35	80	92	93	94	96	100	--
03...	1545	0	1	13	62	90	97	98	99	99	100
03...	1550	0	1	8	34	69	86	94	99	100	--
03...	1555	0	0	7	50	88	96	98	99	100	--
03...	1600	0	0	6	60	91	93	94	95	99	100
10...	1515	0	2	8	26	56	78	89	96	99	100
10...	1520	1	4	19	70	93	97	99	100	--	--
10...	1525	0	2	14	62	87	92	93	95	96	100
10...	1530	0	1	11	30	52	77	90	97	100	--
10...	1535	2	22	90	100	--	--	--	--	--	--
24...	1345	0	2	18	71	99	100	--	--	--	--
24...	1350	0	0	3	24	62	84	92	97	100	--
24...	1355	0	1	14	75	96	99	100	--	--	--
24...	1400	0	0	6	38	72	86	92	96	100	--
24...	1405	0	0	1	2	8	36	71	94	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT												
16...	1610	1	4	22	33	47	82	97	100	--	--	--
23...	1548	0	0	0	1	1	5	18	49	87	100	--
23...	1556	0	1	4	32	79	92	95	97	100	--	--
23...	1603	0	1	9	44	84	95	98	100	--	--	--
25...	1300	1	3	7	14	21	25	26	29	32	100	--
25...	1305	0	2	6	18	34	44	54	58	80	100	--
25...	1310	0	1	6	23	40	50	58	67	76	100	--
25...	1315	0	0	1	2	4	7	12	21	41	100	--
25...	1801	0	1	3	8	14	21	26	33	64	100	--
25...	1804	0	1	4	10	16	19	22	38	71	100	--
25...	1809	0	1	10	49	78	86	90	92	99	100	--
DEC												
09...	1615	0	0	1	12	70	98	100	--	--	--	--
JAN												
19...	1240	0	1	2	9	15	21	29	59	100	--	--
19...	1241	0	0	6	45	89	98	100	--	--	--	--
29...	1520	1	9	63	99	100	--	--	--	--	--	--
FEB												
11...	1417	0	0	1	1	2	10	43	74	88	100	--
16...	1720	0	0	5	28	61	74	79	83	88	100	--
18...	1400	0	1	2	11	23	29	32	34	34	100	100
18...	1405	0	0	1	3	9	19	32	52	79	100	--
18...	1410	0	1	14	80	99	100	--	--	--	--	--
MAR												
14...	1225	0	0	2	5	9	20	46	77	100	--	--
14...	1228	0	1	11	74	99	100	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
NOV												
21...	1510	0	3	26	90	100	--	--	--	--	--	--
21...	1515	0	0	4	33	85	96	98	100	--	--	--
21...	1520	0	0	1	4	13	37	53	66	82	100	--
21...	1525	0	0	1	2	3	7	19	38	73	100	--
22...	1533	0	2	16	82	100	--	--	--	--	--	--
22...	1537	0	1	9	37	91	99	100	--	--	--	--
22...	1541	0	1	3	7	16	51	82	97	100	--	--
22...	1543	0	0	1	1	2	7	28	68	97	100	--
22...	1550	0	2	6	9	10	10	11	15	34	100	--
25...	1220	0	1	13	83	100	--	--	--	--	--	--
25...	1225	0	1	9	48	97	100	--	--	--	--	--
JAN												
05...	1345	0	0	3	21	67	91	97	98	100	--	--
14...	1437	0	1	12	73	99	100	--	--	--	--	--
14...	1448	0	0	0	2	6	10	14	17	27	42	100
28...	1337	0	1	7	46	97	99	100	--	--	--	--
28...	1342	0	0	2	15	54	81	89	94	98	100	--
28...	1348	0	0	0	2	2	3	7	16	36	70	100
SEP												
03...	1240	0	0	5	52	93	99	100	--	--	--	--
03...	1245	0	0	4	21	35	45	54	63	73	83	100
03...	1250	0	0	2	24	72	91	96	99	100	--	--

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

LOCATION.--Lat 46°16'30", long 122°54'48", in SW ¼ SE ¼ sec. 10, T.9 N., R.2 W., Cowlitz County, Hydrologic Unit 17080005, on left bank 40 ft downstream from Arkansas Valley Road bridge in Castle Rock, 2.7 mi downstream from Toutle River, and at mile 17.3.

DRAINAGE AREA.--2,238 mi², of which approximately 21 mi² is noncontributing. Prior to July 7, 1981, the noncontributing portion was approximately 40 mi².

PERIOD OF SEDIMENT DATA.--May 1980 to September 1984.

GAGE.--Water-stage recorder. Datum of gage is 20.20 ft National Geodetic Vertical Datum of 1929. Prior to Dec. 18, 1933, nonrecording gage at site 2 mi upstream at datum 14.93 ft higher. Dec. 18, 1933, to June 13, 1934, nonrecording gage, and June 14 to Sept. 30, 1934, water-stage recorder, at present site at datum 5.0 ft higher. Oct. 1, 1934, to May 21, 1980, water-stage recorder, on right bank at present site and datum.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

Water Year	Date	Time	Suspended- sediment concentration, mgL ⁻¹
1981	Dec. 26, 1980	0730	47,200
1982	Feb. 20, 1982	1355	43,200
1982	Mar. 20, 1982	0335	157,000
1983	Dec. 3, 1982	1920	33,800
1984	Nov. 3, 1983	1340	41,700

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	4,620	---	15,000	4,970	---	15,000	17,600	---	65,000
2	4,490	---	15,000	5,880	---	20,000	13,900	1,140	42,800
3	4,550	1,160	14,300	10,800	21,000	757,000	10,800	---	35,000
4	4,620	1,070	13,300	14,800	18,200	727,000	10,500	---	35,000
5	4,490	1,030	12,500	13,000	---	250,000	12,100	1,380	45,100
6	4,620	947	11,800	12,300	---	190,000	12,700	1,470	50,400
7	4,570	---	10,000	12,400	5,520	185,000	12,800	1,150	39,700
8	4,520	---	10,000	14,200	5,160	198,000	17,500	1,400	66,100
9	4,220	---	9,000	13,900	4,260	160,000	19,100	---	80,000
10	4,520	643	7,850	14,400	---	180,000	21,700	---	200,000
11	4,290	---	8,000	16,300	---	240,000	19,600	---	110,000
12	4,150	560	6,270	15,400	---	230,000	15,800	1,400	59,700
13	4,340	568	6,660	16,900	---	330,000	17,700	---	85,000
14	4,490	---	7,000	23,200	7,480	469,000	18,200	2,210	109,000
15	4,490	---	7,500	27,200	---	400,000	20,100	---	110,000
16	4,520	---	7,500	37,500	5,050	511,000	19,400	---	100,000
17	4,570	649	8,010	46,400	5,650	708,000	18,700	---	85,000
18	4,680	---	8,000	47,000	4,610	585,000	14,500	---	60,000
19	4,700	784	9,950	36,400	---	280,000	13,700	---	50,000
20	4,600	568	7,050	36,800	---	330,000	13,000	---	45,000
21	4,490	524	6,350	30,600	2,490	206,000	16,500	---	50,000
22	5,060	---	8,500	20,800	---	120,000	16,000	---	40,000
23	5,080	---	9,500	20,300	1,880	103,000	15,900	747	32,100
24	4,760	---	10,000	26,600	2,380	171,000	14,200	---	30,000
25	4,680	---	10,000	27,200	3,200	235,000	10,800	---	20,000
26	4,680	968	12,200	24,400	---	150,000	8,700	---	15,000
27	4,570	---	10,000	23,900	---	140,000	8,350	---	15,000
28	4,600	---	10,000	21,000	2,060	117,000	8,060	751	16,300
29	4,420	---	10,000	19,900	---	95,000	9,670	---	35,000
30	4,470	---	10,000	18,000	---	70,000	16,300	4,390	193,000
31	5,220	---	15,000	---	---	---	10,200	---	40,000
TOTAL	142,080	---	306,240	652,450	--	8,172,000	454,080	---	1,959,200
JANUARY			FEBRUARY			MARCH			
1	8,770	---	25,000	9,700	3,240	84,900	10,000	951	25,700
2	9,530	---	65,000	8,510	3,290	75,600	10,200	---	25,000
3	15,800	8,050	435,000	8,970	2,480	60,100	9,900	---	25,000
4	19,800	---	300,000	8,970	2,850	69,000	9,390	---	25,000
5	15,400	4,880	203,000	8,900	2,930	70,400	9,260	---	25,000
6	12,500	4,520	153,000	8,740	2,350	55,500	9,360	1,080	27,300
7	11,400	---	120,000	8,640	---	45,000	8,440	1,150	26,200
8	10,800	---	85,000	8,250	---	35,000	8,250	---	25,000
9	10,100	2,290	62,400	8,510	---	35,000	6,890	1,500	27,900
10	9,660	---	70,000	8,670	1,610	37,700	6,890	---	30,000
11	10,200	3,140	86,500	9,390	---	45,000	7,000	---	30,000
12	12,000	---	95,000	14,400	---	150,000	8,870	1,640	39,300
13	13,800	---	85,000	18,600	3,640	183,000	11,000	1,280	38,000
14	13,900	---	90,000	15,500	2,650	111,000	10,800	---	40,000
15	15,100	---	90,000	15,100	3,630	148,000	11,600	---	50,000
16	16,300	1,540	67,800	14,100	---	130,000	10,900	---	50,000
17	16,300	1,690	74,400	13,400	3,130	113,000	11,300	---	50,000
18	13,600	1,080	39,700	11,500	---	90,000	11,300	---	60,000
19	12,800	859	29,700	11,100	---	80,000	11,100	---	60,000
20	12,100	1,050	34,300	11,600	2,460	77,000	11,400	2,110	64,900
21	14,700	---	45,000	13,000	4,400	154,000	14,000	4,310	163,000
22	16,000	---	45,000	13,000	2,460	86,300	14,000	9,420	356,000
23	17,900	1,840	98,300	12,700	---	75,000	13,100	6,740	238,000
24	31,400	9,440	800,000	13,500	1,960	71,400	12,100	---	100,000
25	31,500	9,610	817,000	12,000	---	60,000	11,700	---	80,000
26	23,700	5,890	377,000	11,500	---	50,000	11,800	---	100,000
27	18,900	3,660	187,000	11,300	---	45,000	11,200	2,370	71,700
28	15,100	---	150,000	11,400	---	40,000	11,100	1,980	59,300
29	13,500	---	120,000	11,400	1,240	38,200	11,000	---	55,000
30	11,700	3,300	104,000	---	---	---	10,200	1,650	45,400
31	11,100	2,930	87,800	---	---	---	9,670	---	40,000
TOTAL	465,360	---	5,041,900	332,350	---	2,315,100	323,720	---	2,052,700

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	8,740	---	35,000	9,700	---	40,000	14,200	---	50,000
2	8,570	---	30,000	12,300	---	70,000	14,100	---	45,000
3	8,800	1,400	33,300	12,700	---	85,000	13,700	---	40,000
4	8,870	---	30,000	11,700	1,830	57,800	13,900	---	40,000
5	8,570	---	30,000	10,800	---	50,000	14,000	1,030	38,900
6	8,570	---	30,000	10,500	---	40,000	13,000	---	35,000
7	9,590	---	35,000	9,950	---	30,000	12,900	---	35,000
8	11,300	---	70,000	9,960	---	30,000	13,000	---	40,000
9	11,300	1,280	39,100	10,100	---	30,000	12,400	---	35,000
10	12,500	---	45,000	10,500	1,060	30,100	12,200	---	35,000
11	12,400	---	45,000	10,300	---	30,000	11,800	---	35,000
12	12,600	---	45,000	11,000	---	30,000	11,500	---	35,000
13	12,100	---	45,000	10,800	---	30,000	11,500	---	35,000
14	11,300	---	40,000	11,400	2,180	72,800	11,400	1,180	36,300
15	10,800	---	40,000	11,100	---	100,000	12,500	---	50,000
16	10,100	---	35,000	10,800	---	70,000	13,000	---	45,000
17	9,460	1,220	31,200	10,300	---	60,000	13,000	---	40,000
18	9,160	---	30,000	10,100	---	50,000	12,700	---	40,000
19	8,830	---	25,000	10,200	---	45,000	11,400	---	35,000
20	8,670	---	25,000	10,600	---	40,000	11,500	4,030	125,000
21	8,370	---	20,000	10,500	---	35,000	13,600	---	200,000
22	8,280	---	20,000	10,800	---	45,000	13,400	---	150,000
23	8,310	---	20,000	12,700	3,170	109,000	12,900	---	100,000
24	8,630	---	20,000	12,800	---	85,000	12,900	---	100,000
25	8,570	926	21,400	13,600	---	90,000	13,200	---	100,000
26	8,440	---	20,000	15,000	---	100,000	13,000	---	90,000
27	8,120	---	20,000	14,500	---	85,000	12,800	---	80,000
28	7,850	---	20,000	14,100	---	75,000	12,600	2,090	71,100
29	8,030	---	20,000	12,800	1,540	53,200	13,300	---	80,000
30	8,370	---	20,000	13,800	---	60,000	13,300	---	70,000
31	---	---	---	14,200	---	55,000	---	---	---
TOTAL	285,200	---	940,000	359,610	---	1,782,900	384,700	---	1,911,300
JULY			AUGUST			SEPTEMBER			
1	10,900	---	55,000	5,520	---	7,000	3,400	---	1,000
2	9,290	---	45,000	4,900	---	5,500	3,130	---	950
3	10,200	---	50,000	4,650	---	4,500	3,080	---	950
4	9,330	---	40,000	4,450	---	4,000	3,140	112	950
5	9,160	1,350	33,400	4,270	---	3,500	3,500	---	1,500
6	8,970	---	30,000	4,650	---	3,500	3,810	---	1,500
7	9,060	---	30,000	4,690	---	3,000	3,810	---	1,500
8	9,490	---	35,000	4,000	158	1,710	3,730	---	1,500
9	9,490	---	30,000	4,000	---	1,500	3,450	---	1,500
10	7,540	1,030	21,000	4,000	---	1,500	3,380	---	1,500
11	6,770	---	20,000	3,500	---	1,500	3,590	261	2,530
12	6,690	---	20,000	3,500	---	1,500	3,770	---	2,500
13	6,600	---	20,000	3,500	---	1,500	3,690	---	2,500
14	6,520	---	20,000	3,500	---	1,500	3,550	---	2,500
15	6,440	---	20,000	3,500	---	1,500	3,370	---	2,500
16	6,410	---	20,000	4,130	---	2,000	3,170	---	2,000
17	6,350	---	20,000	4,000	---	2,000	3,230	---	2,000
18	6,320	---	20,000	4,180	---	2,000	3,390	---	2,000
19	6,240	1100	18,500	3,500	---	1,500	3,270	---	2,000
20	6,240	---	20,000	3,500	---	1,500	3,090	---	2,000
21	6,220	---	15,000	3,900	128	1,350	3,130	---	2,000
22	6,220	---	15,000	4,230	---	1,500	3,440	---	2,500
23	6,220	---	15,000	4,000	---	1,500	3,670	---	2,500
24	6,190	---	15,000	4,170	---	1,500	3,500	---	2,500
25	6,220	---	15,000	3,840	---	1,500	4,160	---	2,500
26	6,240	730	12,300	3,460	---	1,000	4,240	246	2,820
27	6,190	---	10,000	3,760	---	1,500	4,300	---	3,000
28	6,160	---	10,000	4,130	---	1,500	4,190	---	2,500
29	6,130	---	10,000	4,080	---	1,500	4,220	---	2,500
30	6,130	---	9,000	3,770	---	1,500	4,240	---	2,500
31	6,130	---	8,500	4,070	---	1,500	---	---	---
TOTAL	226,060	---	702,700	125,350	---	68,060	107,640	---	60,700
YEAR	3,858,600		25,312,800	TONS					

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, CODES	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
OCT											
03...	1210	13.0	4,630	20.0	1,160	14,500	--	--	--	--	--
05...	1050	12.5	4,660	20.0	1,030	13,000	--	--	--	--	--
13...	1230	12.0	4,370	20.0	568	6,700	--	--	--	--	--
17...	1045	12.5	4,540	20.0	649	7,960	--	--	--	--	--
21...	1140	12.0	4,410	20.0	524	6,240	--	--	--	--	--
26...	1205	12.0	4,600	20.0	968	12,000	--	--	--	--	--
NOV											
03...	1340	13.0	11,500	20.0	41,700	1,290,000	14	20	31	50	64
03...	2300	--	16,800	20.0	34,100	1,550,000	10	16	22	35	52
04...	1130	12.0	13,600	20.0	13,600	499,000	7	12	17	28	42
04...	1310	12.0	13,500	20.0	14,400	525,000	9	10	13	24	37
07...	1240	10.5	12,600	20.0	5,520	188,000	--	--	--	--	--
14...	1400	10.0	21,000	20.0	6,940	393,000	--	--	--	--	--
16...	1500	11.5	39,000	20.0	5,090	536,000	--	--	--	--	--
17...	1155	11.0	46,100	20.0	5,440	677,000	--	--	--	--	--
17...	1555	11.0	46,100	20.0	5,670	706,000	--	--	--	--	--
18...	1320	11.5	44,200	20.0	3,860	461,000	--	--	--	--	--
21...	1220	11.0	32,300	20.0	2,500	218,000	--	--	--	--	--
25...	1350	9.5	27,100	20.0	2,760	202,000	--	--	--	--	--
28...	1430	10.5	20,400	20.0	2,060	113,000	--	--	--	--	--
DEC											
02...	1210	8.0	12,300	20.0	1,140	37,900	--	--	--	--	--
05...	1210	9.0	12,500	20.0	1,380	46,600	--	--	--	--	--
07...	1315	8.0	12,600	20.0	1,110	37,800	--	--	--	--	--
12...	1235	8.5	15,000	20.0	1,400	56,700	--	--	--	--	--
14...	1225	9.0	18,700	20.0	2,210	112,000	--	--	--	--	--
19...	1235	7.0	13,700	20.0	922	34,100	--	--	--	--	--
23...	1120	4.0	15,800	20.0	747	31,900	--	--	--	--	--
28...	1535	5.0	8,310	20.0	751	16,900	--	--	--	--	--
30...	1510	6.0	14,600	20.0	2,130	84,000	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
OCT											
03...	--	29	--	45	--	73	--	89	--	97	100
05...	--	41	--	62	--	91	--	100	--	--	--
13...	--	54	--	77	--	95	--	99	--	100	--
17...	--	48	--	62	--	93	--	98	--	100	--
21...	--	54	--	77	--	98	--	100	--	--	--
26...	--	45	--	56	--	75	--	99	--	100	--
NOV											
03...	--	85	--	94	--	99	--	100	--	--	--
03...	--	72	--	92	--	99	--	100	--	--	--
04...	--	57	--	80	--	92	--	97	--	100	--
04...	--	52	--	76	--	89	--	95	--	99	100
07...	44	40	80	--	98	--	100	--	--	--	--
14...	--	33	--	53	--	83	--	98	--	100	--
16...	--	49	--	68	--	90	--	98	--	100	--
17...	--	48	--	69	--	90	--	97	--	100	--
17...	--	36	--	55	--	76	--	91	--	99	99
18...	--	43	--	65	--	91	--	99	--	100	--
21...	29	27	48	--	87	--	99	--	100	--	--
25...	38	36	56	--	84	--	95	--	100	--	--
28...	--	28	--	--	--	--	--	--	--	--	--
DEC											
02...	--	44	--	65	--	90	--	100	--	--	--
05...	--	32	--	48	--	79	--	97	--	100	--
07...	23	28	33	--	61	--	86	--	100	--	--
12...	--	26	--	38	--	67	--	90	--	98	100
14...	--	37	--	53	--	82	--	97	--	100	--
19...	--	6	--	9	--	19	--	85	--	96	100
23...	79	15	82	--	94	--	99	--	100	--	--
28...	--	48	--	--	--	--	--	--	--	--	--
30...	--	65	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER- ATURE WATER (DEG C)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SAM- PLING METHOD, METHOD, CODES	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN												
03...	1525	9.0	20,200	20.0	20,700	1,130,000	73	--	--	--	--	--
06...	1215	9.0	12,000	20.0	4,520	146,000	46	64	84	91	96	100
09...	1240	8.0	10,000	20.0	4,320	117,000	28	44	80	99	99	100
11...	1215	8.0	10,200	20.0	3,140	86,500	33	--	--	--	--	--
17...	1230	7.0	16,200	20.0	1,690	73,900	25	38	66	98	100	--
20...	1345	3.0	16,200	20.0	2,000	87,500	12	17	29	58	93	100
23...	1250	6.0	16,600	20.0	1,130	50,600	43	56	75	96	100	--
24...	1415	8.0	32,000	20.0	10,300	890,000	49	73	89	93	97	100
25...	1320	9.0	34,100	20.0	11,000	1,010,000	50	71	88	96	99	100
26...	1250	6.0	23,400	20.0	5,870	371,000	42	--	--	--	--	--
27...	1220	6.0	19,100	20.0	3,660	189,000	44	61	94	99	100	--
31...	1235	5.5	10,800	20.0	2,930	85,400	39	58	93	100	--	--
FEB												
05...	1205	7.0	8,500	20.0	2,930	67,200	43	59	88	98	98	98
14...	1225	6.0	14,700	20.0	2,410	95,700	38	59	84	97	100	--
22...	1510	5.5	12,600	20.0	2,460	83,700	16	22	39	74	99	100
24...	1310	5.5	13,200	20.0	1,960	69,900	21	35	44	61	93	100
29...	1455	6.5	10,200	20.0	1,240	34,100	36	50	81	97	100	--
MAR												
01...	1545	7.0	10,100	20.0	1,800	49,100	17	22	35	67	98	100
07...	1110	6.0	8,740	20.0	1,150	27,100	49	68	84	98	100	--
13...	1510	7.5	11,500	20.0	1,280	39,700	44	--	--	--	--	--
20...	1325	9.0	11,100	20.0	2,110	63,200	14	20	31	61	93	100
26...	1500	8.0	12,400	20.0	3,140	105,000	32	43	59	80	94	98
APR												
03...	1200	7.0	7,810	20.0	1,400	29,500	32	42	65	85	95	100
09...	1255	7.0	10,300	20.0	1,280	35,600	34	51	83	98	100	--
17...	1215	7.0	9,330	20.0	1,220	30,700	51	67	90	99	100	--
25...	1425	8.0	8,510	20.0	926	21,300	14	18	30	60	97	100
MAY												
04...	1145	7.5	11,500	20.0	1,830	56,800	37	52	76	89	98	100
10...	1405	9.0	10,300	20.0	1,060	29,500	34	--	--	--	--	--
23...	1230	9.0	12,700	20.0	2,770	95,000	47	--	--	--	--	--
29...	1140	10.0	12,400	20.0	1,540	51,600	42	61	84	98	100	--
JUN												
05...	1130	9.0	13,800	20.0	1,030	38,400	36	--	--	--	--	--
14...	1340	10.0	11,500	20.0	1,180	36,600	38	56	66	88	99	100
20...	1450	11.0	12,000	20.0	3,960	128,000	48	--	--	--	--	--
28...	1255	12.0	12,500	20.0	2,090	70,500	10	14	24	65	96	100
JUL												
05...	1335	15.0	9,630	20.0	1,350	35,100	30	--	--	--	--	--
10...	1430	12.0	7,600	20.0	1,030	21,100	23	33	46	75	97	100
19...	1310	13.0	6,350	20.0	1,100	18,900	23	32	48	86	100	--
26...	1300	13.0	6,300	20.0	1,310	22,300	16	--	--	--	--	--
AUG												
08...	1345	16.0	3,940	20.0	1,550	16,500	25	39	74	95	100	--
21...	1310	16.0	3,530	20.0	584	5,570	1	2	5	40	90	98
SEP												
04...	1425	15.5	3,070	20.0	112	928	20	38	81	100	--	--
11...	1345	13.0	3,790	20.0	261	2,670	3	6	15	60	98	100
26...	1225	12.0	4,200	20.0	246	2,790	13	23	61	94	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT												
03...	1230	0	1	4	39	94	99	100	--	--	--	--
03...	1235	0	0	2	22	70	90	94	97	99	100	--
03...	1240	0	0	3	17	50	77	87	92	94	100	--
03...	1245	0	3	60	98	100	--	--	--	--	--	--
03...	1250	0	0	6	31	90	99	100	--	--	--	--
05...	1110	2	10	44	95	100	--	--	--	--	--	--
05...	1115	0	1	15	46	79	90	93	95	100	--	--
05...	1120	0	0	1	2	4	5	7	9	12	12	100
05...	1125	0	1	29	85	98	99	100	--	--	--	--
05...	1130	0	1	18	84	99	100	--	--	--	--	--
13...	1250	0	3	10	20	44	63	69	73	79	79	100
13...	1255	0	1	2	7	12	17	20	34	78	100	--
13...	1300	0	1	16	72	97	100	--	--	--	--	--
13...	1305	0	1	17	58	92	99	100	--	--	--	--
17...	1110	0	2	6	10	23	35	46	52	86	100	--
17...	1115	0	0	15	55	96	100	--	--	--	--	--
17...	1120	0	1	14	30	50	58	61	71	86	100	--
17...	1125	0	1	20	54	95	100	--	--	--	--	--
26...	1220	0	1	15	96	100	--	--	--	--	--	--
26...	1225	0	1	16	85	94	98	99	99	100	--	--
26...	1230	0	0	13	86	98	100	--	--	--	--	--
26...	1235	0	0	9	47	72	88	92	94	95	100	--
26...	1240	0	1	9	36	71	93	99	100	--	--	--
NOV												
03...	1410	2	7	38	98	100	100	--	--	--	--	--
03...	1415	1	4	10	61	96	99	100	--	--	--	--
03...	1420	3	8	42	96	100	--	--	--	--	--	--
03...	1425	1	4	16	81	99	100	--	--	--	--	--
03...	1430	1	3	11	59	98	100	--	--	--	--	--
04...	0155	3	18	54	92	100	--	--	--	--	--	--
04...	0205	1	5	25	73	94	98	99	99	100	--	--
04...	0210	1	8	28	80	99	100	--	--	--	--	--
04...	0230	2	6	21	89	100	--	--	--	--	--	--
04...	0240	2	6	15	73	99	100	--	--	--	--	--
04...	1209	1	3	7	47	83	89	92	95	98	100	--
04...	1212	2	9	28	96	100	--	--	--	--	--	--
04...	1214	1	10	38	96	100	--	--	--	--	--	--
04...	1219	0	2	11	57	91	98	98	99	100	--	--
04...	1222	2	18	53	83	96	99	100	--	--	--	--
07...	1255	0	3	12	34	81	97	99	100	--	--	--
07...	1259	1	6	36	94	100	--	--	--	--	--	--
07...	1301	1	11	50	96	100	--	--	--	--	--	--
07...	1303	1	10	55	94	99	100	--	--	--	--	--
07...	1305	2	19	76	97	100	--	--	--	--	--	--
14...	1426	0	1	4	25	76	90	93	94	95	100	--
14...	1430	0	2	13	55	85	93	95	97	100	--	--
14...	1433	0	4	24	91	100	--	--	--	--	--	--
14...	1439	0	5	37	94	100	--	--	--	--	--	--
14...	1441	1	10	73	100	--	--	--	--	--	--	--
16...	1355	0	4	28	93	100	--	--	--	--	--	--
16...	1536	0	1	2	3	18	56	75	84	91	100	--
16...	1540	0	2	10	34	70	80	82	84	86	86	100
18...	1349	0	3	30	95	100	--	--	--	--	--	--
18...	1350	0	1	11	49	87	96	98	100	--	--	--
18...	1357	0	1	6	43	94	99	100	--	--	--	--
18...	1400	0	1	4	20	50	64	66	68	74	100	--
18...	1404	0	1	3	15	64	94	99	100	--	--	--
21...	1253	0	0	4	10	30	74	88	93	100	--	--
21...	1256	0	1	11	44	96	100	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED	BED	BED	BED	BED	BED	BED	BED	BED	BED
		MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.
		SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
		DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
		% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
		THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN
		.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM
NOV											
21...	1259	0	3	37	93	99	99	100	--	--	--
21...	1302	0	2	31	85	99	99	99	100	--	--
21...	1304	0	2	36	99	100	--	--	--	--	--
25...	1413	0	3	29	96	100	--	--	--	--	--
25...	1415	0	2	18	74	91	95	95	95	95	100
25...	1420	0	3	31	87	98	100	--	--	--	--
25...	1425	0	1	14	51	90	97	98	99	100	--
25...	1428	0	3	51	98	100	--	--	--	--	--
28...	1502	0	1	6	36	85	92	93	94	96	100
28...	1505	0	1	17	93	99	100	--	--	--	--
28...	1507	0	2	24	92	100	--	--	--	--	--
28...	1511	0	0	3	27	75	97	99	100	--	--
28...	1513	0	1	17	95	100	--	--	--	--	--
DEC											
02...	1233	0	1	11	72	96	99	100	--	--	--
02...	1235	0	1	13	85	100	--	--	--	--	--
02...	1237	0	1	16	58	89	98	99	100	--	--
02...	1241	0	1	20	87	100	--	--	--	--	--
05...	1138	0	1	3	8	15	24	29	35	45	100
05...	1144	0	2	12	46	59	64	69	78	96	100
05...	1148	0	1	4	36	88	96	97	97	100	--
07...	1358	0	0	2	17	87	96	97	98	100	--
07...	1402	0	2	26	86	100	--	--	--	--	--
07...	1406	0	1	21	84	100	--	--	--	--	--
07...	1410	0	1	25	91	100	--	--	--	--	--
07...	1414	0	0	3	43	95	98	98	98	100	--
12...	1200	0	0	7	70	99	100	--	--	--	--
12...	1204	0	1	7	30	73	94	98	99	100	--
12...	1209	0	1	16	55	94	99	100	--	--	--
12...	1213	0	1	7	40	93	99	100	--	--	--
12...	1220	0	1	2	3	17	66	84	91	100	--
14...	1309	0	0	6	32	90	99	99	100	--	--
14...	1317	0	0	6	36	81	90	93	96	97	100
14...	1321	0	1	9	58	97	100	--	--	--	--
14...	1328	0	1	10	38	67	83	88	92	99	100
14...	1332	0	0	1	4	38	90	96	98	100	--
19...	1212	0	0	3	35	93	97	98	98	100	--
19...	1215	0	0	7	35	72	91	96	99	100	--
19...	1221	0	0	7	33	61	81	87	92	100	--
19...	1224	0	1	7	48	89	98	99	100	--	--
19...	1226	0	1	2	4	25	78	95	99	100	--
28...	1605	0	1	5	12	37	69	80	85	90	100
28...	1608	0	1	10	47	63	70	73	75	80	100
28...	1610	0	2	25	68	85	91	93	95	99	100
28...	1615	0	0	4	29	74	94	97	98	100	--
28...	1617	0	1	6	52	99	100	--	--	--	--
30...	1553	0	0	2	24	51	81	91	94	95	100
30...	1557	0	1	5	30	38	46	52	58	71	100
30...	1600	0	1	8	43	66	86	92	95	98	100
30...	1605	0	0	6	58	94	99	99	100	--	--
30...	1610	0	1	10	61	99	100	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED	BED	BED	BED	BED	BED	BED	BED	BED	
		MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	
		SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	
		DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	
		% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	
		THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	
		.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM
JAN											
06...	1233	0	1	5	30	84	99	100	--	--	--
06...	1234	0	1	3	5	14	48	62	68	80	100
06...	1243	0	1	7	23	49	72	80	87	94	100
06...	1246	0	1	6	40	80	89	90	92	94	100
06...	1249	0	7	65	99	100	--	--	--	--	--
09...	1253	1	9	67	100	--	--	--	--	--	--
09...	1256	0	4	62	97	98	99	99	100	--	--
09...	1300	0	6	82	100	--	--	--	--	--	--
09...	1303	1	21	97	100	--	--	--	--	--	--
09...	1305	1	16	95	100	--	--	--	--	--	--
20...	1402	0	0	2	17	78	97	98	98	100	--
20...	1405	0	1	13	78	99	100	--	--	--	--
20...	1410	0	0	4	37	52	58	62	64	72	100
20...	1414	0	1	15	86	100	--	--	--	--	--
20...	1417	0	0	4	58	95	99	100	--	--	--
26...	1300	0	2	7	8	9	23	46	66	81	100
26...	1313	0	0	1	3	18	41	55	73	89	100
26...	1314	0	1	6	26	79	98	99	100	--	--
26...	1318	0	5	29	92	99	100	--	--	--	--
26...	1320	0	3	24	87	99	99	100	--	--	--
31...	1257	0	2	18	95	98	98	98	98	98	100
31...	1302	0	4	46	90	97	100	--	--	--	--
31...	1305	0	7	51	93	100	--	--	--	--	--
31...	1310	0	4	43	72	93	98	99	100	--	--
31...	1313	0	7	73	100	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED	BED	BED	BED	BED	BED	BED	BED	BED	BED	
		MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	
		SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	
		DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	
		% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	
		THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	
		.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	64.0 MM
FEB												
22...	1550	0	0	2	4	22	67	88	96	100	--	--
22...	1555	0	0	5	45	83	88	89	91	94	100	--
22...	1559	0	0	4	29	83	97	98	98	100	--	--
22...	1603	0	0	5	25	74	96	99	100	--	--	--
22...	1610	0	0	4	22	70	96	98	100	--	--	--
24...	1338	0	0	1	2	25	73	85	89	92	100	--
24...	1342	0	1	12	61	86	95	99	100	--	--	--
24...	1345	0	1	7	25	55	71	77	82	90	100	--
24...	1353	0	0	3	23	90	100	--	--	--	--	--
24...	1357	0	0	5	21	69	93	96	97	99	100	--
25...	1450	0	0	4	10	19	31	35	37	44	77	100
25...	1455	0	1	19	59	84	95	99	100	--	--	--
25...	1500	0	1	19	68	80	90	91	92	93	100	--
25...	1505	0	1	24	82	98	99	100	--	--	--	--
25...	1510	0	0	5	39	95	98	98	98	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED	BED	BED	BED	BED	BED	BED	BED	BED	BED
		MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.
		SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
		DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
		% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	
		THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	
		.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM
MAR											
07...	1133	0	0	4	40	93	98	99	100	--	--
07...	1136	0	0	2	10	48	79	87	90	96	100
07...	1140	0	0	5	25	76	99	100	--	--	--
07...	1144	0	0	4	22	53	77	83	88	97	100
07...	1146	0	0	2	18	84	97	98	99	100	--
13...	1550	0	0	1	7	24	36	43	53	64	100
13...	1555	0	0	1	4	23	59	77	83	86	100
13...	1559	0	0	1	8	33	77	91	95	98	100
13...	1603	0	0	2	20	53	88	95	98	100	--
13...	1607	0	0	10	79	100	--	--	--	--	--
20...	1350	0	1	4	8	13	19	24	29	43	100
20...	1354	0	0	2	21	54	78	83	87	88	100
20...	1356	0	0	4	41	71	88	93	96	100	--
20...	1359	0	1	7	52	77	88	91	94	97	100
20...	1403	0	0	5	74	99	100	--	--	--	--
26...	1533	0	1	3	6	9	13	18	26	48	100
26...	1537	0	1	6	45	93	98	98	99	100	--
26...	1540	0	1	5	33	74	97	99	100	--	--
26...	1545	0	1	12	47	72	88	94	97	98	100
26...	1549	0	0	3	20	81	96	97	98	99	100
APR											
17...	1227	0	0	4	21	66	82	89	95	100	--
17...	1233	0	0	2	16	56	78	84	86	96	100
17...	1236	0	1	9	34	61	75	82	88	95	100
17...	1240	0	1	10	55	96	100	--	--	--	--
17...	1242	0	0	4	68	99	100	--	--	--	--
MAY											
04...	1205	0	1	4	13	35	50	62	74	84	100
04...	1208	0	1	10	42	87	94	96	99	100	--
04...	1211	0	1	9	56	90	94	95	95	96	100
04...	1219	0	1	8	27	37	40	43	46	63	100
04...	1221	0	0	5	42	95	99	100	--	--	--
10...	1440	0	0	2	25	94	97	97	97	100	--
10...	1445	0	1	11	38	62	73	77	81	83	100
10...	1450	0	2	32	96	100	--	--	--	--	--
10...	1453	0	1	10	40	64	88	95	98	100	--
10...	1456	0	1	7	38	50	54	58	64	78	100
23...	1241	0	1	3	10	57	82	87	89	93	100
23...	1245	0	1	12	88	100	--	--	--	--	--
23...	1247	0	1	6	41	73	86	91	94	98	100
23...	1250	0	2	19	69	92	99	100	--	--	--
23...	1254	0	2	25	90	100	--	--	--	--	--
29...	1154	0	0	2	3	20	73	88	93	98	100
29...	1158	0	1	6	39	66	80	87	93	100	--
29...	1205	0	0	4	28	71	93	96	97	100	--
29...	1206	0	0	4	89	100	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
JUN											
05...	1143	0	0	2	7	32	61	79	91	100	--
05...	1147	0	1	18	90	99	100	--	--	--	--
05...	1149	0	1	11	55	86	98	100	--	--	--
05...	1152	0	0	6	51	96	100	--	--	--	--
05...	1155	0	0	1	31	87	96	97	98	100	--
14...	1400	0	0	3	21	68	84	89	94	96	100
14...	1405	0	1	14	90	100	--	--	--	--	--
14...	1410	0	1	14	60	83	88	89	91	95	100
14...	1415	0	1	8	44	87	97	99	100	--	--
14...	1420	0	0	2	31	93	99	99	99	100	--
20...	1515	0	1	4	41	95	99	100	--	--	--
20...	1520	0	1	5	50	96	100	--	--	--	--
20...	1525	0	2	9	58	86	92	94	96	98	100
20...	1530	0	1	6	45	89	97	98	99	100	--
20...	1535	0	2	10	61	98	100	--	--	--	--
28...	1315	0	0	2	4	25	66	84	94	100	--
28...	1317	0	1	8	36	67	75	80	85	90	100
28...	1319	0	0	6	51	83	88	89	91	96	100
28...	1321	0	0	3	35	75	84	86	89	96	100
28...	1323	0	0	0	2	4	4	5	10	32	100
JUL											
05...	1355	0	1	9	50	81	92	96	99	100	--
05...	1357	0	1	14	69	89	95	96	97	98	100
05...	1359	0	0	9	59	89	93	94	96	100	--
05...	1401	0	0	5	45	86	97	98	99	100	--
05...	1403	0	0	1	31	95	99	99	100	--	--
10...	1505	0	0	7	57	83	88	91	93	96	100
10...	1507	0	2	27	90	100	--	--	--	--	--
10...	1509	0	1	10	50	74	80	83	86	93	100
10...	1511	0	0	9	71	96	97	98	98	100	--
10...	1513	0	0	1	35	94	95	96	96	97	100
19...	1335	0	1	2	34	87	94	97	98	100	--
19...	1337	0	1	12	55	77	89	93	95	100	--
19...	1339	0	0	13	77	98	99	99	100	--	--
19...	1341	0	0	8	50	81	92	97	100	--	--
19...	1343	0	0	1	19	87	95	96	96	96	100
26...	1325	0	1	8	52	88	95	97	99	100	--
26...	1327	0	1	15	75	91	95	96	97	100	--
26...	1329	0	1	18	79	97	99	100	--	--	--
26...	1331	0	0	11	84	99	99	100	--	--	--
26...	1333	0	0	2	40	98	100	--	--	--	--
AUG											
08...	1405	0	3	28	73	89	94	96	97	98	100
08...	1407	0	1	22	89	99	100	--	--	--	--
08...	1409	0	0	15	77	94	97	98	99	100	--
08...	1411	0	0	5	55	95	99	99	100	--	--
08...	1413	0	0	1	28	87	96	97	98	99	100
21...	1325	0	3	39	98	100	--	--	--	--	--
21...	1327	0	1	18	84	96	98	99	99	100	--
21...	1329	0	0	8	63	95	99	100	--	--	--
21...	1331	0	0	2	28	83	98	99	100	--	--
21...	1333	0	0	2	44	97	100	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
SEP											
04...	1450	0	0	5	49	91	98	99	100	--	--
04...	1452	0	0	6	45	82	96	98	99	100	--
04...	1454	0	0	7	51	78	88	92	95	97	100
04...	1456	0	0	4	36	86	98	100	--	--	--
04...	1458	0	0	3	50	98	100	--	--	--	--
11...	1400	0	1	1	20	88	99	100	--	--	--
11...	1402	0	1	13	69	98	100	--	--	--	--
11...	1404	0	1	11	63	94	99	100	--	--	--
11...	1406	0	0	8	55	78	88	93	96	100	--
11...	1408	0	0	2	49	99	100	--	--	--	--
26...	1245	0	1	6	26	48	62	68	74	78	100
26...	1247	0	1	21	75	94	97	98	99	100	--
26...	1249	0	0	8	53	93	98	99	99	100	--
26...	1251	0	0	5	43	95	99	99	100	--	--
26...	1253	0	0	2	32	96	100	--	--	--	--



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