

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SEDIMENT DATA FOR STREAMS NEAR MOUNT ST. HELENS,
WASHINGTON — Volume 2. Water Years 1981-83

By Randy L. Dinehart

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UNITED STATES DEPARTMENT OF THE INTERIOR
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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

| Multiply inch-pound units | | By | To obtain SI units |
|--|--|------------------------|--|
| | | <i>Length</i> | |
| inches (in) | | 2.54x10 ¹ | millimeters (mm) |
| feet (ft) | | 2.54x10 ⁻² | meters (m) |
| miles (mi) | | 3.048x10 ⁻¹ | meters (m) |
| | | 1.609x10 ⁰ | kilometers (km) |
| | | <i>Area</i> | |
| acres | | 4.047x10 ³ | square meters (m ²) |
| | | 4.047x10 ⁻¹ | square hectometers (hm ²) |
| | | 4.047x10 ⁻³ | square kilometers (km ²) |
| square miles (mi ²) | | 2.590x10 ⁰ | square kilometers (km ²) |
| | | <i>Volume</i> | |
| gallons (gal) | | 3.785x10 ⁰ | liters (L) |
| | | 3.785x10 ⁰ | cubic decimeters (dm ³) |
| | | 3.785x10 ⁻³ | cubic meters (m ³) |
| million gallons | | 3.785x10 ³ | cubic meters (m ³) |
| | | 3.785x10 ⁻³ | cubic hectometers (hm ³) |
| cubic feet (ft ³) | | 2.832x10 ¹ | cubic decimeters (dm ³) |
| | | 2.832x10 ⁻² | cubic meters (m ³) |
| cfs-days | | 2.447x10 ³ | cubic meters (m ³) |
| | | 2.447x10 ⁻³ | cubic hectometers (hm ³) |
| acre-feet (acre-ft) | | 1.233x10 ³ | cubic meters (m ³) |
| | | 1.233x10 ⁻³ | cubic hectometers (hm ³) |
| | | 1.233x10 ⁻⁶ | cubic kilometers (km ³) |
| | | <i>Flow</i> | |
| cubic feet per second (ft ³ /s) | | 2.832x10 ¹ | liters per second (L/s) |
| | | 2.832x10 ¹ | cubic decimeters per second (dm ³ /s) |
| | | 2.832x10 ⁻² | cubic meters per second (m ³ /s) |
| gallons per minute (gal/min) | | 6.309x10 ⁻² | liters per second (L/s) |
| | | 6.309x10 ⁻² | cubic decimeters per second (dm ³ /s) |
| | | 6.309x10 ⁻⁵ | cubic meters per second (m ³ /s) |
| million gallons per day | | 4.381x10 ¹ | cubic decimeters per second (dm ³ /s) |
| | | 4.381x10 ⁻² | cubic meters per second (m ³ /s) |
| | | <i>Mass</i> | |
| tons (short) | | 9.072x10 ⁻¹ | megagrams (Mg) or metric tons |
| | | <i>V i</i> | |

SEDIMENT DATA FOR STREAMS NEAR MOUNT ST. HELENS, WASHINGTON
Volume 2. Water Years 1981-83

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By Randy L. Dinehart

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ABSTRACT

This report presents fluvial sediment data collected during the period October 1980 through September 1983 at streams affected by the 1980 eruption of Mount St. Helens. To provide daily sediment discharge values and to document the sediment-transport characteristics of the impacted streams near Mount St. Helens, the U.S. Geological Survey has collected sediment data on a regular basis at 15 gaging stations. The data tables consist of three sections:

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

The methods of sediment data collection and analysis are discussed. The sediment concentrations and sieve diameters for samples collected from the March 19-20, 1982 lahar-runout flow in the Toutle River are listed in a separate table.

INTRODUCTION

During the water years 1981-1983, the average annual suspended-sediment yield measured at Toutle River at Tower Road was 74,000 tons/mi². That amount was greater than the sediment yield from any other nonglaciated drainage basin of similar size in North America, including the high sediment-yield streams of northern California (Janda and Nolan, 1979). The sediment has been largely derived from materials that were deposited on approximately one-third of the 512 mi² drainage basin by the May 18, 1980 eruption of Mount St. Helens.

The Lewis River basin had erodible sediments emplaced by the same eruption. Sediment yields for the Muddy River, Clearwater Creek, Pine Creek, and other Lewis River tributaries have increased from pre-eruption levels.

The problems that these high sediment yields have created are discussed in other publications (Dunne and Leopold, 1981; U.S. Army Corps of Engineers, 1981, 1982, 1983, 1984a, 1984b; Cowlitz County, 1983). To provide daily sediment discharge values and to document the sediment-transport characteristics of the impacted streams near Mount St. Helens, the U.S. Geological Survey has collected sediment data on a regular basis at 15 gaging stations. The station locations are shown in figure 1. Not all 15 stations have been operated at the same time, and sediment data have been collected at other sites less regularly. Sediment data for water year 1980 are presented in Volume 1 of this series (Dinehart and others, 1981).

This report presents sediment data for each station in three sections as listed below:

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

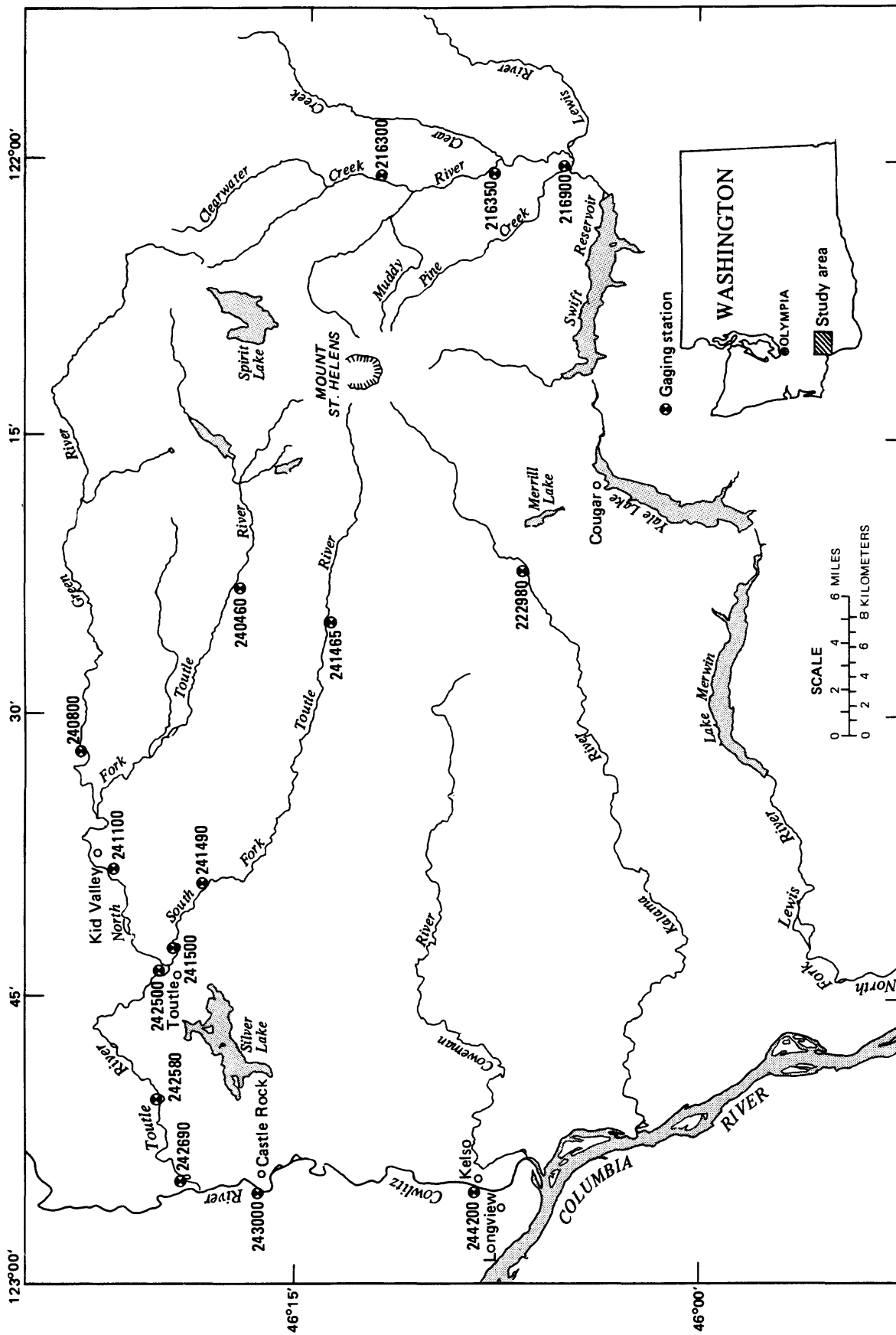


FIGURE 1. — Location on gaging stations on streams in Mount St. Helens area.

The annual suspended-sediment discharges for each station are summarized in table 1. The sediment concentrations and sieve diameters for samples collected from the March 19-20, 1982 lahhar-runout flow in the Toutle River are listed in table 2. Information on the availability of unpublished data or statistical analyses may be obtained from the U.S. Geological Survey, WRD, Project Office, Vancouver, Washington.

DESCRIPTION OF MOUNT ST. HELENS AREA

Mount St. Helens is an active volcano located on the western 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 to the 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. The eruption reduced the mountain's summit elevation from 9,677 ft.

The annual precipitation in the Mount St. Helens area averages from 45 inches at Kelso, Washington to 140 inches at the summit of Mount St. Helens (U.S. Weather Bureau, 1965). In the higher 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 in the higher altitudes. Streamflow from all sides of the mountain eventually flows to the Columbia River by the Cowlitz, Kalama, and Lewis Rivers.

Most of the Mount St. Helens area is thinly populated. Nearest the mountain are the small towns of Kid Valley, Toutle, and Cougar, with populations under 1,000. The more populous towns of Castle Rock, Kelso and Longview are further downstream on the Cowlitz River, where the flood hazard is aggravated by the potential for large influx of sediment from the Toutle River.

Table 1.--Summary of suspended-sediment discharge data

| Station number | Station name | Suspended-sediment discharge (tons) | | |
|-------------------|--|-------------------------------------|------------|------------|
| | | 1981 | 1982 | 1983 |
| 14216300 | Clearwater Creek near mouth near Cougar | -- | -- | 572,000 |
| 14216350 | Muddy River above Clear Creek near Cougar | -- | 3,790,000 | 3,090,000 |
| 14216900 | Pine Creek at mouth near Cougar | -- | 712,000 | 257,000 |
| 14240800 | Green River above Beaver Creek near Kid Valley | -- | 495,000 | 181,000 |
| 14241100 | North Fork Toutle River at Kid Valley | -- | 34,400,000 | 29,300,000 |
| 14241490 | South Fork Toutle River at Camp 12 | -- | 1,450,000 | 1,620,000 |
| 14242580 | Toutle River at Tower Road near Silver Lake | -- | 40,700,000 | 39,700,000 |
| 14242690 | Toutle River at Highway 99 Bridge near Castle Rock | 29,700,000 | 39,000,000 | -- |
| 14243000 | Cowlitz River at Castle Rock | 26,900,000 | 36,600,000 | 34,000,000 |

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 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.

SEDIMENT DATA COLLECTION AND ANALYSIS

Sediment data were collected on a weekly or biweekly schedule by U.S. Geological Survey personnel 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 were generally collected at intervals of one hour or less during many storm periods. The field techniques used for the collection of sediment data are standard Geological Survey procedures as described by Guy and Norman (1970).

Types of Sediment Data Collected

The types of sediment data that were routinely collected are listed below.

1. Cross-sections of suspended-sediment samples collected by the EDI (equal-discharge increment) method or by the FWI (equal-width increment) method;
2. Single-vertical samples collected by Geological Survey personnel;
3. Single-vertical samples collected by observers (private citizens instructed by Geological Survey personnel in collection of sediment samples);
4. Fixed-point samples collected by automatic pumping samplers.
5. Bed material samples collected at several verticals (usually determined by the EDI method) in conjunction with suspended-sediment measurements.

Methods of Sediment Analysis

Concentration analyses were performed by the Tacoma and Vancouver sediment laboratories, and particle size analyses were performed by the Sacramento, Tacoma, and Vancouver laboratories. Concentration and particle-size analyses were performed according to methods described by Guy (1969).

Sand-break Analyses

Sand-break analyses of suspended-sediment samples give the percent of sediment by weight that is finer than 0.062 mm. Sand breaks were performed occasionally for samples collected during October through December 1980. Beginning in 1981, sand breaks were performed for all Mount St. Helens samples where feasible. Sand breaks were usually determined by wet sieving.

Particle-size Analyses

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

Cross-section samples from suspended-sediment measurements were generally separated into two representative sets for a specific time. In most cases, one set was analyzed for particle size while the other was analyzed for sand break. There are some instances where single-vertical samples were analyzed for particle size.

Bed material samples were usually analyzed by dry sieving the material, although some wet sieve analyses were performed on bed material samples in 1981.

The high concentration sediment samples from the March 19-20, 1982 lahar-runout flow were analyzed in the same manner as suspended-sediment samples. Observers' samples and automatic pumping samples were usually analyzed for sediment concentration only (no particle size or sand break).

Computational Methods

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:

Suspended-sediment discharge (tons/day)

= Water discharge (ft^3/s) x Mean Concentration (mg/L) x 0.0027

where (0.0027) is a conversion factor for English units.

Daily suspended-sediment discharge represents the total English tons of suspended-sediment (dry weight) that passed the stream-measuring transect in one day. The most accurate sediment discharges are obtained when graphs of sediment concentration versus time can be prepared by plotting all available sediment concentrations, and the coincident water discharge is used to compute the sediment discharge. Examples of sediment-concentration graphs are shown in figures 2-6. If there is substantial variation in the sediment concentration or water discharge, the daily period is subdivided into smaller time increments; otherwise, the 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 over periods of several days. For periods where interpolation was insufficient to define a suspended-sediment concentration curve, regressions of suspended-sediment discharge versus water discharge ("sediment transport curves") were used to derive the daily suspended-sediment discharge.

Averaging of Instantaneous Sediment Concentrations

Because sediment concentration varies with time and because 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.

When differences in duplicate observations were determined not to be caused by procedural errors, the concentrations were averaged if the percentage difference was within certain limits. For concentrations under 10,000 mg/L, a second (duplicate) concentration was averaged with the first (reference) concentration if it was within 25 percent of the reference concentration; over 10,000 mg/L, the duplicate concentration was averaged if it was within 15 percent of the reference concentration. (These limits were not based on error analysis.) If the percentage difference was too great, the reference concentration was published; in some instances, both analyses were published. 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).

Limitations in Data Collection and Analysis

High flows on many streams near Mount St. Helens are often only a few hours in duration and are accompanied by high stream velocities and great amounts of tree debris. These conditions sometimes inhibited the ability to place a measuring device in the stream using standard techniques. Accurate current-meter measurements and reliable, depth-integrated samples are difficult to obtain under such conditions. Furthermore, streambeds in this area consist of sand and gravel and are subject to scour and (or) fill of several feet during high flows. Thus, the accuracy of sediment discharge data is limited for some storm periods.

Project priorities have also affected the degree of coverage that is given to selected streams. For instance, the Green River and drainage basins other than the Toutle River also had sediment yields increased by mudflows, blast deposits, or ashfall. However, since the sediment discharges did not contribute directly to the flood danger in the Cowlitz River valley, more data were collected on the streams of the lower Toutle River basin.

The presence of pumice in fluvial sediment may have an effect on analyses of particle size, but that effect has not been examined in the case of Mount St. Helens sediment. Specific gravities were determined for five sediment samples collected on May 18-19, 1980, and the values ranged from 2.55 to 2.63 (average value, 2.60). Since the specific gravity was very near the standard value of 2.65, no compensation was used in computation of sediment discharge.

The visual-accumulation (VA) tube is acknowledged to provide more meaningful particle-size distributions than wet sieving (Guy, 1969). However, pumice particles have air vesicles which 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. This property has prevented the use of the water-filled VA tube for suspended-sediment samples having visually-significant amounts of pumice.

EXPLANATION OF SEDIMENT DATA IN TABLES

The sediment data records for streams near Mount St. Helens are presented in downstream order. The following tables are presented for each station for the water years 1981-1983 in chronological order:

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

Some gaging stations may not include all types of tables.

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

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

Daily Suspended-Sediment Discharge: Tables

Records are fairly complete for water years 1982 and 1983, while some periods of record are incomplete for water year 1981. Sediment discharge records may be incomplete because a station was established after October, 1980, or because insufficient data were available for computation of a daily record. Table 1 lists the annual totals of suspended-sediment discharge for stations where a complete record was available.

The suspended-sediment discharge tables list water discharge, mean suspended-sediment concentration, and suspended-sediment discharge. Mean concentration is listed only for days when 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 sediment discharge. This difference occurs because subdivision gives a more representative weighting of time increments 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, and the results of any particle-size analyses.

Particle-size headings include Fall Diameter and Sieve Diameter. Some samples have information listed for both kinds of analyses. The following remarks apply to the "Number of Sampling Points" heading:

EWI cross-section samples are denoted by the number "9".

EDI cross-section samples have the actual number of sampling points specified.

Single-vertical samples are denoted by a double dash (--).

Particle Size of Surface Bed Material: Tables

Bed material samples from a cross-section measurement were composited or analyzed individually. Composited samples have the actual number of sampling points specified under the heading "Number of Sampling Points." Individual samples are denoted by a "1" under the heading "Number of Sampling Points." The individual sample for each vertical of the cross-section is listed in a group of similar 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 was too coarse for sampling at some verticals.

Publication of Single-Vertical Sample Concentrations

The high concentrations and extreme variability of concentrations in streams near Mount St. Helens are often defined only by unadjusted single-vertical sample concentrations, which may not represent the stream cross section. However, because the single-vertical concentrations are of general interest, all single-vertical samples collected by Geological Survey personnel are published, regardless of the flow conditions. Observers' samples and automatic pumping samples, although used for suspended-sediment discharge computations, are not published.

Classification of Lahar-runout Sample Concentrations

Samples of the lahar-runout flows that occurred on March 19-20, 1982, were collected at the North Fork Toutle River at Kid Valley (14241100), the Toutle River at Tower Road (14242580), and the Toutle River at Highway 99 (14242690). The high sediment concentrations for March 19-20, 1982 were classified as "Total Sediment Concentration." The classification is not entirely correct, but is used to distinguish the samples from normal river flow samples in the tables. "Total Sediment Sieve Diameters" are listed for the lahar-runout flow samples in table 2.

LEWIS AND KALAMA RIVER BASINS

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, Muddy River and Pine Creek, were impacted by mudflows during the May 18, 1980 eruption (Christiansen and Peterson, 1981). The Clearwater River basin, while not impacted by mudflows, was deposited with tephra. Three reservoirs, Swift Reservoir (capacity 446,550 acre-ft), Yale Lake (capacity 189,530 acre-ft), and Lake Merwin (capacity 246,000 acre-ft), are downstream from these tributaries.

The Kalama River, which drains southwestward from Mount St. Helens, has a drainage area of 205 mi². Mudflows entered the upper part of the Kalama River during the May 18, 1980 eruption (Christiansen and Peterson, 1981).

COWLITZ RIVER BASIN

The Cowlitz River basin has a drainage area of 2,480 mi² and includes the Toutle River basin, which received the major impact of the May 18, 1980 eruption of Mount St. Helens.

The Toutle River drainage area is 512 mi². Prior to the eruption, the Toutle River was a typical Cascades Range stream, having a cobble bed, forested watershed, and headwaters at several glaciers. Intensive sediment sampling in the Toutle River basin began immediately following the eruption. The 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 the deposits of the subsequent debris flows and mudflows provide an enormous, long-term supply of sediment for transport. Fall and winter storm runoff erode large volumes of the debris avalanche and mudflow deposits. Severe erosion of unprotected bank material is common along the Toutle River. Gullying and channel extension on the North Fork Toutle River debris-avalanche deposit make additional volumes of sediment available for transport (Dinehart, 1982).

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DEFINITIONS

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

Composite sample.--A sample formed by combining two or more individual samples or representative portions thereof.

Daily sediment discharge.--See sediment discharge.

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.

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.

Instantaneous sediment discharge.--See sediment discharge.

Lahar.--Mudflow of volcanic origin.

Lahar-runout flow.--Streamflow that evolves from a lahar, with sediment concentration greater than 530,000 mg/L or 40 percent by weight.

Mudflow.--A flowage of heterogeneous rock debris ranging from large clasts to suspended fine material, which is lubricated with a small amount of water.

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 usually expressed as percentages by mass.

Pumping sampler, automatic.--A sediment sampler whose intake is placed at a desired sampling point where the water-sediment mixture is withdrawn through a pipe or hose. Samples are collected at regular, predetermined intervals.

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 concentration.--The ratio of the mass 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.

Sediment discharge.--The mass or volume of sediment (usually mass) 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. Both types of discharge are usually expressed in tons per day.

Sediment load.--A qualitative term used to describe the sediment in transport.

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

Sediment-transport curve.--A line showing the relation between water discharge and sediment discharge.

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 usually expressed as mass or volume per unit area.

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.

14216300 CLEARWATER CREEK NEAR MOUTH NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|--|
| | | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | |
| 1 | 153 | --- | --- | 250 | --- | 140 | 416 | 1120 | 1260 | |
| 2 | 149 | --- | --- | 237 | --- | 120 | 396 | 540 | 577 | |
| 3 | 139 | --- | --- | 219 | 145 | 86 | 378 | 550 | 561 | |
| 4 | 139 | --- | --- | 180 | --- | 50 | 369 | 576 | 574 | |
| 5 | 127 | --- | --- | 160 | --- | 34 | 324 | 538 | 471 | |
| 6 | 108 | --- | --- | 158 | --- | 32 | 287 | 550 | 426 | |
| 7 | 106 | --- | --- | 153 | --- | 29 | 268 | 562 | 407 | |
| 8 | 112 | --- | --- | 147 | 62 | 25 | 264 | 550 | 392 | |
| 9 | 114 | --- | --- | 137 | 66 | 24 | 400 | 1280 | 1380 | |
| 10 | 109 | --- | --- | 127 | 66 | 23 | 528 | 1190 | 1700 | |
| 11 | 109 | --- | --- | 133 | 61 | 22 | 712 | 1630 | 3130 | |
| 12 | 104 | --- | --- | 137 | 75 | 28 | 632 | 619 | 1060 | |
| 13 | 103 | --- | --- | 316 | 1400 | 1190 | 534 | 701 | 1010 | |
| 14 | 104 | --- | --- | 1200 | 2020 | 6540 | 449 | 610 | 740 | |
| 15 | 109 | --- | --- | 2000 | 5500 | 29700 | 378 | 634 | 647 | |
| 16 | 119 | --- | --- | 3000 | 5020 | 40700 | 328 | 540 | 478 | |
| 17 | 137 | --- | --- | 2600 | 2730 | 19200 | 299 | 460 | 371 | |
| 18 | 123 | --- | --- | 1380 | 1830 | 6820 | 272 | 345 | 253 | |
| 19 | 115 | --- | --- | 920 | 1130 | 2810 | 247 | 317 | 211 | |
| 20 | 110 | --- | --- | 4170 | 14200 | 170000 | 234 | 279 | 176 | |
| 21 | 108 | --- | --- | 3050 | 3100 | 25500 | 222 | 271 | 162 | |
| 22 | 103 | --- | --- | 1480 | 1500 | 5990 | 213 | 198 | 114 | |
| 23 | 279 | --- | --- | 829 | 862 | 1930 | 213 | 222 | 128 | |
| 24 | 700 | --- | --- | 606 | 579 | 947 | 219 | 198 | 117 | |
| 25 | 498 | --- | --- | 476 | 370 | 476 | 219 | 188 | 111 | |
| 26 | 510 | --- | --- | 400 | 432 | 467 | 234 | 232 | 147 | |
| 27 | 410 | --- | --- | 346 | 385 | 360 | 240 | 346 | 224 | |
| 28 | 351 | 430 | 408 | 311 | 568 | 477 | 237 | 394 | 252 | |
| 29 | 303 | 363 | 297 | --- | --- | --- | 225 | --- | 120 | |
| 30 | 287 | 302 | 234 | --- | --- | --- | 216 | --- | 93 | |
| 31 | 272 | --- | 180 | --- | --- | --- | 210 | --- | 74 | |
| TOTAL | 6210 | --- | | 25122 | --- | 313720 | 10163 | --- | 17366 | |

14216300 CLEARWATER CREEK NEAR MOUTH NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | APRIL | | MEAN DISCHARGE (CFS) | MAY | | MEAN DISCHARGE (CFS) | JUNE | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 195 | 82 | 43 | 476 | 449 | 577 | 311 | 248 | 208 |
| 2 | 192 | 75 | 39 | 504 | 461 | 627 | 291 | 260 | 204 |
| 3 | 178 | 155 | 74 | 482 | --- | 550 | 268 | 265 | 192 |
| 4 | 178 | 85 | 41 | 444 | --- | 400 | 258 | 224 | 156 |
| 5 | 175 | 94 | 44 | 444 | --- | 400 | 237 | 169 | 108 |
| 6 | 175 | 114 | 54 | 510 | --- | 650 | 225 | 158 | 96 |
| 7 | 172 | 130 | 60 | 632 | --- | 1600 | 216 | 143 | 83 |
| 8 | 178 | 124 | 60 | 586 | --- | 1300 | 219 | 129 | 76 |
| 9 | 189 | 126 | 64 | 522 | --- | 700 | 228 | 129 | 79 |
| 10 | 207 | 183 | 102 | 488 | --- | 430 | 234 | 158 | 100 |
| 11 | 441 | 2420 | 3570 | 522 | --- | 440 | 250 | 199 | 134 |
| 12 | 838 | 2200 | 4980 | 554 | --- | 570 | 254 | 173 | 119 |
| 13 | 890 | 1380 | 3320 | 560 | --- | 650 | 240 | 188 | 122 |
| 14 | 705 | 680 | 1290 | 567 | --- | 780 | 216 | 158 | 92 |
| 15 | 567 | 577 | 883 | 652 | --- | 1400 | 210 | 298 | 169 |
| 16 | 422 | 570 | 649 | 660 | --- | 1700 | 207 | 260 | 145 |
| 17 | 364 | 687 | 675 | 682 | --- | 1900 | 201 | 250 | 136 |
| 18 | 315 | 575 | 489 | 638 | --- | 1200 | 195 | 192 | 101 |
| 19 | 283 | 731 | 559 | 554 | --- | 610 | 192 | 161 | 83 |
| 20 | 272 | 864 | 635 | 554 | 308 | 461 | 186 | 154 | 77 |
| 21 | 275 | 598 | 444 | 554 | 704 | 1050 | 178 | 162 | 78 |
| 22 | 303 | 806 | 659 | 600 | 797 | 1290 | 153 | 138 | 57 |
| 23 | 360 | 779 | 757 | 554 | 608 | 909 | 139 | 144 | 54 |
| 24 | 405 | 488 | 534 | 548 | 697 | 1030 | 129 | 116 | 40 |
| 25 | 432 | 394 | 460 | 625 | 892 | 1510 | 123 | 101 | 34 |
| 26 | 449 | 505 | 612 | 530 | 666 | 953 | 115 | 74 | 23 |
| 27 | 476 | 707 | 909 | 460 | 493 | 612 | 107 | 74 | 21 |
| 28 | 541 | 1180 | 1720 | 380 | 549 | 563 | 100 | 55 | 15 |
| 29 | 498 | 599 | 805 | 333 | 281 | 253 | 95 | 46 | 12 |
| 30 | 471 | 445 | 566 | 311 | 250 | 210 | 89 | 38 | 9.1 |
| 31 | --- | --- | --- | 307 | 234 | 194 | --- | --- | --- |
| TOTAL | 11146 | --- | 25097 | 16233 | --- | 25519 | 5866 | --- | 2823.1 |

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 sediment is defined for quartz particles as 2.65.

Stream discharge.--The quantity of flow passing a stream transect in a unit of time. (The flow contains both dissolved solids and sediment).

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

Suspended-sediment discharge.--The quantity of suspended sediment passing a transect in a unit of time.

Tephra.--Molten or solid volcanic materials, including ash, lapilli, pumice, bombs, and blocks, which are ejected into the air during an 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 the 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 RIVER NEAR MOUTH, NEAR COUGAR, WA

LOCATION.--Lat 46°12'07", long 122°00'54", In SW¼NW¼ 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 to current year.

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

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|---------------|------|---------------------|
| 1981 | Nov. 21, 1980 | 1120 | 5,240 |
| 1982 | Feb. 16, 1982 | 1403 | 3,980 |
| 1983 | Dec. 27, 1982 | 1405 | 941 |



Clearwater River near the confluence with Muddy River at station 216300.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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) | SEDIMENT DISCHARGE (TONS/DAY) |
|--------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|-------------------------------------|
| | | | | | | | | | | |
| AUGUST | | | | | | | | | | |
| 1 | 83 | 35 | 7.8 | 44 | 6 | .71 | 28 | 7 | .53 | |
| 2 | 79 | 28 | 6.0 | 43 | 9 | 1.0 | 28 | 7 | .53 | |
| 3 | 79 | 24 | 5.1 | 42 | 5 | .57 | 28 | 7 | .53 | |
| 4 | 76 | 22 | 4.5 | 45 | 5 | .61 | 29 | 5 | .39 | |
| 5 | 72 | 24 | 4.7 | 41 | 6 | .66 | 29 | 7 | .55 | |
| 6 | 69 | 20 | 3.7 | 37 | 4 | .40 | 29 | 8 | .63 | |
| 7 | 67 | 22 | 4.0 | 35 | 9 | .85 | 28 | 7 | .53 | |
| 8 | 64 | 23 | 4.0 | 36 | 7 | .68 | 28 | 7 | .53 | |
| 9 | 63 | 25 | 4.3 | 37 | 6 | .60 | 30 | 11 | .89 | |
| 10 | 61 | 28 | 4.6 | 38 | 6 | .62 | 34 | 15 | 1.4 | |
| 11 | 61 | 32 | 5.3 | 37 | 7 | .70 | 36 | 11 | 1.1 | |
| 12 | 59 | 29 | 4.6 | 35 | 10 | .95 | 44 | 34 | 4.0 | |
| 13 | 56 | 28 | 4.2 | 38 | 11 | 1.1 | 38 | 10 | 1.0 | |
| 14 | 56 | 31 | 4.7 | 40 | 9 | .97 | 36 | 8 | .78 | |
| 15 | 55 | 25 | 3.7 | 38 | 8 | .82 | 35 | 9 | .85 | |
| 16 | 55 | 31 | 4.6 | 37 | 7 | .70 | 34 | 3 | .28 | |
| 17 | 53 | 33 | 4.7 | 36 | 7 | .68 | 34 | 7 | .64 | |
| 18 | 52 | 29 | 4.1 | 35 | 4 | .38 | 33 | 9 | .80 | |
| 19 | 49 | 30 | 4.0 | 34 | 3 | .28 | 35 | 245 | 27 | |
| 20 | 48 | 16 | 2.1 | 34 | 5 | .46 | 49 | 776 | 103 | |
| 21 | 48 | 8 | 1.0 | 34 | 5 | .46 | 40 | 45 | 4.9 | |
| 22 | 47 | 8 | 1.0 | 33 | 1 | .09 | 37 | 22 | 2.2 | |
| 23 | 46 | 8 | .99 | 31 | 5 | .42 | 36 | 20 | 1.9 | |
| 24 | 46 | 7 | .87 | 31 | 17 | 1.4 | 35 | 17 | 1.6 | |
| 25 | 45 | 7 | .85 | 31 | 9 | .75 | 35 | 14 | 1.3 | |
| 26 | 45 | 8 | .97 | 31 | 4 | .33 | 36 | 26 | 2.5 | |
| 27 | 46 | 7 | .87 | 30 | 3 | .24 | 36 | 15 | 1.5 | |
| 28 | 47 | 8 | 1.0 | 30 | 3 | .24 | 35 | 11 | 1.0 | |
| 29 | 47 | 7 | .89 | 29 | 2 | .16 | 35 | 10 | .95 | |
| 30 | 46 | 7 | .87 | 30 | 19 | 1.5 | 34 | 10 | .92 | |
| 31 | 45 | 5 | .61 | 29 | 1 | .08 | ---- | ---- | ---- | |
| TOTAL | 1765 | ---- | 100.62 | 1101 | ---- | 19.41 | 1024 | ---- | 164.73 | |

14216300 CLEARWATER CREEK NEAR MOUTH NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 34 | 14 | 1.3 | 330 | 600 | 535 | 404 | 240 | 262 | |
| 2 | 34 | 16 | 1.5 | 320 | 460 | 397 | 404 | 583 | 636 | |
| 3 | 34 | 24 | 2.2 | 264 | 360 | 257 | 1580 | 12600 | 71300 | |
| 4 | 33 | 30 | 2.7 | 252 | 400 | 272 | 1880 | --- | 75000 | |
| 5 | 32 | --- | 3.0 | 256 | 400 | 276 | 1440 | --- | 45000 | |
| 6 | 38 | --- | 10 | 256 | 260 | 180 | 920 | --- | 20000 | |
| 7 | 47 | --- | 15 | 244 | 240 | 158 | 692 | --- | 12000 | |
| 8 | 48 | --- | 13 | 240 | 200 | 130 | 516 | --- | 7000 | |
| 9 | 46 | --- | 11 | 212 | 220 | 126 | 440 | --- | 5000 | |
| 10 | 43 | --- | 10 | 185 | 220 | 110 | 360 | --- | 3500 | |
| 11 | 42 | --- | 10 | 173 | 280 | 131 | 305 | --- | 2600 | |
| 12 | 41 | --- | 9.5 | 170 | 260 | 119 | 280 | --- | 2200 | |
| 13 | 38 | --- | 8.0 | 158 | 300 | 111 | 256 | --- | 1900 | |
| 14 | 38 | --- | 8.0 | 149 | 300 | 121 | 252 | --- | 1800 | |
| 15 | 38 | --- | 7.5 | 146 | 260 | 102 | 390 | --- | 3300 | |
| 16 | 37 | --- | 6.5 | 164 | 560 | 248 | 1460 | --- | 40000 | |
| 17 | 41 | --- | 9.5 | 425 | 2280 | 2940 | 1270 | --- | 25000 | |
| 18 | 41 | --- | 9.5 | 404 | 340 | 371 | 976 | --- | 12000 | |
| 19 | 40 | --- | 8.0 | 440 | 300 | 356 | 780 | --- | 5800 | |
| 20 | 39 | 70 | 7.4 | 392 | 240 | 254 | 564 | --- | 3400 | |
| 21 | 49 | 625 | 83 | 340 | 220 | 202 | 470 | --- | 2600 | |
| 22 | 195 | 6020 | 3170 | 300 | 200 | 162 | 458 | --- | 2500 | |
| 23 | 164 | 1710 | 757 | 264 | 180 | 128 | 392 | --- | 1900 | |
| 24 | 161 | 1100 | 478 | 244 | --- | 130 | 305 | --- | 1200 | |
| 25 | 155 | 580 | 243 | 220 | --- | 95 | 264 | --- | 900 | |
| 26 | 208 | 1340 | 753 | 197 | --- | 85 | 244 | --- | 780 | |
| 27 | 200 | 900 | 486 | 204 | 323 | 178 | 204 | --- | 520 | |
| 28 | 258 | 590 | 411 | 404 | 1530 | 1670 | 188 | --- | 460 | |
| 29 | 540 | 6180 | 9010 | 410 | 1140 | 1260 | 176 | --- | 400 | |
| 30 | 416 | 2140 | 2400 | 416 | 280 | 314 | 167 | --- | 350 | |
| 31 | 355 | 780 | 748 | --- | --- | --- | 153 | --- | 310 | |
| TOTAL | 3485 | --- | 18692.6 | 8179 | --- | 11418 | 18195 | --- | 349618 | |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 146 | --- | 270 | 330 | 280 | 249 | 516 | 216 | 301 |
| 2 | 143 | --- | 260 | 310 | 248 | 208 | 470 | 297 | 377 |
| 3 | 140 | --- | 240 | 285 | --- | 150 | 404 | 211 | 230 |
| 4 | 212 | --- | 400 | 252 | 200 | 136 | 404 | --- | 230 |
| 5 | 743 | --- | 3000 | 236 | 152 | 97 | 410 | 205 | 227 |
| 6 | 966 | --- | 7500 | 224 | 128 | 77 | 464 | 233 | 292 |
| 7 | 1410 | --- | 20000 | 216 | 116 | 68 | 716 | 454 | 878 |
| 8 | 1880 | --- | 45000 | 212 | 100 | 57 | 1140 | 899 | 2770 |
| 9 | 1280 | --- | 7000 | 200 | 100 | 54 | 2580 | 2510 | 19500 |
| 10 | 988 | --- | 2500 | 194 | 280 | 147 | 2430 | --- | 18000 |
| 11 | 800 | 445 | 961 | 236 | 232 | 148 | 1750 | --- | 8500 |
| 12 | 700 | 408 | 771 | 407 | 510 | 600 | 1170 | --- | 3500 |
| 13 | 680 | 200 | 367 | 564 | 430 | 655 | 880 | --- | 1800 |
| 14 | 510 | 242 | 333 | 556 | 280 | 420 | 830 | --- | 1500 |
| 15 | 430 | 300 | 348 | 548 | 238 | 352 | 652 | --- | 850 |
| 16 | 355 | 240 | 230 | 540 | 254 | 370 | 494 | --- | 430 |
| 17 | 325 | 240 | 211 | 784 | 574 | 1220 | 458 | --- | 360 |
| 18 | 335 | 240 | 217 | 976 | 557 | 1470 | 434 | --- | 320 |
| 19 | 325 | 240 | 211 | 820 | 298 | 660 | 398 | --- | 260 |
| 20 | 305 | 150 | 124 | 800 | 274 | 592 | 375 | --- | 220 |
| 21 | 275 | 417 | 310 | 708 | 352 | 673 | 360 | --- | 200 |
| 22 | 270 | 150 | 109 | 750 | 639 | 1290 | 355 | --- | 200 |
| 23 | 300 | 150 | 121 | 1190 | 1100 | 3530 | 350 | --- | 190 |
| 24 | 340 | 210 | 193 | 1200 | 672 | 2180 | 335 | --- | 170 |
| 25 | 380 | 330 | 339 | 1040 | 620 | 1740 | 320 | 157 | 136 |
| 26 | 420 | 1100 | 1250 | 820 | 520 | 1150 | 310 | 190 | 159 |
| 27 | 550 | 830 | 1230 | 628 | 302 | 512 | 315 | 411 | 350 |
| 28 | 470 | 600 | 761 | 516 | 373 | 520 | 305 | --- | 250 |
| 29 | 420 | 575 | 652 | --- | --- | --- | 375 | 359 | 363 |
| 30 | 355 | 399 | 382 | --- | --- | --- | 422 | 334 | 381 |
| 31 | 300 | 340 | 275 | --- | --- | --- | 428 | 192 | 222 |
| TOTAL | 16753 | --- | 95565 | 15542 | --- | 19325 | 20850 | --- | 63166 |

14216300 CLEARWATER CREEK NEAR MOUTH NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | APRIL | | | MAY | | | JUNE | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 416 | 201 | 226 | 423 | 460 | 525 | 245 | 134 | 89 |
| 2 | 422 | 190 | 216 | 419 | 266 | 301 | 211 | 110 | 63 |
| 3 | 392 | 180 | 191 | 412 | 204 | 227 | 192 | 91 | 47 |
| 4 | 355 | 147 | 141 | 405 | 192 | 210 | 182 | --- | 35 |
| 5 | 340 | 136 | 125 | 405 | 256 | 280 | 173 | 62 | 29 |
| 6 | 330 | 136 | 121 | 403 | 230 | 250 | 168 | 65 | 29 |
| 7 | 315 | 171 | 145 | 381 | 219 | 225 | 170 | 66 | 30 |
| 8 | 295 | 173 | 138 | 362 | 158 | 154 | 170 | 54 | 25 |
| 9 | 272 | 165 | 121 | 327 | 175 | 155 | 164 | 69 | 31 |
| 10 | 260 | 124 | 87 | 297 | 146 | 117 | 175 | 66 | 31 |
| 11 | 252 | 140 | 95 | 276 | 95 | 71 | 159 | 50 | 21 |
| 12 | 232 | 132 | 83 | 288 | 94 | 73 | 152 | 49 | 20 |
| 13 | 228 | 131 | 81 | 303 | 122 | 100 | 138 | 53 | 20 |
| 14 | 220 | 103 | 61 | 350 | 137 | 129 | 130 | 58 | 20 |
| 15 | 216 | 95 | 55 | 352 | 138 | 131 | 123 | 66 | 22 |
| 16 | 228 | 113 | 70 | 317 | 95 | 81 | 119 | 29 | 9.3 |
| 17 | 256 | 112 | 77 | 305 | 90 | 74 | 111 | 35 | 10 |
| 18 | 305 | 182 | 150 | 313 | 91 | 77 | 115 | 37 | 11 |
| 19 | 370 | 310 | 310 | 331 | 113 | 101 | 122 | 37 | 12 |
| 20 | 398 | 432 | 464 | 367 | 318 | 315 | 112 | 20 | 6.0 |
| 21 | 404 | 300 | 327 | 357 | 344 | 332 | 105 | 19 | 5.4 |
| 22 | 428 | 328 | 379 | 376 | 255 | 259 | 100 | 17 | 4.6 |
| 23 | 440 | 344 | 409 | 376 | 298 | 303 | 100 | 14 | 3.8 |
| 24 | 422 | 495 | 564 | 369 | --- | 260 | 96 | 14 | 3.6 |
| 25 | 416 | 311 | 349 | 377 | 255 | 260 | 92 | 14 | 3.5 |
| 26 | 404 | 293 | 320 | 376 | 212 | 215 | 86 | 15 | 3.5 |
| 27 | 392 | 203 | 215 | 351 | --- | 160 | 86 | 17 | 3.9 |
| 28 | 405 | 189 | 207 | 342 | 208 | 192 | 84 | 16 | 3.6 |
| 29 | 400 | 170 | 184 | 343 | 307 | 284 | 82 | 20 | 4.4 |
| 30 | 417 | 236 | 266 | 329 | 228 | 203 | 84 | 26 | 5.9 |
| 31 | --- | --- | --- | 280 | 187 | 141 | --- | --- | --- |
| TOTAL | 10230 | --- | 6177 | 10912 | --- | 6205 | 4046 | --- | 602.5 |

571,676.45 TONS

28

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 | | | | | | | | | | | | |
| 09... | 1525 | 8.0 | 503 | -- | 1580 | 2150 | -- | -- | -- | -- | -- | -- |
| 13... | 1610 | 8.5 | 246 | 5 | 1340 | 890 | 24 | -- | -- | -- | -- | -- |
| 23... | 1125 | 5.5 | 125 | 5 | 847 | 286 | -- | -- | -- | -- | -- | -- |
| 28... | 1350 | 6.5 | 140 | -- | 32 | 12 | -- | -- | -- | -- | -- | -- |
| 29... | 1635 | 5.0 | 150 | -- | 41 | 17 | -- | -- | -- | -- | -- | -- |
| 30... | 1625 | 6.5 | 210 | -- | 42 | 24 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 04... | 1320 | 5.5 | 170 | 5 | 600 | 275 | 15 | -- | -- | -- | -- | -- |
| 12... | 1325 | -- | 195 | 9 | 1030 | 542 | 40 | -- | -- | -- | -- | -- |
| 18... | 1110 | -- | 437 | -- | 1100 | 1300 | 27 | -- | -- | -- | -- | -- |
| 24... | 1255 | 4.5 | 540 | 9 | 885 | 1290 | 23 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 16... | 1410 | 4.0 | 363 | 5 | 581 | 569 | 18 | 28 | 47 | 73 | 90 | 97 |
| 23... | 1400 | 3.0 | 340 | 5 | 342 | 314 | 22 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 06... | 1355 | 1.0 | 102 | 5 | 69 | 19 | 52 | -- | -- | -- | -- | -- |
| 18... | 1310 | -- | 124 | -- | 66 | 22 | 39 | -- | -- | -- | -- | -- |
| 24... | 1600 | -- | 615 | 3 | 1090 | 1810 | 14 | 25 | 45 | 71 | 88 | 9 |
| FEB | | | | | | | | | | | | |
| 03... | 1450 | 3.5 | 210 | 5 | 145 | 82 | 19 | 22 | 42 | 63 | 77 | 82 |
| 08... | 1135 | 3.0 | 147 | 5 | 61 | 24 | -- | -- | -- | -- | -- | -- |
| 16... | 1405 | -- | 3000 | 9 | 3980 | 32200 | 37 | -- | -- | -- | -- | -- |
| 17... | 1545 | 5.0 | 2110 | 3 | 2730 | 15600 | 18 | 27 | 40 | 57 | 78 | 92 |
| 24... | 1305 | -- | 601 | -- | 558 | 905 | 48 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 05... | 1100 | 5.0 | 308 | 3 | 519 | 432 | 14 | 20 | 37 | 72 | 95 | 100 |
| 15... | 1400 | -- | 369 | 3 | 840 | 837 | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 01... | 1410 | 5.0 | 191 | 3 | 104 | 54 | 22 | 30 | 57 | 85 | 94 | 100 |
| 16... | 1320 | 6.0 | 411 | 3 | 617 | 685 | 14 | 19 | 36 | 56 | 87 | 95 |
| 21... | 1345 | 9.5 | 264 | 9 | 441 | 314 | 7 | 12 | 26 | 57 | 82 | 94 |
| MAY | | | | | | | | | | | | |
| 20... | 1515 | -- | 508 | 3 | 306 | 420 | 17 | 74 | 82 | 91 | 97 | 100 |
| JUN | | | | | | | | | | | | |
| 02... | 1430 | 8.0 | 284 | 3 | 269 | 206 | 20 | -- | -- | -- | -- | -- |
| 16... | 1355 | 13.0 | 206 | 3 | 257 | 143 | 12 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 01... | 1120 | 13.0 | 82 | 5 | 36 | 8.0 | 48 | -- | -- | -- | -- | -- |
| 20... | 1610 | -- | 52 | 9 | 16 | 2.2 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 17... | 1510 | -- | 35 | 9 | 7 | .66 | 36 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 01... | 1330 | 14.0 | 29 | 9 | 5 | .39 | 77 | -- | -- | -- | -- | -- |

14216300 CLEARWATER CREEK NEAR MOUTH NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, 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 | | | | | | | | | | | | |
| 20.... | 1350 | 4.5 | 41 | 9 | 11 | 1.2 | 51 | 54 | 56 | 61 | 71 | 89 |
| NOV | | | | | | | | | | | | |
| 03.... | 1530 | 6.0 | 248 | 9 | 314 | 210 | 33 | 46 | 64 | 80 | 93 | 98 |
| DEC | | | | | | | | | | | | |
| 27.... | 1405 | -- | 201 | 9 | 941 | 511 | 8 | 10 | 13 | 21 | 55 | 89 |
| FEB | | | | | | | | | | | | |
| 01.... | 1330 | 4.5 | 335 | 9 | 276 | 250 | 10 | 15 | 27 | 52 | 78 | 94 |
| 28.... | 1440 | -- | 500 | 3 | 326 | 440 | 19 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 24.... | 1515 | 6.0 | 330 | 9 | 179 | 159 | 28 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 06.... | 1245 | 6.0 | 320 | 9 | 154 | 133 | 22 | 28 | 43 | 76 | 96 | 100 |
| 28.... | 1035 | -- | 410 | 9 | 204 | 226 | 17 | 24 | 37 | 63 | 87 | 94 |
| 28.... | 1420 | -- | 410 | 9 | 196 | 217 | 15 | 22 | 35 | 59 | 79 | 89 |
| MAY | | | | | | | | | | | | |
| 18.... | 1240 | 7.0 | 305 | 5 | 91 | 75 | 19 | 25 | 40 | 66 | 83 | 88 |
| JUN | | | | | | | | | | | | |
| 06.... | 1205 | 9.0 | 171 | 9 | 42 | 19 | 36 | 47 | 68 | 89 | 100 | -- |
| 06.... | 1505 | 10.0 | 155 | 9 | 75 | 31 | 18 | 27 | 40 | 59 | 81 | 96 |
| JUL | | | | | | | | | | | | |
| 07.... | 1335 | 9.0 | 88 | 9 | 9 | 2.1 | 17 | 29 | 44 | 81 | -- | -- |
| 07.... | 1605 | 9.0 | 78 | 5 | 7 | 1.5 | 34 | 50 | 69 | 88 | -- | -- |
| 26.... | 1300 | 12.0 | 92 | 9 | 8 | 2.0 | 46 | 65 | 96 | -- | -- | -- |
| 26.... | 1535 | 12.0 | 80 | 5 | 4 | .86 | 37 | 45 | 64 | 84 | 94 | -- |
| AUG | | | | | | | | | | | | |
| 04.... | 1400 | 12.0 | 72 | 9 | 4 | .78 | 68 | -- | -- | -- | -- | -- |
| 19.... | 1400 | -- | 55 | 9 | 3 | .45 | 69 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 09.... | 1240 | 9.0 | 52 | 9 | 26 | 3.7 | 89 | -- | -- | -- | -- | -- |
| 09.... | 1450 | 9.0 | 50 | 9 | 26 | 3.5 | 84 | -- | -- | -- | -- | -- |
| 29.... | 1640 | -- | 49 | 9 | 10 | 1.3 | 81 | -- | -- | -- | -- | -- |



Low-flow suspended sediment sampling technique at Clearwater Creek, station 216300.

14216300 CLEARWATER CREEK NEAR MOUTH NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | | |
|-------|------|-----------------------------|---|--|--|--|--|---|
| | | | | NUMBER OF SIEVE DIAM. % FINER THAN .062 MM | NUMBER OF SIEVE DIAM. % FINER THAN .125 MM | NUMBER OF SIEVE DIAM. % FINER THAN .250 MM | NUMBER OF SIEVE DIAM. % FINER THAN .500 MM | NUMBER OF SIEVE DIAM. % FINER THAN 1.0 MM |
| NOV | | | | | | | | |
| 03... | 1545 | -- | 1 | 0 | 4 | 24 | 71 | |
| 03... | 1550 | -- | 1 | 0 | 0 | 9 | 56 | |
| 03... | 1555 | 8.5 | 1 | 0 | 1 | 3 | 17 | |
| 03... | 1600 | -- | 1 | 1 | 1 | 2 | 5 | |
| 03... | 1605 | -- | 1 | 0 | 0 | 0 | 2 | |
| APR | | | | | | | | |
| 06... | 1300 | -- | 1 | 0 | 1 | 3 | 10 | |
| 06... | 1305 | -- | 1 | 0 | 0 | 1 | 6 | |
| 06... | 1310 | -- | 1 | 0 | 0 | 1 | 8 | |
| 28... | 1105 | -- | 1 | 0 | 0 | 1 | 6 | |
| 28... | 1110 | -- | 1 | 0 | 1 | 2 | 5 | |
| 28... | 1115 | -- | 1 | 0 | 0 | 1 | 2 | |
| 28... | 1120 | -- | 1 | 0 | 1 | 1 | 7 | |
| 28... | 1125 | -- | 1 | 0 | 0 | 1 | 14 | |
| MAY | | | | | | | | |
| 18... | 1305 | 7.0 | 1 | 0 | 0 | 2 | 9 | |
| 18... | 1310 | 7.0 | 1 | 0 | 0 | 0 | 1 | |
| 18... | 1315 | 7.0 | 1 | 0 | 0 | 0 | 2 | |
| 18... | 1320 | 7.0 | 1 | 0 | 0 | 0 | 7 | |
| JUN | | | | | | | | |
| 06... | 1230 | 10.0 | 1 | 0 | 2 | 8 | 25 | |
| 06... | 1235 | 10.0 | 1 | 0 | 1 | 4 | 13 | |
| 06... | 1240 | 10.0 | 1 | 0 | 0 | 2 | 6 | |
| 06... | 1245 | 10.0 | 1 | 0 | 0 | 2 | 10 | |
| 06... | 1250 | 10.0 | 1 | 0 | 0 | 2 | 22 | |
| JUL | | | | | | | | |
| 07... | 1410 | 9.0 | 1 | 0 | 16 | 24 | 33 | |
| 07... | 1415 | 9.0 | 1 | 0 | 1 | 7 | 27 | |
| 07... | 1420 | 9.0 | 1 | 0 | 0 | 2 | 9 | |
| 07... | 1425 | 9.0 | 1 | 0 | 0 | 3 | 13 | |
| 07... | 1430 | 9.0 | 1 | 0 | 0 | 8 | 52 | |
| 26... | 1320 | -- | 1 | 0 | 1 | 6 | 22 | |
| 26... | 1325 | -- | 1 | 0 | 1 | 4 | 17 | |
| 26... | 1330 | -- | 1 | 0 | 0 | 2 | 9 | |
| 26... | 1335 | -- | 1 | 0 | 0 | 2 | 12 | |
| 26... | 1340 | -- | 1 | 0 | 0 | 6 | 38 | |
| AUG | | | | | | | | |
| 19... | 1420 | -- | 1 | 0 | 1 | 9 | 26 | |
| 19... | 1425 | -- | 1 | 0 | 1 | 5 | 18 | |
| 19... | 1430 | -- | 1 | 0 | 0 | 3 | 11 | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 | | | | | | | | | | | | | | |
| 03... | 94 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 03... | 92 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 03... | 40 | 62 | 82 | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 03... | 18 | 34 | 51 | 65 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 03... | 12 | 30 | 50 | 78 | 93 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| APR | | | | | | | | | | | | | | |
| 06... | 18 | 26 | 34 | 44 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 06... | 30 | 66 | 84 | 96 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 06... | 30 | 49 | 60 | 73 | 82 | 85 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 28... | 20 | 43 | 72 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 28... | 12 | 24 | 41 | 57 | 67 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 28... | 12 | 36 | 65 | 90 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 28... | 31 | 66 | 84 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 28... | 50 | 76 | 89 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| MAY | | | | | | | | | | | | | | |
| 18... | 19 | 29 | 45 | 57 | 71 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 1 | 8 | 39 | 80 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 12 | 33 | 58 | 87 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 34 | 68 | 89 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| JUN | | | | | | | | | | | | | | |
| 06... | 40 | 51 | 64 | 78 | 90 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 06... | 24 | 32 | 48 | 70 | 88 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 06... | 13 | 24 | 36 | 47 | 61 | 85 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 06... | 28 | 49 | 65 | 76 | 87 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 06... | 55 | 82 | 93 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| JUL | | | | | | | | | | | | | | |
| 07... | 44 | 73 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 35 | 42 | 66 | 95 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 24 | 49 | 79 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 33 | 62 | 84 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 94 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 26... | 35 | 54 | 85 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 26... | 23 | 32 | 59 | 91 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 26... | 26 | 51 | 78 | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 26... | 27 | 51 | 75 | 93 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 26... | 82 | 96 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| AUG | | | | | | | | | | | | | | |
| 19... | 45 | 65 | 91 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 19... | 24 | 32 | 58 | 91 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 19... | 29 | 58 | 80 | 95 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | 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 |
|--------|------|-----------------------------|---|---|---|---|---|
| AUG | | | | | | | |
| 19.... | 1435 | -- | 1 | 0 | 1 | 4 | 12 |
| 19.... | 1440 | -- | 1 | 0 | 1 | 7 | 34 |
| SEP | | | | | | | |
| 09.... | 1311 | 9.0 | 1 | 2 | 4 | 7 | 13 |
| 09.... | 1316 | 9.0 | 1 | 1 | 1 | 4 | 12 |
| 09.... | 1321 | 9.0 | 1 | 1 | 1 | 3 | 10 |
| 09.... | 1326 | 9.0 | 1 | 1 | 1 | 3 | 15 |
| 09.... | 1331 | 9.0 | 1 | 1 | 2 | 7 | 36 |
| 29.... | 1645 | -- | 1 | 2 | 2 | 4 | 8 |
| 29.... | 1650 | -- | 1 | 1 | 1 | 4 | 13 |
| 29.... | 1655 | -- | 1 | 2 | 2 | 4 | 8 |
| 29.... | 1700 | -- | 1 | 1 | 2 | 4 | 13 |
| 29.... | 1705 | -- | 1 | 2 | 4 | 9 | 31 |
| AUG | | | | | | | |
| 19.... | 26 | 57 | 77 | 92 | 100 | -- | -- |
| 19.... | 76 | 92 | 96 | 98 | 99 | 100 | 100 |
| SEP | | | | | | | |
| 09.... | 19 | 34 | 65 | 86 | 97 | 100 | 100 |
| 09.... | 16 | 26 | 57 | 86 | 100 | -- | -- |
| 09.... | 25 | 59 | 85 | 95 | 100 | -- | -- |
| 09.... | 32 | 58 | 80 | 94 | 98 | 100 | 100 |
| 09.... | 77 | 91 | 95 | 99 | 100 | -- | -- |
| 29.... | 13 | 32 | 72 | 97 | 100 | -- | -- |
| 29.... | 20 | 34 | 66 | 92 | 100 | -- | -- |
| 29.... | 20 | 56 | 86 | 96 | 99 | 100 | 100 |
| 29.... | 33 | 63 | 88 | 98 | 100 | -- | -- |
| 29.... | 64 | 83 | 91 | 95 | 97 | 100 | 100 |

14216350 MUDDY RIVER ABOVE CLEAR CREEK, NEAR COUGAR, WA

LOCATION.--Lat 46°07'03", long 122°00'24", in NW¼SE¼ 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 current year.

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

MAXIMUM MEASURED SUSPENDED--SEDIMENT CONCENTRATION.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|--------------|------|---------------------|
| 1981 | Nov. 7, 1980 | 1250 | 178,000 |
| 1982 | Oct. 6, 1981 | 1645 | 82,500 |
| 1983 | Dec. 3, 1981 | 1250 | 49,300 |



Mudflow deposits and tree debris in the Muddy River above Clear Creek, station 216350; view is upstream.

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 160 | --- | 860 | 426 | 6480 | 7450 | 906 | 780 | 1910 | |
| 2 | 207 | --- | 1500 | 435 | 4660 | 5470 | 1230 | 2040 | 6770 | |
| 3 | 138 | --- | 710 | 419 | 2900 | 3280 | 960 | --- | 3100 | |
| 4 | 127 | --- | 580 | 403 | 1870 | 2030 | 987 | 1510 | 4020 | |
| 5 | 381 | 2800 | 2880 | 387 | 1580 | 1650 | 3080 | 11400 | 99300 | |
| 6 | 2040 | 52600 | 331000 | 387 | 1580 | 1650 | 3370 | 6510 | 59200 | |
| 7 | 1240 | 11500 | 38500 | 384 | 1560 | 1620 | 3110 | 6630 | 65900 | |
| 8 | 1540 | --- | 100000 | 384 | 1360 | 1410 | 1650 | --- | 12000 | |
| 9 | 1090 | 10300 | 30300 | 378 | 1100 | 1120 | 1470 | --- | 8200 | |
| 10 | 853 | --- | 9000 | 378 | 1200 | 1220 | 1310 | --- | 6800 | |
| 11 | 658 | --- | 6800 | 546 | 3000 | 4420 | 1220 | 1900 | 6260 | |
| 12 | 564 | --- | 5600 | 680 | 4520 | 8300 | 1110 | --- | 5400 | |
| 13 | 510 | 3400 | 4680 | 665 | 4840 | 8690 | 1020 | --- | 4500 | |
| 14 | 411 | --- | 3200 | 891 | 8700 | 20900 | 890 | 1620 | 3890 | |
| 15 | 390 | --- | 2500 | 983 | 6500 | 17300 | 1480 | --- | 14000 | |
| 16 | 372 | --- | 2200 | 918 | 5920 | 14700 | 1380 | --- | 11000 | |
| 17 | 348 | --- | 2000 | 1190 | 4880 | 15700 | 1200 | --- | 7600 | |
| 18 | 330 | --- | 1700 | 1220 | 4410 | 14500 | 1080 | --- | 6800 | |
| 19 | 312 | 1700 | 1430 | 1310 | 4350 | 15400 | 2000 | --- | 20000 | |
| 20 | 307 | --- | 1200 | 1380 | 5440 | 20300 | 1400 | --- | 11000 | |
| 21 | 300 | --- | 970 | 2310 | 6430 | 42900 | 1110 | 2050 | 6140 | |
| 22 | 292 | --- | 790 | 2160 | 4600 | 26800 | 950 | --- | 3800 | |
| 23 | 290 | --- | 630 | 2010 | 4840 | 26300 | 800 | --- | 3000 | |
| 24 | 281 | --- | 460 | 1600 | 4810 | 20800 | 700 | --- | 2600 | |
| 25 | 277 | --- | 370 | 1480 | 864 | 3450 | 650 | --- | 2300 | |
| 26 | 284 | --- | 610 | 1390 | 810 | 3040 | 590 | --- | 2100 | |
| 27 | 460 | --- | 14000 | 1180 | 700 | 2230 | 540 | --- | 1700 | |
| 28 | 470 | 20500 | 26000 | 1060 | --- | 1900 | 500 | --- | 1500 | |
| 29 | 423 | 13700 | 15600 | 804 | --- | 1400 | 470 | --- | 1400 | |
| 30 | 532 | 13400 | 19200 | 736 | --- | 1200 | 440 | --- | 1200 | |
| 31 | 504 | 9770 | 13300 | --- | --- | --- | 420 | --- | 1100 | |
| TOTAL | 16091 | --- | 638570 | 28544 | --- | 297130 | 38023 | --- | 384490 | |

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14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | APRIL | | MAY | | JUNE | |
|-------|----------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|
| | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 548 | 826 | 1220 | 2050 | 5650 | 740 | 957 |
| 2 | 540 | 908 | 1320 | 1770 | 5350 | 672 | 957 |
| 3 | 513 | 868 | 1200 | 1280 | 3840 | 634 | 783 |
| 4 | 502 | 826 | 1120 | 1020 | 3030 | 586 | 667 |
| 5 | 488 | 780 | 1030 | 1020 | 3000 | 564 | 754 |
| 6 | 492 | 858 | 1140 | 1700 | 4960 | 547 | 725 |
| 7 | 468 | 1000 | 1260 | 1870 | 5450 | 515 | 725 |
| 8 | 474 | 1910 | 2440 | 1490 | 4830 | 525 | 812 |
| 9 | 490 | 2600 | 3440 | 1170 | 3730 | 536 | 785 |
| 10 | 515 | 3200 | 4450 | 1410 | 4000 | 558 | 870 |
| 11 | 1270 | 7560 | 33300 | 1540 | 4370 | 574 | 841 |
| 12 | 2100 | 4550 | 25800 | 1800 | 5100 | 574 | 870 |
| 13 | 2700 | 3250 | 23700 | 1660 | 4750 | 547 | 712 |
| 14 | 2130 | 2140 | 12300 | 1890 | 5060 | 480 | 656 |
| 15 | 1430 | 1180 | 4560 | 2300 | 7080 | 470 | 598 |
| 16 | 1100 | 1380 | 4100 | 1600 | 5880 | 475 | 538 |
| 17 | 900 | 1660 | 4030 | 1480 | 6030 | 475 | 544 |
| 18 | 840 | 1440 | 3270 | 1300 | 5160 | 462 | 621 |
| 19 | 820 | 1500 | 3320 | 1210 | 4610 | 452 | 551 |
| 20 | 824 | 1490 | 3310 | 1140 | 4280 | 452 | 442 |
| 21 | 840 | 1780 | 4040 | 1360 | 5070 | 421 | 375 |
| 22 | 859 | 2170 | 5030 | 1390 | 4770 | 390 | 343 |
| 23 | 790 | 2160 | 4610 | 1300 | 4210 | 377 | 377 |
| 24 | 712 | 2380 | 4580 | 1350 | 4370 | 360 | 305 |
| 25 | 712 | 2480 | 4770 | 1480 | 4680 | 350 | 264 |
| 26 | 790 | 2110 | 4500 | 1360 | 4190 | 340 | 322 |
| 27 | 842 | 2120 | 4820 | 1130 | 3080 | 335 | 312 |
| 28 | 1190 | 2840 | 9120 | 986 | 2280 | 325 | 360 |
| 29 | 1100 | 2140 | 6360 | 1020 | 2240 | 315 | 283 |
| 30 | 1060 | 1980 | 5670 | 1040 | 2160 | 305 | 252 |
| 31 | --- | --- | --- | 1100 | 2220 | --- | --- |
| TOTAL | 28039 | --- | 189810 | --- | 135430 | 14356 | --- |
| | | | | | | | 24612 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|---------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 295 | 197 | 157 | 180 | 243 | 118 | 137 | 609 | 225 |
| 2 | 290 | 187 | 146 | 175 | 264 | 125 | 133 | 703 | 252 |
| 3 | 280 | --- | 140 | 178 | 220 | 106 | 139 | 1140 | 428 |
| 4 | 275 | --- | 150 | 178 | --- | 120 | 153 | 1420 | 587 |
| 5 | 270 | --- | 150 | 173 | --- | 130 | 141 | 667 | 254 |
| 6 | 260 | --- | 150 | 169 | --- | 130 | 135 | 638 | 233 |
| 7 | 255 | --- | 150 | 169 | --- | 140 | 135 | 703 | 256 |
| 8 | 250 | --- | 160 | 167 | --- | 150 | 131 | 672 | 238 |
| 9 | 240 | --- | 160 | 163 | 353 | 155 | 153 | 1370 | 566 |
| 10 | 235 | --- | 160 | 161 | 592 | 257 | 167 | 2770 | 1250 |
| 11 | 230 | --- | 160 | 163 | 377 | 166 | 202 | 8780 | 4790 |
| 12 | 225 | --- | 160 | 163 | 348 | 153 | 202 | 12200 | 6650 |
| 13 | 225 | 264 | 160 | 167 | 429 | 193 | 159 | 832 | 357 |
| 14 | 228 | --- | 60 | 167 | 435 | 196 | 149 | 494 | 199 |
| 15 | 225 | 91 | 55 | 161 | 422 | 183 | 141 | 325 | 124 |
| 16 | 218 | 106 | 62 | 155 | 241 | 101 | 133 | 650 | 233 |
| 17 | 208 | 113 | 63 | 153 | 236 | 97 | 127 | 455 | 156 |
| 18 | 205 | 118 | 65 | 153 | 400 | 165 | 123 | 351 | 117 |
| 19 | 208 | 146 | 82 | 153 | 396 | 164 | 137 | 825 | 305 |
| 20 | 210 | 200 | 113 | 155 | 378 | 158 | 214 | 2370 | 1370 |
| 21 | 200 | 188 | 102 | 153 | 538 | 222 | 153 | 408 | 169 |
| 22 | 195 | 162 | 85 | 149 | 528 | 212 | 141 | 348 | 132 |
| 23 | 192 | 156 | 81 | 145 | 461 | 180 | 133 | 348 | 125 |
| 24 | 195 | 175 | 92 | 147 | 710 | 282 | 135 | 360 | 131 |
| 25 | 192 | 267 | 138 | 145 | 493 | 193 | 133 | 270 | 97 |
| 26 | 190 | 276 | 142 | 141 | 587 | 223 | 166 | 2100 | 941 |
| 27 | 185 | 396 | 198 | 139 | 515 | 193 | 141 | 360 | 137 |
| 28 | 185 | 405 | 202 | 137 | 362 | 134 | 137 | 280 | 104 |
| 29 | 182 | 439 | 216 | 143 | 455 | 176 | 133 | 400 | 144 |
| 30 | 185 | 603 | 301 | 147 | 513 | 204 | 127 | 360 | 123 |
| 31 | 182 | 495 | 243 | 139 | 377 | 141 | --- | --- | --- |
| TOTAL YEAR | 6915 275503 | --- | 4303 3,792,629 TONS | 4888 | --- | 5167 | 4410 | --- | 20676 |

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | | | | | | | | |
| 1 | 123 | 382 | 127 | 719 | 3480 | 6760 | 1460 | --- | 17000 |
| 2 | 127 | 1590 | 573 | 530 | 2270 | 3250 | 1510 | --- | 21000 |
| 3 | 125 | 298 | 101 | 530 | 1820 | 2600 | 6200 | 32000 | 618000 |
| 4 | 121 | 212 | 69 | 542 | --- | 3000 | 4700 | 10200 | 144000 |
| 5 | 117 | 255 | 81 | 622 | 3950 | 6630 | 2220 | 5100 | 30600 |
| 6 | 252 | 7420 | 8010 | 634 | 2270 | 3890 | 1550 | --- | 20000 |
| 7 | 202 | 1880 | 1030 | 547 | 2050 | 3030 | 1110 | --- | 10000 |
| 8 | 185 | 650 | 325 | 495 | 2960 | 3960 | 926 | --- | 6500 |
| 9 | 167 | 260 | 117 | 505 | 1540 | 2100 | 867 | --- | 6000 |
| 10 | 149 | 195 | 78 | 505 | 1690 | 2300 | 790 | --- | 5500 |
| 11 | 145 | 182 | 71 | 520 | 2440 | 3430 | 679 | --- | 5000 |
| 12 | 139 | 176 | 66 | 515 | --- | 3400 | 640 | --- | 4500 |
| 13 | 135 | 189 | 69 | 510 | --- | 3200 | 598 | 2620 | 4230 |
| 14 | 135 | 216 | 79 | 500 | --- | 3000 | 660 | 6400 | 11400 |
| 15 | 133 | 216 | 78 | 500 | --- | 3000 | 1000 | 7350 | 22700 |
| 16 | 145 | 624 | 244 | 687 | --- | 7400 | 3670 | 9950 | 109000 |
| 17 | 159 | 1160 | 498 | 2370 | 14700 | 103000 | 2360 | 4090 | 26100 |
| 18 | 147 | 324 | 129 | 1900 | 5800 | 29800 | 3480 | 4550 | 42800 |
| 19 | 141 | 216 | 82 | 1620 | 3750 | 16400 | 2420 | 3530 | 23100 |
| 20 | 137 | 270 | 100 | 1330 | --- | 13000 | 1840 | 2820 | 14000 |
| 21 | 322 | 1630 | 3000 | 982 | --- | 7200 | 1420 | 2030 | 7780 |
| 22 | 1390 | 16600 | 67800 | 726 | --- | 3500 | 1090 | 1880 | 5530 |
| 23 | 660 | 5020 | 8950 | 604 | 1460 | 2380 | 835 | 1560 | 3520 |
| 24 | 580 | 2180 | 3410 | 622 | --- | 2400 | 719 | 1530 | 2970 |
| 25 | 547 | 3820 | 6140 | 628 | --- | 2500 | 653 | 1510 | 2660 |
| 26 | 842 | 5200 | 11800 | 628 | --- | 2500 | 592 | 1300 | 2080 |
| 27 | 705 | 4160 | 7920 | 692 | --- | 3700 | 515 | --- | 1500 |
| 28 | 988 | 5220 | 30100 | 910 | --- | 7500 | 466 | --- | 1000 |
| 29 | 1520 | 12200 | 77500 | 1080 | 2670 | 7790 | 412 | 600 | 667 |
| 30 | 1040 | 5750 | 16100 | 1310 | --- | 12000 | 416 | --- | 650 |
| 31 | 1030 | 4220 | 11700 | --- | --- | --- | 416 | --- | 650 |
| TOTAL | 12608 | --- | 256347 | 24263 | --- | 274620 | 46214 | --- | 1170437 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 421 | --- | 700 | 820 | 1100 | 2440 | 1230 | 1640 | 5450 |
| 2 | 434 | --- | 700 | 754 | 1020 | 2080 | 1250 | 954 | 3220 |
| 3 | 466 | --- | 750 | 705 | 1020 | 1940 | 1120 | 1220 | 3690 |
| 4 | 875 | 2600 | 6140 | 672 | 876 | 1590 | 1090 | 742 | 2180 |
| 5 | 2970 | 7960 | 63800 | 646 | 942 | 1640 | 1140 | 1360 | 4190 |
| 6 | 3080 | --- | 45000 | 640 | 798 | 1380 | 1250 | 1650 | 5570 |
| 7 | 3700 | 6610 | 66000 | 616 | 725 | 1210 | 1660 | 3220 | 14400 |
| 8 | 3510 | 7210 | 68300 | 598 | 798 | 1290 | 3000 | 4350 | 35200 |
| 9 | 2740 | 4100 | 30300 | 622 | 864 | 1450 | 5890 | 9920 | 158000 |
| 10 | 2060 | 1900 | 10600 | 660 | 1010 | 1800 | 4750 | 7220 | 92600 |
| 11 | 1660 | 1580 | 7080 | 842 | 1360 | 3090 | 3950 | 3770 | 40200 |
| 12 | 1260 | 1100 | 3740 | 1330 | 3210 | 13000 | 3920 | 2790 | 29500 |
| 13 | 1270 | 735 | 2520 | 1750 | 2220 | 10500 | 3280 | 3570 | 31600 |
| 14 | 1170 | 710 | 2240 | 1550 | 1240 | 5190 | 2840 | 3570 | 27400 |
| 15 | 1000 | 931 | 2510 | 1360 | 1700 | 6240 | 2110 | 3740 | 21300 |
| 16 | 842 | 931 | 2120 | 1450 | 1780 | 6970 | 1660 | 2840 | 12700 |
| 17 | 754 | 956 | 1950 | 2150 | 3630 | 21100 | 1270 | 2450 | 8400 |
| 18 | 775 | 1250 | 2620 | 2680 | 6170 | 44600 | 1090 | 1430 | 4210 |
| 19 | 761 | 1220 | 2510 | 2170 | 3880 | 22700 | 964 | 1500 | 3900 |
| 20 | 712 | 1100 | 2110 | 2050 | 3080 | 17000 | 835 | 1370 | 3090 |
| 21 | 698 | 1030 | 1940 | 1820 | 1900 | 9340 | 820 | 806 | 1780 |
| 22 | 726 | 931 | 1820 | 2280 | 3640 | 22400 | 835 | 2390 | 5390 |
| 23 | 805 | 1000 | 2170 | 2890 | 4340 | 33900 | 867 | 1500 | 3510 |
| 24 | 918 | 1700 | 4210 | 2880 | 4410 | 34300 | 754 | 736 | 1500 |
| 25 | 926 | 1350 | 3380 | 1920 | 3360 | 17400 | 705 | 1270 | 2420 |
| 26 | 1120 | 2140 | 6470 | 1880 | 3950 | 20100 | 692 | 1330 | 2480 |
| 27 | 1250 | 3570 | 12000 | 1440 | 3020 | 11700 | 719 | 1180 | 2290 |
| 28 | 1030 | 1580 | 4390 | 1220 | 1700 | 5600 | 768 | 1440 | 2990 |
| 29 | 926 | 994 | 2490 | --- | --- | --- | 1410 | 2230 | 8490 |
| 30 | 805 | 1150 | 2500 | --- | --- | --- | 1910 | 2020 | 10400 |
| 31 | 805 | 1280 | 2780 | --- | --- | --- | 1810 | 2090 | 10200 |
| TOTAL | 40469 | --- | 365840 | 40395 | --- | 321950 | 55589 | --- | 558250 |

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| APRIL | | | | | | | | | |
| 1 | 1460 | 1010 | 3980 | 910 | 620 | 1520 | 515 | 240 | 334 |
| 2 | 1300 | 1720 | 6040 | 858 | 608 | 1410 | 475 | 360 | 462 |
| 3 | 1060 | 1200 | 3430 | 812 | 634 | 1390 | 457 | 360 | 444 |
| 4 | 918 | 1500 | 3720 | 782 | 738 | 1560 | 444 | 246 | 295 |
| 5 | 850 | 1280 | 2940 | 835 | 598 | 1350 | 430 | 126 | 146 |
| 6 | 790 | 1200 | 2560 | 775 | 558 | 1170 | 416 | 113 | 127 |
| 7 | 761 | 1080 | 2220 | 884 | 608 | 1450 | 412 | 185 | 206 |
| 8 | 719 | 759 | 1470 | 820 | 918 | 2030 | 398 | 403 | 433 |
| 9 | 692 | 608 | 1140 | 719 | 756 | 1470 | 381 | 280 | 288 |
| 10 | 679 | 738 | 1350 | 640 | 684 | 1180 | 470 | 976 | 1240 |
| 11 | 634 | 624 | 1070 | 604 | 738 | 1200 | 394 | 204 | 217 |
| 12 | 616 | 600 | 998 | 616 | 525 | 873 | 373 | 255 | 257 |
| 13 | 592 | 594 | 949 | 634 | 572 | 979 | 349 | 219 | 206 |
| 14 | 586 | 594 | 940 | 679 | 598 | 1100 | 334 | 140 | 126 |
| 15 | 569 | 627 | 963 | 754 | 621 | 1260 | 385 | 416 | 432 |
| 16 | 586 | 575 | 910 | 666 | 598 | 1080 | 334 | 140 | 126 |
| 17 | 634 | 1190 | 2040 | 646 | 620 | 1080 | 334 | 176 | 159 |
| 18 | 698 | 665 | 1250 | 646 | 624 | 1090 | 408 | 512 | 564 |
| 19 | 805 | 846 | 1840 | 672 | 576 | 1050 | 385 | 269 | 280 |
| 20 | 876 | 666 | 1580 | 733 | 702 | 1390 | 349 | 205 | 193 |
| 21 | 910 | 1260 | 3100 | 835 | 702 | 1580 | 324 | 275 | 241 |
| 22 | 964 | 986 | 2570 | 812 | 612 | 1340 | 314 | 124 | 105 |
| 23 | 982 | 684 | 1810 | 805 | 437 | 950 | 310 | 158 | 132 |
| 24 | 1120 | 1090 | 3300 | 798 | 380 | 819 | 304 | 82 | 67 |
| 25 | 964 | 648 | 1690 | 768 | 494 | 1020 | 298 | 85 | 68 |
| 26 | 867 | 646 | 1510 | 719 | 300 | 582 | 301 | 64 | 52 |
| 27 | 775 | 561 | 1170 | 686 | 320 | 593 | 301 | 213 | 173 |
| 28 | 798 | 525 | 1130 | 660 | 608 | 1080 | 304 | 73 | 60 |
| 29 | 782 | 561 | 1180 | 672 | 437 | 793 | 304 | 46 | 38 |
| 30 | 805 | 810 | 1760 | 640 | 720 | 1240 | 310 | 97 | 81 |
| 31 | --- | --- | --- | 569 | 348 | 535 | --- | --- | --- |
| TOTAL | 24792 | --- | 60610 | 22649 | --- | 36164 | 11113 | --- | 7552 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 369 | 330 | 329 | 242 | 322 | 210 | 256 | 1200 | 829. |
| 2 | 381 | 160 | 165 | 240 | 282 | 183 | 218 | 435 | 256 |
| 3 | 314 | 58 | 49 | 232 | 219 | 137 | 202 | 259 | 141 |
| 4 | 304 | 124 | 102 | 225 | 155 | 94 | 198 | 246 | 132 |
| 5 | 301 | 118 | 96 | 222 | 178 | 107 | 192 | 252 | 131 |
| 6 | 301 | 46 | 37 | 218 | 162 | 95 | 192 | 237 | 123 |
| 7 | 301 | 22 | 18 | 220 | 287 | 170 | 190 | 213 | 109 |
| 8 | 304 | 34 | 28 | 215 | 162 | 94 | 190 | 161 | 83 |
| 9 | 298 | 15 | 12 | 212 | 332 | 190 | 190 | 156 | 80 |
| 10 | 295 | 20 | 16 | 208 | 240 | 135 | 259 | 988 | 776 |
| 11 | 292 | 97 | 76 | 210 | 306 | 174 | 225 | 920 | 559 |
| 12 | 320 | 94 | 81 | 200 | 223 | 120 | 200 | 600 | 324 |
| 13 | 475 | 450 | 577 | 195 | 235 | 124 | 195 | 282 | 148 |
| 14 | 398 | 123 | 132 | 192 | 340 | 176 | 190 | 360 | 185 |
| 15 | 369 | 200 | 199 | 190 | 284 | 146 | 188 | 228 | 116 |
| 16 | 357 | 178 | 172 | 190 | 139 | 71 | 185 | 260 | 130 |
| 17 | 353 | 340 | 324 | 188 | 388 | 197 | 182 | 176 | 86 |
| 18 | 357 | 171 | 165 | 185 | 629 | 314 | 222 | 746 | 523 |
| 19 | 357 | 156 | 150 | 185 | 97 | 48 | 192 | 440 | 228 |
| 20 | 345 | 148 | 138 | 182 | 178 | 87 | 188 | 371 | 188 |
| 21 | 334 | 168 | 152 | 178 | 386 | 186 | 182 | 199 | 98 |
| 22 | 320 | 84 | 73 | 178 | 277 | 133 | 180 | 153 | 74 |
| 23 | 320 | 104 | 90 | 175 | 235 | 111 | 178 | 133 | 64 |
| 24 | 310 | 145 | 121 | 175 | 126 | 60 | 175 | 176 | 83 |
| 25 | 301 | 165 | 134 | 171 | 124 | 57 | 171 | 185 | 85 |
| 26 | 295 | 49 | 39 | 169 | 109 | 50 | 171 | 215 | 99 |
| 27 | 292 | 52 | 41 | 169 | 148 | 68 | 169 | 213 | 97 |
| 28 | 280 | 64 | 48 | 173 | 775 | 362 | 167 | 106 | 48 |
| 29 | 265 | 102 | 73 | 247 | 2250 | 1500 | 165 | --- | 50 |
| 30 | 253 | 245 | 167 | 340 | 16800 | 27200 | 163 | --- | 50 |
| 31 | 248 | 189 | 127 | 218 | 810 | 477 | --- | --- | --- |
| TOTAL | 10009 | --- | 3931 | 6344 | --- | 33076 | 5775 | --- | 5895 |
| YEAR | 300220 | | 3,094,672 TONS | | | | | | |

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDED (MG/L) | SED1- 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 | | | | | | | | | | | |
| 09... | 1545 | 10.0 | 113 | 4 | 2430 | 741 | 10 | 12 | 18 | 25 | 34 |
| 21... | 1630 | -- | -- | -- | 3800 | -- | -- | -- | -- | -- | -- |
| 23... | 1415 | 10.0 | -- | -- | 2460 | -- | -- | -- | -- | -- | -- |
| 25... | 1615 | 9.0 | -- | -- | 5440 | -- | -- | -- | -- | -- | -- |
| 27... | 1115 | 8.0 | -- | -- | 3410 | -- | -- | -- | -- | -- | -- |
| 27... | 1250 | 10.5 | 97 | 9 | 2440 | 639 | -- | -- | -- | -- | -- |
| 29... | 1640 | 8.5 | -- | -- | 10700 | -- | -- | -- | -- | -- | -- |
| 30... | 1200 | 9.5 | -- | -- | 1940 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 06... | 1210 | -- | -- | -- | 13100 | -- | -- | -- | -- | -- | -- |
| 07... | 1250 | 10.0 | -- | -- | 178000 | -- | 4 | 7 | 11 | 18 | 27 |
| 07... | 1255 | 10.0 | -- | -- | 158000 | -- | 3 | 6 | 12 | 20 | 30 |
| 07... | 1545 | 10.0 | -- | -- | 92100 | -- | 4 | 10 | 16 | 27 | 40 |
| 08... | 1020 | 9.0 | 1050 | -- | 19300 | 54700 | 4 | 7 | 8 | 17 | 24 |
| 08... | 1030 | 9.0 | 1050 | -- | 10700 | 30300 | -- | -- | -- | -- | -- |
| 09... | 1105 | 8.0 | -- | -- | 20200 | -- | 2 | 4 | 6 | 10 | 15 |
| 10... | 1510 | 8.0 | -- | -- | 10100 | -- | 4 | 8 | 14 | 23 | 30 |
| 11... | 1200 | 6.5 | 671 | 5 | 8330 | 15100 | -- | -- | -- | -- | -- |
| 14... | 1415 | -- | -- | -- | 7410 | -- | -- | -- | -- | -- | -- |
| 15... | 1420 | 7.0 | -- | -- | 7840 | -- | 5 | 10 | 15 | 23 | 31 |
| 18... | 1405 | 8.0 | 366 | 9 | 3560 | 3520 | -- | -- | -- | -- | -- |
| 21... | 1115 | -- | -- | -- | 56200 | -- | 6 | 12 | 18 | 33 | 50 |
| DEC | | | | | | | | | | | |
| 23... | 1500 | 6.5 | 2990 | 3 | 7650 | 61800 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 07... | 1345 | -- | 690 | 3 | 2080 | 3880 | -- | -- | -- | -- | -- |
| 19... | 1545 | -- | 310 | 5 | 1620 | 1360 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 20... | 1310 | 5.0 | 2760 | 5 | 6620 | 49300 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 04... | 1215 | -- | 480 | 3 | 1840 | 2380 | -- | -- | -- | -- | -- |
| 06... | 1105 | -- | -- | 3 | 1410 | -- | -- | -- | -- | -- | -- |
| 18... | 1010 | 5.0 | 277 | 5 | 1140 | 853 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 03... | 1555 | 7.5 | -- | 5 | 2090 | -- | -- | -- | -- | -- | -- |
| 17... | 1425 | -- | 627 | 5 | 1920 | 3250 | -- | -- | -- | -- | -- |
| 29... | 1410 | -- | 732 | 3 | 1110 | 2190 | -- | -- | -- | -- | -- |
| 30... | 1015 | -- | -- | -- | 803 | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 20... | 1600 | -- | -- | 9 | 869 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|--|
| OCT | | | | | | | | |
| 09... | 46 | -- | 64 | 88 | 98 | -- | 100 | -- |
| 21... | 32 | -- | 56 | 92 | 99 | -- | -- | 100 |
| 23... | 34 | -- | 54 | 95 | 100 | -- | -- | -- |
| 25... | 42 | -- | 67 | 94 | 99 | -- | 100 | -- |
| 27... | -- | 34 | -- | -- | -- | -- | -- | -- |
| 27... | -- | 40 | -- | -- | -- | -- | -- | -- |
| 29... | 7 | -- | 11 | 20 | 25 | -- | 26 | 26 |
| 30... | 31 | -- | 45 | 86 | 99 | -- | -- | -- |
| NOV | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 41 | -- | 60 | 87 | 99 | -- | -- | 100 |
| 07... | 49 | -- | 70 | 95 | -- | -- | 99 | 100 |
| 07... | 60 | -- | 80 | 96 | 100 | -- | -- | -- |
| 08... | 56 | -- | 74 | 92 | 98 | -- | 99 | 100 |
| 08... | 18 | -- | 46 | 77 | 91 | -- | 100 | -- |
| 09... | 70 | -- | 81 | 96 | -- | -- | 99 | 99 |
| 10... | 48 | -- | 73 | 97 | -- | -- | 99 | 100 |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 33 | -- | 49 | 73 | 88 | -- | -- | -- |
| 15... | 44 | -- | 52 | 76 | 96 | -- | 100 | -- |
| 18... | -- | 23 | -- | -- | -- | -- | -- | -- |
| 21... | 76 | -- | 94 | 100 | -- | -- | -- | -- |
| DEC | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- |

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|-----------------------------|---|--|--|---|---|---|---|---|---|
| JUN | | | | | | | | | | | | |
| 05.... | 1205 | 14.0 | 210 | 5 | 670 | 380 | -- | -- | -- | -- | -- | -- |
| 08.... | 1235 | -- | 1270 | -- | 22900 | 78500 | 7 | 11 | 20 | 32 | 48 | -- |
| 08.... | 1700 | -- | 936 | -- | 5290 | 13400 | 6 | 10 | 19 | 29 | 38 | 49 |
| 11.... | 1450 | -- | 681 | 5 | 1640 | 3020 | -- | -- | -- | -- | -- | -- |
| 17.... | 1515 | 12.0 | 382 | 5 | 1180 | 1220 | 3 | 6 | 8 | 13 | 18 | 21 |
| 23.... | 1335 | 12.0 | 370 | 5 | 915 | 914 | -- | -- | -- | -- | -- | -- |
| 29.... | 1425 | 19.0 | 299 | 5 | 852 | 688 | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 01.... | 1345 | -- | 285 | 3 | 677 | 521 | -- | -- | -- | -- | -- | -- |
| 07.... | 1235 | 11.0 | 250 | 5 | 1090 | 736 | -- | -- | -- | -- | -- | -- |
| 10.... | 1215 | 12.0 | 193 | 3 | 726 | 378 | -- | -- | -- | -- | -- | -- |
| 15.... | 1400 | 19.0 | 208 | 5 | 600 | 337 | -- | -- | -- | -- | -- | -- |
| 20.... | 1545 | 16.5 | 181 | 5 | 1270 | 621 | -- | -- | -- | -- | -- | -- |
| 21.... | 1300 | 18.0 | 183 | 9 | 819 | 405 | -- | -- | -- | -- | -- | -- |
| 28.... | 1410 | 19.0 | 155 | 5 | 1530 | 640 | -- | -- | -- | -- | -- | -- |
| 29.... | 1410 | -- | 157 | 9 | 1040 | 441 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 04.... | 1310 | 16.5 | 154 | 5 | 666 | 277 | -- | -- | -- | -- | -- | -- |
| 12.... | 1715 | 23.0 | 149 | 5 | 2740 | 1100 | -- | -- | -- | -- | -- | -- |
| 17.... | 1330 | 19.0 | 127 | 5 | 1580 | 542 | -- | -- | -- | -- | -- | -- |
| 24.... | 1305 | 15.5 | 121 | 5 | 1050 | 343 | -- | -- | -- | -- | -- | -- |
| 31.... | 1435 | 18.5 | 106 | 9 | 1230 | 352 | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 01.... | 1200 | -- | 145 | 9 | 5790 | 2270 | -- | 9 | 14 | 24 | 36 | -- |
| 08.... | 1305 | 18.5 | 97 | 9 | 2280 | 599 | -- | -- | -- | -- | -- | -- |
| 14.... | 1345 | 15.5 | 100 | 9 | 1540 | 415 | -- | -- | -- | -- | -- | -- |
| 21.... | 1330 | 9.5 | 183 | 5 | 8540 | 4220 | 5 | 5 | 7 | 13 | 21 | 34 |
| 25.... | 1245 | 10.5 | 104 | 9 | 1180 | 331 | -- | -- | -- | -- | -- | -- |
| 28.... | 1050 | -- | 560 | -- | 20100 | 30400 | -- | -- | -- | -- | -- | -- |
| 28.... | 1350 | -- | 420 | 5 | 9930 | 11300 | -- | 6 | 10 | 17 | 27 | -- |

| 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 |
|-------|---|--|---|--|---|--|---|--|---|--|---|
| JUN | | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 69 | -- | 82 | -- | 95 | -- | 100 | -- | -- | -- | -- |
| 08... | 50 | 62 | -- | 82 | -- | -- | -- | 98 | -- | 100 | -- |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | 42 | -- | 84 | -- | -- | -- | 99 | -- | 100 | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 100 |
| 29... | 37 | -- | 55 | -- | 81 | -- | 91 | -- | 96 | -- | -- |
| AUG | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | 65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 01... | 51 | -- | 71 | -- | 95 | -- | 99 | -- | 100 | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 61 | -- | 89 | -- | -- | -- | 100 | -- | -- | -- |
| 25... | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | 38 | -- | 66 | -- | 91 | -- | 99 | -- | 100 | -- | -- |

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|---------------------------------------|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 05.... | 1315 | -- | 130 | 9 | 1610 | 565 | -- | -- | -- | -- | -- | 14 |
| 06.... | 1056 | -- | 2080 | -- | 59100 | 332000 | -- | -- | -- | -- | -- | -- |
| 06.... | 1130 | -- | 2080 | 5 | 58800 | 330000 | -- | 9 | 15 | 27 | 40 | -- |
| 06.... | 1442 | -- | 3370 | -- | 48700 | 443000 | -- | -- | -- | -- | -- | -- |
| 06.... | 1645 | -- | 3100 | 5 | 82600 | 691000 | 5 | 8 | 17 | 30 | 39 | 55 |
| 07.... | 1145 | -- | 1270 | -- | 11900 | 40800 | -- | -- | -- | -- | -- | -- |
| 07.... | 1335 | -- | 1330 | 5 | 9780 | 35100 | -- | 6 | 9 | 16 | 25 | -- |
| 09.... | 1250 | 8.5 | 1100 | 5 | 5360 | 15900 | 2 | 4 | 7 | 13 | 18 | 27 |
| 13.... | 1250 | -- | 556 | 5 | 3570 | 5360 | -- | -- | -- | -- | -- | -- |
| 19.... | 1555 | -- | 320 | 5 | 1640 | 1420 | -- | -- | -- | -- | -- | -- |
| 28.... | 1300 | -- | 417 | 5 | 3230 | 3640 | 3 | 5 | 9 | 14 | 20 | 26 |
| NOV | | | | | | | | | | | | |
| 05.... | 1410 | 8.0 | 396 | 5 | 1660 | 1770 | -- | -- | -- | -- | -- | -- |
| 12.... | 1410 | -- | 670 | 5 | 3180 | 5750 | -- | -- | -- | -- | -- | 28 |
| 13.... | 1215 | 8.5 | 655 | 5 | 3720 | 6580 | 3 | 5 | 9 | 14 | 19 | -- |
| 16.... | 1405 | 6.5 | 952 | 5 | 5320 | 13700 | 2 | 6 | 6 | 10 | 15 | 23 |
| 18.... | 1320 | 6.5 | 1280 | 5 | 3660 | 12600 | 2 | 4 | 7 | 13 | 19 | 30 |
| 24.... | 1430 | 6.0 | 1570 | -- | 2250 | 9540 | 3 | 3 | 7 | 12 | 16 | -- |
| DEC | | | | | | | | | | | | |
| 02.... | 1600 | -- | 1220 | 5 | 3620 | 11900 | 2 | 4 | 7 | 13 | 19 | 26 |
| 05.... | 1349 | -- | 3410 | -- | 17600 | 162000 | -- | -- | -- | -- | -- | -- |
| 05.... | 1600 | -- | 3370 | 5 | 15800 | 144000 | 8 | 9 | 11 | 21 | 32 | 46 |
| 05.... | 1835 | -- | 3340 | -- | 9260 | 83500 | -- | -- | -- | -- | -- | -- |
| 06.... | 0238 | -- | 3340 | -- | 7900 | 71200 | -- | -- | -- | -- | -- | -- |
| 06.... | 0340 | -- | 3540 | -- | 9980 | 95400 | -- | -- | -- | -- | -- | -- |
| 06.... | 0740 | -- | 3190 | 5 | 8840 | 76100 | 4 | 5 | 6 | 12 | 18 | 28 |
| 06.... | 0835 | -- | 3410 | -- | 10600 | 97600 | -- | -- | -- | -- | -- | -- |
| 06.... | 0945 | -- | 3010 | -- | 7770 | 63100 | -- | -- | -- | -- | -- | -- |
| 06.... | 0955 | -- | 3070 | 5 | 7080 | 58700 | 3 | 3 | 7 | 13 | 19 | 27 |
| 06.... | 1330 | -- | 2960 | -- | 6790 | 54300 | -- | -- | -- | -- | -- | -- |
| 06.... | 1430 | -- | 3070 | -- | 7580 | 62800 | -- | -- | -- | -- | -- | -- |
| 06.... | 1512 | -- | 3160 | -- | 7400 | 63100 | -- | -- | -- | -- | -- | -- |
| 06.... | 1630 | 5.5 | 3280 | 5 | 5580 | 49400 | 3 | 5 | 7 | 13 | 19 | 28 |
| 07.... | 1250 | 6.0 | 2960 | -- | 5900 | 47200 | -- | -- | -- | -- | -- | -- |
| 07.... | 1525 | 6.0 | 2400 | 5 | 4600 | 29800 | 2 | 3 | 6 | 10 | 15 | 22 |
| 07.... | 1543 | 6.0 | 2360 | -- | 4450 | 28400 | -- | -- | -- | -- | -- | -- |
| 11.... | 1210 | 5.5 | 1220 | -- | 1520 | 5010 | -- | -- | -- | -- | -- | -- |
| 11.... | 1450 | 5.5 | 1240 | -- | 1540 | 5160 | -- | -- | -- | -- | -- | -- |
| 11.... | 1500 | 5.5 | 1240 | 5 | 2060 | 6900 | 3 | 3 | 7 | 12 | 17 | 25 |
| 11.... | 1510 | 5.5 | 1240 | -- | 1520 | 5090 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

[illegible]

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|---------------------------------------|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 14.... | 1428 | 5.0 | 852 | -- | 2340 | 5380 | -- | -- | -- | -- | -- | -- |
| 14.... | 1435 | 5.0 | 866 | 9 | 1580 | 3690 | -- | -- | -- | -- | -- | -- |
| 14.... | 1442 | 5.0 | 866 | -- | 1600 | 3740 | -- | -- | -- | -- | -- | -- |
| 21.... | 1618 | 5.0 | 1050 | -- | 2300 | 6520 | -- | -- | -- | -- | -- | -- |
| 21.... | 1630 | 5.0 | 1060 | 9 | 1630 | 4670 | -- | -- | -- | -- | -- | -- |
| 21.... | 1640 | 5.0 | 1070 | -- | 2730 | 7890 | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 07.... | 1545 | 5.0 | 297 | 9 | 592 | 475 | -- | -- | -- | -- | -- | -- |
| 18.... | 1425 | 5.5 | 457 | 5 | 882 | 1090 | -- | -- | -- | -- | -- | -- |
| 23.... | 1330 | -- | 1430 | -- | 8240 | 31800 | -- | -- | -- | -- | -- | -- |
| 23.... | 1335 | -- | 1430 | 5 | 7030 | 27100 | 8 | 8 | 14 | 25 | 36 | 48 |
| 23.... | 1410 | -- | 1370 | -- | 9700 | 35900 | -- | -- | -- | -- | -- | -- |
| 23.... | 1450 | -- | 1340 | -- | 8100 | 29300 | -- | -- | -- | -- | -- | -- |
| 23.... | 1515 | -- | 1330 | -- | 7860 | 28200 | -- | -- | -- | -- | -- | -- |
| 23.... | 1540 | -- | 1280 | -- | 7090 | 24500 | -- | -- | -- | -- | -- | -- |
| 23.... | 1630 | -- | 1250 | -- | 7080 | 23900 | -- | -- | -- | -- | -- | -- |
| 23.... | 1655 | -- | 1230 | -- | 5980 | 19900 | -- | -- | -- | -- | -- | -- |
| 23.... | 1910 | -- | 1430 | -- | 5380 | 20800 | -- | -- | -- | -- | -- | -- |
| 23.... | 1950 | -- | 1570 | -- | 7300 | 30900 | -- | -- | -- | -- | -- | -- |
| 23.... | 2025 | -- | 1660 | -- | 8140 | 36500 | -- | -- | -- | -- | -- | -- |
| 24.... | 0225 | -- | 4980 | -- | 18800 | 253000 | -- | -- | -- | -- | -- | -- |
| 24.... | 0355 | -- | 3790 | -- | 14400 | 147000 | -- | -- | -- | -- | -- | -- |
| 24.... | 0435 | -- | 3610 | -- | 12200 | 119000 | -- | -- | -- | -- | -- | -- |
| 24.... | 0515 | -- | 3310 | 5 | 9130 | 81600 | 8 | 9 | 11 | 23 | 34 | 47 |
| 24.... | 0605 | -- | 3250 | -- | 9160 | 80400 | -- | -- | -- | -- | -- | -- |
| 24.... | 0650 | -- | 3130 | -- | 7360 | 62200 | -- | -- | -- | -- | -- | -- |
| 24.... | 0850 | 3.0 | 2800 | 5 | 6800 | 51400 | 6 | 6 | 11 | 20 | 30 | 41 |
| 24.... | 1434 | -- | 2340 | -- | 5120 | 32300 | -- | -- | -- | -- | -- | -- |
| 25.... | 1540 | 4.5 | 1480 | 5 | 2310 | 9230 | 4 | 4 | 9 | 14 | 21 | 31 |
| 29.... | 1438 | 5.0 | 904 | 5 | 858 | 2090 | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 02.... | 1344 | 4.0 | 665 | 5 | 838 | 1500 | -- | -- | -- | -- | -- | -- |
| 08.... | 1250 | 3.0 | 417 | 5 | 694 | 781 | -- | -- | -- | -- | -- | -- |
| 14.... | 1435 | -- | 3340 | -- | 7940 | 71600 | -- | -- | -- | -- | -- | -- |
| 14.... | 1615 | -- | 3280 | 5 | 6480 | 57400 | 5 | 7 | 14 | 24 | 34 | 47 |
| 16.... | 1530 | 5.0 | 5160 | -- | 11100 | 155000 | -- | -- | -- | -- | -- | -- |
| 16.... | 1700 | 5.0 | 4980 | 5 | 8070 | 109000 | 7 | 7 | 11 | 20 | 30 | 45 |
| 17.... | 1555 | 6.5 | 4290 | 5 | 6580 | 76200 | 4 | 4 | 8 | 14 | 21 | 30 |
| 19.... | 1035 | 6.0 | 2960 | 5 | 4220 | 33700 | 3 | 5 | 9 | 14 | 21 | 30 |
| 20.... | 1750 | 5.5 | 4980 | 5 | 26600 | 358000 | 7 | 10 | 15 | 24 | 36 | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. SIEVE 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 .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 | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|---|--|--|--|--|--|--|--|--|--|--|--|
| DEC | | | | | | | | | | | | |
| 14... | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 10 | -- | 13 | 25 | -- | 49 | -- | 76 | -- | 93 | -- | 93 |
| 14... | 19 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 16 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 19 | -- | 29 | 48 | -- | 75 | -- | 92 | -- | 100 | -- | 100 |
| 21... | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 07... | 18 | -- | 24 | 42 | -- | 69 | -- | 92 | -- | 96 | -- | 96 |
| 18... | 17 | -- | 22 | 35 | -- | 59 | -- | 85 | -- | 97 | -- | 97 |
| 23... | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 46 | 63 | -- | 84 | -- | -- | 97 | -- | 98 | 100 | -- | -- |
| 23... | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 46 | 65 | -- | 89 | -- | -- | 99 | -- | 100 | -- | -- | -- |
| 24... | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 41 | 82 | -- | 98 | -- | -- | 100 | -- | -- | -- | -- | -- |
| 24... | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | 31 | 45 | -- | 67 | -- | -- | 87 | -- | 98 | -- | 100 | -- |
| 29... | 26 | -- | 36 | 55 | -- | 78 | -- | 91 | -- | 96 | -- | 96 |
| FEB | | | | | | | | | | | | |
| 02... | 16 | -- | 23 | 40 | -- | 71 | -- | 91 | -- | 95 | -- | 95 |
| 08... | 13 | -- | 18 | 34 | -- | 63 | -- | 84 | -- | 98 | -- | 98 |
| 14... | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 38 | 66 | -- | 89 | -- | -- | 99 | -- | 100 | -- | -- | -- |
| 16... | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 38 | 66 | -- | 88 | -- | -- | 98 | -- | 99 | 100 | -- | 100 |
| 17... | 32 | 45 | -- | 71 | -- | -- | 93 | -- | 98 | 100 | -- | 100 |
| 19... | 32 | 44 | -- | 65 | -- | -- | 92 | -- | 97 | 100 | -- | 100 |
| 20... | 47 | -- | 67 | 87 | -- | 97 | -- | 99 | -- | -- | -- | 100 |

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- IMENT, SUS- PENDE (MG/L) | SED- IMENT, 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 |
|--------|------|-----------------------------|---|---|---|---|--|--|--|--|--|
| FEB | | | | | | | | | | | |
| 21.... | 1545 | 6.0 | 4880 | 5 | 7620 | 100000 | 6 | 7 | 8 | 18 | 26 |
| 26.... | 1450 | 5.5 | 996 | 5 | 3420 | 9200 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 03.... | 1615 | 4.0 | 1050 | 5 | 2460 | 6970 | -- | -- | -- | -- | -- |
| 10.... | 1355 | 7.5 | 1580 | 5 | 3960 | 16900 | -- | -- | -- | -- | -- |
| 16.... | 1300 | 6.5 | 873 | 5 | 1320 | 3110 | -- | -- | -- | -- | -- |
| 20.... | 0140 | 4.0 | 660 | 3 | 1030 | 1840 | -- | -- | -- | -- | -- |
| 31.... | 1420 | 4.0 | 568 | 5 | 914 | 1400 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 07.... | 1405 | 7.0 | 461 | 5 | 874 | 1090 | -- | -- | -- | -- | -- |
| 13.... | 1525 | 4.0 | 2540 | 5 | 3270 | 22400 | -- | -- | -- | -- | -- |
| 20.... | 1309 | 7.5 | 824 | 5 | 1760 | 3920 | -- | -- | -- | -- | -- |
| 28.... | 1515 | 8.5 | 1260 | 5 | 2500 | 8500 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 10.... | 1720 | -- | 1030 | 5 | 1820 | 5060 | -- | -- | -- | -- | -- |
| 17.... | 1552 | 9.0 | 1470 | 5 | 1440 | 5720 | -- | -- | -- | -- | -- |
| 26.... | 1658 | 8.0 | 1140 | 5 | 1260 | 3880 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 09.... | 1500 | -- | 536 | 5 | 854 | 1240 | -- | -- | -- | -- | -- |
| 15.... | 1425 | -- | 470 | 5 | 508 | 645 | -- | -- | -- | -- | -- |
| 23.... | 1713 | 19.0 | 377 | 5 | 404 | 411 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 13.... | 1125 | 12.5 | 225 | 5 | 264 | 160 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 09.... | 1155 | 12.0 | 161 | -- | 304 | 132 | -- | -- | -- | -- | -- |
| 23.... | 1115 | 11.5 | 145 | 9 | 332 | 130 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 07.... | 1240 | 14.0 | 129 | 9 | 271 | 94 | -- | -- | -- | -- | -- |
| 13.... | 1200 | 10.5 | 159 | 9 | 492 | 211 | -- | -- | -- | -- | -- |
| 20.... | 1125 | 10.5 | 228 | 9 | 3960 | 2440 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR: OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|--|--|
| FEB | | | | | | | | | |
| 21... | -- | 38 | -- | 57 | -- | 81 | -- | 98 | 100 |
| 26... | -- | 14 | -- | 20 | -- | 37 | -- | 66 | 98 |
| MAR | | | | | | | | | |
| 03... | -- | 20 | -- | 29 | -- | 52 | -- | 81 | 97 |
| 10... | 16 | 22 | 43 | -- | 73 | -- | 99 | -- | -- |
| 16... | -- | 21 | -- | 29 | -- | 49 | -- | 76 | 98 |
| 20... | -- | 17 | -- | 22 | -- | 34 | -- | 70 | 98 |
| 31... | -- | 13 | -- | 20 | -- | 39 | -- | 73 | 99 |
| APR | | | | | | | | | |
| 07... | -- | 14 | -- | 18 | -- | 33 | -- | 67 | 98 |
| 13... | -- | 27 | -- | 41 | -- | 66 | -- | 91 | 100 |
| 20... | -- | 12 | -- | 17 | -- | 29 | -- | 54 | 91 |
| 28... | -- | 12 | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | |
| 10... | -- | 19 | -- | 29 | -- | 45 | -- | 67 | 98 |
| 17... | -- | 29 | -- | 38 | -- | 53 | -- | 75 | 99 |
| 26... | -- | 22 | -- | 25 | -- | 35 | -- | 64 | 98 |
| JUN | | | | | | | | | |
| 09... | -- | 11 | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | 17 | -- | 22 | -- | 34 | -- | 60 | 98 |
| 23... | -- | 20 | -- | 25 | -- | 34 | -- | 57 | 98 |
| JUL | | | | | | | | | |
| 13... | -- | 10 | -- | 11 | -- | 16 | -- | 34 | 84 |
| AUG | | | | | | | | | |
| 09... | 31 | 29 | 46 | -- | 67 | -- | 96 | -- | -- |
| 23... | -- | 32 | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | |
| 07... | -- | 42 | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | 28 | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 75 | -- | -- | -- | -- | -- | -- | -- |

14216350 MUDDY RIVER ABOVE CLEAR CREEK NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 04.... | 1210 | 8.5 | 123 | 9 | 243 | 81 | -- | -- | -- | -- | -- | -- |
| 12.... | 1450 | 12.0 | 141 | 9 | 223 | 85 | -- | -- | -- | -- | -- | -- |
| 26.... | 1405 | 7.5 | 820 | 5 | 6280 | 13900 | -- | -- | -- | -- | -- | 34 |
| 29.... | 1300 | 8.0 | 1180 | 5 | 5620 | 17900 | 2 | 4 | 8 | 12 | 17 | -- |
| NOV | | | | | | | | | | | | |
| 03.... | 1330 | 8.5 | 505 | 5 | 1880 | 2560 | -- | -- | -- | -- | -- | -- |
| 17.... | 1325 | 6.5 | 2460 | 5 | 12200 | 81000 | -- | -- | -- | -- | -- | -- |
| 18.... | 1445 | 6.0 | 1920 | 5 | 4280 | 22200 | -- | -- | -- | -- | -- | -- |
| 23.... | 1520 | 4.5 | 622 | 5 | 1460 | 2450 | -- | -- | -- | -- | -- | -- |
| 29.... | 1150 | 4.5 | 1070 | 5 | 2660 | 7680 | -- | -- | -- | -- | -- | 17 |
| DEC | | | | | | | | | | | | |
| 03.... | 1115 | 5.5 | 4390 | 5 | 23200 | 275000 | 7 | 8 | 14 | 22 | 34 | -- |
| 03.... | 1250 | 5.5 | 6340 | -- | 49800 | 852000 | -- | -- | -- | -- | -- | -- |
| 03.... | 1540 | -- | 9100 | 5 | 46400 | 1140000 | 13 | 14 | 20 | 33 | 48 | -- |
| 03.... | 1720 | 6.0 | 8800 | -- | 44900 | 1070000 | -- | -- | -- | -- | -- | -- |
| 03.... | 1840 | 6.0 | 9000 | -- | 41400 | 1010000 | -- | -- | -- | -- | -- | -- |
| 03.... | 1945 | 6.0 | 9100 | -- | 47000 | 1150000 | -- | -- | -- | -- | -- | -- |
| 03.... | 2045 | 6.5 | 8850 | -- | 47300 | 1130000 | -- | -- | -- | -- | -- | -- |
| 03.... | 2310 | -- | 7340 | -- | 30400 | 602000 | -- | -- | -- | -- | -- | -- |
| 04.... | 0310 | 5.5 | 7140 | 5 | 13800 | 266000 | 7 | 7 | 13 | 20 | 30 | -- |
| 04.... | 0610 | 5.0 | 6340 | -- | 10800 | 185000 | -- | -- | -- | -- | -- | -- |
| 04.... | 0915 | 4.5 | 4300 | 5 | 10200 | 118000 | 4 | 6 | 9 | 15 | 22 | -- |
| 04.... | 0950 | 5.0 | 4270 | -- | 15500 | 179000 | -- | -- | -- | -- | -- | -- |
| 04.... | 1045 | 5.0 | 4120 | -- | 9720 | 108000 | -- | -- | -- | -- | -- | -- |
| 04.... | 1550 | 6.0 | 3450 | 5 | 7760 | 72300 | 5 | 5 | 9 | 14 | 22 | -- |
| 03.... | 1120 | 5.5 | 2400 | 5 | 4930 | 31900 | 3 | 3 | 7 | 11 | 16 | -- |
| 13.... | 1320 | 4.5 | 586 | 5 | 2250 | 3560 | -- | -- | -- | -- | -- | -- |
| 16.... | 1020 | 5.0 | 3750 | 5 | 8820 | 89300 | 6 | 7 | 11 | 17 | 26 | -- |
| 17.... | 1055 | 3.5 | 2860 | 5 | 4840 | 37400 | 3 | 3 | 6 | 10 | 15 | -- |
| 23.... | 1345 | 4.5 | 842 | 5 | 1460 | 3320 | -- | -- | -- | -- | -- | -- |
| 29.... | 1055 | 1.5 | 408 | 5 | 600 | 661 | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 04.... | 1220 | 2.5 | 666 | 5 | 2480 | 4460 | -- | -- | -- | -- | -- | -- |
| 05.... | 1210 | 3.0 | 3850 | 5 | 10300 | 107000 | -- | -- | -- | -- | -- | -- |
| 05.... | 1610 | 3.0 | 3320 | 5 | 7590 | 68000 | -- | -- | -- | -- | -- | -- |
| 07.... | 1135 | 4.5 | 3880 | 5 | 5800 | 60800 | 4 | 4 | 8 | 13 | 19 | -- |
| 08.... | 1400 | -- | 3320 | -- | 6500 | 58300 | -- | -- | -- | -- | -- | -- |
| 08.... | 1530 | -- | 3250 | -- | 7390 | 64800 | -- | -- | -- | -- | -- | -- |
| 08.... | 1550 | -- | 3250 | -- | 5900 | 51800 | -- | -- | -- | -- | -- | -- |
| 10.... | 1415 | 6.0 | 1980 | 5 | 1920 | 10300 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|--|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 04... | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | 30 | 46 | -- | 65 | -- | 83 | -- | 95 | -- | 100 | -- | -- |
| 29... | 23 | -- | 32 | -- | 47 | -- | 73 | -- | 92 | -- | 99 | -- |
| NOV | | | | | | | | | | | | |
| 03... | 15 | -- | 25 | -- | 41 | -- | 62 | -- | 81 | -- | 95 | -- |
| 17... | 39 | -- | 56 | -- | 78 | -- | 95 | -- | 99 | -- | 100 | -- |
| 18... | 24 | -- | 36 | -- | 64 | -- | 87 | -- | 97 | -- | 99 | -- |
| 23... | 13 | -- | 21 | -- | 37 | -- | 62 | -- | 80 | -- | 90 | -- |
| 29... | 18 | 26 | -- | 49 | -- | 78 | -- | 99 | -- | 100 | -- | -- |
| DEC | | | | | | | | | | | | |
| 03... | 46 | -- | 67 | -- | 84 | -- | 91 | -- | 96 | -- | 98 | -- |
| 03... | 45 | -- | -- | -- | 99 | -- | 96 | -- | 99 | -- | 100 | -- |
| 03... | 60 | -- | 76 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 38 | -- | 55 | -- | 79 | -- | 95 | -- | 99 | -- | 100 | -- |
| 04... | 36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 30 | -- | 45 | -- | 66 | -- | 88 | -- | 97 | -- | 100 | -- |
| 04... | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 27 | -- | 42 | -- | 65 | -- | 87 | -- | 98 | -- | 100 | -- |
| 05... | 21 | -- | 32 | -- | 46 | -- | 77 | -- | 94 | -- | 99 | -- |
| 13... | 11 | -- | 15 | -- | 29 | -- | 60 | -- | 83 | -- | 94 | -- |
| 16... | 34 | -- | 47 | -- | 60 | -- | 93 | -- | 99 | -- | 100 | -- |
| 17... | 21 | -- | 31 | -- | 52 | -- | 84 | -- | 97 | -- | 100 | -- |
| 23... | 10 | -- | 13 | -- | 24 | -- | 49 | -- | 77 | -- | 92 | -- |
| 29... | 18 | -- | 24 | -- | 41 | -- | 75 | -- | 94 | -- | 98 | -- |
| JAN | | | | | | | | | | | | |
| 04... | 17 | -- | 27 | -- | 45 | -- | 69 | -- | 84 | -- | 91 | -- |
| 05... | 30 | -- | 49 | -- | 72 | -- | 92 | -- | 98 | -- | 100 | -- |
| 05... | 28 | -- | 42 | -- | 66 | -- | 86 | -- | 95 | -- | 99 | -- |
| 07... | 26 | -- | 40 | -- | 70 | -- | 92 | -- | 100 | -- | -- | -- |
| 08... | 16 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 19 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--|--|---|--|--|---|--|---|---|---|--|--|--|
| JAN 17.... 24.... | 1315 1600 | 6.0 -- | 733 918 | 5 5 | 854 1300 | 1690 3220 | -- -- | -- -- | -- -- | -- -- | -- -- | -- -- |
| FEB 01.... 09.... 15.... 17.... 18.... 23.... | 1200 1215 1325 1710 1110 1145 | 5.0 3.0 5.0 8.0 5.0 -- | 812 610 1270 2500 2640 2340 | 5 5 5 5 5 5 | 1100 780 1160 3320 3780 4180 | 2410 1280 3980 22400 26900 26400 | -- -- -- -- -- -- | -- -- -- -- -- -- | -- -- -- -- -- -- | -- -- -- -- -- -- | -- -- -- -- -- -- | -- -- -- -- -- -- |
| MAR 01.... 08.... 09.... 10.... 10.... 10.... 10.... 10.... 11.... 11.... 12.... 22.... 29.... 30.... | 1400 1520 1710 1035 1320 1435 1500 1630 1125 1045 1205 1120 1030 1015 1130 1510 1215 1150 1240 | -- 7.5 7.0 6.5 6.5 6.5 6.5 6.5 6.5 6.0 7.5 3.0 5.5 5.0 6.5 11.0 9.5 11.0 | 1180 2900 5920 5530 4750 4570 4450 4480 3480 1290 820 1310 1920 1420 719 574 653 564 304 | 5 5 5 5 5 -- -- 5 5 5 5 5 5 5 5 5 5 9 | 1380 3440 8940 7280 5520 4210 5860 5460 3430 1510 1220 1990 2340 1380 579 650 408 228 202 | 4400 26900 143000 109000 70800 51900 70400 66000 32200 5260 2700 7040 12100 5290 1120 1010 719 347 166 | -- -- 8 6 6 -- -- -- 6 5 -- -- -- -- -- -- -- -- -- -- -- | -- -- 8 6 7 -- -- -- 6 6 -- -- -- -- -- -- -- -- -- -- -- -- | -- -- 12 9 10 -- -- -- 7 7 -- -- -- -- -- -- -- -- -- -- -- -- | -- -- 20 14 16 -- -- -- 15 14 -- -- -- -- -- -- -- -- -- -- -- -- | -- -- 29 20 23 -- -- -- 22 20 -- -- -- -- -- -- -- -- -- -- -- -- | -- -- 41 28 32 -- -- -- 30 29 -- -- -- -- -- -- -- -- -- -- -- -- |
| APR 01.... 08.... 14.... MAY 16.... 31.... JUN 23.... JUL 06.... 21.... AUG 11.... 30.... SEP 01.... | 1015 1130 1510 1215 1150 1240 1340 1255 1455 1255 1350 | 5.0 6.5 11.0 8.5 9.5 11.0 12.0 14.0 11.0 -- 12.5 | 1420 719 574 653 564 304 298 338 222 283 242 | 5 5 5 5 5 9 9 9 9 9 9 | 1380 579 650 408 228 202 47 167 310 2000 1000 | 5290 1120 1010 719 347 166 38 152 186 1530 653 | -- -- -- -- -- -- -- -- -- -- -- -- | -- -- -- -- -- -- -- -- -- -- -- -- | -- -- -- -- -- -- -- -- -- -- -- -- | -- -- -- -- -- -- -- -- -- -- -- -- | -- -- -- -- -- -- -- -- -- -- -- -- | |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-----------|--|---|---|---|---|---|---|---|---|---|---|
| | .062 MM | .125 MM | .250 MM | .250 MM | .500 MM | .500 MM | .500 MM | .500 MM | 1.00 MM | 1.00 MM | 2.00 MM |
| JAN 17... | 10 | -- | 15 | -- | -- | -- | 27 | -- | 56 | -- | 78 |
| 24... | 13 | -- | 18 | -- | -- | -- | 35 | -- | 66 | -- | 84 |
| FEB 01... | 10 | -- | 13 | -- | -- | -- | 23 | -- | 47 | -- | 76 |
| 09... | 11 | -- | 14 | -- | -- | -- | 24 | -- | 55 | -- | 84 |
| 15... | 11 | -- | 17 | -- | -- | -- | 29 | -- | 52 | -- | 81 |
| 17... | 29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 15 | -- | 23 | -- | -- | -- | 41 | -- | 69 | -- | 90 |
| 23... | 23 | -- | 31 | -- | -- | -- | 45 | -- | 68 | -- | 86 |
| MAR 01... | 13 | -- | 17 | -- | -- | -- | 28 | -- | 50 | -- | 78 |
| 08... | 25 | -- | 34 | -- | -- | -- | 55 | -- | 77 | -- | 91 |
| 09... | 36 | 60 | -- | 80 | -- | 96 | -- | 99 | -- | 100 | -- |
| 10... | 30 | 54 | -- | 67 | -- | 90 | -- | 98 | -- | 100 | -- |
| 10... | 29 | 49 | -- | 72 | -- | 93 | -- | 99 | -- | 100 | -- |
| 10... | 36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 24 | 43 | -- | 67 | -- | 88 | -- | 98 | -- | 100 | -- |
| 11... | 27 | 41 | -- | 64 | -- | 88 | -- | 99 | -- | 100 | -- |
| 17... | 9 | -- | 13 | -- | -- | -- | 24 | -- | 44 | -- | 71 |
| 22... | 17 | -- | 21 | -- | -- | -- | 30 | -- | 54 | -- | 79 |
| 29... | 14 | -- | 22 | -- | -- | -- | 40 | -- | 67 | -- | 83 |
| 30... | 12 | -- | 18 | -- | -- | -- | 32 | -- | 62 | -- | 85 |
| APR 01... | 13 | -- | 18 | -- | -- | -- | 30 | -- | 59 | -- | 86 |
| 08... | 17 | -- | 22 | -- | -- | -- | 33 | -- | 68 | -- | 91 |
| 14... | 13 | -- | 17 | -- | -- | -- | 28 | -- | 50 | -- | 74 |
| MAY 16... | 21 | -- | 26 | -- | -- | -- | 41 | -- | 72 | -- | 93 |
| 31... | 38 | -- | 44 | -- | -- | -- | 59 | -- | 82 | -- | 94 |
| JUN 23... | 17 | -- | 29 | -- | -- | -- | 46 | -- | 71 | -- | 92 |
| JUL 06... | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 34 | -- | 46 | -- | -- | -- | 61 | -- | 79 | -- | 89 |
| AUG 11... | 47 | -- | 67 | -- | -- | -- | 86 | -- | 97 | -- | 100 |
| 30... | 81 | -- | 84 | -- | -- | -- | 91 | -- | 98 | -- | 100 |
| SEP 01... | 73 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, 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 |
|-----------------------|--------------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| SEP 13... 20... | 1505 1450 | 13.0 11.5 | 195 182 | 5 9 | 306 285 | 161 140 | 51 37 | 67 52 | 83 66 | 97 89 | 99 96 | 100 98 |



Photo date: March 16, 1981

A pier remains where a highway bridge crossed the Muddy River before the mudflow of May 18, 1980.
Gaging station 216350 is located about one-half mile downstream.

95

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMPLING POINTS | BED | | | | |
|--------|------|-----------------------------|------------------------------------|---|---|---|---|---|
| | | | | MAT. SIEVE DIAM. % FINER THAN | MAT. SIEVE DIAM. % FINER THAN | MAT. SIEVE DIAM. % FINER THAN | MAT. SIEVE DIAM. % FINER THAN | MAT. SIEVE DIAM. % FINER THAN |
| | | | | .062 MM | .125 MM | .250 MM | .500 MM | |
| OCT | | | | | | | | |
| 26.... | 1435 | 7.5 | 1 | 0 | 0 | 1 | 3 | |
| 26.... | 1440 | 7.5 | 1 | 0 | 1 | 3 | 18 | |
| 26.... | 1445 | 7.5 | 1 | 0 | 1 | 9 | 46 | |
| 29.... | 1345 | -- | 1 | 0 | 0 | 2 | 5 | |
| 29.... | 1350 | -- | 1 | 0 | 1 | 4 | 28 | |
| FEB | | | | | | | | |
| 23.... | 1215 | -- | 1 | 0 | 0 | 1 | 5 | |
| 23.... | 1220 | -- | 1 | 0 | 0 | 1 | 5 | |
| 23.... | 1225 | -- | 1 | 0 | 0 | 1 | 4 | |
| SEP | | | | | | | | |
| 13.... | 1518 | 13.0 | 1 | 0 | 0 | 2 | 9 | |
| 13.... | 1520 | 13.0 | 1 | 1 | 2 | 4 | 22 | |
| 13.... | 1521 | 13.0 | 1 | 0 | 0 | 0 | 10 | |
| 13.... | 1523 | 13.0 | 1 | 0 | 0 | 0 | 2 | |
| 13.... | 1524 | 13.0 | 1 | 0 | 0 | 0 | 2 | |
| OCT | | | | | | | | |
| 26.... | 10 | 19 | 29 | 44 | 60 | 100 | -- | |
| 26.... | 56 | 83 | 94 | 98 | 100 | -- | -- | |
| 26.... | 83 | 93 | 95 | 96 | 98 | 100 | -- | |
| 29.... | 20 | 53 | 77 | 91 | 100 | -- | -- | |
| 29.... | 59 | 76 | 84 | 89 | 93 | 100 | -- | |
| FEB | | | | | | | | |
| 23.... | 16 | 28 | 38 | 50 | 66 | 100 | -- | |
| 23.... | 16 | 35 | 55 | 77 | 90 | 100 | -- | |
| 23.... | 17 | 41 | 65 | 81 | 94 | 100 | -- | |
| SEP | | | | | | | | |
| 13.... | 14 | 16 | 18 | 20 | 27 | 76 | 100 | |
| 13.... | 49 | 68 | 80 | 89 | 100 | -- | -- | |
| 13.... | 39 | 62 | 81 | 93 | 98 | 100 | -- | |
| 13.... | 12 | 27 | 43 | 62 | 86 | 100 | -- | |
| 13.... | 3 | 11 | 31 | 55 | 70 | 74 | 100 | |

14216900 PINE CREEK AT MOUTH, NEAR COUGAR, WA

LOCATION.--Lat 46°04'24", long 122°00'57", in NW¼SW¼ sec.24, 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 current year.

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

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|--------------|------|---------------------|
| 1981 | Nov. 7, 1980 | 1730 | 108,000 |
| 1982 | Oct. 6, 1981 | 1125 | 69,200 |
| 1983 | Dec. 3, 1982 | 1640 | 24,400 |



Photo date: February 23, 1983

Boulder-strewn channel of Pine Creek, station 216900. View is upstream; discharge 439 cubic feet per second.

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 129 | 2760 | 961 | 158 | 2100 | 896 | 205 | 133 | 74 | |
| 2 | 171 | 6630 | 4770 | 178 | 1440 | 692 | 410 | 2850 | 3700 | |
| 3 | 130 | 2590 | 909 | 172 | 740 | 344 | 260 | 1020 | 716 | |
| 4 | 126 | 2020 | 687 | 168 | 299 | 136 | 239 | 1600 | 1030 | |
| 5 | 193 | 8060 | 7730 | 166 | 221 | 99 | 882 | 13900 | 35900 | |
| 6 | 549 | 43000 | 70700 | 158 | 260 | 111 | 676 | 7700 | 16300 | |
| 7 | 243 | 14500 | 10600 | 154 | 532 | 221 | 495 | --- | 10000 | |
| 8 | 388 | 17300 | 21800 | 148 | 500 | 200 | 420 | 7070 | 8020 | |
| 9 | 274 | 7440 | 5500 | 144 | 264 | 103 | 342 | 1820 | 1680 | |
| 10 | 174 | --- | 310 | 144 | 133 | 52 | 304 | 1490 | 1220 | |
| 11 | 176 | --- | 350 | 193 | 3390 | 1770 | 260 | 326 | 229 | |
| 12 | 192 | --- | 600 | 169 | 3120 | 1420 | 263 | 351 | 249 | |
| 13 | 154 | --- | 150 | 162 | 5440 | 2380 | 272 | 244 | 179 | |
| 14 | 146 | --- | 100 | 253 | 17600 | 12000 | 275 | 162 | 120 | |
| 15 | 150 | --- | 120 | 236 | 10000 | 6370 | 380 | 4740 | 5410 | |
| 16 | 148 | 270 | 108 | 202 | 6810 | 3710 | 396 | 1770 | 1890 | |
| 17 | 150 | 65 | 26 | 300 | --- | 9800 | 358 | 688 | 665 | |
| 18 | 152 | 58 | 24 | 330 | --- | 11000 | 332 | 442 | 396 | |
| 19 | 150 | 35 | 14 | 350 | --- | 13000 | 372 | 3810 | 3830 | |
| 20 | 150 | 45 | 18 | 380 | --- | 15000 | 325 | 1330 | 1170 | |
| 21 | 150 | 40 | 16 | 700 | --- | 38000 | 290 | 612 | 479 | |
| 22 | 144 | 56 | 22 | 400 | --- | 18000 | 263 | 209 | 148 | |
| 23 | 144 | 50 | 19 | 340 | --- | 8100 | 242 | 122 | 80 | |
| 24 | 142 | 53 | 20 | 330 | --- | 2900 | 230 | 126 | 78 | |
| 25 | 140 | 56 | 21 | 330 | 1000 | 891 | 222 | 74 | 44 | |
| 26 | 142 | 60 | 23 | 284 | 712 | 546 | 204 | 65 | 36 | |
| 27 | 176 | 17000 | 8500 | 248 | 578 | 387 | 194 | 48 | 25 | |
| 28 | 195 | 16100 | 9340 | 220 | --- | 200 | 182 | 34 | 17 | |
| 29 | 148 | --- | 1100 | 190 | --- | 95 | 172 | 48 | 22 | |
| 30 | 200 | 9150 | 6270 | 174 | 121 | 57 | 165 | 44 | 20 | |
| 31 | 162 | 4500 | 1970 | --- | --- | --- | 165 | 32 | 14 | |
| TOTAL | 5688 | --- | 152778 | 7381 | --- | 148480 | 9795 | --- | 93741 | |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 161 | 9 | 3.9 | 281 | --- | 100 | 340 | --- | 400 |
| 2 | 159 | 18 | 7.7 | 265 | 122 | 87 | 348 | --- | 430 |
| 3 | 157 | 13 | 5.5 | 244 | 125 | 82 | 310 | --- | 380 |
| 4 | 152 | 8 | 3.3 | 230 | 96 | 60 | 320 | --- | 460 |
| 5 | 148 | 12 | 4.8 | 218 | --- | 47 | 315 | 521 | 443 |
| 6 | 143 | --- | 4.0 | 207 | --- | 34 | 305 | --- | 400 |
| 7 | 139 | 16 | 6.0 | 194 | --- | 21 | 305 | --- | 440 |
| 8 | 139 | --- | 6.0 | 186 | --- | 10 | 310 | --- | 480 |
| 9 | 139 | --- | 5.0 | 174 | 20 | 9.4 | 446 | --- | 2000 |
| 10 | 141 | --- | 5.0 | 174 | --- | 9.5 | 446 | 1820 | 2190 |
| 11 | 141 | --- | 4.0 | 174 | --- | 9.5 | 414 | --- | 1600 |
| 12 | 135 | --- | 4.0 | 174 | --- | 9.5 | 354 | --- | 940 |
| 13 | 141 | 10 | 3.8 | 265 | --- | 160 | 336 | --- | 760 |
| 14 | 148 | 22 | 8.8 | 761 | 24900 | 68800 | 305 | --- | 560 |
| 15 | 154 | 41 | 17 | 753 | 28400 | 58500 | 285 | --- | 420 |
| 16 | 233 | 609 | 518 | 971 | 8500 | 21300 | 270 | --- | 360 |
| 17 | 313 | 420 | 355 | 718 | --- | 7000 | 260 | --- | 300 |
| 18 | 300 | 133 | 108 | 606 | 2400 | 3930 | 245 | --- | 260 |
| 19 | 287 | 122 | 95 | 628 | 1090 | 1850 | 235 | 331 | 210 |
| 20 | 274 | --- | 80 | 1380 | 17400 | 77100 | 226 | --- | 180 |
| 21 | 268 | --- | 75 | 900 | 6480 | 15700 | 226 | --- | 170 |
| 22 | 262 | --- | 70 | 720 | --- | 10000 | 230 | --- | 170 |
| 23 | 568 | 1590 | 3730 | 580 | --- | 6300 | 240 | --- | 190 |
| 24 | 924 | 1770 | 4610 | 450 | --- | 3400 | 245 | --- | 180 |
| 25 | 542 | --- | 3000 | 380 | --- | 1600 | 255 | --- | 210 |
| 26 | 505 | 1920 | 2620 | 330 | 260 | 232 | 270 | --- | 240 |
| 27 | 395 | 2050 | 2190 | 310 | --- | 200 | 265 | --- | 200 |
| 28 | 332 | 374 | 335 | 320 | --- | 300 | 250 | --- | 140 |
| 29 | 300 | --- | 230 | --- | --- | --- | 235 | 162 | 103 |
| 30 | 300 | --- | 160 | --- | --- | --- | 230 | --- | 98 |
| 31 | 290 | --- | 120 | --- | --- | --- | 222 | --- | 77 |
| TOTAL | 8290 | --- | 18384.8 | 12593 | --- | 276850.9 | 9043 | --- | 14991 |

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MAY | | JUNE | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | | | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| APRIL | | | | | | | | | |
| 1 | 217 | --- | 65 | 260 | --- | 150 | 181 | 21 | 10 |
| 2 | 217 | --- | 60 | 255 | --- | 120 | 177 | 19 | 9.1 |
| 3 | 213 | --- | 50 | 265 | --- | 130 | 174 | 16 | 7.5 |
| 4 | 209 | --- | 40 | 260 | --- | 100 | 174 | 16 | 7.5 |
| 5 | 205 | --- | 32 | 265 | --- | 90 | 174 | 20 | 9.4 |
| 6 | 205 | --- | 28 | 270 | --- | 88 | 170 | 20 | 9.2 |
| 7 | 201 | --- | 23 | 280 | --- | 75 | 174 | 17 | 8.0 |
| 8 | 201 | --- | 20 | 280 | --- | 60 | 174 | 14 | 6.6 |
| 9 | 205 | 33 | 18 | 280 | --- | 30 | 181 | 16 | 7.8 |
| 10 | 205 | --- | 18 | 265 | --- | 23 | 181 | 14 | 6.8 |
| 11 | 295 | --- | 175 | 280 | 31 | 23 | 177 | 17 | 8.1 |
| 12 | 378 | --- | 670 | 270 | --- | 20 | 177 | 20 | 9.6 |
| 13 | 366 | 658 | 650 | 275 | --- | 20 | 174 | 19 | 8.9 |
| 14 | 325 | --- | 400 | 260 | --- | 20 | 170 | 17 | 7.8 |
| 15 | 300 | --- | 300 | 260 | --- | 20 | 170 | 18 | 8.3 |
| 16 | 285 | --- | 240 | 260 | --- | 20 | 170 | 20 | 9.2 |
| 17 | 245 | --- | 140 | 260 | 28 | 20 | 177 | 18 | 8.6 |
| 18 | 250 | --- | 160 | 245 | 19 | 13 | 174 | 16 | 7.5 |
| 19 | 245 | --- | 140 | 235 | 32 | 20 | 174 | 17 | 8.0 |
| 20 | 230 | --- | 120 | 230 | 33 | 20 | 170 | --- | 7.5 |
| 21 | 230 | --- | 120 | 226 | 38 | 23 | 163 | --- | 7.0 |
| 22 | 240 | --- | 140 | 222 | 46 | 28 | 152 | 16 | 6.6 |
| 23 | 245 | --- | 160 | 209 | 38 | 21 | 152 | 19 | 7.8 |
| 24 | 245 | --- | 160 | 209 | 46 | 26 | 152 | 18 | 7.4 |
| 25 | 245 | --- | 160 | 205 | 42 | 23 | 152 | 18 | 7.4 |
| 26 | 245 | --- | 170 | 196 | 26 | 14 | 156 | 20 | 8.4 |
| 27 | 240 | 243 | 157 | 192 | 20 | 10 | 156 | 9 | 3.8 |
| 28 | 265 | --- | 220 | 192 | 18 | 9.3 | 152 | 10 | 4.1 |
| 29 | 255 | --- | 160 | 188 | 22 | 11 | 156 | 11 | 4.6 |
| 30 | 250 | --- | 140 | 181 | 26 | 13 | 152 | 13 | 5.3 |
| 31 | --- | --- | --- | 181 | 21 | 10 | --- | --- | --- |
| TOTAL | 7457 | --- | 4936 | 7456 | --- | 1250.3 | 5036 | --- | 227.8 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 156 | 12 | 5.1 | 137 | 10 | 3.7 | 120 | 10 | 3.2 |
| 2 | 152 | 13 | 5.3 | 137 | 11 | 4.1 | 115 | 5 | 1.6 |
| 3 | 159 | 14 | 6.0 | 137 | 10 | 3.7 | 120 | 6 | 1.9 |
| 4 | 156 | 15 | 6.3 | 140 | 8 | 3.0 | 128 | 9 | 3.1 |
| 5 | 156 | 16 | 6.7 | 140 | 14 | 5.3 | 122 | 6 | 2.0 |
| 6 | 159 | 18 | 7.7 | 140 | 9 | 3.4 | 120 | 5 | 1.6 |
| 7 | 159 | 17 | 7.3 | 140 | 9 | 3.4 | 120 | 5 | 1.6 |
| 8 | 163 | 17 | 7.5 | 143 | 9 | 3.5 | 120 | 9 | 2.9 |
| 9 | 163 | 13 | 5.7 | 143 | 7 | 2.7 | 122 | 5 | 1.6 |
| 10 | 163 | 15 | 6.6 | 143 | 9 | 3.5 | 122 | 9 | 3.0 |
| 11 | 163 | 10 | 4.4 | 143 | 6 | 2.3 | 128 | 10 | 3.5 |
| 12 | 159 | 12 | 5.2 | 140 | 9 | 3.4 | 122 | 22 | 7.2 |
| 13 | 159 | 11 | 4.7 | 143 | 7 | 2.7 | 117 | 10 | 3.2 |
| 14 | 159 | 20 | 8.6 | 143 | 9 | 3.5 | 115 | 10 | 3.1 |
| 15 | 159 | 12 | 5.2 | 140 | 6 | 2.3 | 112 | 9 | 2.7 |
| 16 | 156 | 11 | 4.6 | 140 | 10 | 3.8 | 112 | 9 | 2.7 |
| 17 | 156 | 14 | 5.9 | 137 | 8 | 3.0 | 110 | 10 | 3.0 |
| 18 | 156 | 12 | 5.1 | 137 | 10 | 3.7 | 110 | 10 | 3.0 |
| 19 | 152 | 13 | 5.3 | 137 | 5 | 1.8 | 117 | 10 | 3.2 |
| 20 | 149 | 11 | 4.4 | 134 | 7 | 2.5 | 128 | 14 | 4.8 |
| 21 | 146 | 10 | 3.9 | 134 | 7 | 2.5 | 117 | 8 | 2.5 |
| 22 | 146 | 20 | 7.9 | 131 | 6 | 2.1 | 120 | 4 | 1.3 |
| 23 | 149 | 12 | 4.8 | 131 | 9 | 3.2 | 120 | 7 | 2.3 |
| 24 | 146 | 10 | 3.9 | 131 | 6 | 2.1 | 122 | 6 | 2.0 |
| 25 | 143 | 13 | 5.0 | 125 | 7 | 2.4 | 125 | 6 | 2.0 |
| 26 | 143 | 10 | 3.9 | 125 | 9 | 3.0 | 137 | 24 | 8.9 |
| 27 | 140 | 11 | 4.2 | 125 | 7 | 2.4 | 131 | 10 | 3.5 |
| 28 | 137 | 8 | 3.0 | 131 | 10 | 3.5 | 131 | 10 | 3.5 |
| 29 | 134 | 10 | 3.6 | 131 | 11 | 3.9 | 131 | 10 | 3.5 |
| 30 | 134 | 11 | 4.0 | 128 | 10 | 3.5 | 122 | 11 | 3.6 |
| 31 | 134 | 17 | 6.2 | 125 | 9 | 3.0 | --- | --- | --- |
| TOTAL | 4706 | --- | 168.0 | 4211 | --- | 96.9 | 3636 | --- | 92.0 |
| YEAR | 85292 | | 711,996.7 TONS | | | | | | |

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 137 | 22 | 8.1 | 201 | 1400 | 760 | 354 | --- | 3000 | |
| 2 | 140 | 18 | 6.8 | 181 | 2130 | 1040 | 366 | --- | 2000 | |
| 3 | 134 | 20 | 7.2 | 163 | 804 | 354 | 1190 | 9530 | 37200 | |
| 4 | 134 | 15 | 5.4 | 177 | 684 | 327 | 1000 | 8600 | 23200 | |
| 5 | 131 | 20 | 7.1 | 215 | 663 | 385 | 900 | 7760 | 18900 | |
| 6 | 149 | 364 | 146 | 222 | 496 | 297 | 780 | --- | 8000 | |
| 7 | 143 | 72 | 28 | 222 | 356 | 213 | 600 | --- | 2000 | |
| 8 | 140 | 29 | 11 | 196 | 324 | 171 | 480 | --- | 500 | |
| 9 | 131 | 26 | 9.2 | 184 | 218 | 108 | 400 | --- | 150 | |
| 10 | 122 | 21 | 6.9 | 163 | 296 | 130 | 340 | --- | 70 | |
| 11 | 120 | 23 | 7.5 | 152 | 199 | 82 | 310 | --- | 40 | |
| 12 | 115 | 18 | 5.6 | 146 | 105 | 41 | 300 | --- | 30 | |
| 13 | 112 | 10 | 3.0 | 137 | 88 | 33 | 300 | --- | 30 | |
| 14 | 115 | 22 | 6.8 | 131 | --- | 35 | 310 | --- | 40 | |
| 15 | 115 | 30 | 9.3 | 128 | 99 | 34 | 900 | --- | 15000 | |
| 16 | 122 | --- | 10 | 170 | 77 | 35 | 870 | 5400 | 12700 | |
| 17 | 131 | --- | 11 | 366 | 5800 | 5730 | 774 | --- | 6500 | |
| 18 | 117 | --- | 10 | 310 | 3380 | 2830 | 694 | --- | 1500 | |
| 19 | 112 | --- | 9.0 | 320 | 1630 | 1410 | 686 | --- | 1500 | |
| 20 | 112 | --- | 9.0 | 280 | 945 | 714 | 565 | --- | 1000 | |
| 21 | 117 | --- | 10 | 250 | 420 | 293 | 509 | --- | 650 | |
| 22 | 189 | --- | 500 | 230 | --- | 200 | 395 | --- | 150 | |
| 23 | 137 | --- | 80 | 188 | --- | 150 | 389 | --- | 150 | |
| 24 | 146 | --- | 100 | 177 | --- | 95 | 356 | --- | 75 | |
| 25 | 146 | --- | 100 | 170 | --- | 55 | 335 | --- | 55 | |
| 26 | 205 | --- | 800 | 159 | 48 | 21 | 325 | --- | 45 | |
| 27 | 192 | 1300 | 674 | 170 | --- | 25 | 300 | --- | 30 | |
| 28 | 255 | 2180 | 2520 | 366 | --- | 5500 | 295 | --- | 25 | |
| 29 | 406 | 13900 | 21600 | 366 | --- | 5000 | 277 | --- | 20 | |
| 30 | 230 | 1890 | 1170 | 360 | --- | 4000 | 268 | --- | 15 | |
| 31 | 213 | 1130 | 650 | --- | --- | --- | 254 | --- | 15 | |
| TOTAL | 4768 | --- | 28520.9 | 6500 | --- | 30058 | 15922 | --- | 134590 | |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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) |
|----------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | | | | | | | | |
| JANUARY | | | | | | | | | |
| 1 | 246 | --- | 10 | 297 | 24 | 19 | 460 | 25 | 31 |
| 2 | 234 | --- | 9.0 | 270 | --- | 15 | 482 | 18 | 23 |
| 3 | 230 | --- | 6.5 | 254 | --- | 15 | 522 | 18 | 25 |
| 4 | 356 | 341 | 400 | 238 | --- | 15 | 471 | 20 | 25 |
| 5 | 629 | --- | 2000 | 222 | --- | 15 | 493 | 36 | 48 |
| 6 | 805 | --- | 6500 | 206 | --- | 15 | 522 | 57 | 80 |
| 7 | 1240 | 5080 | 17000 | 206 | --- | 15 | 606 | 120 | 196 |
| 8 | 1280 | 3930 | 14500 | 198 | --- | 15 | 735 | 285 | 566 |
| 9 | 857 | 1080 | 2500 | 206 | --- | 15 | 704 | 690 | 1310 |
| 10 | 790 | --- | 1500 | 222 | --- | 15 | 825 | 444 | 989 |
| 11 | 670 | --- | 950 | 288 | 30 | 23 | 690 | 321 | 598 |
| 12 | 607 | --- | 650 | 380 | --- | 65 | 618 | --- | 400 |
| 13 | 523 | --- | 400 | 460 | --- | 150 | 559 | --- | 300 |
| 14 | 424 | --- | 250 | 515 | --- | 200 | 526 | --- | 250 |
| 15 | 356 | --- | 200 | 504 | --- | 150 | 471 | --- | 150 |
| 16 | 315 | --- | 150 | 559 | --- | 250 | 430 | --- | 100 |
| 17 | 282 | --- | 100 | 780 | 328 | 691 | 380 | --- | 60 |
| 18 | 279 | 122 | 92 | 780 | --- | 650 | 342 | --- | 40 |
| 19 | 288 | 40 | 31 | 654 | --- | 350 | 306 | --- | 25 |
| 20 | 279 | 136 | 102 | 582 | --- | 250 | 270 | --- | 15 |
| 21 | 270 | 18 | 13 | 482 | --- | 150 | 246 | --- | 9.5 |
| 22 | 262 | 12 | 8.5 | 471 | --- | 150 | 225 | 7 | 4.3 |
| 23 | 306 | 116 | 96 | 440 | --- | 150 | 237 | --- | 6.5 |
| 24 | 306 | 60 | 50 | 460 | 125 | 155 | 237 | --- | 6.5 |
| 25 | 306 | 32 | 26 | 450 | 144 | 175 | 237 | --- | 6.5 |
| 26 | 324 | 35 | 31 | 471 | 90 | 114 | 230 | --- | 6.0 |
| 27 | 420 | 69 | 78 | 471 | 58 | 74 | 230 | --- | 6.0 |
| 28 | 390 | 85 | 90 | 460 | 72 | 89 | 244 | --- | 6.5 |
| 29 | 370 | 52 | 52 | --- | --- | --- | 374 | --- | 60 |
| 30 | 351 | 56 | 53 | --- | --- | --- | 866 | --- | 950 |
| 31 | 315 | 61 | 52 | --- | --- | --- | 542 | --- | 200 |
| FEBRUARY | | | | | | | | | |
| MARCH | | | | | | | | | |
| TOTAL | 14310 | --- | 47900.0 | 11526 | --- | 3990 | 14080 | --- | 6492.8 |

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | APRIL | | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MAY | | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | JUNE | |
|-------|----------------------------|---------------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|---------------------------------|
| | | MEAN CONCENTRATION (MG/L) | MEAN CONCENTRATION (MG/L) | | | MEAN CONCENTRATION (MG/L) | MEAN CONCENTRATION (MG/L) | | | MEAN CONCENTRATION (MG/L) | MEAN CONCENTRATION (MG/L) |
| 1 | 384 | --- | --- | 55 | 216 | --- | --- | 4.5 | 176 | 6 | 2.9 |
| 2 | 384 | --- | --- | 45 | 216 | --- | --- | 4.5 | 172 | 5 | 2.3 |
| 3 | 332 | --- | --- | 30 | 216 | --- | --- | 4.5 | 172 | 6 | 2.8 |
| 4 | 321 | --- | --- | 20 | 211 | 6 | 6 | 3.4 | 172 | 7 | 3.3 |
| 5 | 300 | --- | --- | 9.5 | 211 | 6 | 6 | 3.4 | 172 | 8 | 3.7 |
| 6 | 279 | 9 | 6.8 | 211 | 211 | 4 | 4 | 2.3 | 172 | 7 | 3.3 |
| 7 | 279 | --- | 7.0 | 216 | 216 | 6 | 6 | 3.5 | 165 | 8 | 3.6 |
| 8 | 265 | --- | 7.0 | 211 | 211 | 4 | 4 | 2.3 | 165 | 9 | 4.0 |
| 9 | 258 | --- | 7.0 | 211 | 211 | 5 | 5 | 2.8 | 165 | 8 | 3.6 |
| 10 | 258 | --- | 7.0 | 206 | 206 | 6 | 6 | 3.3 | 197 | 51 | 27 |
| 11 | 251 | --- | 7.0 | 211 | 211 | 4 | 4 | 2.3 | 172 | 15 | 7.0 |
| 12 | 244 | --- | 7.0 | 206 | 206 | 6 | 6 | 3.3 | 165 | 13 | 5.8 |
| 13 | 237 | --- | 6.5 | 206 | 206 | 5 | 5 | 2.8 | 165 | 12 | 5.3 |
| 14 | 230 | --- | 6.5 | 206 | 206 | 12 | 12 | 6.7 | 165 | 13 | 5.8 |
| 15 | 225 | --- | 6.0 | 230 | 230 | 18 | 18 | 11 | 176 | 61 | 29 |
| 16 | 225 | --- | 6.0 | 206 | 206 | 8 | 8 | 4.4 | 161 | 21 | 9.1 |
| 17 | 225 | --- | 6.0 | 202 | 202 | 6 | 6 | 3.3 | 161 | 20 | 8.7 |
| 18 | 230 | --- | 6.5 | 202 | 202 | 6 | 6 | 3.3 | 188 | 164 | 83 |
| 19 | 225 | --- | 6.0 | 202 | 202 | 5 | 5 | 2.7 | 176 | 49 | 23 |
| 20 | 225 | --- | 6.0 | 202 | 202 | 5 | 5 | 2.7 | 169 | 25 | 11 |
| 21 | 230 | --- | 6.5 | 197 | 197 | 6 | 6 | 3.2 | 165 | 25 | 11 |
| 22 | 237 | --- | 6.5 | 197 | 197 | 4 | 4 | 2.1 | 165 | 26 | 12 |
| 23 | 251 | --- | 7.0 | 197 | 197 | 6 | 6 | 3.2 | 169 | 26 | 12 |
| 24 | 265 | --- | 7.0 | 197 | 197 | 6 | 6 | 3.2 | 169 | 23 | 10 |
| 25 | 237 | --- | 6.5 | 188 | 188 | 6 | 6 | 3.0 | 169 | 25 | 11 |
| 26 | 237 | 12 | 7.7 | 188 | 188 | 4 | 4 | 2.0 | 169 | 29 | 13 |
| 27 | 225 | --- | 6.0 | 188 | 188 | 5 | 5 | 2.5 | 169 | 24 | 11 |
| 28 | 225 | --- | 6.0 | 183 | 183 | 6 | 6 | 3.0 | 169 | 25 | 11 |
| 29 | 221 | --- | 6.0 | 179 | 179 | 6 | 6 | 2.9 | 165 | 30 | 13 |
| 30 | 216 | --- | 4.5 | 179 | 179 | 6 | 6 | 2.9 | 165 | 29 | 13 |
| 31 | --- | --- | --- | 176 | 176 | 9 | 9 | 4.3 | --- | --- | --- |
| TOTAL | 7721 | --- | 321.5 | 6267 | --- | --- | --- | 109.3 | 5100 | --- | 361.2 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 183 | 85 | 42 | 158 | 16 | 6.8 | 172 | 548 | 254 |
| 2 | 216 | 134 | 78 | 158 | 16 | 6.8 | 176 | 248 | 118 |
| 3 | 202 | 51 | 28 | 154 | 12 | 5.0 | 142 | 181 | 69 |
| 4 | 197 | 44 | 23 | 151 | 8 | 3.3 | 134 | 123 | 45 |
| 5 | 192 | 37 | 19 | 151 | 12 | 4.9 | 124 | 90 | 30 |
| 6 | 188 | 35 | 18 | 151 | 12 | 4.9 | 131 | 77 | 27 |
| 7 | 183 | 31 | 15 | 147 | 14 | 5.6 | 158 | 60 | 26 |
| 8 | 179 | 30 | 14 | 147 | 12 | 4.8 | 176 | 26 | 12 |
| 9 | 179 | 31 | 15 | 144 | 12 | 4.7 | 165 | 23 | 10 |
| 10 | 179 | 30 | 14 | 144 | 10 | 3.9 | 158 | 396 | 169 |
| 11 | 183 | 36 | 18 | 144 | 10 | 3.9 | 144 | 169 | 66 |
| 12 | 188 | 44 | 22 | 144 | 12 | 4.7 | 129 | 48 | 17 |
| 13 | 266 | 442 | 351 | 144 | 14 | 5.4 | 129 | 54 | 19 |
| 14 | 211 | 83 | 47 | 144 | 16 | 6.2 | 124 | 36 | 12 |
| 15 | 206 | 77 | 43 | 144 | 12 | 4.7 | 124 | 43 | 14 |
| 16 | 202 | 70 | 38 | 145 | 8 | 3.1 | 121 | 25 | 8.2 |
| 17 | 202 | 53 | 29 | 145 | 10 | 3.9 | 121 | 37 | 12 |
| 18 | 197 | 51 | 27 | 145 | 12 | 4.7 | 139 | 202 | 76 |
| 19 | 192 | 57 | 30 | 145 | 10 | 3.9 | 129 | 113 | 39 |
| 20 | 183 | 35 | 17 | 145 | 14 | 5.5 | 124 | 76 | 25 |
| 21 | 179 | 34 | 16 | 145 | 8 | 3.1 | 121 | 89 | 29 |
| 22 | 176 | 28 | 13 | 145 | 10 | 3.9 | 121 | 67 | 22 |
| 23 | 176 | 26 | 12 | 145 | 20 | 7.8 | 124 | 61 | 20 |
| 24 | 172 | 20 | 9.3 | 145 | 8 | 3.1 | 126 | 90 | 31 |
| 25 | 172 | 16 | 7.4 | 145 | 12 | 4.7 | 124 | 58 | 19 |
| 26 | 169 | 24 | 11 | 146 | 12 | 4.7 | 126 | 51 | 17 |
| 27 | 169 | 8 | 3.7 | 146 | 8 | 3.2 | 126 | 38 | 13 |
| 28 | 161 | 12 | 5.2 | 146 | 8 | 3.2 | 126 | 38 | 13 |
| 29 | 161 | 16 | 7.0 | 157 | 206 | 96 | 126 | 13 | 4.4 |
| 30 | 161 | 12 | 5.2 | 167 | 3580 | 1950 | 126 | 19 | 6.5 |
| 31 | 158 | 14 | 6.0 | 161 | 664 | 289 | --- | --- | --- |
| TOTAL | 5782 | --- | 983.8 | 4598 | --- | 2465.4 | 4066 | --- | 1223.1 |
| YEAR | 100540 | | 257,016.0 TONS | | | | | | |

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, PENDE (MG/L) | SED1- 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 | | | | | | | | | | | |
| 09.... | 1215 | 9.0 | 104 | 4 | 95 | 27 | -- | -- | -- | -- | -- |
| 23.... | 0915 | 4.5 | -- | -- | 1280 | -- | -- | -- | -- | -- | -- |
| 25.... | 1620 | 8.0 | -- | -- | 3430 | -- | -- | -- | -- | -- | -- |
| 27.... | 1030 | 6.5 | 113 | 4 | 2240 | 683 | -- | -- | -- | -- | -- |
| 28.... | 1640 | 7.0 | -- | -- | 1290 | -- | -- | -- | -- | -- | -- |
| 29.... | 1645 | 7.0 | -- | -- | 2100 | -- | -- | -- | -- | -- | -- |
| 30.... | 1230 | 8.0 | -- | -- | 2210 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 06.... | 1200 | -- | -- | -- | 23200 | -- | -- | -- | -- | -- | -- |
| 07.... | 1520 | 9.0 | -- | -- | 84500 | -- | -- | -- | -- | -- | -- |
| 07.... | 1525 | 9.0 | -- | -- | 95500 | -- | 4 | 5 | 10 | 18 | 26 |
| 07.... | 1730 | 9.5 | -- | -- | 108000 | -- | 2 | 6 | 11 | 20 | 29 |
| 08.... | 1005 | 8.5 | 660 | -- | 31500 | 56100 | 1 | 2 | 4 | 6 | 10 |
| 08.... | 1050 | 8.5 | -- | -- | 31300 | -- | 4 | 6 | 10 | 16 | 25 |
| 08.... | 1445 | 8.5 | -- | -- | 32800 | -- | 2 | 3 | 6 | 10 | 14 |
| 09.... | 1130 | 7.0 | -- | -- | 31000 | -- | 0 | 0 | 2 | 4 | 7 |
| 10.... | 1610 | 7.0 | -- | -- | 17000 | -- | -- | -- | -- | -- | -- |
| 11.... | 1610 | 6.0 | 301 | 4 | 19100 | 15500 | -- | -- | -- | -- | -- |
| 15.... | 1000 | 5.0 | -- | -- | 11300 | -- | -- | -- | -- | -- | -- |
| 15.... | 1005 | 5.0 | -- | -- | 18100 | -- | -- | -- | -- | -- | -- |
| 18.... | 1600 | 17.0 | 124 | 9 | 7480 | 2500 | -- | -- | -- | -- | -- |
| 21.... | 1155 | 6.0 | -- | -- | 63100 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 23.... | 1200 | 5.5 | 782 | 3 | 16600 | 35000 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 08.... | 1455 | -- | 168 | 9 | 3740 | 1700 | -- | -- | -- | -- | -- |
| 20.... | 1120 | 5.0 | 139 | 5 | 128 | 48 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 03.... | 1040 | -- | -- | -- | 1100 | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 02.... | 1500 | -- | -- | 9 | 955 | -- | -- | -- | -- | -- | -- |
| 28.... | 1515 | 9.0 | 289 | 9 | 275 | 215 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 20.... | 1400 | 8.5 | 155 | 5 | 22 | 9.2 | -- | -- | -- | -- | -- |
| 29.... | 1140 | -- | 125 | 5 | 17 | 5.7 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 08.... | 1205 | -- | 600 | 9 | 20400 | -- | 4 | 9 | 15 | 24 | 35 |
| 08.... | 1740 | -- | 500 | 9 | 6890 | 9300 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|
| | .062 MM | .062 MM | .125 MM | .125 MM | .250 MM | .250 MM | .500 MM | .500 MM | .500 MM | 1.00 MM | 1.00 MM | 2.00 MM |
| OCT | | | | | | | | | | | | |
| 09... | -- | 40 | -- | -- | -- | 35 | -- | -- | -- | -- | -- | -- |
| 23... | 13 | -- | 20 | -- | -- | 80 | -- | -- | 68 | -- | 98 | 100 |
| 25... | 35 | -- | 57 | -- | -- | -- | 94 | -- | -- | -- | 96 | 98 |
| 27... | -- | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | 26 | -- | 45 | -- | 69 | 69 | -- | -- | 92 | -- | 100 | -- |
| 29... | 5 | -- | 13 | -- | 41 | 41 | 79 | -- | -- | -- | 82 | 91 |
| 30... | 9 | -- | 17 | -- | 36 | 36 | -- | -- | 58 | -- | 88 | 99 |
| NOV | | | | | | | | | | | | |
| 06... | -- | 26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 40 | -- | 56 | -- | 77 | 77 | 95 | -- | -- | -- | 99 | -- |
| 07... | 48 | -- | 65 | -- | 89 | 89 | 99 | -- | -- | 100 | -- | -- |
| 08... | 20 | -- | 39 | -- | 78 | 78 | 98 | -- | -- | 100 | -- | -- |
| 08... | 43 | -- | 65 | -- | 95 | 95 | 100 | -- | -- | -- | -- | -- |
| 08... | 23 | -- | 39 | -- | 72 | 72 | 95 | -- | -- | 100 | -- | -- |
| 09... | 15 | -- | 24 | -- | 44 | 44 | 77 | -- | -- | -- | 87 | 96 |
| 10... | -- | 14 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 12 | -- | 18 | -- | 28 | 28 | 64 | -- | -- | -- | 84 | 95 |
| 15... | 7 | -- | 10 | -- | 25 | 25 | 69 | -- | -- | -- | 81 | -- |
| 18... | -- | 11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 08... | -- | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 08... | 50 | 50 | 66 | -- | 84 | 84 | 96 | -- | -- | 100 | -- | -- |
| 08... | -- | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- 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 |
|-------|------|-----------------------------|---|---|---|---|--|--|--|--|--|
| JUN | | | | | | | | | | | |
| 16... | 1150 | 10.0 | 172 | 5 | 146 | 68 | -- | -- | -- | -- | -- |
| 23... | 1125 | 10.0 | 172 | 5 | 593 | 275 | -- | -- | -- | -- | -- |
| 29... | 1135 | 12.0 | 157 | 5 | 96 | 41 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 07... | 1135 | 9.0 | 150 | 5 | 46 | 19 | -- | -- | -- | -- | -- |
| 15... | 1110 | 11.5 | 129 | 5 | 17 | 5.9 | -- | -- | -- | -- | -- |
| 20... | 1225 | 10.5 | 128 | 5 | 26 | 9.0 | -- | -- | -- | -- | -- |
| 28... | 1140 | -- | 123 | 5 | 48 | 16 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 04... | 1105 | 10.0 | 113 | 5 | 27 | 8.2 | -- | -- | -- | -- | -- |
| 12... | 1335 | 16.0 | 108 | 5 | 56 | 16 | -- | -- | -- | -- | -- |
| 17... | 1545 | 17.0 | 103 | 5 | 78 | 22 | -- | -- | -- | -- | -- |
| 24... | 1630 | 14.0 | 116 | 5 | 62 | 19 | -- | -- | -- | -- | -- |
| 27... | 1620 | -- | 103 | 9 | 98 | 27 | -- | -- | -- | -- | -- |
| 31... | 1445 | 13.0 | 106 | 9 | 50 | 14 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 08... | 1300 | -- | 103 | 9 | 271 | 75 | -- | -- | -- | -- | -- |
| 14... | 1545 | 14.0 | 118 | 9 | 176 | 56 | -- | -- | -- | -- | -- |
| 15... | 1155 | 11.0 | 120 | 9 | 178 | 58 | 3 | 3 | 9 | 16 | 29 |
| 21... | 1535 | 9.0 | 142 | 9 | 6430 | 2470 | -- | 4 | 5 | 9 | 16 |
| 28... | 1020 | -- | 415 | -- | 36600 | 41000 | -- | 11 | 20 | 36 | 55 |
| 29... | 1445 | 11.0 | 118 | -- | 4450 | 1420 | 2 | 2 | 5 | 8 | 12 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|--|--|
| JUN | | | | | | | | | |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 58 | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 45 | 59 | -- | 70 | -- | 85 | -- | 95 | 100 |
| 21... | 24 | 43 | -- | 72 | -- | 93 | -- | 99 | 100 |
| 28... | 73 | 87 | -- | 96 | -- | 99 | -- | 100 | -- |
| 29... | 18 | 35 | 68 | 92 | 100 | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 06... | 1125 | 8.0 | 880 | -- | 69200 | 164000 | -- | -- | -- | -- | -- | -- |
| 06... | 1455 | 8.0 | 353 | 5 | 35000 | 33400 | -- | 5 | 9 | 16 | 24 | -- |
| 06... | 1735 | 8.0 | 490 | 5 | 51400 | 68000 | -- | 7 | 11 | 19 | 30 | -- |
| 07... | 1415 | 8.5 | 230 | 5 | 13400 | 8320 | 1 | 2 | 4 | 6 | 10 | 15 |
| 16... | 1440 | -- | 140 | 9 | 268 | 101 | -- | -- | -- | -- | -- | -- |
| 27... | 1415 | 9.0 | 140 | 9 | 2410 | 911 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 06... | 1115 | 6.5 | 154 | 9 | 295 | 123 | -- | -- | -- | -- | -- | -- |
| 12... | 1055 | 6.5 | 203 | 9 | 2600 | 1430 | 3 | 5 | 7 | 11 | 17 | 24 |
| 13... | 1050 | 7.5 | 174 | 9 | 3750 | 1760 | -- | -- | -- | -- | -- | 30 |
| 13... | 1100 | 7.5 | 178 | -- | 1130 | 543 | -- | -- | -- | -- | -- | -- |
| 17... | 1200 | 6.0 | 356 | 5 | 9130 | 8780 | 2 | 2 | 4 | 7 | 11 | 17 |
| 19... | 1330 | 7.0 | 345 | 5 | 3250 | 3030 | -- | -- | -- | -- | -- | 10 |
| 25... | 1247 | 6.0 | 325 | 9 | 1130 | 987 | -- | -- | -- | -- | -- | 7 |
| 30... | 1325 | 3.5 | 168 | 9 | 100 | 45 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 05... | 1925 | 5.0 | 590 | -- | 15800 | 25200 | -- | -- | -- | -- | -- | -- |
| 05... | 2005 | 5.0 | 686 | 3 | 16000 | 29600 | 2 | 2 | 4 | 7 | 12 | 18 |
| 06... | 1905 | 5.0 | 630 | 3 | 6090 | 10400 | 2 | 2 | 5 | 7 | 12 | 16 |
| 07... | 1330 | 5.0 | 526 | 3 | 4280 | 6080 | -- | -- | -- | -- | -- | 16 |
| 10... | 1415 | 5.5 | 334 | 3 | 1840 | 1660 | -- | -- | -- | -- | -- | -- |
| 16... | 1436 | 6.0 | 386 | 5 | 1220 | 1270 | -- | -- | -- | -- | -- | -- |
| 21... | 1525 | 5.0 | 284 | 5 | 442 | 339 | -- | -- | -- | -- | -- | 9 |
| 30... | 1330 | 5.0 | 167 | 9 | 24 | 11 | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 07... | 1236 | 4.5 | 143 | 9 | 14 | 5.4 | -- | -- | -- | -- | -- | -- |
| 13... | 1416 | 5.5 | 140 | 5 | 14 | 5.3 | -- | -- | -- | -- | -- | -- |
| 17... | 1423 | 4.0 | 307 | 3 | 215 | 178 | -- | -- | -- | -- | -- | -- |
| 23... | 2313 | 3.0 | 1250 | 3 | 10800 | 36500 | 3 | 4 | 7 | 11 | 17 | -- |
| 26... | 1300 | -- | 410 | -- | 2480 | 2750 | -- | -- | -- | -- | -- | -- |
| 27... | 1330 | -- | 387 | -- | 1430 | 1490 | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 02... | 1215 | 5.5 | 266 | 9 | 106 | 76 | -- | -- | -- | -- | -- | -- |
| 08... | 1145 | 4.5 | 189 | 9 | 23 | 12 | -- | -- | -- | -- | -- | -- |
| 18... | 1310 | 5.5 | 615 | 3 | 2340 | 3890 | -- | -- | -- | -- | -- | -- |
| 20... | 1305 | -- | 1770 | 5 | 21600 | 103000 | 5 | 6 | 8 | 14 | 21 | -- |
| 21... | 1250 | 6.0 | 850 | 5 | 6660 | 15300 | -- | -- | -- | -- | -- | -- |
| 26... | 1305 | 5.0 | 322 | 3 | 296 | 257 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 05... | 1458 | 5.0 | 313 | 3 | 460 | 389 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 .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 | SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM |
|-------|---|--|--|--|--|--|--|--|--|---|
| OCT | | | | | | | | | | |
| 06... | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 36 | -- | -- | 75 | -- | 95 | -- | 99 | -- | 100 |
| 06... | 42 | -- | -- | 79 | -- | 94 | -- | 100 | -- | -- |
| 07... | 29 | 29 | 66 | -- | 90 | -- | -- | 95 | -- | 98 |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | |
| 06... | 7 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | 33 | 34 | 55 | -- | 83 | -- | 97 | -- | 100 | -- |
| 13... | 62 | 41 | 63 | -- | 87 | -- | 98 | -- | 100 | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 18 | 31 | 57 | -- | 83 | -- | 98 | -- | 100 | -- |
| 19... | 16 | 18 | 38 | -- | 70 | -- | 95 | -- | -- | -- |
| 25... | 8 | 9 | 20 | -- | 44 | -- | 78 | -- | 100 | -- |
| 30... | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | |
| 05... | 19 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 17 | 34 | 64 | -- | 89 | -- | 98 | -- | 100 | -- |
| 06... | 21 | 26 | 49 | -- | 75 | -- | 96 | -- | 100 | -- |
| 07... | 32 | 25 | 42 | -- | 67 | -- | 98 | -- | 100 | -- |
| 10... | 6 | -- | -- | 15 | -- | 41 | -- | 74 | -- | 93 |
| 16... | 14 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 7 | 11 | 24 | -- | 52 | -- | 100 | -- | -- | -- |
| 30... | 26 | -- | 36 | 54 | -- | 79 | -- | 100 | -- | -- |
| JAN | | | | | | | | | | |
| 07... | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 9 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 26 | -- | 34 | 43 | -- | 85 | -- | 96 | -- | 98 |
| 26... | 14 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 02... | 8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 15 | -- | 22 | 40 | -- | 70 | -- | 98 | -- | 100 |
| 20... | 30 | -- | 40 | 66 | -- | 88 | -- | 98 | -- | 100 |
| 21... | 15 | -- | 25 | 44 | -- | 73 | -- | 91 | -- | 97 |
| 26... | 12 | -- | 19 | 31 | -- | 58 | -- | 82 | -- | 96 |
| MAR | | | | | | | | | | |
| 05... | 10 | -- | -- | 32 | -- | 56 | -- | 84 | -- | 99 |

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, 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 |
|-------|------|-----------------------------|---|---|---------------------------------------|---|--|---|--|
| MAR | | | | | | | | | |
| 10... | 1215 | 5.5 | 422 | 3 | 1800 | 2050 | 12 | 12 | 20 |
| 19... | 1330 | 6.0 | 237 | 9 | 297 | 190 | -- | 8 | -- |
| 29... | 1254 | 5.5 | 240 | 3 | 162 | 105 | -- | 4 | -- |
| APR | | | | | | | | | |
| 09... | 1250 | 9.0 | 202 | 9 | 33 | 18 | -- | 32 | -- |
| 13... | 1305 | 8.0 | 378 | 3 | 717 | 732 | -- | 4 | -- |
| 27... | 1320 | 9.0 | 230 | 9 | 243 | 151 | -- | 8 | -- |
| MAY | | | | | | | | | |
| 11... | 1525 | 11.0 | 280 | 3 | 27 | 20 | -- | 29 | -- |
| 26... | 1436 | 11.0 | 200 | 5 | 15 | 8.1 | -- | 22 | -- |
| JUN | | | | | | | | | |
| 07... | 1305 | 12.0 | 172 | 9 | 12 | 5.6 | -- | 52 | -- |
| JUL | | | | | | | | | |
| 09... | 1305 | 13.5 | 163 | 9 | 12 | 5.3 | -- | 58 | -- |
| AUG | | | | | | | | | |
| 12... | 1300 | 13.0 | 141 | 9 | 14 | 5.3 | -- | 33 | -- |
| SEP | | | | | | | | | |
| 01... | 1300 | 13.0 | 116 | 9 | 8 | 2.5 | -- | 57 | -- |
| 20... | 1328 | 9.0 | 125 | 9 | 14 | 4.7 | -- | 41 | -- |
| 30... | 1235 | 8.0 | 123 | 9 | 29 | 9.6 | -- | 46 | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. SIEVE DIAM. % FINER THAN | .125 MM | .250 MM | SED. SUSP. SIEVE DIAM. % FINER THAN | .250 MM | SED. SUSP. SIEVE DIAM. % FINER THAN | .500 MM | SED. SUSP. SIEVE DIAM. % FINER THAN | .500 MM | SED. SUSP. SIEVE DIAM. % FINER THAN | .500 MM | SED. SUSP. SIEVE DIAM. % FINER THAN | 1.00 MM | SED. SUSP. SIEVE DIAM. % FINER THAN | 1.00 MM | SED. SUSP. SIEVE DIAM. % FINER THAN | 2.00 MM | SED. SUSP. SIEVE DIAM. % FINER THAN | 2.00 MM |
|-------|--|---------|---------|--|---------|--|---------|--|---------|--|---------|--|---------|--|---------|--|---------|--|---------|
| MAR | | | | | | | | | | | | | | | | | | | |
| 10... | -- | -- | 41 | -- | 28 | -- | 73 | -- | 54 | -- | 99 | -- | 78 | -- | 100 | -- | 92 | -- | 92 |
| 19... | 15 | -- | -- | -- | 19 | -- | -- | -- | 43 | -- | -- | -- | 63 | -- | -- | -- | 90 | -- | 90 |
| 29... | 9 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | 32 | -- | -- | -- | 65 | -- | -- | -- | 87 | -- | -- | -- | 100 | -- | 100 |
| 13... | 11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 66 | -- | -- | -- | 85 | -- | -- | -- | 92 | -- | -- | -- | 96 | -- | -- | -- | 100 | -- | 100 |

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, 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 | | | | | | | | | | | | |
| 12.... | 1325 | 10.0 | 115 | 9 | 16 | 5.0 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 01.... | 1225 | 8.0 | 192 | 3 | 1280 | 664 | -- | -- | -- | -- | -- | -- |
| 11.... | 1335 | 5.0 | 148 | 9 | 135 | 54 | -- | -- | -- | -- | -- | -- |
| 26.... | 1320 | 4.5 | 159 | 9 | 48 | 21 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 03.... | 1355 | -- | 1780 | 5 | 17200 | 82700 | -- | -- | -- | -- | -- | -- |
| 03.... | 1640 | -- | 1700 | 3 | 24400 | 112000 | -- | -- | -- | -- | -- | -- |
| 04.... | 1340 | 6.0 | 1060 | 5 | 9730 | 27800 | -- | -- | -- | -- | -- | -- |
| 16.... | 1425 | 6.0 | 868 | 5 | 4870 | 11400 | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 04.... | 1415 | 3.5 | 356 | 3 | 366 | 352 | -- | -- | -- | -- | -- | -- |
| 07.... | 1250 | 4.5 | 1380 | 5 | 6440 | 24000 | 3 | 3 | 3 | 7 | 10 | -- |
| 08.... | 1245 | -- | 1160 | -- | 8030 | 25100 | -- | -- | -- | -- | -- | -- |
| 08.... | 1300 | -- | 1160 | -- | 6750 | 21100 | -- | -- | -- | -- | -- | -- |
| 08.... | 1310 | -- | 1160 | -- | 5560 | 17400 | -- | -- | -- | -- | -- | -- |
| 09.... | 0930 | 5.0 | 857 | -- | 2060 | 4770 | -- | -- | -- | -- | -- | -- |
| 09.... | 1510 | 5.0 | 857 | -- | 1760 | 4070 | -- | -- | -- | -- | -- | -- |
| 25.... | 1450 | 6.0 | 310 | 5 | 26 | 22 | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 01.... | 1455 | 6.5 | 297 | 5 | 23 | 18 | -- | -- | -- | -- | -- | -- |
| 11.... | 1345 | 5.5 | 278 | 5 | 29 | 22 | -- | -- | -- | -- | -- | -- |
| 17.... | 1340 | 8.0 | 841 | 5 | 1060 | 2410 | -- | -- | -- | -- | -- | -- |
| 23.... | 1300 | -- | 439 | 9 | 131 | 155 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 02.... | 1320 | 10.0 | 478 | 5 | 22 | 28 | -- | -- | -- | -- | -- | -- |
| 09.... | 1315 | 8.0 | 905 | 5 | 841 | 2050 | -- | -- | -- | -- | -- | -- |
| 11.... | 1430 | 5.0 | 676 | 5 | 204 | 372 | -- | -- | -- | -- | -- | 36 |
| 22.... | 1250 | 7.5 | 224 | 9 | 7 | 4.2 | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 01.... | 1215 | 6.0 | 381 | 9 | 52 | 53 | -- | -- | -- | -- | -- | -- |
| 06.... | 1300 | 7.5 | 277 | 9 | 11 | 8.2 | -- | -- | -- | -- | -- | -- |
| 26.... | 1350 | 6.0 | 238 | 9 | 12 | 7.7 | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 04.... | 1325 | 12.0 | 209 | 9 | 8 | 4.5 | -- | -- | -- | -- | -- | -- |
| 17.... | 1335 | 7.5 | 206 | 9 | 6 | 3.3 | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 02.... | 1350 | 9.0 | 171 | 9 | 5 | 2.3 | -- | -- | -- | -- | -- | -- |
| 21.... | 1350 | 8.5 | 164 | 9 | 25 | 11 | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 14.... | 1315 | 11.5 | 205 | 9 | 83 | 46 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|--|---|---|---|---|---|---|---|---|---|---|---|
| | .062 MM | .125 MM | .250 MM | .500 MM | .500 MM | .500 MM | .500 MM | 1.00 MM | 1.00 MM | 1.00 MM | 2.00 MM | 2.00 MM |
| OCT | | | | | | | | | | | | |
| 12... | 36 | -- | -- | 64 | -- | 87 | -- | 100 | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 01... | 10 | -- | -- | 34 | -- | 58 | -- | 84 | -- | -- | 94 | 94 |
| 11... | 10 | -- | -- | 31 | -- | 51 | -- | 73 | -- | -- | 84 | 84 |
| 26... | 19 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 03... | 27 | -- | -- | 57 | -- | 78 | -- | 92 | -- | -- | 98 | 98 |
| 03... | 32 | -- | -- | 68 | -- | 90 | -- | 97 | -- | -- | 100 | 100 |
| 04... | 14 | -- | -- | 36 | -- | 64 | -- | 85 | -- | -- | 96 | 96 |
| 16... | 15 | -- | -- | 44 | -- | 73 | -- | 93 | -- | -- | 99 | 99 |
| JAN | | | | | | | | | | | | |
| 04... | 18 | -- | -- | 43 | -- | 63 | -- | 85 | -- | -- | 93 | 93 |
| 07... | 16 | -- | -- | 44 | -- | 71 | -- | 95 | -- | -- | 100 | 100 |
| 08... | 11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 14 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 17 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 17 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | 25 | -- | -- | 42 | -- | 61 | -- | 78 | -- | -- | 100 | 100 |
| FEB | | | | | | | | | | | | |
| 01... | 36 | -- | -- | 56 | -- | 83 | -- | 100 | -- | -- | -- | -- |
| 11... | 19 | -- | -- | 53 | -- | 79 | -- | 100 | -- | -- | -- | -- |
| 17... | 12 | -- | -- | 27 | -- | 52 | -- | 84 | -- | -- | 98 | 98 |
| 23... | 6 | -- | -- | 29 | -- | 57 | -- | 87 | -- | -- | 100 | 100 |
| MAR | | | | | | | | | | | | |
| 02... | 11 | -- | -- | 43 | -- | 75 | -- | 100 | -- | -- | -- | -- |
| 09... | 36 | -- | -- | 67 | -- | 84 | -- | 98 | -- | 100 | 100 | 100 |
| 11... | -- | 48 | 67 | -- | 84 | -- | 98 | -- | 100 | -- | -- | -- |
| 22... | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 01... | 16 | -- | -- | 41 | -- | 73 | -- | 94 | -- | -- | 100 | 100 |
| 06... | 15 | -- | -- | 49 | -- | 83 | -- | 100 | -- | -- | -- | -- |
| 26... | 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 04... | 79 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 02... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 14... | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14216900 PINE CREEK AT MOUTH NEAR COUGAR, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---------------|------|-----------------------------|---|---|--|--|---|
| AUG 11.... | 1150 | 9.0 | 144 | 9 | 11 | 4.3 | 26 |
| 29.... | 1245 | 8.5 | 146 | 9 | 16 | 6.3 | 22 |
| SEP 22.... | 1320 | 10.0 | 122 | 9 | 80 | 26 | 30 |

14222980 KALAMA RIVER BELOW FALLS, NEAR COUGAR, WA

LOCATION.--Lat 46°06'25", long 122°21'33", in SE¼NW¼ sec.7, T.7 N., R.4 E., Cowlitz County, Hydrologic Unit 17080003, on left bank 40 ft upstream from bridge, 0.4 mi downstream from falls, and 4.7 mi northwest of Cougar.

DRAINAGE AREA.--37.4 mi².

PERIOD OF SEDIMENT DATA.--March 1980 to August 1982 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1280 ft, National Geodetic Vertical Datum of 1929.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|---------------|------|---------------------|
| 1981 | Nov. 19, 1980 | 1245 | 161 |
| 1982 | Nov. 17, 1981 | 1510 | 1,090 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|--------|------|-----------------------------|---|---|---------------------------------------|---|---|
| OCT | | | | | | | |
| 02.... | 1615 | 9.5 | 94 | 9 | 150 | 38 | -- |
| 24.... | 0900 | 6.5 | 81 | 9 | 95 | 21 | -- |
| NOV | | | | | | | |
| 19.... | 1215 | 7.0 | 276 | -- | 161 | 120 | -- |
| 19.... | 1245 | 7.0 | 276 | 3 | 161 | 120 | -- |
| DEC | | | | | | | |
| 17.... | 1030 | 5.0 | 353 | -- | 134 | 128 | -- |
| 17.... | 1110 | 5.0 | 353 | 3 | 134 | 128 | -- |
| FEB | | | | | | | |
| 27.... | 0930 | 5.5 | 383 | 5 | 24 | 25 | -- |
| MAR | | | | | | | |
| 20.... | 1200 | 5.5 | 201 | 3 | 7 | 3.8 | -- |
| APR | | | | | | | |
| 15.... | 1400 | 6.0 | 343 | -- | 21 | 19 | -- |
| 15.... | 1500 | 6.0 | 343 | 5 | 21 | 19 | 26 |
| 30.... | 1435 | 8.5 | 374 | 3 | 27 | 27 | -- |
| MAY | | | | | | | |
| 13.... | 1300 | 7.5 | 263 | 5 | 9 | 6.4 | -- |
| JUN | | | | | | | |
| 09.... | 1215 | 7.5 | 450 | 5 | 90 | 109 | -- |
| 17.... | 1240 | 7.5 | 260 | 3 | 16 | 11 | -- |
| 23.... | 1110 | 8.0 | 330 | 3 | 38 | 34 | -- |
| JUL | | | | | | | |
| 02.... | 1120 | -- | 204 | 5 | 3 | 1.7 | -- |
| 09.... | 1150 | 8.0 | 196 | 5 | 6 | 3.2 | -- |
| 14.... | 1300 | 8.0 | 150 | 3 | 8 | 3.2 | -- |
| AUG | | | | | | | |
| 18.... | 1310 | 8.0 | 109 | 9 | 6 | 1.8 | -- |
| 31.... | 1125 | 7.5 | 100 | 9 | 3 | .81 | -- |
| SEP | | | | | | | |
| 18.... | 1210 | 7.0 | 87 | 9 | 4 | .94 | -- |
| 29.... | 1130 | 7.5 | 109 | 9 | 52 | 15 | 74 |

| DATE | TIME ATURE (DEG C) | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, CHARGE, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. | | | |
|-----------|--------------------------|-----------------------------|---|---|---|---|---|---|---|---|
| | | | | | | | SUSP. FALL DIAM. % FINER THAN | SUSP. FALL DIAM. % FINER THAN | SUSP. FALL DIAM. % FINER THAN | SUSP. FALL DIAM. % FINER THAN |
| OCT 22... | 1115 | 6.0 | 129 | 9 | 22 | 7.7 | -- | -- | -- | -- |
| NOV 17... | 1510 | 8.0 | 522 | 5 | 1090 | 1540 | 2 | 3 | 4 | 4 |
| 30... JAN | 1315 | 5.0 | 276 | 5 | 38 | 28 | -- | -- | -- | -- |
| 22... MAR | 1310 | 3.0 | 322 | -- | 11 | 9.6 | -- | -- | -- | -- |
| 04... APR | 1235 | 5.5 | 689 | 5 | 19 | 35 | -- | -- | -- | -- |
| 24... MAY | 1225 | 5.5 | 378 | 3 | 4 | 4.1 | -- | -- | -- | -- |
| AUG 24... | 1450 | 8.0 | 133 | 4 | 91 | 33 | -- | -- | -- | -- |
| DATE | .016 MM | .031 MM | .062 MM | .125 MM | .250 MM | .500 MM | 1.00 MM | 2.00 MM | 2.00 MM | MM |
| OCT 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 17... | 5 | 9 | 18 | 36 | 63 | 88 | 97 | 100 | 100 | 100 |
| 30... JAN | -- | -- | 30 | 41 | 58 | 70 | 74 | 100 | 100 | 100 |
| JAN 22... | -- | -- | 53 | -- | -- | -- | -- | -- | -- | -- |
| MAR 04... | -- | -- | 27 | 39 | 50 | 83 | 100 | -- | -- | -- |
| 24... AUG | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 24... | -- | -- | -- | 4 | -- | -- | -- | -- | -- | -- |

LOCATION.--Lat. 46°16'40", long 122°18'08", at rock outcrop 1.7 mi below Elk Creek.

PERIOD OF SEDIMENT DATA.--March 1980 to February 1981.

GAGE.--Water-stage recorder operated Sept. 23 - Dec. 26, 1980. Altitude of gage is 1,690 ft, from altimeter.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

[illegible]

14240800 GREEN RIVER ABOVE BEAVER CREEK NEAR KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | OCTOBER | | | | NOVEMBER | | | | DECEMBER | | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 155 | --- | 27 | 371 | --- | 170 | 497 | 273 | 366 | | | |
| 2 | 487 | --- | 2000 | 315 | --- | 130 | 1600 | 2700 | 14900 | | | |
| 3 | 311 | --- | 290 | 284 | 141 | 108 | 1110 | --- | 3500 | | | |
| 4 | 236 | 109 | 69 | 264 | --- | 90 | 864 | --- | 1500 | | | |
| 5 | 210 | 76 | 43 | 236 | --- | 68 | 3370 | --- | 42000 | | | |
| 6 | 1350 | --- | 15000 | 219 | --- | 53 | 2400 | 2000 | 13000 | | | |
| 7 | 920 | 2080 | 5170 | 210 | --- | 42 | 1900 | 1020 | 5230 | | | |
| 8 | 782 | --- | 3000 | 201 | --- | 32 | 1460 | 700 | 2760 | | | |
| 9 | 1010 | --- | 6500 | 195 | 46 | 24 | 1180 | --- | 1500 | | | |
| 10 | 602 | --- | 1000 | 192 | --- | 17 | 1130 | 450 | 1370 | | | |
| 11 | 486 | --- | 560 | 319 | --- | 300 | 913 | --- | 860 | | | |
| 12 | 416 | --- | 330 | 554 | 1780 | 3230 | 780 | --- | 630 | | | |
| 13 | 358 | --- | 200 | 402 | 455 | 508 | 734 | --- | 730 | | | |
| 14 | 303 | --- | 130 | 1160 | --- | 14000 | 770 | --- | 540 | | | |
| 15 | 270 | --- | 80 | 934 | --- | 6400 | 1680 | 1250 | 6430 | | | |
| 16 | 246 | 80 | 53 | 885 | --- | 7000 | 1470 | --- | 3600 | | | |
| 17 | 228 | --- | 38 | 998 | 2300 | 6200 | 1120 | --- | 1100 | | | |
| 18 | 213 | --- | 29 | 1060 | --- | 6400 | 927 | 120 | 300 | | | |
| 19 | 195 | --- | 24 | 836 | 1000 | 2260 | 1200 | --- | 1400 | | | |
| 20 | 189 | --- | 20 | 754 | --- | 1160 | 976 | --- | 760 | | | |
| 21 | 174 | --- | 17 | 1060 | --- | 5400 | 801 | --- | 430 | | | |
| 22 | 165 | --- | 15 | 1080 | --- | 4400 | 696 | --- | 300 | | | |
| 23 | 158 | --- | 14 | 969 | --- | 2500 | 584 | --- | 170 | | | |
| 24 | 155 | --- | 13 | 808 | --- | 1400 | 702 | 150 | 284 | | | |
| 25 | 145 | --- | 12 | 682 | --- | 900 | 787 | --- | 320 | | | |
| 26 | 145 | 29 | 11 | 590 | --- | 510 | 689 | --- | 190 | | | |
| 27 | 204 | --- | 42 | 502 | 225 | 305 | 663 | --- | 140 | | | |
| 28 | 404 | --- | 380 | 435 | --- | 200 | 608 | --- | 100 | | | |
| 29 | 353 | --- | 250 | 416 | --- | 190 | 536 | --- | 77 | | | |
| 30 | 453 | --- | 550 | 402 | --- | 170 | 475 | --- | 58 | | | |
| 31 | 502 | --- | 760 | --- | --- | --- | 435 | 37 | 43 | | | |
| TOTAL | 11825 | --- | 36627 | 17333 | --- | 64167 | 33057 | --- | 104588 | | | |

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

LOCATION.--Lat 46°22'55", long 122°31'21", 1n SE¼NW¼ sec.2, T.10 N., R.2 E., Cowiitz County, Hydrologic Unit 17030005, 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 to current year.

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 | Concentration, mg/L |
|------------|---------------|------|---------------------|
| 1981 | Nov. 2, 1980 | 1545 | 25,200 |
| 1982 | Dec. 2, 1981 | 1200 | 4,910 |
| 1983 | Oct. 29, 1982 | 1425 | 2,040 |



Photo date: August 31, 1982
Gaging station at Green River above Beaver Creek (240800). Station located in area of Green River valley protected from blast of May 18, 1980, eruption. Flow is to left; discharge 66 cubic feet per second.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 402 | --- | 37 | 899 | --- | 320 | 822 | --- | 270 |
| 2 | 380 | --- | 34 | 1150 | 140 | 435 | 722 | --- | 180 |
| 3 | 366 | --- | 30 | 1070 | --- | 400 | 670 | --- | 140 |
| 4 | 344 | --- | 25 | 871 | --- | 310 | 748 | --- | 200 |
| 5 | 323 | --- | 22 | 748 | --- | 240 | 670 | --- | 140 |
| 6 | 264 | 23 | 16 | 608 | --- | 160 | 596 | --- | 93 |
| 7 | 284 | --- | 21 | 530 | --- | 130 | 554 | --- | 75 |
| 8 | 281 | --- | 20 | 465 | --- | 100 | 530 | --- | 63 |
| 9 | 274 | --- | 19 | 394 | --- | 75 | 985 | --- | 500 |
| 10 | 267 | --- | 17 | 348 | --- | 56 | 1140 | 280 | 862 |
| 11 | 435 | 70 | 82 | 340 | --- | 46 | 1780 | --- | 2900 |
| 12 | 460 | --- | 120 | 323 | --- | 35 | 1270 | --- | 1100 |
| 13 | 514 | --- | 190 | 774 | --- | 690 | 1140 | --- | 770 |
| 14 | 794 | --- | 380 | 2760 | 2220 | 16500 | 1070 | --- | 640 |
| 15 | 1090 | --- | 730 | 2920 | --- | 11000 | 969 | --- | 470 |
| 16 | 2630 | 1150 | 9730 | 3440 | --- | 12000 | 850 | --- | 300 |
| 17 | 2800 | --- | 6400 | 3440 | 1140 | 10600 | 734 | --- | 190 |
| 18 | 1730 | 398 | 1860 | 2760 | --- | 7500 | 656 | --- | 130 |
| 19 | 1190 | --- | 760 | 2440 | --- | 5100 | 590 | --- | 89 |
| 20 | 892 | --- | 450 | 4560 | 2900 | 42300 | 542 | --- | 70 |
| 21 | 741 | --- | 270 | 3580 | 2250 | 22900 | 497 | --- | 51 |
| 22 | 626 | --- | 180 | 2240 | --- | 6600 | 455 | --- | 37 |
| 23 | 3770 | 1030 | 12600 | 1540 | --- | 2300 | 430 | --- | 30 |
| 24 | 5660 | 3370 | 58200 | 1100 | --- | 1300 | 416 | --- | 28 |
| 25 | 2520 | 946 | 6440 | 934 | --- | 600 | 407 | --- | 27 |
| 26 | 2080 | 594 | 3340 | 829 | --- | 340 | 435 | --- | 29 |
| 27 | 1550 | 288 | 1210 | 715 | --- | 210 | 430 | --- | 29 |
| 28 | 1100 | --- | 670 | 620 | --- | 170 | 425 | --- | 29 |
| 29 | 906 | --- | 460 | --- | --- | --- | 407 | --- | 27 |
| 30 | 892 | --- | 430 | --- | --- | --- | 394 | --- | 27 |
| 31 | 906 | --- | 370 | --- | --- | --- | 389 | --- | 26 |
| TOTAL | 36471 | --- | 105113 | 42398 | --- | 142417 | 21723 | --- | 9522 |

14240800 GREEN RIVER ABOVE BEAVER CREEK NEAR KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | APRIL | | MEAN DISCHARGE (CFS) | MAY | | MEAN DISCHARGE (CFS) | JUNE | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 384 | 24 | 25 | 548 | --- | 120 | 530 | --- | 340 |
| 2 | 380 | --- | 23 | 584 | --- | 150 | 465 | 160 | 200 |
| 3 | 380 | --- | 23 | 614 | --- | 180 | 416 | --- | 120 |
| 4 | 376 | --- | 19 | 536 | --- | 110 | 407 | --- | 110 |
| 5 | 376 | --- | 19 | 492 | --- | 80 | 389 | --- | 95 |
| 6 | 407 | 16 | 18 | 536 | --- | 110 | 416 | --- | 120 |
| 7 | 407 | --- | 18 | 626 | --- | 200 | 384 | --- | 93 |
| 8 | 384 | --- | 15 | 596 | --- | 160 | 430 | --- | 140 |
| 9 | 384 | --- | 15 | 536 | --- | 110 | 475 | --- | 220 |
| 10 | 398 | --- | 15 | 470 | 41 | 52 | 560 | --- | 480 |
| 11 | 861 | --- | 580 | 470 | --- | 61 | 620 | --- | 700 |
| 12 | 1400 | --- | 2400 | 502 | --- | 91 | 614 | --- | 700 |
| 13 | 1310 | --- | 1900 | 508 | --- | 97 | 530 | --- | 390 |
| 14 | 1090 | --- | 1200 | 530 | --- | 130 | 497 | --- | 300 |
| 15 | 969 | --- | 810 | 590 | --- | 200 | 554 | --- | 450 |
| 16 | 864 | --- | 560 | 644 | --- | 270 | 554 | --- | 450 |
| 17 | 774 | --- | 400 | 728 | --- | 470 | 614 | 486 | 806 |
| 18 | 722 | --- | 310 | 663 | --- | 390 | 638 | 446 | 768 |
| 19 | 644 | --- | 230 | 560 | 170 | 257 | 602 | 432 | 702 |
| 20 | 602 | --- | 180 | 572 | --- | 280 | 596 | 392 | 631 |
| 21 | 602 | --- | 180 | 650 | --- | 450 | 566 | 324 | 495 |
| 22 | 632 | --- | 200 | 754 | --- | 770 | 445 | 243 | 292 |
| 23 | 689 | --- | 280 | 638 | --- | 430 | 425 | 286 | 328 |
| 24 | 676 | --- | 260 | 689 | --- | 560 | 416 | 300 | 337 |
| 25 | 626 | --- | 200 | 885 | --- | 1300 | 407 | --- | 316 |
| 26 | 626 | --- | 200 | 801 | --- | 950 | 412 | 154 | 171 |
| 27 | 632 | --- | 200 | 584 | --- | 470 | 394 | 139 | 148 |
| 28 | 722 | --- | 313 | 445 | --- | 170 | 315 | 105 | 89 |
| 29 | 620 | --- | 180 | 445 | --- | 170 | 274 | 90 | 67 |
| 30 | 554 | --- | 130 | 475 | --- | 230 | 260 | 70 | 49 |
| 31 | --- | --- | --- | 502 | --- | 270 | --- | --- | --- |
| TOTAL | 19491 | --- | 10900 | 18173 | --- | 9288 | 14205 | --- | 10107 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 250 | --- | 35 | 103 | --- | 4.0 | 62 | 20 | 3.0 |
| 2 | 228 | --- | 25 | 101 | --- | 4.0 | 59 | 21 | 3.0 |
| 3 | 246 | --- | 33 | 111 | 18 | 5.0 | 65 | 88 | 20 |
| 4 | 246 | --- | 33 | 90 | 15 | 4.0 | 79 | 225 | 48 |
| 5 | 222 | --- | 23 | 82 | 16 | 4.0 | 72 | 50 | 10 |
| 6 | 219 | --- | 21 | 78 | 14 | 3.0 | 65 | 20 | 4.0 |
| 7 | 210 | --- | 19 | 76 | 15 | 3.0 | 61 | 14 | 3.0 |
| 8 | 195 | --- | 15 | 76 | 13 | 3.0 | 59 | 16 | 3.0 |
| 9 | 183 | --- | 12 | 78 | 13 | 3.0 | 98 | 65 | 17 |
| 10 | 180 | --- | 11 | 79 | 13 | 3.0 | 210 | 574 | 325 |
| 11 | 186 | --- | 13 | 82 | 16 | 4.0 | 148 | 271 | 108 |
| 12 | 183 | --- | 12 | 76 | 16 | 3.0 | 398 | 462 | 496 |
| 13 | 183 | --- | 12 | 82 | 19 | 4.0 | 216 | 155 | 90 |
| 14 | 228 | --- | 25 | 97 | 15 | 4.0 | 158 | 60 | 26 |
| 15 | 201 | --- | 16 | 81 | 16 | 4.0 | 130 | 40 | 14 |
| 16 | 210 | --- | 19 | 76 | 12 | 3.0 | 115 | 37 | 12 |
| 17 | 180 | --- | 11 | 75 | 20 | 4.0 | 103 | 28 | 8.0 |
| 18 | 168 | --- | 9.0 | 76 | 20 | 4.0 | 95 | 20 | 5.0 |
| 19 | 158 | 17 | 7.3 | 72 | 24 | 5.0 | 97 | 30 | 8.0 |
| 20 | 152 | --- | 7.0 | 72 | 20 | 4.0 | 286 | 342 | 264 |
| 21 | 140 | --- | 5.0 | 71 | 22 | 4.0 | 177 | 95 | 45 |
| 22 | 130 | --- | 4.0 | 71 | 17 | 3.0 | 140 | 52 | 20 |
| 23 | 122 | --- | 4.0 | 68 | 22 | 4.0 | 122 | 35 | 12 |
| 24 | 113 | --- | 3.0 | 66 | 25 | 4.0 | 115 | --- | 9.0 |
| 25 | 111 | --- | 3.0 | 64 | 30 | 5.0 | 115 | 28 | 9.0 |
| 26 | 109 | --- | 3.0 | 62 | 29 | 5.0 | 118 | 28 | 9.0 |
| 27 | 109 | --- | 3.0 | 62 | 34 | 6.0 | 120 | 25 | 8.0 |
| 28 | 109 | --- | 3.0 | 62 | 19 | 3.0 | 125 | 29 | 10 |
| 29 | 107 | --- | 4.0 | 62 | 21 | 4.0 | 115 | 31 | 10 |
| 30 | 111 | --- | 4.0 | 72 | 40 | 8.0 | 107 | 26 | 8.0 |
| 31 | 111 | --- | 4.0 | 66 | 31 | 6.0 | --- | --- | --- |
| TOTAL | 5300 | --- | 398.3 | 2389 | --- | 127.0 | 3830 | --- | 1607.0 |
| YEAR | 226195 | | 494,861.3 TONS | | | | | | |

14240800 GREEN RIVER ABOVE BEAVER CREEK NEAR KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | NOVEMBER | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|
| | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 107 | 21 | 6.1 | 794 | 290 | 622 | 754 | 300 |
| 2 | 125 | 37 | | 608 | 170 | 279 | 787 | 320 |
| 3 | 142 | 36 | 14 | 508 | 160 | 219 | 3970 | 25000 |
| 4 | 128 | 30 | 10 | 508 | 150 | 206 | 4370 | 30000 |
| 5 | 117 | 33 | 10 | 554 | 100 | 150 | 2270 | 4500 |
| 6 | 148 | 87 | 35 | 708 | 197 | 377 | 1820 | 1700 |
| 7 | 288 | 258 | 201 | 663 | 113 | 202 | 1380 | 800 |
| 8 | 260 | 112 | 79 | 542 | 86 | 126 | 1110 | 450 |
| 9 | 292 | 115 | 91 | 460 | 80 | 99 | 948 | 300 |
| 10 | 260 | 65 | 46 | 402 | 75 | 81 | 829 | 200 |
| 11 | 219 | 47 | 28 | 353 | 100 | 95 | 721 | 150 |
| 12 | 195 | 52 | 27 | 323 | 77 | 67 | 689 | 150 |
| 13 | 177 | 37 | 18 | 311 | 65 | 55 | 741 | 150 |
| 14 | 162 | 36 | 16 | 270 | 43 | 31 | 689 | 150 |
| 15 | 152 | --- | 14 | 260 | 74 | 52 | 800 | 200 |
| 16 | 148 | --- | 12 | 278 | 55 | 41 | 1720 | 1500 |
| 17 | 210 | --- | 40 | 576 | 335 | 521 | 1630 | 1210 |
| 18 | 198 | --- | 34 | 644 | 305 | 530 | 1400 | 950 |
| 19 | 165 | --- | 18 | 656 | 137 | 243 | 1150 | 700 |
| 20 | 150 | --- | 13 | 650 | 105 | 184 | 1030 | 550 |
| 21 | 150 | --- | 13 | 572 | 89 | 137 | 948 | 450 |
| 22 | 402 | --- | 280 | 502 | 88 | 119 | 878 | 350 |
| 23 | 353 | --- | 200 | 440 | 79 | 94 | 741 | 250 |
| 24 | 295 | --- | 120 | 384 | 71 | 74 | 638 | 150 |
| 25 | 267 | 152 | 110 | 353 | --- | 50 | 566 | 100 |
| 26 | 435 | --- | 860 | 335 | --- | 40 | 542 | 90 |
| 27 | 445 | 420 | 505 | 340 | --- | 42 | 455 | 43 |
| 28 | 587 | 451 | 1200 | 699 | --- | 240 | 416 | 35 |
| 29 | 1660 | 3530 | 18500 | 754 | --- | 300 | 376 | 25 |
| 30 | 969 | 847 | 2220 | 734 | --- | 270 | 340 | 20 |
| 31 | 787 | 375 | 797 | --- | --- | --- | 319 | 15 |
| TOTAL | 9993 | --- | 25529.1 | 15181 | --- | 5546 | 35027 | 70808 |

14240800 GREEN RIVER ABOVE BEAVER CREEK NEAR KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 303 | --- | 15 | 460 | --- | 15 | 663 | --- | 250 |
| 2 | 307 | --- | 15 | 455 | --- | 15 | 626 | --- | 200 |
| 3 | 344 | --- | 25 | 407 | --- | 10 | 578 | --- | 150 |
| 4 | 690 | 165 | 421 | 376 | --- | 9.0 | 560 | --- | 150 |
| 5 | 2480 | --- | 6200 | 348 | --- | 7.0 | 542 | --- | 100 |
| 6 | 2920 | --- | 11000 | 362 | --- | 8.0 | 524 | --- | 90 |
| 7 | 3300 | 1270 | 11300 | 402 | 10 | 11 | 542 | 75 | 110 |
| 8 | 3370 | --- | 11000 | 366 | --- | 8.0 | 702 | --- | 300 |
| 9 | 2260 | --- | 4500 | 402 | --- | 10 | 1210 | --- | 2000 |
| 10 | 1920 | 345 | 1790 | 412 | --- | 10 | 1620 | 670 | 2930 |
| 11 | 1520 | --- | 1000 | 475 | --- | 20 | 1290 | 415 | 1450 |
| 12 | 1210 | --- | 600 | 578 | --- | 45 | 1100 | 233 | 692 |
| 13 | 1010 | --- | 350 | 728 | --- | 100 | 948 | 227 | 581 |
| 14 | 843 | --- | 250 | 734 | --- | 100 | 885 | 133 | 318 |
| 15 | 722 | --- | 200 | 682 | --- | 85 | 790 | 78 | 164 |
| 16 | 650 | --- | 100 | 696 | --- | 85 | 689 | 64 | 119 |
| 17 | 608 | --- | 80 | 794 | --- | 150 | 602 | 49 | 80 |
| 18 | 572 | --- | 45 | 962 | --- | 300 | 548 | --- | 65 |
| 19 | 584 | --- | 40 | 878 | --- | 200 | 502 | --- | 55 |
| 20 | 524 | --- | 25 | 864 | --- | 200 | 460 | --- | 45 |
| 21 | 475 | --- | 20 | 774 | --- | 150 | 435 | --- | 35 |
| 22 | 440 | --- | 15 | 787 | --- | 150 | 435 | --- | 35 |
| 23 | 455 | --- | 15 | 1050 | --- | 400 | 416 | --- | 30 |
| 24 | 502 | --- | 25 | 1260 | 248 | 944 | 398 | --- | 20 |
| 25 | 460 | --- | 15 | 1030 | --- | 550 | 514 | --- | 60 |
| 26 | 548 | --- | 30 | 955 | --- | 450 | 450 | --- | 40 |
| 27 | 1040 | --- | 250 | 822 | --- | 300 | 416 | --- | 30 |
| 28 | 906 | --- | 150 | 741 | --- | 250 | 398 | 14 | 15 |
| 29 | 760 | --- | 85 | --- | --- | --- | 770 | 490 | 1020 |
| 30 | 650 | --- | 55 | --- | --- | --- | 1210 | 459 | 1500 |
| 31 | 572 | --- | 35 | --- | --- | --- | 1080 | 150 | 437 |
| TOTAL | 32945 | --- | 49651 | 18800 | --- | 4482.0 | 21893 | --- | 13071 |

14240800 GREEN RIVER ABOVE BEAVER CREEK NEAR KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | APRIL | | | MAY | | | JUNE | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|-------------------------------------|
| | | 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) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 927 | 126 | 315 | 465 | 46 | 58 | 440 | 76 | 90 | |
| 2 | 899 | 102 | 248 | 430 | 58 | 67 | 389 | 63 | 66 | |
| 3 | 857 | 62 | 143 | 398 | 38 | 41 | 358 | 55 | 53 | |
| 4 | 760 | 58 | 119 | 376 | 36 | 37 | 335 | 42 | 38 | |
| 5 | 682 | 48 | 88 | 407 | 33 | 36 | 340 | 50 | 46 | |
| 6 | 620 | 36 | 60 | 402 | 32 | 35 | 353 | 53 | 51 | |
| 7 | 578 | 38 | 59 | 412 | 31 | 34 | 362 | 59 | 58 | |
| 8 | 542 | 40 | 59 | 402 | 31 | 34 | 376 | 59 | 60 | |
| 9 | 519 | 36 | 50 | 398 | 38 | 41 | 353 | 42 | 40 | |
| 10 | 514 | 32 | 44 | 362 | 31 | 30 | 497 | 166 | 223 | |
| 11 | 502 | 34 | 46 | 319 | 30 | 26 | 486 | 93 | 122 | |
| 12 | 470 | 22 | 28 | 311 | 38 | 32 | 497 | 76 | 102 | |
| 13 | 440 | --- | 30 | 323 | 46 | 40 | 380 | 23 | 24 | |
| 14 | 416 | --- | 25 | 394 | 95 | 101 | 340 | 22 | 20 | |
| 15 | 394 | --- | 15 | 566 | 56 | 86 | 398 | 37 | 40 | |
| 16 | 371 | --- | 15 | 492 | --- | 60 | 348 | 20 | 19 | |
| 17 | 366 | --- | 10 | 430 | 26 | 30 | 327 | 23 | 20 | |
| 18 | 402 | --- | 15 | 455 | 34 | 42 | 460 | 58 | 72 | |
| 19 | 435 | --- | 25 | 465 | 36 | 45 | 650 | 82 | 144 | |
| 20 | 465 | --- | 35 | 542 | 76 | 111 | 638 | 53 | 91 | |
| 21 | 497 | --- | 40 | 638 | 133 | 229 | 519 | 38 | 53 | |
| 22 | 497 | 34 | 46 | 572 | 92 | 142 | 465 | 28 | 35 | |
| 23 | 514 | 35 | 49 | 620 | 91 | 152 | 486 | 26 | 34 | |
| 24 | 620 | 49 | 82 | 626 | 97 | 164 | 445 | 27 | 32 | |
| 25 | 486 | --- | 50 | 614 | 86 | 143 | 394 | 18 | 19 | |
| 26 | 425 | 35 | 40 | 560 | 81 | 122 | 376 | 19 | 19 | |
| 27 | 380 | 31 | 32 | 519 | 192 | 269 | 362 | 18 | 18 | |
| 28 | 366 | 28 | 28 | 584 | 176 | 278 | 348 | 17 | 16 | |
| 29 | 371 | 36 | 36 | 676 | 279 | 509 | 358 | 18 | 17 | |
| 30 | 389 | 56 | 59 | 620 | 191 | 320 | 389 | 19 | 20 | |
| 31 | --- | --- | --- | 492 | 120 | 159 | --- | --- | --- | |
| TOTAL | 15704 | --- | 1891 | 14870 | --- | 3473 | 12469 | --- | 1642 | |

14240800 GREEN RIVER ABOVE BEAVER CREEK NEAR KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|--|
| | | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | |
| 1 | 445 | 64 | 77 | 204 | 24 | 13 | 242 | --- | 15 | |
| 2 | 650 | 181 | 318 | 198 | 19 | 10 | 207 | 33 | 18 | |
| 3 | 632 | 96 | 164 | 192 | 14 | 7.3 | 162 | 30 | 13 | |
| 4 | 519 | 44 | 62 | 183 | 13 | 6.4 | 155 | 32 | 13 | |
| 5 | 470 | 33 | 42 | 171 | --- | 7.0 | 148 | 29 | 12 | |
| 6 | 440 | 32 | 38 | 165 | --- | 7.0 | 132 | 25 | 8.9 | |
| 7 | 394 | --- | 30 | 158 | --- | 7.0 | 139 | 16 | 6.0 | |
| 8 | 362 | 25 | 24 | 155 | --- | 7.0 | 130 | 14 | 4.9 | |
| 9 | 335 | 17 | 15 | 152 | 15 | 6.2 | 160 | 32 | 14 | |
| 10 | 307 | 16 | 13 | 145 | 23 | 9.0 | 246 | 230 | 153 | |
| 11 | 284 | 12 | 9.2 | 168 | 21 | 9.5 | 358 | 368 | 356 | |
| 12 | 288 | 19 | 15 | 177 | 19 | 9.1 | 242 | 70 | 46 | |
| 13 | 847 | 475 | 1090 | 145 | 11 | 4.3 | 204 | 21 | 12 | |
| 14 | 885 | 290 | 693 | 132 | 16 | 5.7 | 180 | 17 | 8.3 | |
| 15 | 885 | 173 | 413 | 130 | --- | 5.5 | 165 | 13 | 5.8 | |
| 16 | 708 | 91 | 174 | 125 | --- | 5.0 | 152 | 14 | 5.7 | |
| 17 | 608 | 71 | 117 | 120 | --- | 4.0 | 150 | 13 | 5.3 | |
| 18 | 524 | 58 | 82 | 113 | --- | 4.5 | 229 | 45 | 28 | |
| 19 | 497 | --- | 70 | 109 | --- | 4.5 | 225 | 34 | 21 | |
| 20 | 486 | 46 | 60 | 107 | --- | 7.0 | 171 | 13 | 6.0 | |
| 21 | 412 | 43 | 48 | 105 | --- | 8.0 | 150 | 15 | 6.1 | |
| 22 | 371 | 36 | 36 | 103 | --- | 8.0 | 140 | 16 | 6.0 | |
| 23 | 335 | 23 | 21 | 101 | --- | 9.0 | 132 | 12 | 4.3 | |
| 24 | 323 | 18 | 16 | 103 | 29 | 8.1 | 130 | --- | 3.0 | |
| 25 | 307 | 16 | 13 | 101 | 21 | 5.7 | 128 | --- | 3.0 | |
| 26 | 327 | 363 | 320 | 95 | --- | 4.0 | 122 | --- | 2.5 | |
| 27 | 278 | 70 | 53 | 93 | --- | 4.0 | 130 | --- | 3.0 | |
| 28 | 274 | 84 | 62 | 97 | --- | 4.5 | 122 | --- | 2.5 | |
| 29 | 246 | 42 | 28 | 130 | --- | 7.0 | 115 | --- | 2.0 | |
| 30 | 228 | 17 | 10 | 303 | --- | 25 | 111 | --- | 1.5 | |
| 31 | 210 | 18 | 10 | 152 | --- | 4.0 | --- | --- | --- | |
| TOTAL | 13877 | --- | 4123.2 | 4432 | --- | 226.3 | 5076 | --- | 785.9 | |
| YEAR | 200267 | | 181,228.4 TONS | | | | | | | |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .008 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM |
|---------------|------|-----------------------------|--|--------------------------------------|--|--|--|--|--|
| OCT 22.... | 1330 | 5.5 | 79 | 9 | 550 | 117 | -- | -- | -- |
| NOV 02.... | 1545 | -- | 169 | -- | 25200 | 11500 | -- | -- | -- |
| APR 02.... | 1540 | 6.5 | 557 | 3 | 291 | 438 | -- | -- | -- |
| MAY 01.... | 1355 | 8.0 | 776 | 5 | 871 | 1820 | -- | -- | -- |
| 08.... | 1700 | 11.0 | 547 | 5 | 284 | 419 | -- | -- | -- |
| 12.... | 1335 | 11.0 | 455 | 9 | 312 | 383 | -- | -- | -- |
| JUN 08.... | 1420 | -- | 3270 | 9 | 11900 | 105000 | -- | -- | -- |
| 08.... | 1650 | -- | 3040 | 5 | 8630 | 70800 | -- | -- | -- |
| 17.... | 1200 | 9.5 | 917 | 5 | 1050 | 2600 | -- | -- | -- |
| 23.... | 1450 | 10.5 | 839 | 5 | 412 | 933 | -- | -- | -- |
| 30.... | 1350 | 13.5 | 371 | 5 | 62 | 62 | -- | -- | -- |
| JUL 07.... | 1520 | 12.5 | 313 | 5 | 235 | 199 | -- | -- | -- |
| 13.... | 1500 | 11.0 | 370 | 5 | 1580 | 1580 | -- | -- | -- |
| 14.... | 1400 | 15.5 | 256 | 5 | 141 | 97 | -- | -- | -- |
| 20.... | 1430 | 16.5 | 170 | 5 | 15 | 6.9 | -- | -- | -- |
| 27.... | 1315 | 20.0 | 132 | 5 | 10 | 3.6 | -- | -- | -- |
| AUG 03.... | 1335 | 16.0 | 114 | 5 | 5 | 1.5 | -- | -- | -- |
| 10.... | 1345 | 22.5 | 88 | 5 | 6 | 1.4 | -- | -- | -- |
| 18.... | 1345 | 20.0 | 76 | 5 | 4 | .82 | -- | -- | -- |
| 24.... | 1300 | 19.5 | 71 | 5 | 5 | .96 | -- | -- | -- |
| SEP 01.... | 1520 | 15.0 | 320 | 5 | 1260 | 1090 | -- | -- | -- |
| 08.... | 1315 | 18.0 | 83 | 5 | 7 | 1.6 | -- | -- | -- |
| 14.... | 1250 | 16.0 | 64 | 5 | 2 | .35 | -- | -- | -- |
| 21.... | 1405 | 11.0 | 222 | 5 | 1890 | 1130 | -- | -- | -- |
| 28.... | 1400 | 11.0 | 166 | 5 | 782 | 350 | 38 | 64 | 85 |

14240800 GREEN RIVER ABOVE BEAVER CREEK NEAR KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 .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 | | | | | | | |
| 22... | -- | 10 | -- | 28 | -- | 74 | 97 100 |
| NOV | | | | | | | |
| 02... | -- | -- | 78 | -- | -- | -- | -- |
| APR | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | |
| 08... | -- | -- | 56 | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | 98 | -- | -- | -- | -- |
| 28... | 97 | -- | . 99 | -- | 100 | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTANTANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|--|---|---------------------------------------|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 04... | 1330 | 8.5 | 236 | 9 | 94 | 60 | 11 | 18 | 29 | 46 | 67 |
| 05... | 1440 | 8.0 | 186 | 5 | 65 | 35 | -- | -- | -- | -- | -- |
| 07... | 1445 | 9.5 | 794 | 5 | 1480 | 3170 | -- | -- | -- | -- | -- |
| 16... | 1330 | 7.0 | 239 | 5 | 74 | 48 | -- | -- | -- | -- | -- |
| 26... | 1305 | 9.5 | 145 | 5 | 29 | 11 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 03... | 1450 | 9.0 | 284 | 5 | 139 | 107 | -- | -- | -- | -- | -- |
| 09... | 1250 | 7.0 | 192 | 5 | 44 | 23 | -- | -- | -- | -- | -- |
| 12... | 1155 | 8.5 | 480 | 5 | 1510 | 1960 | -- | 22 | 40 | 62 | 75 |
| 13... | 1015 | 7.5 | 348 | -- | 276 | 259 | -- | -- | -- | -- | -- |
| 17... | 1325 | 7.0 | 1050 | 5 | 2460 | 6970 | -- | 4 | 7 | 12 | 22 |
| 19... | 1205 | 7.0 | 808 | 5 | 994 | 2170 | -- | -- | -- | -- | -- |
| 27... | 1400 | 3.5 | 497 | 5 | 213 | 286 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 01... | 1340 | 5.5 | 519 | 5 | 333 | 467 | -- | -- | -- | -- | -- |
| 02... | 1200 | 5.0 | 2060 | -- | 4910 | 27300 | -- | -- | -- | -- | -- |
| 02... | 1215 | 5.0 | 1940 | -- | 4380 | 22900 | -- | -- | -- | -- | -- |
| 02... | 1328 | 5.0 | 1820 | -- | 3460 | 17000 | -- | -- | -- | -- | -- |
| 02... | 1350 | 5.0 | 1890 | 5 | 3540 | 18100 | -- | -- | -- | -- | -- |
| 02... | 1410 | 5.0 | 1720 | -- | 3260 | 15100 | -- | -- | -- | -- | -- |
| 02... | 1445 | 5.0 | 1640 | -- | 2900 | 12800 | -- | -- | -- | -- | -- |
| 06... | 1008 | -- | 2570 | -- | 3020 | 21000 | -- | -- | -- | -- | -- |
| 06... | 1140 | 6.0 | 2510 | 5 | 1910 | 12900 | -- | -- | -- | -- | -- |
| 06... | 1840 | 7.0 | 2210 | -- | 2480 | 14800 | -- | -- | -- | -- | -- |
| 07... | 1315 | -- | 1840 | -- | 1260 | 6260 | -- | -- | -- | -- | -- |
| 08... | 1108 | 5.5 | 1470 | 5 | 694 | 2750 | -- | -- | -- | -- | -- |
| 10... | 1100 | 5.0 | 1080 | 5 | 408 | 1190 | -- | -- | -- | -- | -- |
| 15... | 1245 | -- | 2110 | -- | 1840 | 10500 | -- | -- | -- | -- | -- |
| 15... | 1345 | 5.5 | 1960 | -- | 1930 | 10200 | -- | -- | -- | -- | -- |
| 15... | 1405 | 5.5 | 2160 | 5 | 2110 | 12300 | 6 | 8 | 14 | 23 | 36 |
| 15... | 1430 | 5.5 | 1960 | -- | 1960 | 10400 | -- | -- | -- | -- | -- |
| 18... | 1440 | 7.0 | 885 | -- | 36 | 86 | -- | -- | -- | -- | -- |
| 24... | 1400 | 5.5 | 696 | 5 | 156 | 293 | -- | -- | -- | -- | -- |
| 31... | 1235 | 2.5 | 430 | 5 | 37 | 43 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 06... | 1500 | .0 | 256 | 9 | 22 | 15 | -- | -- | -- | -- | -- |
| 11... | 1415 | 3.0 | 430 | 9 | 74 | 86 | -- | -- | -- | -- | -- |
| 16... | 1240 | 5.0 | 2160 | 5 | 903 | 5270 | -- | -- | -- | -- | -- |
| 18... | 1250 | 5.0 | 1660 | 5 | 368 | 1650 | -- | -- | -- | -- | -- |
| 23... | 1535 | 6.0 | 4340 | 5 | 1040 | 12200 | 8 | 9 | 15 | 26 | 37 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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. 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 | | | | | | | | | |
| 04... | -- | 86 | -- | -- | -- | 100 | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 48 | 49 | 70 | 92 | 99 | -- | 100 | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | 84 | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | |
| 03... | -- | 63 | -- | -- | -- | -- | -- | -- | -- |
| 09... | 71 | -- | 84 | 92 | 100 | -- | -- | -- | -- |
| 12... | -- | 81 | -- | -- | 99 | 99 | -- | 100 | -- |
| 13... | -- | 54 | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | 33 | -- | -- | 81 | 97 | -- | 100 | -- |
| 19... | 23 | 19 | 36 | 64 | 91 | -- | 100 | -- | -- |
| 27... | -- | 42 | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | |
| 01... | -- | 42 | -- | -- | -- | 92 | -- | 99 | 99 |
| 02... | -- | 42 | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 45 | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 41 | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 40 | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 36 | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 38 | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | 16 | -- | -- | -- | -- | -- | -- | -- |
| 06... | 25 | 23 | 42 | 65 | 88 | -- | 100 | -- | -- |
| 06... | -- | 26 | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 18 | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 25 | -- | -- | -- | 87 | -- | -- | 100 |
| 10... | -- | 37 | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | 28 | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | 46 | -- | -- | -- | -- | -- | -- | -- |
| 15... | 51 | 49 | 67 | 85 | 98 | -- | 100 | -- | -- |
| 15... | -- | 53 | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | 17 | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 32 | -- | -- | -- | 92 | -- | 97 | -- |
| 31... | -- | 40 | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | |
| 06... | -- | 73 | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | 62 | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 22 | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | 19 | -- | -- | 58 | 81 | -- | 94 | 96 |
| 23... | -- | 52 | -- | -- | 86 | 95 | -- | 99 | 100 |

14240800 GREEN RIVER ABOVE BEAVER CREEK NEAR KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDED (MG/L) | SED1- 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 |
|-------|------|-----------------------------|---|---|--|--|--|--|--|--|--|--|
| JAN | | | | | | | | | | | | |
| 24... | 0615 | 4.5 | 8330 | 5 | 4760 | 107000 | 5 | 5 | 11 | 17 | 26 | 38 |
| 24... | 1700 | 6.0 | 3800 | 5 | 2320 | 23800 | 3 | 4 | 6 | 11 | 16 | 26 |
| 25... | 1720 | 6.0 | 2340 | 5 | 722 | 4560 | -- | -- | -- | -- | -- | 35 |
| 26... | 1350 | -- | 1680 | -- | 531 | 2410 | -- | -- | -- | -- | -- | -- |
| 27... | 1315 | 6.0 | 1290 | 5 | 276 | 961 | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 02... | 1210 | 5.5 | 1160 | 5 | 142 | 445 | -- | -- | -- | -- | -- | -- |
| 14... | 1415 | 5.0 | 3100 | 5 | 2470 | 20700 | 7 | 7 | 15 | 25 | 38 | 55 |
| 17... | 1430 | 8.0 | 3690 | 5 | 1200 | 12000 | -- | -- | -- | -- | -- | 28 |
| 20... | 1700 | 7.0 | 5900 | 5 | 5710 | 91000 | 8 | 11 | 15 | 26 | 40 | 57 |
| 21... | 1210 | -- | 2760 | -- | 1940 | 14500 | -- | -- | -- | -- | -- | -- |
| 21... | 1320 | -- | 3260 | 5 | 2080 | 18300 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 10... | 1455 | 6.0 | 1080 | 5 | 238 | 694 | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 01... | 1130 | 5.0 | 376 | 5 | 24 | 24 | -- | -- | -- | -- | -- | -- |
| 06... | 1415 | 5.5 | 376 | 5 | 16 | 16 | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 10... | 1430 | 7.5 | 440 | 5 | 41 | 49 | -- | -- | -- | -- | -- | -- |
| 19... | 1320 | 9.5 | 554 | 5 | 166 | 248 | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 02... | 1230 | -- | 460 | 5 | 161 | 200 | -- | -- | -- | -- | -- | -- |
| 17... | 1305 | -- | 596 | 5 | 414 | 666 | -- | -- | -- | -- | -- | -- |
| 21... | 1250 | -- | 548 | 5 | 353 | 522 | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 19... | 1345 | 16.0 | 160 | 5 | 17 | 7.3 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 17... | 1320 | -- | 75 | 5 | 15 | 3.0 | -- | -- | -- | -- | -- | -- |
| 31... | 1300 | -- | 68 | 5 | 16 | 2.9 | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 14... | 1215 | -- | 158 | 5 | 92 | 39 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN |
|-------|--|---|--|---|--|---|--|---|--|---|--|
| JAN | | | | | | | | | | | |
| 24... | 36 | 54 | -- | 69 | -- | 87 | -- | 95 | -- | 100 | -- |
| 24... | 28 | 45 | -- | 69 | -- | 88 | -- | 96 | -- | 100 | -- |
| 25... | 31 | 55 | -- | 80 | -- | 98 | -- | 100 | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | 26 | -- | 44 | -- | 69 | -- | 90 | -- | 98 | -- | -- |
| FEB | | | | | | | | | | | |
| 02... | 22 | -- | 32 | -- | 50 | -- | 77 | -- | 91 | -- | 95 |
| 14... | 49 | 68 | -- | 83 | -- | 99 | -- | 100 | -- | -- | -- |
| 17... | 28 | 41 | -- | 63 | -- | 87 | -- | 100 | -- | -- | -- |
| 20... | 53 | 73 | -- | 86 | -- | 95 | -- | 99 | -- | 100 | -- |
| 21... | 28 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 28 | -- | 44 | -- | 71 | -- | 88 | -- | 96 | -- | -- |
| MAR | | | | | | | | | | | |
| 10... | 46 | -- | 59 | -- | 74 | -- | 87 | -- | 95 | -- | 98 |
| APR | | | | | | | | | | | |
| 01... | 83 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 82 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 10... | 76 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | 46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 02... | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 19... | 74 | -- | 79 | -- | 86 | -- | 100 | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 17... | 96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 31... | 43 | -- | 62 | -- | 86 | -- | 100 | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 14... | 63 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|-------------------------------|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 06.... | 1210 | -- | 125 | 5 | 20 | 6.8 | -- | -- | -- | -- | -- | -- |
| 25.... | 1230 | 10.0 | 267 | 5 | 114 | 82 | -- | -- | -- | -- | -- | -- |
| 27.... | 1415 | 8.5 | 450 | 5 | 328 | 399 | -- | -- | -- | -- | -- | -- |
| 28.... | 1430 | -- | 430 | 5 | 233 | 271 | -- | -- | -- | -- | -- | -- |
| 29.... | 1425 | 8.5 | 1440 | 5 | 2040 | 7930 | 5 | 6 | 10 | 15 | 22 | |
| NOV | | | | | | | | | | | | |
| 04.... | 1230 | 8.5 | 480 | 5 | 122 | 158 | -- | -- | -- | -- | -- | -- |
| 24.... | 1430 | 2.0 | 371 | 5 | 56 | 56 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 17.... | 1255 | 5.5 | 1580 | 5 | 268 | 1140 | -- | -- | -- | -- | -- | -- |
| 27.... | 1615 | 2.0 | 445 | 5 | 35 | 42 | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 04.... | 1245 | 4.5 | 542 | 5 | 116 | 170 | -- | -- | -- | -- | -- | -- |
| 07.... | 1212 | -- | 3570 | -- | 975 | 9400 | -- | -- | -- | -- | -- | -- |
| 07.... | 1330 | -- | 3490 | 5 | 1190 | 11200 | -- | -- | -- | -- | -- | -- |
| 10.... | 1455 | -- | 1870 | 5 | 294 | 1480 | -- | -- | -- | -- | -- | -- |
| 18.... | 1415 | -- | 578 | -- | 28 | 44 | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 07.... | 1400 | 5.0 | 389 | 5 | 10 | 11 | -- | -- | -- | -- | -- | -- |
| 24.... | 1510 | 7.0 | 1290 | 5 | 244 | 850 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 07.... | 1325 | 8.0 | 548 | 5 | 70 | 104 | -- | -- | -- | -- | -- | -- |
| 10.... | 0750 | 7.5 | 1610 | -- | 804 | 3490 | -- | -- | -- | -- | -- | -- |
| 10.... | 0900 | 7.5 | 1640 | 5 | 672 | 2980 | -- | -- | -- | -- | -- | -- |
| 10.... | 0950 | 7.5 | 1680 | 5 | 780 | 3540 | -- | -- | -- | -- | -- | -- |
| 10.... | 1100 | 7.5 | 1730 | 5 | 880 | 4110 | -- | -- | -- | -- | -- | -- |
| 10.... | 1210 | 7.5 | 1760 | 5 | 867 | 4120 | -- | -- | -- | -- | -- | -- |
| 10.... | 1240 | 7.5 | 1750 | 5 | 940 | 4440 | -- | -- | -- | -- | -- | -- |
| 10.... | 1310 | 7.5 | 1730 | 5 | 872 | 4070 | -- | -- | -- | -- | -- | -- |
| 10.... | 1340 | 7.5 | 1710 | 5 | 855 | 3950 | -- | -- | -- | -- | -- | -- |
| 10.... | 1410 | 7.5 | 1690 | 5 | 796 | 3630 | -- | -- | -- | -- | -- | -- |
| 10.... | 1440 | 7.5 | 1680 | 5 | 737 | 3340 | -- | -- | -- | -- | -- | -- |
| 10.... | 1550 | 7.5 | 1650 | 5 | 680 | 3030 | -- | -- | -- | -- | -- | -- |
| 10.... | 1635 | 7.5 | 1640 | 5 | 666 | 2950 | -- | -- | -- | -- | -- | -- |
| 11.... | 1200 | 7.5 | 1290 | 5 | 379 | 1320 | -- | -- | -- | -- | -- | -- |
| 11.... | 1330 | 7.5 | 1280 | 5 | 452 | 1560 | -- | -- | -- | -- | -- | -- |
| 17.... | 1300 | 7.5 | 590 | 5 | 49 | 78 | -- | -- | -- | -- | -- | -- |
| 28.... | 1330 | 5.5 | 394 | 5 | 14 | 15 | -- | -- | -- | -- | -- | -- |
| 30.... | 1122 | 8.0 | 1230 | -- | 280 | 930 | -- | -- | -- | -- | -- | -- |
| 30.... | 1255 | 8.0 | 1220 | 5 | 281 | 926 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 | | | | | | | | | | |
| 06... | -- | 89 | -- | 96 | -- | 99 | -- | -- | -- | -- |
| 25... | -- | 75 | -- | 81 | -- | 89 | -- | -- | 100 | -- |
| 27... | 47 | -- | 55 | -- | 79 | -- | 98 | 100 | -- | -- |
| 28... | -- | 46 | -- | 54 | -- | 74 | -- | -- | 99 | 100 |
| 29... | -- | 27 | -- | 39 | -- | 55 | -- | -- | 95 | 99 |
| NOV | | | | | | | | | | |
| 04... | -- | 28 | -- | 38 | -- | 59 | -- | -- | 98 | -- |
| 24... | -- | 38 | -- | 50 | -- | 66 | -- | -- | 100 | -- |
| DEC | | | | | | | | | | |
| 17... | -- | 35 | -- | 49 | -- | 70 | -- | -- | 98 | 98 |
| 27... | -- | 42 | -- | 74 | -- | 93 | -- | -- | 100 | -- |
| JAN | | | | | | | | | | |
| 04... | -- | 46 | -- | 67 | -- | 90 | -- | -- | 100 | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 30 | 32 | 42 | 44 | 60 | 63 | 91 | 100 | 95 | 99 |
| 10... | -- | 24 | -- | 38 | -- | 61 | -- | -- | 93 | 96 |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 07... | -- | 51 | -- | 63 | -- | 73 | -- | -- | 100 | -- |
| 24... | -- | 38 | -- | 49 | -- | 65 | -- | -- | 100 | -- |
| MAR | | | | | | | | | | |
| 07... | -- | 71 | -- | 83 | -- | 95 | -- | -- | 100 | -- |
| 10... | -- | 32 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | 39 | -- | 54 | -- | 75 | -- | -- | 95 | 98 |
| 10... | 42 | 31 | 57 | -- | 76 | -- | 98 | 99 | -- | -- |
| 10... | 49 | 39 | 63 | -- | 80 | -- | 96 | 99 | -- | -- |
| 10... | 45 | 43 | 59 | -- | 79 | -- | 96 | 99 | -- | -- |
| 10... | -- | 44 | -- | 56 | -- | 75 | -- | -- | 97 | 98 |
| 10... | -- | 48 | -- | 60 | -- | 78 | -- | -- | 98 | 99 |
| 10... | -- | 43 | -- | 55 | -- | 72 | -- | -- | 95 | 98 |
| 10... | -- | 41 | -- | 53 | -- | 73 | -- | -- | 98 | 100 |
| 10... | -- | 44 | -- | 56 | -- | 72 | -- | -- | 97 | 98 |
| 10... | -- | 41 | -- | 58 | -- | 70 | -- | -- | 94 | 98 |
| 10... | -- | 44 | -- | 57 | -- | 77 | -- | -- | 99 | 100 |
| 11... | 40 | 31 | 58 | -- | 79 | -- | 98 | 100 | -- | -- |
| 11... | -- | 24 | -- | 35 | -- | 51 | -- | -- | 93 | 98 |
| 17... | -- | 52 | -- | 67 | -- | 81 | -- | -- | 100 | -- |
| 28... | -- | 52 | -- | 59 | -- | 73 | -- | -- | 100 | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | 24 | -- | 34 | -- | 58 | -- | -- | 98 | 100 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- 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 | SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM |
|---------------|------|-----------------------------|---|---|---|---|---|---|---|---|---|---|
| APR 12.... | 1230 | 6.0 | 473 | 5 | 22 | 28 | 19 | 26 | 34 | 85 | 100 | -- |
| 26.... | 1320 | 9.0 | 425 | 5 | 34 | 39 | 70 | 76 | 90 | 100 | -- | -- |
| MAY 17.... | 1420 | 10.0 | 416 | 5 | 23 | 26 | 54 | 69 | 90 | 100 | -- | -- |
| JUN 07.... | 1340 | 16.5 | 358 | 5 | 60 | 58 | 67 | 76 | 85 | 90 | 93 | 100 |
| 28.... | 1340 | 15.0 | 353 | 5 | 17 | 16 | 49 | -- | -- | -- | -- | -- |
| JUL 18.... | 1445 | 17.0 | 519 | 5 | 57 | 80 | 37 | -- | -- | -- | -- | -- |
| AUG 02.... | 1205 | 16.5 | 198 | 9 | 5 | 2.7 | 47 | -- | -- | -- | -- | -- |
| 25.... | 1420 | 17.0 | 101 | 9 | 6 | 1.6 | 89 | -- | -- | -- | -- | -- |
| SEP 09.... | 1445 | 11.0 | 125 | 9 | 7 | 2.4 | -- | -- | -- | -- | -- | -- |

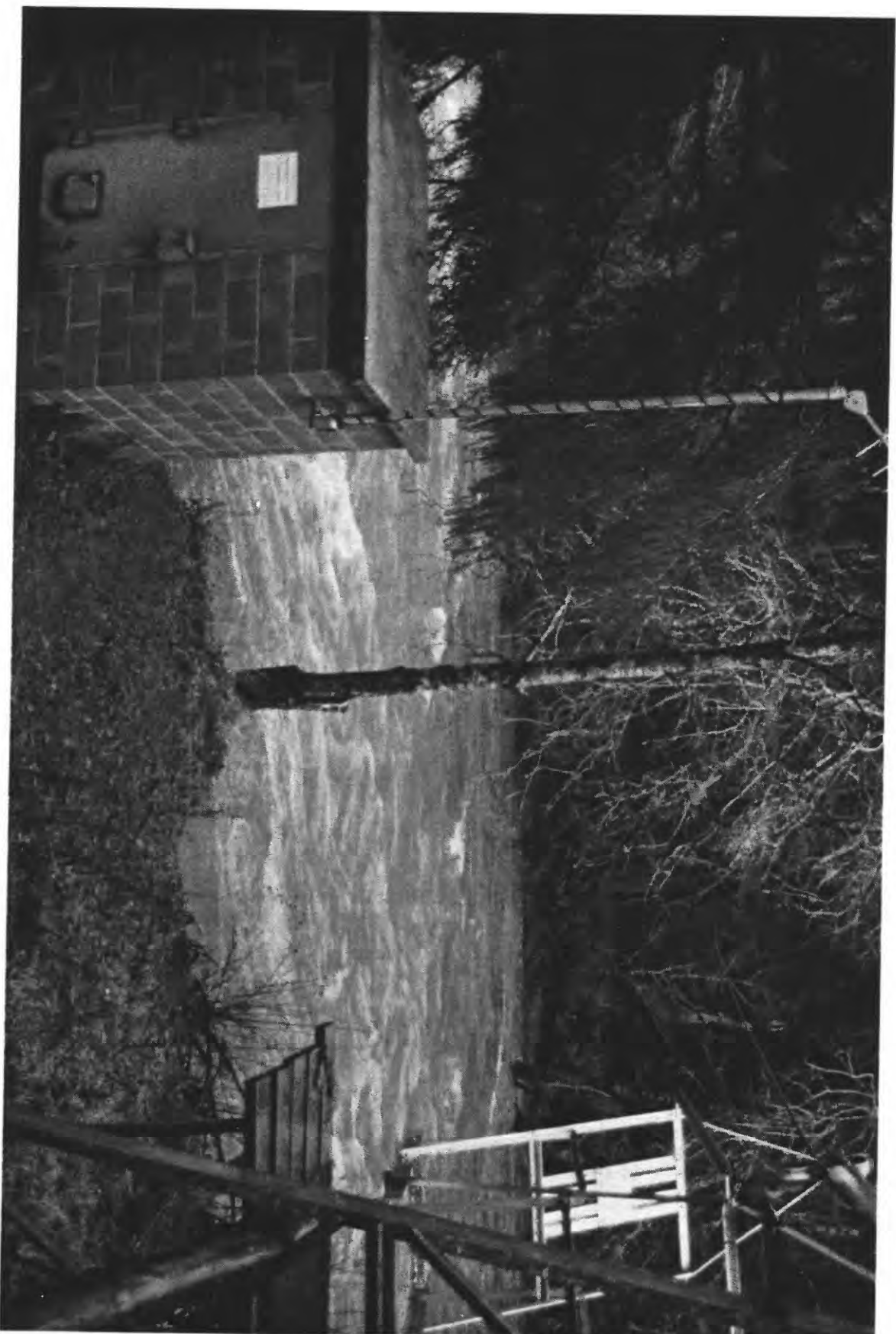


Photo date: January 7, 1983

Green River above Beaver Creek near Kid Valley, station 240800, during storm runoff. Flow to right; discharge about 3300 cubic feet per second.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMP- LING POINTS | BED MATERIAL | | | | |
|---------------|------|-----------------------------|---|----------------------------|----------------------------|----------------------------|----------------------------|--|
| | | | | % FINER THAN .062 MM | % FINER THAN .125 MM | % FINER THAN .250 MM | % FINER THAN .500 MM | |
| JUN 08.... | 1710 | -- | 1 | 0 | 2 | 13 | 65 | |
| JUL 27.... | 1325 | 20.0 | 1 | 0 | 0 | 0 | 0 | |
| 27.... | 1330 | 20.0 | 1 | 0 | 1 | 3 | 11 | |
| 27.... | 1335 | 20.0 | 1 | 0 | 0 | 3 | 9 | |
| 27.... | 1340 | 20.0 | 1 | 0 | 1 | 6 | 34 | |
| 27.... | 1345 | 20.0 | 1 | 1 | 3 | 19 | 63 | |
| AUG 03.... | 1345 | 16.0 | 5 | 1 | 3 | 14 | 34 | |
| 10.... | 1350 | 22.5 | 1 | 1 | 2 | 3 | 5 | |
| 10.... | 1355 | 22.5 | 1 | 1 | 2 | 4 | 8 | |
| 10.... | 1400 | 22.5 | 1 | 0 | 1 | 4 | 8 | |
| 10.... | 1405 | 22.5 | 1 | 0 | 2 | 9 | 39 | |
| 10.... | 1410 | 22.5 | 1 | 1 | 5 | 25 | 80 | |
| 18.... | 1410 | 20.0 | 1 | 1 | 3 | 7 | 10 | |
| 18.... | 1415 | 20.0 | 1 | 0 | 1 | 2 | 3 | |
| 18.... | 1420 | 20.0 | 1 | 1 | 2 | 7 | 16 | |
| 18.... | 1425 | 20.0 | 1 | 1 | 2 | 9 | 34 | |
| 18.... | 1430 | 20.0 | 1 | 1 | 4 | 7 | 12 | |
| 24.... | 1305 | 19.5 | 5 | 1 | 2 | 10 | 26 | |
| SEP 14.... | 1305 | 16.0 | 1 | 0 | 0 | 0 | 0 | |
| 14.... | 1310 | 16.0 | 1 | 1 | 2 | 3 | 5 | |
| 14.... | 1315 | 16.0 | 1 | 1 | 2 | 4 | 11 | |
| 14.... | 1320 | 16.0 | 1 | 0 | 2 | 5 | 34 | |
| 14.... | 1325 | 16.0 | 1 | 1 | 3 | 28 | 87 | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM | 32.0 MM | 64.0 MM |
|-------|--|--|--|--|--|--|--|
| | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN |
| JUN | | | | | | | |
| 08... | 99 | 100 | -- | -- | -- | -- | -- |
| JUL | | | | | | | |
| 27... | 0 | 1 | 2 | 5 | 14 | 100 | -- |
| 27... | 47 | 88 | 98 | 100 | -- | -- | -- |
| 27... | 27 | 61 | 91 | 99 | 100 | -- | -- |
| 27... | 70 | 85 | 95 | 99 | 100 | -- | -- |
| 27... | 74 | 75 | 75 | 76 | 77 | 77 | 77 |
| AUG | | | | | | | |
| 03... | 58 | 78 | 88 | 92 | 93 | 100 | -- |
| 10... | 12 | 23 | 32 | 41 | 49 | 100 | -- |
| 10... | 18 | 47 | 71 | 82 | 92 | 100 | -- |
| 10... | 18 | 42 | 84 | 99 | 100 | -- | -- |
| 10... | 79 | 95 | 99 | 100 | -- | -- | -- |
| 10... | 96 | 97 | 98 | 100 | 100 | -- | -- |
| 18... | 25 | 54 | 76 | 86 | 93 | 100 | -- |
| 18... | 5 | 7 | 12 | 16 | 23 | 100 | -- |
| 18... | 38 | 67 | 92 | 99 | 100 | -- | -- |
| 18... | 76 | 93 | 99 | 100 | -- | -- | -- |
| 18... | 14 | 15 | 17 | 18 | 27 | 100 | -- |
| 24... | 43 | 62 | 80 | 86 | 94 | 100 | -- |
| SEP | | | | | | | |
| 14... | 1 | 2 | 3 | 3 | 3 | 6 | 6 |
| 14... | 15 | 43 | 80 | 95 | 96 | 100 | -- |
| 14... | 23 | 47 | 79 | 98 | 100 | -- | -- |
| 14... | 75 | 91 | 97 | 100 | -- | -- | -- |
| 14... | 99 | 100 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | SAM- PLING POINTS | 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 |
|---------------|------|-----------------------------|-------------------------|---|---|---|---|---|---|---|---|---|
| JAN 23.... | 1545 | 6.0 | 1 | 0 | 0 | 1 | 9 | 51 | 94 | 100 | -- | -- |
| JAN 23.... | 1550 | 6.0 | 1 | 9 | 18 | 27 | 54 | 82 | 91 | 100 | -- | -- |
| FEB 17.... | 1445 | -- | 1 | 0 | 0 | 3 | 25 | 79 | 96 | 98 | 98 | 100 |
| APR 01.... | 1150 | 5.0 | 1 | 0 | 1 | 8 | 34 | 70 | 90 | 97 | 100 | -- |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

LOCATION.--Lat 46°21'55", long 122°37'40", in NE¼SW¼ 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 as approximately 40 mi².

PERIOD OF SEDIMENT DATA.--June 1980 to current year.

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 CONCENTRATIONS.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|---------------|------|-------------------------------|
| 1981 | Nov. 21, 1980 | 1400 | 319,000 |
| 1982 | Feb. 20, 1982 | 1935 | 197,000 |
| 1982 | Mar. 20, 1982 | 0010 | 1,160,000 (lahar-runout flow) |
| 1983 | Dec. 3, 1982 | 2100 | 171,000 |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 265 | --- | --- | 427 | --- | 14000 | 1900 | 6500 | 33300 | |
| 2 | 235 | --- | --- | 432 | --- | 21000 | 5280 | 49200 | 1000000 | |
| 3 | 225 | --- | --- | 416 | 17500 | 27400 | 5840 | 15900 | 258000 | |
| 4 | 215 | --- | --- | 449 | 10200 | 13900 | 4600 | 9850 | 122000 | |
| 5 | 200 | --- | --- | 374 | --- | 7200 | 3900 | --- | --- | |
| 6 | 190 | --- | --- | 1190 | --- | 51000 | 3150 | --- | --- | |
| 7 | 174 | --- | --- | 3340 | 69700 | 731000 | 2350 | --- | --- | |
| 8 | 178 | --- | --- | 3690 | 37800 | 398000 | 1800 | --- | --- | |
| 9 | 144 | 2140 | 832 | 3080 | 18500 | 159000 | 1300 | --- | --- | |
| 10 | 132 | --- | --- | 2240 | --- | --- | 1550 | --- | --- | |
| 11 | 141 | --- | --- | 1620 | --- | --- | 1650 | 3600 | 16000 | |
| 12 | 172 | --- | --- | 1320 | --- | --- | 1850 | --- | --- | |
| 13 | 205 | --- | --- | 1040 | --- | --- | 1650 | --- | --- | |
| 14 | 141 | --- | --- | 840 | --- | --- | 1450 | 2400 | 9400 | |
| 15 | 118 | --- | --- | 690 | --- | --- | 1850 | --- | --- | |
| 16 | 118 | --- | --- | 570 | --- | --- | 1360 | 2520 | 9250 | |
| 17 | 114 | --- | --- | 600 | --- | --- | 1150 | --- | --- | |
| 18 | 123 | --- | --- | 670 | --- | --- | 1000 | 2230 | 6020 | |
| 19 | 132 | --- | --- | 1000 | --- | --- | 880 | --- | --- | |
| 20 | 150 | --- | --- | 804 | --- | --- | 1000 | --- | --- | |
| 21 | 159 | --- | --- | 3350 | 87700 | 1160000 | 1900 | --- | --- | |
| 22 | 146 | 2440 | 962 | 2780 | 17200 | 137000 | 5000 | --- | --- | |
| 23 | 154 | --- | --- | 2230 | --- | --- | 4200 | --- | --- | |
| 24 | 172 | --- | --- | 1930 | --- | --- | 3900 | --- | --- | |
| 25 | 305 | --- | --- | 1770 | --- | --- | 7200 | --- | --- | |
| 26 | 250 | --- | --- | 1660 | --- | --- | 10000 | --- | --- | |
| 27 | 200 | --- | --- | 1910 | --- | --- | 7600 | --- | --- | |
| 28 | 168 | --- | --- | 1600 | --- | --- | 4800 | --- | --- | |
| 29 | 150 | 2460 | 996 | 2760 | --- | --- | 3500 | --- | --- | |
| 30 | 132 | --- | --- | 2280 | --- | --- | 2600 | --- | --- | |
| 31 | 182 | 3300 | 1620 | --- | --- | --- | 1900 | --- | --- | |
| TOTAL | 5390 | --- | --- | 47062 | --- | --- | 93110 | --- | --- | |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 1440 | --- | --- | 510 | --- | --- | 1680 | --- | --- |
| 2 | 1260 | --- | --- | 460 | --- | --- | 1500 | --- | --- |
| 3 | 1100 | --- | --- | 390 | 1610 | 1700 | 1750 | --- | --- |
| 4 | 1030 | --- | --- | 380 | --- | --- | 1970 | --- | --- |
| 5 | 1040 | --- | --- | 370 | --- | --- | 1870 | --- | --- |
| 6 | 1080 | --- | --- | 360 | --- | --- | 1620 | --- | --- |
| 7 | 1030 | --- | --- | 395 | --- | --- | 1470 | --- | --- |
| 8 | 994 | --- | --- | 355 | --- | --- | 1370 | --- | --- |
| 9 | 940 | 4530 | 11500 | 350 | --- | --- | 1290 | --- | --- |
| 10 | 910 | --- | --- | 350 | --- | --- | 1250 | --- | --- |
| 11 | 829 | --- | --- | 1000 | --- | --- | 1270 | --- | --- |
| 12 | 781 | --- | --- | 2700 | --- | --- | 980 | --- | --- |
| 13 | 769 | 3110 | 6460 | 2200 | --- | --- | 782 | --- | --- |
| 14 | 739 | --- | --- | 2450 | --- | --- | 821 | --- | --- |
| 15 | 715 | --- | --- | 2600 | 20100 | 141000 | 800 | --- | --- |
| 16 | 715 | --- | --- | 5300 | --- | --- | 849 | --- | --- |
| 17 | 649 | --- | --- | 4800 | --- | --- | 842 | --- | --- |
| 18 | 607 | --- | --- | 5500 | --- | --- | 800 | --- | --- |
| 19 | 583 | --- | --- | 10500 | --- | --- | 800 | --- | --- |
| 20 | 565 | 2260 | 3450 | 6500 | 17000 | 300000 | 814 | --- | --- |
| 21 | 613 | --- | --- | 3500 | --- | --- | 828 | --- | --- |
| 22 | 680 | --- | --- | 2100 | --- | --- | 849 | --- | --- |
| 23 | 770 | --- | --- | 2040 | --- | --- | 856 | --- | --- |
| 24 | 817 | --- | --- | 2140 | --- | --- | 828 | --- | --- |
| 25 | 757 | --- | --- | 2200 | --- | --- | 961 | --- | --- |
| 26 | 793 | --- | --- | 2030 | --- | --- | 961 | --- | --- |
| 27 | 730 | --- | --- | 2020 | --- | --- | 670 | 1150 | 2080 |
| 28 | 700 | --- | --- | 1900 | --- | --- | 700 | --- | --- |
| 29 | 735 | 2790 | 5540 | --- | --- | --- | 705 | --- | --- |
| 30 | 660 | --- | --- | --- | --- | --- | 745 | --- | --- |
| 31 | 580 | --- | --- | --- | --- | --- | 865 | --- | --- |
| TOTAL | 25611 | --- | --- | 65360 | --- | --- | 33496 | --- | --- |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1991

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | | | | | | | | |
| 1 | 1230 | 2380 | 7900 | 1400 | --- | --- | 595 | --- | --- |
| 2 | 1220 | --- | --- | 1190 | --- | --- | 550 | --- | --- |
| 3 | 1320 | --- | --- | 1070 | --- | --- | 600 | --- | --- |
| 4 | 1310 | --- | --- | 990 | --- | --- | 1000 | --- | --- |
| 5 | 1430 | --- | --- | 944 | --- | --- | 900 | --- | --- |
| 6 | 1360 | --- | --- | 900 | 1040 | 2530 | 1400 | --- | --- |
| 7 | 1320 | --- | --- | 924 | --- | --- | 1100 | --- | --- |
| 8 | 1460 | 2810 | 11100 | 1040 | --- | --- | 3200 | --- | --- |
| 9 | 1580 | --- | --- | 1220 | --- | --- | 2900 | --- | --- |
| 10 | 1610 | --- | --- | 1210 | --- | --- | 2540 | --- | --- |
| 11 | 1710 | --- | --- | 1200 | 1310 | 4240 | 2190 | --- | --- |
| 12 | 1690 | --- | --- | 1130 | --- | --- | 1950 | --- | --- |
| 13 | 1630 | --- | --- | 1100 | --- | --- | 1950 | --- | --- |
| 14 | 1670 | --- | --- | 1400 | --- | --- | 1660 | --- | --- |
| 15 | 1670 | --- | --- | 1310 | --- | --- | 1360 | 1230 | 4520 |
| 16 | 1670 | --- | --- | 1250 | --- | --- | 1480 | --- | --- |
| 17 | 1740 | --- | --- | 1180 | --- | --- | 1520 | --- | --- |
| 18 | 1780 | --- | --- | 1130 | --- | --- | 1450 | --- | --- |
| 19 | 1780 | --- | --- | 1040 | --- | --- | 2340 | --- | --- |
| 20 | 1810 | --- | --- | 1100 | --- | --- | 2280 | --- | --- |
| 21 | 1740 | --- | --- | 1000 | --- | --- | 2210 | --- | --- |
| 22 | 1970 | --- | --- | 919 | --- | --- | 2020 | 1080 | 5890 |
| 23 | 2040 | --- | --- | 900 | --- | --- | 1700 | --- | --- |
| 24 | 2090 | 3190 | 18000 | 1050 | --- | --- | 1430 | --- | --- |
| 25 | 1960 | --- | --- | 1300 | --- | --- | 1190 | --- | --- |
| 26 | 1860 | --- | --- | 1120 | --- | --- | 1060 | --- | --- |
| 27 | 1780 | --- | --- | 970 | --- | --- | 980 | --- | --- |
| 28 | 1870 | --- | --- | 800 | --- | --- | 846 | --- | --- |
| 29 | 1840 | --- | --- | 830 | --- | --- | 714 | --- | --- |
| 30 | 1810 | --- | --- | 700 | --- | --- | 643 | --- | --- |
| 31 | --- | --- | --- | 650 | --- | --- | --- | --- | --- |
| TOTAL | 49950 | --- | --- | 32967 | --- | --- | 45758 | --- | --- |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | JULY | | | | | AUGUST | | | | | SEPTEMBER | | | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 601 | --- | --- | 370 | 302 | 302 | 504 | --- | 1000 | --- | --- | --- | --- | --- | --- |
| 2 | 574 | --- | --- | 385 | 261 | 271 | 330 | --- | 200 | --- | --- | --- | --- | --- | --- |
| 3 | 514 | --- | --- | 395 | 166 | 177 | 278 | 49 | 37 | --- | 49 | --- | --- | --- | --- |
| 4 | 484 | --- | --- | 385 | 348 | 362 | 260 | 40 | 28 | --- | 40 | --- | --- | --- | --- |
| 5 | 472 | --- | --- | 380 | 273 | 281 | 246 | 21 | 14 | --- | 21 | --- | --- | --- | --- |
| 6 | 472 | 53 | 68 | 395 | 151 | 161 | 238 | 19 | 12 | --- | 19 | --- | --- | --- | --- |
| 7 | 532 | --- | --- | 385 | 285 | 297 | 223 | 18 | 11 | --- | 18 | --- | --- | --- | --- |
| 8 | 490 | --- | --- | 256 | 318 | 219 | 211 | 12 | 6.8 | --- | 12 | --- | --- | --- | --- |
| 9 | 466 | 71 | 89 | 226 | 408 | 249 | 205 | --- | 5.5 | --- | --- | --- | --- | --- | --- |
| 10 | 472 | --- | --- | 256 | 438 | 303 | 205 | 10 | 5.5 | --- | 10 | --- | --- | --- | --- |
| 11 | 478 | --- | --- | 278 | 227 | 170 | 205 | --- | 5.5 | --- | --- | --- | --- | --- | --- |
| 12 | 460 | --- | --- | 286 | --- | 200 | 202 | --- | 5.5 | --- | --- | --- | --- | --- | --- |
| 13 | 690 | --- | --- | 320 | --- | 220 | 199 | --- | 5.0 | --- | --- | --- | --- | --- | --- |
| 14 | 544 | 235 | 345 | 294 | --- | 140 | 193 | --- | 5.0 | --- | --- | --- | --- | --- | --- |
| 15 | 484 | --- | --- | 278 | --- | 50 | 190 | --- | 4.0 | --- | --- | --- | --- | --- | --- |
| 16 | 466 | 124 | 156 | 278 | 65 | 49 | 184 | --- | 4.0 | --- | --- | --- | --- | --- | --- |
| 17 | 450 | 175 | 213 | 256 | 60 | 41 | 181 | --- | 4.0 | --- | --- | --- | --- | --- | --- |
| 18 | 435 | 153 | 180 | 260 | --- | 40 | 178 | 8 | 3.8 | --- | 8 | --- | --- | --- | --- |
| 19 | 430 | 163 | 189 | 252 | 53 | 36 | 205 | --- | 5.0 | --- | --- | --- | --- | --- | --- |
| 20 | 466 | 402 | 506 | 246 | 33 | 22 | 217 | 14 | 8.2 | --- | 14 | --- | --- | --- | --- |
| 21 | 496 | 389 | 521 | 238 | 38 | 24 | 335 | 694 | 628 | --- | 694 | --- | --- | --- | --- |
| 22 | 455 | 196 | 241 | 232 | 43 | 27 | 360 | 787 | 765 | --- | 787 | --- | --- | --- | --- |
| 23 | 430 | 200 | 232 | 229 | 40 | 25 | 306 | 107 | 88 | --- | 107 | --- | --- | --- | --- |
| 24 | 440 | 246 | 292 | 220 | 40 | 24 | 278 | 77 | 58 | --- | 77 | --- | --- | --- | --- |
| 25 | 440 | 200 | 238 | 211 | 46 | 26 | 274 | 72 | 53 | --- | 72 | --- | --- | --- | --- |
| 26 | 435 | 234 | 275 | 211 | 35 | 20 | 266 | 136 | 98 | --- | 136 | --- | --- | --- | --- |
| 27 | 420 | 137 | 155 | 211 | 16 | 9.0 | 330 | 723 | 644 | --- | 723 | --- | --- | --- | --- |
| 28 | 400 | 195 | 211 | 211 | --- | 10 | 415 | 1820 | 2040 | --- | 1820 | --- | --- | --- | --- |
| 29 | 410 | 124 | 137 | 211 | --- | 10 | 496 | 720 | 964 | --- | 720 | --- | --- | --- | --- |
| 30 | 410 | 120 | 135 | 235 | --- | 20 | 360 | 489 | 475 | --- | 489 | --- | --- | --- | --- |
| 31 | 400 | 259 | 280 | 235 | --- | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TOTAL | 14716 | --- | --- | 8625 | --- | 3805.0 | 8074 | --- | 7182.8 | --- | --- | --- | --- | --- | --- |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|
| | | | | 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) | MEAN DISCHARGE (CFS) |
| 1 | 315 | 70 | 744 | 82 | 14000 | 1150 | --- | 14000 | 1150 | --- | 11000 | --- |
| 2 | 752 | 14400 | 648 | 5170 | 8640 | 3700 | --- | 8640 | 3700 | --- | 273000 | --- |
| 3 | 538 | 1030 | 598 | 710 | 6800 | 2400 | --- | 6800 | 2400 | --- | 81000 | --- |
| 4 | 440 | 222 | 570 | 187 | 5800 | 1950 | --- | 4000 | 7630 | --- | 82000 | --- |
| 5 | 405 | 2300 | 528 | 2100 | 4400 | 7630 | --- | 4400 | 44600 | --- | 1070000 | --- |
| 6 | 4050 | 603000 | 488 | 44300 | 3300 | 6100 | --- | 3300 | 32300 | --- | 532000 | --- |
| 7 | 2610 | 178000 | 476 | 23300 | 3100 | 4350 | --- | 3100 | 16200 | --- | 190000 | --- |
| 8 | 2180 | 63300 | 464 | 10000 | 2800 | 3160 | --- | 2000 | 12900 | --- | 110000 | --- |
| 9 | 2700 | 175000 | 434 | 19900 | 2000 | 2600 | --- | 1700 | 11600 | --- | 81400 | --- |
| 10 | 1930 | 15700 | 416 | 3020 | 1700 | 2760 | --- | 1700 | 15600 | --- | 116000 | --- |
| 11 | 1630 | 12500 | 712 | 2830 | 52000 | 2600 | --- | 52000 | 2600 | --- | 91000 | --- |
| 12 | 1370 | 12600 | 1350 | 3400 | 130000 | 2020 | --- | 130000 | 2020 | --- | 60000 | --- |
| 13 | 1200 | 6710 | 845 | 2070 | 22600 | 1920 | --- | 22600 | 1920 | --- | 52000 | --- |
| 14 | 960 | 3240 | 3030 | 1250 | 661000 | 1750 | --- | 661000 | 1750 | --- | 33500 | --- |
| 15 | 656 | 2100 | 2330 | --- | 195000 | 3560 | --- | 195000 | 3560 | --- | 220000 | --- |
| 16 | 549 | 1800 | 1960 | --- | 152000 | 2960 | --- | 152000 | 2960 | --- | 110000 | --- |
| 17 | 528 | 1280 | 2540 | --- | 130000 | 2220 | --- | 130000 | 2220 | --- | 61700 | --- |
| 18 | 521 | 1100 | 2890 | --- | 142000 | 2380 | --- | 142000 | 2380 | --- | 70000 | --- |
| 19 | 482 | 777 | 2380 | 597 | 77100 | 3320 | --- | 77100 | 3320 | --- | 170000 | --- |
| 20 | 452 | 710 | 2050 | --- | 44300 | 2610 | --- | 44300 | 2610 | --- | 85000 | --- |
| 21 | 422 | 640 | 2630 | --- | 171000 | 1920 | --- | 171000 | 1920 | --- | 45000 | --- |
| 22 | 386 | 560 | 2510 | --- | 137000 | 1690 | --- | 137000 | 1690 | --- | 35000 | --- |
| 23 | 370 | 530 | 2260 | --- | 83000 | 1590 | --- | 83000 | 1590 | --- | 32000 | --- |
| 24 | 355 | 490 | 1840 | --- | 43900 | 1910 | --- | 43900 | 1910 | --- | 39000 | --- |
| 25 | 335 | 440 | 1530 | --- | 27900 | 1910 | --- | 27900 | 1910 | --- | 37000 | --- |
| 26 | 335 | 882 | 1310 | 975 | 16700 | 1550 | --- | 16700 | 1550 | --- | 25000 | --- |
| 27 | 436 | 7730 | 1080 | 6570 | 12000 | 1500 | --- | 12000 | 1500 | --- | 23000 | --- |
| 28 | 1220 | 51200 | 920 | 13200 | 8900 | 1470 | --- | 8900 | 21600 | --- | 17000 | --- |
| 29 | 900 | 16000 | 890 | --- | 8700 | 1220 | --- | 8700 | 1220 | --- | 14000 | --- |
| 30 | 952 | 17500 | 910 | 6150 | 8920 | 1110 | --- | 8920 | 1110 | --- | 11000 | --- |
| 31 | 1040 | 28000 | --- | --- | --- | 1010 | --- | --- | 1010 | --- | --- | --- |
| TOTAL | 31019 | 1219811 | 41333 | --- | 2176560 | 78020 | --- | 2176560 | 78020 | --- | 3799200 | --- |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | | | | | | | | | | | |
| 1 | 1080 | --- | 47000 | 1400 | --- | 25000 | 970 | --- | 10000 | | | |
| 2 | 1180 | --- | 48000 | 1300 | --- | 22000 | 898 | --- | 9700 | | | |
| 3 | 1280 | --- | 48000 | 1300 | --- | 22000 | 835 | --- | 8800 | | | |
| 4 | 1280 | --- | 41000 | 1060 | --- | 18000 | 805 | --- | 8260 | | | |
| 5 | 1290 | 11200 | 39000 | 1160 | --- | 18000 | 820 | --- | 8200 | | | |
| 6 | 1400 | --- | 38000 | 1240 | --- | 19000 | 835 | --- | 8100 | | | |
| 7 | 1390 | --- | 33000 | 1350 | 5700 | 20800 | 820 | 3570 | 7900 | | | |
| 8 | 1310 | 7800 | 27600 | 1230 | --- | 18000 | 835 | --- | 8100 | | | |
| 9 | 1360 | --- | 30000 | 1120 | --- | 15000 | 845 | --- | 8400 | | | |
| 10 | 1420 | --- | 33000 | 1050 | --- | 14000 | 922 | --- | 10000 | | | |
| 11 | 1780 | --- | 77000 | 1030 | --- | 13000 | 984 | --- | 11000 | | | |
| 12 | 2560 | --- | 160000 | 1080 | 4710 | 13700 | 1030 | --- | 12000 | | | |
| 13 | 3080 | --- | 220000 | 1130 | --- | 14000 | 977 | --- | 11000 | | | |
| 14 | 2780 | 22300 | 167000 | 1170 | --- | 15000 | 952 | 4130 | 10600 | | | |
| 15 | 2320 | --- | 94000 | 1240 | --- | 16000 | 1000 | --- | 12000 | | | |
| 16 | 1880 | 11200 | 56900 | 1360 | --- | 20000 | 1020 | --- | 12000 | | | |
| 17 | 1630 | --- | 44000 | 1600 | 6340 | 27400 | 1020 | --- | 13000 | | | |
| 18 | 1420 | --- | 34000 | 1240 | --- | 20000 | 964 | --- | 12000 | | | |
| 19 | 1210 | 7790 | 25400 | 1050 | --- | 15000 | 892 | --- | 11000 | | | |
| 20 | 1200 | --- | 25000 | 1160 | --- | 17000 | 880 | --- | 11000 | | | |
| 21 | 1240 | --- | 26000 | 1330 | --- | 20000 | 880 | --- | 11000 | | | |
| 22 | 1260 | --- | 26000 | 1500 | --- | 23000 | 815 | --- | 9900 | | | |
| 23 | 1260 | --- | 26000 | 1390 | --- | 18000 | 790 | 4470 | 9530 | | | |
| 24 | 1250 | --- | 25000 | 1340 | 4190 | 15200 | 752 | --- | 9100 | | | |
| 25 | 1260 | --- | 25000 | 1390 | --- | 16000 | 680 | --- | 8100 | | | |
| 26 | 1270 | --- | 25000 | 1460 | --- | 18000 | 700 | --- | 8300 | | | |
| 27 | 1200 | --- | 24000 | 1240 | --- | 15000 | 720 | --- | 8500 | | | |
| 28 | 1300 | --- | 25000 | 1080 | --- | 13000 | 670 | --- | 8000 | | | |
| 29 | 1480 | 7140 | 28500 | 1030 | --- | 12000 | 610 | --- | 7200 | | | |
| 30 | 1400 | --- | 25000 | 998 | --- | 11000 | 570 | --- | 6800 | | | |
| 31 | --- | --- | --- | 970 | --- | 11000 | --- | --- | --- | | | |
| TOTAL | 45770 | --- | 1543400 | 37998 | --- | 535100 | 25491 | --- | 289490 | | | |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 520 | 4380 | 6150 | 305 | --- | 1600 | 185 | --- | 210 |
| 2 | 508 | --- | 5300 | 302 | --- | 1400 | 180 | --- | 200 |
| 3 | 528 | --- | 5000 | 302 | --- | 1300 | 192 | --- | 280 |
| 4 | 508 | --- | 4300 | 251 | --- | 950 | 228 | --- | 520 |
| 5 | 496 | --- | 3500 | 235 | --- | 760 | 212 | --- | 480 |
| 6 | 488 | 2190 | 2890 | 238 | 1040 | 668 | 188 | --- | 410 |
| 7 | 452 | --- | 2700 | 240 | --- | 710 | 198 | 787 | 421 |
| 8 | 420 | --- | 2600 | 240 | --- | 710 | 218 | --- | 460 |
| 9 | 408 | --- | 2600 | 248 | --- | 740 | 281 | --- | 830 |
| 10 | 404 | --- | 2600 | 257 | --- | 830 | 492 | --- | 2700 |
| 11 | 412 | --- | 2800 | 254 | --- | 820 | 488 | --- | 2900 |
| 12 | 404 | --- | 2700 | 245 | --- | 730 | 767 | --- | 7500 |
| 13 | 408 | 2580 | 2840 | 248 | --- | 740 | 524 | 2420 | 3420 |
| 14 | 448 | --- | 3000 | 263 | --- | 850 | 408 | --- | 2600 |
| 15 | 432 | --- | 2900 | 240 | --- | 710 | 353 | --- | 2200 |
| 16 | 420 | --- | 2700 | 225 | --- | 580 | 338 | --- | 2000 |
| 17 | 386 | --- | 2400 | 218 | 901 | 530 | 329 | --- | 2000 |
| 18 | 368 | --- | 2300 | 212 | --- | 500 | 323 | --- | 1800 |
| 19 | 356 | --- | 2100 | 205 | --- | 460 | 335 | --- | 1900 |
| 20 | 344 | --- | 2000 | 182 | --- | 390 | 715 | 8080 | 15600 |
| 21 | 326 | --- | 1800 | 166 | --- | 350 | 524 | --- | 8800 |
| 22 | 305 | 2000 | 1650 | 162 | --- | 320 | 420 | --- | 4200 |
| 23 | 290 | --- | 1600 | 162 | --- | 310 | 376 | --- | 2400 |
| 24 | 275 | --- | 1500 | 170 | --- | 310 | 365 | --- | 2400 |
| 25 | 272 | --- | 1500 | 175 | --- | 300 | 356 | --- | 2300 |
| 26 | 269 | --- | 1500 | 182 | --- | 290 | 396 | --- | 2600 |
| 27 | 275 | --- | 1500 | 182 | --- | 280 | 396 | --- | 2500 |
| 28 | 284 | --- | 1500 | 188 | --- | 270 | 428 | --- | 2700 |
| 29 | 293 | 2040 | 1610 | 188 | --- | 260 | 404 | --- | 2500 |
| 30 | 314 | --- | 1800 | 198 | --- | 250 | 376 | --- | 2300 |
| 31 | 311 | --- | 1800 | 195 | 440 | 232 | --- | --- | --- |
| TOTAL | 11924 | --- | 81140 | 6878 | --- | 19150 | 10995 | --- | 81131 |
| YEAR | 540208 | | 34,440,772 TONS | | | | | | |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | NOVEMBER | | DECEMBER | | | |
|-------|----------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|--------|----------|
| | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | | |
| 1 | 356 | --- | 2000 | 1530 | 9100 | 37600 | 1940 | 18900 | 99000 |
| 2 | 393 | --- | 2500 | 1240 | 6650 | 22300 | 2120 | 25000 | 143000 |
| 3 | 448 | --- | 3300 | 1200 | --- | 20000 | 10900 | 93200 | 3250000 |
| 4 | 448 | --- | 3200 | 1280 | --- | 25000 | 8970 | 43900 | 1140000 |
| 5 | 432 | --- | 2900 | 1460 | --- | 38000 | 4540 | 29300 | 359000 |
| 6 | 598 | --- | 6100 | 1490 | --- | 40000 | 2800 | --- | 290000 |
| 7 | 898 | --- | 16000 | 1190 | --- | 24000 | 2120 | --- | 140000 |
| 8 | 710 | --- | 8800 | 1120 | --- | 21000 | 2040 | --- | 140000 |
| 9 | 670 | --- | 7500 | 1150 | --- | 22000 | 1900 | --- | 140000 |
| 10 | 552 | --- | 4600 | 1150 | --- | 22000 | 1740 | 28700 | 135000 |
| 11 | 496 | --- | 3400 | 1050 | --- | 18000 | 1690 | --- | 120000 |
| 12 | 440 | 2050 | 2440 | 940 | --- | 14000 | 1830 | --- | 140000 |
| 13 | 420 | --- | 2200 | 898 | --- | 12000 | 1830 | 28100 | 139000 |
| 14 | 416 | --- | 2100 | 795 | --- | 9400 | 1810 | 31300 | 153000 |
| 15 | 396 | --- | 1900 | 977 | --- | 75000 | 2120 | --- | 220000 |
| 16 | 416 | --- | 2000 | 1120 | 61200 | 185000 | 6140 | 101000 | 1850000 |
| 17 | 492 | --- | 3200 | 1880 | --- | 400000 | 5170 | 41800 | 583000 |
| 18 | 488 | --- | 3100 | 1670 | 45900 | 207000 | 3780 | 22600 | 231000 |
| 19 | 456 | --- | 2500 | 2500 | --- | 530000 | 2980 | --- | 190000 |
| 20 | 404 | --- | 1900 | 1630 | --- | 210000 | 2800 | --- | 200000 |
| 21 | 382 | 1620 | 1670 | 1240 | --- | 120000 | 2600 | 21800 | 153000 |
| 22 | 988 | --- | 95000 | 1110 | --- | 96000 | 2520 | --- | 150000 |
| 23 | 967 | 29100 | 76000 | 1050 | --- | 90000 | 2180 | --- | 140000 |
| 24 | 856 | --- | 50000 | 1050 | 31600 | 89600 | 1800 | --- | 130000 |
| 25 | 984 | --- | 60000 | 958 | --- | 72000 | 1590 | --- | 110000 |
| 26 | 1200 | --- | 77000 | 892 | --- | 61000 | 1520 | --- | 100000 |
| 27 | 1150 | --- | 57000 | 934 | --- | 68000 | 1340 | 25700 | 93000 |
| 28 | 1630 | --- | 96000 | 2320 | 47900 | 299000 | 1190 | --- | 70000 |
| 29 | 3740 | 36400 | 471000 | 2250 | 28700 | 174000 | 1120 | --- | 61000 |
| 30 | 1810 | 13800 | 67400 | 1970 | 28300 | 151000 | 1050 | --- | 52000 |
| 31 | 1650 | 11000 | 49000 | --- | --- | --- | 980 | --- | 44000 |
| TOTAL | 25286 | --- | 1181710 | 40044 | --- | 3152900 | 87110 | --- | 10765000 |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | JANUARY | | FEBRUARY | | MARCH | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|---------------------------------|
| | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) |
| 1 | 900 | --- | 36000 | 1280 | --- | 76000 | 10500 |
| 2 | 940 | --- | 41000 | 1220 | --- | 71000 | --- |
| 3 | 1150 | --- | 53000 | 1160 | 20700 | 64800 | --- |
| 4 | 2850 | --- | 270000 | 1150 | --- | 59000 | --- |
| 5 | 7240 | 65500 | 1280000 | 1150 | --- | 53000 | --- |
| 6 | 7060 | 27900 | 532000 | 1210 | --- | 54000 | --- |
| 7 | 7540 | 28900 | 588000 | 1290 | --- | 54000 | --- |
| 8 | 8000 | 23100 | 499000 | 1090 | 10800 | 31800 | --- |
| 9 | 5710 | 18900 | 291000 | 1300 | --- | 44000 | 23900 |
| 10 | 4650 | 15600 | 196000 | 1240 | --- | 38000 | 29400 |
| 11 | 3820 | --- | 150000 | 1350 | --- | 44000 | 20600 |
| 12 | 2940 | --- | 120000 | 1800 | --- | 79000 | --- |
| 13 | 2400 | --- | 100000 | 2270 | --- | 2510 | --- |
| 14 | 1830 | --- | 68000 | 2180 | --- | 110000 | --- |
| 15 | 1510 | --- | 50000 | 1900 | --- | 76000 | --- |
| 16 | 1500 | --- | 56000 | 1950 | --- | 74000 | --- |
| 17 | 1530 | --- | 66000 | 2530 | --- | 120000 | --- |
| 18 | 1580 | 18400 | 78500 | 2900 | --- | 160000 | 12000 |
| 19 | 1590 | --- | 80000 | 2600 | --- | 110000 | --- |
| 20 | 1490 | --- | 71000 | 2580 | --- | 100000 | --- |
| 21 | 1390 | --- | 65000 | 2060 | --- | 55000 | --- |
| 22 | 1390 | --- | 65000 | 1950 | 8200 | 43200 | --- |
| 23 | 1440 | --- | 69000 | 2840 | --- | 110000 | --- |
| 24 | 1520 | --- | 80000 | 3480 | --- | 180000 | --- |
| 25 | 1350 | 16900 | 61600 | 2820 | --- | 120000 | --- |
| 26 | 1590 | --- | 93000 | 2650 | --- | 100000 | --- |
| 27 | 2880 | 31900 | 248000 | 2380 | --- | 89000 | --- |
| 28 | 2160 | --- | 170000 | 1990 | --- | 64000 | --- |
| 29 | 1830 | --- | 140000 | --- | --- | --- | 26800 |
| 30 | 1620 | --- | 110000 | --- | --- | --- | 13000 |
| 31 | 1400 | --- | 91000 | --- | --- | --- | --- |
| TOTAL | 84800 | --- | 5818100 | 54320 | --- | 2299800 | 61960 |
| | | | | | | | 2587400 |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | APRIL | | | MAY | | | JUNE | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 2620 | --- | 75000 | 1140 | --- | 23000 | 1040 | 9510 | 26700 | |
| 2 | 2640 | --- | 78000 | 1120 | --- | 22000 | 963 | --- | 22000 | |
| 3 | 2320 | --- | 63000 | 1080 | 6540 | 19100 | 940 | --- | 21000 | |
| 4 | 1950 | --- | 46000 | 1080 | --- | 19000 | 934 | --- | 20000 | |
| 5 | 1800 | --- | 40000 | 1140 | --- | 22000 | 898 | --- | 19000 | |
| 6 | 1830 | --- | 43000 | 1180 | --- | 23000 | 910 | --- | 18000 | |
| 7 | 1740 | --- | 40000 | 1280 | --- | 27000 | 898 | --- | 18000 | |
| 8 | 1480 | 8670 | 34600 | 1230 | --- | 24000 | 928 | --- | 19000 | |
| 9 | 1390 | --- | 30000 | 1170 | --- | 22000 | 963 | --- | 20000 | |
| 10 | 1340 | --- | 28000 | 1120 | --- | 20000 | 1330 | --- | 39000 | |
| 11 | 1290 | --- | 27000 | 1090 | --- | 19000 | 1380 | --- | 42000 | |
| 12 | 1220 | --- | 26000 | 1120 | --- | 20000 | 1030 | --- | 22000 | |
| 13 | 1170 | 7800 | 24600 | 1170 | --- | 22000 | 934 | 7230 | 18200 | |
| 14 | 1140 | --- | 24000 | 1130 | --- | 20000 | 922 | --- | 17000 | |
| 15 | 1090 | --- | 22000 | 1350 | --- | 28000 | 1030 | --- | 21000 | |
| 16 | 1040 | --- | 22000 | 1210 | --- | 22000 | 984 | --- | 19000 | |
| 17 | 1000 | --- | 20000 | 1120 | 6370 | 19300 | 946 | --- | 18000 | |
| 18 | 1050 | 8200 | 23200 | 1120 | --- | 19000 | 1080 | --- | 23000 | |
| 19 | 1100 | --- | 25000 | 1100 | --- | 18000 | 1200 | --- | 29000 | |
| 20 | 1140 | --- | 26000 | 1120 | --- | 18000 | 1080 | --- | 23000 | |
| 21 | 1220 | --- | 30000 | 1220 | --- | 21000 | 916 | --- | 16000 | |
| 22 | 1200 | --- | 28000 | 1200 | --- | 20000 | 856 | --- | 14000 | |
| 23 | 1240 | --- | 30000 | 1200 | --- | 20000 | 874 | --- | 14000 | |
| 24 | 1380 | --- | 36000 | 1200 | 6100 | 19800 | 845 | --- | 13000 | |
| 25 | 1150 | --- | 25000 | 1240 | --- | 23000 | 820 | --- | 12000 | |
| 26 | 1120 | 7750 | 23400 | 1200 | --- | 21000 | 868 | --- | 14000 | |
| 27 | 1030 | --- | 19000 | 1080 | --- | 20000 | 940 | --- | 16000 | |
| 28 | 984 | --- | 18000 | 1100 | --- | 23000 | 904 | --- | 15000 | |
| 29 | 1050 | --- | 19000 | 1230 | --- | 30000 | 928 | --- | 16000 | |
| 30 | 1110 | --- | 21000 | 1170 | --- | 30000 | 970 | --- | 17000 | |
| 31 | --- | --- | --- | 1030 | --- | 24000 | --- | --- | --- | |
| TOTAL | 41834 | --- | 966800 | 35940 | --- | 678200 | 29311 | --- | 601900 | |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 1070 | --- | 19000 | 680 | 4800 | 8810 | 645 | --- | 12000 |
| 2 | 1140 | --- | 22000 | 568 | --- | 5700 | 600 | --- | 9000 |
| 3 | 1190 | --- | 25000 | 544 | --- | 5000 | 508 | --- | 6000 |
| 4 | 1120 | --- | 22000 | 516 | --- | 4300 | 472 | --- | 4800 |
| 5 | 1010 | --- | 17000 | 516 | --- | 4200 | 444 | --- | 3900 |
| 6 | 970 | --- | 16000 | 512 | --- | 3900 | 359 | 2440 | 2370 |
| 7 | 1030 | 6230 | 17300 | 516 | --- | 3900 | 376 | --- | 2600 |
| 8 | 1040 | --- | 19000 | 492 | --- | 3400 | 379 | --- | 2700 |
| 9 | 1030 | --- | 18000 | 500 | --- | 3400 | 428 | --- | 3200 |
| 10 | 1000 | --- | 18000 | 480 | --- | 3000 | 494 | --- | 4100 |
| 11 | 998 | --- | 18000 | 540 | --- | 3600 | 680 | --- | 7500 |
| 12 | 1090 | --- | 23000 | 512 | 2190 | 3030 | 528 | --- | 4100 |
| 13 | 2380 | 17800 | 114000 | 450 | --- | 2500 | 480 | --- | 3200 |
| 14 | 2210 | --- | 90000 | 400 | --- | 2100 | 452 | --- | 2600 |
| 15 | 2050 | --- | 78000 | 370 | --- | 1900 | 436 | 1930 | 2270 |
| 16 | 1800 | --- | 64000 | 365 | 2100 | 2070 | 424 | --- | 2100 |
| 17 | 1560 | --- | 47000 | 356 | --- | 2000 | 412 | --- | 2000 |
| 18 | 1450 | --- | 38000 | 353 | --- | 1900 | 518 | --- | 3200 |
| 19 | 1370 | --- | 34000 | 348 | --- | 2000 | 568 | --- | 3900 |
| 20 | 1300 | 8650 | 30400 | 343 | --- | 1900 | 484 | --- | 2800 |
| 21 | 1230 | --- | 27000 | 338 | --- | 1800 | 452 | --- | 2400 |
| 22 | 1050 | --- | 20000 | 335 | --- | 1800 | 424 | --- | 2100 |
| 23 | 952 | --- | 16000 | 328 | 2000 | 1770 | 508 | 10800 | 14800 |
| 24 | 880 | --- | 14000 | 320 | --- | 1700 | 524 | --- | 14000 |
| 25 | 862 | 6180 | 14400 | 323 | --- | 1700 | 512 | --- | 13000 |
| 26 | 880 | --- | 14000 | 320 | --- | 1700 | 504 | --- | 13000 |
| 27 | 850 | --- | 14000 | 326 | --- | 1800 | 484 | --- | 12000 |
| 28 | 840 | --- | 13000 | 329 | --- | 1800 | 484 | --- | 12000 |
| 29 | 800 | --- | 12000 | 378 | 2700 | 2760 | 480 | 8820 | 11400 |
| 30 | 780 | --- | 11000 | 814 | --- | 20000 | 476 | --- | 11000 |
| 31 | 740 | --- | 10000 | 544 | --- | 8600 | --- | --- | --- |
| TOTAL | 36672 | --- | 895100 | 13716 | --- | 114040 | 14535 | --- | 190040 |
| YEAR | 525528 | | 29,250,990 TONS | | | | | | |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- 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 | | | | | | | | | |
| 09... | 1645 | 13.0 | 144 | 4 | 2140 | 832 | -- | -- | -- |
| 22... | 1110 | 4.0 | 145 | 4 | 2440 | 955 | -- | -- | -- |
| 29... | 1315 | 9.5 | 150 | -- | 2460 | 996 | -- | -- | -- |
| 31... | 1750 | -- | 182 | 4 | 3710 | 1820 | -- | -- | -- |
| NOV | | | | | | | | | |
| 03... | 2100 | -- | 778 | 4 | 19100 | 40100 | -- | -- | -- |
| 04... | 1105 | 11.0 | 420 | 4 | 9420 | 10700 | -- | -- | -- |
| 07... | 0040 | -- | 2150 | 4 | 33300 | 193000 | 15 | 17 | 24 |
| 07... | 0555 | -- | 4000 | -- | 132000 | 1430000 | -- | -- | -- |
| 07... | 0846 | -- | 3150 | -- | 69400 | 590000 | -- | -- | -- |
| 07... | 1005 | -- | 2900 | -- | 52100 | 408000 | -- | -- | -- |
| 07... | 1020 | -- | 2900 | 3 | 48500 | 380000 | -- | -- | -- |
| 07... | 1035 | -- | 2850 | -- | 47000 | 362000 | -- | -- | -- |
| 07... | 1105 | 10.5 | 2700 | -- | 43400 | 316000 | -- | -- | -- |
| 07... | 1145 | 11.0 | 2550 | -- | 38400 | 264000 | -- | -- | -- |
| 07... | 1235 | 11.0 | 2450 | -- | 35900 | 237000 | -- | -- | -- |
| 07... | 1300 | 11.0 | 2350 | -- | 37000 | 235000 | -- | -- | -- |
| 07... | 1330 | 11.0 | 2300 | -- | 31200 | 194000 | -- | -- | -- |
| 07... | 1400 | -- | 2200 | -- | 31800 | 189000 | -- | -- | -- |
| 07... | 1425 | -- | 2500 | 3 | 32500 | 219000 | -- | -- | -- |
| 07... | 1445 | -- | 2700 | -- | 38600 | 281000 | -- | -- | -- |
| 07... | 1515 | 10.5 | 3000 | -- | 41000 | 332000 | -- | -- | -- |
| 07... | 1600 | -- | 3000 | -- | 46800 | 379000 | -- | -- | -- |
| 07... | 1655 | -- | 2950 | -- | 55800 | 444000 | -- | -- | -- |
| 07... | 1745 | -- | 3100 | -- | 52300 | 438000 | -- | -- | -- |
| 07... | 1840 | -- | 3250 | -- | 41500 | 364000 | -- | -- | -- |
| 07... | 1930 | -- | 3300 | -- | 39700 | 354000 | -- | -- | -- |
| 07... | 2045 | -- | 3350 | -- | 42300 | 383000 | -- | -- | -- |
| 07... | 2120 | -- | 4100 | -- | 120000 | 1330000 | -- | -- | -- |
| 07... | 2135 | 9.0 | 5200 | -- | 133000 | 1870000 | -- | -- | -- |
| 07... | 2255 | -- | 4900 | -- | 127000 | 1680000 | -- | -- | -- |
| 08... | 0030 | -- | 4400 | -- | 81200 | 965000 | -- | -- | -- |
| 08... | 0135 | -- | 4200 | -- | 73500 | 833000 | -- | -- | -- |
| 08... | 0240 | -- | 3800 | -- | 43900 | 450000 | -- | -- | -- |
| 08... | 0400 | -- | 3500 | -- | 34700 | 328000 | -- | -- | -- |
| 08... | 0515 | -- | 3650 | -- | 26900 | 265000 | -- | -- | -- |
| 08... | 0630 | -- | 3900 | -- | 41200 | 434000 | -- | -- | -- |
| 08... | 0745 | -- | 4100 | -- | 36800 | 407000 | -- | -- | -- |
| 08... | 0850 | -- | 4000 | 4 | 43800 | 473000 | -- | -- | -- |
| 08... | 0950 | -- | 3800 | -- | 38400 | 394000 | 12 | 19 | 32 |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA
 PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| 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 | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | 72 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | |
| 03... | -- | -- | -- | 72 | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 37 | 53 | 70 | -- | 86 | 97 | 99 | 99 | 100 |
| 07... | -- | -- | -- | 72 | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | 68 | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | 74 | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | 83 | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | 85 | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | 75 | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 48 | 66 | 78 | -- | 86 | 94 | 99 | 100 | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|---------------------------------------|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 08.... | 1230 | -- | 3550 | -- | 29400 | 282000 | -- | -- | -- | -- | -- |
| 09.... | 1100 | -- | 2900 | 4 | 12700 | 99400 | 6 | 10 | 16 | 24 | 34 |
| 21.... | 1340 | -- | 4800 | -- | 229000 | 2970000 | 12 | 15 | 21 | 34 | 49 |
| 21.... | 1345 | -- | 4800 | -- | 278000 | 3600000 | -- | -- | -- | -- | -- |
| 21.... | 1400 | -- | 5000 | -- | 319000 | 4310000 | -- | -- | -- | -- | -- |
| 21.... | 1410 | -- | 5300 | -- | 278000 | 3980000 | -- | -- | -- | -- | -- |
| 21.... | 1535 | -- | 5900 | -- | 357000 | 5690000 | -- | -- | -- | -- | -- |
| 21.... | 1540 | -- | 5900 | -- | 280000 | 4460000 | 7 | 9 | 13 | 22 | 34 |
| 21.... | 1555 | -- | 5600 | -- | 307000 | 4640000 | -- | -- | -- | -- | -- |
| 21.... | 1600 | -- | 5600 | -- | 221000 | 3340000 | -- | -- | -- | -- | -- |
| 21.... | 1710 | -- | 5400 | -- | 144000 | 2100000 | -- | -- | -- | -- | -- |
| 21.... | 1715 | -- | 5400 | -- | 149000 | 2170000 | -- | -- | -- | -- | -- |
| 21.... | 1755 | -- | 5000 | -- | 136000 | 1840000 | -- | -- | -- | -- | -- |
| 21.... | 1800 | -- | 5000 | -- | 86800 | 1170000 | -- | -- | -- | -- | -- |
| 21.... | 1900 | -- | 4900 | -- | 116000 | 1530000 | -- | -- | -- | -- | -- |
| 21.... | 1910 | -- | 4900 | -- | 103000 | 1360000 | -- | -- | -- | -- | -- |
| 21.... | 1940 | -- | 4600 | -- | 72800 | 904000 | -- | -- | -- | -- | -- |
| 21.... | 2005 | -- | 4500 | 3 | 74300 | 903000 | -- | -- | -- | -- | -- |
| 21.... | 2040 | -- | 4300 | -- | 70400 | 817000 | -- | -- | -- | -- | -- |
| 21.... | 2120 | -- | 4150 | -- | 49600 | 556000 | -- | -- | -- | -- | -- |
| 21.... | 2250 | -- | 4000 | -- | 43400 | 469000 | -- | -- | -- | -- | -- |
| 21.... | 2330 | -- | 3950 | -- | 32100 | 342000 | -- | -- | -- | -- | -- |
| 22.... | 0005 | -- | 3900 | -- | 33900 | 357000 | -- | -- | -- | -- | -- |
| 22.... | 0050 | -- | 3900 | -- | 30400 | 320000 | -- | -- | -- | -- | -- |
| 22.... | 0125 | -- | 3850 | -- | 27900 | 290000 | -- | -- | -- | -- | -- |
| 22.... | 0150 | -- | 3800 | -- | 27300 | 280000 | -- | -- | -- | -- | -- |
| 22.... | 0220 | -- | 3650 | -- | 28100 | 277000 | -- | -- | -- | -- | -- |
| 22.... | 0315 | -- | 3350 | 3 | 26700 | 242000 | 10 | 12 | 17 | 26 | 37 |
| 22.... | 0430 | -- | 3100 | -- | 23300 | 195000 | -- | -- | -- | -- | -- |
| 22.... | 0530 | -- | 2900 | -- | 15300 | 120000 | -- | -- | -- | -- | -- |
| 22.... | 0620 | -- | 2900 | -- | 20000 | 157000 | -- | -- | -- | -- | -- |
| 22.... | 0700 | 6.0 | 2950 | -- | 17200 | 169000 | -- | -- | -- | -- | -- |
| 22.... | 0900 | -- | 2850 | -- | 16800 | 129000 | -- | -- | -- | -- | -- |
| 22.... | 1000 | -- | 2800 | -- | 26300 | 199000 | -- | -- | -- | -- | -- |
| 22.... | 1020 | -- | 2800 | -- | 16300 | 123000 | -- | -- | -- | -- | -- |
| 22.... | 1040 | -- | 2770 | 3 | 14600 | 109000 | 5 | 6 | 10 | 16 | 24 |
| 22.... | 1050 | -- | 2750 | -- | 16800 | 125000 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 01.... | 1510 | -- | 1900 | 3 | 6160 | 31600 | 5 | 7 | 13 | 20 | 29 |
| 02.... | 1145 | -- | 7300 | -- | 53000 | 1040000 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-----------|--|--|--|--|--|--|--|--|--|
| NOV 08... | -- | 74 | -- | -- | -- | -- | -- | -- | -- |
| 09... | 46 | -- | 58 | -- | -- | -- | 100 | -- | -- |
| 21... | -- | 64 | -- | 85 | -- | 100 | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 51 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 47 | -- | 69 | -- | 95 | -- | 99 | 100 |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 59 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 66 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 78 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 61 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 68 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 58 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 52 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 48 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 48 | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 51 | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 54 | -- | 70 | 92 | 94 | -- | 100 | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 48 | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 55 | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 24 | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 31 | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 34 | -- | 50 | 75 | 95 | -- | 100 | -- |
| 22... | -- | 26 | -- | -- | -- | -- | -- | -- | -- |
| DEC 01... | 42 | -- | 57 | -- | 75 | 92 | 100 | -- | -- |
| 02... | -- | 82 | -- | -- | -- | -- | -- | -- | -- |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM., % FINER THAN .062 MM |
|--------|------|-----------------------------|---|---|---------------------------------------|---|--|
| DEC | | | | | | | |
| 02.... | 1515 | -- | 9400 | -- | 138000 | 3500000 | 91 |
| 02.... | 1950 | -- | 7250 | -- | 47100 | 922000 | -- |
| 02.... | 2110 | -- | 8100 | -- | 43900 | 960000 | -- |
| 02.... | 2120 | -- | 8200 | -- | 66800 | 1480000 | -- |
| 02.... | 2125 | -- | 8200 | -- | 55900 | 1240000 | 75 |
| 02.... | 2250 | -- | 7100 | -- | 75300 | 1440000 | -- |
| 03.... | 0120 | -- | 6700 | -- | 28600 | 517000 | 68 |
| 03.... | 0240 | -- | 6450 | -- | 22800 | 397000 | 69 |
| 03.... | 0400 | -- | 6400 | -- | 18500 | 320000 | -- |
| 03.... | 0520 | -- | 6350 | -- | 15000 | 257000 | 67 |
| 03.... | 0700 | -- | 6000 | -- | 13500 | 219000 | -- |
| 03.... | 0825 | -- | 5770 | 3 | 13600 | 212000 | 65 |
| 03.... | 1125 | -- | 5470 | -- | 10000 | 148000 | -- |
| 03.... | 1330 | -- | 5430 | 3 | 15000 | 220000 | 43 |
| 03.... | 1430 | -- | 5430 | -- | 14700 | 216000 | 44 |
| 04.... | 1300 | -- | 4700 | 3 | 9760 | 124000 | -- |
| 11.... | 1525 | -- | 1450 | 3 | 3580 | 14000 | -- |
| 14.... | 1410 | -- | 1290 | 3 | 1830 | 6370 | -- |
| 16.... | 1530 | -- | 1360 | 3 | 2480 | 9110 | -- |
| 18.... | 1105 | 5.5 | 1040 | 5 | 2250 | 6320 | -- |
| 30.... | 1130 | -- | 5360 | -- | 28100 | 407000 | -- |
| JAN | | | | | | | |
| 09.... | 1555 | -- | 832 | 3 | 4530 | 10200 | -- |
| 13.... | 1435 | -- | 710 | 3 | 3110 | 5960 | -- |
| 20.... | 1540 | -- | 568 | 3 | 2260 | 3470 | -- |
| 29.... | 1435 | -- | 736 | 5 | 2790 | 5540 | -- |
| FEB | | | | | | | |
| 03.... | 1405 | -- | 393 | 5 | 1610 | 1710 | -- |
| 15.... | 1255 | -- | 2630 | 5 | 20100 | 143000 | -- |
| 19.... | 1530 | -- | -- | -- | 46100 | -- | -- |
| 19.... | 1615 | -- | -- | -- | 38500 | -- | -- |
| 19.... | 1715 | -- | -- | -- | 32400 | -- | -- |
| 19.... | 1815 | -- | -- | -- | 27500 | -- | -- |
| 19.... | 1915 | -- | -- | -- | 26200 | -- | -- |
| 19.... | 2005 | -- | -- | -- | 25000 | -- | -- |
| 19.... | 2120 | -- | -- | -- | 22200 | -- | -- |
| 19.... | 2320 | -- | -- | -- | 22900 | -- | -- |
| 20.... | 0220 | -- | -- | -- | 30100 | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) |
|-------|------|-----------------------------|---|---|--|--|
| FEB | | | | | | |
| 20... | 0445 | -- | -- | -- | 18600 | -- |
| 20... | 0625 | -- | -- | -- | 25000 | -- |
| 20... | 1150 | -- | -- | 5 | 16300 | -- |
| 20... | 1220 | -- | 6470 | -- | 14900 | 260000 |
| MAR | | | | | | |
| 13... | 1405 | 11.0 | 856 | 3 | 4000 | 9240 |
| 27... | 1030 | -- | 680 | 5 | 1150 | 2110 |
| APR | | | | | | |
| 01... | 1340 | -- | 1540 | 5 | 2380 | 9900 |
| 07... | 1700 | 7.0 | 1390 | 5 | 2810 | 10500 |
| 24... | 1435 | -- | 2160 | 5 | 3190 | 18600 |
| MAY | | | | | | |
| 06... | 1320 | 8.5 | 892 | 5 | 1040 | 2500 |
| 11... | 1525 | 11.5 | 1180 | 5 | 1310 | 4170 |
| JUN | | | | | | |
| 08... | 1600 | 11.5 | 5660 | 5 | 17500 | 267000 |
| 15... | 1250 | 12.0 | 1430 | 5 | 1230 | 4750 |
| 22... | 1510 | 12.5 | 1890 | 5 | 1080 | 5510 |
| 29... | 1030 | 15.0 | 749 | 5 | 251 | 508 |
| JUL | | | | | | |
| 06... | 1425 | -- | 453 | 5 | 53 | 65 |
| 09... | 1130 | 19.0 | 472 | 5 | 71 | 90 |
| 14... | 1210 | 15.0 | 554 | 5 | 235 | 352 |
| 16... | 1325 | 21.0 | 484 | 5 | 105 | 137 |
| 22... | 1250 | -- | 456 | 5 | 158 | 195 |
| 23... | 1145 | 16.5 | 430 | 5 | 136 | 158 |
| 27... | 1035 | 19.5 | 424 | 5 | 122 | 140 |
| 30... | 1350 | 18.0 | 410 | 5 | 105 | 116 |
| AUG | | | | | | |
| 03... | 1100 | 16.0 | 394 | 5 | 146 | 155 |
| 06... | 1130 | -- | 395 | 5 | 168 | 179 |
| 11... | 1050 | 23.0 | 260 | 5 | 176 | 124 |
| 13... | 1055 | 19.5 | 320 | 5 | 120 | 104 |
| 19... | 1100 | 17.5 | 230 | 5 | 37 | 23 |
| 20... | 1110 | 17.0 | 246 | 5 | 33 | 22 |
| 26... | 1405 | 20.0 | 209 | 5 | 25 | 14 |
| 27... | 1345 | 20.0 | 211 | 5 | 16 | 9.1 |
| 31... | 1500 | -- | 215 | 5 | 24 | 14 |
| SEP | | | | | | |
| 01... | 1115 | 16.0 | 705 | -- | 1900 | 3620 |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINE R THAN .002 MM | SED. SUSP. FALL DIAM. % FINE R THAN .004 MM |
|-------|--|--|--|---|---|---|---|---|
| SEP | | | | | | | | |
| 03... | 1130 | 17.0 | 278 | 5 | 49 | 37 | -- | -- |
| 08... | 1445 | 22.0 | 211 | 5 | 28 | 16 | -- | -- |
| 10... | 1625 | -- | 270 | 9 | 32 | 23 | -- | -- |
| 21... | 1250 | 13.5 | 360 | 5 | 369 | 359 | 15 | 24 |
| 28... | 1505 | 13.5 | 362 | 9 | 693 | 677 | -- | -- |
| DATE | SED. SUSP. FALL DIAM. % FINE R THAN | SED. SUSP. FALL DIAM. % FINE R THAN | SED. SUSP. FALL DIAM. % FINE R THAN | SED. SUSP. SIEVE DIAM. % FINE R THAN | SED. SUSP. SIEVE DIAM. % FINE R THAN | SED. SUSP. SIEVE DIAM. % FINE R THAN | SED. SUSP. SIEVE DIAM. % FINE R THAN | SED. SUSP. SIEVE DIAM. % FINE R THAN |
| | .008 MM | .016 MM | .031 MM | .062 MM | .125 MM | .250 MM | .500 MM | 1.00 MM |
| SEP | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | 72 | 76 | 82 | 89 | 100 |
| 10... | -- | -- | -- | 45 | 50 | 56 | 93 | 100 |
| 21... | 39 | 57 | 71 | 81 | 87 | -- | 100 | -- |
| 28... | -- | -- | -- | 97 | -- | -- | -- | -- |

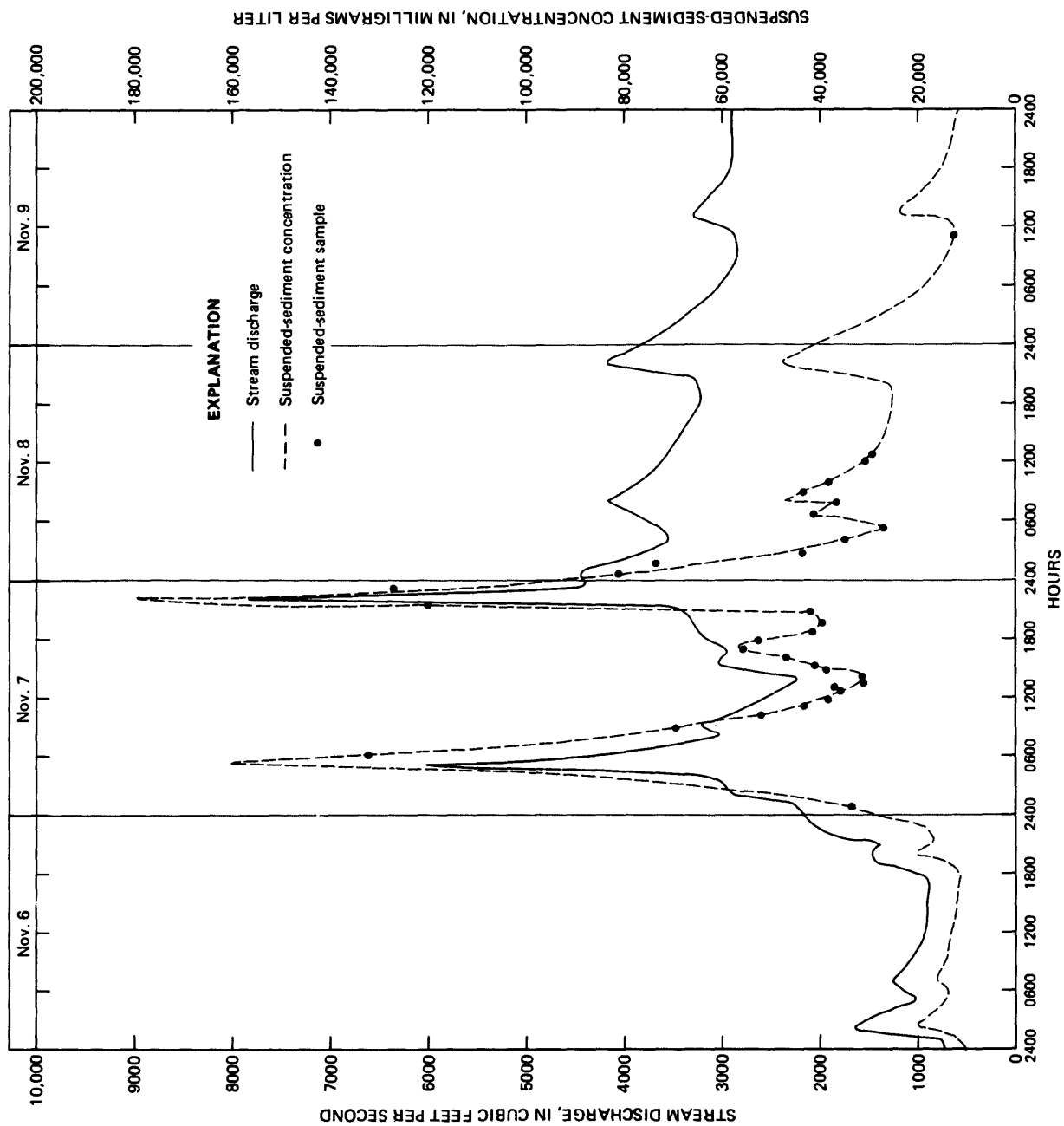


FIGURE 2. — Hydrograph of stream discharge and suspended-sediment concentration at North Fork Toutle River at Kid Valley for November 6-9, 1980.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, PENDE- D (MG/L) | SEDIM- ENT, 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 | | | | | | | | | | | | |
| 05.... | 1150 | 10.0 | 400 | 5 | 104 | 112 | -- | -- | -- | -- | -- | -- |
| 06.... | 1440 | -- | 4210 | 5 | 53200 | 605000 | -- | 28 | 45 | 70 | 82 | -- |
| 06.... | 1705 | -- | 4140 | 5 | 69600 | 778000 | -- | 25 | 46 | 69 | 81 | -- |
| 07.... | 1320 | 12.5 | 2300 | 5 | 19400 | 120000 | -- | -- | -- | -- | -- | -- |
| 13.... | 1600 | 10.5 | 1200 | 9 | 1550 | 5020 | -- | -- | -- | -- | -- | -- |
| 19.... | 1045 | 9.5 | 482 | 5 | 670 | 872 | 11 | 16 | 25 | 36 | 45 | -- |
| 26.... | 1500 | 12.0 | 330 | 9 | 459 | 409 | -- | -- | -- | -- | -- | -- |
| 28.... | 1040 | 9.5 | 1440 | -- | 25200 | 98000 | -- | -- | -- | -- | -- | -- |
| 28.... | 1120 | 9.5 | 1370 | 5 | 17600 | 65100 | 18 | 19 | 27 | 43 | 67 | 83 |
| 30.... | 1350 | -- | 790 | -- | 4490 | 9580 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 02.... | 1100 | 9.0 | 648 | 5 | 4940 | 8640 | 11 | 11 | 14 | 23 | 40 | 62 |
| 09.... | 1130 | 7.5 | 460 | 9 | 2280 | 2830 | -- | 9 | 13 | 21 | 33 | -- |
| 12.... | 0945 | 9.5 | 1260 | -- | 11200 | 38100 | -- | -- | -- | -- | -- | -- |
| 12.... | 1145 | 9.5 | 1130 | 5 | 10400 | 31700 | -- | 14 | 24 | 37 | 53 | -- |
| 13.... | 1055 | 9.0 | 818 | -- | 9900 | 21900 | -- | -- | -- | -- | -- | -- |
| 14.... | 1415 | 8.0 | 4020 | -- | 116000 | 1260000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1520 | 8.0 | 4120 | -- | 93800 | 1040000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1525 | 8.0 | 4120 | -- | 94700 | 1050000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1555 | 8.0 | 3930 | 5 | 82800 | 879000 | -- | 12 | 21 | 34 | 49 | -- |
| 14.... | 1640 | 8.0 | 3740 | -- | 61600 | 622000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1720 | 8.0 | 3530 | -- | 74100 | 706000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1745 | 8.0 | 3400 | -- | 70700 | 649000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1825 | 8.0 | 3270 | -- | 66600 | 588000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1935 | 8.0 | 2840 | -- | 50200 | 385000 | -- | -- | -- | -- | -- | -- |
| 15.... | 1340 | -- | 2030 | -- | 27400 | 150000 | -- | -- | -- | -- | -- | -- |
| 16.... | 1045 | 7.0 | 1980 | -- | 28200 | 151000 | -- | -- | -- | -- | -- | -- |
| 16.... | 1205 | -- | 1990 | -- | 27600 | 148000 | -- | -- | -- | -- | -- | -- |
| 16.... | 1250 | -- | 1950 | -- | 26800 | 141000 | -- | -- | -- | -- | -- | -- |
| 16.... | 1315 | -- | 1950 | 5 | 22400 | 118000 | 10 | 11 | 14 | 22 | 34 | 52 |
| 16.... | 1335 | -- | 1950 | -- | 25800 | 136000 | -- | -- | -- | -- | -- | -- |
| 16.... | 1420 | -- | 1950 | -- | 21600 | 114000 | -- | -- | -- | -- | -- | -- |
| 16.... | 1425 | -- | 1950 | -- | 24400 | 128000 | -- | -- | -- | -- | -- | -- |
| 18.... | 1430 | -- | 2820 | -- | 18200 | 139000 | -- | -- | -- | -- | -- | -- |
| 23.... | 1115 | 6.5 | 2130 | 5 | 12000 | 69000 | 10 | 12 | 14 | 25 | 36 | 50 |
| 30.... | 1115 | 4.5 | 881 | 5 | 3560 | 8470 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 02.... | 1020 | 6.0 | 5500 | -- | 53400 | 793000 | -- | -- | -- | -- | -- | -- |
| 02.... | 1055 | 6.0 | 5150 | -- | 46500 | 647000 | -- | -- | -- | -- | -- | -- |
| 02.... | 1255 | 6.0 | 4380 | 5 | 26600 | 315000 | 14 | 17 | 19 | 33 | 47 | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. DIAM. % FINER THAN .062 MM | SED. SUSP. DIAM. % FINER THAN .125 MM | SED. SUSP. DIAM. % FINER THAN .250 MM | SED. SUSP. DIAM. % FINER THAN .250 MM | SED. SUSP. DIAM. % FINER THAN .500 MM | SED. SUSP. DIAM. % FINER THAN .500 MM | SED. SUSP. DIAM. % FINER THAN 1.00 MM | SED. SUSP. DIAM. % FINER THAN 1.00 MM | SED. SUSP. DIAM. % FINER THAN 2.00 MM | SED. SUSP. DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|--|--|--|
| OCT | | | | | | | | | | |
| 05... | 64 | -- | -- | 91 | -- | -- | 100 | -- | -- | -- |
| 06... | 86 | -- | -- | 96 | -- | -- | 100 | -- | -- | -- |
| 06... | 86 | -- | -- | 97 | -- | -- | 100 | -- | -- | -- |
| 07... | 78 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | 54 | -- | -- | 69 | -- | -- | 99 | -- | -- | 100 |
| 26... | 68 | -- | -- | 86 | -- | -- | 99 | -- | -- | 100 |
| 28... | 82 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | 85 | 92 | 96 | -- | -- | 100 | -- | -- | -- | -- |
| 30... | 71 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | |
| 02... | 63 | 84 | 91 | -- | 96 | 99 | -- | 100 | -- | -- |
| 09... | 46 | -- | -- | 88 | -- | -- | 95 | -- | -- | 97 |
| 12... | 73 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | 66 | -- | -- | 93 | -- | -- | 100 | -- | -- | -- |
| 13... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 62 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 62 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 62 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 61 | -- | -- | 95 | -- | -- | 100 | -- | -- | -- |
| 14... | 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 62 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 63 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 46 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 51 | 78 | 94 | -- | 99 | 99 | -- | 100 | -- | -- |
| 16... | 42 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 52 | 70 | 92 | -- | 99 | 99 | -- | 100 | -- | -- |
| 30... | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | |
| 02... | 62 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 60 | -- | -- | 93 | -- | -- | 100 | -- | -- | 10 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- MENT, SUS- PENDE (MG/L) | SED- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 02... | 1345 | 6.0 | 3760 | -- | 27200 | 276000 | -- | -- | -- | -- | -- | -- |
| 02... | 1430 | 6.0 | 3640 | -- | 25600 | 252000 | -- | -- | -- | -- | -- | -- |
| 02... | 1500 | 6.0 | 3590 | -- | 22200 | 215000 | -- | -- | -- | -- | -- | -- |
| 02... | 1605 | -- | 3240 | -- | 22800 | 199000 | -- | -- | -- | -- | -- | -- |
| 02... | 1635 | 6.0 | 3190 | -- | 21500 | 185000 | -- | -- | -- | -- | -- | -- |
| 03... | 1130 | 5.0 | 2370 | 5 | 12400 | 79300 | 6 | 8 | 15 | 23 | 35 | 51 |
| 05... | 1130 | 7.0 | 10800 | -- | 46400 | 1350000 | -- | -- | -- | -- | -- | -- |
| 05... | 1240 | 8.0 | 12200 | -- | 100000 | 3290000 | -- | -- | -- | -- | -- | -- |
| 05... | 1350 | 8.0 | 10800 | -- | 95500 | 2780000 | -- | -- | -- | -- | -- | -- |
| 05... | 1440 | 8.0 | 9700 | 5 | 91500 | 2400000 | 10 | 12 | 16 | 28 | 39 | -- |
| 05... | 1540 | 8.0 | 10000 | -- | 86100 | 2320000 | -- | -- | -- | -- | -- | -- |
| 05... | 1550 | 8.0 | 10400 | -- | 83900 | 2360000 | -- | -- | -- | -- | -- | -- |
| 05... | 1640 | 8.0 | 9390 | -- | 74200 | 1880000 | -- | -- | -- | -- | -- | -- |
| 05... | 2040 | 7.0 | 7340 | -- | 45800 | 908000 | -- | -- | -- | -- | -- | -- |
| 05... | 2200 | 7.0 | 7310 | -- | 40700 | 803000 | -- | -- | -- | -- | -- | -- |
| 06... | 0045 | 7.0 | 7000 | 5 | 42000 | 794000 | 10 | 11 | 16 | 26 | 39 | -- |
| 06... | 0130 | 7.0 | 7000 | -- | 43600 | 824000 | -- | -- | -- | -- | -- | -- |
| 06... | 0200 | 7.0 | 7140 | -- | 48400 | 933000 | -- | -- | -- | -- | -- | -- |
| 06... | 0305 | 7.0 | 7170 | -- | 43800 | 848000 | -- | -- | -- | -- | -- | -- |
| 06... | 0400 | 7.0 | 7340 | -- | 41400 | 820000 | -- | -- | -- | -- | -- | -- |
| 06... | 0505 | 7.0 | 7240 | -- | 38700 | 757000 | -- | -- | -- | -- | -- | -- |
| 06... | 0610 | 7.0 | 7030 | -- | 35600 | 676000 | -- | -- | -- | -- | -- | -- |
| 06... | 0735 | 7.0 | 6890 | -- | 37600 | 699000 | -- | -- | -- | -- | -- | -- |
| 06... | 0910 | -- | 6270 | 5 | 28900 | 489000 | -- | -- | -- | -- | -- | -- |
| 06... | 1110 | -- | 5550 | -- | 28200 | 423000 | -- | -- | -- | -- | -- | -- |
| 06... | 1255 | -- | 6060 | -- | 32800 | 537000 | -- | -- | -- | -- | -- | -- |
| 06... | 1350 | -- | 5670 | -- | 33000 | 505000 | -- | -- | -- | -- | -- | -- |
| 06... | 1530 | -- | 5580 | -- | 31000 | 467000 | -- | -- | -- | -- | -- | -- |
| 07... | 1505 | 7.5 | 4180 | 3 | 14700 | 166000 | 9 | 9 | 12 | 21 | 32 | 48 |
| 08... | 1430 | 6.0 | 3280 | 5 | 13000 | 115000 | -- | -- | -- | -- | -- | -- |
| 09... | 1405 | 8.0 | 2520 | 5 | 10300 | 70100 | -- | -- | -- | -- | -- | -- |
| 10... | 1150 | 6.0 | 2760 | -- | 15600 | 116000 | -- | -- | -- | -- | -- | -- |
| 14... | 1125 | 5.5 | 1750 | 5 | 6380 | 30100 | 5 | 8 | 10 | 18 | 27 | 41 |
| 15... | 1550 | 6.5 | 4680 | -- | 28800 | 364000 | -- | -- | -- | -- | -- | -- |
| 17... | 1310 | 5.5 | 2220 | -- | 10600 | 63500 | -- | -- | -- | -- | -- | -- |
| 17... | 1325 | 5.5 | 2220 | 5 | 10100 | 60500 | 7 | 7 | 12 | 20 | 30 | 43 |
| 17... | 1335 | -- | 2220 | -- | 10300 | 61700 | -- | -- | -- | -- | -- | -- |
| 18... | 1215 | 7.0 | 2320 | -- | 11500 | 72000 | -- | -- | -- | -- | -- | -- |
| 21... | 1330 | 5.0 | 1820 | 5 | 8920 | 43800 | -- | -- | -- | -- | -- | -- |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA
 PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 .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 |
|-------|---|--|--|--|--|--|--|--|---|
| DEC | | | | | | | | | |
| 02... | 52 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 48 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 51 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 44 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 51 | 71 | 92 | 99 | 100 | 100 | 100 | 100 | 100 |
| 05... | 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 60 | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 55 | -- | -- | -- | 99 | 100 | 100 | 100 | 10 |
| 05... | 52 | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 55 | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 60 | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 64 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 53 | -- | -- | -- | 90 | 98 | 100 | 100 | 10 |
| 06... | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 49 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 48 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 51 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 47 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 53 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 58 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 55 | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 42 | 68 | 89 | 99 | 100 | 100 | 100 | 100 | 100 |
| 08... | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 47 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 40 | 61 | 88 | 97 | 99 | 99 | 100 | 100 | 100 |
| 15... | 60 | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 42 | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 42 | 62 | 88 | 99 | 100 | 100 | 100 | 100 | 100 |
| 17... | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 30 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 39 | -- | -- | -- | 83 | 96 | 99 | 100 | 100 |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- IMENT, SUS- PENDED (MG/L) | SED- IMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|---------------|------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| DEC 28.... | 1115 | 3.5 | 1470 | 9 | 5440 | 21600 | -- | -- | -- | -- | -- | -- |
| JAN 06.... | 1230 | .0 | 594 | 5 | 2560 | 4110 | -- | -- | -- | -- | -- | -- |
| 12.... | 1120 | 3.5 | 1000 | 5 | 3350 | 9040 | -- | -- | -- | -- | -- | -- |
| 16.... | 1355 | 5.0 | 5080 | 5 | 13500 | 185000 | 6 | 7 | 8 | 15 | 23 | -- |
| 17.... | 1130 | 5.0 | 5400 | 5 | 11600 | 169000 | 7 | 7 | 9 | 15 | 24 | 37 |
| 23.... | 1125 | 5.0 | 13100 | -- | 22400 | 792000 | -- | -- | -- | -- | -- | -- |
| 23.... | 1210 | 5.0 | 12500 | -- | 19100 | 645000 | -- | -- | -- | -- | -- | -- |
| 23.... | 1430 | -- | 10700 | -- | 38200 | 1100000 | -- | -- | -- | -- | -- | -- |
| 23.... | 1655 | -- | 11000 | 5 | 33400 | 992000 | 9 | 10 | 12 | 24 | 37 | -- |
| 23.... | 1710 | -- | 10900 | -- | 34800 | 1020000 | -- | -- | -- | -- | -- | -- |
| 23.... | 1825 | -- | 10700 | -- | 33200 | 959000 | -- | -- | -- | -- | -- | -- |
| 23.... | 2135 | -- | 11200 | 5 | 30400 | 919000 | -- | -- | -- | -- | -- | -- |
| 23.... | 2330 | -- | 13900 | -- | 48900 | 1840000 | -- | -- | -- | -- | -- | -- |
| 24.... | 0035 | -- | 16100 | -- | 58000 | 2520000 | -- | -- | -- | -- | -- | -- |
| 24.... | 0315 | -- | 21900 | -- | 65600 | 3880000 | -- | -- | -- | -- | -- | -- |
| 24.... | 0900 | -- | 23100 | -- | 35800 | 2230000 | -- | -- | -- | -- | -- | -- |
| 24.... | 1150 | -- | 12100 | 5 | 31600 | 1030000 | 8 | 9 | 11 | 19 | 29 | -- |
| 24.... | 1255 | -- | 11700 | -- | 30000 | 948000 | -- | -- | -- | -- | -- | -- |
| 24.... | 1350 | -- | 11400 | -- | 36400 | 1120000 | -- | -- | -- | -- | -- | -- |
| 24.... | 1450 | -- | 11000 | -- | 32000 | 950000 | -- | -- | -- | -- | -- | -- |
| 24.... | 1720 | -- | 10200 | -- | 26400 | 727000 | -- | -- | -- | -- | -- | -- |
| 25.... | 1600 | 6.5 | 5610 | 5 | 18000 | 273000 | 9 | 10 | 11 | 21 | 31 | -- |
| 26.... | 1150 | -- | 4370 | 5 | 17000 | 201000 | 8 | 8 | 11 | 20 | 30 | -- |
| 29.... | 1250 | 5.5 | 2440 | 5 | 7530 | 49600 | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 02.... | 1120 | 6.0 | 2590 | 5 | 5440 | 38000 | -- | -- | -- | -- | -- | -- |
| 04.... | 1240 | 3.0 | 1980 | 5 | 3860 | 20600 | -- | -- | -- | -- | -- | -- |
| 08.... | 1320 | 3.0 | 1210 | 5 | 3350 | 10900 | -- | -- | -- | -- | -- | -- |
| 14.... | 0950 | 6.5 | 6630 | 5 | 47000 | 841000 | 8 | 9 | 18 | 28 | 41 | -- |
| 15.... | 0820 | 6.5 | 7200 | -- | 37600 | 731000 | -- | -- | -- | -- | -- | -- |
| 15.... | 1000 | 6.5 | 7030 | 5 | 34400 | 653000 | 9 | 10 | 12 | 23 | 34 | -- |
| 16.... | 1125 | 7.0 | 10500 | -- | 46800 | 1335000 | -- | -- | -- | -- | -- | -- |
| 16.... | 1140 | 7.0 | 10200 | 5 | 47400 | 1310000 | 9 | 10 | 14 | 24 | 34 | -- |
| 16.... | 1450 | -- | 9200 | -- | 43200 | 1070000 | -- | -- | -- | -- | -- | -- |
| 17.... | 1220 | 7.0 | 7150 | 5 | 44300 | 855000 | 7 | 9 | 12 | 21 | 31 | -- |
| 18.... | 1335 | 6.5 | 8040 | -- | 28200 | 612000 | -- | -- | -- | -- | -- | -- |
| 18.... | 2155 | -- | 6750 | -- | 44800 | 816000 | -- | -- | -- | -- | -- | -- |
| 19.... | 1200 | 7.0 | 5760 | 5 | 29800 | 463000 | 6 | 8 | 12 | 19 | 28 | -- |
| 20.... | 1010 | -- | 13000 | -- | 182000 | 6390000 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. SIEVE 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 | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-----------|---|--|--|--|--|--|--|--|--|--|--|
| DEC 28... | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 06... | 18 | -- | 29 | -- | 60 | -- | 92 | -- | 99 | 100 | 100 |
| 12... | 31 | -- | 49 | -- | 75 | -- | 94 | -- | 100 | -- | -- |
| 16... | 36 | -- | 58 | -- | 83 | -- | 96 | -- | 99 | -- | 100 |
| 17... | 41 | 55 | -- | 80 | -- | 93 | -- | 99 | -- | 100 | -- |
| 23... | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 72 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 100 |
| 23... | 49 | -- | 66 | -- | 86 | -- | 96 | -- | 99 | -- | -- |
| 23... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 54 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 100 |
| 24... | 41 | -- | 56 | -- | 80 | -- | 94 | -- | 99 | -- | -- |
| 24... | 42 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | 45 | -- | 62 | -- | 81 | -- | 94 | -- | 99 | -- | 100 |
| 26... | 43 | -- | 61 | -- | 85 | -- | 97 | -- | 100 | -- | 100 |
| 29... | 31 | -- | 49 | -- | 94 | -- | 95 | -- | 100 | -- | -- |
| FEB 02... | 35 | -- | 53 | -- | 78 | -- | 96 | -- | 100 | -- | -- |
| 04... | 31 | -- | 47 | -- | 77 | -- | 96 | -- | 99 | -- | 100 |
| 08... | 33 | -- | 46 | -- | 64 | -- | 92 | -- | 99 | -- | 100 |
| 14... | 55 | -- | 75 | -- | 91 | -- | 98 | -- | 99 | -- | 100 |
| 15... | 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 46 | -- | 62 | -- | 85 | -- | 97 | -- | 99 | -- | 100 |
| 16... | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 47 | -- | 66 | -- | 87 | -- | 96 | -- | 99 | -- | 100 |
| 16... | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 44 | -- | 59 | -- | 82 | -- | 95 | -- | 99 | -- | 100 |
| 18... | 31 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | 40 | -- | 57 | -- | 78 | -- | 94 | -- | 99 | -- | 100 |
| 20... | 58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, TOTAL (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM |
|-------|------|-----------------------------|---|---|--|-----------------------------------|--|---|--|--|
| FEB | | | | | | | | | | |
| 20... | 1315 | -- | 20000 | -- | 114000 | -- | 6160000 | -- | -- | -- |
| 20... | 1330 | -- | 19600 | 5 | 106000 | -- | 5610000 | -- | 9 | 14 |
| 20... | 1550 | -- | 17100 | -- | 65000 | -- | 3000000 | -- | -- | -- |
| 20... | 1605 | -- | 17200 | 5 | 66000 | -- | 3070000 | -- | 13 | 15 |
| 20... | 1715 | -- | 17300 | -- | 76600 | -- | 3580000 | -- | -- | -- |
| 20... | 1750 | -- | 17000 | -- | 69100 | -- | 3170000 | -- | -- | -- |
| 20... | 1751 | -- | 17000 | -- | 70700 | -- | 3250000 | -- | -- | -- |
| 20... | 1810 | -- | 16500 | -- | 71800 | -- | 3200000 | -- | -- | -- |
| 20... | 1820 | -- | 16400 | -- | 88600 | -- | 3920000 | -- | -- | -- |
| 20... | 1830 | -- | 16100 | -- | 94100 | -- | 4090000 | -- | -- | -- |
| 20... | 1850 | -- | 15700 | -- | 136000 | -- | 5770000 | -- | -- | -- |
| 20... | 1900 | -- | 15500 | -- | 146000 | -- | 6110000 | -- | -- | -- |
| 20... | 1915 | -- | 15000 | -- | 134000 | -- | 5430000 | -- | -- | -- |
| 20... | 1920 | -- | 14900 | -- | 173000 | -- | 6960000 | -- | -- | -- |
| 20... | 1930 | -- | 14500 | -- | 182000 | -- | 7130000 | -- | -- | -- |
| 20... | 1935 | -- | 14400 | -- | 197000 | -- | 7660000 | -- | -- | -- |
| 20... | 1950 | -- | 13900 | -- | 136000 | -- | 5100000 | -- | -- | -- |
| 20... | 2030 | -- | 13700 | -- | 90800 | -- | 3360000 | -- | -- | -- |
| 20... | 2105 | -- | 13800 | -- | 82400 | -- | 3070000 | -- | -- | -- |
| 20... | 2130 | -- | 13100 | -- | 72400 | -- | 2560000 | -- | -- | -- |
| 20... | 2205 | -- | 12300 | -- | 69400 | -- | 2300000 | -- | -- | -- |
| 20... | 2230 | -- | 12600 | -- | 60900 | -- | 2070000 | -- | -- | -- |
| 20... | 2240 | -- | 12400 | -- | 66800 | -- | 2240000 | -- | -- | -- |
| 20... | 2330 | -- | 12600 | -- | 60600 | -- | 2060000 | -- | -- | -- |
| 20... | 2400 | 5.5 | 11900 | -- | 63200 | -- | 2030000 | -- | -- | -- |
| 21... | 0020 | -- | 11700 | -- | 61000 | -- | 1930000 | -- | -- | -- |
| 21... | 1115 | -- | 8950 | -- | 54700 | -- | 1320000 | -- | -- | -- |
| 21... | 1200 | -- | 9240 | -- | 34900 | -- | 871000 | -- | -- | -- |
| 21... | 1210 | -- | 9160 | -- | 48500 | -- | 1200000 | -- | -- | -- |
| 21... | 1315 | -- | 8680 | 5 | 37900 | -- | 888000 | -- | -- | -- |
| 21... | 1425 | -- | 8230 | -- | 36800 | -- | 818000 | -- | -- | -- |
| 22... | 1215 | 4.5 | 4720 | 5 | 20200 | -- | 257000 | -- | -- | -- |
| MAR | | | | | | | | | | |
| 01... | 1225 | 7.0 | 3320 | 5 | 25500 | -- | 229000 | -- | 13 | 15 |
| 04... | 1325 | 7.0 | 2080 | 5 | 11700 | -- | 65700 | -- | -- | -- |
| 09... | 1135 | 8.5 | 2290 | 5 | 13800 | -- | 85300 | -- | -- | -- |
| 15... | 1235 | 5.5 | 2290 | 5 | 5440 | -- | 33600 | -- | -- | -- |
| 20... | 0001 | 16.5 | 6500 | -- | -- | 1140000 | -- | 2.00E+07 | -- | -- |
| 20... | 0003 | 16.5 | 6500 | -- | -- | 1150000 | -- | 2.02E+07 | -- | -- |
| 20... | 0010 | 16.5 | 5900 | -- | -- | 1160000 | -- | 1.85E+07 | -- | -- |

135

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, MENT, TOTAL (MG/L) | SEDIMENT, MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SEDIMENT, MENT, DISCH, SUSP. + BED MA- TERIAL (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 |
|-------|------|-----------------------------|---|---|---------------------------------------|---------------------------------------|--|---|--|--|--|--|
| MAR | | | | | | | | | | | | |
| 20... | 0015 | 16.5 | 5500 | -- | -- | 1090000 | -- | 1.62E+07 | -- | -- | -- | -- |
| 20... | 0050 | 14.0 | 4100 | -- | -- | 998000 | -- | 1.10E+07 | -- | -- | -- | -- |
| 20... | 0058 | 14.0 | 3900 | -- | -- | 935000 | -- | 9850000 | -- | -- | -- | -- |
| 20... | 0118 | 15.5 | 3300 | -- | -- | 790000 | -- | 7040000 | -- | -- | -- | -- |
| 20... | 0120 | 15.5 | 3300 | -- | -- | 790000 | -- | 7040000 | -- | -- | -- | -- |
| 20... | 0130 | -- | 3000 | -- | -- | 911000 | -- | 7380000 | -- | -- | -- | -- |
| 20... | 0142 | 13.5 | 2700 | -- | -- | 676000 | -- | 4930000 | -- | -- | -- | -- |
| 20... | 0143 | 13.5 | 2700 | -- | -- | 660000 | -- | 4810000 | -- | -- | -- | -- |
| 20... | 0155 | 13.0 | 2500 | -- | -- | 627000 | -- | 4230000 | -- | -- | -- | -- |
| 20... | 0156 | 13.0 | 2500 | -- | -- | 611000 | -- | 4120000 | -- | -- | -- | -- |
| 20... | 0218 | 13.0 | 2100 | -- | -- | 517000 | -- | 2930000 | -- | -- | -- | -- |
| 20... | 0220 | 15.0 | 2100 | -- | -- | 551000 | -- | 3120000 | -- | -- | -- | -- |
| 20... | 0237 | 12.0 | 1900 | -- | -- | 503000 | -- | 2580000 | -- | -- | -- | -- |
| 20... | 0238 | 12.0 | 1900 | -- | -- | 499000 | -- | 2560000 | -- | -- | -- | -- |
| 20... | 0257 | 11.5 | 1600 | -- | -- | 417000 | -- | 1800000 | -- | -- | -- | -- |
| 20... | 0259 | 11.5 | 1600 | -- | -- | 438000 | -- | 1890000 | -- | -- | -- | -- |
| 20... | 0330 | 11.0 | 1590 | -- | -- | 410000 | -- | 1760000 | -- | -- | -- | -- |
| 20... | 0333 | 11.0 | 1590 | -- | -- | 384000 | -- | 1650000 | -- | -- | -- | -- |
| 20... | 0335 | 11.0 | 1590 | -- | -- | 376000 | -- | 1610000 | -- | -- | -- | -- |
| 20... | 0400 | 11.0 | 1570 | -- | -- | 311000 | -- | 1320000 | -- | -- | -- | -- |
| 20... | 0403 | 11.0 | 1570 | -- | -- | 288000 | -- | 1220000 | -- | -- | -- | -- |
| 20... | 0515 | 9.5 | 1580 | -- | -- | 180000 | -- | 768000 | -- | -- | -- | -- |
| 20... | 0530 | 9.5 | 1560 | -- | -- | 174000 | -- | 733000 | -- | -- | -- | -- |
| 20... | 0700 | 8.0 | 1470 | -- | -- | 126000 | -- | 500000 | -- | -- | -- | -- |
| 20... | 0702 | 8.0 | 1470 | -- | -- | 124000 | -- | 492000 | -- | -- | -- | -- |
| 20... | 0733 | 8.0 | 1460 | -- | -- | 107000 | -- | 422000 | -- | -- | -- | -- |
| 20... | 0734 | 8.0 | 1460 | -- | -- | 93400 | -- | 368000 | -- | -- | -- | -- |
| 20... | 0800 | 8.0 | 1470 | -- | -- | 98400 | -- | 391000 | -- | -- | -- | -- |
| 20... | 0802 | 8.0 | 1470 | -- | -- | 97900 | -- | 389000 | -- | -- | -- | -- |
| 20... | 0820 | 8.0 | 1450 | -- | -- | 97900 | -- | 383000 | -- | -- | -- | -- |
| 20... | 0822 | 8.0 | 1450 | -- | -- | 95700 | -- | 375000 | -- | -- | -- | -- |
| 20... | 1430 | -- | 1360 | -- | -- | 59800 | -- | 220000 | -- | -- | -- | -- |
| 20... | 1505 | -- | 1370 | -- | -- | 58200 | -- | 215000 | -- | -- | -- | -- |
| 20... | 1718 | -- | 1310 | 5 | -- | 46800 | -- | 166000 | -- | -- | -- | -- |
| 20... | 1720 | -- | 1310 | -- | -- | 46600 | -- | 165000 | -- | -- | -- | -- |
| 21... | 1250 | 9.5 | 1420 | 9 | 29300 | -- | 112000 | -- | 5 | 18 | 22 | 37 |
| 23... | 1420 | 7.0 | 1280 | 5 | 23500 | -- | 79500 | -- | -- | -- | -- | -- |
| 31... | 1230 | 5.5 | 960 | 5 | 17800 | -- | 46100 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 05... | 0220 | 4.5 | 1370 | 5 | 11400 | -- | 42200 | -- | -- | -- | -- | -- |

[illegible]

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 |
|--------|------|-----------------------------|---|---|--|--|--|---|--|
| APR | | | | | | | | | |
| 08.... | 1325 | 11.0 | 1310 | 5 | 7620 | 27000 | 54 | 50 | 76 |
| 14.... | 1210 | 6.0 | 2780 | 5 | 20400 | 153000 | 50 | -- | 72 |
| 16.... | 1245 | 8.0 | 1830 | 5 | 10300 | 50900 | -- | 51 | -- |
| 19.... | 1125 | 6.5 | 1250 | 5 | 8000 | 27000 | 41 | 44 | 62 |
| 29.... | 1155 | 6.0 | 1500 | 5 | 7040 | 28500 | 52 | 49 | 75 |
| MAY | | | | | | | | | |
| 07.... | 1305 | 11.0 | 1320 | 5 | 5860 | 20900 | 46 | 48 | 67 |
| 12.... | 1305 | 11.0 | 1100 | 5 | 4580 | 13600 | -- | 47 | -- |
| 17.... | 1200 | 10.0 | 1600 | 5 | 6580 | 28400 | -- | 40 | -- |
| 24.... | 1255 | 14.5 | 1310 | 5 | 3940 | 13900 | 49 | 46 | 64 |
| JUN | | | | | | | | | |
| 04.... | 1125 | 11.0 | 813 | 5 | 4000 | 8780 | -- | 38 | -- |
| 07.... | 1140 | 10.0 | 834 | 5 | 3560 | 8020 | -- | 33 | -- |
| 14.... | 1305 | 12.5 | 969 | 5 | 4200 | 11000 | -- | 53 | -- |
| 23.... | 1300 | 18.0 | 798 | 5 | 4440 | 9570 | -- | 47 | -- |
| JUL | | | | | | | | | |
| 01.... | 1300 | 15.0 | 532 | 5 | 4390 | 6310 | -- | 36 | -- |
| 06.... | 1130 | 15.5 | 498 | 5 | 2230 | 3000 | 43 | 64 | 67 |
| 13.... | 1030 | 17.0 | 421 | 5 | 2600 | 2960 | -- | 49 | -- |
| 22.... | 1615 | -- | 306 | 5 | 1980 | 1640 | 39 | 51 | 60 |
| 29.... | 1200 | 17.5 | 293 | 5 | 2040 | 1610 | -- | 50 | -- |
| AUG | | | | | | | | | |
| 06.... | 1400 | 22.5 | 246 | 5 | 1040 | 691 | 42 | 50 | 60 |
| 17.... | 1110 | 17.0 | 219 | 9 | 906 | 536 | -- | 29 | -- |
| 31.... | 1150 | 17.0 | 207 | 9 | 964 | 539 | 18 | 42 | 32 |
| SEP | | | | | | | | | |
| 07.... | 1155 | 19.0 | 200 | 9 | 800 | 432 | 45 | 52 | 65 |
| 13.... | 1505 | 17.5 | 515 | 5 | 2320 | 3230 | 56 | 58 | 71 |
| 20.... | 1110 | -- | 825 | 5 | 9700 | 21600 | -- | 60 | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|---|---|---|---|---|---|---|---|---|---|---|
| | .125 MM | .250 MM | .250 MM | .500 MM | .500 MM | .500 MM | .500 MM | 1.00 MM | 1.00 MM | 1.00 MM | 2.00 MM |
| APR | | | | | | | | | | | |
| 08... | -- | 93 | -- | 99 | -- | -- | -- | 99 | -- | -- | -- |
| 14... | -- | 92 | -- | 99 | -- | -- | -- | 100 | -- | -- | -- |
| 16... | 74 | -- | 92 | -- | 99 | -- | 99 | -- | 100 | -- | -- |
| 19... | -- | 90 | -- | 99 | -- | -- | -- | 100 | -- | -- | -- |
| 29... | -- | 92 | -- | 98 | -- | -- | -- | 100 | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 07... | -- | 91 | -- | 100 | -- | -- | -- | -- | -- | -- | -- |
| 12... | 70 | -- | 91 | -- | 98 | -- | 98 | -- | 100 | -- | -- |
| 17... | 61 | -- | 84 | -- | 96 | -- | 96 | -- | 99 | -- | 100 |
| 24... | -- | 87 | -- | 97 | -- | -- | -- | 100 | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 04... | 57 | -- | 83 | -- | -- | -- | 94 | -- | 96 | -- | 99 |
| 07... | 52 | -- | 77 | -- | -- | -- | 94 | -- | 98 | -- | 100 |
| 14... | 69 | -- | 88 | -- | -- | -- | 97 | -- | 99 | -- | 99 |
| 23... | 67 | -- | 81 | -- | -- | -- | 98 | -- | 100 | -- | -- |
| JUL | | | | | | | | | | | |
| 01... | 47 | -- | 95 | -- | -- | -- | 96 | -- | 99 | -- | 100 |
| 06... | -- | 92 | -- | 99 | -- | 100 | 100 | -- | -- | -- | -- |
| 13... | 70 | -- | 93 | -- | -- | -- | 100 | -- | -- | -- | -- |
| 22... | -- | 88 | -- | 98 | -- | 100 | 100 | -- | -- | -- | -- |
| 29... | 66 | -- | 91 | -- | -- | -- | 99 | -- | 100 | -- | -- |
| AUG | | | | | | | | | | | |
| 06... | -- | 90 | -- | 99 | -- | -- | -- | 100 | -- | -- | -- |
| 17... | 45 | -- | 76 | -- | -- | -- | 93 | -- | 96 | -- | 97 |
| 31... | -- | 80 | -- | 99 | -- | -- | -- | 100 | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 07... | -- | 90 | -- | 99 | -- | -- | -- | 100 | -- | -- | -- |
| 13... | -- | 91 | -- | 99 | -- | -- | -- | 100 | -- | -- | -- |
| 20... | 74 | -- | 90 | -- | 98 | -- | 98 | -- | 99 | -- | 100 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 | | | | | | | | | | | |
| 12... | 1225 | 11.0 | 444 | 9 | 1980 | 2370 | -- | -- | -- | -- | -- |
| 21... | 1215 | 10.0 | 389 | 5 | 1620 | 1700 | -- | -- | -- | -- | -- |
| 23... | 1440 | 12.5 | 878 | 5 | 27900 | 66100 | -- | -- | -- | -- | -- |
| 29... | 1320 | 10.0 | 3640 | 5 | 22400 | 220000 | -- | -- | -- | -- | -- |
| 29... | 1550 | 10.0 | 2750 | -- | 24400 | 181000 | -- | -- | -- | -- | -- |
| 29... | 1800 | 10.0 | 2590 | 5 | 23800 | 166000 | -- | -- | -- | -- | -- |
| 30... | 1525 | -- | 1830 | 5 | 13700 | 67700 | 7 | 8 | 12 | 18 | 27 |
| NOV | | | | | | | | | | | |
| 02... | 1310 | -- | 1210 | 5 | 6650 | 21700 | -- | -- | -- | -- | -- |
| 16... | 1340 | 7.5 | 1100 | 5 | 75000 | 223000 | -- | -- | -- | -- | -- |
| 18... | 1300 | 8.0 | 1930 | 5 | 49400 | 257000 | -- | -- | -- | -- | -- |
| 24... | 1400 | 3.5 | 1050 | 5 | 31600 | 89600 | -- | -- | -- | -- | -- |
| 28... | 1710 | 3.5 | 2020 | 5 | 33800 | 184000 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 03... | 1500 | 3.0 | 9600 | 5 | 130000 | 3370000 | 8 | 9 | 16 | 26 | 38 |
| 03... | 1650 | 3.0 | 17500 | -- | 144000 | 6800000 | -- | -- | -- | -- | -- |
| 03... | 2100 | 3.0 | 25600 | -- | 171000 | 1.18E+07 | -- | -- | -- | -- | -- |
| 03... | 2205 | 3.0 | 22400 | -- | 147000 | 8890000 | -- | -- | -- | -- | -- |
| 04... | 0115 | -- | 15200 | -- | 67600 | 2770000 | -- | -- | -- | -- | -- |
| 04... | 0140 | -- | 15200 | -- | 51700 | 2120000 | -- | -- | -- | -- | -- |
| 04... | 0415 | 3.0 | 10800 | -- | 67400 | 1970000 | -- | -- | -- | -- | -- |
| 04... | 0550 | 3.0 | 10000 | -- | 52600 | 1420000 | -- | -- | -- | -- | -- |
| 04... | 0800 | 3.0 | 9100 | -- | 43900 | 1080000 | -- | -- | -- | -- | -- |
| 04... | 1050 | 3.0 | 8200 | 5 | 44400 | 983000 | 7 | 8 | 13 | 21 | 31 |
| 04... | 1230 | 3.0 | 7800 | -- | 48000 | 1010000 | -- | -- | -- | -- | -- |
| 04... | 1300 | 3.0 | 7700 | -- | 49900 | 1040000 | -- | -- | -- | -- | -- |
| 04... | 1330 | 3.0 | 7600 | -- | 46200 | 948000 | -- | -- | -- | -- | -- |
| 04... | 1400 | 3.0 | 7500 | -- | 42300 | 857000 | -- | -- | -- | -- | -- |
| 04... | 1550 | 3.0 | 7000 | 5 | 38800 | 733000 | 7 | 8 | 14 | 23 | 33 |
| 05... | 1345 | 3.5 | 4100 | 5 | 32400 | 359000 | 7 | 8 | 13 | 21 | 32 |
| 16... | 1420 | 6.5 | 5320 | 5 | 45700 | 656000 | -- | -- | -- | -- | -- |
| 17... | 1345 | 6.5 | 5220 | 5 | 37800 | 533000 | -- | -- | -- | -- | -- |
| 21... | 1410 | 6.5 | 2490 | 5 | 20600 | 138000 | -- | -- | -- | -- | -- |
| 27... | 1425 | 3.0 | 1280 | 5 | 25700 | 88800 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 04... | 1415 | 6.5 | 2500 | 5 | 36400 | 246000 | -- | -- | -- | -- | -- |
| 05... | 2040 | 6.5 | 7520 | 5 | 29400 | 597000 | 8 | 8 | 13 | 21 | 31 |
| 06... | 1210 | 6.5 | 7300 | 5 | 31100 | 613000 | 5 | 8 | 12 | 19 | 29 |
| 07... | 1250 | 7.0 | 7800 | 5 | 29300 | 617000 | 7 | 10 | 18 | 29 | 42 |
| 08... | 1245 | -- | 7700 | -- | 23800 | 495000 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 | | | | | | | | | | |
| 12... | -- | 48 | -- | 67 | -- | 85 | -- | 92 | -- | 94 |
| 21... | 37 | 35 | 60 | -- | 89 | -- | 98 | -- | 100 | -- |
| 23... | -- | 57 | -- | 78 | -- | 95 | -- | 100 | -- | -- |
| 29... | -- | 42 | -- | 42 | -- | 66 | -- | 89 | -- | 100 |
| 29... | -- | 38 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | 41 | -- | 65 | -- | 89 | -- | 99 | -- | -- |
| 30... | -- | 37 | -- | 52 | -- | 78 | -- | 97 | -- | 100 |
| NOV | | | | | | | | | | |
| 02... | 37 | 35 | 59 | -- | 87 | -- | 97 | -- | 100 | -- |
| 16... | -- | 50 | -- | 60 | -- | 92 | -- | 99 | -- | -- |
| 18... | -- | 48 | -- | 60 | -- | 89 | -- | 99 | -- | -- |
| 24... | -- | 55 | -- | 74 | -- | 93 | -- | 99 | -- | -- |
| 28... | -- | 52 | -- | 72 | -- | 91 | -- | 99 | -- | -- |
| DEC | | | | | | | | | | |
| 03... | -- | 50 | -- | 72 | -- | 90 | -- | 98 | -- | 100 |
| 03... | -- | 59 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 44 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 53 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 66 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 43 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 48 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 42 | -- | 54 | -- | 85 | -- | 96 | -- | 99 |
| 04... | -- | 42 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 38 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 43 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 44 | -- | 56 | -- | 94 | -- | 96 | -- | 99 |
| 05... | -- | 42 | -- | 59 | -- | 81 | -- | 96 | -- | 100 |
| 16... | -- | 48 | -- | 69 | -- | 88 | -- | 97 | -- | -- |
| 17... | -- | 38 | -- | 53 | -- | 72 | -- | 94 | -- | 100 |
| 21... | -- | 40 | -- | 57 | -- | 78 | -- | 95 | -- | 100 |
| 27... | -- | 51 | -- | 65 | -- | 85 | -- | 98 | -- | 100 |
| JAN | | | | | | | | | | |
| 04... | -- | 49 | -- | 68 | -- | 88 | -- | 97 | -- | 99 |
| 05... | -- | 42 | -- | 59 | -- | 83 | -- | 97 | -- | 100 |
| 06... | -- | 38 | -- | 60 | -- | 81 | -- | 94 | -- | 100 |
| 07... | -- | 58 | -- | 77 | -- | 83 | -- | 97 | -- | 100 |
| 08... | -- | 41 | -- | -- | -- | -- | -- | -- | -- | -- |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- 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 |
|--------|------|-----------------------------|---|---|---|---|--|--|--|--|--|--|
| JAN | | | | | | | | | | | | |
| 10.... | 1345 | 7.5 | 4500 | 5 | 16700 | 203000 | 6 | 8 | 14 | 21 | 30 | -- |
| 18.... | 1230 | 7.0 | 1550 | 5 | 17800 | 74500 | -- | -- | -- | -- | -- | -- |
| 25.... | 1130 | 6.5 | 1310 | 5 | 15400 | 54500 | -- | -- | -- | -- | -- | -- |
| 27.... | 1410 | 7.5 | 1750 | 5 | 30200 | 143000 | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 03.... | 1335 | 6.0 | 1200 | 5 | 20700 | 67100 | -- | -- | -- | -- | -- | -- |
| 08.... | 1150 | 5.0 | 1040 | 5 | 10300 | 28900 | -- | -- | -- | -- | -- | 29 |
| 14.... | 1220 | 5.0 | 2150 | 4 | 9160 | 53200 | -- | -- | -- | -- | -- | -- |
| 22.... | 1410 | 13.0 | 1940 | 5 | 6790 | 35600 | -- | -- | -- | -- | -- | 37 |
| MAR | | | | | | | | | | | | |
| 01.... | 1320 | 6.5 | 1750 | 5 | 9420 | 44500 | -- | -- | -- | -- | -- | -- |
| 09.... | 1455 | 10.0 | 4250 | 5 | 31000 | 356000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1045 | 9.0 | 4950 | 5 | 35400 | 473000 | 11 | 12 | 17 | 29 | 43 | -- |
| 10.... | 1210 | 9.0 | 4880 | -- | 42000 | 553000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1300 | 9.0 | 4580 | -- | 38800 | 480000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1345 | 9.0 | 4250 | -- | 37200 | 427000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1430 | 9.0 | 4250 | -- | 34000 | 390000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1615 | 9.0 | 3780 | 5 | 25200 | 257000 | 6 | 10 | 16 | 26 | 38 | -- |
| 11.... | 1220 | -- | 3200 | 5 | 20600 | 178000 | 7 | 8 | 10 | 20 | 29 | -- |
| 18.... | 1245 | -- | 1510 | 5 | 12000 | 48900 | -- | -- | -- | -- | -- | -- |
| 29.... | 1315 | -- | 2600 | 5 | 27000 | 190000 | -- | -- | -- | -- | -- | -- |
| 30.... | 1220 | -- | 3380 | 5 | 16400 | 150000 | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 08.... | 1250 | -- | 1450 | 5 | 7680 | 30100 | -- | -- | -- | -- | -- | -- |
| 13.... | 1245 | -- | 1200 | 5 | 7800 | 25300 | -- | -- | -- | -- | -- | 40 |
| 18.... | 1205 | 12.5 | 1120 | 5 | 8200 | 24800 | -- | -- | -- | -- | -- | -- |
| 26.... | 1300 | -- | 1130 | 3 | 7560 | 23100 | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 03.... | 1200 | 11.0 | 1070 | 3 | 6550 | 18900 | -- | -- | -- | -- | -- | -- |
| 17.... | 1505 | -- | 1150 | 5 | 6370 | 19800 | -- | -- | -- | -- | -- | -- |
| 24.... | 1400 | -- | 1240 | 3 | 6100 | 20400 | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 01.... | 1250 | 12.5 | 1070 | 3 | 9520 | 27500 | -- | -- | -- | -- | -- | -- |
| 13.... | 1140 | 15.5 | 929 | 3 | 7240 | 18200 | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 07.... | 1430 | 12.0 | 1020 | 9 | 6230 | 17200 | -- | -- | -- | -- | -- | -- |
| 13.... | 1455 | 16.0 | 3000 | 5 | 23700 | 192000 | -- | -- | -- | -- | -- | -- |
| 20.... | 1325 | 13.5 | 1330 | 5 | 5730 | 20600 | -- | -- | -- | -- | -- | -- |
| 25.... | 1230 | -- | 857 | 3 | 6180 | 14300 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 01.... | 1310 | 17.5 | 694 | 5 | 4930 | 9240 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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 .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|---|--|--|--|--|--|--|--|--|--|--|--|
| JAN | | | | | | | | | | | | |
| 10... | 41 | -- | -- | 55 | -- | 77 | -- | 95 | -- | 99 | -- | 100 |
| 18... | 53 | -- | -- | 70 | -- | 89 | -- | 98 | -- | 100 | -- | -- |
| 25... | 45 | -- | -- | 62 | -- | 84 | -- | 98 | -- | 100 | -- | -- |
| 27... | 50 | -- | -- | 68 | -- | 86 | -- | 97 | -- | 99 | -- | 100 |
| FEB | | | | | | | | | | | | |
| 03... | 60 | -- | -- | 74 | -- | 89 | -- | 99 | -- | 100 | -- | -- |
| 08... | 29 | 49 | 81 | -- | 98 | -- | 100 | -- | -- | -- | -- | -- |
| 14... | 31 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 36 | 56 | 81 | -- | 95 | -- | 100 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 01... | 43 | -- | -- | 60 | -- | 83 | -- | 91 | -- | 100 | -- | -- |
| 09... | 57 | -- | -- | 72 | -- | 90 | -- | 99 | -- | 100 | -- | -- |
| 10... | 56 | -- | -- | 66 | -- | 92 | -- | 98 | -- | 100 | -- | -- |
| 10... | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 50 | -- | -- | 66 | -- | 87 | -- | 97 | -- | 99 | -- | 100 |
| 11... | 42 | -- | -- | 58 | -- | 82 | -- | 95 | -- | 99 | -- | 100 |
| 18... | 41 | -- | -- | 60 | -- | 86 | -- | 98 | -- | 100 | -- | -- |
| 29... | 42 | -- | -- | 64 | -- | 84 | -- | 96 | -- | 100 | -- | -- |
| 30... | 40 | -- | -- | 60 | -- | 85 | -- | 97 | -- | 99 | -- | 100 |
| APR | | | | | | | | | | | | |
| 08... | 42 | -- | -- | 62 | -- | 85 | -- | 97 | -- | 100 | -- | -- |
| 13... | 40 | 59 | 86 | -- | 97 | -- | 99 | -- | 100 | -- | -- | -- |
| 18... | 38 | -- | -- | 54 | -- | 80 | -- | 97 | -- | 99 | -- | 99 |
| 26... | 35 | -- | -- | 51 | -- | 77 | -- | 97 | -- | 100 | -- | -- |
| MAY | | | | | | | | | | | | |
| 03... | 34 | -- | -- | 49 | -- | 73 | -- | 92 | -- | 99 | -- | 100 |
| 17... | 37 | -- | -- | 51 | -- | 77 | -- | 95 | -- | 99 | -- | 100 |
| 24... | 45 | -- | -- | 59 | -- | 77 | -- | 97 | -- | 100 | -- | -- |
| JUN | | | | | | | | | | | | |
| 01... | 49 | -- | -- | 68 | -- | 88 | -- | 98 | -- | 100 | -- | -- |
| 13... | 42 | -- | -- | 56 | -- | 78 | -- | 97 | -- | 100 | -- | -- |
| JUL | | | | | | | | | | | | |
| 07... | 44 | -- | -- | 65 | -- | 84 | -- | 96 | -- | 99 | -- | -- |
| 13... | 49 | -- | -- | 69 | -- | 89 | -- | 97 | -- | 99 | -- | 100 |
| 20... | 29 | -- | -- | 44 | -- | 66 | -- | 82 | -- | 89 | -- | 95 |
| 25... | 47 | -- | -- | 66 | -- | 88 | -- | 98 | -- | 100 | -- | -- |
| AUG | | | | | | | | | | | | |
| 01... | 50 | -- | -- | 68 | -- | 89 | -- | 99 | -- | 100 | -- | -- |

14241100 NORTH FORK TOULTE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. DIAM. % FINER THAN .062 MM | SED. SUSP. DIAM. % FINER THAN .125 MM | SED. SUSP. DIAM. % FINER THAN .250 MM | SED. SUSP. DIAM. % FINER THAN .500 MM | SED. SUSP. DIAM. % FINER THAN 1.00 MM | SED. SUSP. DIAM. % FINER THAN 2.00 MM |
|-------|------|-----------------------------|---|---|--|--|--|--|--|--|--|--|
| AUG | | | | | | | | | | | | |
| 12... | 1235 | 17.0 | 499 | 5 | 2190 | 2950 | 39 | 58 | 87 | 99 | 100 | -- |
| 16... | 1330 | -- | 363 | 9 | 2100 | 2060 | 34 | 52 | 82 | 98 | 100 | -- |
| 23... | 1520 | 16.0 | 318 | 9 | 2000 | 1720 | 30 | 50 | 82 | 98 | 100 | -- |
| 29... | 1220 | 17.0 | 351 | 9 | 2340 | 2220 | 28 | 50 | 84 | 98 | 100 | -- |
| SEP | | | | | | | | | | | | |
| 06... | 1445 | 16.0 | 352 | 9 | 2440 | 2320 | 40 | 57 | 82 | 98 | 100 | -- |
| 15... | 1445 | 18.0 | 440 | 9 | 1930 | 2290 | 36 | 56 | 82 | 97 | 99 | 100 |
| 23... | 1200 | 14.5 | 525 | 9 | 10800 | 15300 | 76 | 85 | 95 | 99 | 100 | -- |
| 29... | 1145 | -- | 497 | 9 | 8820 | 11800 | 55 | 76 | 92 | 99 | 100 | -- |

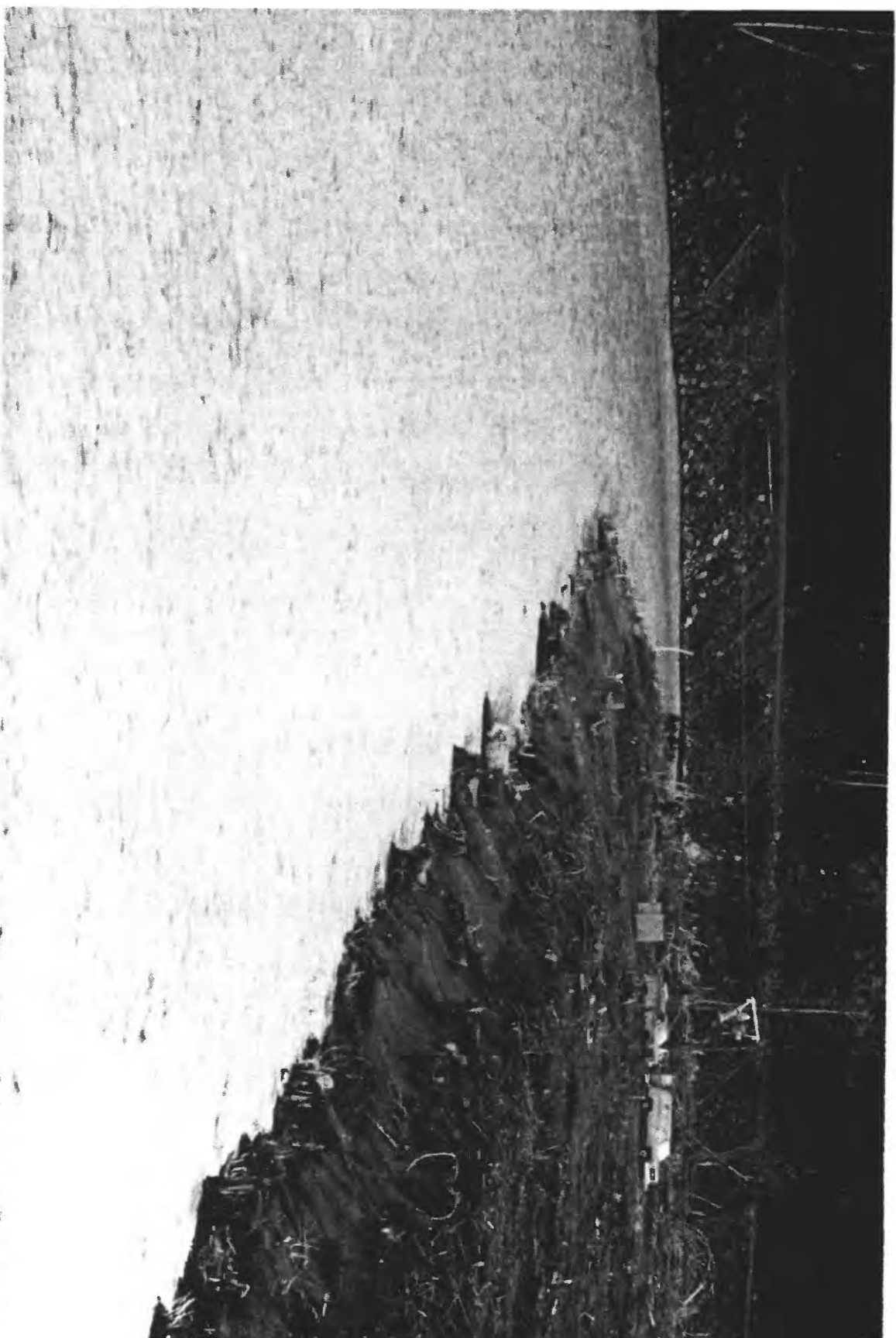


Photo date: December 2, 1981

Cableway over the North Fork Toutle River at Kid Valley, station 241100. View is downstream;
discharge 3340 cubic feet per second.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMP- LING POINTS | BED MAT. | | | |
|--------|------|-----------------------------|---|----------|---------|---------|---------|
| | | | | .062 MM | .125 MM | .250 MM | .500 MM |
| DEC | | | | | | | |
| 18.... | 1200 | 5.5 | 1 | 0 | 0 | 3 | 13 |
| 18.... | 1205 | 5.5 | 1 | 0 | 2 | 3 | 29 |
| 18.... | 1210 | 5.5 | 1 | 0 | 0 | 5 | 49 |
| 18.... | 1215 | 5.5 | 1 | 0 | 0 | 11 | 70 |
| 18.... | 1220 | 5.5 | 1 | 0 | 0 | 3 | 19 |
| APR | | | | | | | |
| 01.... | 1245 | 8.5 | 1 | 0 | 0 | 5 | 35 |
| 01.... | 1250 | 8.5 | 1 | 0 | 0 | 1 | 11 |
| 07.... | 1605 | 7.0 | 1 | 0 | 1 | 8 | 42 |
| 07.... | 1610 | 7.0 | 1 | 0 | 1 | 10 | 38 |
| MAY | | | | | | | |
| 06.... | 1345 | 8.5 | 1 | 0 | 0 | 2 | 14 |
| 06.... | 1350 | 8.5 | 1 | 0 | 0 | 2 | 14 |
| 06.... | 1355 | 8.5 | 1 | 0 | 0 | 2 | 10 |
| 06.... | 1400 | 8.5 | 1 | 0 | 0 | 0 | 2 |
| 06.... | 1405 | 8.5 | 1 | 0 | 0 | 0 | 2 |
| 11.... | 1600 | 11.5 | 1 | 0 | 0 | 2 | 8 |
| 11.... | 1605 | 11.5 | 1 | 0 | 0 | 4 | 21 |
| 11.... | 1610 | 11.5 | 1 | 0 | 1 | 8 | 36 |
| 11.... | 1615 | 11.5 | 1 | 0 | 0 | 3 | 20 |
| 11.... | 1620 | 11.5 | 1 | 0 | 1 | 7 | 24 |
| JUN | | | | | | | |
| 05.... | 1305 | -- | 1 | 0 | 1 | 8 | 31 |
| 05.... | 1310 | -- | 1 | 0 | 0 | 3 | 29 |
| 05.... | 1315 | -- | 1 | 0 | 0 | 3 | 16 |
| 05.... | 1320 | -- | 1 | 0 | 0 | 1 | 2 |
| 05.... | 1325 | -- | 1 | 0 | 0 | 0 | 0 |
| 08.... | 1630 | 11.5 | 1 | 0 | 1 | 7 | 29 |
| 08.... | 1635 | 11.5 | 1 | 1 | 4 | 16 | 41 |
| 08.... | 1640 | 11.5 | 1 | 0 | 1 | 7 | 20 |
| 08.... | 1645 | 11.5 | 1 | 0 | 2 | 8 | 20 |
| 08.... | 1650 | 11.5 | 1 | 0 | 1 | 3 | 9 |
| 22.... | 1545 | 12.5 | 3 | 0 | 0 | 2 | 10 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 | | | | | | |
| 18... | 24 | 35 | 46 | 69 | 100 | -- |
| 18... | 52 | 64 | 71 | 78 | 100 | -- |
| 18... | 96 | 96 | 98 | 99 | 100 | -- |
| 18... | 94 | 99 | 100 | -- | -- | -- |
| 18... | 46 | 58 | 64 | 69 | 80 | 100 |
| APR | | | | | | |
| 01... | 74 | 90 | 99 | -- | -- | -- |
| 01... | 38 | 67 | 95 | -- | -- | -- |
| 07... | 73 | 94 | 100 | -- | -- | -- |
| 07... | 66 | 82 | 94 | 98 | -- | -- |
| MAY | | | | | | |
| 06... | 33 | 52 | 73 | 90 | 94 | -- |
| 06... | 42 | 78 | 96 | -- | -- | -- |
| 06... | 38 | 79 | 96 | 100 | -- | -- |
| 06... | 9 | 25 | 46 | 59 | 63 | -- |
| 06... | 14 | 44 | 74 | 95 | -- | -- |
| 11... | 31 | 69 | 88 | 95 | 98 | -- |
| 11... | 56 | 80 | 94 | 100 | -- | -- |
| 11... | 64 | 80 | 88 | 92 | 94 | -- |
| 11... | 37 | 53 | 69 | 81 | 86 | -- |
| 11... | 50 | 73 | 88 | 97 | -- | -- |
| JUN | | | | | | |
| 05... | 74 | 92 | 98 | 100 | -- | -- |
| 05... | 77 | 95 | 99 | 99 | 100 | -- |
| 05... | 39 | 58 | 77 | 92 | 100 | -- |
| 05... | 19 | 53 | 87 | 100 | -- | -- |
| 05... | 2 | 15 | 43 | 77 | 97 | 100 |
| 08... | 76 | 96 | 99 | 99 | -- | -- |
| 08... | 71 | 89 | 94 | 96 | -- | -- |
| 08... | 42 | 73 | 92 | 96 | -- | -- |
| 08... | 40 | 66 | 81 | 85 | 93 | -- |
| 08... | 42 | 86 | 95 | 98 | -- | -- |
| 22... | 35 | 58 | 72 | 89 | 98 | 100 |

1424100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | |
|--------|------|-----------------------------|---|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM |
| JAN | | | | | | | |
| 29.... | 1305 | -- | 1 | 0 | 2 | 18 | 78 |
| 29.... | 1310 | -- | 1 | 0 | 1 | 9 | 41 |
| 29.... | 1315 | -- | 1 | 0 | 1 | 8 | 35 |
| 29.... | 1320 | -- | 1 | 0 | 0 | 1 | 4 |
| 29.... | 1325 | -- | 1 | 0 | 0 | 1 | 1 |
| FEB | | | | | | | |
| 02.... | 1145 | 13.5 | 5 | 0 | 2 | 7 | 25 |
| 16.... | 1530 | 13.5 | 1 | 0 | 8 | 24 | 51 |
| 16.... | 1535 | 13.5 | 1 | 1 | 3 | 9 | 26 |
| 16.... | 1540 | 13.5 | 1 | 1 | 3 | 7 | 19 |
| 16.... | 1545 | 13.5 | 1 | 3 | 8 | 15 | 20 |
| 16.... | 1550 | 13.5 | 1 | 1 | 5 | 12 | 25 |
| 22.... | 1230 | 4.5 | 1 | 1 | 4 | 24 | 83 |
| 22.... | 1235 | 4.5 | 1 | 1 | 4 | 22 | 76 |
| 22.... | 1240 | 4.5 | 1 | 1 | 2 | 7 | 18 |
| 22.... | 1245 | 4.5 | 1 | 0 | 1 | 5 | 16 |
| 22.... | 1250 | 4.5 | 1 | 1 | 3 | 14 | 58 |
| MAR | | | | | | | |
| 15.... | 1300 | -- | 1 | 0 | 2 | 16 | 73 |
| 15.... | 1305 | -- | 1 | 0 | 3 | 18 | 71 |
| 15.... | 1310 | -- | 1 | 0 | 1 | 5 | 25 |
| 15.... | 1315 | -- | 1 | 0 | 1 | 4 | 19 |
| 15.... | 1320 | -- | 1 | 0 | 0 | 0 | 1 |
| 20.... | 0550 | 9.0 | 1 | 3 | 9 | 21 | 54 |
| 20.... | 0555 | 9.0 | 1 | 3 | 6 | 13 | 27 |
| 20.... | 0600 | 9.0 | 1 | 3 | 7 | 14 | 30 |
| 20.... | 0605 | 9.0 | 1 | 4 | 11 | 20 | 29 |
| 20.... | 0610 | 9.0 | 1 | 11 | 30 | 52 | 72 |
| 31.... | 1305 | 5.5 | 5 | 0 | 3 | 16 | 51 |
| APR | | | | | | | |
| 08.... | 1335 | 11.0 | 1 | 0 | 1 | 10 | 42 |
| 08.... | 1340 | 11.0 | 1 | 0 | 2 | 7 | 28 |
| 08.... | 1345 | 11.0 | 1 | 0 | 3 | 12 | 30 |
| 08.... | 1350 | 11.0 | 1 | 0 | 2 | 8 | 31 |
| 14.... | 1320 | -- | 1 | 0 | 1 | 5 | 18 |
| 14.... | 1325 | -- | 1 | 0 | 1 | 5 | 18 |
| 14.... | 1330 | -- | 1 | 0 | 2 | 10 | 32 |
| 14.... | 1335 | -- | 1 | 0 | 2 | 6 | 19 |
| 14.... | 1340 | -- | 1 | 0 | 1 | 4 | 6 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 1.00 MM % FINER THAN | 2.00 MM % FINER THAN | 4.00 MM % FINER THAN | 8.00 MM % FINER THAN | 16.0 MM % FINER THAN | 32.0 MM % FINER THAN |
|-------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| JAN | | | | | | |
| 29... | 97 | 100 | -- | -- | -- | -- |
| 29... | 82 | 97 | 99 | 100 | -- | -- |
| 29... | 67 | 85 | 94 | 100 | 100 | -- |
| 29... | 21 | 50 | 69 | 85 | 95 | 100 |
| 29... | 10 | 49 | 80 | 93 | 98 | 100 |
| FEB | | | | | | |
| 02... | 54 | 74 | 84 | 94 | 100 | -- |
| 16... | 90 | 97 | 99 | 100 | -- | -- |
| 16... | 62 | 88 | 96 | 99 | 100 | -- |
| 16... | 48 | 74 | 88 | 98 | 100 | -- |
| 16... | 24 | 27 | 32 | 39 | 43 | 100 |
| 16... | 37 | 47 | 52 | 60 | 74 | 100 |
| 22... | 99 | 99 | 99 | 100 | -- | -- |
| 22... | 98 | 100 | -- | -- | -- | -- |
| 22... | 44 | 66 | 78 | 91 | 100 | -- |
| 22... | 37 | 57 | 70 | 82 | 96 | 100 |
| 22... | 97 | 100 | -- | -- | -- | -- |
| MAR | | | | | | |
| 15... | 95 | 99 | 100 | -- | -- | -- |
| 15... | 97 | 100 | -- | -- | -- | -- |
| 15... | 69 | 92 | 95 | 97 | 100 | -- |
| 15... | 46 | 65 | 74 | 86 | 95 | 100 |
| 15... | 11 | 55 | 93 | 100 | -- | -- |
| 20... | 72 | 87 | 96 | 99 | 100 | -- |
| 20... | 55 | 74 | 81 | 88 | 100 | -- |
| 20... | 56 | 79 | 95 | 98 | 100 | -- |
| 20... | 33 | 37 | 49 | 64 | 85 | 100 |
| 20... | 84 | 93 | 97 | 100 | -- | -- |
| 31... | 79 | 90 | 93 | 100 | -- | -- |
| APR | | | | | | |
| 08... | 75 | 95 | 99 | 100 | -- | -- |
| 08... | 53 | 74 | 88 | 96 | 98 | 100 |
| 08... | 50 | 75 | 93 | 99 | 100 | -- |
| 08... | 55 | 75 | 87 | 97 | 100 | -- |
| 14... | 52 | 83 | 95 | 99 | 100 | -- |
| 14... | 51 | 79 | 94 | 98 | 100 | -- |
| 14... | 68 | 90 | 98 | 100 | -- | -- |
| 14... | 41 | 62 | 76 | 88 | 95 | 100 |
| 14... | 21 | 51 | 74 | 87 | 100 | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED MATERIAL | | | |
|--------|------|-----------------------------|---|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM |
| APR | | | | | | | |
| 19.... | 1155 | 6.5 | 1 | 0 | 1 | 6 | 23 |
| 19.... | 1200 | 6.5 | 1 | 0 | 1 | 5 | 14 |
| 19.... | 1205 | 6.5 | 1 | 0 | 2 | 10 | 28 |
| 19.... | 1210 | 6.5 | 1 | 0 | 1 | 6 | 26 |
| 19.... | 1215 | 6.5 | 1 | 0 | 2 | 6 | 24 |
| 19.... | 1225 | -- | 1 | 0 | 0 | 1 | 5 |
| 29.... | 1230 | -- | 1 | 0 | 1 | 9 | 31 |
| 29.... | 1235 | -- | 1 | 0 | 1 | 5 | 22 |
| 29.... | 1240 | -- | 1 | 0 | 1 | 3 | 15 |
| 29.... | 1245 | -- | 1 | 0 | 1 | 4 | 26 |
| MAY | | | | | | | |
| 07.... | 1325 | 11.0 | 1 | 0 | 0 | 1 | 2 |
| 07.... | 1330 | 11.0 | 1 | 0 | 2 | 12 | 35 |
| 07.... | 1335 | 11.0 | 1 | 3 | 22 | 71 | 88 |
| 07.... | 1340 | 11.0 | 1 | 1 | 7 | 20 | 48 |
| 07.... | 1345 | 11.0 | 1 | 0 | 1 | 3 | 11 |
| 12.... | 1330 | 11.0 | 5 | 0 | 1 | 6 | 18 |
| 17.... | 1220 | -- | 1 | 1 | 4 | 10 | 21 |
| 17.... | 1225 | -- | 1 | 0 | 2 | 8 | 29 |
| 17.... | 1230 | -- | 1 | 0 | 0 | 6 | 19 |
| 17.... | 1235 | -- | 1 | 0 | 0 | 1 | 5 |
| 17.... | 1310 | -- | 5 | 0 | 1 | 2 | 8 |
| JUN | | | | | | | |
| 04.... | 1140 | 11.0 | 1 | 0 | 0 | 0 | 0 |
| 04.... | 1145 | 11.0 | 1 | 1 | 10 | 40 | 84 |
| 04.... | 1150 | 11.0 | 1 | 0 | 3 | 17 | 48 |
| 04.... | 1155 | 11.0 | 1 | 0 | 2 | 9 | 36 |
| 04.... | 1200 | 11.0 | 1 | 0 | 1 | 2 | 3 |
| 07.... | 1215 | -- | 1 | 0 | 0 | 0 | 0 |
| 07.... | 1220 | -- | 1 | 0 | 3 | 17 | 57 |
| 07.... | 1225 | -- | 1 | 1 | 5 | 22 | 47 |
| 07.... | 1230 | -- | 1 | 0 | 1 | 4 | 19 |
| 07.... | 1235 | -- | 1 | 0 | 0 | 3 | 14 |
| 14.... | 1325 | 12.0 | 1 | 0 | 0 | 1 | 3 |
| 14.... | 1330 | 12.0 | 1 | 0 | 1 | 4 | 16 |
| 14.... | 1335 | 12.0 | 1 | 0 | 2 | 7 | 31 |
| 14.... | 1340 | 12.0 | 1 | 0 | 1 | 3 | 18 |
| 14.... | 1345 | 12.0 | 1 | 0 | 0 | 0 | 0 |
| 23.... | 1320 | 18.0 | 1 | 0 | 0 | 1 | 4 |
| 23.... | 1325 | 18.0 | 1 | 0 | 0 | 0 | 1 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 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 |
|-------|--|---------|---------|--|---------|--|---------|--|---------|--|---------|
| APR | | | | | | | | | | | |
| 19... | 52 | 78 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 19... | 26 | 50 | 90 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 19... | 50 | 75 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 19... | 48 | 72 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 19... | 63 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 21 | 62 | 90 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 65 | 94 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 45 | 68 | 87 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 34 | 59 | 75 | 85 | 97 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 72 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| MAY | | | | | | | | | | | |
| 07... | 4 | 22 | 58 | 79 | 97 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 59 | 75 | 86 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 90 | 92 | 93 | 95 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 73 | 85 | 94 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 36 | 74 | 93 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 12... | 32 | 47 | 66 | 84 | 96 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 48 | 82 | 95 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 52 | 73 | 85 | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 38 | 65 | 83 | 90 | 95 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 27 | 68 | 91 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 22 | 43 | 56 | 76 | 90 | 100 | 100 | 100 | 100 | 100 | 100 |
| JUN | | | | | | | | | | | |
| 04... | 4 | 28 | 61 | 84 | 97 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 93 | 96 | 97 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 74 | 83 | 90 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 66 | 80 | 90 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 8 | 21 | 41 | 62 | 81 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 4 | 33 | 65 | 90 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 83 | 91 | 95 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 57 | 60 | 63 | 68 | 68 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 40 | 61 | 78 | 92 | 98 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 39 | 68 | 86 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 14... | 33 | 77 | 90 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 14... | 36 | 52 | 63 | 79 | 91 | 100 | 100 | 100 | 100 | 100 | 100 |
| 14... | 63 | 78 | 87 | 92 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 14... | 66 | 95 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 14... | 2 | 11 | 19 | 22 | 22 | 100 | 100 | 100 | 100 | 100 | 100 |
| 23... | 6 | 20 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 23... | 2 | 12 | 34 | 70 | 98 | 100 | 100 | 100 | 100 | 100 | 100 |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TEMPER- ATURE (DEG C) | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN |
|--------|-----------------------------|--|--|--|--|--|--|--|--|--|
| JUN | | | | | | | | | | |
| 23.... | 1330 | 18.0 | 0 | 1 | 6 | 32 | 82 | 98 | 100 | -- |
| 23.... | 1335 | 18.0 | 0 | 3 | 15 | 51 | 83 | 91 | 96 | -- |
| 23.... | 1340 | 18.0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 100 |

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TEMPER- ATURE (DEG C) | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN |
|--------|-----------------------------|--|--|--|--|--|--|--|--|--|
| FEB | | | | | | | | | | |
| 08.... | 1200 | -- | 0 | 0 | 1 | 1 | 1 | 6 | 31 | 77 |
| 08.... | 1205 | -- | 0 | 2 | 12 | 42 | 61 | 68 | 74 | 83 |
| 08.... | 1210 | -- | 0 | 1 | 8 | 34 | 72 | 88 | 90 | 91 |
| 08.... | 1215 | -- | 0 | 2 | 11 | 43 | 80 | 93 | 97 | 99 |

14241465 SOUTH FORK TOUTLE RIVER ABOVE HERRINGTON CREEK NEAR SPOTTED BUCK MOUNTAIN, WA

LOCATION.-- Lat 46°13'40", long 122°23'40", 1n SW¼SE¼, sec. 26, T.9 N, R.3 E., Cowitz County, Hydrologic Unit 17080005, on left bank 1.5 mi upstream from Herrington Creek, 14.6 mi southeast of Toutle, and at mile 22.0.

DRAINAGE AREA.-- 34.3 mi².

PERIOD OF SEDIMENT DATA.--October 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,313 ft National Geodetic Vertical Datum of 1929.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|---------------|------|---------------------|
| 1981 | Sep. 7, 1981 | 1115 | 71,000 |
| 1982 | Feb. 16, 1982 | 1610 | 11,500 |

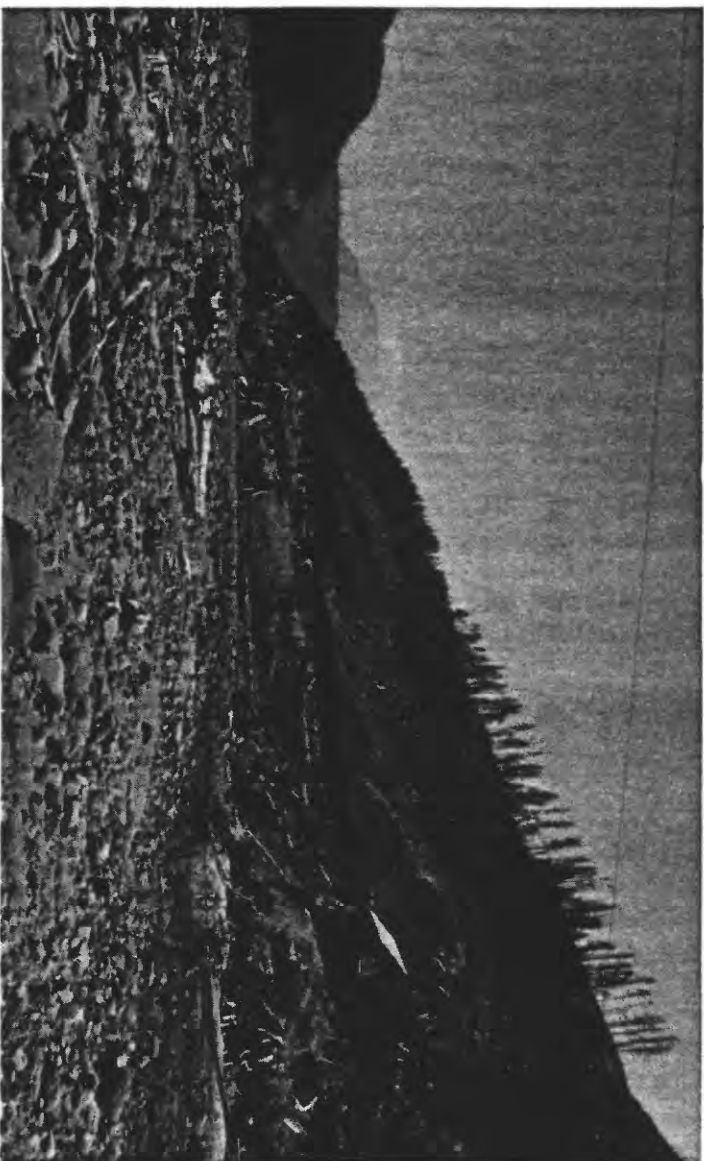


Photo date: July 22, 1982

Looking upstream past the gage house at South Fork Toutle River
above Herrington Creek, station 241465.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, MENT, SUS- PENDED (MG/L) | SEDIMENT, MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|--|--|---|---|---|
| OCT | | | | | | | | | |
| 30.... | 1210 | -- | 73 | 4 | 137 | 27 | -- | -- | -- |
| NOV | | | | | | | | | |
| 02.... | 1400 | -- | 244 | 3 | 13600 | 8960 | -- | -- | -- |
| 08.... | 1310 | -- | 1100 | 3 | 12300 | 36500 | -- | -- | -- |
| 22.... | 1600 | -- | 700 | 3 | 5130 | 9700 | -- | -- | -- |
| DEC | | | | | | | | | |
| 16.... | 1140 | -- | 200 | -- | 107 | 58 | -- | -- | -- |
| 26.... | 1315 | -- | 2400 | -- | 30700 | 199000 | -- | -- | -- |
| JAN | | | | | | | | | |
| 09.... | 1540 | 6.0 | 200 | 9 | 97 | 52 | -- | -- | -- |
| 20.... | 1350 | -- | 120 | 5 | 56 | 18 | -- | -- | -- |
| FEB | | | | | | | | | |
| 20.... | 1550 | 5.0 | 1620 | 9 | 2440 | 10700 | -- | -- | -- |
| MAR | | | | | | | | | |
| 06.... | 1350 | -- | 192 | 9 | 49 | 25 | -- | -- | -- |
| 18.... | 1345 | -- | 167 | 5 | 42 | 19 | -- | -- | -- |
| APR | | | | | | | | | |
| 10.... | 1105 | -- | 307 | 2 | 94 | 78 | -- | -- | -- |
| 29.... | 1630 | -- | 349 | -- | 58 | 55 | -- | -- | -- |
| MAY | | | | | | | | | |
| 19.... | 1745 | 8.5 | 203 | 5 | 15 | 8.2 | -- | -- | -- |
| JUL | | | | | | | | | |
| 08.... | 1625 | 17.0 | 122 | 5 | 13 | 4.3 | -- | -- | -- |
| 13.... | 1140 | 9.5 | 128 | 9 | 1430 | 494 | -- | -- | -- |
| 13.... | 1255 | 9.5 | 128 | 5 | 1440 | 498 | -- | -- | -- |
| 27.... | 1340 | 21.0 | 90 | 5 | 13300 | 3250 | -- | -- | -- |
| AUG | | | | | | | | | |
| 03.... | 1405 | 17.0 | 92 | 5 | 3800 | 947 | 2 | 4 | 6 |
| 10.... | 1425 | 22.0 | 79 | 5 | 13400 | 2960 | -- | -- | -- |
| 17.... | 1645 | 22.0 | 80 | 5 | 12100 | 2600 | -- | -- | -- |
| 24.... | 1350 | 14.0 | 73 | 5 | 20000 | 3930 | -- | -- | -- |
| SEP | | | | | | | | | |
| 01.... | 1115 | 13.0 | 108 | 5 | 71000 | 20700 | -- | -- | -- |
| 02.... | 1520 | -- | -- | 9 | 11300 | -- | -- | -- | -- |
| 03.... | 1205 | -- | 79 | 5 | 7180 | 1540 | -- | 5 | 6 |
| 03.... | 1245 | -- | 79 | 9 | 6210 | 1320 | -- | 5 | 7 |
| 09.... | 1505 | 13.0 | 62 | 9 | 11800 | 1960 | -- | -- | -- |
| 15.... | 1545 | 18.0 | 58 | 5 | 5960 | 935 | -- | 4 | 5 |
| 22.... | 1320 | 12.5 | 77 | 5 | 3780 | 786 | -- | -- | -- |
| 29.... | 1155 | -- | 124 | 5 | 4440 | 1490 | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| 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 1.00 MM |
|-------|--|--|--|--|--|--|--|--|
| OCT | | | | | | | | |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | 35 | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | 28 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | |
| 03... | 10 | 16 | 32 | 56 | 88 | 98 | 100 | 100 |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | 29 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | 26 | -- | -- | -- | -- | -- |
| 03... | 12 | 20 | 31 | 54 | 83 | 98 | 100 | 100 |
| 03... | 13 | 21 | 32 | 52 | 84 | 98 | 100 | 100 |
| 09... | -- | -- | 30 | -- | -- | -- | -- | -- |
| 15... | 10 | 18 | 30 | 58 | 89 | 99 | 100 | 100 |
| 22... | -- | -- | 26 | -- | -- | -- | -- | -- |
| 29... | -- | -- | 24 | -- | -- | -- | -- | -- |

14241465 SOUTH FORK TOUTLE RIVER ABOVE HERRINGTON CREEK NEAR SPOTTED BUCK MOUNTAIN, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- MENT, SUS- PENDED (MG/L) | SED- 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 | | | | | | | | | | | | |
| 09... | 1500 | 9.0 | -- | 9 | 4480 | -- | -- | -- | -- | -- | -- | -- |
| 09... | 1530 | 9.0 | -- | 9 | 5860 | -- | -- | -- | -- | -- | -- | -- |
| 20... | 1520 | 10.5 | 118 | 5 | 260 | 83 | -- | -- | -- | -- | -- | -- |
| 27... | 1315 | 9.5 | 239 | 5 | 6560 | 4230 | 9 | 10 | 12 | 24 | 37 | 55 |
| NOV | | | | | | | | | | | | |
| 03... | 1430 | 9.0 | 231 | 5 | 258 | 161 | -- | -- | -- | -- | -- | -- |
| 09... | 1500 | 9.0 | 132 | 5 | 30 | 11 | -- | -- | -- | -- | -- | -- |
| 17... | 1145 | 6.0 | -- | -- | 4610 | -- | -- | -- | -- | -- | -- | -- |
| 17... | 1220 | 6.0 | 1640 | 3 | 4570 | 20200 | -- | -- | -- | -- | -- | -- |
| 17... | 1440 | 6.0 | 1690 | -- | 2580 | 11800 | -- | -- | -- | -- | -- | -- |
| 17... | 1450 | 6.0 | 1700 | -- | 3420 | 15700 | -- | -- | -- | -- | -- | -- |
| 17... | 1500 | 6.0 | 1730 | -- | 3450 | 16100 | -- | -- | -- | -- | -- | -- |
| 18... | 1300 | 8.0 | 984 | 3 | 4360 | 11600 | 5 | 6 | 8 | 14 | 20 | -- |
| 18... | 1440 | 8.0 | -- | -- | 3640 | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 01... | 1330 | 6.5 | 246 | 5 | 40 | 27 | -- | -- | -- | -- | -- | -- |
| 16... | 1510 | 5.5 | 983 | 3 | 1270 | 3370 | -- | -- | -- | -- | -- | -- |
| 29... | 1525 | 3.5 | 216 | 9 | 9 | 5.2 | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 06... | 1440 | .0 | 154 | 9 | 20 | 8.3 | -- | -- | -- | -- | -- | -- |
| 11... | 1405 | 1.5 | 155 | 5 | 17 | 7.1 | -- | -- | -- | -- | -- | -- |
| 18... | 1535 | 5.0 | 435 | 5 | 75 | 88 | -- | -- | -- | -- | -- | -- |
| 25... | 1335 | 5.5 | 986 | 5 | 3320 | 8840 | -- | -- | -- | -- | -- | 11 |
| FEB | | | | | | | | | | | | |
| 01... | 1410 | -- | 341 | 9 | 141 | 130 | -- | -- | -- | -- | -- | -- |
| 08... | 1610 | -- | -- | 9 | 14 | -- | -- | -- | -- | -- | -- | -- |
| 16... | 1610 | -- | 2900 | -- | 11500 | 90000 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 02... | 1530 | -- | 516 | 4 | 381 | 531 | -- | -- | -- | -- | -- | -- |
| 09... | 1510 | -- | 696 | 5 | 1130 | 2120 | -- | -- | -- | -- | -- | 16 |
| APR | | | | | | | | | | | | |
| 05... | 1430 | 6.0 | -- | 9 | 10 | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 07... | 1120 | -- | 93 | 9 | 140 | 35 | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 22... | 1330 | -- | 88 | 9 | 14 | 3.3 | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 14... | 1525 | -- | 93 | 9 | 85 | 21 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|---|--|--|--|--|--|--|--|
| OCT | | | | | | | | |
| 09... | 19 | -- | -- | -- | -- | -- | -- | -- |
| 09... | 28 | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | 77 | -- | 97 | -- | 100 | -- | -- |
| NOV | | | | | | | | |
| 03... | 14 | -- | 21 | -- | 69 | 93 | -- | 97 |
| 09... | 22 | -- | 29 | -- | 73 | 91 | -- | 100 |
| 17... | 24 | -- | -- | -- | -- | -- | -- | -- |
| 17... | 20 | -- | 27 | -- | 78 | 93 | -- | 99 |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 22 | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 30 | -- | 37 | -- | 77 | 94 | -- | 99 |
| 18... | 25 | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | |
| 01... | 37 | -- | 52 | -- | 92 | 100 | -- | -- |
| 16... | 8 | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | |
| 06... | 32 | -- | 47 | -- | 67 | 100 | -- | -- |
| 11... | 77 | -- | -- | -- | -- | -- | -- | -- |
| 18... | 38 | -- | 48 | -- | 70 | 88 | -- | 100 |
| 25... | 8 | 15 | -- | 53 | -- | -- | 100 | -- |
| FEB | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 29 | -- | -- | -- | -- | -- | -- | -- |
| 16... | 15 | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | |
| 02... | 16 | -- | 21 | -- | 56 | 84 | -- | -- |
| 09... | 12 | 23 | -- | 69 | -- | 98 | 100 | -- |
| APR | | | | | | | | |
| 05... | 46 | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | |
| 07... | 78 | -- | 87 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | |
| 22... | 58 | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | |
| 14... | 19 | -- | -- | -- | -- | -- | -- | -- |

14241465 SOUTH FORK TOUTLE RIVER ABOVE HERRINGTON CREEK NEAR SPOTTED BUCK MOUNTAIN, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---------------|------|-----------------------------|---|--|--|---|
| FEB 15.... | 1420 | -- | -- | 12 | -- | 52 |
| MAY 23.... | 1600 | 17.0 | 252 | 13 | 8.8 | 73 |
| AUG 02.... | 1530 | 16.0 | 119 | 11 | 3.5 | 82 |

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

LOCATION.--Lat 46°19'05", long 122°40'01", in NE¼SW¼ sec.35, T.10 N., R.1 E., Cowitz 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 to current year.

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 | Concentration, mg/L |
|------------|---------------|------|---------------------|
| 1981 | Dec. 26, 1980 | 1345 | 34,600 |
| 1982 | Oct. 6, 1981 | 1735 | 25,800 |
| 1983 | Dec. 3, 1982 | 1635 | 29,800 |



Photo date: March 1, 1982
Tree debris in the South Fork Toutle River near Camp 12, station 241490.
View is upstream; discharge 1240 cubic feet per second.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DAY | MEAN DISCHARGE (CFS) | APRIL | | MAY | | JUNE | |
|-------|----------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|
| | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 1020 | | 542 | --- | --- | --- | 30 |
| 2 | 910 | | 506 | --- | --- | --- | 30 |
| 3 | 890 | | 470 | --- | --- | --- | 30 |
| 4 | 782 | | 476 | --- | --- | --- | 50 |
| 5 | 809 | | 446 | --- | --- | --- | 50 |
| 6 | 791 | | 458 | --- | --- | --- | 100 |
| 7 | 737 | | 595 | --- | --- | --- | 85 |
| 8 | 930 | | 542 | --- | --- | --- | 360 |
| 9 | 950 | | 536 | --- | --- | --- | 620 |
| 10 | 900 | | 476 | --- | --- | --- | 420 |
| 11 | 854 | | 464 | --- | --- | --- | 260 |
| 12 | 863 | | 425 | --- | --- | --- | 170 |
| 13 | 836 | | 400 | --- | --- | --- | 130 |
| 14 | 773 | | 415 | --- | --- | --- | 90 |
| 15 | 764 | | 425 | --- | --- | --- | 60 |
| 16 | 809 | | 395 | --- | --- | --- | 65 |
| 17 | 773 | | 365 | --- | --- | --- | 55 |
| 18 | 773 | | 425 | --- | --- | 55 | 71 |
| 19 | 782 | | 470 | --- | --- | --- | 120 |
| 20 | 764 | | 420 | --- | --- | --- | 110 |
| 21 | 764 | | 446 | --- | --- | --- | 94 |
| 22 | 1010 | | 420 | 88 | 574 | 45 | 70 |
| 23 | 1070 | | 395 | 35 | 524 | 50 | 71 |
| 24 | 1100 | | 405 | 85 | 476 | 50 | 64 |
| 25 | 854 | | 518 | 150 | 420 | 55 | 62 |
| 26 | 686 | | 435 | 95 | 380 | 45 | 46 |
| 27 | 623 | | 405 | 85 | 345 | 25 | 23 |
| 28 | 654 | | 365 | 60 | 328 | 12 | 11 |
| 29 | 609 | | 345 | 50 | 296 | 40 | 32 |
| 30 | 609 | | 332 | 50 | 292 | 60 | 47 |
| 31 | --- | | 316 | 45 | --- | --- | --- |
| TOTAL | 24689 | | 13633 | | 16539 | --- | 3426 |

14241490 SOUTH FORK TOUTLE RIVER AT CAMP 12 NEAR TOUTLE, WA
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 288 | 70 | 54 | 120 | --- | 180 | 201 | 2530 | 1370 |
| 2 | 276 | --- | 50 | 113 | --- | 160 | 118 | 1700 | 542 |
| 3 | 253 | --- | 46 | 113 | 460 | 140 | 99 | 1400 | 374 |
| 4 | 242 | --- | 43 | 109 | 520 | 153 | 95 | 700 | 180 |
| 5 | 246 | --- | 44 | 107 | 320 | 92 | 95 | 650 | 167 |
| 6 | 246 | --- | 44 | 107 | 310 | 90 | 92 | 620 | 154 |
| 7 | 276 | --- | 50 | 105 | 500 | 142 | 88 | 1000 | 238 |
| 8 | 236 | --- | 42 | 103 | 680 | 189 | 86 | 1500 | 348 |
| 9 | 216 | 65 | 38 | 103 | 950 | 264 | 86 | 1000 | 232 |
| 10 | 213 | 90 | 52 | 101 | 1200 | 327 | 86 | 1020 | 237 |
| 11 | 219 | 60 | 35 | 101 | 1400 | 382 | 83 | 920 | 206 |
| 12 | 201 | 17 | 9.2 | 95 | 1400 | 359 | 85 | 570 | 131 |
| 13 | 228 | 65 | 40 | 95 | 1600 | 410 | 83 | 370 | 83 |
| 14 | 210 | 230 | 130 | 95 | 1400 | 359 | 83 | 370 | 83 |
| 15 | 195 | 190 | 100 | 95 | 1200 | 308 | 78 | 400 | 84 |
| 16 | 189 | 200 | 102 | 95 | 1000 | 256 | 76 | 340 | 70 |
| 17 | 192 | 200 | 104 | 88 | 1400 | 333 | 75 | 490 | 99 |
| 18 | 189 | 150 | 77 | 86 | 1100 | 255 | 75 | 570 | 115 |
| 19 | 180 | 150 | 73 | 86 | 800 | 186 | 90 | 840 | 204 |
| 20 | 180 | 150 | 73 | 93 | 1100 | 276 | 88 | 800 | 190 |
| 21 | 174 | 180 | 85 | 93 | 1100 | 276 | 186 | 900 | 452 |
| 22 | 162 | 220 | 96 | 92 | 800 | 199 | 145 | --- | 340 |
| 23 | 155 | 280 | 117 | 90 | 650 | 158 | 120 | --- | 270 |
| 24 | 155 | 370 | 155 | 86 | 1000 | 232 | 101 | --- | 250 |
| 25 | 158 | 290 | 124 | 88 | 1200 | 285 | 99 | --- | 220 |
| 26 | 142 | 510 | 196 | 86 | 1000 | 232 | 103 | --- | 230 |
| 27 | 138 | 590 | 220 | 85 | 1000 | 229 | 201 | --- | 500 |
| 28 | 130 | 600 | 211 | 86 | 550 | 128 | 213 | --- | 320 |
| 29 | 132 | 280 | 100 | 85 | 700 | 161 | 219 | 600 | 355 |
| 30 | 138 | 630 | 235 | 111 | 700 | 210 | 168 | 250 | 113 |
| 31 | 128 | --- | 200 | 99 | 600 | 160 | --- | --- | --- |
| TOTAL | 6087 | --- | 2945.2 | 3011 | --- | 7131 | 3417 | --- | 8157 |

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 145 | 137 | 54 | 530 | --- | 230 | 706 | 58 | 111 | |
| 2 | 260 | 1450 | 1080 | 434 | 113 | 132 | 2170 | 1170 | 8380 | |
| 3 | 198 | 724 | 387 | 370 | --- | 94 | 1200 | 200 | 648 | |
| 4 | 177 | 405 | 194 | 330 | --- | 66 | 1060 | 147 | 421 | |
| 5 | 180 | 748 | 364 | 290 | 53 | 41 | 4570 | 6240 | 89800 | |
| 6 | 2350 | 17300 | 130000 | 266 | --- | 34 | 4150 | 4150 | 46500 | |
| 7 | 1860 | 5930 | 36900 | 254 | --- | 27 | 2540 | 3300 | 22600 | |
| 8 | 1340 | --- | 14000 | 233 | --- | 18 | 1520 | 2450 | 10100 | |
| 9 | 1560 | --- | 46000 | 225 | 23 | 14 | 1130 | 1950 | 5950 | |
| 10 | 890 | 475 | 1140 | 210 | 23 | 13 | 1360 | 1990 | 7310 | |
| 11 | 634 | 320 | 548 | 382 | 141 | 314 | 1130 | --- | 4800 | |
| 12 | 480 | 250 | 324 | 624 | 525 | 1030 | 912 | --- | 3700 | |
| 13 | 398 | 175 | 188 | 495 | 180 | 241 | 894 | 1630 | 3930 | |
| 14 | 326 | 167 | 147 | 1660 | 1950 | 11300 | 894 | 1460 | 3520 | |
| 15 | 284 | 110 | 84 | 1370 | 815 | 3010 | 2500 | 2940 | 20900 | |
| 16 | 257 | 92 | 64 | 1180 | 808 | 2570 | 2320 | 1820 | 11400 | |
| 17 | 242 | 92 | 60 | 1450 | 1250 | 4890 | 1670 | 769 | 3470 | |
| 18 | 222 | 68 | 41 | 1640 | 855 | 3790 | 1420 | 1390 | 5350 | |
| 19 | 215 | 64 | 37 | 1320 | 415 | 1480 | 1910 | 1880 | 9700 | |
| 20 | 208 | 70 | 39 | 1100 | 219 | 650 | 1390 | 646 | 2420 | |
| 21 | 192 | 58 | 30 | 1630 | 424 | 1870 | 1020 | 498 | 1370 | |
| 22 | 182 | 53 | 26 | 1600 | 406 | 1750 | 867 | 291 | 681 | |
| 23 | 178 | 55 | 26 | 1520 | 212 | 870 | 746 | 271 | 546 | |
| 24 | 176 | 54 | 26 | 1130 | 109 | 333 | 725 | --- | 530 | |
| 25 | 168 | 42 | 19 | 917 | 74 | 183 | 676 | --- | 410 | |
| 26 | 168 | 40 | 18 | 740 | 50 | 100 | 606 | --- | 270 | |
| 27 | 359 | --- | 420 | 616 | 45 | 75 | 571 | --- | 190 | |
| 28 | 770 | --- | 2600 | 515 | --- | 45 | 538 | 186 | 270 | |
| 29 | 740 | --- | 1200 | 480 | --- | 30 | 472 | 78 | 99 | |
| 30 | 650 | --- | 600 | 490 | 13 | 17 | 420 | 35 | 40 | |
| 31 | 664 | --- | 440 | --- | --- | --- | 405 | 27 | 30 | |
| TOTAL | 16473 | --- | 237056 | 24001 | --- | 35217 | 42492 | --- | 265426 | |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 380 | 31 | 32 | 1020 | --- | 2800 | 1240 | 1630 | 5460 |
| 2 | 375 | 55 | 56 | 1070 | --- | 2000 | 1160 | 2430 | 7610 |
| 3 | 370 | 27 | 27 | 1020 | 378 | 1040 | 1170 | 1800 | 5690 |
| 4 | 360 | 23 | 22 | 867 | --- | 700 | 1230 | 1630 | 5410 |
| 5 | 326 | --- | 22 | 753 | --- | 490 | 1070 | 912 | 2630 |
| 6 | 308 | 27 | 22 | 690 | --- | 310 | 912 | 330 | 813 |
| 7 | 335 | --- | 37 | 606 | --- | 170 | 760 | 270 | 554 |
| 8 | 360 | 47 | 46 | 526 | 61 | 87 | 690 | 360 | 671 |
| 9 | 370 | 43 | 43 | 484 | --- | 81 | 1010 | 540 | 1470 |
| 10 | 375 | --- | 44 | 460 | --- | 81 | 1040 | 2730 | 7670 |
| 11 | 405 | 78 | 85 | 466 | 78 | 98 | 1350 | 2440 | 8890 |
| 12 | 335 | 70 | 63 | 496 | --- | 220 | 1140 | 1560 | 4800 |
| 13 | 380 | 54 | 55 | 1270 | 1580 | 5420 | 1110 | 1290 | 3870 |
| 14 | 490 | 84 | 111 | 4170 | 5070 | 57100 | 1040 | 840 | 2360 |
| 15 | 641 | 138 | 239 | 4160 | 4620 | 51900 | 903 | 700 | 1710 |
| 16 | 2480 | 2340 | 22600 | 4720 | 5700 | 72600 | 784 | --- | 1100 |
| 17 | 3080 | 1370 | 11400 | 4140 | 4990 | 55800 | 683 | --- | 550 |
| 18 | 1920 | 1160 | 6010 | 3320 | 4170 | 37400 | 599 | 110 | 178 |
| 19 | 1180 | 720 | 2290 | 3070 | 2010 | 16700 | 538 | --- | 90 |
| 20 | 894 | 400 | 966 | 6070 | 11100 | 213000 | 502 | --- | 60 |
| 21 | 732 | 240 | 474 | 3650 | 6980 | 68800 | 466 | --- | 50 |
| 22 | 703 | 900 | 1710 | 2200 | 3200 | 19000 | 436 | 26 | 31 |
| 23 | 4300 | 3140 | 39500 | 1600 | 2130 | 9200 | 415 | 25 | 28 |
| 24 | 5330 | 7130 | 11600 | 1260 | 1720 | 5850 | 400 | 29 | 31 |
| 25 | 2560 | 2620 | 18100 | 1080 | 1500 | 4370 | 390 | 22 | 23 |
| 26 | 2320 | --- | 12000 | 1030 | 1280 | 3560 | 448 | 47 | 57 |
| 27 | 1800 | --- | 8900 | 980 | 1080 | 2860 | 466 | 49 | 62 |
| 28 | 1510 | --- | 7300 | 858 | --- | 2100 | 466 | 84 | 106 |
| 29 | 1260 | 1740 | 5920 | --- | --- | --- | 454 | 34 | 42 |
| 30 | 1110 | --- | 4600 | --- | --- | --- | 442 | 33 | 39 |
| 31 | 1080 | --- | 3700 | --- | --- | --- | 454 | 54 | 66 |
| TOTAL | 38069 | --- | 157974 | 52036 | --- | 633737 | 23768 | --- | 62121 |

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | APRIL | | | MAY | | | JUNE | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 448 | 38 | 46 | 557 | 68 | 102 | 400 | 10 | 11 | |
| 2 | 502 | 64 | 87 | 571 | 82 | 126 | 360 | 9 | 8.7 | |
| 3 | 641 | 62 | 107 | 606 | 97 | 159 | 335 | 16 | 14 | |
| 4 | 571 | 50 | 77 | 550 | 87 | 129 | 324 | 38 | 33 | |
| 5 | 526 | 49 | 70 | 514 | 71 | 99 | 334 | 33 | 30 | |
| 6 | 520 | 34 | 48 | 526 | 77 | 109 | 329 | 20 | 18 | |
| 7 | 490 | 32 | 42 | 613 | 41 | 68 | 316 | 17 | 15 | |
| 8 | 460 | 28 | 35 | 606 | 40 | 65 | 310 | 16 | 13 | |
| 9 | 460 | 28 | 35 | 538 | 22 | 32 | 306 | 20 | 17 | |
| 10 | 472 | 33 | 42 | 502 | 20 | 27 | 310 | 24 | 20 | |
| 11 | 1230 | 764 | 3980 | 478 | 27 | 35 | 316 | 45 | 38 | |
| 12 | 2260 | 2930 | 17900 | 496 | 24 | 32 | 320 | 68 | 59 | |
| 13 | 2480 | 2700 | 18100 | 478 | 16 | 21 | 302 | 36 | 29 | |
| 14 | 1740 | 1170 | 5500 | 478 | 13 | 17 | 278 | 42 | 32 | |
| 15 | 1290 | 767 | 2670 | 496 | 11 | 15 | 274 | 43 | 32 | |
| 16 | 980 | 646 | 1710 | 520 | 17 | 24 | 268 | 44 | 32 | |
| 17 | 816 | 546 | 1200 | 599 | 28 | 45 | 271 | 36 | 26 | |
| 18 | 718 | 324 | 628 | 557 | 25 | 38 | 257 | 39 | 27 | |
| 19 | 655 | 239 | 423 | 508 | 18 | 25 | 246 | 31 | 21 | |
| 20 | 613 | --- | 470 | 484 | 32 | 42 | 229 | 26 | 16 | |
| 21 | 613 | --- | 560 | 526 | 16 | 23 | 222 | 28 | 17 | |
| 22 | 690 | 352 | 656 | 532 | 20 | 29 | 209 | 23 | 13 | |
| 23 | 760 | 291 | 597 | 478 | 12 | 15 | 191 | 24 | 12 | |
| 24 | 718 | --- | 460 | 490 | 21 | 28 | 182 | 21 | 10 | |
| 25 | 669 | --- | 440 | 550 | 28 | 42 | 173 | 16 | 7.5 | |
| 26 | 634 | --- | 340 | 514 | 17 | 24 | 197 | 20 | 11 | |
| 27 | 620 | --- | 190 | 436 | 14 | 16 | 212 | 15 | 8.6 | |
| 28 | 784 | 191 | 404 | 390 | 12 | 13 | 185 | 12 | 6.0 | |
| 29 | 669 | --- | 250 | 395 | 18 | 19 | 173 | 12 | 5.6 | |
| 30 | 585 | 101 | 159 | 375 | 18 | 18 | 164 | 10 | 4.4 | |
| 31 | --- | --- | --- | 385 | 10 | 10 | --- | --- | --- | |
| TOTAL | 24614 | --- | 57226 | 15748 | --- | 1447 | 7993 | --- | 586.8 | |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | | | | | | | | |
| | | | | | | | | | |
| JULY | | | | | | | | | |
| 1 | 164 | 9 | 4.0 | 120 | 22 | 7.1 | 92 | 12 | 3.0 |
| 2 | 161 | 8 | 3.5 | 122 | 20 | 6.6 | 88 | 14 | 3.3 |
| 3 | 161 | 9 | 3.9 | 128 | 20 | 6.9 | 92 | 39 | 9.7 |
| 4 | 164 | 21 | 9.3 | 118 | 18 | 5.7 | 105 | 45 | 13 |
| 5 | 164 | 8 | 3.5 | 115 | 21 | 6.5 | 100 | 27 | 7.3 |
| 6 | 158 | 8 | 3.4 | 115 | 22 | 6.8 | 90 | 22 | 5.3 |
| 7 | 155 | 6 | 2.5 | 115 | 20 | 6.2 | 90 | 21 | 5.1 |
| 8 | 155 | 6 | 2.5 | 120 | 22 | 7.1 | 90 | 18 | 4.4 |
| 9 | 149 | 4 | 1.6 | 125 | 21 | 7.1 | 125 | 158 | 53 |
| 10 | 149 | 6 | 2.4 | 140 | 22 | 8.3 | 206 | --- | 230 |
| 11 | 146 | 4 | 1.6 | 140 | 26 | 9.8 | 168 | --- | 50 |
| 12 | 146 | 4 | 1.6 | 137 | 20 | 7.4 | 254 | --- | 90 |
| 13 | 143 | 4 | 1.5 | 146 | 24 | 9.5 | 173 | 33 | 15 |
| 14 | 143 | 9 | 3.5 | 155 | 36 | 15 | 131 | 24 | 8.5 |
| 15 | 143 | 8 | 3.1 | 137 | 24 | 8.9 | 112 | 16 | 4.8 |
| 16 | 140 | 8 | 3.0 | 131 | 28 | 9.9 | 108 | --- | 5.0 |
| 17 | 140 | 12 | 4.5 | 131 | 27 | 9.5 | 100 | --- | 5.0 |
| 18 | 134 | 12 | 4.3 | 128 | 22 | 7.6 | 96 | --- | 5.0 |
| 19 | 134 | 9 | 3.3 | 128 | 21 | 7.3 | 97 | --- | 5.0 |
| 20 | 134 | 10 | 3.6 | 126 | 16 | 5.4 | 291 | 151 | 129 |
| 21 | 131 | 24 | 8.5 | 118 | 20 | 6.4 | 203 | 92 | 50 |
| 22 | 131 | 16 | 5.7 | 120 | 21 | 6.8 | 170 | 33 | 15 |
| 23 | 131 | 14 | 5.0 | 112 | 33 | 10 | 155 | 39 | 16 |
| 24 | 131 | 14 | 5.0 | 112 | 26 | 7.9 | 146 | 27 | 11 |
| 25 | 131 | 16 | 5.7 | 103 | 20 | 5.6 | 146 | 38 | 15 |
| 26 | 131 | 16 | 5.7 | 90 | 18 | 4.4 | 170 | 22 | 10 |
| 27 | 131 | 18 | 6.4 | 92 | 14 | 3.5 | 173 | 16 | 7.5 |
| 28 | 134 | 18 | 6.5 | 96 | 14 | 3.6 | 170 | 12 | 5.5 |
| 29 | 137 | 30 | 11 | 98 | 14 | 3.7 | 164 | 15 | 6.6 |
| 30 | 137 | 30 | 11 | 112 | 18 | 5.4 | 155 | 16 | 6.7 |
| 31 | 122 | 27 | 8.9 | 100 | 14 | 3.8 | --- | --- | --- |
| TOTAL | 4430 | --- | 146.0 | 3730 | --- | 219.7 | 4260 | --- | 794.7 |
| YEAR | 257614 | | 1,451,951 TONS | | | | | | |

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 143 | 9 | 3.5 | 1350 | --- | 4700 | 1700 | --- | 4500 | |
| 2 | 152 | 5 | 2.1 | 615 | 710 | 1180 | 1500 | --- | 3500 | |
| 3 | 164 | 5 | 2.2 | 555 | --- | 800 | 5100 | 34100 | 470000 | |
| 4 | 143 | 9 | 3.5 | 477 | --- | 650 | 4100 | 31400 | 348000 | |
| 5 | 140 | --- | 3.5 | 1110 | --- | 3500 | 2400 | 3580 | 23200 | |
| 6 | 230 | --- | 95 | 1650 | --- | 5000 | 1700 | --- | 5000 | |
| 7 | 310 | --- | 23 | 1360 | --- | 2000 | 1190 | --- | 2100 | |
| 8 | 347 | --- | 9.5 | 708 | --- | 1000 | 1020 | --- | 1500 | |
| 9 | 316 | --- | 8.5 | 437 | --- | 500 | 858 | --- | 1100 | |
| 10 | 274 | --- | 7.4 | 352 | --- | 400 | 740 | --- | 800 | |
| 11 | 243 | --- | 6.6 | 324 | --- | 300 | 702 | --- | 600 | |
| 12 | 215 | --- | 5.8 | 316 | --- | 250 | 775 | --- | 650 | |
| 13 | 194 | 10 | 5.2 | 313 | --- | 200 | 835 | 305 | 688 | |
| 14 | 182 | --- | 4.4 | 299 | --- | 100 | 927 | --- | 1000 | |
| 15 | 173 | --- | 4.2 | 299 | --- | 100 | 2110 | --- | 11000 | |
| 16 | 173 | --- | 4.2 | 488 | 248 | 327 | 4160 | 6820 | 76600 | |
| 17 | 222 | --- | 16 | 1780 | 8680 | 48000 | 3350 | 3800 | 34400 | |
| 18 | 200 | 9 | 4.9 | 1480 | 4200 | 16800 | 2290 | --- | 14000 | |
| 19 | 173 | 7 | 3.3 | 1270 | 3500 | 12000 | 1850 | --- | 5700 | |
| 20 | 155 | 39 | 16 | 1050 | 2210 | 6270 | 1760 | --- | 2700 | |
| 21 | 161 | 69 | 30 | 858 | 1110 | 2570 | 1620 | --- | 1700 | |
| 22 | 501 | 15400 | 31000 | 702 | 340 | 644 | 1500 | --- | 1200 | |
| 23 | 466 | --- | 5800 | 604 | 400 | 652 | 1260 | --- | 870 | |
| 24 | 347 | 3800 | 3560 | 543 | 239 | 350 | 1050 | --- | 710 | |
| 25 | 419 | 6570 | 7960 | 482 | --- | 300 | 946 | --- | 630* | |
| 26 | 850 | --- | 18000 | 446 | --- | 250 | 872 | --- | 570 | |
| 27 | 800 | --- | 15000 | 505 | --- | 300 | 764 | --- | 500 | |
| 28 | 900 | --- | 20000 | 1640 | 2480 | 12100 | 692 | 239 | 447 | |
| 29 | 2670 | --- | 40000 | 1720 | 1370 | 6360 | 614 | --- | 390 | |
| 30 | 3480 | 3850 | 36200 | 1820 | --- | 6500 | 581 | --- | 370 | |
| 31 | 2120 | --- | 11000 | --- | --- | --- | 537 | --- | 340 | |
| TOTAL | 16863 | --- | 188778.8 | 25553 | --- | 134103 | 49503 | --- | 1014765 | |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 526 | --- | 330 | 620 | --- | 25 | 1000 | --- | 70 |
| 2 | 570 | --- | 350 | 500 | 6 | 8.1 | 984 | 21 | 50 |
| 3 | 692 | --- | 440 | 490 | --- | 8.0 | 776 | --- | 42 |
| 4 | 1370 | 594 | 2620 | 480 | --- | 8.0 | 716 | --- | 39 |
| 5 | 4620 | 4270 | 60900 | 470 | --- | 6.0 | 728 | --- | 40 |
| 6 | 4630 | 3390 | 42400 | 480 | --- | 6.5 | 764 | --- | 41 |
| 7 | 4790 | 2520 | 32600 | 490 | 5 | 6.6 | 1050 | --- | 100 |
| 8 | 4370 | 3410 | 40200 | 450 | --- | 6.0 | 1710 | --- | 2100 |
| 9 | 2610 | --- | 11000 | 752 | --- | 110 | 3050 | --- | 11000 |
| 10 | 2400 | 991 | 6420 | 985 | --- | 220 | 3130 | 1090 | 9210 |
| 11 | 1890 | --- | 4000 | 1270 | --- | 440 | 2020 | 450 | 2450 |
| 12 | 1470 | --- | 2500 | 1600 | --- | 2200 | 1500 | --- | 1200 |
| 13 | 1230 | --- | 1300 | 1950 | --- | 1900 | 1540 | --- | 860 |
| 14 | 1020 | --- | 650 | 1530 | 250 | 1030 | 1570 | --- | 580 |
| 15 | 860 | --- | 350 | 1280 | --- | 650 | 1320 | --- | 300 |
| 16 | 776 | --- | 300 | 1380 | --- | 500 | 1100 | 47 | 140 |
| 17 | 740 | 140 | 280 | 2000 | --- | 2400 | 908 | --- | 70 |
| 18 | 764 | --- | 290 | 2030 | --- | 1700 | 764 | --- | 35 |
| 19 | 884 | --- | 310 | 1620 | --- | 540 | 669 | --- | 25 |
| 20 | 788 | --- | 260 | 1750 | --- | 770 | 614 | --- | 20 |
| 21 | 658 | --- | 200 | 1500 | --- | 420 | 570 | --- | 15 |
| 22 | 636 | --- | 170 | 1630 | --- | 540 | 603 | --- | 15 |
| 23 | 788 | --- | 190 | 2030 | 230 | 1260 | 614 | --- | 15 |
| 24 | 1020 | 80 | 220 | 2070 | --- | 610 | 570 | --- | 10 |
| 25 | 985 | --- | 210 | 1620 | --- | 290 | 614 | 4 | 6.6 |
| 26 | 1350 | --- | 750 | 1630 | --- | 190 | 559 | --- | 6.0 |
| 27 | 2180 | 584 | 3440 | 1360 | --- | 120 | 581 | --- | 6.5 |
| 28 | 1450 | --- | 1100 | 1140 | --- | 83 | 698 | --- | 23 |
| 29 | 1220 | --- | 450 | --- | --- | --- | 2620 | --- | 8000 |
| 30 | 980 | --- | 130 | --- | --- | --- | 2620 | 820 | 5800 |
| 31 | 790 | --- | 55 | --- | --- | --- | 1840 | --- | 1900 |
| TOTAL | 49057 | --- | 214415 | 35107 | --- | 16047.2 | 37662 | --- | 44169.1 |

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | APRIL | | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MAY | | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | JUNE | | SEDIMENT DISCHARGE (TONS/DAY) |
|-------|----------------------------|---------------------------------|-------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------|-------------------------------------|
| | | MEAN CONCENTRATION (MG/L) | CONCENTRATION (MG/L) | | | MEAN CONCENTRATION (MG/L) | CONCENTRATION (MG/L) | | | MEAN CONCENTRATION (MG/L) | CONCENTRATION (MG/L) | |
| 1 | 1480 | 130 | 519 | 450 | --- | 12 | 352 | 1.0 | --- | --- | --- | --- |
| 2 | 1390 | --- | 140 | 419 | --- | 9.0 | 305 | .82 | --- | 1 | --- | --- |
| 3 | 1210 | --- | 59 | 399 | --- | 6.5 | 279 | 2.4 | --- | --- | --- | --- |
| 4 | 1020 | --- | 41 | 389 | 12 | 13 | 246 | 2.1 | --- | --- | --- | --- |
| 5 | 872 | 16 | 38 | 389 | 18 | 19 | 254 | 2.2 | --- | --- | --- | --- |
| 6 | 763 | --- | 41 | 389 | 14 | 15 | 238 | 2.0 | --- | --- | --- | --- |
| 7 | 692 | 28 | 52 | 547 | 16 | 24 | 246 | 2.0 | --- | 3 | --- | --- |
| 8 | 635 | --- | 43 | 581 | 54 | 85 | 222 | 2.4 | --- | 4 | --- | --- |
| 9 | 624 | --- | 37 | 559 | 31 | 47 | 206 | 1.7 | --- | 3 | --- | --- |
| 10 | 624 | --- | 32 | 525 | 21 | 30 | 515 | 22 | --- | 14 | --- | --- |
| 11 | 592 | --- | 26 | 460 | 9 | 11 | 471 | 5.1 | --- | 4 | --- | --- |
| 12 | 570 | --- | 20 | 419 | 6 | 6.8 | 504 | 8.2 | --- | 6 | --- | --- |
| 13 | 525 | 8 | 11 | 370 | 6 | 6.0 | 370 | 3.0 | --- | 3 | --- | --- |
| 14 | 493 | --- | 11 | 399 | 5 | 5.4 | 306 | 2.5 | --- | 3 | --- | --- |
| 15 | 460 | --- | 11 | 559 | 13 | 20 | 351 | 8.5 | --- | 9 | --- | --- |
| 16 | 460 | --- | 12 | 471 | 6 | 7.6 | 297 | 4.0 | --- | 5 | --- | --- |
| 17 | 460 | --- | 14 | 429 | 1 | 1.2 | 296 | 6.4 | --- | 8 | --- | --- |
| 18 | 493 | 11 | 15 | 429 | 6 | 6.9 | 481 | 22 | --- | 17 | --- | --- |
| 19 | 525 | --- | 16 | 429 | 2 | 2.3 | 704 | 51 | --- | 27 | --- | --- |
| 20 | 514 | --- | 15 | 450 | 1 | 1.2 | 812 | 101 | --- | 46 | --- | --- |
| 21 | 503 | --- | 15 | 471 | 3 | 3.8 | 613 | 60 | --- | 36 | --- | --- |
| 22 | 503 | --- | 15 | 419 | --- | 3.4 | 547 | 32 | --- | 22 | --- | --- |
| 23 | 547 | --- | 25 | 429 | 3 | 3.5 | 613 | 38 | --- | 23 | --- | --- |
| 24 | 800 | --- | 220 | 399 | 6 | 6.5 | 624 | 47 | --- | 28 | --- | --- |
| 25 | 581 | --- | 41 | 360 | 3 | 2.9 | 503 | 24 | --- | 18 | --- | --- |
| 26 | 536 | --- | 32 | 332 | 3 | 2.7 | 450 | 19 | --- | 16 | --- | --- |
| 27 | 471 | --- | 25 | 323 | 4 | 3.5 | 400 | 19 | --- | 18 | --- | --- |
| 28 | 440 | --- | 20 | 314 | --- | 2.4 | 360 | 14 | --- | 14 | --- | --- |
| 29 | 429 | --- | 17 | 314 | --- | 2.2 | 342 | 11 | --- | 12 | --- | --- |
| 30 | 429 | --- | 15 | 314 | --- | 1.6 | 400 | 16 | --- | 15 | --- | --- |
| 31 | --- | --- | --- | 314 | --- | 1.5 | --- | --- | --- | --- | --- | --- |
| TOTAL | 19641 | --- | 1578 | 13051 | --- | 362.9 | 12287 | 530.32 | --- | --- | --- | --- |

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JULY | | | | AUGUST | | | | SEPTEMBER | | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | 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) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 658 | 28 | 50 | 217 | 4 | 2.3 | 429 | 71 | 82 | | | |
| 2 | 860 | 45 | 104 | 207 | 6 | 3.4 | 482 | 92 | 120 | | | |
| 3 | 716 | 22 | 43 | 202 | 4 | 2.2 | 342 | 28 | 26 | | | |
| 4 | 603 | 15 | 24 | 193 | 2 | 1.0 | 306 | 4 | 3.3 | | | |
| 5 | 515 | 11 | 15 | 192 | 2 | 1.0 | 270 | 2 | 1.5 | | | |
| 6 | 460 | 10 | 12 | 191 | 2 | 1.0 | 206 | 3 | 1.7 | | | |
| 7 | 420 | 7 | 7.9 | 198 | 2 | 1.1 | 198 | 5 | 2.7 | | | |
| 8 | 380 | 6 | 6.2 | 196 | 2 | 1.1 | 198 | 8 | 4.3 | | | |
| 9 | 351 | 5 | 4.7 | 196 | 4 | 2.1 | 188 | 7 | 3.6 | | | |
| 10 | 333 | 4 | 3.6 | 180 | 3 | 1.5 | 318 | --- | 27 | | | |
| 11 | 297 | 4 | 3.2 | 213 | 4 | 2.3 | 419 | 44 | 54 | | | |
| 12 | 333 | 4 | 3.6 | 198 | 4 | 2.1 | 284 | 21 | 16 | | | |
| 13 | 1010 | 18 | 49 | 170 | 4 | 1.8 | 237 | 14 | 9.0 | | | |
| 14 | 1100 | 28 | 83 | 144 | 3 | 1.2 | 201 | 6 | 3.3 | | | |
| 15 | 1020 | 40 | 110 | 138 | 4 | 1.5 | 188 | --- | 2.0 | | | |
| 16 | 850 | 10 | 23 | 138 | 4 | 1.5 | 173 | --- | 1.5 | | | |
| 17 | 680 | 21 | 39 | 138 | 3 | 1.1 | 174 | --- | 1.5 | | | |
| 18 | 570 | 8 | 12 | 138 | 4 | 1.5 | 255 | --- | 6.0 | | | |
| 19 | 513 | 5 | 6.9 | 131 | 4 | 1.4 | 241 | --- | 2.8 | | | |
| 20 | 512 | 5 | 6.9 | 131 | 4 | 1.4 | 184 | 4 | 2.0 | | | |
| 21 | 430 | 3 | 3.5 | 131 | 4 | 1.4 | 170 | 3 | 1.4 | | | |
| 22 | 379 | 3 | 3.1 | 125 | 3 | 1.0 | 163 | 2 | .88 | | | |
| 23 | 352 | 2 | 1.9 | 131 | 4 | 1.4 | 154 | 2 | .83 | | | |
| 24 | 332 | 2 | 1.8 | 131 | 3 | 1.1 | 156 | 2 | .84 | | | |
| 25 | 335 | 2 | 1.8 | 120 | 4 | 1.3 | 145 | 2 | .78 | | | |
| 26 | 321 | 1 | .87 | 116 | 7 | 2.2 | 144 | 2 | .78 | | | |
| 27 | 296 | 1 | .80 | 116 | 3 | .94 | 150 | 1 | .41 | | | |
| 28 | 301 | 2 | 1.6 | 120 | 3 | .97 | 143 | 2 | .77 | | | |
| 29 | 258 | 2 | 1.4 | 262 | 15 | 15 | 138 | 1 | .37 | | | |
| 30 | 234 | 1 | .63 | 592 | 436 | 805 | 131 | 1 | .35 | | | |
| 31 | 220 | 3 | 1.8 | 279 | 53 | 40 | --- | --- | --- | | | |
| TOTAL | 15639 | --- | 626.20 | 5634 | --- | 902.81 | 6787 | --- | 377.61 | | | |
| YEAR | 286784 | | 1,616,655.94 TONS | | | | | | | | | |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, 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. STIEVE DIAM. % FINER THAN .062 MM |
|---------------|------|-----------------------------|---|---|---------------------------------------|---|--|--|--|--|--|
| OCT 25.... | 0940 | 8.5 | 148 | 2 | 1160 | 464 | -- | -- | -- | -- | 31 |
| NOV 04.... | 1230 | 12.0 | 438 | 4 | 4180 | 4940 | -- | -- | -- | -- | -- |
| DEC 26.... | 1345 | -- | 2800 | 3 | 34600 | 262000 | -- | -- | -- | -- | -- |
| JAN 27.... | 1325 | -- | 316 | 5 | 115 | 98 | -- | -- | -- | -- | -- |
| 28.... | 1525 | 5.0 | 335 | 5 | 185 | 167 | -- | -- | -- | -- | -- |
| 29.... | 1620 | -- | 324 | 5 | 186 | 163 | -- | -- | -- | -- | -- |
| 31.... | 1445 | 4.5 | 290 | 5 | 277 | 217 | -- | -- | -- | -- | -- |
| FEB 02.... | 1255 | 4.5 | 240 | 5 | 236 | 153 | -- | -- | -- | -- | -- |
| 03.... | 1610 | 5.0 | 238 | 5 | 135 | 87 | -- | -- | -- | -- | -- |
| 05.... | 1655 | 4.0 | 234 | 5 | 455 | 287 | -- | -- | -- | -- | -- |
| MAY 22.... | 1605 | 11.0 | 420 | 5 | 78 | 88 | -- | -- | -- | -- | -- |
| JUN 10.... | 1435 | 10.5 | 1210 | 5 | 145 | 474 | -- | -- | -- | -- | -- |
| 15.... | 1400 | 11.0 | 553 | 5 | 45 | 67 | -- | -- | -- | -- | -- |
| 18.... | 1445 | 11.0 | 493 | 5 | 28 | 37 | -- | -- | -- | -- | -- |
| 22.... | 1230 | 10.5 | 594 | 5 | 13 | 21 | -- | -- | -- | -- | -- |
| 29.... | 1310 | 14.5 | 330 | 5 | 24 | 21 | -- | -- | -- | -- | -- |
| JUL 06.... | 1215 | 15.0 | 235 | 5 | 9 | 5.7 | -- | -- | -- | -- | -- |
| 09.... | 0950 | 14.0 | 214 | 5 | 52 | 30 | -- | -- | -- | -- | -- |
| 13.... | 1155 | -- | 234 | 5 | 10 | 6.3 | -- | -- | -- | -- | -- |
| 16.... | 1440 | 18.0 | 176 | 5 | 214 | 102 | -- | -- | -- | -- | -- |
| 21.... | 1125 | 15.5 | 178 | 5 | 117 | 56 | -- | -- | -- | -- | -- |
| 23.... | 1010 | 16.5 | 149 | 9 | 157 | 63 | -- | -- | -- | -- | -- |
| 28.... | 1145 | 20.0 | 129 | 5 | 597 | 208 | -- | -- | -- | -- | -- |
| 30.... | 1600 | 17.0 | 138 | 5 | 628 | 234 | -- | -- | -- | -- | -- |
| AUG 04.... | 1450 | 21.0 | 111 | 5 | 300 | 90 | -- | -- | -- | -- | -- |
| 06.... | 1320 | 23.0 | 113 | 5 | 354 | 108 | -- | -- | -- | -- | -- |
| 11.... | 1355 | 21.0 | 108 | 5 | 1580 | 461 | 48 | 74 | 92 | 100 | -- |
| 13.... | 1225 | 20.5 | 95 | 5 | 1770 | 454 | -- | -- | -- | -- | 100 |
| 17.... | 1300 | 20.5 | 90 | 5 | 1920 | 467 | -- | -- | -- | -- | -- |
| 20.... | 1305 | 17.0 | 95 | 5 | 1220 | 313 | -- | -- | -- | -- | -- |
| 26.... | 1050 | 16.0 | 89 | 5 | 1210 | 291 | -- | -- | -- | -- | -- |
| 27.... | 1450 | 17.5 | 89 | 5 | 1440 | 346 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 .015 MM | SED. SUSP. FALL DIAM. % FINER THAN .031 MM | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|-------|------|-----------------------------|---|---|---|--|--|--|--|--|---|
| AUG | | | | | | | | | | | |
| 31... | 1120 | 15.5 | 97 | 5 | 652 | 171 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 03... | 1015 | 16.0 | 101 | 5 | 1370 | 374 | -- | -- | -- | -- | -- |
| 08... | 1200 | 16.0 | 85 | 5 | 1540 | 353 | -- | -- | -- | -- | -- |
| 15... | 1210 | 16.0 | 78 | 5 | 587 | 124 | 33 | 77 | 100 | -- | 99 |
| 21... | 1455 | 14.0 | 185 | 5 | 1020 | 509 | -- | 66 | 91 | 98 | 100 |
| 28... | 1130 | 12.5 | 178 | 9 | 592 | 285 | -- | 60 | 88 | 97 | -- |

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDED (MG/L) | SED1- 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 | | | | | | | | | | | |
| 05... | 1405 | 9.0 | 158 | 5 | 271 | 116 | 45 | 69 | 87 | 97 | 99 |
| 06... | 1101 | -- | 2300 | -- | 19000 | 118000 | -- | -- | -- | -- | -- |
| 06... | 1315 | 12.0 | 2330 | 5 | 23100 | 145000 | -- | -- | 41 | 67 | 91 |
| 06... | 1525 | 12.0 | 2690 | -- | 25200 | 183000 | -- | 24 | -- | -- | -- |
| 06... | 1545 | 12.0 | 2850 | -- | 24800 | 191000 | -- | -- | -- | -- | -- |
| 06... | 1735 | 12.0 | 3400 | 5 | 25800 | 237000 | -- | 18 | 34 | 57 | 82 |
| 07... | 1455 | 10.5 | 1500 | -- | 2400 | 9720 | -- | -- | -- | -- | -- |
| 07... | 1500 | 10.5 | 1560 | 5 | 2420 | 10200 | -- | 20 | 39 | 63 | 83 |
| 13... | 1220 | 6.5 | 374 | 5 | 172 | 174 | -- | -- | -- | -- | -- |
| 19... | 1410 | 9.0 | 212 | 5 | 46 | 26 | -- | -- | -- | -- | -- |
| 26... | 1055 | 10.5 | 166 | 9 | 35 | 16 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 02... | 1137 | 8.0 | 450 | 9 | 111 | 135 | -- | -- | -- | -- | -- |
| 09... | 1355 | 8.5 | 225 | 9 | 13 | 7.9 | -- | -- | -- | -- | -- |
| 12... | 1205 | 9.5 | 604 | 5 | 358 | 584 | -- | -- | -- | -- | -- |
| 13... | 1142 | 8.0 | 520 | -- | 194 | 272 | -- | -- | -- | -- | -- |
| 15... | 1130 | 8.0 | 1430 | -- | 571 | 2200 | -- | -- | -- | -- | -- |
| 16... | 1345 | 8.0 | 1170 | -- | 557 | 1760 | -- | -- | -- | -- | -- |
| 16... | 1705 | -- | 1050 | -- | 536 | 1520 | -- | -- | -- | -- | -- |
| 17... | 1157 | 8.5 | 1380 | 5 | 1240 | 4620 | 6 | 7 | 13 | 26 | 40 |
| 23... | 1330 | 7.5 | 1430 | 5 | 226 | 873 | -- | -- | -- | -- | -- |
| 30... | 1330 | 5.0 | 434 | 9 | 10 | 12 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 02... | 1057 | 8.5 | 2780 | -- | 1710 | 12800 | -- | -- | -- | -- | -- |
| 02... | 1138 | 8.5 | 2800 | -- | 1300 | 9830 | -- | -- | -- | -- | -- |
| 02... | 1226 | 8.5 | 2620 | -- | 1170 | 8280 | -- | -- | -- | -- | -- |
| 02... | 1305 | 8.5 | 2520 | 5 | 1210 | 8230 | 7 | 7 | 13 | 22 | 30 |
| 02... | 1535 | -- | 2310 | -- | 711 | 4430 | -- | -- | -- | -- | -- |
| 02... | 1600 | -- | 2220 | -- | 702 | 4210 | -- | -- | -- | -- | -- |
| 02... | 1627 | -- | 2180 | -- | 780 | 4590 | -- | -- | -- | -- | -- |
| 02... | 1637 | 6.5 | 2150 | 5 | 876 | 5090 | -- | -- | -- | -- | -- |
| 02... | 1647 | 6.5 | 2090 | -- | 627 | 3540 | -- | -- | -- | -- | -- |
| 03... | 1255 | -- | 1400 | 5 | 252 | 953 | -- | -- | -- | -- | -- |
| 05... | 1337 | -- | 5390 | -- | 10700 | 156000 | -- | -- | -- | -- | -- |
| 05... | 1405 | -- | 5470 | -- | 10600 | 157000 | -- | -- | -- | -- | -- |
| 05... | 1430 | -- | 5760 | -- | 11200 | 174000 | -- | -- | -- | -- | -- |
| 05... | 1450 | -- | 5940 | 5 | 10100 | 162000 | 9 | 10 | 12 | 21 | 33 |
| 05... | 1500 | -- | 5900 | -- | 11400 | 182000 | -- | -- | -- | -- | -- |
| 05... | 1620 | -- | 5650 | -- | 12200 | 186000 | -- | -- | -- | -- | -- |
| 05... | 1640 | -- | 5550 | -- | 11800 | 177000 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|--|--|
| OCT | | | | | | | | | |
| 05... | -- | 99 | 99 | -- | 100 | -- | -- | -- | -- |
| 06... | -- | 97 | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | 98 | -- | -- | 99 | 100 | -- | -- | -- |
| 06... | -- | 96 | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | 96 | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | 93 | -- | -- | 98 | 100 | -- | -- | -- |
| 07... | -- | 90 | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 88 | -- | -- | 92 | 99 | 100 | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 98 | -- | -- | 100 | -- | -- | -- | -- |
| 26... | -- | 95 | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | |
| 02... | -- | 97 | -- | -- | 100 | -- | -- | -- | -- |
| 09... | -- | 87 | -- | -- | 100 | -- | -- | -- | -- |
| 12... | -- | 98 | -- | -- | 100 | -- | -- | -- | -- |
| 13... | -- | 99 | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | 91 | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 80 | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 80 | -- | -- | -- | -- | -- | -- | -- |
| 17... | 73 | 68 | 96 | -- | 100 | -- | -- | -- | -- |
| 23... | -- | 75 | -- | 99 | -- | -- | -- | -- | -- |
| 30... | -- | 95 | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | |
| 02... | -- | 61 | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 62 | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 57 | -- | -- | -- | -- | -- | -- | -- |
| 02... | 51 | 48 | 76 | 87 | -- | 99 | 100 | -- | -- |
| 02... | -- | 56 | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 55 | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 49 | -- | -- | -- | -- | -- | -- | -- |
| 02... | 44 | 45 | 69 | 82 | -- | 98 | 100 | -- | -- |
| 02... | -- | 55 | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 54 | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | 44 | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | 44 | -- | -- | -- | -- | -- | -- | -- |
| 05... | 51 | 37 | -- | -- | -- | -- | -- | -- | 100 |
| 05... | -- | 43 | 76 | 91 | -- | 99 | -- | -- | -- |
| 05... | -- | 37 | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | 35 | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | 34 | -- | -- | -- | -- | -- | -- | -- |

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 05... | 1706 | -- | 5420 | -- | 10200 | 149000 | -- | -- | -- | -- | -- | -- |
| 05... | 1815 | -- | 5180 | -- | 8210 | 115000 | -- | -- | -- | -- | -- | -- |
| 05... | 1835 | -- | 5040 | 5 | 8680 | 118000 | 7 | 7 | 9 | 18 | 30 | 46 |
| 05... | 2020 | -- | 4980 | -- | 7500 | 101000 | -- | -- | -- | -- | -- | -- |
| 05... | 2030 | -- | 5010 | 5 | 7340 | 99300 | -- | -- | -- | -- | -- | -- |
| 05... | 2040 | -- | 5040 | -- | 6780 | 92300 | -- | -- | -- | -- | -- | -- |
| 05... | 2150 | -- | 5550 | -- | 6620 | 99200 | -- | -- | -- | -- | -- | -- |
| 06... | 1355 | -- | 3770 | -- | 3700 | 37700 | -- | -- | -- | -- | -- | -- |
| 06... | 1420 | -- | 3740 | -- | 3500 | 35300 | -- | -- | -- | -- | -- | -- |
| 06... | 1425 | -- | 3720 | -- | 3580 | 36000 | -- | -- | -- | -- | -- | -- |
| 06... | 1520 | -- | 6110 | -- | 3840 | 63300 | -- | -- | -- | -- | -- | -- |
| 06... | 1535 | -- | 5970 | 5 | 4120 | 66400 | -- | -- | -- | -- | -- | -- |
| 06... | 1543 | -- | 5910 | -- | 3610 | 57600 | -- | -- | -- | -- | -- | -- |
| 07... | 1225 | 8.0 | 2450 | -- | 3270 | 21600 | -- | -- | -- | -- | -- | -- |
| 08... | 1324 | -- | 1510 | -- | 1380 | 5630 | -- | -- | -- | -- | -- | -- |
| 08... | 1455 | -- | 1490 | -- | 1410 | 5670 | -- | -- | -- | -- | -- | -- |
| 08... | 1505 | -- | 1490 | 3 | 2220 | 8930 | -- | -- | -- | -- | -- | -- |
| 10... | 1410 | -- | 1450 | 5 | 1820 | 7130 | -- | -- | -- | -- | -- | 17 |
| 14... | 1405 | 6.0 | 816 | 5 | 1240 | 2730 | -- | -- | -- | -- | -- | -- |
| 15... | 1432 | 6.0 | 3440 | -- | 3040 | 28200 | -- | -- | -- | -- | -- | -- |
| 15... | 1437 | 6.0 | 3420 | -- | 4640 | 42800 | -- | -- | -- | -- | -- | -- |
| 17... | 1415 | 7.0 | 1610 | 5 | 1150 | 5000 | -- | -- | -- | -- | -- | -- |
| 21... | 1440 | 6.0 | 1010 | 5 | 892 | 2430 | -- | -- | -- | -- | -- | -- |
| 28... | 1445 | 5.0 | 532 | 9 | 562 | 807 | -- | -- | -- | -- | -- | -- |
| 29... | 1200 | -- | 484 | 9 | 108 | 141 | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 06... | 1140 | -- | 269 | -- | 36 | 26 | -- | -- | -- | -- | -- | -- |
| 11... | 1331 | 5.0 | 355 | 5 | 56 | 54 | -- | -- | -- | -- | -- | -- |
| 16... | 1550 | 5.0 | 3540 | 5 | 3540 | 33800 | 3 | 3 | 6 | 9 | 15 | 23 |
| 17... | 1055 | 5.0 | 2980 | 5 | 1240 | 9980 | -- | -- | -- | -- | -- | -- |
| 19... | 1340 | -- | 1150 | 5 | 615 | 1910 | -- | -- | -- | -- | -- | -- |
| 22... | 1705 | -- | 676 | -- | 2330 | 4250 | -- | -- | -- | -- | -- | -- |
| 23... | 1239 | -- | 4840 | -- | 3600 | 47000 | -- | -- | -- | -- | -- | -- |
| 23... | 1258 | -- | 4810 | -- | 2390 | 31000 | -- | -- | -- | -- | -- | 29 |
| 23... | 1350 | -- | 4710 | -- | 2540 | 32300 | -- | -- | -- | -- | -- | 24 |
| 23... | 1512 | -- | 4560 | -- | 3830 | 47200 | -- | -- | -- | -- | -- | 20 |
| 23... | 1520 | -- | 4460 | 5 | 2170 | 26100 | -- | -- | -- | -- | -- | 36 |
| 23... | 1540 | -- | 4440 | -- | 3580 | 42900 | -- | -- | -- | -- | -- | -- |
| 23... | 2137 | -- | 5550 | -- | 3910 | 58600 | -- | -- | -- | -- | -- | -- |
| 23... | 2345 | -- | 7710 | -- | 11200 | 233000 | 3 | 4 | 7 | 11 | 18 | 30 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. DIAM. % FINER THAN .062 MM | SED. SUSP. DIAM. % FINER THAN .125 MM | SED. SUSP. DIAM. % FINER THAN .250 MM | SED. SUSP. DIAM. % FINER THAN .500 MM | SED. SUSP. DIAM. % FINER THAN 1.00 MM | SED. SUSP. DIAM. % FINER THAN 1.00 MM | SED. SUSP. DIAM. % FINER THAN 2.00 MM | SED. SUSP. DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|--|
| DEC | | | | | | | | |
| 05... | 35 | -- | -- | -- | -- | -- | -- | -- |
| 05... | 41 | -- | -- | -- | -- | -- | -- | -- |
| 05... | 39 | 75 | 92 | 98 | 100 | 100 | 100 | 100 |
| 05... | 41 | -- | -- | -- | -- | -- | -- | -- |
| 05... | 41 | -- | -- | -- | -- | -- | -- | -- |
| 05... | 42 | -- | -- | -- | -- | -- | -- | -- |
| 05... | 39 | -- | -- | -- | -- | -- | -- | -- |
| 06... | 34 | -- | -- | -- | -- | -- | -- | -- |
| 06... | 34 | -- | -- | -- | -- | -- | -- | -- |
| 06... | 34 | -- | -- | -- | -- | -- | -- | -- |
| 06... | 35 | -- | -- | -- | -- | -- | -- | -- |
| 06... | 32 | -- | -- | -- | -- | -- | -- | -- |
| 06... | 34 | -- | -- | -- | -- | -- | -- | -- |
| 07... | 24 | -- | -- | -- | -- | -- | -- | -- |
| 08... | 28 | -- | -- | -- | -- | -- | -- | -- |
| 08... | 27 | -- | -- | -- | -- | -- | -- | -- |
| 08... | 13 | -- | -- | -- | -- | -- | -- | -- |
| 10... | 15 | 29 | 68 | 95 | 100 | 100 | 100 | 100 |
| 14... | 7 | -- | -- | -- | -- | -- | -- | -- |
| 15... | 32 | -- | -- | -- | -- | -- | -- | -- |
| 15... | 22 | -- | -- | -- | -- | -- | -- | -- |
| 17... | 16 | -- | -- | -- | -- | -- | -- | -- |
| 21... | 4 | -- | -- | -- | -- | -- | -- | -- |
| 28... | 1 | -- | -- | -- | -- | -- | -- | -- |
| 29... | 1 | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | |
| 06... | 28 | -- | -- | -- | -- | -- | -- | -- |
| 11... | 10 | -- | -- | -- | -- | -- | -- | -- |
| 16... | 25 | 45 | 79 | 97 | 100 | 100 | 100 | 100 |
| 17... | 27 | -- | -- | -- | -- | -- | -- | -- |
| 19... | 8 | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 19 | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 52 | 82 | 99 | 100 | 100 | 100 | 100 |
| 23... | -- | 40 | 70 | 94 | 100 | 100 | 100 | 100 |
| 23... | 16 | 35 | 73 | 98 | 100 | 100 | 100 | 100 |
| 23... | -- | 59 | 87 | 99 | 100 | 100 | 100 | 100 |
| 23... | 18 | -- | -- | -- | -- | -- | -- | -- |
| 23... | 22 | -- | -- | -- | -- | -- | -- | -- |
| 23... | 38 | 52 | 78 | 97 | 99 | 100 | 100 | 100 |

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- MENT, SUS- PENDED (MG/L) | SED- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | |
| 23.... | 2350 | -- | 7710 | -- | 6930 | 144000 | -- | -- | -- | -- | -- |
| 24.... | 1040 | -- | 4620 | 6 | 7140 | 89100 | 5 | 5 | 7 | 13 | 20 |
| 25.... | 1555 | -- | 2400 | -- | 2420 | 15700 | -- | -- | -- | -- | -- |
| 25.... | 1655 | -- | 2370 | 5 | 2000 | 12800 | -- | -- | -- | -- | -- |
| 29.... | 1200 | 7.0 | 1250 | 5 | 1180 | 3980 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 03.... | 1500 | -- | 1000 | 5 | 280 | 756 | -- | -- | -- | -- | -- |
| 08.... | 1240 | -- | 514 | 5 | 55 | 76 | -- | -- | -- | -- | -- |
| 14.... | 1510 | 6.5 | 5010 | 5 | 6260 | 84700 | -- | -- | -- | -- | -- |
| 16.... | 1108 | -- | 5210 | 5 | 6580 | 92600 | 6 | 6 | 9 | 15 | 23 |
| 17.... | 1525 | -- | 4160 | -- | 4970 | 55800 | -- | -- | -- | -- | -- |
| 19.... | 0733 | 7.5 | 3170 | -- | 2970 | 25400 | -- | -- | -- | -- | -- |
| 19.... | 0954 | 7.0 | 3140 | 5 | 2460 | 20900 | -- | -- | -- | -- | -- |
| 20.... | 1339 | -- | 7260 | -- | 16800 | 329000 | -- | -- | -- | -- | -- |
| 20.... | 1446 | -- | 7840 | -- | 17600 | 373000 | -- | -- | -- | -- | -- |
| 20.... | 1550 | -- | 7710 | 5 | 16800 | 350000 | 8 | 8 | 10 | 21 | 33 |
| 20.... | 1553 | -- | 7710 | -- | 15100 | 314000 | -- | -- | -- | -- | -- |
| 20.... | 1601 | -- | 7940 | -- | 14400 | 309000 | -- | -- | -- | -- | -- |
| 20.... | 1720 | -- | 8160 | -- | 14000 | 308000 | -- | -- | -- | -- | -- |
| 21.... | 1630 | -- | 3310 | 5 | 6480 | 57900 | -- | -- | -- | -- | -- |
| 21.... | 1750 | -- | 3060 | -- | 8370 | 69200 | -- | -- | -- | -- | -- |
| 25.... | 1301 | 7.5 | 1030 | 5 | 1280 | 3560 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 01.... | 1525 | -- | 1310 | 5 | 2090 | 7390 | -- | -- | -- | -- | -- |
| 08.... | 1400 | -- | 662 | 5 | 376 | 672 | -- | -- | -- | -- | -- |
| 18.... | 1320 | -- | 592 | 5 | 580 | 927 | -- | -- | -- | -- | -- |
| 22.... | 1240 | 6.5 | 436 | 5 | 23 | 27 | -- | -- | -- | -- | -- |
| 31.... | 1315 | -- | 466 | 5 | 59 | 74 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 05.... | 1125 | 5.5 | 520 | 5 | 42 | 59 | -- | -- | -- | -- | -- |
| 12.... | 1305 | 6.5 | 2150 | 5 | 2030 | 11800 | -- | -- | -- | -- | -- |
| 14.... | 1120 | 5.5 | 1690 | 5 | 1270 | 5800 | -- | -- | -- | -- | -- |
| 16.... | 1115 | 7.0 | 1010 | 5 | 568 | 1550 | -- | -- | -- | -- | -- |
| 19.... | 1305 | 8.5 | 655 | 9 | 206 | 364 | -- | -- | -- | -- | -- |
| 28.... | 1225 | 7.0 | 840 | 5 | 222 | 503 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 03.... | 1315 | 8.5 | 627 | 5 | 47 | 80 | -- | -- | -- | -- | -- |
| 13.... | 1125 | 8.0 | 472 | 5 | 13 | 17 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 04.... | 1025 | 9.5 | 325 | 5 | 40 | 35 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|
| | .062 MM | .125 MM | .125 MM | .250 MM | .250 MM | .500 MM | .500 MM | 1.00 MM | 1.00 MM | 2.00 MM | | |
| JAN | | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 33 | 28 | 57 | 87 | -- | 97 | -- | 100 | -- | -- | -- | -- |
| 25... | -- | 19 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | 22 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | 4 | -- | -- | 7 | -- | 88 | -- | 99 | 100 | -- | -- |
| FEB | | | | | | | | | | | | |
| 03... | -- | 2 | -- | -- | 5 | -- | 19 | -- | 99 | 100 | -- | -- |
| 08... | -- | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 37 | 31 | 60 | 88 | -- | 99 | -- | 100 | -- | -- | -- | -- |
| 17... | -- | 29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 17 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 50 | -- | -- | 77 | -- | 95 | -- | -- | -- | -- | -- |
| 20... | -- | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 36 | -- | -- | 48 | -- | 68 | -- | 100 | -- | -- | -- |
| 21... | -- | 17 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | 9 | -- | -- | 15 | -- | 52 | -- | 100 | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 01... | 22 | 20 | 33 | 68 | -- | 96 | -- | 100 | -- | -- | -- | -- |
| 08... | -- | 3 | -- | -- | 7 | -- | 25 | -- | 100 | -- | -- | -- |
| 18... | -- | 1 | -- | -- | 2 | -- | 4 | -- | -- | 100 | -- | -- |
| 22... | -- | 14 | -- | -- | 15 | -- | 48 | -- | 100 | -- | -- | -- |
| 31... | -- | 10 | -- | -- | 25 | -- | 72 | -- | 100 | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 05... | -- | 21 | -- | -- | 31 | -- | 68 | -- | 100 | -- | -- | -- |
| 12... | -- | 22 | -- | -- | 31 | -- | 58 | -- | 98 | 100 | -- | -- |
| 14... | -- | 12 | -- | -- | 21 | -- | 50 | -- | 98 | 100 | -- | -- |
| 16... | -- | 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 1 | -- | -- | 3 | -- | 9 | -- | 91 | 100 | -- | -- |
| 28... | -- | 17 | -- | -- | 24 | -- | 48 | -- | 100 | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 03... | -- | 11 | -- | -- | 25 | -- | 47 | -- | 100 | -- | -- | -- |
| 13... | -- | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 04... | -- | 74 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, 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 |
|--------|------|-----------------------------|---|---|---------------------------------------|---|---|---|---|---|---|
| JUN | | | | | | | | | | | |
| 16.... | 1115 | 14.0 | 271 | 9 | 49 | 36 | 42 | 58 | 65 | 84 | 100 |
| 25.... | 1320 | 16.0 | 179 | 9 | 14 | 6.8 | 100 | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 20.... | 1515 | 16.5 | 131 | 5 | 14 | 5.0 | 83 | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 03.... | 1159 | 15.5 | 131 | 5 | 16 | 5.7 | 86 | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 02.... | 1310 | 14.0 | 90 | 5 | 13 | 3.2 | 84 | -- | -- | -- | -- |
| 13.... | 1510 | 16.5 | 158 | 9 | 39 | 17 | 94 | 97 | 98 | 100 | -- |
| 20.... | 1235 | 13.0 | 374 | 5 | 463 | 468 | 97 | 98 | 99 | 100 | -- |

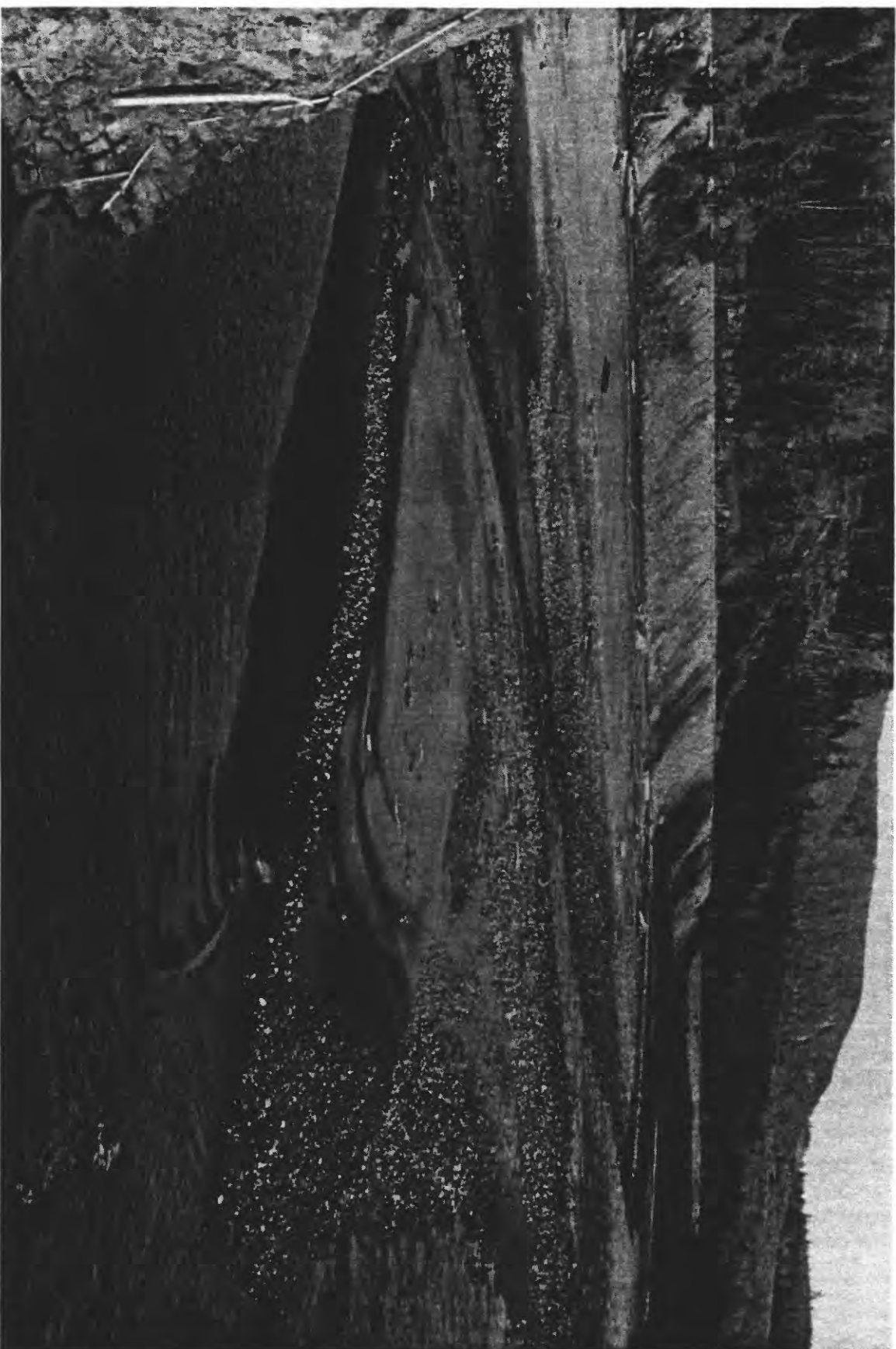


Photo date: April 4, 1983

Water-sensing orifices mounted on rocks at left are for the gaging station (241490) at South Fork T outlet River at Camp 12, 241490. View is upstream; discharge 1020 cubic feet per second.

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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.... | 1310 | 11.0 | 146 | 5 | 12 | 4.7 | -- | -- | -- | -- | -- |
| 13.... | 1255 | 10.5 | 193 | 5 | 12 | 6.3 | -- | -- | -- | -- | -- |
| 19.... | 1200 | 6.0 | 172 | 5 | 11 | 5.1 | -- | -- | -- | -- | -- |
| 25.... | 1120 | 10.5 | 374 | 9 | 5920 | 5980 | -- | -- | -- | -- | -- |
| 29.... | 1150 | 9.0 | 2710 | -- | 8470 | 62000 | -- | -- | -- | -- | -- |
| 29.... | 1300 | 9.0 | 2690 | -- | 6630 | 48200 | -- | -- | -- | -- | -- |
| 29.... | 1355 | 9.0 | 2480 | -- | 6740 | 45100 | -- | -- | -- | -- | -- |
| 29.... | 1410 | 9.0 | 2430 | 5 | 6660 | 43700 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 02.... | 1310 | 7.5 | 942 | 5 | 3480 | 8850 | -- | -- | -- | -- | -- |
| 18.... | 1320 | 7.0 | 1600 | 5 | 4920 | 21300 | -- | -- | -- | -- | -- |
| 24.... | 1200 | 4.0 | 540 | 5 | 248 | 362 | -- | -- | -- | -- | -- |
| 28.... | 1525 | 7.0 | 1900 | 5 | 2880 | 14800 | -- | -- | -- | -- | -- |
| 29.... | 1405 | 7.0 | 1650 | 5 | 1260 | 5610 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 03.... | 1255 | -- | 5610 | 5 | 8220 | 125000 | 2 | 3 | 6 | 9 | 13 |
| 03.... | 1515 | -- | 8010 | -- | 21400 | 463000 | -- | -- | -- | -- | -- |
| 03.... | 1520 | -- | 8190 | -- | 19000 | 420000 | -- | -- | -- | -- | -- |
| 03.... | 1525 | -- | 8270 | -- | 19200 | 429000 | -- | -- | -- | -- | -- |
| 03.... | 1545 | -- | 8300 | -- | 22000 | 493000 | -- | -- | -- | -- | -- |
| 03.... | 1550 | -- | 8230 | -- | 23600 | 524000 | -- | -- | -- | -- | -- |
| 03.... | 1600 | -- | 8080 | -- | 25000 | 545000 | -- | -- | -- | -- | -- |
| 03.... | 1605 | -- | 7970 | -- | 25700 | 553000 | -- | -- | -- | -- | -- |
| 03.... | 1610 | -- | 7740 | -- | 23900 | 499000 | -- | -- | -- | -- | -- |
| 03.... | 1615 | -- | 7740 | -- | 21100 | 441000 | -- | -- | -- | -- | -- |
| 03.... | 1615 | -- | 7740 | -- | 22900 | 479000 | -- | -- | -- | -- | -- |
| 03.... | 1620 | -- | 7770 | -- | 27100 | 569000 | -- | -- | -- | -- | -- |
| 03.... | 1625 | -- | 7770 | -- | 29400 | 617000 | -- | -- | -- | -- | -- |
| 03.... | 1630 | -- | 7770 | -- | 29600 | 621000 | -- | -- | -- | -- | -- |
| 03.... | 1635 | -- | 7800 | -- | 29800 | 628000 | -- | -- | -- | -- | -- |
| 04.... | 1430 | -- | 3750 | -- | 9710 | 98300 | -- | -- | -- | -- | -- |
| 04.... | 1450 | -- | 3750 | 5 | 10400 | 105000 | 3 | 4 | 5 | 9 | 13 |
| 04.... | 1505 | -- | 3750 | -- | 9360 | 94800 | -- | -- | -- | -- | -- |
| 05.... | 1335 | -- | 2400 | 5 | 3160 | 20500 | 4 | 4 | 8 | 13 | 19 |
| 13.... | 1225 | 5.5 | 781 | 5 | 305 | 643 | -- | -- | -- | -- | -- |
| 16.... | 1425 | -- | 4090 | -- | 6920 | 76400 | -- | -- | -- | -- | -- |
| 16.... | 1440 | -- | 4050 | 5 | 7020 | 76800 | 4 | 5 | 9 | 14 | 21 |
| 16.... | 1500 | -- | 3980 | -- | 7620 | 81900 | -- | -- | -- | -- | -- |
| 17.... | 1415 | -- | 3400 | 5 | 3520 | 32300 | 3 | 4 | 7 | 11 | 17 |
| 28.... | 1345 | 4.0 | 681 | 5 | 239 | 439 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 | | | | | | | | | | |
| 04... | -- | 61 | -- | -- | 64 | -- | -- | -- | -- | -- |
| 13... | -- | 78 | -- | -- | 90 | -- | 100 | -- | -- | -- |
| 19... | -- | 77 | -- | -- | 89 | -- | 100 | -- | -- | -- |
| 25... | -- | 9 | -- | -- | 58 | -- | 83 | -- | 96 | 100 |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | 16 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 15 | 17 | 27 | -- | 64 | -- | 97 | -- | 98 | -- |
| NOV | | | | | | | | | | |
| 02... | 10 | 11 | 38 | -- | 86 | -- | 100 | -- | 100 | -- |
| 18... | 12 | 9 | 28 | -- | 70 | -- | 98 | -- | 100 | -- |
| 24... | 9 | 12 | 17 | -- | 48 | -- | 100 | -- | -- | -- |
| 28... | 21 | 17 | 47 | -- | 87 | -- | 99 | -- | 100 | -- |
| 29... | 13 | 13 | 27 | -- | 73 | -- | 99 | -- | 100 | -- |
| DEC | | | | | | | | | | |
| 03... | -- | 23 | -- | 42 | -- | 81 | -- | 96 | 100 | -- |
| 03... | -- | 34 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 34 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 37 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 34 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 39 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 39 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 43 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 44 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 37 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 35 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 37 | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 37 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 21 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 18 | -- | -- | -- | -- | -- | 90 | -- | 100 |
| 04... | -- | 22 | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | 26 | -- | 40 | -- | 71 | -- | 94 | 99 | 100 |
| 13... | 17 | 17 | 27 | -- | 56 | -- | 99 | 100 | -- | -- |
| 16... | -- | 26 | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 29 | -- | 46 | -- | 75 | -- | 95 | 100 | -- |
| 16... | -- | 23 | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 28 | 24 | 42 | 36 | 74 | 62 | 97 | 94 | 99 | 100 |
| 28... | -- | 84 | -- | -- | -- | -- | -- | -- | -- | -- |

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|--|--|---|---|---|---|---|
| JAN | | | | | | | | | | | |
| 04.... | 1435 | 6.0 | 1350 | 9 | 632 | 2300 | -- | -- | -- | -- | -- |
| 05.... | 2135 | -- | 4480 | 5 | 2950 | 35700 | 4 | 4 | 9 | 14 | 21 |
| 05.... | 2330 | -- | 4290 | 5 | 3200 | 37100 | 4 | 6 | 10 | 16 | 24 |
| 06.... | 1230 | -- | 4890 | -- | 5720 | 75500 | -- | -- | -- | -- | -- |
| 06.... | 1250 | -- | 5010 | -- | 6520 | 88200 | -- | -- | -- | -- | -- |
| 06.... | 1640 | -- | 5260 | -- | 6560 | 93200 | -- | -- | -- | -- | -- |
| 06.... | 1700 | -- | 5260 | 5 | 4500 | 63900 | 3 | 3 | 6 | 10 | 15 |
| 07.... | 1230 | 8.5 | 4930 | 5 | 2440 | 32500 | 4 | 7 | 11 | 18 | 27 |
| 08.... | 1120 | 5.5 | 4490 | -- | 3560 | 43200 | -- | -- | -- | -- | -- |
| 08.... | 1415 | 5.5 | 4120 | -- | 3590 | 39900 | -- | -- | -- | -- | -- |
| 10.... | 1100 | 5.5 | 2430 | -- | 1380 | 9050 | -- | -- | -- | -- | -- |
| 10.... | 1610 | 6.0 | 2430 | 5 | 948 | 6220 | -- | -- | -- | -- | -- |
| 17.... | 1310 | 9.0 | 741 | 5 | 140 | 280 | -- | -- | -- | -- | -- |
| 24.... | 1505 | 7.0 | 1060 | 5 | 130 | 372 | -- | -- | -- | -- | -- |
| 27.... | 1415 | -- | 2250 | 5 | 505 | 3070 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 02.... | 1240 | 5.0 | 504 | 5 | 12 | 16 | -- | -- | -- | -- | -- |
| 07.... | 1420 | 5.0 | 489 | 9 | 12 | 16 | -- | -- | -- | -- | -- |
| 14.... | 1645 | 8.0 | 1500 | 5 | 237 | 960 | -- | -- | -- | -- | -- |
| 23.... | 1325 | 11.0 | 1980 | 5 | 194 | 1040 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 02.... | 1410 | 6.5 | 873 | 9 | 22 | 52 | -- | -- | -- | -- | -- |
| 10.... | 1310 | 9.0 | 3420 | 5 | 1390 | 12800 | -- | -- | -- | -- | -- |
| 10.... | 1620 | 9.0 | 3020 | 9 | 1150 | 9380 | -- | -- | -- | -- | -- |
| 11.... | 1335 | 8.5 | 1930 | 5 | 414 | 2160 | -- | -- | -- | -- | -- |
| 16.... | 1435 | 9.0 | 1090 | 9 | 45 | 132 | -- | -- | -- | -- | -- |
| 25.... | 1300 | -- | 593 | 9 | 5 | 8.0 | -- | -- | -- | -- | -- |
| 30.... | 1225 | 9.5 | 2480 | 5 | 789 | 5280 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 01.... | 1340 | 7.0 | 1370 | 5 | 101 | 374 | -- | -- | -- | -- | -- |
| 07.... | 1250 | 8.5 | 709 | 9 | 28 | 54 | -- | -- | -- | -- | -- |
| 13.... | 1300 | 7.0 | 526 | 9 | 12 | 17 | -- | -- | -- | -- | -- |
| 18.... | 1145 | 9.0 | 505 | 9 | 11 | 15 | -- | -- | -- | -- | -- |
| 28.... | 1115 | 8.0 | 430 | 9 | 316 | 367 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 04.... | 1340 | 11.5 | 375 | 9 | 10 | 10 | -- | -- | -- | -- | -- |
| 16.... | 1220 | -- | 469 | 9 | 6 | 7.6 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 02.... | 1405 | -- | 311 | 9 | 6 | 5.0 | -- | -- | -- | -- | -- |
| 07.... | 1410 | -- | 245 | 9 | 3 | 2.0 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 |
|-------|--|--|--|--|--|--|--|--|--|--|
| JAN | | | | | | | | | | |
| 04... | 27 | 23 | 47 | -- | 76 | 97 | -- | 100 | -- | -- |
| 05... | 30 | 38 | 49 | -- | 86 | 100 | -- | -- | -- | -- |
| 05... | 33 | 32 | 52 | -- | 87 | 100 | -- | -- | -- | -- |
| 06... | -- | 19 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | 16 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | 17 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | 22 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 40 | 35 | 61 | 56 | 89 | 99 | 81 | -- | 95 | 99 |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 100 |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 19 | 15 | 30 | -- | 63 | 100 | -- | -- | -- | -- |
| 17... | -- | 36 | -- | 73 | -- | -- | 98 | -- | 100 | -- |
| 24... | -- | 66 | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | 31 | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 02... | -- | 11 | -- | 41 | -- | -- | 92 | -- | 100 | -- |
| 07... | -- | 52 | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 10 | -- | 38 | -- | -- | 89 | -- | 99 | 100 |
| 23... | -- | 33 | -- | 66 | -- | -- | 88 | -- | 98 | 100 |
| MAR | | | | | | | | | | |
| 02... | -- | 21 | -- | 84 | -- | -- | -- | -- | -- | -- |
| 10... | 30 | 29 | 45 | -- | 74 | 98 | -- | 100 | -- | -- |
| 10... | 25 | 25 | 38 | -- | 69 | 98 | -- | 100 | -- | -- |
| 11... | -- | 20 | -- | 50 | -- | -- | 97 | -- | -- | -- |
| 16... | -- | 20 | -- | 66 | -- | -- | 97 | -- | 100 | -- |
| 25... | -- | 40 | -- | 66 | -- | -- | 94 | -- | 100 | -- |
| 30... | 20 | 22 | 30 | -- | 58 | 98 | -- | 100 | -- | -- |
| APR | | | | | | | | | | |
| 01... | -- | 15 | -- | 40 | -- | -- | 97 | -- | 100 | -- |
| 07... | -- | 3 | -- | 19 | -- | -- | 73 | -- | 100 | -- |
| 13... | -- | 18 | -- | 52 | -- | -- | 87 | -- | 100 | -- |
| 18... | -- | 41 | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | 1 | -- | 3 | -- | -- | 45 | -- | 98 | 100 |
| MAY | | | | | | | | | | |
| 04... | -- | 47 | -- | 68 | -- | -- | -- | -- | -- | -- |
| 16... | -- | 43 | -- | 62 | -- | -- | 100 | -- | -- | -- |
| JUN | | | | | | | | | | |
| 02... | -- | 32 | -- | 84 | -- | -- | 100 | -- | -- | -- |
| 07... | -- | 28 | -- | 75 | -- | -- | 100 | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- 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 |
|-------|------|-----------------------------|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | | | |
| 14... | 1230 | -- | 304 | 9 | 8 | 6.6 | 36 | 54 | 73 | 100 |
| 27... | 1310 | 17.5 | 399 | 9 | 14 | 15 | 38 | 53 | 74 | 100 |
| JUL | | | | | | | | | | |
| 11... | 1305 | 16.0 | 303 | 9 | 8 | 6.5 | 33 | 54 | 83 | -- |
| 19... | 1250 | 14.0 | 481 | 9 | 14 | 18 | 35 | 57 | 81 | 92 |
| 26... | 1225 | 15.5 | 310 | 9 | 4 | 3.3 | 49 | 70 | 99 | -- |
| AUG | | | | | | | | | | |
| 01... | 1230 | 18.0 | 220 | 5 | 6 | 3.6 | 52 | 63 | 94 | -- |
| 08... | 1200 | 17.0 | 200 | 9 | 10 | 5.4 | 23 | 35 | 72 | 92 |
| 16... | 1410 | 19.5 | 152 | 9 | 4 | 1.6 | 65 | 77 | 99 | -- |
| 23... | 1430 | 16.0 | 138 | 9 | 4 | 1.5 | 70 | 88 | 99 | -- |
| SEP | | | | | | | | | | |
| 08... | 1225 | 14.0 | 191 | 9 | 4 | 2.1 | 60 | 69 | 87 | 100 |
| 14... | 1310 | 15.0 | 197 | 9 | 6 | 3.2 | 62 | 76 | 92 | 100 |
| 21... | 1430 | 12.0 | 171 | 9 | 6 | 2.8 | 67 | 79 | 96 | 100 |
| 28... | 1320 | 9.5 | 144 | 9 | 2 | .78 | 17 | 19 | 30 | 72 |

14241490 SOUTH FORK TOUTLE RIVER AT CAMP 12 NEAR TOUTLE, WA
 PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | 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 | | | |
|--------------|------|-----------------------------|---|---|---|---|---|---|---|---|
| OCT 25... | 0945 | 8.5 | 1 | 0 | 1 | 15 | 61 | | | |
| JUN 10... | 1510 | 10.5 | 1 | 0 | 0 | 0 | 1 | | | |
| 10... | 1515 | 10.5 | 1 | 0 | 0 | 0 | 7 | | | |
| JUL 28... | 1155 | 20.0 | 1 | 0 | 0 | 1 | 4 | | | |
| 28... | 1200 | 20.0 | 1 | 0 | 0 | 1 | 8 | | | |
| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | 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 25... | 82 | 87 | 90 | 94 | 98 | 100 | -- | | | |
| JUN 10... | 2 | 4 | 6 | 8 | 16 | 43 | 100 | | | |
| 10... | 23 | 34 | 43 | 55 | 85 | 100 | -- | | | |
| JUL 28... | 7 | 10 | 16 | 24 | 41 | 75 | 100 | | | |
| 28... | 21 | 29 | 36 | 45 | 60 | 84 | 100 | | | |

14241500 SOUTH FORK TOUTLE RIVER AT TOUTLE, WA

LOCATION.--Lat 46°19'20", long 122°41'45", at county bridge (Harry Gardner ridge) 0.5 mi southwest of Toutle, 0.1 mi downstream of discontinued gaging station, and at mile 1.3.

DRAINAGE AREA.-- 118 mi².

PERIOD OF SEDIMENT DATA.--May 1980 to April 1981.

GAGE.--Ungaged sampling site. Altitude at bridge is 565 ft, from topographic map.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|--------------|------|---------------------|
| 1981 | Nov. 7, 1980 | 0655 | 99,100 |

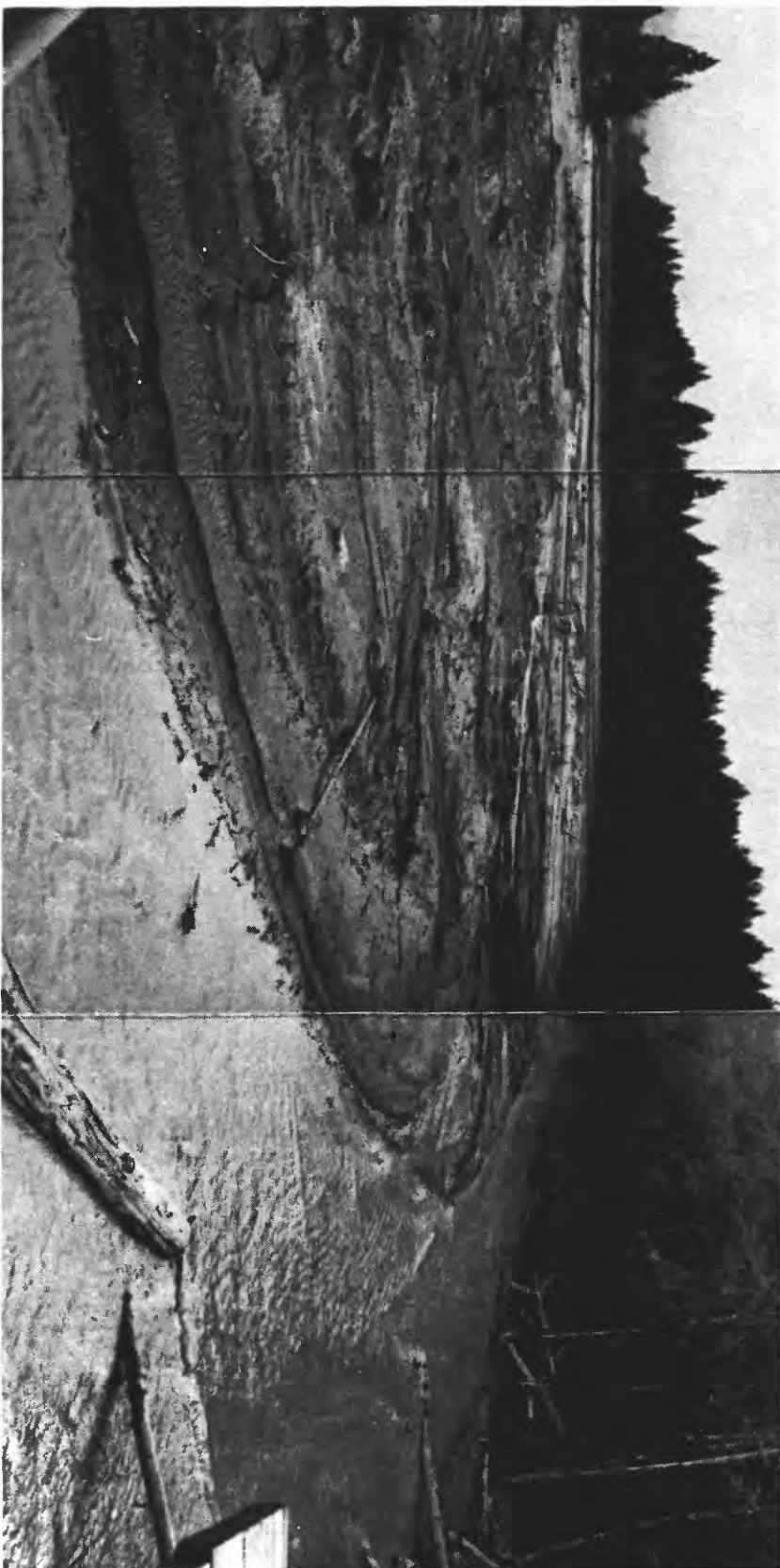


Photo date: October 9, 1980

South Fork Toutle River at Toutle, station 241500, 1.4 miles above the confluence with the North Fork Toutle River. Discharge 92 cubic feet per second.

14241500 SOUTH FORK TOUTLE RIVER AT TOUTLE, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | --- | --- | --- | --- | 7200 | 9040 | --- | --- | --- |
| 2 | --- | --- | --- | 400 | 4400 | 4400 | --- | --- | --- |
| 3 | --- | --- | --- | 370 | 4900 | 9100 | --- | --- | --- |
| 4 | --- | --- | --- | 460 | 4600 | 5590 | --- | --- | --- |
| 5 | --- | --- | --- | 450 | 3200 | 2940 | --- | --- | --- |
| 6 | --- | --- | --- | 340 | --- | --- | --- | --- | --- |
| 7 | --- | --- | --- | 710 | 21000 | 77200 | --- | --- | --- |
| 8 | --- | --- | --- | 2590 | 64900 | 464000 | --- | --- | --- |
| 9 | --- | --- | --- | 2250 | 17900 | 115000 | --- | --- | --- |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21 | --- | --- | --- | 2160 | 11800 | 96200 | --- | --- | --- |
| 22 | --- | --- | --- | 1840 | 7700 | 39900 | --- | --- | --- |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31 | 150 | 2200 | 890 | --- | --- | --- | --- | --- | --- |
| TOTAL | 150 | --- | 890 | 11570 | --- | 822370 | --- | --- | --- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, IN- STANTANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|--|--------------------------------------|----------------------------------|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 09.... | 1240 | 14.0 | 92 | 4 | 3500 | 869 | -- | -- | -- | -- | -- |
| 24.... | 1925 | 9.0 | 80 | -- | 1090 | 235 | -- | -- | -- | -- | -- |
| 29.... | 1240 | 10.0 | 100 | -- | 1240 | 335 | -- | -- | -- | -- | -- |
| 31.... | 1720 | 9.5 | 151 | 9 | 2850 | 1160 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 03.... | 2230 | 11.0 | 600 | -- | 6500 | 10500 | -- | -- | -- | -- | -- |
| 03.... | 2310 | 11.0 | 586 | 4 | 7140 | 11300 | -- | -- | -- | -- | -- |
| 06.... | 2250 | 11.0 | 2030 | 4 | 85800 | 470000 | -- | -- | -- | -- | -- |
| 06.... | 2300 | 11.0 | 2050 | -- | 82900 | 459000 | 18 | 18 | 33 | 51 | 73 |
| 07.... | 0015 | -- | 2200 | 5 | 89900 | 534000 | -- | -- | -- | -- | -- |
| 07.... | 0555 | -- | 2530 | -- | 98600 | 674000 | -- | -- | -- | -- | -- |
| 07.... | 0610 | -- | 2350 | -- | 96200 | 610000 | -- | -- | -- | -- | -- |
| 07.... | 0655 | -- | 2160 | -- | 99100 | 578000 | -- | -- | -- | -- | -- |
| 07.... | 0700 | -- | 2160 | -- | 91800 | 535000 | 12 | 13 | 19 | 30 | 45 |
| 07.... | 0705 | -- | 2150 | 4 | 97700 | 567000 | -- | -- | -- | -- | -- |
| 07.... | 0940 | 10.0 | 2000 | 4 | 64400 | 348000 | -- | -- | -- | -- | -- |
| 07.... | 1120 | -- | 2150 | 4 | 43700 | 254000 | -- | -- | -- | -- | -- |
| 07.... | 1300 | 10.0 | 2700 | -- | 45200 | 330000 | -- | -- | -- | -- | -- |
| 07.... | 1340 | 10.5 | 3000 | -- | 45600 | 369000 | -- | -- | -- | -- | -- |
| 07.... | 1410 | 10.5 | 3200 | -- | 52400 | 453000 | -- | -- | -- | -- | -- |
| 07.... | 1525 | -- | 3450 | -- | 53300 | 496000 | -- | -- | -- | -- | -- |
| 07.... | 1610 | 10.0 | 3350 | 4 | 44500 | 403000 | -- | -- | -- | -- | -- |
| 07.... | 1700 | -- | 2900 | -- | 45000 | 352000 | -- | -- | -- | -- | -- |
| 07.... | 1740 | -- | 2600 | -- | 48200 | 338000 | -- | -- | -- | -- | -- |
| 08.... | 0855 | -- | 2450 | -- | 28100 | 186000 | 4 | 5 | 8 | 13 | 20 |
| 08.... | 0900 | -- | 2400 | 4 | 23300 | 151000 | -- | -- | -- | -- | -- |
| 21.... | 1525 | -- | 4200 | 3 | 22000 | 254000 | 5 | 8 | 12 | 20 | 27 |
| 21.... | 1630 | -- | 4100 | -- | 29000 | 321000 | -- | -- | -- | -- | -- |
| 21.... | 1700 | -- | 3950 | -- | 32200 | 343000 | -- | -- | -- | -- | -- |
| 21.... | 1750 | -- | 3650 | -- | 26500 | 261000 | -- | -- | -- | -- | -- |
| 21.... | 1830 | -- | 3600 | 7 | 22300 | 217000 | 5 | 8 | 13 | 21 | 32 |
| 21.... | 1930 | -- | 2900 | -- | 15600 | 122000 | -- | -- | -- | -- | -- |
| 21.... | 2030 | -- | 2950 | -- | 13900 | 111000 | -- | -- | -- | -- | -- |
| 21.... | 2130 | -- | 3100 | -- | 13800 | 116000 | -- | -- | -- | -- | -- |
| 21.... | 2250 | -- | 2850 | -- | 11000 | 84600 | -- | -- | -- | -- | -- |
| 21.... | 2310 | -- | 2800 | 3 | 13600 | 103000 | 4 | 5 | 9 | 15 | 24 |
| 22.... | 2330 | -- | 2750 | -- | 10600 | 78700 | -- | -- | -- | -- | -- |
| 22.... | 0010 | -- | 2680 | -- | 11400 | 82500 | -- | -- | -- | -- | -- |
| 22.... | 0105 | -- | 2580 | -- | 9980 | 69500 | -- | -- | -- | -- | -- |
| 22.... | 0205 | -- | 2490 | -- | 10000 | 67200 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|--|--|
| OCT | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | |
| 03... | -- | 63 | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 56 | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 89 | -- | 94 | -- | 100 | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 61 | -- | 99 | -- | 100 | -- | -- | -- |
| 07... | -- | 61 | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 37 | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 51 | -- | -- | 100 | -- | -- | -- | -- |
| 08... | 31 | -- | 58 | -- | 92 | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | 100 | -- |
| 21... | -- | 42 | 63 | 90 | -- | 99 | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 56 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 45 | -- | 91 | -- | 99 | -- | 100 | -- |
| 21... | -- | -- | 68 | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 50 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 52 | -- | -- | -- | -- | -- | -- | -- |
| 21... | 37 | 66 | -- | 91 | -- | -- | 99 | -- | 100 |
| 21... | -- | 47 | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 46 | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 45 | -- | -- | -- | -- | -- | -- | -- |

14241500 SOUTH FORK TOUTLE RIVER AT TOUTLE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 |
|--------|------|-----------------------------|---|---|---|---|--|--|--|
| NOV | | | | | | | | | |
| 22.... | 0310 | -- | 2390 | -- | 10100 | 65200 | -- | -- | -- |
| 22.... | 0415 | -- | 2280 | 3 | 9100 | 56000 | 5 | 6 | 10 |
| 22.... | 0505 | -- | 2210 | -- | 8540 | 51000 | -- | -- | -- |
| 22.... | 0605 | -- | 2110 | -- | 8290 | 47200 | -- | -- | -- |
| 22.... | 0705 | -- | 2020 | -- | 9290 | 50700 | -- | -- | -- |
| 22.... | 0805 | -- | 1940 | -- | 7660 | 40100 | -- | -- | -- |
| 22.... | 0910 | -- | 1860 | 3 | 9760 | 49000 | 4 | 5 | 8 |
| DEC | | | | | | | | | |
| 01.... | 1235 | -- | 750 | 3 | 4350 | 8810 | -- | -- | -- |
| 02.... | 1300 | -- | 2900 | -- | 23400 | 183000 | -- | -- | -- |
| 02.... | 1310 | -- | 2900 | -- | 18100 | 142000 | -- | -- | -- |
| 10.... | 1635 | -- | 840 | 3 | 5480 | 12400 | -- | -- | -- |
| 11.... | 1615 | -- | 890 | 3 | 4750 | 11400 | -- | -- | -- |
| 12.... | 1600 | -- | 1000 | 3 | 7420 | 20000 | -- | -- | -- |
| 13.... | 1515 | -- | 920 | 3 | 2800 | 6960 | -- | -- | -- |
| 14.... | 1515 | -- | 820 | 3 | 3510 | 7330 | -- | -- | -- |
| 17.... | 1350 | 6.5 | 627 | -- | 3640 | 6160 | -- | -- | -- |
| 17.... | 1410 | 6.5 | 627 | 5 | 2140 | 3620 | -- | -- | -- |
| 22.... | 1710 | -- | 2700 | -- | 7620 | 55500 | -- | -- | -- |
| 24.... | 1430 | -- | 2200 | -- | 8740 | 51900 | -- | -- | -- |
| 25.... | 1425 | -- | 4300 | -- | 13800 | 160000 | -- | -- | -- |
| 26.... | 0900 | -- | 6100 | -- | 92600 | 1530000 | -- | -- | -- |
| 31.... | 1555 | 10.0 | 2000 | -- | 6660 | 36000 | -- | -- | -- |
| JAN | | | | | | | | | |
| 02.... | 1510 | -- | -- | -- | 5620 | -- | -- | -- | -- |
| 05.... | 1245 | -- | -- | -- | 8550 | -- | -- | -- | -- |
| 06.... | 0840 | -- | -- | -- | 3360 | -- | -- | -- | -- |
| 12.... | 1435 | 6.0 | 386 | 3 | 2510 | 2620 | -- | -- | -- |
| 27.... | 1505 | -- | 372 | 5 | 1370 | 1380 | -- | -- | -- |
| 28.... | 1645 | 5.5 | 375 | 5 | 1180 | 1190 | -- | -- | -- |
| 29.... | 1720 | 6.0 | 373 | 3 | 1030 | 1040 | -- | -- | -- |
| 31.... | 1605 | 5.0 | 305 | 5 | 1230 | 1010 | -- | -- | -- |
| FEB | | | | | | | | | |
| 02.... | 1445 | 5.0 | 257 | 5 | 772 | 536 | -- | -- | -- |
| 05.... | 1510 | 5.5 | 249 | 5 | 6590 | 4430 | -- | -- | -- |
| 16.... | 1420 | 9.0 | 3530 | 5 | 6020 | 57400 | -- | -- | -- |
| 19.... | 1440 | 7.5 | -- | -- | 12500 | -- | -- | -- | -- |
| 19.... | 1530 | 7.5 | -- | -- | 13300 | -- | -- | -- | -- |
| 19.... | 1600 | 7.5 | -- | -- | 12000 | -- | -- | -- | -- |
| 19.... | 1630 | 7.5 | -- | -- | 10900 | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| 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 |
|-------|--|--|--|---|--|--|--|--|--|
| NOV | | | | | | | | | |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 16 | 24 | 37 | -- | 65 | 93 | 98 | 99 | 100 |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 13 | 19 | 30 | 39 | 55 | 90 | 99 | 100 | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | |
| 01... | -- | -- | -- | 24 | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | 30 | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | 65 | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 47 | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14241500 SOUTH FORK TOUTLE RIVER AT TOUTLE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|-------|------|-----------------------------|---|---|---|---|---|
| FEB | | | | | | | |
| 19... | 1720 | -- | -- | -- | 11500 | -- | -- |
| 19... | 1740 | -- | 4450 | 5 | 11300 | 136000 | -- |
| 19... | 1800 | -- | -- | -- | 11700 | -- | 36 |
| 19... | 1900 | 7.0 | -- | -- | 9630 | -- | 37 |
| 19... | 2005 | 6.0 | -- | -- | 8990 | -- | -- |
| 19... | 2105 | 6.0 | -- | -- | 7940 | -- | 59 |
| 19... | 2205 | 5.5 | 3410 | -- | 8860 | 81600 | -- |
| 19... | 2300 | 5.0 | -- | -- | 8760 | -- | -- |
| 20... | 0030 | 5.0 | -- | -- | 9070 | -- | 33 |
| 20... | 0130 | 5.5 | -- | -- | 7800 | -- | -- |
| 20... | 0230 | 5.5 | -- | -- | 6030 | -- | 43 |
| 20... | 0345 | 5.5 | -- | -- | 6180 | -- | -- |
| 20... | 0435 | 5.5 | -- | -- | 5760 | -- | -- |
| 20... | 0550 | 5.5 | 3430 | -- | 5560 | 51500 | 37 |
| 20... | 0705 | 5.5 | -- | -- | 4880 | -- | -- |
| 20... | 0750 | 5.5 | -- | 5 | 5360 | -- | -- |
| 20... | 0900 | 5.5 | -- | -- | 8390 | -- | 36 |
| 20... | 1000 | 6.0 | -- | -- | 4360 | -- | -- |
| 20... | 1150 | 6.5 | 2880 | -- | 3970 | 30900 | -- |
| 20... | 1210 | 7.0 | 2880 | 5 | 4180 | 32500 | -- |
| 20... | 1225 | 7.0 | -- | -- | 3580 | -- | -- |
| 22... | 1130 | -- | 1320 | 5 | 2720 | 9690 | -- |
| MAR | | | | | | | |
| 05... | 1200 | 6.5 | 691 | 5 | 918 | 1710 | -- |
| 20... | 1230 | -- | 360 | 5 | 681 | 662 | -- |
| APR | | | | | | | |
| 08... | 1415 | 6.5 | 1060 | 5 | 1620 | 4640 | -- |
| 10... | 1730 | 7.0 | 1060 | 5 | 2290 | 6550 | -- |
| 15... | 1325 | 8.5 | 786 | 5 | 677 | 1440 | -- |
| 20... | 1520 | 8.5 | 736 | 5 | 244 | 485 | -- |
| 24... | 1430 | 10.0 | 1080 | 5 | 581 | 1690 | -- |

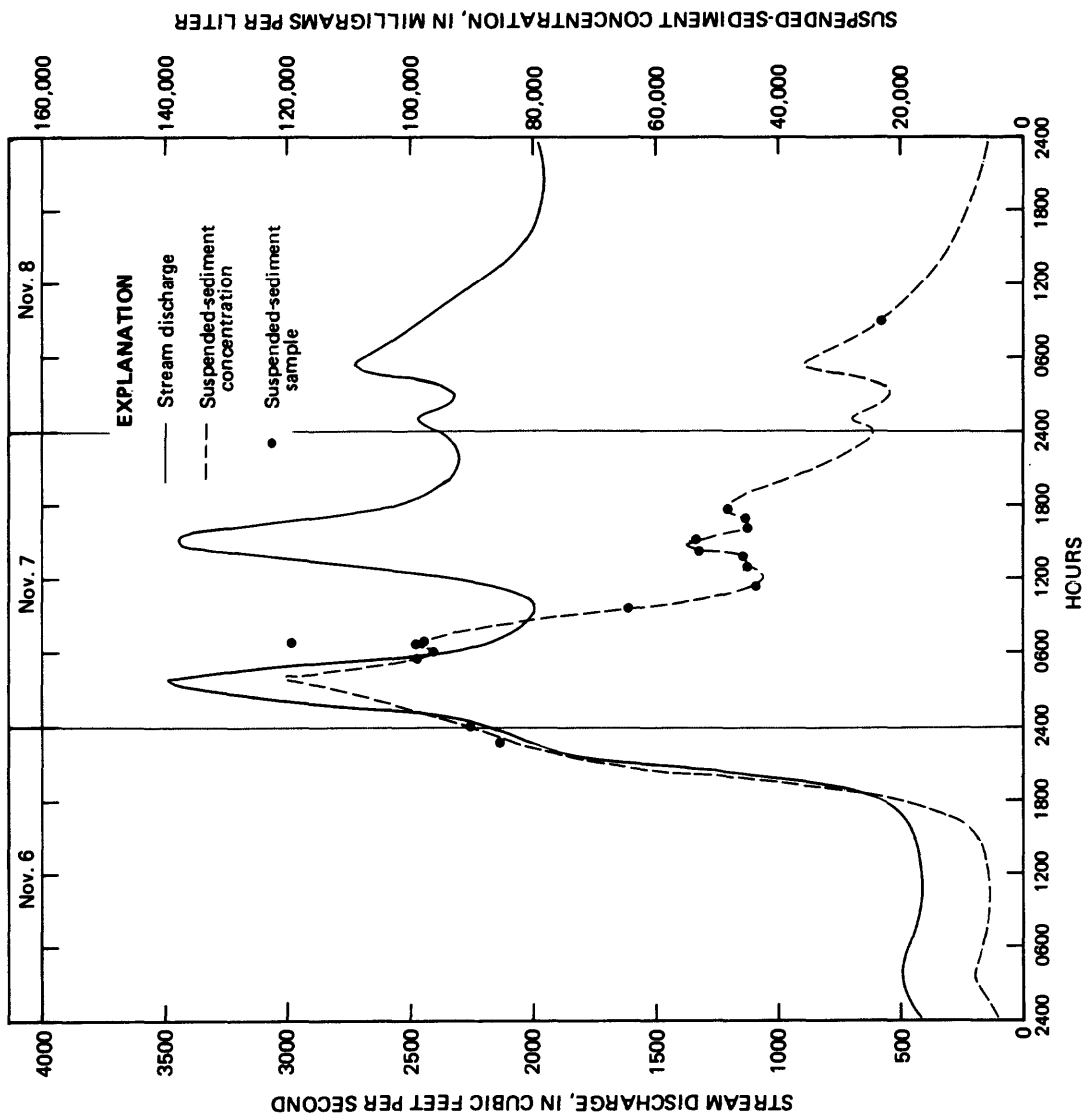


FIGURE 3. — Hydrograph of stream discharge and suspended-sediment concentration at South Fork Toutle River at Toutle for November 6-8, 1980.

14241500 SOUTH FORK TOUTLE RIVER AT TOUTLE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMPLING POINTS | 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 |
|-------|------|-----------------------------|------------------------------------|---|---|---|---|
| DEC | | | | | | | |
| 17... | 1340 | 6.5 | 1 | 0 | 1 | 5 | 24 |
| 17... | 1345 | 6.5 | 1 | 0 | 0 | 4 | 34 |
| 17... | 1350 | 6.5 | 1 | 0 | 0 | 9 | 55 |
| 17... | 1355 | 6.5 | 1 | 0 | 0 | 4 | 25 |
| 17... | 1400 | 6.5 | 1 | 6 | 9 | 20 | 37 |
| FEB | | | | | | | |
| 16... | 1450 | 9.0 | 1 | 0 | 2 | 20 | 77 |
| 16... | 1455 | 9.0 | 1 | 0 | 2 | 23 | 77 |
| 16... | 1500 | 9.0 | 1 | 0 | 1 | 5 | 18 |
| 16... | 1505 | 9.0 | 1 | 0 | 1 | 9 | 30 |
| 16... | 1510 | 9.0 | 1 | 0 | 0 | 1 | 3 |
| 19... | 1830 | 7.0 | 1 | 0 | 3 | 18 | 72 |
| 19... | 1835 | 7.0 | 1 | 0 | 1 | 9 | 39 |
| 19... | 1840 | 7.0 | 1 | 0 | 1 | 14 | 34 |
| 19... | 1845 | 7.0 | 1 | 0 | 0 | 3 | 10 |
| 19... | 1850 | 7.0 | 1 | 0 | 0 | 3 | 15 |
| 20... | 0825 | 5.5 | 1 | 0 | 0 | 1 | 5 |
| 20... | 0830 | 5.5 | 1 | 3 | 9 | 22 | 45 |
| 20... | 0835 | 5.5 | 1 | 0 | 0 | 4 | 21 |
| 20... | 0840 | 5.5 | 1 | 0 | 1 | 5 | 26 |
| 20... | 0845 | 5.5 | 1 | 0 | 1 | 5 | 37 |
| 20... | 1235 | 7.0 | 1 | 0 | 0 | 1 | 2 |
| 20... | 1240 | 7.0 | 1 | 0 | 0 | 0 | 0 |
| 20... | 1245 | 7.0 | 1 | 0 | 0 | 4 | 19 |
| 20... | 1250 | 7.0 | 1 | 0 | 1 | 13 | 69 |
| 20... | 1255 | 7.0 | 1 | 0 | 0 | 4 | 26 |
| 22... | 1120 | -- | 1 | 0 | 0 | 3 | 38 |
| 22... | 1125 | -- | 1 | 0 | 0 | 6 | 37 |
| 22... | 1130 | -- | 1 | 0 | 1 | 8 | 49 |
| 22... | 1135 | -- | 1 | 0 | 0 | 2 | 9 |
| 22... | 1140 | -- | 1 | 0 | 0 | 1 | 2 |
| APR | | | | | | | |
| 08... | 1445 | 6.5 | 1 | 0 | 0 | 2 | 4 |
| 08... | 1450 | 6.5 | 1 | 0 | 0 | 13 | 14 |
| 08... | 1455 | 6.5 | 1 | 0 | 0 | 1 | 7 |
| 08... | 1500 | 6.5 | 1 | 0 | 1 | 2 | 8 |
| 08... | 1505 | 6.5 | 1 | 0 | 0 | 0 | 5 |
| 10... | 1755 | 7.0 | 1 | 0 | 0 | 3 | 16 |
| 10... | 1800 | 7.0 | 1 | 0 | 0 | 2 | 9 |
| 10... | 1805 | 7.0 | 1 | 0 | 0 | 3 | 15 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 |
|-------|---|---|---|---|---|---|
| DEC | | | | | | |
| 17... | 49 | 70 | 84 | 94 | 100 | -- |
| 17... | 72 | 99 | 96 | 98 | 100 | -- |
| 17... | 83 | 91 | 96 | 99 | 100 | -- |
| 17... | 56 | 77 | 86 | 94 | 100 | -- |
| 17... | 45 | 49 | 52 | 57 | 71 | 100 |
| FEB | | | | | | |
| 16... | 98 | 100 | -- | -- | -- | -- |
| 16... | 94 | 96 | 98 | 99 | -- | -- |
| 16... | 44 | 72 | 93 | 99 | -- | -- |
| 16... | 56 | 80 | 93 | 98 | -- | -- |
| 16... | 3 | 5 | 16 | 50 | 89 | -- |
| 19... | 96 | 98 | 99 | 99 | -- | -- |
| 19... | 78 | 94 | 97 | 99 | -- | -- |
| 19... | 71 | 91 | 97 | 99 | -- | -- |
| 19... | 17 | 29 | 43 | 61 | 83 | -- |
| 19... | 20 | 23 | 27 | 38 | 62 | 71 |
| 20... | 11 | 19 | 29 | 46 | 65 | -- |
| 20... | 64 | 83 | -- | -- | -- | -- |
| 20... | 55 | 87 | 97 | 99 | -- | -- |
| 20... | 69 | 96 | 99 | -- | -- | -- |
| 20... | 78 | 92 | 98 | 100 | -- | -- |
| 20... | 4 | 8 | 23 | 65 | 96 | -- |
| 20... | 0 | 1 | 1 | 6 | 28 | 68 |
| 20... | 40 | 63 | 77 | 86 | 96 | -- |
| 20... | 92 | 95 | 95 | 96 | 96 | -- |
| 20... | 45 | 56 | 62 | 70 | 87 | -- |
| 22... | 80 | 93 | 98 | 100 | -- | -- |
| 22... | 73 | 87 | 92 | 97 | -- | -- |
| 22... | 87 | 97 | 99 | 100 | -- | -- |
| 22... | 28 | 54 | 73 | 89 | 98 | -- |
| 22... | 2 | 3 | 9 | 32 | 73 | -- |
| APR | | | | | | |
| 08... | 7 | 17 | 29 | 48 | 96 | -- |
| 08... | 19 | 31 | 52 | 73 | 90 | -- |
| 08... | 26 | 48 | 70 | 88 | -- | -- |
| 08... | 24 | 36 | 47 | 62 | 77 | -- |
| 08... | 25 | 51 | 72 | 89 | -- | -- |
| 10... | 27 | 40 | 58 | 75 | 95 | -- |
| 10... | 22 | 46 | 73 | 91 | -- | -- |
| 10... | 27 | 37 | 55 | 74 | 96 | -- |

14241500 SOUTH FORK TOUTLE RIVER AT TOUTLE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | PLING POINTS | 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 |
|-----------------------|-------------|-----------------------------|-----------------|---|---|---|---|---|---|---|---|---|
| APR 10... 10... | 1810 7.0 | 1 | 0 | 0 | 2 | 12 | 32 | 51 | 65 | 79 | 91 | 98 |

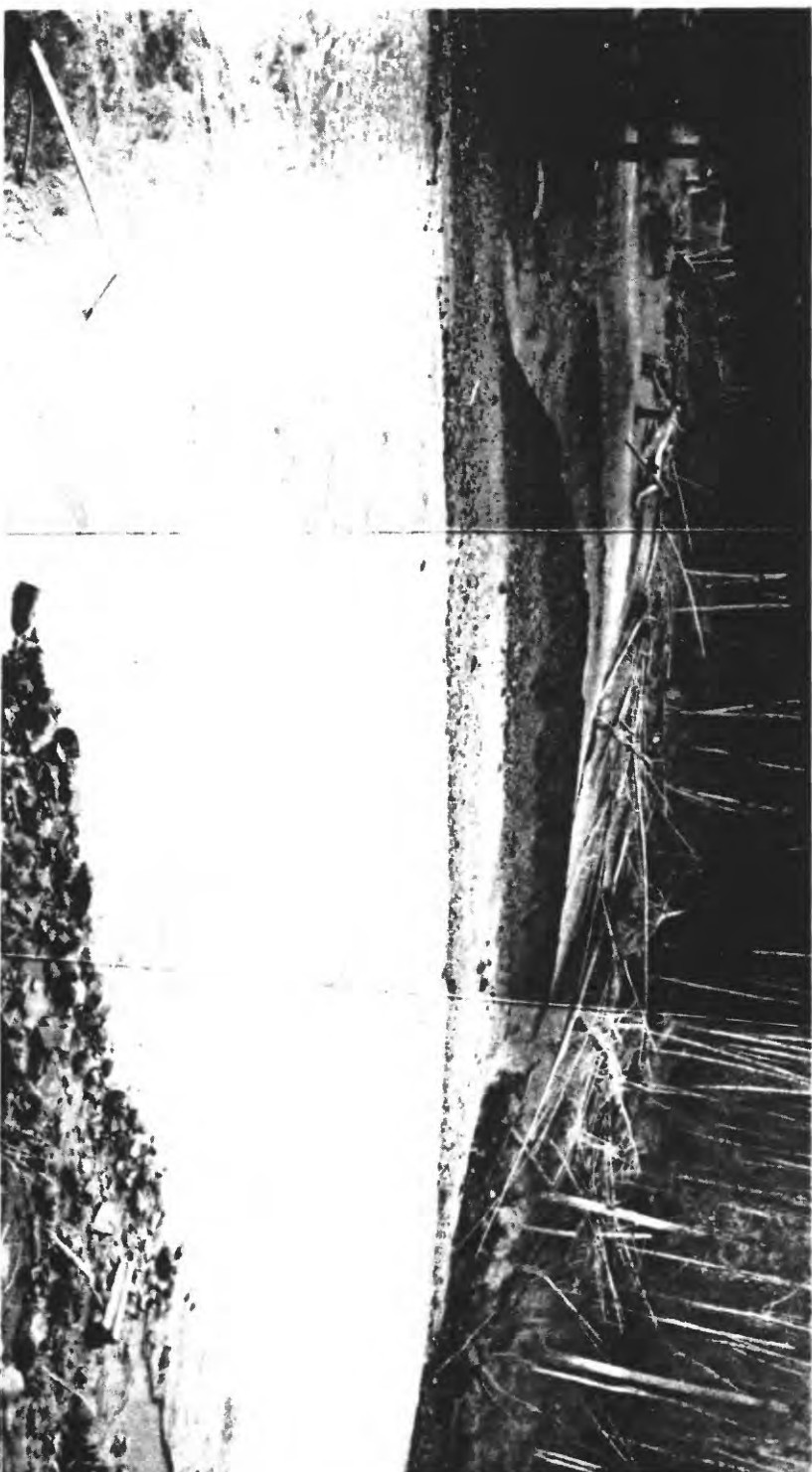


Photo date: December 16, 1980

Limbless trees, bent and scoured by the mudflow of May 18, 1980, point downstream on the left bank of the measuring cross section for the Toutle River near Silver Lake, station 242500. Discharge about 2200 cubic feet per second.

14242500 TOUTLE RIVER NEAR SILVER LAKE, WA

LOCATION.--Lat 46°20'11", long 122°43'27", in NW¼SW¼ sec. 19, T.10 N, R.1 E., Cowlitz County, Hydrologic Unit 17080005, on right bank 0.8 mi downstream from confluence of North and South Forks, 4.9 mi northeast of Silver Lake, and at mile 16.4.

DRAINAGE AREA.--474 mi².

PERIOD OF SEDIMENT DATA.--June 1980 to Sept. 1981.

GAGE.--Water-stage recorder. Datum of gage was 407.3. Gage was destroyed on May 18, 1980. Gage was re-established near same site in September 1980. Gage was destroyed by slope failure during storm runoff on Dec. 26, 1980.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|---------------|------|---------------------|
| 1981 | Nov. 21, 1980 | 1535 | 158,000 |

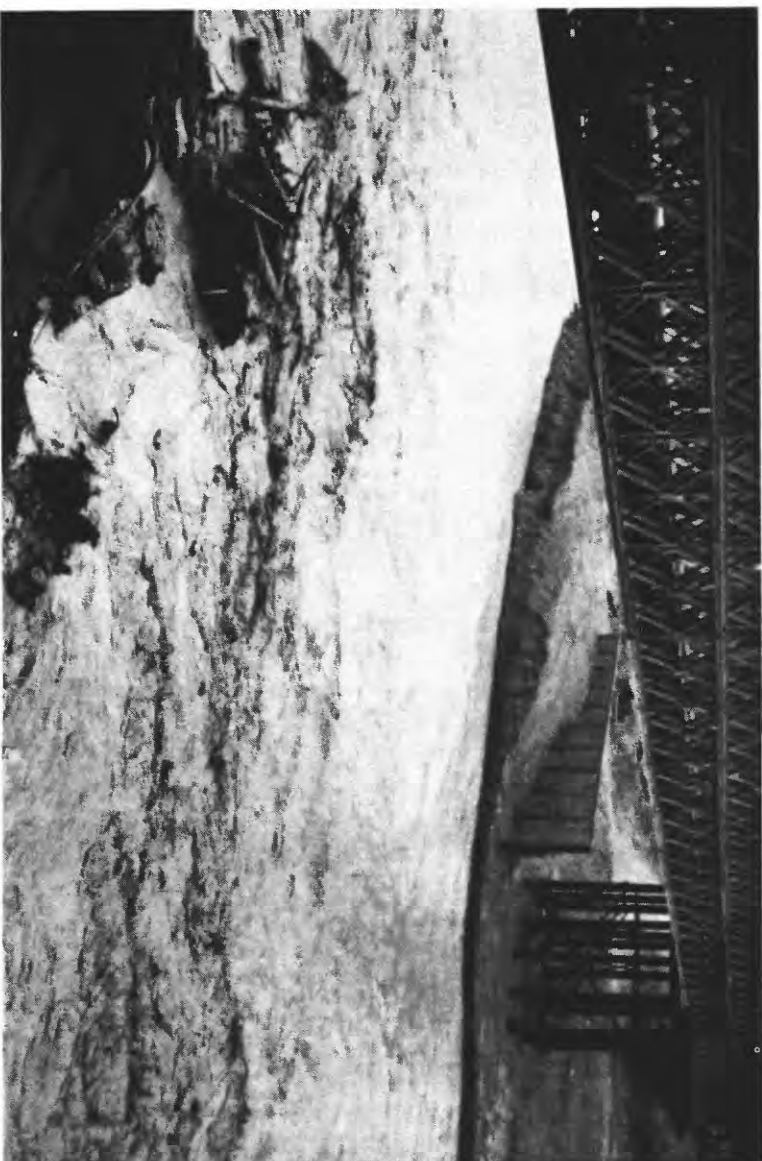


Photo date: November 21, 1980

Prefabricated bridge across the Toutle River at gaging station 242500. Flow to right, discharge about 8000 cubic feet per second.

14242500 TOUTLE RIVER NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | 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 | | | | | | | | | | |
| 09.... | 1500 | 14.0 | 250 | 4 | 3130 | 2110 | -- | -- | -- | -- |
| 21.... | 1300 | 8.0 | 251 | 4 | 2740 | 1860 | -- | -- | -- | -- |
| 22.... | 1530 | 10.5 | 256 | 4 | 3460 | 2390 | -- | -- | -- | -- |
| 31.... | 1825 | -- | 350 | -- | 1480 | 1400 | -- | -- | -- | -- |
| 31.... | 2020 | 9.5 | 422 | -- | 2240 | 2550 | -- | -- | -- | -- |
| NOV | | | | | | | | | | |
| 02.... | 1615 | -- | 952 | -- | 16800 | 43200 | -- | -- | -- | -- |
| 06.... | 1515 | -- | 1210 | -- | 15000 | 49000 | -- | -- | -- | -- |
| 06.... | 1600 | -- | 1270 | -- | 19000 | 65200 | -- | -- | -- | -- |
| 06.... | 1710 | -- | 1430 | -- | 14900 | 57500 | -- | -- | -- | -- |
| 07.... | 0400 | -- | 5400 | -- | 76000 | 1110000 | -- | -- | -- | -- |
| 08.... | 1140 | -- | 6000 | -- | 31300 | 507000 | -- | -- | -- | -- |
| 08.... | 1300 | 10.5 | 5800 | -- | 28100 | 440000 | 12 | 15 | 21 | 33 |
| 09.... | 1345 | -- | 4800 | 4 | 15900 | 206000 | -- | -- | -- | -- |
| 21.... | 1240 | -- | 5600 | -- | 105000 | 1590000 | -- | -- | -- | -- |
| 21.... | 1355 | 9.5 | 7800 | -- | 112000 | 2360000 | 15 | 17 | 24 | 34 |
| 21.... | 1430 | -- | 9400 | -- | 142000 | 3600000 | -- | -- | -- | -- |
| 21.... | 1510 | -- | 10800 | -- | 152000 | 4430000 | -- | -- | -- | -- |
| 21.... | 1535 | -- | 11000 | -- | 158000 | 4690000 | 11 | 12 | 16 | 27 |
| 21.... | 1720 | -- | 9800 | -- | 122000 | 3230000 | -- | -- | -- | -- |
| 21.... | 1855 | -- | 8600 | -- | 107000 | 2480000 | -- | -- | -- | -- |
| 21.... | 1940 | -- | 8000 | -- | 69600 | 1500000 | -- | -- | -- | -- |
| 21.... | 2045 | 8.5 | 7300 | -- | 55300 | 1090000 | -- | -- | -- | -- |
| 21.... | 2220 | -- | 6600 | -- | 36900 | 658000 | -- | -- | -- | -- |
| 21.... | 2335 | -- | 6300 | 5 | 29200 | 497000 | 8 | 10 | 17 | 26 |
| 22.... | 0125 | -- | 5900 | -- | 21400 | 341000 | -- | -- | -- | -- |
| 22.... | 0220 | -- | 5800 | -- | 19400 | 304000 | -- | -- | -- | -- |
| 22.... | 0320 | -- | 5600 | -- | 17400 | 263000 | -- | -- | -- | -- |
| 22.... | 0430 | -- | 5500 | -- | 17400 | 258000 | -- | -- | -- | -- |
| 22.... | 0535 | -- | 5400 | -- | 17900 | 261000 | -- | -- | -- | -- |
| 22.... | 0640 | -- | 5300 | -- | 15500 | 222000 | -- | -- | -- | -- |
| 22.... | 0740 | -- | 5200 | -- | 13500 | 190000 | -- | -- | -- | -- |
| 22.... | 0825 | 6.0 | 5100 | -- | 14400 | 198000 | -- | -- | -- | -- |
| 22.... | 1050 | -- | 5000 | 5 | 13500 | 182000 | 8 | 9 | 11 | 19 |
| DEC | | | | | | | | | | |
| 01.... | 1620 | 13.0 | 2500 | -- | 7600 | 51300 | -- | -- | -- | -- |
| 02.... | 1400 | -- | 9000 | -- | 51000 | 1240000 | -- | -- | -- | -- |
| 02.... | 2020 | -- | 9900 | -- | 54400 | 1450000 | -- | -- | -- | -- |
| 02.... | 2130 | -- | 10400 | -- | 31400 | 882000 | -- | -- | -- | -- |
| 03.... | 1040 | -- | 9490 | -- | 11500 | 295000 | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 44 | -- | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 59 | -- | 76 | -- | 94 | 99 | 100 | -- | -- | -- |
| 09... | -- | 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 65 | -- | 85 | -- | -- | 100 | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 53 | -- | 73 | -- | 91 | 98 | -- | 99 | 100 |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 59 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 49 | -- | 67 | -- | 90 | 98 | -- | 100 | -- |
| 22... | -- | 51 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 53 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 42 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 41 | -- | 62 | -- | 89 | 99 | -- | 100 | -- |
| DEC | | | | | | | | | | |
| 01... | -- | 22 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 66 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 53 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14242500 TOUTLE RIVER NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SED- 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 |
|--------|------|-----------------------------|---|---|--|---|--|--|--|
| DEC | | | | | | | | | |
| 03.... | 1620 | -- | 9000 | -- | 9070 | 220000 | -- | -- | -- |
| 04.... | 1000 | 5.0 | 6400 | 3 | 9630 | 166000 | 4 | 4 | 7 |
| 12.... | 1500 | -- | 2130 | 3 | 4180 | 24000 | -- | -- | -- |
| 13.... | 1625 | -- | 1980 | 3 | 3400 | 18200 | -- | -- | -- |
| 18.... | 1320 | -- | 1690 | 3 | 2870 | 13100 | -- | -- | -- |
| 25.... | 1600 | -- | 14000 | -- | 59000 | 2230000 | -- | -- | -- |
| AUG | | | | | | | | | |
| 05.... | 1225 | 22.0 | 539 | 5 | 951 | 1380 | -- | -- | -- |
| 11.... | 1335 | 25.0 | 391 | 5 | 379 | 400 | -- | -- | -- |
| 18.... | 1340 | 22.5 | 369 | -- | 359 | 358 | -- | -- | -- |
| 26.... | 1350 | 19.5 | 284 | 5 | 341 | 261 | -- | -- | -- |
| SEP | | | | | | | | | |
| 02.... | 1255 | 16.0 | 498 | 5 | 718 | 965 | -- | -- | -- |
| 09.... | 1330 | 18.0 | 293 | 9 | 415 | 328 | -- | -- | -- |
| 15.... | 1540 | 21.0 | 262 | 5 | 124 | 88 | -- | -- | -- |
| 24.... | 1120 | 12.0 | 363 | 9 | 150 | 147 | -- | -- | -- |

[illegible]

14242500 TOUTLE RIVER NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMP- LING POINTS | BED | BED | BED | BED |
|--------|------|-----------------------------|---|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM |
| DEC | | | | | | | |
| 18.... | 1400 | -- | 1 | 1 | 8 | 34 | 80 |
| 18.... | 1405 | -- | 1 | 0 | 0 | 1 | 4 |
| 18.... | 1410 | -- | 1 | 0 | 0 | 2 | 13 |
| 18.... | 1415 | -- | 1 | 0 | 0 | 5 | 40 |
| 18.... | 1420 | -- | 1 | 0 | 0 | 6 | 47 |
| AUG | | | | | | | |
| 11.... | 1345 | 25.0 | 1 | 0 | 0 | 0 | 3 |
| 11.... | 1350 | 25.0 | 1 | 0 | 0 | 1 | 5 |
| 11.... | 1355 | 25.0 | 1 | 0 | 1 | 3 | 13 |
| 11.... | 1400 | 25.0 | 1 | 0 | 0 | 0 | 4 |
| 11.... | 1405 | 25.0 | 1 | 0 | 0 | 0 | 3 |
| 18.... | 1340 | 22.5 | 1 | 0 | 0 | 1 | 5 |
| 18.... | 1345 | 22.5 | 1 | 0 | 0 | 1 | 5 |
| 18.... | 1350 | 22.5 | 1 | 0 | 0 | 2 | 9 |
| 18.... | 1355 | 22.5 | 1 | 0 | 2 | 7 | 16 |
| 18.... | 1400 | 22.5 | 1 | 0 | 0 | 1 | 6 |
| 26.... | 1500 | 19.5 | 1 | 0 | 1 | 2 | 11 |
| 26.... | 1505 | 19.5 | 1 | 0 | 0 | 2 | 17 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 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 | | | | | | | | | | | | | |
| 18... | 95 | 99 | 100 | 100 | 100 | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 7 | 14 | 29 | 50 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 31 | 52 | 77 | 95 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 85 | 96 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 87 | 95 | 97 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| AUG | | | | | | | | | | | | | |
| 11... | 19 | 45 | 68 | 86 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 32 | 64 | 84 | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 34 | 51 | 64 | 75 | 86 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 18 | 40 | 61 | 77 | 85 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 22 | 58 | 83 | 93 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 26 | 53 | 72 | 84 | 92 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 18 | 36 | 58 | 79 | 92 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 25 | 45 | 64 | 79 | 85 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 32 | 49 | 62 | 71 | 79 | 87 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 22 | 42 | 58 | 72 | 85 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 26... | 32 | 50 | 61 | 70 | 73 | 78 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 26... | 49 | 68 | 79 | 87 | 93 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | | |
|-------|------|-----------------------------|---|--|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN | MAT. SIEVE DIAM. % FINER THAN | MAT. SIEVE DIAM. % FINER THAN | MAT. SIEVE DIAM. % FINER THAN | MAT. SIEVE DIAM. % FINER THAN |
| | | | | .062 MM | .125 MM | .250 MM | .500 MM | |
| OCT | | | | | | | | |
| 20... | 1545 | 13.0 | 1 | 0 | 1 | 3 | 12 | |
| 20... | 1550 | 13.0 | 1 | 0 | 0 | 1 | 10 | |
| 20... | 1555 | 13.0 | 1 | 0 | 0 | 1 | 11 | |
| 20... | 1600 | 13.0 | 1 | 0 | 0 | 2 | 21 | |
| 20... | 1605 | 13.0 | 1 | 0 | 1 | 4 | 28 | |
| | | | | | | | | |
| DATE | | | | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN |
| | | | | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM |
| | | | | | | | 32.0 MM | 64.0 MM |
| OCT | | | | | | | | |
| 20... | 36 | 57 | 72 | 82 | 90 | 100 | -- | |
| 20... | 32 | 46 | 56 | 62 | 69 | 82 | 100 | |
| 20... | 36 | 55 | 70 | 83 | 94 | 100 | -- | |
| 20... | 59 | 76 | 82 | 86 | 89 | 89 | 100 | |
| 20... | 74 | 90 | 94 | 97 | 98 | 100 | -- | |

14242580 TOUTLE RIVER AT TOWER ROAD, NEAR SILVER LAKE, WA

LOCATION.--Lat 46°20'02", long 122°50'20", in NW¼SW¼ 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 to current year.

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.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|---------------|------|-------------------------------|
| 1981 | Feb. 19, 1981 | 1830 | 32,600 |
| 1982 | Feb. 20, 1982 | 1230 | 104,000 |
| 1982 | Mar. 20, 1982 | 0048 | 1,160,000 (lahar-runout flow) |
| 1983 | Dec. 3, 1982 | 1805 | 113,000 |

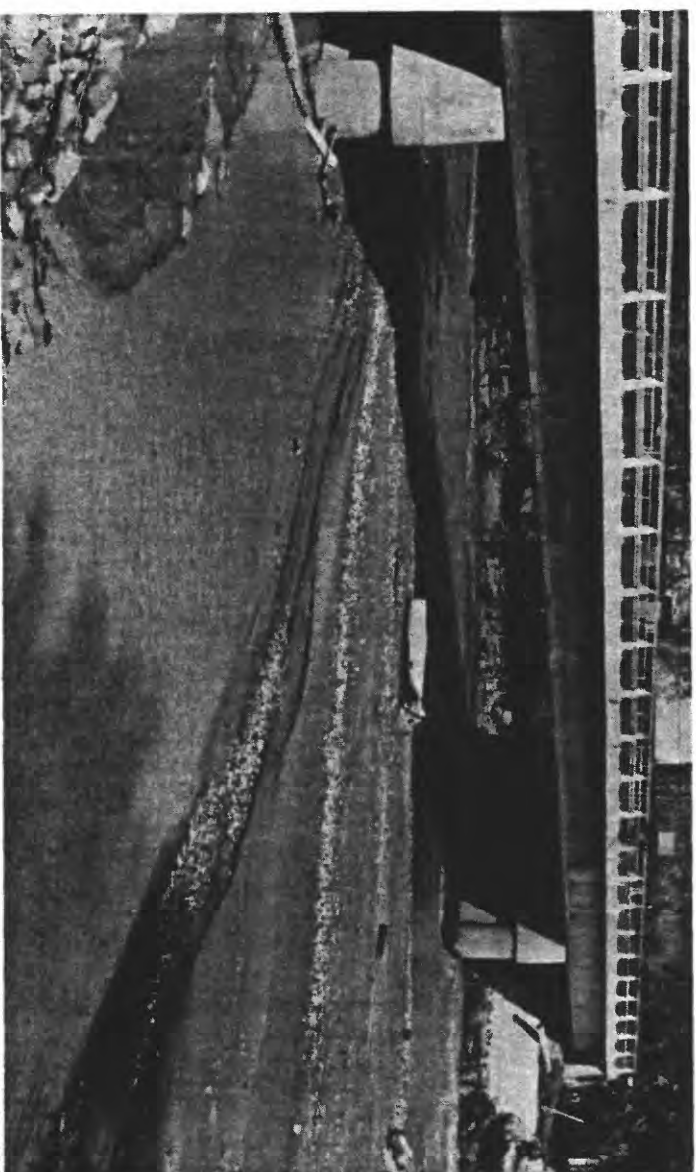


Photo date: April 4, 1983

Gravel and sand bar under the Toutle River bridge at Tower Road, station 242580.
Flow to left, discharge 3380 cubic feet per second.

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | MEAN DISCHARGE (CFS) | APRIL | | | MAY | | | JUNE | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|-------------------------------------|
| | | 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) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 2640 | | | 2000 | | 1250 | | --- | --- | --- |
| 2 | 2620 | | | 1340 | | 1170 | | --- | --- | --- |
| 3 | 2790 | | | 1700 | | 1140 | | --- | --- | --- |
| 4 | 2700 | | | 1700 | | 1340 | | --- | --- | --- |
| 5 | 2500 | | | 1600 | | 1270 | | --- | --- | --- |
| 6 | 2420 | | | 1610 | | 1950 | | --- | --- | --- |
| 7 | 2500 | | | 1780 | | 1900 | | --- | --- | --- |
| 8 | 2900 | | | 1780 | | 4230 | | 6470 | 90600 | 90600 |
| 9 | 3920 | | | 1590 | | 4140 | | 4100 | 45800 | 45800 |
| 10 | 3180 | | | 1450 | | 3260 | | 4900 | 43100 | 43100 |
| 11 | 3540 | | | 1600 | | 2820 | | 3800 | 28900 | 28900 |
| 12 | 3080 | | | 1500 | | 2360 | | 2000 | 12700 | 12700 |
| 13 | 2900 | | | 1350 | | 2490 | | 2900 | 19500 | 19500 |
| 14 | 2730 | | | 1380 | | 2290 | | 1700 | 10500 | 10500 |
| 15 | 2620 | | | 1520 | | 2080 | | 1500 | 8420 | 8420 |
| 16 | 2580 | | | 1470 | | 2210 | | 2600 | 15500 | 15500 |
| 17 | 2620 | | | 1370 | | 2330 | | 2500 | 15700 | 15700 |
| 18 | 2670 | | | 1400 | | 2130 | | 1200 | 6900 | 6900 |
| 19 | 2680 | | | 1820 | | 3090 | | 5700 | 47600 | 47600 |
| 20 | 2520 | | | 1690 | | 2640 | | --- | 17000 | 17000 |
| 21 | 2430 | | | 1790 | | 2400 | | --- | 12000 | 12000 |
| 22 | 3150 | | | 1720 | | 2580 | | 2000 | 13900 | 13900 |
| 23 | 2940 | | | 1630 | | 2400 | | 1300 | 8420 | 8420 |
| 24 | 3320 | | | 1610 | | 2130 | | 960 | 5520 | 5520 |
| 25 | 2490 | | | 1740 | | 1890 | | 700 | 3570 | 3570 |
| 26 | 2370 | | | 1790 | | 1680 | | --- | 2700 | 2700 |
| 27 | 2140 | | | 1700 | | 1480 | | --- | 2200 | 2200 |
| 28 | 2130 | | | 1490 | | 1290 | | --- | 1900 | 1900 |
| 29 | 2010 | | | 1460 | | 1140 | | 490 | 1510 | 1510 |
| 30 | 1970 | | | 1370 | | 1030 | | 570 | 1590 | 1590 |
| 31 | --- | | | 1270 | | --- | | --- | --- | --- |
| TOTAL | 81060 | | | 49720 | | 64110 | | --- | | |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 984 | 560 | 1490 | 546 | 310 | 457 | 673 | 1500 | 2730 |
| 2 | 918 | 510 | 1260 | 568 | 280 | 445 | 596 | 1100 | 1770 |
| 3 | 904 | 480 | 1170 | 579 | 230 | 360 | 500 | 550 | 742 |
| 4 | 883 | 390 | 930 | 546 | 210 | 310 | 458 | 450 | 556 |
| 5 | 869 | 340 | 798 | 535 | 230 | 332 | 428 | 450 | 520 |
| 6 | 834 | 350 | 788 | 546 | 200 | 295 | 400 | 400 | 432 |
| 7 | 918 | 750 | 1860 | 525 | 210 | 298 | 372 | 380 | 352 |
| 8 | 911 | --- | 1200 | 408 | 290 | 319 | 348 | 400 | 376 |
| 9 | 862 | 400 | 931 | 344 | 350 | 325 | 323 | 400 | 349 |
| 10 | 869 | --- | 880 | 372 | 370 | 372 | 326 | 370 | 326 |
| 11 | 897 | --- | 810 | 396 | 370 | 396 | 323 | 350 | 305 |
| 12 | 876 | --- | 740 | 400 | 380 | 410 | 312 | 330 | 278 |
| 13 | 1020 | 670 | 1970 | 432 | 420 | 490 | 309 | 310 | 250 |
| 14 | 918 | 910 | 2260 | 416 | 400 | 449 | 295 | 300 | 239 |
| 15 | 834 | --- | 1200 | 404 | 420 | 458 | 286 | 270 | 208 |
| 16 | 796 | 460 | 989 | 404 | 370 | 513 | 295 | 250 | 199 |
| 17 | 766 | 410 | 848 | 408 | 370 | 518 | 295 | 230 | 183 |
| 18 | 748 | 370 | 747 | 400 | 360 | 389 | 302 | 220 | 179 |
| 19 | 736 | 410 | 815 | 379 | 410 | 409 | 334 | 370 | 334 |
| 20 | 736 | 460 | 914 | 379 | 390 | 399 | 358 | 480 | 483 |
| 21 | 742 | 500 | 1000 | 379 | 370 | 379 | 501 | 980 | 1330 |
| 22 | 689 | 540 | 1000 | 368 | --- | 350 | 568 | 1400 | 2150 |
| 23 | 662 | 600 | 1070 | 362 | --- | 320 | 476 | 650 | 835 |
| 24 | 650 | 660 | 1160 | 351 | --- | 290 | 428 | 300 | 347 |
| 25 | 628 | 600 | 1020 | 348 | --- | 280 | 412 | 220 | 222 |
| 26 | 618 | 560 | 934 | 320 | 300 | 259 | 396 | 130 | 160 |
| 27 | 579 | 360 | 563 | 312 | 260 | 219 | 456 | 180 | 246 |
| 28 | 574 | 300 | 465 | 306 | 260 | 215 | 881 | 2600 | 6190 |
| 29 | 574 | 310 | 480 | 306 | 200 | 165 | 904 | 1300 | 3170 |
| 30 | 579 | 350 | 547 | 334 | 290 | 271 | 760 | 380 | 780 |
| 31 | 574 | 310 | 480 | 344 | 280 | 260 | --- | --- | --- |
| TOTAL | 24148 | --- | 31319 | 12717 | --- | 10952 | 13315 | --- | 26231 |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | | | | | | | | |
| 1 | 678 | 525 | 961 | 1630 | 2820 | 12400 | 2300 | 4480 | 27800 |
| 2 | 1130 | 2290 | 7710 | 1420 | 2180 | 8360 | 6300 | 16500 | 329000 |
| 3 | 883 | 2480 | 5910 | 1280 | 2140 | 7400 | 3140 | 6800 | 57700 |
| 4 | 784 | 1140 | 2410 | 1170 | 2030 | 6410 | 2140 | 3700 | 21400 |
| 5 | 724 | 609 | 1190 | 1070 | 1770 | 5110 | 11700 | 46800 | 1850000 |
| 6 | 5830 | 29400 | 677000 | 990 | 1770 | 4730 | 11600 | 23000 | 720000 |
| 7 | 4850 | 28400 | 462000 | 953 | 1720 | 4430 | 8680 | 11300 | 265000 |
| 8 | 3160 | ---- | 14000 | 926 | 1470 | 3680 | 6000 | 10900 | 177000 |
| 9 | 4190 | ---- | 180000 | 899 | 1240 | 3010 | 4800 | 6600 | 85500 |
| 10 | 2320 | ---- | 24000 | 874 | 1180 | 2780 | 5200 | 8420 | 118000 |
| 11 | 1830 | ---- | 12000 | 1100 | 2530 | 10600 | 4200 | 6000 | 68000 |
| 12 | 1520 | ---- | 7000 | 2320 | 11600 | 79400 | 3500 | 3900 | 36900 |
| 13 | 1340 | 1270 | 4590 | 1590 | 4000 | 17200 | 3000 | 2970 | 24100 |
| 14 | 1170 | 1250 | 3950 | 4780 | 28400 | 470000 | 2400 | 3630 | 23500 |
| 15 | 1040 | 1200 | 3370 | 4120 | 16800 | 181000 | 6790 | 10700 | 227000 |
| 16 | 935 | 970 | 2450 | 3500 | 15500 | 146000 | 6060 | 9100 | 149000 |
| 17 | 834 | 840 | 1890 | 3900 | 17400 | 207000 | 4320 | 8500 | 99100 |
| 18 | 778 | 718 | 1510 | 5010 | 15500 | 221000 | 4080 | 6520 | 71800 |
| 19 | 723 | 735 | 1430 | 3480 | 7150 | 67200 | 5680 | 11300 | 185000 |
| 20 | 695 | 830 | 1560 | 2880 | 5260 | 40900 | 4740 | 5400 | 69100 |
| 21 | 674 | 817 | 1490 | 4660 | 8200 | 103000 | 3690 | 5940 | 59200 |
| 22 | 646 | 699 | 1220 | 5210 | 8380 | 118000 | 3270 | 6410 | 56600 |
| 23 | 632 | 561 | 957 | 4850 | 7210 | 94400 | 2910 | 5000 | 39300 |
| 24 | 632 | 539 | 920 | 3700 | 5440 | 54300 | 2840 | 5470 | 41900 |
| 25 | 646 | 506 | 883 | 3020 | 4500 | 36700 | 2870 | 5260 | 40800 |
| 26 | 674 | 619 | 1130 | 2600 | 2900 | 20400 | 2660 | 4500 | 32300 |
| 27 | 953 | 2300 | 5920 | 2200 | 2680 | 15900 | 2600 | 3840 | 27000 |
| 28 | 1890 | 13000 | 76200 | 1900 | ---- | 13000 | 2590 | 4380 | 30600 |
| 29 | 1920 | 3550 | 18400 | 1760 | ---- | 12000 | 2310 | 3610 | 22500 |
| 30 | 1890 | 2700 | 13800 | 1800 | ---- | 12000 | 2080 | 3320 | 18600 |
| 31 | 2120 | 5940 | 35800 | ---- | ---- | ---- | 1920 | 3220 | 16700 |
| TOTAL | 48091 | ---- | 1571651 | 75592 | ---- | 1978310 | 136370 | ---- | 4990400 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 1820 | 2900 | 14300 | 3560 | 2970 | 28500 | 3680 | 8000 | 79500 |
| 2 | 1750 | 3200 | 15100 | 4410 | 4780 | 56900 | 3610 | 6840 | 66700 |
| 3 | 1700 | 3400 | 15600 | 4280 | 4510 | 52100 | 3660 | 7800 | 77100 |
| 4 | 1620 | 3690 | 16100 | 3250 | 3420 | 30000 | 3850 | 7700 | 80000 |
| 5 | 1520 | 2050 | 8410 | 2730 | 2660 | 19600 | 3480 | 5400 | 50700 |
| 6 | 1360 | 2200 | 8080 | 2380 | 2230 | 14300 | 3110 | 6100 | 51200 |
| 7 | 1290 | 2730 | 9510 | 2030 | 2090 | 12100 | 2920 | 6240 | 49200 |
| 8 | 1230 | 2200 | 7310 | 2030 | --- | 10000 | 2830 | 5760 | 44000 |
| 9 | 1150 | 3150 | 9780 | 1910 | 1920 | 9900 | 3700 | 9000 | 89900 |
| 10 | 1080 | 3150 | 9190 | 1840 | --- | 10000 | 3980 | 11600 | 125000 |
| 11 | 1450 | 5120 | 20000 | 1800 | 2420 | 11800 | 5250 | 15000 | 213000 |
| 12 | 1680 | 3690 | 16700 | 1820 | 2120 | 10400 | 4710 | 12200 | 155000 |
| 13 | 1850 | --- | 13000 | 4220 | 14800 | 246000 | 4620 | 10400 | 130000 |
| 14 | 2660 | --- | 24000 | 13000 | 34400 | 1140000 | 4530 | 7820 | 95600 |
| 15 | 3320 | 3480 | 31200 | 10900 | 21600 | 636000 | 4150 | 5400 | 60500 |
| 16 | 8270 | 12300 | 335000 | 16000 | 38000 | 1640000 | 3790 | 5170 | 52900 |
| 17 | 10800 | 14700 | 429000 | 14900 | 43000 | 1730000 | 3580 | 5060 | 48900 |
| 18 | 6990 | 5980 | 113000 | 10700 | 34300 | 991000 | 3480 | 3960 | 37200 |
| 19 | 5060 | 3400 | 46500 | 9040 | 25000 | 610000 | 3350 | 3000 | 27100 |
| 20 | 4100 | --- | 31000 | 23000 | 79700 | 5930000 | 4070 | 232000 | 3910000 |
| 21 | 3100 | --- | 19000 | 15100 | 36700 | 1500000 | 2010 | 32600 | 177000 |
| 22 | 2750 | 1700 | 12600 | 8700 | 27700 | 651000 | 1870 | 18500 | 93400 |
| 23 | 15600 | 13100 | 679000 | 5900 | 27000 | 430000 | 1700 | 14200 | 65200 |
| 24 | 24900 | 27400 | 2040000 | 5300 | 15300 | 219000 | 1630 | --- | 56000 |
| 25 | 13000 | 16900 | 593000 | 4530 | 10800 | 132000 | 1600 | --- | 54000 |
| 26 | 11400 | 15700 | 512000 | 4160 | 10300 | 116000 | 1640 | --- | 54000 |
| 27 | 7560 | 8580 | 175000 | 3840 | 8050 | 83500 | 1670 | --- | 54000 |
| 28 | 5360 | 7280 | 105000 | 3420 | 4700 | 43400 | 1760 | --- | 56000 |
| 29 | 4340 | 4780 | 56000 | --- | --- | --- | 1760 | 11400 | 54200 |
| 30 | 3900 | 5030 | 53000 | --- | --- | --- | 1770 | --- | 53000 |
| 31 | 3760 | 4460 | 45300 | --- | --- | --- | 1830 | --- | 53000 |
| TOTAL | 156370 | --- | 5462680 | 184870 | --- | 16363500 | 95590 | --- | 6213300 |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| APRIL | | | | | | | | | |
| 1 | 1870 | --- | 52000 | 2080 | --- | 31000 | 1430 | 3390 | 13100 |
| 2 | 1880 | --- | 49000 | 2110 | --- | 33000 | 1340 | --- | 12000 |
| 3 | 2000 | --- | 54000 | 2250 | 6400 | 38900 | 1270 | --- | 10000 |
| 4 | 2000 | --- | 50000 | 1930 | --- | 27000 | 1220 | --- | 9400 |
| 5 | 2070 | 8940 | 50000 | 1730 | --- | 22000 | 1270 | --- | 10000 |
| 6 | 2180 | 8730 | 51400 | 1830 | --- | 25000 | 1340 | --- | 12000 |
| 7 | 2200 | --- | 53000 | 2090 | --- | 33000 | 1300 | --- | 11000 |
| 8 | 2200 | 9200 | 54600 | 2050 | --- | 32000 | 1300 | 3080 | 10800 |
| 9 | 2330 | --- | 62000 | 1840 | --- | 23000 | 1300 | --- | 11000 |
| 10 | 2430 | --- | 68000 | 1640 | 3860 | 17100 | 1390 | --- | 13000 |
| 11 | 3660 | 20400 | 248000 | 1580 | --- | 16000 | 1520 | --- | 16000 |
| 12 | 6360 | 41600 | 714000 | 1700 | --- | 20000 | 1520 | --- | 16000 |
| 13 | 6750 | 24700 | 450000 | 1720 | --- | 20000 | 1440 | --- | 15000 |
| 14 | 3690 | 17000 | 169000 | 1810 | --- | 23000 | 1320 | 3490 | 12400 |
| 15 | 2850 | --- | 81000 | 1940 | --- | 27000 | 1360 | --- | 14000 |
| 16 | 2240 | 8560 | 51800 | 2020 | --- | 30000 | 1370 | --- | 15000 |
| 17 | 2300 | --- | 48000 | 2170 | 6040 | 35400 | 1410 | --- | 17000 |
| 18 | 2400 | --- | 45000 | 2110 | --- | 33000 | 1420 | --- | 18000 |
| 19 | 2460 | 5960 | 39600 | 1850 | --- | 24000 | 1400 | --- | 17000 |
| 20 | 2240 | --- | 32000 | 1670 | --- | 19000 | 1380 | --- | 17000 |
| 21 | 2190 | --- | 31000 | 1830 | --- | 23000 | 1390 | 4470 | 16800 |
| 22 | 2180 | --- | 31000 | 2010 | --- | 28000 | 1180 | --- | 12000 |
| 23 | 2210 | --- | 32000 | 1840 | --- | 22000 | 1120 | --- | 11000 |
| 24 | 2210 | --- | 33000 | 1850 | 4430 | 22100 | 1060 | --- | 9700 |
| 25 | 2230 | --- | 33000 | 2200 | --- | 32000 | 1020 | --- | 9100 |
| 26 | 2230 | 5500 | 33100 | 2170 | --- | 32000 | 1030 | --- | 9400 |
| 27 | 2260 | --- | 34000 | 1890 | --- | 24000 | 1060 | --- | 10000 |
| 28 | 2640 | --- | 50000 | 1440 | --- | 13000 | 908 | 2970 | 7280 |
| 29 | 2430 | --- | 42000 | 1400 | --- | 12000 | 845 | --- | 5900 |
| 30 | 2110 | --- | 32000 | 1390 | --- | 12000 | 805 | --- | 5000 |
| 31 | --- | --- | --- | 1410 | --- | 12000 | --- | --- | --- |
| TOTAL | 78800 | --- | 2773500 | 57550 | --- | 761500 | 37718 | --- | 365880 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 770 | --- | 4100 | 517 | --- | 1600 | 320 | --- | 340 |
| 2 | 750 | --- | 3600 | 524 | --- | 1700 | 315 | --- | 320 |
| 3 | 760 | --- | 3700 | 530 | --- | 1800 | 320 | --- | 340 |
| 4 | 750 | --- | 3600 | 484 | 988 | 1290 | 345 | --- | 430 |
| 5 | 740 | --- | 3500 | 465 | --- | 1100 | 325 | --- | 350 |
| 6 | 730 | 1720 | 3390 | 484 | --- | 1300 | 300 | --- | 270 |
| 7 | 690 | --- | 3200 | 439 | --- | 950 | 305 | --- | 280 |
| 8 | 675 | --- | 3100 | 458 | --- | 1100 | 315 | --- | 320 |
| 9 | 660 | --- | 3200 | 439 | --- | 950 | 440 | --- | 960 |
| 10 | 653 | --- | 3200 | 472 | --- | 1200 | 720 | --- | 3800 |
| 11 | 660 | --- | 3400 | 432 | --- | 890 | 700 | --- | 3500 |
| 12 | 625 | --- | 3200 | 413 | --- | 770 | 1040 | --- | 8700 |
| 13 | 618 | 1980 | 3300 | 426 | 695 | 799 | 735 | --- | 5400 |
| 14 | 660 | --- | 3900 | 458 | --- | 1100 | 570 | --- | 3700 |
| 15 | 639 | 2200 | 3800 | 413 | --- | 770 | 520 | 2400 | 3370 |
| 16 | 653 | --- | 3900 | 378 | --- | 590 | 480 | --- | 3200 |
| 17 | 590 | --- | 3000 | 356 | --- | 480 | 460 | --- | 3200 |
| 18 | 586 | --- | 2900 | 356 | --- | 480 | 440 | 2660 | 3160 |
| 19 | 530 | 1470 | 2100 | 336 | --- | 390 | 460 | --- | 3200 |
| 20 | 530 | --- | 2100 | 345 | --- | 430 | 1020 | 6500 | 17900 |
| 21 | 572 | --- | 2300 | 322 | --- | 340 | 760 | 2680 | 5500 |
| 22 | 544 | 1310 | 1920 | 327 | --- | 360 | 610 | --- | 3200 |
| 23 | 530 | --- | 1800 | 309 | --- | 300 | 550 | --- | 3000 |
| 24 | 530 | --- | 1800 | 293 | 323 | 256 | 525 | --- | 2900 |
| 25 | 524 | --- | 1700 | 286 | --- | 230 | 520 | --- | 2700 |
| 26 | 544 | --- | 2000 | 293 | --- | 250 | 580 | --- | 2800 |
| 27 | 544 | --- | 2000 | 309 | --- | 300 | 580 | --- | 2800 |
| 28 | 565 | --- | 2200 | 327 | --- | 360 | 600 | 1760 | 2850 |
| 29 | 551 | 1250 | 1860 | 340 | --- | 400 | 580 | --- | 2800 |
| 30 | 551 | --- | 1900 | 350 | --- | 450 | 540 | --- | 2800 |
| 31 | 510 | --- | 1600 | 335 | --- | 390 | --- | --- | --- |
| TOTAL | 19234 | --- | 87270 | 12216 | --- | 23325 | 15975 | --- | 94090 |
| YEAR | 918376 | | 40,685,406 TONS | | | | | | |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 520 | --- | 2700 | 2520 | 8590 | 58400 | 4740 | 24500 | 314000 | |
| 2 | 576 | --- | 2900 | 2020 | --- | 40000 | 4030 | 17100 | 186000 | |
| 3 | 611 | --- | 3100 | 1700 | --- | 30000 | 16100 | 53300 | 2990000 | |
| 4 | 590 | --- | 3000 | 1820 | 7240 | 35600 | 17400 | 44100 | 2260000 | |
| 5 | 597 | --- | 3100 | 2080 | 16700 | 93800 | 9060 | 24300 | 594000 | |
| 6 | 756 | --- | 4300 | 2240 | --- | 110000 | 8280 | 25500 | 570000 | |
| 7 | 1120 | 4560 | 13800 | 1770 | --- | 100000 | 5320 | --- | 400000 | |
| 8 | 828 | --- | 6700 | 1930 | 30700 | 160000 | 3970 | 23700 | 254000 | |
| 9 | 748 | --- | 4200 | 2110 | --- | 180000 | 3200 | 20400 | 176000 | |
| 10 | 748 | --- | 4200 | 1960 | 30900 | 164000 | 2700 | 20900 | 152000 | |
| 11 | 692 | --- | 3200 | 1870 | --- | 150000 | 2360 | --- | 100000 | |
| 12 | 646 | --- | 2000 | 1970 | 39400 | 210000 | 2400 | --- | 100000 | |
| 13 | 653 | 1180 | 2080 | 2030 | --- | 190000 | 2600 | 15700 | 110000 | |
| 14 | 604 | 1990 | 3250 | 2020 | --- | 180000 | 2730 | --- | 120000 | |
| 15 | 430 | --- | 2000 | 2000 | --- | 160000 | 4600 | 17800 | 250000 | |
| 16 | 430 | --- | 2000 | 2460 | --- | 240000 | 13600 | 49900 | 1990000 | |
| 17 | 611 | --- | 3000 | 3970 | 50000 | 536000 | 9810 | 26200 | 694000 | |
| 18 | 583 | --- | 2400 | 3150 | --- | 400000 | 7260 | --- | 440000 | |
| 19 | 502 | --- | 2000 | 2860 | 42200 | 326000 | 5510 | --- | 300000 | |
| 20 | 478 | --- | 1900 | 2740 | --- | 300000 | 5340 | 19400 | 280000 | |
| 21 | 625 | 1570 | 2650 | 2370 | --- | 240000 | 4470 | --- | 270000 | |
| 22 | 1440 | 70600 | 300000 | 2180 | 37600 | 221000 | 4150 | 23800 | 267000 | |
| 23 | 1700 | 40300 | 185000 | 2090 | 23100 | 130000 | 3440 | --- | 220000 | |
| 24 | 1400 | --- | 70000 | 2120 | 31900 | 183000 | 2900 | 23500 | 184000 | |
| 25 | 1270 | --- | 30000 | 2140 | --- | 160000 | 2520 | --- | 140000 | |
| 26 | 1730 | --- | 50000 | 2190 | 27700 | 164000 | 2290 | --- | 120000 | |
| 27 | 1660 | --- | 35000 | 2480 | --- | 170000 | 2130 | 18100 | 104000 | |
| 28 | 2300 | 15000 | 111000 | 5410 | --- | 730000 | 2010 | 14800 | 80300 | |
| 29 | 8680 | 28800 | 739000 | 5170 | 34400 | 480000 | 2000 | 20700 | 112000 | |
| 30 | 3790 | 12200 | 125000 | 4890 | --- | 400000 | 2070 | --- | 100000 | |
| 31 | 2790 | --- | 65000 | --- | --- | --- | 2120 | --- | 100000 | |
| TOTAL | 40108 | --- | 1784480 | 76260 | --- | 6541800 | 161110 | --- | 13977300 | |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 2130 | --- | 100000 | 2580 | --- | 100000 | 3110 | --- | 80000 |
| 2 | 2350 | --- | 100000 | 2240 | 9880 | 59800 | 2860 | 8830 | 68200 |
| 3 | 2670 | 15400 | 111000 | 1930 | --- | 58000 | 2570 | --- | 55000 |
| 4 | 4500 | --- | 210000 | 1720 | 11900 | 55300 | 2300 | 6980 | 43300 |
| 5 | 15100 | 22700 | 998000 | 1650 | --- | 40000 | 2280 | --- | 40000 |
| 6 | 13600 | 17700 | 650000 | 1690 | --- | 45000 | 2320 | --- | 45000 |
| 7 | 13700 | 16000 | 592000 | 1890 | 10500 | 53600 | 2800 | 9800 | 74100 |
| 8 | 13500 | 17600 | 642000 | 1540 | --- | 35000 | 3890 | --- | 110000 |
| 9 | 9180 | 17900 | 444000 | 2320 | 8350 | 52300 | 6310 | 13800 | 251000 |
| 10 | 8080 | 13600 | 297000 | 2600 | --- | 51000 | 7800 | 16300 | 343000 |
| 11 | 5720 | --- | 170000 | 3160 | 5920 | 50500 | 6150 | 12400 | 206000 |
| 12 | 4240 | --- | 110000 | 4100 | --- | 95000 | 5180 | --- | 170000 |
| 13 | 3480 | --- | 85000 | 4940 | --- | 110000 | 5060 | --- | 170000 |
| 14 | 3170 | --- | 70000 | 4100 | 7940 | 87900 | 5080 | 12200 | 167000 |
| 15 | 2840 | --- | 58000 | 3600 | --- | 78000 | 4280 | --- | 140000 |
| 16 | 2860 | 7630 | 58900 | 3800 | 8260 | 84700 | 3560 | 12500 | 120000 |
| 17 | 2860 | 8450 | 65300 | 4980 | --- | 220000 | 3040 | --- | 90000 |
| 18 | 2960 | --- | 72000 | 5460 | --- | 190000 | 2680 | 8040 | 58200 |
| 19 | 3320 | 11900 | 107000 | 4120 | --- | 95000 | 2460 | --- | 53000 |
| 20 | 2870 | --- | 100000 | 4700 | --- | 150000 | 2160 | --- | 47000 |
| 21 | 2810 | 13700 | 104000 | 3940 | 9390 | 99900 | 1980 | 7950 | 42500 |
| 22 | 2810 | --- | 100000 | 4000 | 5510 | 59500 | 1990 | --- | 43000 |
| 23 | 3080 | --- | 120000 | 5640 | 12600 | 192000 | 1920 | --- | 40000 |
| 24 | 3300 | 18100 | 161000 | 5980 | --- | 210000 | 1790 | 7280 | 35200 |
| 25 | 2920 | --- | 130000 | 4880 | 9230 | 122000 | 2010 | --- | 50000 |
| 26 | 3480 | 17700 | 166000 | 5200 | --- | 130000 | 1900 | --- | 45000 |
| 27 | 5800 | --- | 520000 | 4240 | --- | 110000 | 1860 | --- | 40000 |
| 28 | 4400 | 20200 | 240000 | 3520 | 10400 | 98800 | 1910 | 8390 | 43300 |
| 29 | 3720 | --- | 200000 | --- | --- | --- | 5300 | 15200 | 239000 |
| 30 | 3300 | --- | 180000 | --- | --- | --- | 6980 | 12900 | 243000 |
| 31 | 2870 | 19800 | 153000 | --- | --- | --- | 5440 | 8260 | 121000 |
| TOTAL | 157620 | --- | 7114200 | 100520 | --- | 2733300 | 108970 | --- | 3272800 |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| APRIL | | | | | | | | | |
| 1 | 4760 | --- | 100000 | 1680 | --- | 30000 | 1550 | 8860 | 37100 |
| 2 | 4880 | --- | 110000 | 1600 | 6620 | 28600 | 1400 | --- | 32000 |
| 3 | 4260 | --- | 85000 | 1500 | --- | 25000 | 1260 | 7900 | 26900 |
| 4 | 3380 | 6420 | 58600 | 1410 | 5400 | 20600 | 1210 | --- | 27000 |
| 5 | 2860 | --- | 49000 | 1450 | 5200 | 20400 | 1170 | --- | 27000 |
| 6 | 2640 | 6340 | 45200 | 1490 | 6430 | 25900 | 1190 | 8520 | 27400 |
| 7 | 2510 | --- | 44000 | 1690 | --- | 29000 | 1170 | --- | 24000 |
| 8 | 2380 | 6770 | 43500 | 1790 | --- | 25000 | 1130 | 6640 | 20300 |
| 9 | 2360 | --- | 43000 | 1790 | 4600 | 22200 | 1130 | 6510 | 19900 |
| 10 | 2330 | --- | 40000 | 1730 | --- | 24000 | 1620 | 14100 | 61700 |
| 11 | 2240 | 6180 | 37400 | 1550 | 5760 | 24100 | 1670 | --- | 29000 |
| 12 | 1950 | --- | 37000 | 1480 | --- | 20000 | 1730 | --- | 26000 |
| 13 | 1790 | 7630 | 36900 | 1400 | --- | 18000 | 1360 | 5450 | 20000 |
| 14 | 1740 | --- | 32000 | 1490 | --- | 18000 | 1210 | --- | 20000 |
| 15 | 1680 | 6150 | 27900 | 1970 | 3750 | 19900 | 1370 | 6710 | 24800 |
| 16 | 1630 | --- | 27000 | 1750 | 4260 | 20100 | 1260 | --- | 19000 |
| 17 | 1590 | --- | 26000 | 1640 | 5030 | 22300 | 1180 | 4460 | 14200 |
| 18 | 1640 | 7300 | 32300 | 1640 | 5360 | 23700 | 1530 | --- | 25000 |
| 19 | 1660 | --- | 33000 | 1590 | --- | 21000 | 2280 | --- | 50000 |
| 20 | 1760 | 7890 | 37500 | 1660 | 6030 | 27000 | 2520 | 6270 | 42700 |
| 21 | 1800 | --- | 34000 | 1770 | --- | 28000 | 1940 | --- | 30000 |
| 22 | 1800 | 6010 | 29200 | 1700 | --- | 24000 | 1690 | 5880 | 26800 |
| 23 | 1930 | --- | 32000 | 1700 | 5260 | 24100 | 1790 | --- | 28000 |
| 24 | 2780 | --- | 110000 | 1690 | --- | 25000 | 1810 | 6060 | 29600 |
| 25 | 2150 | 13600 | 78900 | 1630 | 5910 | 26000 | 1580 | --- | 26000 |
| 26 | 1930 | --- | 32000 | 1600 | --- | 27000 | 1500 | --- | 24000 |
| 27 | 1700 | 4840 | 22200 | 1530 | 7040 | 29100 | 1380 | 5800 | 21600 |
| 28 | 1620 | --- | 20000 | 1550 | --- | 29000 | 1340 | --- | 21000 |
| 29 | 1640 | --- | 21000 | 1700 | --- | 35000 | 1360 | --- | 21000 |
| 30 | 1600 | 4500 | 19400 | 1680 | --- | 36000 | 1470 | --- | 23000 |
| 31 | --- | --- | --- | 1550 | --- | 37000 | --- | --- | --- |
| TOTAL | 68990 | --- | 1344000 | 50400 | --- | 785000 | 44800 | --- | 825000 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 1650 | --- | 27000 | 879 | 4420 | 10500 | 991 | --- | 8000 |
| 2 | 2600 | --- | 55000 | 740 | --- | 8500 | 1050 | 3040 | 8620 |
| 3 | 2240 | --- | 40000 | 722 | 4270 | 8320 | 824 | --- | 6200 |
| 4 | 1720 | --- | 30000 | 686 | --- | 7000 | 776 | --- | 5200 |
| 5 | 1560 | --- | 25000 | 630 | 3450 | 5870 | 728 | 2360 | 4640 |
| 6 | 1430 | --- | 25000 | 630 | --- | 5500 | 656 | --- | 3000 |
| 7 | 1390 | --- | 23000 | 610 | --- | 4000 | 656 | 1650 | 2920 |
| 8 | 1350 | --- | 23000 | 595 | 1860 | 2990 | 610 | 1900 | 3130 |
| 9 | 1300 | --- | 21000 | 600 | 1730 | 2800 | 662 | --- | 3400 |
| 10 | 1180 | --- | 20000 | 555 | 2250 | 3370 | 680 | --- | 3600 |
| 11 | 1110 | --- | 19000 | 640 | --- | 4800 | 1080 | --- | 9000 |
| 12 | 1190 | 7400 | 23800 | 668 | 3310 | 5970 | 851 | --- | 6500 |
| 13 | 2970 | --- | 140000 | 575 | --- | 5000 | 740 | --- | 5000 |
| 14 | 3500 | --- | 120000 | 545 | --- | 4700 | 690 | 1870 | 3480 |
| 15 | 3040 | --- | 110000 | 515 | 3200 | 4450 | 640 | --- | 3000 |
| 16 | 2420 | --- | 40000 | 505 | --- | 3200 | 605 | 1530 | 2500 |
| 17 | 2060 | --- | 30000 | 492 | 1520 | 2020 | 585 | --- | 2400 |
| 18 | 1860 | 4840 | 24300 | 480 | --- | 2400 | 668 | --- | 3200 |
| 19 | 1770 | --- | 24000 | 472 | 2170 | 2770 | 812 | 2840 | 6230 |
| 20 | 1710 | --- | 23000 | 464 | --- | 2500 | 625 | --- | 3000 |
| 21 | 1550 | --- | 21000 | 456 | --- | 2300 | 570 | 1440 | 2220 |
| 22 | 1400 | --- | 19000 | 444 | 1850 | 2220 | 515 | --- | 2000 |
| 23 | 1300 | --- | 18000 | 448 | --- | 2300 | 605 | 5900 | 9640 |
| 24 | 1200 | --- | 16000 | 460 | 2200 | 2730 | 650 | --- | 10000 |
| 25 | 1230 | 5130 | 17000 | 456 | --- | 2500 | 656 | --- | 12000 |
| 26 | 1260 | --- | 19000 | 440 | 1600 | 1900 | 656 | 6950 | 12300 |
| 27 | 1160 | 5580 | 17500 | 444 | --- | 1900 | 662 | --- | 13000 |
| 28 | 1160 | --- | 15000 | 460 | --- | 2000 | 656 | 7150 | 12700 |
| 29 | 1050 | 3820 | 10800 | 590 | 2870 | 4570 | 662 | --- | 12000 |
| 30 | 984 | --- | 11000 | 1260 | 6970 | 23700 | 674 | 6090 | 11100 |
| 31 | 907 | --- | 10000 | 788 | 5020 | 10700 | --- | --- | --- |
| TOTAL | 51251 | --- | 1017400 | 18249 | --- | 153480 | 21235 | --- | 199980 |
| YEAR | 899513 | | 39,738,740 TONS | | | | | | |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | 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 |
|---------------|------|-----------------------------|---|---|---|---|--|--|--|--|--|
| FEB 19.... | 1830 | -- | -- | -- | 32600 | -- | -- | -- | -- | -- | -- |
| MAR 26.... | 1145 | 10.0 | 1520 | 5 | 2690 | 11000 | -- | -- | -- | -- | -- |
| 31.... | 1738 | 7.0 | 3160 | 5 | 6600 | 56300 | -- | -- | -- | -- | -- |
| APR 06.... | 1605 | 7.5 | 2350 | 5 | 2560 | 16200 | -- | -- | -- | -- | -- |
| 09.... | 1535 | -- | 3810 | 5 | 4290 | 44100 | -- | -- | -- | -- | -- |
| 10.... | 1700 | -- | 3170 | 5 | 3930 | 33600 | -- | -- | -- | -- | -- |
| 22.... | 1215 | 10.5 | 3270 | 5 | 5770 | 50900 | -- | -- | -- | -- | -- |
| 27.... | 1345 | 8.5 | 2050 | 5 | 1380 | 7640 | -- | -- | -- | -- | -- |
| MAY 07.... | 1520 | 10.5 | 1810 | 5 | 2570 | 12600 | -- | -- | -- | -- | -- |
| 15.... | 1225 | 10.5 | 1400 | 5 | 1580 | 5970 | -- | -- | -- | -- | -- |
| 26.... | 1320 | 12.5 | 1780 | 5 | 1260 | 6060 | -- | -- | -- | -- | -- |
| JUN 08.... | 1110 | 11.5 | 1950 | 5 | 3020 | 15900 | -- | -- | -- | -- | -- |
| 09.... | 1515 | 12.0 | 3890 | 5 | 2520 | 26500 | -- | -- | -- | -- | -- |
| 15.... | 1245 | 12.0 | 2090 | 5 | 1610 | 9090 | -- | -- | -- | -- | -- |
| 22.... | 1350 | 12.5 | 2730 | 5 | 1680 | 12400 | -- | -- | -- | -- | -- |
| JUL 02.... | 1215 | 19.0 | 938 | 5 | 518 | 1310 | -- | -- | -- | -- | -- |
| 06.... | 1030 | 15.0 | 831 | 5 | 254 | 570 | -- | -- | -- | -- | -- |
| 09.... | 1330 | 16.0 | 855 | 5 | 310 | 716 | -- | -- | -- | -- | -- |
| 13.... | 1215 | 14.0 | 1110 | 5 | 1570 | 4710 | -- | -- | -- | -- | -- |
| 16.... | 1100 | 16.5 | 790 | 5 | 372 | 793 | -- | -- | -- | -- | -- |
| 20.... | 1300 | 16.5 | 722 | 5 | 455 | 887 | -- | -- | -- | -- | -- |
| 23.... | 1350 | 17.5 | 662 | 5 | 558 | 997 | 23 | 26 | 40 | 70 | 94 |
| 27.... | 1230 | 22.5 | 578 | 5 | 369 | 576 | -- | -- | -- | -- | -- |
| 30.... | 1110 | 15.5 | 579 | 5 | 337 | 527 | 77 | 78 | 84 | 98 | 99 |
| AUG 04.... | 1100 | 16.0 | 560 | 5 | 217 | 328 | -- | -- | -- | -- | -- |
| 06.... | 0950 | 17.0 | 546 | 5 | 268 | 395 | -- | -- | -- | -- | -- |
| 11.... | 1035 | 21.0 | 398 | 5 | 357 | 384 | -- | -- | -- | -- | -- |
| 13.... | 0925 | 19.0 | 440 | 5 | 427 | 507 | -- | -- | -- | -- | -- |
| 18.... | 1040 | 18.0 | 401 | 5 | 308 | 333 | -- | -- | -- | -- | -- |
| 20.... | 0930 | 16.5 | 379 | 5 | 410 | 420 | -- | -- | -- | -- | -- |
| 26.... | 1155 | 14.0 | 316 | 5 | 242 | 206 | -- | -- | -- | -- | -- |
| 28.... | 1240 | 16.5 | 306 | 5 | 176 | 145 | -- | -- | -- | -- | -- |
| SEP 01.... | 1020 | 17.0 | 841 | 5 | 1840 | 4180 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 |
|-------|------|-----------------------------|---|---|--|--|--|--|--|
| SEP | | | | | | | | | |
| 03... | 1325 | 17.0 | 500 | 5 | 494 | 667 | -- | -- | -- |
| 09... | 1135 | 17.0 | 325 | 9 | 392 | 344 | -- | -- | -- |
| 15... | 1245 | 15.0 | 285 | 5 | 262 | 202 | -- | -- | -- |
| 21... | 0955 | -- | 485 | -- | 1000 | 1310 | -- | -- | -- |
| 21... | 1150 | 12.5 | 490 | 5 | 913 | 1210 | 45 | 73 | 83 |
| 21... | 1210 | -- | 480 | -- | 941 | 1220 | -- | -- | -- |
| 21... | 1320 | -- | 525 | -- | 1470 | 2080 | -- | -- | -- |
| 21... | 1550 | -- | 590 | -- | 1020 | 1620 | -- | -- | -- |
| 29... | 1630 | 15.0 | 925 | 5 | 833 | 2080 | -- | -- | -- |
| DATE | | | | | | | | | |
| SEP | | | | | | | | | |
| 03... | -- | -- | -- | 78 | -- | -- | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .031 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
| 09... | -- | -- | -- | 77 | -- | -- | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM |
| 15... | -- | -- | -- | 90 | -- | -- | 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 |
| 21... | -- | -- | -- | -- | -- | -- | 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 |
| 21... | 84 | 85 | 85 | -- | 88 | 90 | 95 | 99 | 100 |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14242530 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 06.... | 1200 | 13.0 | 8080 | -- | 18000 | 393000 | -- | -- | -- | -- | -- | -- |
| 06.... | 1245 | 13.0 | 7610 | 5 | 21200 | 436000 | 10 | 19 | 32 | 49 | 64 | 64 |
| 06.... | 1400 | 13.0 | 7880 | -- | 30900 | 657000 | -- | -- | -- | -- | -- | -- |
| 06.... | 1530 | 13.0 | 6950 | 5 | 29600 | 555000 | 13 | 24 | 40 | 60 | 75 | 75 |
| 06.... | 1640 | 13.0 | 7550 | -- | 33000 | 673000 | -- | -- | -- | -- | -- | -- |
| 07.... | 1005 | 11.0 | 4520 | -- | 26600 | 325000 | -- | -- | -- | -- | -- | -- |
| 07.... | 1120 | -- | 4480 | -- | 25800 | 312000 | -- | -- | -- | -- | -- | -- |
| 07.... | 1200 | 11.0 | 4350 | -- | 20900 | 245000 | 16 | 28 | 44 | 62 | 74 | 74 |
| 07.... | 1205 | 11.0 | 4350 | 5 | 22400 | 263000 | -- | -- | -- | -- | -- | -- |
| 13.... | 1330 | -- | 1300 | 5 | 1100 | 3860 | -- | -- | -- | -- | -- | -- |
| 19.... | 0950 | 10.5 | 723 | -- | 997 | 1950 | -- | -- | -- | -- | -- | -- |
| 19.... | 1215 | 10.5 | 709 | -- | 831 | 1590 | -- | -- | -- | -- | -- | -- |
| 19.... | 1230 | 10.5 | 709 | 5 | 730 | 1400 | -- | -- | -- | -- | -- | -- |
| 19.... | 1240 | 10.5 | 709 | -- | 898 | 1720 | -- | -- | -- | -- | -- | -- |
| 20.... | 1145 | 10.5 | 695 | -- | 814 | 1530 | -- | -- | -- | -- | -- | -- |
| 27.... | 1235 | 12.0 | 1010 | -- | 2500 | 6820 | -- | -- | -- | -- | -- | -- |
| 27.... | 1445 | 12.0 | 1000 | -- | 2450 | 6610 | -- | -- | -- | -- | -- | -- |
| 27.... | 1555 | 12.0 | 1080 | -- | 2880 | 8400 | -- | -- | -- | -- | -- | -- |
| 28.... | 1020 | 11.0 | 2720 | -- | 36900 | 271000 | -- | -- | -- | -- | -- | -- |
| 28.... | 1145 | 11.0 | 2460 | 5 | 31400 | 209000 | -- | 21 | 38 | 59 | 80 | 80 |
| 28.... | 1205 | 11.0 | 2380 | -- | 29700 | 184000 | -- | -- | -- | -- | -- | -- |
| 28.... | 1330 | 11.0 | 2140 | -- | 16300 | 94200 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 04.... | 1210 | 7.0 | 1160 | 5 | 1790 | 5610 | -- | 10 | 16 | 24 | 35 | 35 |
| 11.... | 1930 | 11.5 | 1170 | -- | 4040 | 12800 | -- | -- | -- | -- | -- | -- |
| 11.... | 2010 | 11.5 | 1290 | -- | 4500 | 15700 | -- | -- | -- | -- | -- | -- |
| 12.... | 0955 | 9.5 | 2320 | -- | 13200 | 82700 | -- | -- | -- | -- | -- | -- |
| 12.... | 1150 | 9.5 | 2040 | -- | 9710 | 53500 | -- | -- | -- | -- | -- | -- |
| 12.... | 1220 | 9.5 | 2040 | 5 | 9180 | 50600 | -- | 12 | 21 | 34 | 50 | 50 |
| 12.... | 1335 | 9.5 | 1920 | -- | 8160 | 42300 | -- | -- | -- | -- | -- | -- |
| 13.... | 0950 | 8.5 | 1570 | -- | 3830 | 16200 | -- | -- | -- | -- | -- | -- |
| 14.... | 1355 | 9.5 | 7040 | -- | 65200 | 1240000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1515 | 9.5 | 7640 | -- | 55500 | 1140000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1530 | 9.5 | 7610 | 5 | 54600 | 1120000 | -- | 16 | 26 | 41 | 59 | 59 |
| 14.... | 1625 | 9.0 | 8260 | -- | 53800 | 1200000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1710 | 9.0 | 8050 | -- | 50600 | 1100000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1840 | 8.5 | 6980 | -- | 47400 | 893000 | -- | -- | -- | -- | -- | -- |
| 14.... | 2015 | 7.5 | 6260 | -- | 41300 | 698000 | -- | -- | -- | -- | -- | -- |
| 14.... | 2045 | 7.5 | 6260 | 5 | 41200 | 696000 | -- | 13 | 21 | 34 | 49 | 49 |
| 14.... | 2100 | 7.5 | 6290 | -- | 38000 | 645000 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN .062 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN .125 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN .125 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN .250 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN .250 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN .500 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN .500 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN 1.00 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN 1.00 MM | SED. SUSP. FALL SIEVE DIAM. % FINER THAN 2.00 MM |
|-------|--|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 06... | -- | 72 | -- | -- | -- | 92 | -- | 98 | -- | -- | -- |
| 06... | 73 | 73 | 83 | -- | -- | 92 | -- | 98 | 100 | -- | -- |
| 06... | -- | 73 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 80 | 82 | 88 | -- | -- | 95 | -- | 98 | 99 | -- | -- |
| 06... | -- | 85 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 75 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 78 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 83 | 73 | 90 | -- | -- | 95 | -- | 99 | 100 | -- | -- |
| 07... | -- | 83 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | 8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 29 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 31 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | 92 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | 91 | -- | -- | -- | -- | -- | -- | 99 | 100 | -- |
| 28... | -- | 88 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | 90 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 04... | -- | 52 | -- | 71 | 86 | -- | 98 | -- | 100 | -- | -- |
| 11... | -- | 39 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | 67 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | 67 | -- | 82 | 93 | -- | 98 | -- | 100 | -- | -- |
| 12... | -- | 62 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | 54 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 78 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 78 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 74 | -- | 85 | 95 | -- | 98 | -- | 100 | -- | -- |
| 14... | -- | 72 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 73 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 74 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 68 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 67 | -- | 78 | 88 | -- | 95 | -- | 99 | -- | 100 |
| 14... | -- | 72 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .008 MM |
|-------|------|-----------------------------|---|---|--|--|--|--|
| NOV | | | | | | | | |
| 15... | 0925 | 8.0 | 4300 | -- | 12500 | 145000 | -- | -- |
| 16... | 0930 | 7.0 | 3660 | -- | 15800 | 156000 | -- | -- |
| 16... | 1225 | 7.0 | 3440 | -- | 14600 | 136000 | -- | -- |
| 16... | 1300 | 7.5 | 3420 | 5 | 13400 | 124000 | 11 | 18 |
| 16... | 1335 | 8.0 | 3380 | -- | 13100 | 120000 | -- | -- |
| 16... | 1405 | 7.5 | 3360 | -- | 12800 | 116000 | -- | -- |
| 16... | 1555 | 7.0 | 3360 | -- | 13700 | 124000 | -- | -- |
| 17... | 1120 | 8.0 | 3020 | -- | 11600 | 94600 | -- | -- |
| 18... | 0945 | 7.0 | 5120 | -- | 11800 | 163000 | -- | -- |
| 18... | 1140 | 7.5 | 5030 | 5 | 14000 | 190000 | 10 | 17 |
| 18... | 1235 | -- | 4760 | -- | 11200 | 144000 | -- | -- |
| 24... | 1145 | 5.5 | 5700 | 5 | 5700 | 87700 | 9 | 14 |
| 24... | 1230 | -- | 3640 | -- | 5220 | 51300 | -- | -- |
| DEC | | | | | | | | |
| 01... | 1130 | 6.0 | 2500 | 5 | 4690 | 31700 | 13 | 19 |
| 02... | 1115 | 8.0 | 10900 | 5 | 38300 | 1130000 | 11 | 22 |
| 02... | 1255 | 8.0 | 9880 | 5 | 34000 | 907000 | 14 | 21 |
| 02... | 1500 | 8.0 | 7520 | 5 | 23000 | 467000 | 11 | 20 |
| 05... | 1150 | 9.0 | 17800 | -- | 88300 | 4240000 | -- | -- |
| 05... | 1410 | 9.0 | 19600 | -- | 75200 | 3980000 | -- | -- |
| 05... | 1600 | 9.0 | 16400 | 5 | 61900 | 2740000 | 11 | 17 |
| 05... | 1715 | 9.0 | 14500 | -- | 71600 | 2800000 | -- | -- |
| 05... | 2130 | 9.0 | 10900 | -- | 53000 | 1560000 | -- | -- |
| 05... | 2245 | 9.0 | 10900 | 5 | 40800 | 1200000 | 10 | 14 |
| 06... | 0200 | 8.5 | 12700 | -- | 31800 | 1090000 | -- | -- |
| 06... | 0320 | -- | 12200 | 5 | 30800 | 1010000 | 9 | 14 |
| 06... | 0915 | 7.5 | 10500 | -- | 29800 | 845000 | -- | -- |
| 06... | 1005 | 7.5 | 10800 | 5 | 23300 | 679000 | 9 | 14 |
| 06... | 1330 | 9.0 | 9960 | 5 | 21000 | 565000 | 9 | 14 |
| 06... | 1710 | 9.0 | 8610 | -- | 16200 | 377000 | -- | -- |
| 07... | 1205 | -- | 9080 | -- | 11600 | 284000 | -- | -- |
| 08... | 1400 | 7.0 | 5780 | 5 | 10200 | 159000 | 7 | 13 |
| 10... | 1240 | 6.5 | 4790 | 5 | 8830 | 114000 | 9 | 13 |
| 11... | 0940 | 5.0 | 4060 | -- | 5550 | 60800 | -- | -- |
| 11... | 1430 | 5.5 | 3920 | -- | 5030 | 53200 | -- | -- |
| 15... | 0910 | 8.0 | 5340 | -- | 7540 | 109000 | -- | -- |
| 15... | 1135 | 8.0 | 6340 | -- | 9350 | 160000 | -- | -- |
| 15... | 1210 | 8.0 | 7560 | 5 | 13100 | 267000 | 8 | 10 |
| 15... | 1310 | 8.0 | 8250 | -- | 13200 | 294000 | -- | -- |
| 15... | 1500 | 8.0 | 10200 | -- | 15600 | 430000 | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 |
|-------|--|--|---|---|---|---|---|---|
| NOV | | | | | | | | |
| 15... | -- | -- | 64 | -- | -- | -- | -- | -- |
| 16... | -- | -- | 60 | -- | -- | -- | -- | -- |
| 16... | -- | -- | 57 | -- | -- | -- | -- | -- |
| 16... | 29 | 44 | 62 | 74 | 92 | 99 | 100 | -- |
| 16... | -- | -- | 58 | -- | -- | -- | -- | -- |
| 16... | -- | -- | 69 | -- | -- | -- | -- | -- |
| 16... | -- | -- | 55 | -- | -- | -- | -- | -- |
| 17... | -- | -- | 60 | -- | -- | -- | -- | -- |
| 18... | -- | -- | 60 | -- | -- | -- | -- | -- |
| 18... | 28 | 39 | 49 | 71 | 89 | 98 | 100 | -- |
| 18... | -- | -- | 64 | -- | -- | -- | -- | -- |
| 24... | 23 | 33 | 43 | 61 | 84 | 96 | 99 | 100 |
| 24... | -- | -- | 30 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | |
| 01... | 29 | 38 | 51 | 67 | 88 | 98 | 100 | -- |
| 02... | 34 | 49 | 67 | 82 | 94 | 98 | 99 | 100 |
| 02... | 34 | 49 | 65 | 79 | 91 | 97 | 100 | -- |
| 02... | 31 | 43 | 56 | 69 | 88 | 95 | 99 | 100 |
| 05... | -- | -- | 54 | -- | -- | -- | -- | -- |
| 05... | -- | -- | 58 | -- | -- | -- | -- | -- |
| 05... | 27 | 38 | 53 | 60 | 87 | 95 | 99 | 100 |
| 05... | -- | -- | 44 | -- | -- | -- | -- | -- |
| 05... | -- | -- | 46 | -- | -- | -- | -- | -- |
| 05... | 23 | 34 | 47 | 66 | 87 | 97 | 100 | -- |
| 06... | -- | -- | 50 | -- | -- | -- | -- | -- |
| 06... | 25 | 35 | 49 | 67 | 86 | 95 | 99 | 100 |
| 06... | -- | -- | 40 | -- | -- | -- | -- | -- |
| 06... | 24 | 34 | 50 | 63 | 86 | 95 | 99 | 100 |
| 06... | 23 | 34 | 47 | 61 | 86 | 96 | 100 | -- |
| 06... | -- | -- | 56 | -- | -- | -- | -- | -- |
| 07... | -- | -- | 48 | -- | -- | -- | -- | -- |
| 08... | 21 | 30 | 42 | 58 | 83 | 97 | 100 | -- |
| 10... | 21 | 31 | 42 | 57 | 84 | 97 | 100 | -- |
| 11... | -- | -- | 53 | -- | -- | -- | -- | -- |
| 11... | -- | -- | 54 | -- | -- | -- | -- | -- |
| 15... | -- | -- | 53 | -- | -- | -- | -- | -- |
| 15... | -- | -- | 48 | -- | -- | -- | -- | -- |
| 15... | 17 | 27 | 40 | 63 | 86 | 97 | 99 | 100 |
| 15... | -- | -- | 50 | -- | -- | -- | -- | -- |
| 15... | -- | -- | 52 | -- | -- | -- | -- | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDED (MG/L) | SED1- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|--|--|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 18.... | 1210 | 8.0 | 4060 | -- | 3590 | 39400 | -- | -- | -- | -- | -- |
| 18.... | 1230 | 8.0 | 4120 | 5 | 5940 | 66100 | -- | -- | -- | -- | -- |
| 21.... | 1145 | 6.0 | 3640 | -- | 4850 | 47700 | -- | -- | -- | -- | -- |
| 21.... | 1230 | 6.0 | 3650 | 5 | 6620 | 65200 | -- | 8 | 12 | 19 | 28 |
| 21.... | 1310 | 6.0 | 3650 | -- | 4400 | 43400 | -- | -- | -- | -- | -- |
| 29.... | 0930 | 3.0 | 2370 | -- | 2040 | 13100 | -- | -- | -- | -- | -- |
| 29.... | 1150 | 2.5 | 2340 | 5 | 3220 | 20300 | -- | -- | -- | -- | -- |
| 29.... | 1230 | 2.5 | 2330 | -- | 1730 | 10900 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 08.... | 1320 | -- | 1200 | -- | 883 | 2860 | -- | -- | -- | -- | -- |
| 08.... | 1505 | 3.0 | 1220 | 5 | 2080 | 6850 | 4 | 5 | 10 | 15 | 20 |
| 08.... | 1535 | 3.0 | 1200 | -- | 1300 | 4210 | -- | -- | -- | -- | -- |
| 12.... | 1255 | 5.0 | 1670 | 5 | 3280 | 14800 | -- | -- | -- | -- | -- |
| 16.... | 1240 | 7.5 | 6140 | -- | 6440 | 107000 | -- | -- | -- | -- | -- |
| 16.... | 1325 | 7.5 | 6160 | 3 | 9920 | 165000 | 2 | 5 | 8 | 13 | 20 |
| 16.... | 1630 | 7.5 | 9040 | 5 | 13400 | 327000 | 4 | 4 | 6 | 13 | 21 |
| 16.... | 1715 | 7.5 | 10500 | -- | 12800 | 363000 | -- | -- | -- | -- | -- |
| 17.... | 1250 | 5.0 | 9540 | -- | 7420 | 191000 | -- | -- | -- | -- | -- |
| 17.... | 1410 | 5.0 | 9950 | 5 | 11500 | 309000 | -- | 5 | 8 | 13 | 20 |
| 17.... | 1435 | 5.0 | 9840 | -- | 8520 | 226000 | -- | -- | -- | -- | -- |
| 17.... | 1640 | 5.0 | 9580 | -- | 8140 | 211000 | -- | -- | -- | -- | -- |
| 19.... | 0925 | 6.0 | 5150 | -- | 3030 | 42100 | -- | -- | -- | -- | -- |
| 19.... | 1315 | 6.0 | 4780 | 5 | 4120 | 53200 | -- | 6 | 9 | 14 | 20 |
| 19.... | 1410 | 6.0 | 4780 | -- | 3020 | 39000 | -- | -- | -- | -- | -- |
| 23.... | 1100 | 8.5 | 19100 | -- | 22800 | 1180000 | -- | -- | -- | -- | -- |
| 23.... | 1140 | 8.5 | 21900 | -- | 26400 | 1560000 | -- | -- | -- | -- | -- |
| 23.... | 1250 | 8.5 | 20900 | 5 | 21400 | 1210000 | -- | -- | -- | -- | -- |
| 23.... | 1520 | 8.5 | 20200 | 5 | 17800 | 971000 | -- | 13 | 19 | 32 | 45 |
| 23.... | 1615 | -- | 20300 | -- | 18000 | 987000 | -- | -- | -- | -- | -- |
| 23.... | 1725 | 8.5 | 20400 | -- | 20000 | 1100000 | -- | -- | -- | -- | -- |
| 23.... | 1925 | 8.5 | 19900 | 5 | 18600 | 999000 | -- | 13 | 19 | 31 | 46 |
| 23.... | 2035 | -- | 20100 | -- | 17100 | 928000 | -- | -- | -- | -- | -- |
| 23.... | 2115 | 8.0 | 20300 | -- | 15400 | 844000 | -- | -- | -- | -- | -- |
| 23.... | 2145 | 8.0 | 20800 | -- | 17000 | 955000 | -- | -- | -- | -- | -- |
| 24.... | 0300 | 8.0 | 31500 | 3 | 29400 | 2500000 | -- | 12 | 16 | 28 | 41 |
| 24.... | 0545 | 6.5 | 34800 | 4 | 43800 | 4120000 | -- | 12 | 19 | 30 | 45 |
| 24.... | 0625 | 8.0 | 33400 | -- | 42800 | 3860000 | -- | -- | -- | -- | -- |
| 24.... | 0715 | 7.0 | 31600 | -- | 37200 | 3170000 | -- | -- | -- | -- | -- |
| 24.... | 0910 | 6.5 | 28100 | 5 | 32400 | 2460000 | -- | 13 | 18 | 28 | 41 |
| 24.... | 0945 | 6.5 | 27300 | -- | 39600 | 2920000 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. FALL 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 |
|-------|--|--|---|--|---|--|---|--|---|---|
| DEC | | | | | | | | | | |
| 18... | -- | 51 | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | 34 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 52 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 39 | -- | 82 | -- | 97 | -- | 100 | -- | -- |
| 21... | -- | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | 41 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | 27 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 08... | -- | 67 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 30 | 31 | 44 | 71 | -- | 97 | 100 | -- | -- | -- |
| 08... | -- | 58 | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | 28 | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 31 | 28 | 57 | 71 | -- | 98 | 100 | -- | -- | -- |
| 16... | 40 | 34 | 66 | 94 | -- | 100 | -- | -- | -- | -- |
| 16... | -- | 41 | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | 100 |
| 17... | -- | 32 | -- | -- | 68 | -- | 90 | -- | 99 | -- |
| 17... | -- | 41 | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 38 | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 28 | -- | -- | 68 | -- | 93 | -- | 99 | -- |
| 19... | -- | 34 | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 62 | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 61 | -- | -- | 95 | -- | 100 | -- | -- | -- |
| 23... | -- | 60 | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 63 | -- | -- | -- | -- | 100 | -- | -- | -- |
| 23... | -- | 64 | -- | -- | 96 | -- | -- | -- | -- | -- |
| 23... | -- | 64 | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 58 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 58 | -- | -- | 96 | -- | 99 | -- | 100 | -- |
| 24... | -- | 63 | -- | -- | 98 | -- | 100 | -- | -- | -- |
| 24... | -- | 58 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 56 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 59 | -- | -- | 97 | -- | 100 | -- | -- | -- |
| 24... | -- | 56 | -- | -- | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 |
|--------|------|-----------------------------|---|---|--|--|--|--|--|--|--|
| JAN | | | | | | | | | | | |
| 24.... | 1355 | 7.5 | 23100 | 5 | 22800 | 1420000 | -- | 11 | 15 | 25 | 37 |
| 24.... | 1510 | -- | 22000 | -- | 20800 | 1240000 | -- | -- | -- | -- | -- |
| 26.... | 1305 | -- | 11200 | -- | 11000 | 333000 | -- | -- | -- | -- | -- |
| 26.... | 1515 | -- | 9950 | 5 | 11900 | 320000 | -- | 9 | 13 | 21 | 31 |
| 26.... | 1605 | -- | 10200 | -- | 9760 | 269000 | -- | -- | -- | -- | -- |
| 27.... | 1310 | -- | 7580 | -- | 5770 | 118000 | -- | -- | -- | -- | -- |
| 29.... | 1005 | 6.0 | 4360 | -- | 3100 | 36500 | -- | -- | -- | -- | -- |
| 29.... | 1140 | 6.0 | 4360 | 5 | 4460 | 52500 | -- | 8 | 11 | 18 | 25 |
| 29.... | 1225 | 6.0 | 4290 | -- | 2900 | 33600 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 02.... | 0915 | 6.5 | 4000 | -- | 3400 | 36700 | -- | -- | -- | -- | -- |
| 02.... | 1200 | 6.5 | 4090 | 5 | 4880 | 53900 | 4 | 6 | 9 | 15 | 21 |
| 02.... | 1240 | 6.5 | 4120 | -- | 3370 | 37500 | -- | -- | -- | -- | -- |
| 04.... | 1035 | 4.0 | 3380 | -- | 2280 | 20800 | -- | -- | -- | -- | -- |
| 04.... | 1245 | 4.0 | 3350 | -- | 3250 | 29400 | -- | -- | -- | -- | -- |
| 04.... | 1315 | 4.0 | 3140 | -- | 2180 | 18500 | -- | -- | -- | -- | -- |
| 09.... | 1010 | 2.5 | 1910 | -- | 980 | 5050 | -- | -- | -- | -- | -- |
| 09.... | 1205 | 2.5 | 1810 | 5 | 2010 | 9820 | 4 | 8 | 13 | 20 | 26 |
| 09.... | 1315 | 2.5 | 1810 | -- | 818 | 4000 | -- | -- | -- | -- | -- |
| 12.... | 1000 | 5.5 | 1810 | -- | 732 | 3580 | -- | -- | -- | -- | -- |
| 12.... | 1140 | 5.5 | 1840 | 5 | 2230 | 11100 | -- | -- | -- | -- | -- |
| 12.... | 1245 | 5.5 | 1820 | -- | 946 | 4650 | -- | -- | -- | -- | -- |
| 14.... | 0810 | 7.5 | 11000 | -- | 41600 | 1240000 | -- | -- | -- | -- | -- |
| 14.... | 1105 | 7.5 | 12100 | 5 | 30300 | 990000 | -- | -- | -- | -- | -- |
| 14.... | 1140 | 7.5 | 12600 | -- | 40500 | 1380000 | -- | -- | -- | -- | -- |
| 14.... | 1215 | 7.5 | 12500 | -- | 36400 | 1230000 | -- | -- | -- | -- | -- |
| 15.... | 1155 | 8.0 | 10500 | -- | 25600 | 726000 | -- | -- | -- | -- | -- |
| 16.... | 0855 | 8.0 | 16300 | -- | 38600 | 1700000 | -- | -- | -- | -- | -- |
| 16.... | 1000 | 8.0 | 16500 | -- | 33400 | 1490000 | -- | -- | -- | -- | -- |
| 16.... | 1135 | 8.0 | 17400 | 5 | 33200 | 1560000 | -- | -- | -- | -- | -- |
| 16.... | 1220 | 8.0 | 17900 | -- | 32900 | 1590000 | 5 | 8 | 15 | 24 | 27 |
| 16.... | 1235 | 8.0 | 17700 | -- | 34000 | 1620000 | -- | -- | -- | -- | -- |
| 16.... | 1435 | 8.0 | 16700 | -- | 37600 | 1700000 | -- | -- | -- | -- | -- |
| 17.... | 0920 | 9.0 | 15800 | -- | 78800 | 3360000 | -- | -- | -- | -- | -- |
| 17.... | 1140 | 9.0 | 14800 | 5 | 44200 | 1770000 | 6 | 13 | 14 | 24 | 35 |
| 17.... | 1330 | 9.0 | 15300 | -- | 37000 | 1530000 | -- | -- | -- | -- | -- |
| 19.... | 0640 | -- | 9750 | -- | 29800 | 784000 | -- | -- | -- | -- | -- |
| 19.... | 0920 | 7.5 | 9000 | 5 | 24400 | 593000 | 6 | 7 | 11 | 18 | 27 |
| 20.... | 1230 | -- | 28400 | -- | 104000 | 7970000 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 |
|-------|--|--|--|--|--|--|--|--|--|--|
| JAN | | | | | | | | | | |
| 24... | -- | 51 | -- | -- | 95 | -- | 100 | -- | -- | -- |
| 24... | -- | 52 | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | 43 | -- | -- | 86 | -- | 98 | -- | 100 | -- |
| 26... | -- | 47 | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | 35 | -- | -- | 80 | -- | 97 | -- | 100 | -- |
| 29... | -- | 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 02... | -- | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 29 | 29 | 45 | 58 | -- | 97 | -- | 100 | -- | -- |
| 02... | -- | 44 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 44 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 29 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 42 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | 58 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 36 | 29 | 45 | 67 | -- | 93 | -- | 98 | -- | 100 |
| 09... | -- | 62 | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | 73 | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | 30 | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | 66 | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 48 | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 57 | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 52 | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 38 | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 42 | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 42 | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 50 | -- | -- | 92 | -- | 99 | -- | 100 | -- |
| 16... | -- | 47 | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 41 | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | 58 | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | 48 | -- | -- | 93 | -- | 99 | -- | 100 | -- |
| 17... | -- | 41 | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 34 | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | 37 | -- | -- | 80 | -- | 98 | -- | 100 | -- |
| 20... | -- | 74 | -- | -- | -- | -- | -- | -- | -- | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDED (MG/L) | SED1- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 20... | 1320 | -- | 28600 | -- | 88000 | 6800000 | -- | -- | -- | -- | -- |
| 20... | 1905 | 9.0 | 28700 | -- | 57600 | 4460000 | -- | -- | -- | -- | -- |
| 20... | 1945 | 9.0 | 29500 | -- | 51200 | 4080000 | -- | -- | -- | -- | -- |
| 20... | 2025 | 9.0 | 29800 | -- | 51500 | 4140000 | -- | -- | -- | -- | -- |
| 20... | 2055 | 9.0 | 28500 | -- | 68000 | 5230000 | -- | -- | -- | -- | -- |
| 20... | 2130 | 9.0 | 27200 | -- | 80800 | 5930000 | -- | -- | -- | -- | -- |
| 20... | 2200 | -- | 25700 | -- | 89000 | 6180000 | -- | -- | -- | -- | -- |
| 20... | 2215 | -- | 24900 | -- | 71400 | 4800000 | -- | -- | -- | -- | -- |
| 20... | 2220 | -- | 24900 | -- | 81700 | 5490000 | -- | -- | -- | -- | -- |
| 20... | 2245 | 8.0 | 24900 | -- | 65100 | 4380000 | -- | -- | -- | -- | -- |
| 20... | 2300 | -- | 24300 | -- | 72800 | 4780000 | -- | -- | -- | -- | -- |
| 20... | 2315 | -- | 24300 | -- | 61300 | 4020000 | -- | -- | -- | -- | -- |
| 20... | 2330 | -- | 23100 | -- | 54500 | 3400000 | -- | -- | -- | -- | -- |
| 20... | 2350 | 8.0 | 22600 | -- | 54100 | 3300000 | -- | -- | -- | -- | -- |
| 21... | 0005 | -- | 22500 | -- | 50000 | 3040000 | -- | -- | -- | -- | -- |
| 21... | 0010 | -- | 22000 | -- | 44600 | 2650000 | -- | -- | -- | -- | -- |
| 21... | 0015 | -- | 22000 | -- | 51700 | 3070000 | -- | -- | -- | -- | -- |
| 21... | 0035 | -- | 22300 | -- | 47500 | 2860000 | -- | -- | -- | -- | -- |
| 21... | 0050 | 6.5 | 22800 | -- | 51200 | 3150000 | -- | -- | -- | -- | -- |
| 21... | 0100 | -- | 22800 | -- | 51700 | 3180000 | -- | -- | -- | -- | -- |
| 21... | 0115 | 6.5 | 22700 | -- | 45200 | 2770000 | -- | -- | -- | -- | -- |
| 21... | 0145 | -- | 20800 | -- | 44800 | 2520000 | -- | -- | -- | -- | -- |
| 21... | 0200 | -- | 21100 | -- | 50600 | 2880000 | -- | -- | -- | -- | -- |
| 21... | 1800 | 7.0 | 12000 | -- | 23200 | 752000 | 8 | 11 | 14 | 24 | 35 |
| 21... | 1850 | 7.0 | 11800 | -- | 25700 | 819000 | -- | -- | -- | -- | -- |
| 24... | 1255 | 5.0 | 5480 | 6 | 6990 | 103000 | -- | -- | -- | -- | -- |
| 24... | 1325 | 5.0 | 5480 | 5 | 9810 | 145000 | 5 | 7 | 9 | 15 | 22 |
| 24... | 1416 | 5.0 | 5540 | -- | 6400 | 95700 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 01... | 0935 | 7.5 | 3550 | -- | 6320 | 60600 | -- | -- | -- | -- | -- |
| 01... | 1125 | 8.0 | 3900 | 5 | 9060 | 95400 | -- | -- | -- | -- | -- |
| 01... | 1220 | 8.0 | 4020 | -- | 9120 | 99000 | -- | -- | -- | -- | -- |
| 01... | 1250 | 8.0 | 4020 | -- | 13800 | 150000 | -- | -- | -- | -- | -- |
| 05... | 1410 | 8.0 | 3320 | 5 | 5640 | 50600 | -- | -- | -- | -- | -- |
| 09... | 1155 | 8.5 | 3540 | 5 | 7860 | 75100 | -- | -- | -- | -- | -- |
| 15... | 1230 | 6.0 | 4130 | 5 | 5220 | 58200 | -- | -- | -- | -- | -- |
| 17... | 1215 | 5.0 | 3480 | -- | 8930 | 83900 | -- | -- | -- | -- | -- |
| 17... | 1240 | 5.0 | 3480 | -- | 8840 | 83100 | -- | -- | -- | -- | -- |
| 19... | 1130 | 6.0 | 3320 | -- | 2930 | 26300 | -- | -- | -- | -- | -- |
| 19... | 2235 | 6.5 | 2500 | -- | 1840 | 12400 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 |
|-------|--|--|--|--|--|--|
| FEB | | | | | | |
| 20... | -- | 82 | -- | -- | -- | -- |
| 20... | -- | 58 | -- | -- | -- | -- |
| 20... | -- | 64 | -- | -- | -- | -- |
| 20... | -- | 68 | -- | -- | -- | -- |
| 20... | -- | 66 | -- | -- | -- | -- |
| 20... | -- | 70 | -- | -- | -- | -- |
| 20... | -- | 66 | -- | -- | -- | -- |
| 20... | -- | 60 | -- | -- | -- | -- |
| 20... | -- | 62 | -- | -- | -- | -- |
| 20... | -- | 60 | -- | -- | -- | -- |
| 20... | -- | 53 | -- | -- | -- | -- |
| 20... | -- | 59 | -- | -- | -- | -- |
| 20... | -- | 65 | -- | -- | -- | -- |
| 20... | -- | 62 | -- | -- | -- | -- |
| 21... | -- | 63 | -- | -- | -- | -- |
| 21... | -- | 61 | -- | -- | -- | -- |
| 21... | -- | 57 | -- | -- | -- | -- |
| 21... | -- | 58 | -- | -- | -- | -- |
| 21... | -- | 52 | -- | -- | -- | -- |
| 21... | -- | 52 | -- | -- | -- | -- |
| 21... | -- | 57 | -- | -- | -- | -- |
| 21... | -- | 60 | -- | -- | -- | -- |
| 21... | -- | 53 | -- | -- | 100 | -- |
| 21... | 48 | 49 | 91 | 98 | 100 | -- |
| 21... | -- | 43 | -- | -- | -- | -- |
| 24... | -- | -- | -- | 99 | 100 | -- |
| 24... | 31 | 27 | 80 | -- | -- | -- |
| 24... | -- | 42 | -- | -- | -- | -- |
| MAR | | | | | | |
| 01... | -- | 55 | -- | -- | -- | -- |
| 01... | -- | 51 | -- | -- | -- | -- |
| 01... | -- | 57 | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- |
| 05... | 38 | 40 | 81 | 98 | 100 | -- |
| 09... | 46 | 45 | 85 | 88 | 100 | -- |
| 15... | 32 | 29 | 81 | 98 | 99 | 100 |
| 17... | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- |
| 19... | -- | 36 | -- | -- | -- | -- |
| 19... | -- | 52 | 69 | 90 | 98 | 100 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED | | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | |
|--------|--------|-----------------------------|---|---|--------------------------|--------|---|---------|
| | | | | | (MG/L) | (MG/L) | | |
| MAR | 19.... | 2330 | -- | 2500 | -- | 2760 | -- | 18600 |
| | 19.... | 2352 | -- | 2700 | -- | 9740 | -- | 71000 |
| | 19.... | 2359 | -- | 8500 | -- | 49400 | -- | 1130000 |
| | 20.... | 0001 | -- | 11000 | -- | -- | 60000 | -- |
| | 20.... | 0004 | 6.5 | 14000 | -- | -- | 98300 | -- |
| | 20.... | 0014 | 7.0 | 23000 | -- | -- | 158000 | -- |
| | 20.... | 0044 | 9.5 | 16700 | -- | -- | 1040000 | -- |
| | 20.... | 0048 | -- | 16000 | -- | -- | 1160000 | -- |
| | 20.... | 0051 | -- | 15500 | -- | -- | 966000 | -- |
| | 20.... | 0111 | -- | 12400 | -- | -- | 1140000 | -- |
| | 20.... | 0123 | -- | 10700 | -- | -- | 1030000 | -- |
| | 20.... | 0145 | -- | 8500 | -- | -- | 1040000 | -- |
| | 20.... | 0151 | -- | 8000 | -- | -- | 974000 | -- |
| | 20.... | 0211 | -- | 6400 | -- | -- | 962000 | -- |
| | 20.... | 0215 | -- | 6100 | -- | -- | 935000 | -- |
| | 20.... | 0233 | -- | 5300 | -- | -- | 751000 | -- |
| | 20.... | 0238 | 10.5 | 5100 | -- | -- | 737000 | -- |
| | 20.... | 0348 | -- | 3600 | -- | -- | 606000 | -- |
| | 20.... | 0353 | -- | 3600 | -- | -- | 621000 | -- |
| | 20.... | 0625 | 9.0 | 2900 | 5 | -- | 281000 | -- |
| | 20.... | 0626 | 9.0 | 2900 | 5 | -- | 292000 | -- |
| | 20.... | 0817 | 8.5 | 2600 | -- | -- | 158000 | -- |
| | 20.... | 0819 | 8.5 | 2600 | -- | -- | 158000 | -- |
| | 20.... | 1110 | 9.0 | 2170 | -- | -- | 80900 | -- |
| | 20.... | 1115 | 9.0 | 2170 | -- | -- | 80200 | -- |
| | 20.... | 1130 | 9.0 | 2300 | -- | -- | 93100 | -- |
| | 20.... | 1205 | -- | 2300 | -- | -- | 72600 | -- |
| | 20.... | 1210 | -- | 2300 | -- | -- | 73200 | -- |
| | 20.... | 1220 | -- | 2300 | 5 | -- | 69500 | -- |
| | 20.... | 1230 | -- | 2330 | -- | -- | 72200 | -- |
| 20.... | 1235 | -- | 2330 | -- | -- | 72500 | -- | |
| 20.... | 1405 | -- | 2300 | -- | -- | 56500 | -- | |
| 20.... | 1410 | -- | 2300 | -- | -- | 58500 | -- | |
| 20.... | 1420 | -- | 2310 | 5 | -- | 56900 | -- | |
| 20.... | 1625 | 9.0 | 2490 | -- | -- | 47200 | -- | |
| 20.... | 1630 | 9.0 | 2490 | -- | -- | 47900 | -- | |
| 20.... | 1705 | 9.0 | 2480 | 5 | -- | 48700 | -- | |
| 20.... | 1715 | 9.0 | 2480 | -- | -- | 46800 | -- | |
| 20.... | 1720 | 9.0 | 2490 | -- | -- | 45800 | -- | |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA
 PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SEDIMENT, DISCH, SUSP. + BED MATERIAL (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 | | | | | | | |
| 19... | -- | 34 | 49 | 76 | 94 | 97 | 100 |
| 19... | -- | 11 | 17 | 37 | 87 | 100 | -- |
| 19... | -- | 45 | 69 | 89 | 98 | 99 | 100 |
| 20... | 1780000 | -- | -- | -- | -- | -- | -- |
| 20... | 3720000 | -- | -- | -- | -- | -- | -- |
| 20... | 9810000 | -- | -- | -- | -- | -- | -- |
| 20... | 4.69E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 5.01E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 4.04E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 3.82E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 2.98E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 2.39E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 2.10E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 1.66E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 1.54E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 1.07E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 1.01E+07 | -- | -- | -- | -- | -- | -- |
| 20... | 5890000 | -- | -- | -- | -- | -- | -- |
| 20... | 6040000 | -- | -- | -- | -- | -- | -- |
| 20... | 2200000 | -- | -- | -- | -- | -- | -- |
| 20... | 2290000 | -- | -- | -- | -- | -- | -- |
| 20... | 1110000 | -- | -- | -- | -- | -- | -- |
| 20... | 1110000 | -- | -- | -- | -- | -- | -- |
| 20... | 474000 | -- | -- | -- | -- | -- | -- |
| 20... | 470000 | -- | -- | -- | -- | -- | -- |
| 20... | 578000 | -- | -- | -- | -- | -- | -- |
| 20... | 451000 | -- | -- | -- | -- | -- | -- |
| 20... | 455000 | -- | -- | -- | -- | -- | -- |
| 20... | 432000 | -- | -- | -- | -- | -- | -- |
| 20... | 454000 | -- | -- | -- | -- | -- | -- |
| 20... | 456000 | -- | -- | -- | -- | -- | -- |
| 20... | 351000 | -- | -- | -- | -- | -- | -- |
| 20... | 363000 | -- | -- | -- | -- | -- | -- |
| 20... | 355000 | -- | -- | -- | -- | -- | -- |
| 20... | 317000 | -- | -- | -- | -- | -- | -- |
| 20... | 322000 | -- | -- | -- | -- | -- | -- |
| 20... | 326000 | -- | -- | -- | -- | -- | -- |
| 20... | 313000 | -- | -- | -- | -- | -- | -- |
| 20... | 308000 | -- | -- | -- | -- | -- | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP., FALL DIAM., % FINER THAN .062 MM |
|--------|------|-----------------------------|---|---|---------------------------------------|---|--|
| MAR | | | | | | | |
| 21.... | 1035 | 6.0 | 1940 | -- | 32400 | 170000 | -- |
| 21.... | 1220 | 7.0 | 2000 | -- | 33400 | 180000 | -- |
| 21.... | 1345 | 10.0 | 2000 | -- | 31000 | 167000 | -- |
| 22.... | 1020 | 6.0 | 1780 | -- | 18400 | 88400 | -- |
| 22.... | 1130 | 7.5 | 1790 | -- | 18400 | 88900 | -- |
| 22.... | 1340 | 9.0 | 1820 | -- | 19300 | 94800 | 70 |
| 22.... | 1345 | 9.0 | 1820 | 5 | 18400 | 90400 | -- |
| 22.... | 1435 | 10.0 | 1810 | -- | 16500 | 80600 | -- |
| 29.... | 0930 | 6.0 | 1820 | -- | 13800 | 67800 | -- |
| 29.... | 1120 | 6.5 | 1670 | 5 | 11400 | 51400 | 59 |
| 29.... | 1225 | 6.5 | 1630 | -- | 12600 | 55500 | -- |
| APR | | | | | | | |
| 05.... | 0910 | 6.5 | 1950 | -- | 10400 | 54800 | -- |
| 06.... | 0945 | -- | 2360 | -- | 6660 | 42400 | -- |
| 06.... | 1230 | 8.0 | 2260 | 5 | 9110 | 55600 | 46 |
| 06.... | 1325 | 8.0 | 2230 | -- | 10200 | 61400 | -- |
| 11.... | 1150 | 10.0 | 1600 | -- | 35600 | 154000 | -- |
| 12.... | 0955 | 7.0 | 7020 | -- | 41600 | 788000 | -- |
| 12.... | 1220 | 7.0 | 6070 | 5 | 32400 | 531000 | 54 |
| 12.... | 1315 | 7.0 | 6010 | -- | 35800 | 581000 | -- |
| 14.... | 1250 | 7.0 | 3580 | 5 | 13700 | 132000 | 47 |
| 16.... | 0900 | 5.5 | 2300 | -- | 9700 | 60200 | -- |
| 16.... | 0940 | 5.5 | 2310 | 5 | 8870 | 55300 | 46 |
| 16.... | 0955 | 5.5 | 2120 | -- | 9280 | 53100 | -- |
| 19.... | 0920 | 6.5 | 2430 | -- | 6300 | 41300 | -- |
| 19.... | 1255 | 9.0 | 2490 | 5 | 5960 | 40100 | 33 |
| 19.... | 1345 | 10.5 | 2440 | -- | 5410 | 35600 | -- |
| 26.... | 0910 | 8.5 | 2230 | -- | 5890 | 35500 | -- |
| 26.... | 1230 | 10.5 | 2240 | 5 | 5410 | 32700 | 50 |
| 26.... | 1315 | 10.5 | 2260 | -- | 5040 | 30800 | -- |
| MAY | | | | | | | |
| 03.... | 0910 | 8.0 | 2250 | -- | 6180 | 37500 | -- |
| 03.... | 1150 | 9.0 | 2290 | 5 | 6290 | 38900 | 42 |
| 03.... | 1300 | 10.5 | 2270 | -- | 6680 | 40900 | -- |
| 10.... | 0915 | 9.0 | 1600 | -- | 4460 | 19300 | -- |
| 10.... | 1135 | 9.0 | 1510 | 5 | 4060 | 16600 | 43 |
| 10.... | 1230 | 10.0 | 1640 | -- | 4530 | 20100 | -- |
| 17.... | 0905 | 11.5 | 2270 | -- | 6620 | 40600 | -- |
| 17.... | 1200 | 12.0 | 2290 | 5 | 6010 | 37200 | 42 |
| 17.... | 1345 | 12.5 | 2330 | -- | 7440 | 46800 | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | | SED. .062 MM | | | SED. .125 MM | | | SED. .250 MM | | | SED. .500 MM | | | SED. 1.00 MM | | | SED. 2.00 MM | | |
|-------|----|--------------|---------|-------|--------------|---------|-------|--------------|---------|-------|--------------|---------|-------|--------------|---------|-------|--------------|---------|-------|
| | | SUSP. | SIEVE | DIAM. | SUSP. | FALL | DIAM. | SUSP. | FALL | DIAM. | SUSP. | FALL | DIAM. | SUSP. | FALL | DIAM. | SUSP. | FALL | DIAM. |
| | | % FINER | % FINER | THAN | % FINER | % FINER | THAN | % FINER | % FINER | THAN | % FINER | % FINER | THAN | % FINER | % FINER | THAN | % FINER | % FINER | THAN |
| MAR | | | | | | | | | | | | | | | | | | | |
| 21... | 57 | -- | -- | -- | -- | 87 | 97 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 55 | -- | -- | -- | -- | 80 | 96 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | | | | | | | | |
| 05... | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 63 | -- | -- | -- | -- | 63 | 87 | 98 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | 50 | -- | -- | -- | -- | 74 | 85 | 96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 100 |
| 12... | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 46 | -- | -- | -- | -- | 66 | 89 | 98 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 49 | -- | -- | -- | -- | 65 | 88 | 99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | 36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | 36 | -- | -- | -- | -- | 53 | 79 | 97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | 54 | -- | -- | -- | -- | 66 | 95 | 97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 100 |
| 26... | 54 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | | | | | | | | |
| 03... | 42 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 40 | -- | -- | -- | -- | 64 | 88 | 99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 39 | -- | -- | -- | -- | 55 | 85 | 99 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 45 | -- | -- | -- | -- | 63 | 85 | 97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (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 |
|--------|------|-----------------------------|---|---|----------------------------------|---|--|---|--|
| MAY | | | | | | | | | |
| 24.... | 0920 | 12.5 | 1890 | -- | 6600 | 33700 | -- | 28 | -- |
| 24.... | 1230 | 14.5 | 1880 | 5 | 4430 | 22500 | 43 | 40 | 58 |
| 24.... | 1310 | 16.0 | 1910 | -- | 4380 | 22600 | -- | 35 | -- |
| JUN | | | | | | | | | |
| 01.... | 0910 | 12.0 | 1460 | -- | 3720 | 14700 | -- | 43 | -- |
| 01.... | 1150 | 12.0 | 1530 | -- | 3550 | 14700 | 41 | -- | 59 |
| 01.... | 1245 | 12.0 | 1550 | -- | 4050 | 16900 | -- | 41 | -- |
| 08.... | 1125 | 13.0 | 1350 | 5 | 2880 | 10500 | 46 | 39 | 66 |
| 1550 | 1550 | 17.0 | 1340 | -- | 2830 | 10200 | -- | 44 | -- |
| 14.... | 1130 | 12.0 | 1340 | 5 | 3420 | 12400 | 51 | 51 | 66 |
| 21.... | 1440 | 16.0 | 1400 | 5 | 5030 | 19000 | -- | 63 | -- |
| 28.... | 1105 | 15.0 | 836 | 5 | 2980 | 6730 | 58 | 60 | 74 |
| JUL | | | | | | | | | |
| 06.... | 1045 | 14.5 | 740 | 5 | 1740 | 3480 | 41 | 44 | 65 |
| 12.... | 1245 | 20.0 | 611 | -- | 3060 | 5050 | -- | 45 | -- |
| 13.... | 1340 | 17.5 | 604 | 5 | 1970 | 3210 | 61 | 62 | 77 |
| 13.... | 1420 | 18.0 | 625 | -- | 2600 | 4390 | -- | 62 | -- |
| 19.... | 1035 | 16.5 | 537 | 5 | 1460 | 2120 | 65 | 64 | 67 |
| 19.... | 1100 | 17.0 | 551 | -- | 2180 | 3240 | -- | 44 | -- |
| AUG | | | | | | | | | |
| 04.... | 0930 | 15.0 | 452 | -- | 1750 | 2140 | -- | 27 | -- |
| 04.... | 1115 | 16.0 | 432 | -- | 1500 | 1750 | -- | 29 | -- |
| 04.... | 1145 | 16.0 | 465 | 5 | 973 | 1220 | 40 | 44 | 63 |
| 04.... | 1235 | 17.0 | 452 | -- | 1460 | 1780 | -- | 29 | -- |
| 13.... | 1005 | 15.5 | 446 | 5 | 686 | 826 | 35 | 37 | 55 |
| 24.... | 1200 | 16.5 | 296 | 5 | 323 | 258 | 34 | 50 | 49 |
| SEP | | | | | | | | | |
| 15.... | 1305 | 14.5 | 530 | 5 | 2340 | 3350 | -- | 25 | -- |
| 21.... | 1040 | 12.0 | 835 | 5 | 2830 | 6380 | -- | 46 | -- |
| 23.... | 1120 | 15.0 | 818 | -- | 2660 | 5870 | -- | -- | -- |
| 28.... | 1240 | 12.5 | 705 | 9 | 1760 | 3350 | 26 | 52 | 35 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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. 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 |
|-------|---|--|---|--|---|--|---|--|---|
| MAY | | | | | | | | | |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 86 | -- | 98 | -- | 100 | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | 83 | -- | 97 | -- | 100 | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 90 | -- | 99 | -- | 100 | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | 87 | -- | 99 | -- | 100 | -- | -- | -- |
| 21... | 77 | -- | 91 | -- | 98 | -- | 99 | -- | 99 |
| 28... | -- | 92 | -- | 100 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | |
| 06... | -- | 95 | -- | 100 | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | 100 | -- | -- | -- | -- | -- |
| 13... | -- | 96 | -- | 100 | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | 100 | -- | -- | -- | -- | -- |
| 19... | -- | 97 | -- | 100 | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | 90 | -- | 99 | -- | 100 | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | 94 | -- | 100 | -- | -- | -- | -- | -- |
| 24... | -- | 83 | -- | 98 | -- | 100 | -- | -- | -- |
| SEP | | | | | | | | | |
| 15... | 30 | -- | 42 | -- | 64 | -- | 84 | -- | 92 |
| 21... | 58 | -- | 78 | -- | 83 | -- | 85 | -- | 93 |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | 49 | -- | 80 | -- | 98 | -- | 100 | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 07.... | 1450 | 10.5 | 1070 | 9 | 5500 | 15900 | -- | -- | -- | -- | -- | 39 |
| 07.... | 1525 | 10.5 | 1070 | -- | 5310 | 15300 | -- | -- | -- | -- | -- | -- |
| 13.... | 1150 | 11.5 | 645 | -- | 1470 | 2560 | -- | -- | -- | -- | -- | -- |
| 13.... | 1310 | 11.5 | 648 | 9 | 1180 | 2060 | -- | -- | -- | -- | -- | 44 |
| 13.... | 1400 | 11.5 | 650 | -- | 1470 | 2580 | -- | -- | -- | -- | -- | -- |
| 22.... | 0855 | 12.0 | 1160 | -- | 91900 | 288000 | -- | -- | -- | -- | -- | -- |
| 22.... | 1150 | 12.0 | 1350 | 5 | 80200 | 292000 | 17 | 18 | 30 | 49 | 68 | -- |
| 22.... | 1200 | 12.0 | 1450 | -- | 79200 | 310000 | -- | -- | -- | -- | -- | -- |
| 22.... | 1325 | 12.0 | 1900 | -- | 95600 | 490000 | -- | -- | -- | -- | -- | -- |
| 23.... | 1120 | 11.0 | 1700 | -- | 45600 | 209000 | -- | -- | -- | -- | -- | -- |
| 23.... | 1350 | 11.0 | 1440 | 5 | 30300 | 118000 | 9 | 10 | 13 | 24 | 36 | -- |
| 23.... | 1455 | 11.0 | 1400 | -- | 31800 | 120000 | -- | -- | -- | -- | -- | -- |
| 28.... | 1200 | 8.5 | 1700 | -- | 13300 | 61000 | -- | -- | -- | -- | -- | -- |
| 28.... | 1355 | 8.5 | 1580 | 5 | 13600 | 58000 | 6 | 7 | 8 | 14 | 21 | -- |
| 28.... | 1455 | 8.5 | 1250 | -- | 6500 | 21900 | -- | -- | -- | -- | -- | -- |
| 29.... | 0955 | 9.0 | 10500 | -- | 30800 | 873000 | -- | -- | -- | -- | -- | -- |
| 29.... | 1110 | 8.5 | 8100 | -- | 29200 | 639000 | -- | -- | -- | -- | -- | -- |
| 29.... | 1230 | 8.5 | 7700 | -- | 24500 | 509000 | -- | -- | -- | -- | -- | -- |
| 29.... | 1330 | 8.5 | 7200 | 5 | 27600 | 537000 | 7 | 8 | 10 | 19 | 27 | -- |
| 29.... | 1430 | 8.5 | 7000 | -- | 18600 | 352000 | -- | -- | -- | -- | -- | -- |
| 29.... | 1610 | 9.0 | 6640 | -- | 17600 | 316000 | -- | -- | -- | -- | -- | -- |
| 30.... | 1105 | 9.0 | 4100 | -- | 10100 | 112000 | -- | -- | -- | -- | -- | -- |
| 30.... | 1240 | 9.0 | 3780 | -- | 9570 | 97700 | -- | -- | -- | -- | -- | -- |
| 30.... | 1315 | 9.0 | 3700 | 5 | 11600 | 116000 | 6 | 6 | 8 | 15 | 22 | -- |
| 30.... | 1425 | 9.0 | 3600 | -- | 8460 | 82200 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 04.... | 1110 | 9.5 | 1850 | -- | 7790 | 38900 | -- | -- | -- | -- | -- | -- |
| 04.... | 1250 | 9.5 | 1800 | -- | 7630 | 37100 | -- | -- | -- | -- | -- | -- |
| 04.... | 1440 | 9.5 | 1780 | 5 | 7100 | 34100 | 6 | 6 | 10 | 18 | 26 | -- |
| 04.... | 1530 | 9.5 | 1780 | -- | 6490 | 31200 | -- | -- | -- | -- | -- | -- |
| 10.... | 0945 | 3.0 | 1900 | -- | 30800 | 158000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1145 | 3.0 | 1800 | 5 | 28500 | 139000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1325 | 3.0 | 1850 | -- | 31000 | 155000 | -- | -- | -- | -- | -- | -- |
| 17.... | 1035 | 4.0 | 3860 | -- | 63200 | 659000 | -- | -- | -- | -- | -- | -- |
| 17.... | 1335 | 4.0 | 4600 | 5 | 56800 | 705000 | 6 | 8 | 15 | 25 | 37 | -- |
| 17.... | 1505 | 4.0 | 5850 | -- | 70000 | 1110000 | -- | -- | -- | -- | -- | -- |
| 23.... | 0930 | 2.5 | 2250 | -- | 23600 | 143000 | -- | -- | -- | -- | -- | -- |
| 23.... | 1200 | 2.5 | 2210 | 5 | 22000 | 131000 | -- | -- | -- | -- | -- | -- |
| 23.... | 1320 | 2.5 | 2250 | -- | 22600 | 137000 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 02.... | 0915 | 7.0 | 4100 | -- | 22300 | 247000 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | SED. SUSP. SIEVE DIAM. % FINER THAN .062 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 | | | | | | | | | | |
| 07... | -- | 58 | -- | 76 | -- | 87 | -- | 98 | -- | -- |
| 07... | 38 | -- | -- | -- | -- | -- | -- | -- | 100 | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | 63 | -- | 89 | -- | 99 | -- | 100 | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 88 | -- | -- | -- | -- | -- | 100 | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 82 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 41 | -- | -- | -- | 93 | -- | 99 | -- | 100 | -- |
| 28... | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | 33 | -- | 55 | -- | 86 | -- | 99 | -- | 100 | -- |
| 28... | 73 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 46 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 39 | -- | 62 | -- | 86 | -- | -- | -- | -- | 100 |
| 29... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 42 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 33 | -- | 52 | -- | 83 | -- | 97 | -- | 99 | 100 |
| 30... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 39 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 36 | -- | 51 | -- | 79 | -- | 98 | -- | 100 | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 59 | -- | 76 | -- | 92 | -- | 98 | -- | 100 | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 42 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 49 | -- | 66 | -- | 87 | -- | 95 | -- | 100 | -- |
| 17... | 36 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 43 | -- | 65 | -- | 88 | -- | 98 | -- | 100 | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|---|---|---|---|---|
| DEC | | | | | | | | | |
| 02... | 1130 | 7.0 | 3920 | 5 | 14100 | 149000 | -- | -- | -- |
| 02... | 1235 | 7.0 | 3920 | -- | 14900 | 158000 | -- | -- | -- |
| 03... | 0930 | -- | 11500 | -- | 41700 | 1290000 | -- | -- | -- |
| 03... | 1015 | -- | 12200 | -- | 47700 | 1570000 | -- | -- | -- |
| 03... | 1045 | 9.0 | 11900 | -- | 45600 | 1470000 | -- | -- | -- |
| 03... | 1120 | 10.0 | 11900 | -- | 45400 | 1460000 | -- | -- | -- |
| 03... | 1200 | 9.5 | 12400 | -- | 43400 | 1450000 | -- | -- | -- |
| 03... | 1215 | 9.0 | 12800 | 5 | 45600 | 1580000 | 9 | 10 | 16 |
| 03... | 1230 | 9.5 | 12300 | -- | 44200 | 1470000 | -- | -- | -- |
| 03... | 1300 | 9.5 | 12300 | -- | 41600 | 1380000 | -- | -- | -- |
| 03... | 1330 | 9.5 | 12500 | -- | 47000 | 1590000 | -- | -- | -- |
| 03... | 1420 | -- | 12500 | -- | 56600 | 1910000 | -- | -- | -- |
| 03... | 1545 | -- | 19200 | -- | 71000 | 3680000 | -- | -- | -- |
| 03... | 1800 | -- | 24600 | -- | 108000 | 7170000 | -- | -- | -- |
| 03... | 1805 | -- | 25000 | -- | 113000 | 7630000 | -- | -- | -- |
| 03... | 1830 | -- | 25800 | -- | 75700 | 5270000 | -- | -- | -- |
| 03... | 1835 | -- | 25800 | -- | 89600 | 6240000 | -- | -- | -- |
| 03... | 1905 | -- | 25900 | -- | 84700 | 5920000 | -- | -- | -- |
| 03... | 1915 | -- | 23600 | -- | 105000 | 6690000 | -- | -- | -- |
| 03... | 1930 | -- | 24100 | -- | 104000 | 6770000 | -- | -- | -- |
| 03... | 1955 | -- | 26500 | -- | 70200 | 5020000 | -- | -- | -- |
| 03... | 2120 | -- | 31700 | -- | 90300 | 7730000 | -- | -- | -- |
| 03... | 2125 | 9.0 | 31500 | -- | 82600 | 7030000 | -- | -- | -- |
| 03... | 2135 | -- | 31200 | -- | 76500 | 6440000 | -- | -- | -- |
| 03... | 2230 | -- | 35400 | -- | 83400 | 7970000 | -- | -- | -- |
| 03... | 2320 | -- | 32400 | -- | 99400 | 8700000 | -- | -- | -- |
| 04... | 0005 | -- | 28200 | -- | 88100 | 6710000 | -- | -- | -- |
| 04... | 0035 | 8.5 | 28500 | -- | 78000 | 6000000 | -- | -- | -- |
| 04... | 0105 | 8.5 | 26700 | -- | 70800 | 5100000 | -- | -- | -- |
| 04... | 0120 | -- | 26700 | -- | 70200 | 5060000 | -- | -- | -- |
| 04... | 0210 | 7.5 | 26400 | -- | 64600 | 4600000 | -- | -- | -- |
| 04... | 0225 | -- | 25500 | -- | 75200 | 5180000 | -- | -- | -- |
| 04... | 0510 | 7.5 | 23900 | -- | 51800 | 3340000 | -- | -- | -- |
| 04... | 0600 | 7.5 | 22500 | -- | 50200 | 3050000 | -- | -- | -- |
| 04... | 0635 | -- | 22800 | -- | 53000 | 3260000 | -- | -- | -- |
| 04... | 0845 | 7.0 | 18100 | -- | 44100 | 2160000 | -- | -- | -- |
| 04... | 0915 | -- | 17200 | -- | 60000 | 2790000 | -- | -- | -- |
| 04... | 1050 | 7.0 | 16000 | -- | 47600 | 2060000 | -- | -- | -- |
| 04... | 1205 | 8.0 | 15600 | 5 | 39600 | 1670000 | 5 | 6 | 10 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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 |
|-------|--|--|---|---|---|---|---|---|
| DEC | | | | | | | | |
| 02... | -- | -- | 41 | 59 | 81 | 97 | 100 | -- |
| 02... | -- | -- | 37 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 52 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 46 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 51 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 50 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 52 | -- | -- | -- | -- | -- |
| 03... | 27 | 40 | 52 | 70 | 88 | 97 | 99 | 100 |
| 03... | -- | -- | 52 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 53 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 47 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 41 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 40 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 47 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 44 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 66 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 60 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 59 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 48 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 48 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 63 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 53 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 58 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 62 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 58 | -- | -- | -- | -- | -- |
| 03... | -- | -- | 52 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 53 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 54 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 53 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 52 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 40 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 44 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 43 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 42 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 41 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 40 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 28 | -- | -- | -- | -- | -- |
| 04... | -- | -- | 35 | -- | -- | -- | -- | -- |
| 04... | 16 | 25 | 40 | 58 | 83 | 95 | 99 | 100 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- 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 |
|--------|------|-----------------------------|---|---|---|---|---|---|---|
| DEC | | | | | | | | | |
| 04.... | 1220 | -- | 15700 | -- | 52600 | 2230000 | -- | -- | -- |
| 04.... | 1335 | -- | 14400 | -- | 38000 | 1480000 | -- | -- | -- |
| 04.... | 1600 | -- | 13800 | -- | 34800 | 1300000 | -- | -- | -- |
| 04.... | 1620 | 8.0 | 13100 | 5 | 33200 | 1170000 | 5 | 7 | 12 |
| 05.... | 1600 | 8.0 | 8570 | 5 | 25400 | 588000 | 6 | 6 | 11 |
| 05.... | 1700 | 7.0 | 8520 | -- | 17000 | 391000 | -- | -- | -- |
| 09.... | 1000 | 4.0 | 3200 | -- | 14000 | 121000 | -- | -- | -- |
| 09.... | 1205 | 4.0 | 3260 | 5 | 20400 | 180000 | -- | -- | -- |
| 09.... | 1310 | 4.0 | 3200 | -- | 13800 | 119000 | -- | -- | -- |
| 15.... | 0940 | 7.0 | 3430 | -- | 15600 | 144000 | -- | -- | -- |
| 15.... | 1220 | 7.0 | 3860 | 5 | 19200 | 200000 | -- | -- | -- |
| 15.... | 1440 | 7.0 | 4500 | -- | 12900 | 157000 | -- | -- | -- |
| 16.... | 0805 | 9.0 | 16800 | -- | 69600 | 3160000 | -- | -- | -- |
| 16.... | 1030 | 7.0 | 16000 | -- | 55000 | 2380000 | -- | -- | -- |
| 16.... | 1115 | 9.0 | 16400 | -- | 55900 | 2480000 | -- | -- | -- |
| 16.... | 1200 | -- | 14400 | -- | 56600 | 2200000 | -- | -- | -- |
| 16.... | 1215 | 7.0 | 14000 | 5 | 52400 | 1980000 | 9 | 11 | 10 |
| 16.... | 1325 | 8.5 | 41700 | -- | 41500 | 4670000 | -- | -- | -- |
| 16.... | 1410 | 8.5 | 12000 | -- | 38100 | 1230000 | -- | -- | -- |
| 16.... | 1435 | 8.0 | 11700 | -- | 37700 | 1190000 | -- | -- | -- |
| 16.... | 1505 | 8.0 | 11600 | -- | 33800 | 1060000 | -- | -- | -- |
| 17.... | 0725 | 7.5 | 9400 | -- | 26400 | 670000 | -- | -- | -- |
| 17.... | 1020 | 7.5 | 10200 | -- | 28600 | 788000 | -- | -- | -- |
| 17.... | 1100 | 7.5 | 10300 | 5 | 20400 | 567000 | 9 | 10 | 13 |
| 17.... | 1300 | 7.5 | 9900 | -- | 23500 | 628000 | -- | -- | -- |
| 20.... | 0950 | 6.0 | 6000 | -- | 13900 | 225000 | -- | -- | -- |
| 20.... | 1235 | 6.0 | 5920 | 5 | 19500 | 312000 | -- | -- | -- |
| 20.... | 1410 | 6.0 | 5500 | -- | 13200 | 196000 | -- | -- | -- |
| 28.... | 1045 | 2.0 | 2000 | -- | 10100 | 54500 | -- | -- | -- |
| 28.... | 1245 | 2.0 | 2000 | 5 | 14800 | 79900 | -- | -- | -- |
| 28.... | 1405 | 2.0 | 2000 | -- | 9970 | 53800 | -- | -- | -- |
| JAN | | | | | | | | | |
| 05.... | 1605 | -- | 20000 | -- | 29000 | 1570000 | -- | -- | -- |
| 05.... | 1615 | -- | 20500 | -- | 25100 | 1390000 | -- | -- | -- |
| 05.... | 1630 | -- | 22000 | -- | 30100 | 1790000 | -- | -- | -- |
| 05.... | 1645 | -- | 21000 | -- | 36600 | 2080000 | -- | -- | -- |
| 05.... | 1700 | -- | 20500 | -- | 28000 | 1550000 | -- | -- | -- |
| 05.... | 1755 | -- | 19100 | -- | 34000 | 1750000 | -- | -- | -- |
| 05.... | 2010 | 6.0 | 17000 | 5 | 21800 | 1000000 | 9 | 10 | 12 |
| 05.... | 2040 | -- | 17000 | -- | 30400 | 1400000 | -- | -- | -- |

[illegible]

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- IMENT, SUS- PENDED (MG/L) | SED- IMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 05... | 2130 | --- | 15400 | -- | 22400 | 931000 | -- | -- | -- | -- | -- | -- |
| 05... | 2150 | 6.0 | 15600 | -- | 22400 | 943000 | -- | -- | -- | -- | -- | -- |
| 05... | 2227 | 6.0 | 14000 | -- | 23800 | 900000 | -- | -- | -- | -- | -- | -- |
| 05... | 2300 | 6.0 | 13700 | -- | 20000 | 740000 | -- | -- | -- | -- | -- | -- |
| 06... | 0950 | 7.0 | 12800 | -- | 27200 | 940000 | -- | -- | -- | -- | -- | -- |
| 06... | 1150 | 7.0 | 13400 | -- | 19400 | 702000 | -- | -- | -- | -- | -- | -- |
| 06... | 1215 | 7.0 | 13500 | 5 | 19500 | 711000 | 8 | 9 | 10 | 19 | 28 | -- |
| 06... | 1235 | 7.0 | 13600 | -- | 19200 | 705000 | -- | -- | -- | -- | -- | -- |
| 06... | 1405 | 7.0 | 14600 | -- | 20400 | 804000 | -- | -- | -- | -- | -- | -- |
| 06... | 1435 | --- | 15400 | -- | 21900 | 911000 | -- | -- | -- | -- | -- | -- |
| 06... | 1500 | --- | 14700 | -- | 21800 | 865000 | -- | -- | -- | -- | -- | -- |
| 06... | 1545 | --- | 15500 | -- | 20200 | 845000 | -- | -- | -- | -- | -- | -- |
| 06... | 1640 | --- | 15000 | -- | 23700 | 960000 | -- | -- | -- | -- | -- | -- |
| 07... | 0945 | 8.0 | 12600 | -- | 18600 | 633000 | -- | -- | -- | -- | -- | -- |
| 07... | 1205 | --- | 13100 | -- | 18100 | 640000 | -- | -- | -- | -- | -- | -- |
| 07... | 1215 | 8.0 | 13100 | -- | 18200 | 644000 | -- | -- | -- | -- | -- | -- |
| 07... | 1255 | 8.0 | 13300 | 5 | 15600 | 560000 | 6 | 8 | 13 | 21 | 30 | -- |
| 07... | 1320 | 8.0 | 12900 | -- | 17600 | 613000 | -- | -- | -- | -- | -- | -- |
| 07... | 1410 | --- | 15300 | -- | 19500 | 806000 | -- | -- | -- | -- | -- | -- |
| 07... | 1415 | --- | 15300 | -- | 18300 | 756000 | -- | -- | -- | -- | -- | -- |
| 08... | 1045 | --- | 14500 | -- | 18500 | 724000 | -- | -- | -- | -- | -- | -- |
| 08... | 1515 | --- | 12600 | -- | 14400 | 490000 | -- | -- | -- | -- | -- | -- |
| 09... | 0945 | --- | 9000 | -- | 13800 | 335000 | -- | -- | -- | -- | -- | -- |
| 10... | 1015 | 8.0 | 8680 | -- | 10100 | 237000 | -- | -- | -- | -- | -- | -- |
| 10... | 1235 | 8.0 | 8550 | 5 | 13600 | 314000 | 7 | 7 | 9 | 16 | 23 | -- |
| 10... | 1400 | 8.0 | 7600 | -- | 9240 | 190000 | -- | -- | -- | -- | -- | -- |
| 16... | 1210 | 7.5 | 2750 | -- | 5260 | 39100 | -- | -- | -- | -- | -- | -- |
| 17... | 1025 | 7.0 | 2700 | -- | 5950 | 43400 | -- | -- | -- | -- | -- | -- |
| 17... | 1225 | 7.0 | 2680 | 5 | 8450 | 61100 | -- | -- | -- | -- | -- | 56 |
| 17... | 1330 | 7.0 | 2750 | -- | 5870 | 43600 | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 02... | 0910 | 4.0 | 2300 | -- | 10400 | 64600 | -- | -- | -- | -- | -- | -- |
| 02... | 1225 | 4.0 | 2270 | 5 | 9880 | 60600 | -- | -- | -- | -- | -- | 45 |
| 02... | 1255 | 4.0 | 2250 | -- | 7190 | 43700 | -- | -- | -- | -- | -- | -- |
| 16... | 0850 | 7.5 | 3850 | -- | 3820 | 39700 | -- | -- | -- | -- | -- | -- |
| 16... | 1205 | 7.5 | 3700 | -- | 3820 | 38200 | -- | -- | -- | -- | -- | -- |
| 16... | 1220 | 7.5 | 3700 | 4 | 6870 | 68600 | -- | -- | -- | -- | -- | 19 |
| 16... | 1250 | 7.5 | 3700 | -- | 3880 | 38800 | -- | -- | -- | -- | -- | -- |
| 22... | 0900 | 9.0 | 4000 | -- | 3550 | 38300 | -- | -- | -- | -- | -- | -- |
| 22... | 1240 | 9.0 | 3930 | -- | 3300 | 35000 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | SED. SUSP. SIEVE 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 | SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM |
|-------|---|--|--|--|--|--|--|--|--|--|---|
| JAN | | | | | | | | | | | |
| 05... | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 42 | -- | 64 | -- | 89 | 98 | -- | 99 | -- | -- | 100 |
| 06... | 39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 44 | -- | 65 | -- | 91 | 99 | -- | 100 | -- | -- | -- |
| 07... | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 34 | -- | 50 | -- | 78 | 94 | -- | 99 | -- | -- | 100 |
| 10... | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 51 | 69 | -- | 89 | -- | 100 | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 02... | 42 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 64 | -- | 90 | -- | 98 | -- | 99 | -- | 100 | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | 29 | -- | 61 | -- | 96 | -- | 98 | -- | 100 | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- MENT, SUS- PENDED (MG/L) | SED- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED, SUSP. FALL DIAM. % FINER THAN | SED, SUSP. FALL DIAM. % FINER THAN | SED, SUSP. FALL DIAM. % FINER THAN | SED, SUSP. FALL DIAM. % FINER THAN | SED, SUSP. FALL DIAM. % FINER THAN | SED, SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | | |
| 22... | 1300 | 9.0 | 3930 | 5 | 4800 | 50900 | -- | -- | -- | -- | -- | 31 |
| 22... | 1325 | 9.0 | 3910 | -- | 3240 | 34200 | -- | -- | -- | -- | -- | -- |
| 25... | 1220 | 9.0 | 4740 | -- | 5900 | 75500 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 07... | 0915 | 9.0 | 2680 | -- | 7160 | 51800 | -- | -- | -- | -- | -- | -- |
| 07... | 1250 | 9.0 | 2780 | -- | 8060 | 60500 | -- | -- | -- | -- | -- | -- |
| 07... | 1310 | 9.0 | 2800 | 5 | 9800 | 74100 | -- | -- | -- | -- | -- | 48 |
| 07... | 1345 | 9.0 | 2850 | -- | 10800 | 83100 | -- | -- | -- | -- | -- | -- |
| 09... | 1500 | 11.0 | 6580 | -- | 11800 | 210000 | -- | -- | -- | -- | -- | -- |
| 09... | 1700 | 11.0 | 8050 | -- | 14200 | 309000 | -- | -- | -- | -- | -- | -- |
| 09... | 1745 | 11.0 | 8500 | 5 | 18800 | 431000 | 7 | 8 | 14 | 23 | 35 | -- |
| 09... | 1825 | 11.0 | 8500 | -- | 15800 | 363000 | -- | -- | -- | -- | -- | -- |
| 09... | 1925 | 11.0 | 8400 | -- | 17000 | 386000 | -- | -- | -- | -- | -- | -- |
| 10... | 0740 | 9.0 | 7600 | -- | 15200 | 312000 | -- | -- | -- | -- | -- | -- |
| 10... | 0905 | 9.0 | 8100 | -- | 18200 | 398000 | -- | -- | -- | -- | -- | -- |
| 10... | 0930 | 10.0 | 9100 | 5 | 16900 | 370000 | 7 | 7 | 14 | 22 | 34 | -- |
| 10... | 0945 | 10.0 | 8100 | -- | 19100 | 418000 | -- | -- | -- | -- | -- | -- |
| 10... | 1225 | 10.0 | 9100 | -- | 21000 | 516000 | -- | -- | -- | -- | -- | -- |
| 10... | 1255 | -- | 9300 | 5 | 20000 | 502000 | 10 | 11 | 16 | 27 | 40 | -- |
| 10... | 1310 | 10.0 | 9000 | -- | 21600 | 525000 | -- | -- | -- | -- | -- | -- |
| 10... | 1440 | 10.0 | 9000 | -- | 22400 | 544000 | -- | -- | -- | -- | -- | -- |
| 10... | 1615 | 10.0 | 8440 | -- | 21400 | 488000 | -- | -- | -- | -- | -- | -- |
| 10... | 1705 | 10.0 | 8300 | 5 | 19600 | 439000 | 9 | 11 | 16 | 27 | 38 | -- |
| 10... | 1740 | 10.0 | 8100 | -- | 20400 | 446000 | -- | -- | -- | -- | -- | -- |
| 11... | 0950 | 8.0 | 6170 | -- | 18400 | 307000 | -- | -- | -- | -- | -- | -- |
| 11... | 1315 | 9.0 | 6010 | -- | 18100 | 294000 | -- | -- | -- | -- | -- | -- |
| 11... | 1355 | 9.0 | 6000 | 5 | 12100 | 196000 | 7 | 8 | 9 | 19 | 29 | -- |
| 11... | 1435 | 10.0 | 5800 | -- | 20400 | 319000 | -- | -- | -- | -- | -- | -- |
| 18... | 0915 | 7.0 | 2780 | -- | 7600 | 57000 | -- | -- | -- | -- | -- | -- |
| 18... | 1215 | 8.0 | 2710 | -- | 6270 | 45900 | -- | -- | -- | -- | -- | -- |
| 18... | 1240 | 8.0 | 2650 | 5 | 8040 | 57500 | -- | -- | -- | -- | -- | 44 |
| 18... | 1300 | 9.0 | 2650 | -- | 6620 | 47400 | -- | -- | -- | -- | -- | -- |
| 24... | 0930 | 8.0 | 1840 | -- | 6670 | 33100 | -- | -- | -- | -- | -- | -- |
| 24... | 1220 | 8.0 | 1800 | -- | 5970 | 29000 | -- | -- | -- | -- | -- | -- |
| 24... | 1230 | 8.0 | 1800 | 5 | 7280 | 35400 | -- | -- | -- | -- | -- | 45 |
| 24... | 1300 | 8.0 | 1750 | -- | 5940 | 28100 | -- | -- | -- | -- | -- | -- |
| 29... | 1345 | 9.0 | 5860 | -- | 21800 | 345000 | -- | -- | -- | -- | -- | -- |
| 29... | 1520 | 9.0 | 6300 | -- | 25000 | 425000 | -- | -- | -- | -- | -- | -- |
| 29... | 1545 | 9.0 | 6500 | 5 | 17500 | 307000 | 4 | 6 | 8 | 15 | 24 | -- |
| 29... | 1600 | 9.0 | 6700 | -- | 25400 | 459000 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN |
|-------|--|--|--|--|--|--|--|--|--|--|--|
| | .062 MM | .125 MM | .250 MM | .500 MM | .500 MM | .500 MM | 1.00 MM | 1.00 MM | 2.00 MM | 2.00 MM | 2.00 MM |
| FEB | | | | | | | | | | | |
| 22... | 27 | 46 | 78 | 97 | -- | -- | 99 | -- | 100 | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 66 | 85 | 97 | -- | -- | 100 | -- | -- | -- | -- |
| 07... | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 100 |
| 09... | 60 | -- | -- | -- | -- | -- | -- | 98 | -- | -- | -- |
| 09... | 57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 46 | -- | -- | -- | -- | -- | -- | 100 | -- | -- | -- |
| 10... | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 100 |
| 10... | 54 | -- | -- | -- | -- | -- | -- | 99 | -- | -- | -- |
| 10... | 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 50 | -- | -- | -- | -- | -- | -- | 99 | -- | -- | 100 |
| 10... | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | 28 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | 28 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | 41 | -- | -- | -- | -- | -- | -- | 100 | -- | -- | -- |
| 11... | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | 62 | 87 | 98 | -- | -- | 100 | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 62 | 87 | 96 | -- | -- | 100 | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 22 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 38 | -- | -- | -- | -- | -- | -- | 100 | -- | -- | -- |
| 29... | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|----------------------------------|---|---|---|---|---|---|
| MAR | | | | | | | | | | | |
| 29.... | 1710 | 9.0 | 7900 | -- | 25200 | 538000 | -- | 1 | -- | -- | -- |
| 30.... | 0715 | 8.0 | 7570 | -- | 17200 | 352000 | -- | -- | -- | -- | -- |
| 30.... | 0910 | 8.0 | 7600 | -- | 18600 | 382000 | -- | -- | -- | -- | -- |
| 30.... | 0935 | 8.0 | 7800 | 5 | 13600 | 286000 | 6 | 8 | 10 | 18 | 28 |
| 30.... | 0945 | 8.0 | 7900 | -- | 16400 | 350000 | -- | -- | -- | -- | -- |
| 30.... | 1125 | 8.0 | 7500 | -- | 17600 | 356000 | -- | -- | -- | -- | -- |
| 31.... | 1340 | -- | 5200 | -- | 14000 | 197000 | -- | -- | -- | -- | -- |
| 31.... | 1415 | -- | 5200 | 5 | 8260 | 116000 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 04.... | 0855 | 7.0 | 3600 | -- | 7150 | 69500 | -- | -- | -- | -- | -- |
| 04.... | 1125 | 7.0 | 3400 | -- | 7250 | 66600 | -- | -- | -- | -- | -- |
| 04.... | 1155 | 7.0 | 3350 | 5 | 6280 | 56800 | -- | -- | -- | -- | -- |
| 04.... | 1220 | 7.0 | 3300 | -- | 6980 | 62200 | -- | -- | -- | -- | -- |
| 11.... | 0900 | 6.0 | 2240 | -- | 6960 | 42100 | -- | -- | -- | -- | -- |
| 11.... | 1145 | 6.0 | 2100 | -- | 5630 | 31900 | -- | -- | -- | -- | -- |
| 11.... | 1205 | 6.0 | 2150 | 5 | 6480 | 37600 | -- | -- | -- | -- | -- |
| 11.... | 1225 | 6.0 | 2150 | -- | 5400 | 31300 | -- | -- | -- | -- | -- |
| 22.... | 1015 | 8.0 | 1870 | -- | 4170 | 21100 | -- | -- | -- | -- | -- |
| 22.... | 1325 | 8.0 | 1780 | -- | 3520 | 16900 | -- | -- | -- | -- | -- |
| 22.... | 1355 | 8.0 | 1780 | 5 | 5320 | 25600 | -- | -- | -- | -- | -- |
| 22.... | 1450 | 8.0 | 1780 | -- | 3100 | 14900 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 02.... | 0900 | 9.0 | 1610 | -- | 4730 | 20600 | -- | -- | -- | -- | -- |
| 02.... | 1050 | 9.0 | 1600 | -- | 5540 | 23900 | -- | -- | -- | -- | -- |
| 02.... | 1120 | 9.0 | 1580 | 5 | 6540 | 27900 | -- | -- | -- | -- | -- |
| 02.... | 1210 | 9.0 | 1580 | -- | 4500 | 19200 | -- | -- | -- | -- | -- |
| 05.... | 1300 | -- | 1500 | -- | 4000 | 16200 | -- | -- | -- | -- | -- |
| 16.... | 0955 | 11.0 | 1730 | -- | 3180 | 14900 | -- | -- | -- | -- | -- |
| 17.... | 0840 | 11.0 | 1660 | -- | 3470 | 15600 | -- | -- | -- | -- | -- |
| 17.... | 1125 | 11.0 | 1670 | -- | 3630 | 16400 | -- | -- | -- | -- | -- |
| 17.... | 1140 | 11.0 | 1660 | 5 | 5120 | 22900 | -- | -- | -- | -- | -- |
| 17.... | 1155 | 11.0 | 1600 | -- | 3680 | 15900 | -- | -- | -- | -- | -- |
| 18.... | 0950 | 11.0 | 1700 | -- | 4360 | 20000 | -- | -- | -- | -- | -- |
| 25.... | 0950 | 15.0 | 1710 | -- | 5170 | 23900 | -- | -- | -- | -- | -- |
| 25.... | 1230 | 15.0 | 1700 | 5 | 5660 | 26000 | -- | -- | -- | -- | -- |
| 25.... | 1240 | 15.0 | 1700 | -- | 4830 | 22200 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 05.... | 1400 | 14.0 | 1270 | -- | 5740 | 19700 | -- | -- | -- | -- | -- |
| 09.... | 1100 | 16.0 | 1150 | -- | 5740 | 17800 | -- | -- | -- | -- | -- |
| 09.... | 1240 | 16.0 | 1150 | 5 | 6510 | 20200 | -- | -- | -- | -- | -- |

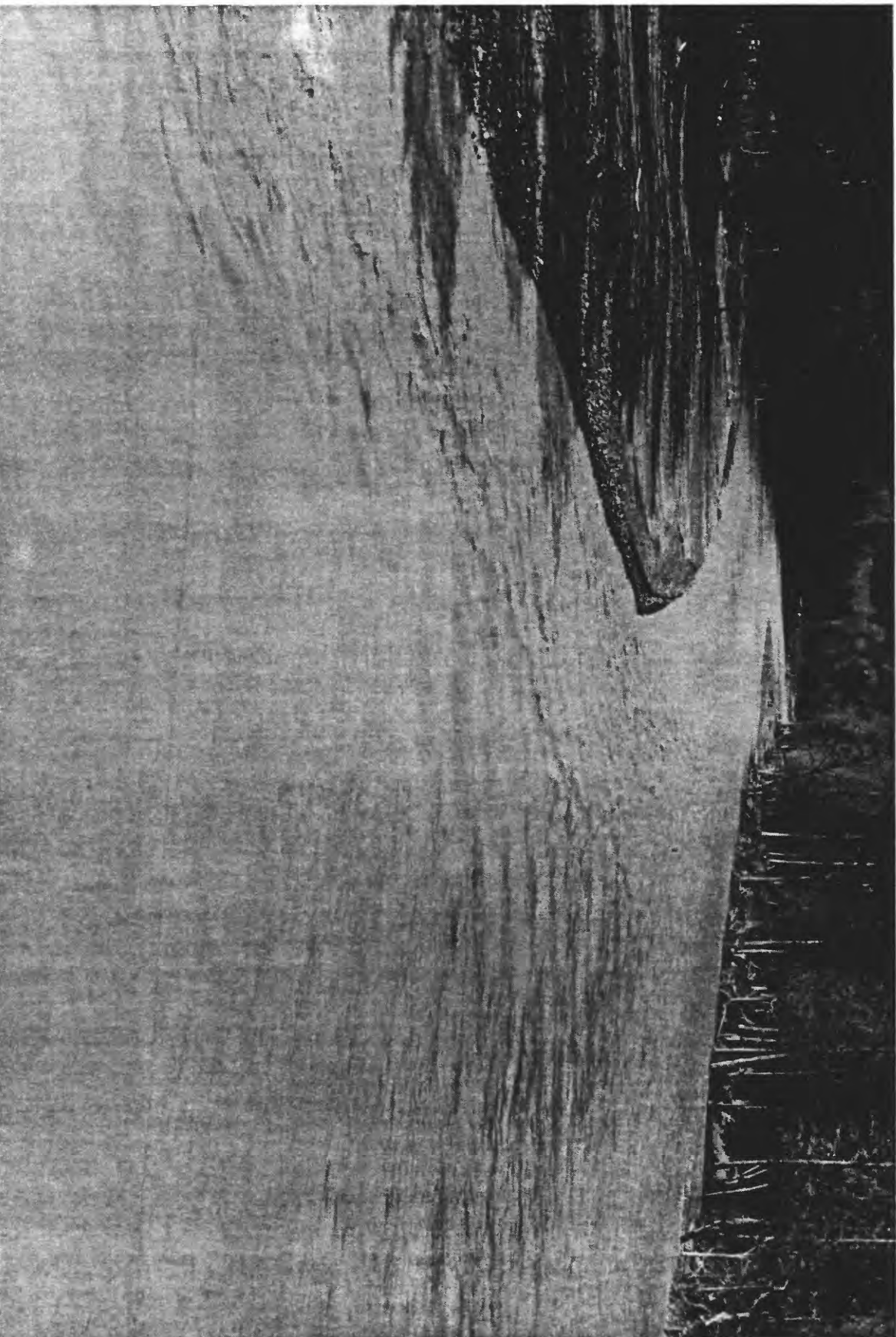
PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 |
|-------|--|--|--|--|--|--|
| MAR | | | | | | |
| 29... | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- |
| 30... | -- | 50 | 78 | 97 | 100 | -- |
| 30... | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- |
| 31... | 40 | 62 | 89 | 98 | 100 | -- |
| APR | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- |
| 04... | 30 | 46 | 76 | 96 | 100 | -- |
| 04... | -- | -- | -- | -- | -- | -- |
| 11... | -- | -- | -- | -- | -- | -- |
| 11... | -- | -- | -- | -- | -- | -- |
| 11... | 29 | 40 | 58 | 79 | 97 | 100 |
| 11... | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | 36 | 55 | 84 | 98 | 100 | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- |
| 02... | 46 | 58 | 82 | 98 | 100 | -- |
| 02... | -- | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- |
| 17... | 36 | 50 | 73 | 97 | 100 | -- |
| 17... | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- |
| 25... | -- | -- | -- | -- | -- | -- |
| 25... | 44 | 59 | 76 | 98 | 100 | -- |
| 25... | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- |
| 09... | -- | -- | -- | -- | -- | -- |
| 09... | -- | 63 | 83 | 98 | 100 | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, CHARGE, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|--|---|--|--|--|--|--|
| JUN | | | | | | | | | | | |
| 09.... | 1335 | 16.0 | 1150 | -- | 5560 | 17300 | -- | -- | -- | -- | -- |
| 15.... | 0925 | -- | 1420 | -- | 7840 | 30100 | 41 | -- | -- | -- | -- |
| 15.... | 1120 | 14.0 | 1420 | 5 | 7020 | 26900 | 41 | 59 | 74 | 98 | 100 |
| 15.... | 1145 | 14.0 | 1450 | -- | 6730 | 26300 | 45 | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 12.... | 0920 | 17.0 | 1240 | -- | 7720 | 25800 | 46 | -- | -- | -- | -- |
| 12.... | 1145 | 17.0 | 1300 | 5 | 7380 | 25900 | 50 | 73 | 91 | 99 | 100 |
| 12.... | 1230 | 17.0 | 1340 | -- | 8440 | 30500 | 48 | -- | -- | -- | -- |
| 15.... | 1400 | 14.0 | 3000 | -- | 16900 | 137000 | -- | -- | -- | -- | -- |
| 18.... | 0850 | 14.0 | 1880 | -- | 8000 | 40600 | 22 | -- | -- | -- | -- |
| 18.... | 1110 | 14.0 | 1900 | 5 | 4840 | 24800 | 36 | 53 | 78 | 94 | 99 |
| 18.... | 1155 | 14.0 | 1900 | -- | 5640 | 28900 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 09.... | 0845 | 15.0 | 610 | -- | 1540 | 2540 | 33 | -- | -- | -- | -- |
| 09.... | 1150 | 15.0 | 616 | 5 | 1730 | 2880 | 31 | 46 | 79 | 98 | 100 |
| 09.... | 1210 | 15.0 | 600 | -- | 1460 | 2370 | 38 | -- | -- | -- | -- |
| 10.... | 1325 | 16.0 | 560 | -- | 1660 | 2510 | -- | -- | -- | -- | -- |
| 30.... | 1000 | 16.0 | 1650 | -- | 11200 | 49900 | 35 | -- | -- | -- | -- |
| 30.... | 1225 | 16.0 | 1430 | -- | 9600 | 37100 | 45 | -- | -- | -- | -- |
| 30.... | 1240 | 16.0 | 1420 | 5 | 8450 | 32400 | 51 | 67 | 90 | 99 | 100 |
| 30.... | 1305 | 16.0 | 1370 | -- | 10600 | 39200 | 41 | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 07.... | 1035 | -- | 666 | -- | 2120 | 3810 | 32 | -- | -- | -- | -- |
| 07.... | 1255 | 14.0 | 670 | -- | 1960 | 3550 | 35 | -- | -- | -- | -- |
| 07.... | 1310 | 14.0 | 670 | 5 | 1640 | 2970 | 43 | 60 | 86 | 99 | -- |
| 14.... | 1030 | 16.5 | 700 | -- | 1970 | 3720 | -- | -- | -- | -- | -- |
| 14.... | 1230 | 16.5 | 670 | -- | 2260 | 4090 | -- | -- | -- | -- | -- |
| 14.... | 1245 | 16.5 | 670 | 5 | 1870 | 3380 | 32 | 48 | 82 | 98 | 100 |
| 14.... | 1310 | 16.5 | 660 | -- | 2200 | 3920 | -- | -- | -- | -- | -- |
| 21.... | 1005 | -- | 560 | -- | 2170 | 3280 | -- | -- | -- | -- | -- |
| 21.... | 1125 | 11.0 | 570 | -- | 1770 | 2720 | -- | -- | -- | -- | -- |
| 21.... | 1140 | 11.0 | 570 | 5 | 1440 | 2220 | 28 | 43 | 79 | 98 | 100 |
| 30.... | 1155 | 11.0 | 575 | -- | 1480 | 2300 | -- | -- | -- | -- | -- |
| 30.... | 1025 | -- | 695 | -- | 7300 | 13700 | -- | -- | -- | -- | -- |
| 30.... | 1130 | 9.0 | 680 | -- | 6800 | 12500 | -- | -- | -- | -- | -- |
| 30.... | 1300 | 9.0 | 690 | -- | 7400 | 13800 | -- | -- | -- | -- | -- |
| 30.... | 1310 | 9.0 | 690 | 5 | 6100 | 11400 | 58 | 79 | 95 | 99 | 100 |



The Toutle River, viewed downstream from the Tower Road bridge, at gaging station 242580. The cableway cross section is near top of photo. Discharge 3380 cubic feet per second.

Photo date: April 4, 1983

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | BED | BED | BED |
|------------|------------|-----------------------------|---|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM |
| APR | 06... 1630 | 7.5 | 1 | 0 | 4 | 27 | 86 |
| | 06... 1635 | 7.5 | 1 | 0 | 1 | 20 | 57 |
| | 06... 1640 | 7.5 | 1 | 0 | 1 | 10 | 17 |
| | 06... 1645 | 7.5 | 1 | 0 | 1 | 7 | 31 |
| | 06... 1650 | 7.5 | 1 | 0 | 2 | 9 | 33 |
| | 09... 1600 | -- | 1 | 0 | 0 | 3 | 14 |
| | 09... 1605 | -- | 1 | 0 | 0 | 2 | 20 |
| | 09... 1610 | -- | 1 | 0 | 1 | 6 | 24 |
| | 09... 1615 | -- | 1 | 0 | 0 | 3 | 10 |
| | 09... 1620 | -- | 1 | 0 | 1 | 5 | 15 |
| 10... 1630 | -- | 1 | 0 | 1 | 11 | 42 | |
| 10... 1635 | -- | 1 | 0 | 2 | 13 | 50 | |
| 10... 1640 | -- | 1 | 0 | 0 | 4 | 25 | |
| 22... 1230 | 10.5 | 1 | 0 | 0 | 0 | 2 | 10 |
| 22... 1235 | 10.5 | 1 | 0 | 2 | 18 | 66 | |
| 22... 1240 | 10.5 | 1 | 0 | 0 | 2 | 27 | |
| 22... 1245 | 10.5 | 1 | 0 | 0 | 2 | 6 | |
| 22... 1250 | 10.5 | 1 | 0 | 0 | 0 | 1 | 2 |
| 27... 1410 | 8.5 | 1 | 0 | 0 | 0 | 0 | 1 |
| 27... 1415 | 8.5 | 1 | 0 | 0 | 0 | 2 | 12 |
| 27... 1420 | 8.5 | 1 | 0 | 0 | 0 | 7 | 46 |
| 27... 1425 | 8.5 | 1 | 0 | 0 | 0 | 4 | 28 |
| 27... 1430 | 8.5 | 1 | 0 | 0 | 0 | 2 | 12 |
| MAY | | | | | | | |
| 07... 1600 | 10.5 | 1 | 0 | 0 | 5 | 18 | |
| 07... 1605 | 10.5 | 1 | 0 | 1 | 6 | 30 | |
| 07... 1610 | 10.5 | 1 | 0 | 1 | 7 | 34 | |
| 07... 1615 | 10.5 | 1 | 0 | 1 | 12 | 49 | |
| 07... 1620 | 10.5 | 1 | 0 | 0 | 4 | 33 | |
| 15... 1315 | 10.5 | 1 | 0 | 2 | 8 | 27 | |
| 15... 1320 | 10.5 | 1 | 0 | 0 | 9 | 37 | |
| 15... 1325 | 10.5 | 1 | 0 | 0 | 21 | 26 | |
| 15... 1330 | 10.5 | 1 | 0 | 1 | 7 | 26 | |
| 15... 1335 | 10.5 | 1 | 0 | 1 | 5 | 18 | |
| 26... 1340 | 12.5 | 1 | 0 | 1 | 2 | 8 | |
| 26... 1345 | 12.5 | 1 | 0 | 0 | 1 | 6 | |
| 26... 1350 | 12.5 | 1 | 0 | 2 | 12 | 37 | |
| 26... 1355 | 12.5 | 1 | 0 | 1 | 6 | 35 | |
| 26... 1400 | 12.5 | 1 | 0 | 0 | 2 | 9 | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 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 |
|-------|--|---------|---------|--|---------|--|---------|--|---------|--|---------|
| APR | | | | | | | | | | | |
| 06... | 99 | 100 | | -- | 97 | 98 | -- | -- | 100 | -- | -- |
| 06... | 86 | 95 | | 99 | 99 | 100 | -- | -- | 100 | -- | -- |
| 06... | 88 | 98 | | | | | -- | -- | 100 | -- | -- |
| 06... | 69 | 89 | | 94 | 94 | 98 | 100 | -- | 100 | -- | -- |
| 06... | 79 | 94 | | 99 | 99 | 100 | -- | -- | 100 | -- | -- |
| 09... | 60 | 92 | | 98 | 98 | 100 | -- | -- | 100 | -- | -- |
| 09... | 49 | 62 | | 69 | 69 | 76 | 91 | 100 | 100 | 100 | 100 |
| 09... | 72 | 96 | | 99 | 99 | 99 | 100 | -- | 100 | -- | -- |
| 09... | 33 | 54 | | 66 | 66 | 76 | 89 | 100 | 100 | 100 | 100 |
| 09... | 49 | 90 | | 97 | 97 | 99 | 100 | -- | 100 | -- | -- |
| 10... | 77 | 94 | | 96 | 96 | 98 | 98 | 100 | 100 | 100 | 100 |
| 10... | 75 | 86 | | 90 | 90 | 94 | 100 | -- | 100 | -- | -- |
| 10... | 54 | 72 | | 80 | 80 | 86 | 93 | 100 | 100 | 100 | 100 |
| 22... | 36 | 57 | | 65 | 65 | 75 | 87 | 100 | 100 | 100 | 100 |
| 22... | 93 | 98 | | 100 | 100 | -- | -- | -- | -- | -- | -- |
| 22... | 78 | 92 | | 96 | 96 | 98 | 100 | -- | 100 | -- | -- |
| 22... | 23 | 53 | | 75 | 75 | 89 | 100 | -- | 100 | -- | -- |
| 22... | 4 | 9 | | 14 | 14 | 22 | 62 | 100 | 100 | 100 | 100 |
| 27... | 4 | 12 | | 22 | 22 | 57 | 84 | 100 | 100 | 100 | 100 |
| 27... | 29 | 45 | | 61 | 61 | 74 | 93 | 100 | 100 | 100 | 100 |
| 27... | 91 | 99 | | 99 | 99 | 100 | -- | -- | 100 | -- | -- |
| 27... | 71 | 90 | | 96 | 96 | 99 | 100 | -- | 100 | -- | -- |
| 27... | 34 | 49 | | 58 | 58 | 69 | 78 | 100 | 100 | 100 | 100 |
| MAY | | | | | | | | | | | |
| 07... | 47 | 84 | | 98 | 98 | 100 | -- | -- | -- | -- | -- |
| 07... | 76 | 94 | | 99 | 99 | -- | -- | -- | -- | -- | -- |
| 07... | 68 | 92 | | 98 | 98 | 99 | -- | -- | -- | -- | -- |
| 07... | 87 | 97 | | 99 | 99 | -- | -- | -- | -- | -- | -- |
| 07... | 84 | 96 | | 97 | 97 | 98 | -- | -- | -- | -- | -- |
| 15... | 76 | 98 | | 100 | 100 | -- | -- | -- | -- | -- | -- |
| 15... | 79 | 92 | | 95 | 95 | 96 | 97 | -- | 97 | -- | -- |
| 15... | 50 | 64 | | 75 | 75 | 84 | 96 | -- | 96 | -- | -- |
| 15... | 55 | 77 | | 88 | 88 | 93 | 96 | -- | 96 | -- | -- |
| 15... | 47 | 68 | | 79 | 79 | 89 | -- | -- | -- | -- | -- |
| 26... | 25 | 51 | | 74 | 74 | 90 | 98 | 100 | 100 | 100 | 100 |
| 26... | 38 | 84 | | 96 | 96 | 100 | -- | -- | 100 | -- | -- |
| 26... | 74 | 91 | | 96 | 96 | 98 | 100 | -- | 100 | -- | -- |
| 26... | 73 | 90 | | 97 | 97 | 99 | 100 | -- | 100 | -- | -- |
| 26... | 38 | 63 | | 72 | 72 | 79 | 85 | -- | 85 | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMPLING POINTS | BED | BED | BED | BED |
|--------|------|-----------------------------|------------------------------------|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM |
| JUN | | | | | | | |
| 08.... | 1135 | 11.5 | 1 | 0 | 0 | 7 | 38 |
| 08.... | 1140 | 11.5 | 1 | 0 | 1 | 6 | 26 |
| 08.... | 1145 | 11.5 | 1 | 0 | 0 | 2 | 14 |
| 08.... | 1150 | 11.5 | 1 | 0 | 0 | 4 | 20 |
| 09.... | 1620 | -- | 1 | 0 | 1 | 3 | 8 |
| 09.... | 1625 | -- | 1 | 0 | 3 | 21 | 65 |
| 09.... | 1630 | -- | 3 | 0 | 2 | 9 | 29 |
| 15.... | 1310 | 12.0 | 1 | 0 | 0 | 1 | 4 |
| 15.... | 1315 | 12.0 | 1 | 0 | 0 | 12 | 58 |
| 15.... | 1320 | 12.0 | 1 | 0 | 1 | 6 | 42 |
| 22.... | 1300 | 12.5 | 1 | 0 | 0 | 1 | 4 |
| 22.... | 1305 | 12.5 | 1 | 0 | 0 | 8 | 42 |
| 22.... | 1310 | 12.5 | 1 | 0 | 0 | 4 | 35 |
| JUL | | | | | | | |
| 02.... | 1200 | -- | 1 | 0 | 0 | 0 | 4 |
| 02.... | 1205 | -- | 1 | 0 | 0 | 2 | 17 |
| 02.... | 1210 | -- | 1 | 0 | 0 | 2 | 24 |
| 02.... | 1215 | -- | 1 | 0 | 0 | 1 | 8 |
| 02.... | 1220 | -- | 1 | 0 | 0 | 4 | 36 |
| 13.... | 1300 | 14.0 | 1 | 0 | 0 | 3 | 26 |
| 27.... | 1225 | 22.5 | 1 | 0 | 0 | 1 | 18 |
| 27.... | 1230 | 22.5 | 1 | 0 | 0 | 4 | 20 |
| 27.... | 1235 | 22.5 | 1 | 0 | 0 | 1 | 17 |
| 27.... | 1240 | 22.5 | 1 | 0 | 0 | 2 | 22 |
| 27.... | 1245 | 22.5 | 1 | 0 | 0 | 1 | 20 |
| AUG | | | | | | | |
| 04.... | 1105 | 16.0 | 5 | 0 | 0 | 1 | 12 |
| 11.... | 1030 | 21.0 | 1 | 0 | 0 | 2 | 14 |
| 11.... | 1035 | 21.0 | 1 | 0 | 1 | 6 | 24 |
| 11.... | 1040 | 21.0 | 1 | 0 | 0 | 1 | 14 |
| 11.... | 1045 | 21.0 | 1 | 0 | 0 | 1 | 12 |
| 11.... | 1050 | 21.0 | 1 | 0 | 0 | 1 | 16 |
| 18.... | 1050 | 18.0 | 5 | 0 | 0 | 1 | 13 |
| 26.... | 1140 | 14.0 | 1 | 0 | 0 | 2 | 18 |
| 26.... | 1145 | 14.0 | 1 | 0 | 0 | 1 | 18 |
| 26.... | 1150 | 14.0 | 1 | 0 | 0 | 1 | 15 |
| 26.... | 1155 | 14.0 | 1 | 0 | 0 | 3 | 14 |
| 26.... | 1200 | 14.0 | 1 | 0 | 0 | 1 | 10 |
| SEP | | | | | | | |
| 01.... | 1040 | 17.0 | 5 | 0 | 0 | 4 | 24 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 | | | | | | | | | | | | |
| 08... | 72 | 82 | 87 | 91 | 92 | 92 | 98 | 92 | 98 | 92 | 98 | -- |
| 08... | 55 | 77 | 88 | 92 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | -- |
| 08... | 34 | 52 | 74 | 95 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 67 | 90 | 95 | 98 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 25 | 54 | 76 | 89 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | -- |
| 09... | 85 | 93 | 97 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 63 | 84 | 94 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 100 |
| 15... | 18 | 65 | 92 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- |
| 15... | 85 | 96 | 98 | 100 | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 90 | 99 | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 21 | 56 | 77 | 89 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 100 |
| 22... | 76 | 94 | 96 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 100 |
| 22... | 88 | 97 | 98 | 100 | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 02... | 39 | 86 | 98 | 100 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 40 | 60 | 76 | 90 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 100 |
| 02... | 51 | 62 | 72 | 86 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 100 |
| 02... | 33 | 54 | 66 | 76 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 100 |
| 02... | 76 | 88 | 94 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | -- |
| 13... | 58 | 79 | 86 | 92 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 100 |
| 27... | 52 | 76 | 89 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- |
| 27... | 34 | 49 | 59 | 69 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 100 |
| 27... | 48 | 71 | 84 | 93 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- |
| 27... | 47 | 66 | 78 | 89 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 100 |
| 27... | 64 | 85 | 92 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- |
| AUG | | | | | | | | | | | | |
| 04... | 32 | 48 | 59 | 74 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 100 |
| 11... | 30 | 43 | 54 | 65 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 100 |
| 11... | 45 | 62 | 71 | 79 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 100 |
| 11... | 49 | 77 | 89 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- |
| 11... | 41 | 68 | 83 | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- |
| 11... | 44 | 67 | 80 | 89 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 100 |
| 18... | 43 | 63 | 73 | 84 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 100 |
| 26... | 49 | 65 | 73 | 84 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 100 |
| 26... | 49 | 67 | 74 | 88 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 100 |
| 26... | 45 | 70 | 87 | 92 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 100 |
| 26... | 38 | 60 | 77 | 91 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 100 |
| 26... | 37 | 63 | 80 | 92 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- |
| SEP | | | | | | | | | | | | |
| 01... | 54 | 73 | 84 | 92 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 100 |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED MAT. | BED MAT. | BED MAT. | BED MAT. |
|-------|------|-----------------------------|---|---|---|---|---|
| | | | | NUMBER OF SIEVE DIAM. % FINER THAN | NUMBER OF SIEVE DIAM. % FINER THAN | NUMBER OF SIEVE DIAM. % FINER THAN | NUMBER OF SIEVE DIAM. % FINER THAN |
| SEP | | | | .062 MM | .125 MM | .250 MM | .500 MM |
| 03... | 1345 | 17.0 | 1 | 0 | 0 | 1 | 11 |
| 03... | 1350 | 17.0 | 1 | 0 | 0 | 2 | 11 |
| 03... | 1355 | 17.0 | 1 | 0 | 1 | 4 | 30 |
| 03... | 1400 | 17.0 | 1 | 0 | 0 | 2 | 13 |
| 03... | 1405 | 17.0 | 1 | 0 | 0 | 2 | 13 |
| 09... | 1130 | 17.0 | 1 | 0 | 0 | 3 | 22 |
| 09... | 1135 | 17.0 | 1 | 0 | 0 | 1 | 12 |
| 09... | 1140 | 17.0 | 1 | 0 | 1 | 6 | 34 |
| 09... | 1145 | 17.0 | 1 | 0 | 0 | 3 | 22 |
| 09... | 1150 | 17.0 | 1 | 0 | 0 | 2 | 14 |
| 15... | 1230 | 15.0 | 1 | 0 | 0 | 2 | 12 |
| 15... | 1235 | 15.0 | 1 | 0 | 0 | 1 | 11 |
| 15... | 1240 | 15.0 | 1 | 0 | 0 | 2 | 11 |
| 15... | 1245 | 15.0 | 1 | 0 | 0 | 1 | 9 |
| 15... | 1250 | 15.0 | 1 | 0 | 0 | 2 | 12 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 1.00 MM % FINER THAN | 2.00 MM % FINER THAN | 4.00 MM % FINER THAN | 8.00 MM % FINER THAN | 16.0 MM % FINER THAN | 32.0 MM % FINER THAN |
|-------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| SEP | | | | | | |
| 03... | 37 | 61 | 77 | 90 | 100 | -- |
| 03... | 26 | 44 | 60 | 75 | 90 | 100 |
| 03... | 66 | 85 | 92 | 97 | 99 | 100 |
| 03... | 39 | 70 | 87 | 96 | 100 | -- |
| 03... | 40 | 57 | 66 | 75 | 86 | 100 |
| 09... | 58 | 78 | 87 | 92 | 98 | 100 |
| 09... | 38 | 66 | 82 | 92 | 98 | 100 |
| 09... | 72 | 93 | 98 | 99 | 100 | -- |
| 09... | 53 | 79 | 92 | 97 | 100 | -- |
| 09... | 39 | 56 | 66 | 75 | 91 | 100 |
| 15... | 34 | 54 | 67 | 74 | 88 | 100 |
| 15... | 34 | 60 | 77 | 87 | 94 | 100 |
| 15... | 30 | 50 | 66 | 80 | 90 | 100 |
| 15... | 26 | 44 | 57 | 71 | 84 | 100 |
| 15... | 35 | 60 | 75 | 85 | 90 | 100 |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | |
|-------|------|-----------------------------|---|--|--|--|--|
| | | | | NUMBER OF SIEVE DIAM. % FINER THAN .062 MM | NUMBER OF SIEVE DIAM. % FINER THAN .125 MM | NUMBER OF SIEVE DIAM. % FINER THAN .250 MM | NUMBER OF SIEVE DIAM. % FINER THAN .500 MM |
| OCT | | | | | | | |
| 06... | 1610 | -- | 1 | 1 | 2 | 10 | 45 |
| 06... | 1615 | -- | 1 | 1 | 2 | 14 | 52 |
| 06... | 1620 | -- | 1 | 0 | 1 | 4 | 20 |
| 06... | 1625 | -- | 1 | 0 | 1 | 3 | 5 |
| 06... | 1630 | -- | 1 | 0 | 1 | 1 | 1 |
| 07... | 1220 | -- | 1 | 1 | 5 | 42 | 80 |
| 07... | 1225 | -- | 1 | 0 | 2 | 12 | 63 |
| 07... | 1230 | -- | 1 | 0 | 1 | 6 | 17 |
| 07... | 1235 | -- | 1 | 0 | 1 | 6 | 14 |
| 07... | 1240 | -- | 1 | 0 | 1 | 4 | 15 |
| 07... | 1300 | -- | 1 | 0 | 0 | 6 | 35 |
| 09... | 1305 | -- | 1 | 1 | 2 | 8 | 28 |
| 09... | 1310 | -- | 1 | 0 | 0 | 4 | 29 |
| 09... | 1315 | -- | 1 | 1 | 1 | 5 | 29 |
| 09... | 1320 | -- | 1 | 1 | 1 | 3 | 10 |
| 09... | 1325 | -- | 1 | 0 | 0 | 2 | 7 |
| 09... | 1330 | -- | 1 | 0 | 0 | 3 | 30 |
| 09... | 1335 | -- | 1 | 0 | 0 | 2 | 22 |
| 09... | 1340 | -- | 1 | 0 | 0 | 6 | 42 |
| 09... | 1345 | -- | 1 | 0 | 0 | 2 | 21 |
| 09... | 1350 | -- | 1 | 0 | 0 | 2 | 22 |
| 09... | 1355 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1400 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1405 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1410 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1415 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1420 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1425 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1430 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1435 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1440 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1445 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1450 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1455 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1500 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1505 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1510 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1515 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1520 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1525 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1530 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1535 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1540 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1545 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1550 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1555 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1600 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1605 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1610 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1615 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1620 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1625 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1630 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1635 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1640 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1645 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1650 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1655 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1700 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1705 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1710 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1715 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1720 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1725 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1730 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1735 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1740 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1745 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1750 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1755 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1800 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1805 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1810 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1815 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1820 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1825 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1830 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1835 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1840 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1845 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1850 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1855 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1900 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1905 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1910 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1915 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1920 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1925 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1930 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1935 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1940 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1945 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1950 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 1955 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2000 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2005 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2010 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2015 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2020 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2025 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2030 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2035 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2040 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2045 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2050 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2055 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2100 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2105 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2110 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2115 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2120 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2125 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2130 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2135 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2140 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2145 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2150 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2155 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2200 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2205 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2210 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2215 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2220 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2225 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2230 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2235 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2240 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2245 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2250 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2255 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2300 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2305 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2310 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2315 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2320 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2325 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2330 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2335 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2340 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2345 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2350 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2355 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2400 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2405 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2410 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2415 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2420 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2425 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2430 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2435 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2440 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2445 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2450 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2455 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2500 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2505 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2510 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2515 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2520 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2525 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2530 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2535 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2540 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2545 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2550 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2555 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2600 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2605 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2610 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2615 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2620 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2625 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2630 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2635 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2640 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2645 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2650 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2655 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2700 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2705 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2710 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2715 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2720 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2725 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2730 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2735 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2740 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2745 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2750 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2755 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2800 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2805 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2810 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2815 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2820 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2825 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2830 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2835 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2840 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2845 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2850 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2855 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2900 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2905 | -- | 1 | 0 | 0 | 4 | 22 |
| 09... | 2910 | -- | 1 | 0 | | | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 1.00 MM % FINER THAN | 2.00 MM % FINER THAN | 4.00 MM % FINER THAN | 8.00 MM % FINER THAN | 16.0 MM % FINER THAN | 32.0 MM |
|-------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------|
| OCT | | | | | | |
| 06... | 91 | 99 | 100 | -- | -- | -- |
| 06... | 83 | 93 | 97 | 99 | 100 | -- |
| 06... | 75 | 93 | 96 | 98 | 100 | -- |
| 06... | 10 | 29 | 52 | 76 | 100 | -- |
| 06... | 2 | 9 | 39 | 83 | 100 | -- |
| 07... | 86 | 95 | 98 | 100 | -- | -- |
| 07... | 96 | 99 | 100 | -- | -- | -- |
| 07... | 53 | 88 | 97 | 99 | 100 | -- |
| 07... | 34 | 62 | 75 | 84 | 95 | 100 |
| 07... | 61 | 97 | 99 | 100 | -- | -- |
| 19... | 62 | 74 | 84 | 90 | 97 | 100 |
| 19... | 62 | 81 | 92 | 98 | 100 | -- |
| 19... | 52 | 66 | 74 | 81 | 86 | 100 |
| 19... | 60 | 75 | 82 | 87 | 95 | 100 |
| 19... | 25 | 35 | 40 | 49 | 57 | 100 |
| 27... | 41 | 79 | 90 | 95 | 100 | -- |
| 27... | 75 | 97 | 100 | -- | -- | -- |
| 27... | 57 | 78 | 87 | 95 | 99 | 100 |
| 27... | 92 | 99 | 100 | -- | -- | -- |
| 27... | 68 | 90 | 96 | 99 | 100 | -- |
| 28... | 51 | 72 | 84 | 92 | 97 | 100 |
| NOV | | | | | | |
| 18... | 96 | 98 | 100 | -- | -- | -- |
| 18... | 79 | 89 | 94 | 98 | 100 | -- |
| 18... | 75 | 88 | 92 | 94 | 98 | 100 |
| 24... | 8 | 47 | 86 | 99 | 100 | -- |
| 24... | 83 | 92 | 95 | 98 | 100 | -- |
| 24... | 76 | 90 | 96 | 99 | 100 | -- |
| 24... | 26 | 51 | 60 | 67 | 77 | 100 |
| 24... | 25 | 54 | 85 | 99 | 100 | -- |
| DEC | | | | | | |
| 01... | 73 | 94 | 99 | 100 | -- | -- |
| 01... | 61 | 91 | 97 | 99 | 100 | -- |
| 01... | 17 | 24 | 28 | 35 | 48 | 100 |
| 01... | 67 | 87 | 96 | 100 | -- | -- |
| 15... | 77 | 92 | 96 | 98 | 100 | -- |
| 15... | 84 | 89 | 92 | 97 | 100 | -- |
| 15... | 76 | 88 | 93 | 97 | 100 | -- |
| 15... | 54 | 94 | 99 | 100 | -- | -- |
| 15... | 58 | 67 | 75 | 84 | 100 | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | BED | | BED | | BED | |
|-------|------|-----------------------------|---|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
| | | | | MAT. SIEVE DIAM. | % FINER THAN | MAT. SIEVE DIAM. | % FINER THAN | MAT. SIEVE DIAM. | % FINER THAN | MAT. SIEVE DIAM. | % FINER THAN |
| | | | | | .062 MM | | .125 MM | | .250 MM | | .500 MM |
| JAN | | | | | | | | | | | |
| 17... | 1450 | 5.0 | 1 | 1 | 0 | 7 | 20 | 31 | | | |
| 17... | 1455 | 5.0 | 1 | 0 | 0 | 1 | 2 | 3 | | | |
| 17... | 1500 | 5.0 | 1 | 0 | 0 | 1 | 3 | 14 | | | |
| 17... | 1505 | 5.0 | 1 | 1 | 1 | 2 | 6 | 14 | | | |
| 19... | 1240 | 6.0 | 1 | 0 | 0 | 1 | 3 | 15 | | | |
| 19... | 1245 | 6.0 | 1 | 0 | 0 | 1 | 3 | 18 | | | |
| 19... | 1250 | 6.0 | 1 | 0 | 0 | 1 | 7 | 35 | | | |
| 19... | 1255 | 6.0 | 1 | 0 | 0 | 4 | 40 | 92 | | | |
| 26... | 1535 | -- | 1 | 0 | 0 | 2 | 17 | 86 | | | |
| 26... | 1540 | -- | 1 | 0 | 0 | 1 | 11 | 69 | | | |
| 26... | 1545 | -- | 1 | 0 | 0 | 0 | 3 | 21 | | | |
| FEB | | | | | | | | | | | |
| 09... | 1235 | 2.5 | 1 | 0 | 0 | 0 | 6 | 33 | | | |
| 09... | 1240 | 2.5 | 1 | 0 | 0 | 1 | 8 | 46 | | | |
| 09... | 1245 | 2.5 | 1 | 0 | 0 | 0 | 2 | 16 | | | |
| 09... | 1250 | 2.5 | 1 | 0 | 0 | 2 | 11 | 31 | | | |
| 12... | 1210 | 5.5 | 1 | 0 | 0 | 0 | 6 | 43 | | | |
| 12... | 1215 | 5.5 | 1 | 0 | 0 | 0 | 3 | 12 | | | |
| 12... | 1220 | 5.5 | 1 | 0 | 0 | 0 | 3 | 15 | | | |
| 12... | 1225 | 5.5 | 1 | 0 | 0 | 3 | 15 | 41 | | | |
| 14... | 1135 | 7.5 | 1 | 5 | 24 | 3 | 53 | 87 | | | |
| 14... | 1140 | 7.5 | 1 | 1 | 4 | 4 | 21 | 78 | | | |
| 14... | 1145 | 7.5 | 1 | 0 | 0 | 1 | 5 | 19 | | | |
| 14... | 1150 | 7.5 | 1 | 1 | 1 | 5 | 10 | 12 | | | |
| 14... | 1155 | 7.5 | 1 | 1 | 1 | 2 | 4 | 7 | | | |
| 16... | 1340 | 8.0 | 1 | 1 | 1 | 4 | 27 | 95 | | | |
| 16... | 1345 | 8.0 | 1 | 1 | 1 | 3 | 18 | 84 | | | |
| 16... | 1350 | 8.0 | 1 | 1 | 1 | 3 | 9 | 33 | | | |
| 16... | 1355 | 8.0 | 1 | 0 | 0 | 1 | 2 | 3 | | | |
| 16... | 1400 | 8.0 | 1 | 2 | 10 | 8 | 21 | 27 | | | |
| 17... | 1200 | 9.0 | 1 | 2 | 8 | 5 | 40 | 95 | | | |
| 17... | 1210 | 9.0 | 1 | 1 | 1 | 5 | 29 | 91 | | | |
| 17... | 1215 | 9.0 | 1 | 1 | 1 | 2 | 6 | 27 | | | |
| 17... | 1220 | 9.0 | 1 | 1 | 1 | 4 | 8 | 12 | | | |
| 17... | 1225 | 9.0 | 1 | 5 | 14 | 24 | 29 | 29 | | | |
| 19... | 0935 | 7.5 | 1 | 0 | 0 | 4 | 30 | 99 | | | |
| 19... | 0940 | 7.5 | 1 | 0 | 0 | 2 | 19 | 88 | | | |
| 19... | 0945 | 7.5 | 1 | 0 | 0 | 1 | 4 | 24 | | | |
| 19... | 0950 | 7.5 | 1 | 0 | 0 | 1 | 7 | 28 | | | |
| 19... | 0955 | 7.5 | 1 | 0 | 0 | 2 | 3 | 5 | | | |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA
 PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM | 32.0 MM |
|-------|--|--|--|--|--|--|
| | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN |
| JAN | | | | | | |
| 17... | 36 | 42 | 51 | 66 | 100 | -- |
| 17... | 4 | 10 | 22 | 56 | 100 | -- |
| 17... | 44 | 72 | 79 | 81 | 83 | 100 |
| 17... | 41 | 73 | 88 | 93 | 100 | -- |
| 19... | 39 | 77 | 89 | 94 | 96 | 100 |
| 19... | 68 | 90 | 94 | 97 | 98 | 100 |
| 19... | 51 | 56 | 61 | 68 | 78 | 100 |
| 19... | 98 | 99 | 100 | -- | -- | -- |
| 26... | 100 | -- | -- | -- | -- | -- |
| 26... | 98 | 100 | -- | -- | -- | -- |
| 26... | 69 | 92 | 96 | 97 | 100 | -- |
| FEB | | | | | | |
| 09... | 74 | 87 | 90 | 92 | 92 | 100 |
| 09... | 88 | 97 | 98 | 99 | 100 | -- |
| 09... | 42 | 63 | 71 | 76 | 79 | 100 |
| 09... | 42 | 47 | 50 | 54 | 59 | 100 |
| 12... | 90 | 98 | 100 | -- | -- | -- |
| 12... | 34 | 59 | 77 | 90 | 100 | -- |
| 12... | 46 | 68 | 78 | 88 | 93 | 100 |
| 12... | 61 | 71 | 75 | 80 | 100 | -- |
| 14... | 96 | 99 | 100 | -- | -- | -- |
| 14... | 100 | -- | -- | -- | -- | -- |
| 14... | 71 | 99 | 100 | -- | -- | -- |
| 14... | 14 | 14 | 18 | 20 | 43 | 100 |
| 14... | 9 | 13 | 26 | 56 | 100 | -- |
| 16... | 100 | -- | -- | -- | -- | -- |
| 16... | 100 | -- | -- | -- | -- | -- |
| 16... | 89 | 97 | 98 | 100 | -- | -- |
| 16... | 3 | 6 | 17 | 52 | 91 | 100 |
| 16... | 30 | 33 | 42 | 65 | 84 | 100 |
| 17... | 100 | -- | -- | -- | -- | -- |
| 17... | 100 | -- | -- | -- | -- | -- |
| 17... | 91 | 99 | 99 | 99 | 100 | -- |
| 17... | 17 | 32 | 58 | 86 | 97 | 100 |
| 17... | 30 | 31 | 32 | 35 | 62 | 100 |
| 19... | 100 | -- | -- | -- | -- | -- |
| 19... | 100 | -- | -- | -- | -- | -- |
| 19... | 61 | 74 | 81 | 89 | 100 | -- |
| 19... | 72 | 94 | 97 | 99 | 100 | -- |
| 19... | 6 | 9 | 22 | 48 | 78 | 100 |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | |
|-------|------|-----------------------------|---|--|--|--|--|
| | | | | NUMBER OF SIEVE DIAM. % FINER THAN .062 MM | NUMBER OF SIEVE DIAM. % FINER THAN .125 MM | NUMBER OF SIEVE DIAM. % FINER THAN .250 MM | NUMBER OF SIEVE DIAM. % FINER THAN .500 MM |
| FEB | | | | | | | |
| 24... | 1355 | 5.0 | 1 | 0 | 1 | 8 | 31 |
| 24... | 1400 | 5.0 | 1 | 0 | 1 | 6 | 33 |
| 24... | 1405 | 5.0 | 1 | 0 | 0 | 4 | 41 |
| 24... | 1410 | 5.0 | 1 | 0 | 2 | 14 | 70 |
| 24... | 1416 | 5.0 | 1 | 0 | 2 | 23 | 96 |
| MAR | | | | | | | |
| 01... | 1140 | 8.0 | 5 | 0 | 2 | 12 | 44 |
| 05... | 1430 | 8.0 | 5 | 0 | 2 | 15 | 58 |
| 09... | 1205 | 8.5 | 1 | 2 | 10 | 51 | 93 |
| 09... | 1210 | 8.5 | 1 | 0 | 2 | 14 | 61 |
| 09... | 1215 | 8.5 | 1 | 0 | 2 | 14 | 60 |
| 09... | 1220 | 8.5 | 1 | 0 | 2 | 12 | 48 |
| 09... | 1225 | 8.5 | 1 | 0 | 1 | 4 | 14 |
| 15... | 1240 | 6.0 | 1 | 0 | 1 | 17 | 88 |
| 15... | 1245 | 6.0 | 1 | 0 | 2 | 14 | 62 |
| 15... | 1250 | 6.0 | 1 | 0 | 1 | 7 | 43 |
| 15... | 1255 | 6.0 | 1 | 0 | 0 | 4 | 31 |
| 15... | 1300 | 6.0 | 1 | 1 | 3 | 10 | 26 |
| 20... | 0700 | --- | 1 | 21 | 53 | 85 | 96 |
| 20... | 0705 | --- | 1 | 8 | 20 | 52 | 82 |
| 20... | 0710 | --- | 1 | 8 | 20 | 38 | 76 |
| 20... | 0715 | --- | 1 | 11 | 24 | 48 | 77 |
| 20... | 0720 | --- | 1 | 7 | 14 | 26 | 52 |
| 20... | 0725 | --- | 1 | 6 | 11 | 19 | 29 |
| 20... | 0730 | --- | 1 | 6 | 20 | 39 | 54 |
| 22... | 1400 | 9.0 | 1 | 1 | 4 | 29 | 84 |
| 22... | 1405 | 9.0 | 1 | 1 | 3 | 18 | 67 |
| 22... | 1410 | 9.0 | 1 | 1 | 8 | 30 | 76 |
| 22... | 1415 | 9.0 | 1 | 1 | 4 | 17 | 53 |
| 22... | 1420 | 9.0 | 1 | 2 | 7 | 23 | 59 |
| 29... | 1150 | 6.5 | 5 | 0 | 4 | 14 | 45 |
| APR | | | | | | | |
| 06... | 1255 | 8.0 | 5 | 0 | 3 | 12 | 42 |
| 12... | 1230 | 7.0 | 1 | 2 | 11 | 49 | 97 |
| 12... | 1235 | 7.0 | 1 | 1 | 3 | 11 | 47 |
| 12... | 1240 | 7.0 | 1 | 1 | 3 | 10 | 40 |
| 12... | 1245 | 7.0 | 1 | 0 | 1 | 3 | 7 |
| 12... | 1250 | 7.0 | 1 | 1 | 2 | 5 | 14 |
| 19... | 1310 | 9.0 | 5 | 0 | 3 | 16 | 46 |
| 26... | 1245 | 10.5 | 5 | 0 | 1 | 8 | 39 |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA
 PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM | 32.0 MM | 64.0 MM |
|--------|---------|---------|---------|---------|---------|---------|---------|
| FEB | | | | | | | |
| 24.... | 63 | 86 | 95 | 98 | 100 | -- | -- |
| 24.... | 75 | 95 | 99 | 100 | -- | -- | -- |
| 24.... | 71 | 76 | 77 | 78 | 80 | 100 | -- |
| 24.... | 96 | 99 | 100 | -- | -- | -- | -- |
| 24.... | 100 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | |
| 01.... | 74 | 86 | 90 | 95 | 100 | -- | -- |
| 05.... | 87 | 95 | 97 | 98 | 100 | -- | -- |
| 09.... | 98 | 99 | 100 | -- | -- | -- | -- |
| 09.... | 85 | 91 | 94 | 97 | 98 | 100 | -- |
| 09.... | 95 | 99 | 100 | -- | -- | -- | -- |
| 09.... | 82 | 95 | 98 | 99 | 100 | -- | -- |
| 09.... | 32 | 47 | 56 | 66 | 82 | 100 | -- |
| 15.... | 100 | -- | -- | -- | -- | -- | -- |
| 15.... | 93 | 99 | 99 | 100 | -- | -- | -- |
| 15.... | 92 | 100 | -- | -- | -- | -- | -- |
| 15.... | 69 | 90 | 98 | 100 | -- | -- | -- |
| 15.... | 46 | 64 | 74 | 80 | 100 | -- | -- |
| 20.... | 98 | 98 | 99 | 100 | -- | -- | -- |
| 20.... | 95 | 98 | 99 | 100 | -- | -- | -- |
| 20.... | 91 | 97 | 100 | -- | -- | -- | -- |
| 20.... | 90 | 97 | 100 | -- | -- | -- | -- |
| 20.... | 74 | 88 | 96 | 98 | 100 | -- | -- |
| 20.... | 39 | 44 | 47 | 53 | 62 | 62 | 100 |
| 20.... | 62 | 66 | 70 | 78 | 90 | 100 | -- |
| 22.... | 97 | 99 | 100 | -- | -- | -- | -- |
| 22.... | 94 | 99 | 100 | -- | -- | -- | -- |
| 22.... | 97 | 100 | -- | -- | -- | -- | -- |
| 22.... | 89 | 97 | 99 | 100 | -- | -- | -- |
| 22.... | 86 | 98 | 99 | 100 | -- | -- | -- |
| 29.... | 78 | 94 | 98 | 99 | 100 | -- | -- |
| APR | | | | | | | |
| 06.... | 75 | 91 | 95 | 96 | 98 | 100 | -- |
| 12.... | 100 | -- | -- | -- | -- | -- | -- |
| 12.... | 82 | 92 | 97 | 99 | 100 | -- | -- |
| 12.... | 78 | 92 | 97 | 99 | 100 | -- | -- |
| 12.... | 30 | 60 | 72 | 77 | 79 | 100 | -- |
| 12.... | 38 | 73 | 94 | 99 | 100 | -- | -- |
| 19.... | 76 | 91 | 96 | 98 | 99 | 100 | -- |
| 26.... | 76 | 92 | 97 | 98 | 100 | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | |
|-------|------|-----------------------------|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | | | | NUMBER OF SIEVE DIAM. | NUMBER OF SIEVE DIAM. | NUMBER OF SIEVE DIAM. | NUMBER OF SIEVE DIAM. |
| | | | | .062 MM | .125 MM | .250 MM | .500 MM |
| MAY | | | | | | | |
| 10... | 1145 | 9.0 | 1 | 0 | 2 | 13 | 23 |
| 10... | 1150 | 9.0 | 1 | 0 | 1 | 12 | 36 |
| 10... | 1155 | 9.0 | 1 | 0 | 2 | 14 | 56 |
| 10... | 1200 | 9.0 | 1 | 0 | 0 | 3 | 29 |
| 17... | 1210 | 12.0 | 1 | 0 | 2 | 4 | 10 |
| 17... | 1215 | 12.0 | 1 | 0 | 1 | 10 | 39 |
| 17... | 1220 | 12.0 | 1 | 0 | 3 | 16 | 50 |
| 24... | 1235 | 14.5 | 1 | 0 | 1 | 2 | 5 |
| 24... | 1240 | 14.5 | 1 | 0 | 1 | 8 | 40 |
| 24... | 1245 | 14.5 | 1 | 0 | 1 | 6 | 37 |
| 24... | 1250 | 14.5 | 1 | 0 | 3 | 11 | 36 |
| JUN | | | | | | | |
| 01... | 1200 | 12.0 | 5 | 0 | 1 | 7 | 24 |
| 08... | 1055 | -- | 1 | 0 | 1 | 4 | 10 |
| 08... | 1100 | -- | 1 | 0 | 0 | 1 | 5 |
| 08... | 1105 | -- | 1 | 0 | 1 | 7 | 32 |
| 08... | 1110 | -- | 1 | 0 | 1 | 10 | 59 |
| 08... | 1115 | -- | 1 | 0 | 2 | 8 | 22 |
| 14... | 1145 | 12.0 | 5 | 0 | 1 | 6 | 26 |
| 28... | 1120 | 15.0 | 1 | 0 | 1 | 2 | 6 |
| 28... | 1125 | 15.0 | 1 | 0 | 0 | 2 | 7 |
| 28... | 1130 | 15.0 | 1 | 0 | 1 | 14 | 54 |
| 28... | 1135 | 15.0 | 1 | 0 | 0 | 1 | 7 |
| 28... | 1140 | 15.0 | 1 | 0 | 0 | 3 | 21 |
| JUL | | | | | | | |
| 13... | 1355 | 17.5 | 1 | 0 | 1 | 1 | 12 |
| 13... | 1400 | 17.5 | 1 | 0 | 1 | 8 | 22 |
| 13... | 1405 | 17.5 | 1 | 0 | 2 | 5 | 25 |
| 13... | 1410 | 17.5 | 1 | 0 | 0 | 3 | 15 |
| 13... | 1415 | 17.5 | 1 | 0 | 3 | 5 | 25 |
| SEP | | | | | | | |
| 15... | 1335 | 14.5 | 1 | 0 | 0 | 6 | 25 |
| 15... | 1340 | 14.5 | 1 | 0 | 0 | 5 | 22 |
| 15... | 1345 | 14.5 | 1 | 1 | 1 | 6 | 28 |
| 15... | 1350 | 14.5 | 1 | 0 | 0 | 6 | 30 |
| 15... | 1355 | 14.5 | 1 | 0 | 1 | 10 | 38 |
| 21... | 1125 | 12.0 | 5 | 0 | 1 | 6 | 22 |
| 28... | 1305 | 12.5 | 5 | 0 | 1 | 7 | 31 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN | 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN | 32.0 MM |
|-------|--|---------|---------|---------|---------|--|---------|--|---------|
| MAY | | | | | | | | | |
| 10... | 45 | 81 | 96 | 99 | 100 | 99 | 100 | 100 | -- |
| 10... | 53 | 68 | 82 | 94 | 100 | 100 | 100 | 100 | -- |
| 10... | 87 | 96 | 99 | 100 | 100 | 100 | 100 | 100 | -- |
| 10... | 77 | 94 | 98 | 100 | 100 | 100 | 100 | 100 | -- |
| 17... | 44 | 83 | 94 | 97 | 100 | 97 | 100 | 100 | -- |
| 17... | 68 | 86 | 95 | 99 | 100 | 99 | 100 | 100 | -- |
| 17... | 77 | 91 | 96 | 99 | 100 | 99 | 100 | 100 | -- |
| 24... | 32 | 79 | 95 | 100 | 100 | 100 | 100 | 100 | -- |
| 24... | 69 | 86 | 94 | 99 | 100 | 99 | 100 | 100 | -- |
| 24... | 87 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | -- |
| 24... | 76 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | -- |
| JUN | | | | | | | | | |
| 01... | 51 | 75 | 90 | 97 | 99 | 97 | 99 | 100 | 100 |
| 08... | 36 | 84 | 98 | 100 | 100 | 100 | 100 | 100 | -- |
| 08... | 23 | 59 | 84 | 96 | 100 | 96 | 100 | 100 | -- |
| 08... | 53 | 70 | 89 | 99 | 100 | 99 | 100 | 100 | -- |
| 08... | 92 | 97 | 99 | 100 | 100 | 100 | 100 | 100 | -- |
| 08... | 39 | 60 | 79 | 89 | 99 | 89 | 99 | 100 | 100 |
| 14... | 53 | 79 | 90 | 96 | 97 | 96 | 97 | 100 | 100 |
| 28... | 21 | 55 | 83 | 96 | 100 | 96 | 100 | 100 | -- |
| 28... | 26 | 49 | 69 | 89 | 100 | 89 | 100 | 100 | -- |
| 28... | 76 | 82 | 83 | 84 | 88 | 84 | 88 | 100 | 100 |
| 28... | 15 | 23 | 34 | 54 | 78 | 54 | 78 | 100 | 100 |
| 28... | 44 | 57 | 65 | 74 | 84 | 74 | 84 | 100 | 100 |
| JUL | | | | | | | | | |
| 13... | 54 | 91 | 99 | 100 | 100 | 100 | 100 | 100 | -- |
| 13... | 43 | 72 | 89 | 97 | 100 | 97 | 100 | 100 | -- |
| 13... | 48 | 67 | 79 | 89 | 100 | 89 | 100 | 100 | -- |
| 13... | 35 | 64 | 87 | 98 | 100 | 98 | 100 | 100 | -- |
| 13... | 55 | 77 | 88 | 96 | 100 | 96 | 100 | 100 | -- |
| SEP | | | | | | | | | |
| 15... | 49 | 67 | 78 | 87 | 97 | 87 | 97 | 100 | 100 |
| 15... | 44 | 60 | 68 | 74 | 85 | 74 | 85 | 100 | 100 |
| 15... | 58 | 72 | 80 | 86 | 90 | 86 | 90 | 100 | 100 |
| 15... | 58 | 79 | 90 | 96 | 99 | 96 | 99 | 100 | 100 |
| 15... | 56 | 70 | 81 | 88 | 92 | 88 | 92 | 100 | 100 |
| 21... | 44 | 65 | 79 | 89 | 95 | 89 | 95 | 100 | 100 |
| 28... | 52 | 68 | 79 | 88 | 97 | 88 | 97 | 100 | 100 |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | | BED | | | | BED | | | |
|-------|------|-----------------------------|---|---------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|
| | | | | MAT. DIAM. | % FINER THAN | MAT. DIAM. | % FINER THAN | MAT. DIAM. | % FINER THAN | MAT. DIAM. | % FINER THAN | MAT. DIAM. | % FINER THAN | MAT. DIAM. | % FINER THAN |
| | | | | .062 MM | | .125 MM | | .250 MM | | .500 MM | | | | | |
| OCT | | | | | | | | | | | | | | | |
| 13... | 1335 | 11.5 | 5 | 0 | | 0 | | 6 | | 28 | | | | | |
| 22... | 1315 | 12.0 | 1 | 3 | | 5 | | 7 | | 20 | | | | | |
| 22... | 1320 | 12.0 | 1 | 2 | | 4 | | 19 | | 46 | | | | | |
| 22... | 1325 | 12.0 | 1 | 3 | | 4 | | 10 | | 39 | | | | | |
| 22... | 1330 | 12.0 | 1 | 2 | | 3 | | 6 | | 18 | | | | | |
| 22... | 1335 | 12.0 | 1 | 2 | | 4 | | 8 | | 23 | | | | | |
| 23... | 1420 | 11.0 | 1 | 3 | | 21 | | 73 | | 89 | | | | | |
| 23... | 1425 | 11.0 | 1 | 3 | | 16 | | 56 | | 81 | | | | | |
| 23... | 1430 | 11.0 | 1 | 0 | | 3 | | 12 | | 30 | | | | | |
| 23... | 1435 | 11.0 | 1 | 0 | | 5 | | 20 | | 44 | | | | | |
| 23... | 1440 | 11.0 | 1 | 0 | | 2 | | 6 | | 10 | | | | | |
| 28... | 1425 | 8.5 | 1 | 1 | | 6 | | 31 | | 73 | | | | | |
| 28... | 1430 | 8.5 | 1 | 0 | | 4 | | 31 | | 72 | | | | | |
| 28... | 1435 | 8.5 | 1 | 0 | | 2 | | 13 | | 63 | | | | | |
| 28... | 1440 | 8.5 | 1 | 0 | | 2 | | 15 | | 53 | | | | | |
| 28... | 1445 | 8.5 | 1 | 0 | | 3 | | 13 | | 32 | | | | | |
| 29... | 1410 | 9.0 | 1 | 1 | | 10 | | 31 | | 53 | | | | | |
| 29... | 1415 | 9.0 | 1 | 2 | | 8 | | 28 | | 57 | | | | | |
| 29... | 1420 | 9.0 | 1 | 0 | | 2 | | 8 | | 25 | | | | | |
| 29... | 1425 | 9.0 | 1 | 1 | | 4 | | 13 | | 27 | | | | | |
| 29... | 1430 | 9.0 | 1 | 1 | | 6 | | 18 | | 30 | | | | | |
| 30... | 1345 | 9.0 | 1 | 1 | | 12 | | 56 | | 88 | | | | | |
| 30... | 1350 | 9.0 | 1 | 0 | | 2 | | 15 | | 62 | | | | | |
| 30... | 1355 | 9.0 | 1 | 0 | | 2 | | 11 | | 35 | | | | | |
| 30... | 1400 | 9.0 | 1 | 0 | | 1 | | 7 | | 26 | | | | | |
| 30... | 1405 | 9.0 | 1 | 0 | | 4 | | 16 | | 36 | | | | | |
| NOV | | | | | | | | | | | | | | | |
| 04... | 1510 | 9.5 | 1 | 0 | | 5 | | 37 | | 84 | | | | | |
| 04... | 1515 | 9.5 | 1 | 0 | | 0 | | 8 | | 66 | | | | | |
| 04... | 1520 | 9.5 | 1 | 0 | | 2 | | 12 | | 58 | | | | | |
| 04... | 1525 | 9.5 | 1 | 0 | | 1 | | 5 | | 22 | | | | | |
| 04... | 1530 | 9.5 | 1 | 0 | | 0 | | 4 | | 15 | | | | | |
| 10... | 1245 | 3.0 | 1 | 1 | | 2 | | 11 | | 42 | | | | | |
| 10... | 1250 | 3.0 | 1 | 0 | | 2 | | 8 | | 49 | | | | | |
| 10... | 1255 | 3.0 | 1 | 1 | | 2 | | 8 | | 31 | | | | | |
| 10... | 1300 | 3.0 | 1 | 1 | | 3 | | 13 | | 32 | | | | | |
| 10... | 1305 | 3.0 | 1 | 0 | | 1 | | 4 | | 8 | | | | | |
| 17... | 1425 | 4.0 | 5 | 4 | | 18 | | 45 | | 76 | | | | | |
| 23... | 1245 | 2.5 | 1 | 1 | | 4 | | 25 | | 65 | | | | | |
| 23... | 1250 | 2.5 | 1 | 0 | | 1 | | 12 | | 54 | | | | | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM | 32.0 MM | 64.0 MM |
|-------|---------|---------|---------|---------|---------|---------|---------|
| OCT | | | | | | | |
| 13... | 49 | 64 | 75 | 83 | 91 | 100 | -- |
| 22... | 56 | 87 | 97 | 100 | -- | -- | -- |
| 22... | 72 | 88 | 95 | 99 | 100 | -- | -- |
| 22... | 59 | 70 | 78 | 83 | 91 | 100 | -- |
| 22... | 33 | 44 | 51 | 58 | 69 | 100 | -- |
| 22... | 39 | 48 | 58 | 74 | 90 | 100 | -- |
| 23... | 95 | 97 | 97 | 98 | 98 | 100 | -- |
| 23... | 92 | 97 | 99 | 100 | -- | -- | -- |
| 23... | 46 | 58 | 67 | 75 | 90 | 100 | -- |
| 23... | 67 | 79 | 85 | 89 | 94 | 100 | -- |
| 23... | 20 | 33 | 48 | 64 | 78 | 82 | 100 |
| 28... | 89 | 96 | 98 | 99 | 100 | -- | -- |
| 28... | 88 | 92 | 94 | 96 | 100 | -- | -- |
| 28... | 85 | 92 | 94 | 96 | 98 | 100 | -- |
| 28... | 78 | 89 | 93 | 95 | 96 | 100 | -- |
| 28... | 60 | 79 | 87 | 92 | 98 | 100 | -- |
| 29... | 70 | 82 | 90 | 94 | 100 | -- | -- |
| 29... | 68 | 81 | 91 | 96 | 100 | -- | -- |
| 29... | 64 | 79 | 88 | 96 | 100 | -- | -- |
| 29... | 62 | 87 | 96 | 99 | 100 | -- | -- |
| 29... | 50 | 78 | 94 | 98 | 100 | -- | -- |
| 30... | 94 | 98 | 99 | 100 | -- | -- | -- |
| 30... | 93 | 97 | 98 | 99 | 100 | -- | -- |
| 30... | 66 | 96 | 100 | -- | -- | -- | -- |
| 30... | 53 | 77 | 91 | 97 | 100 | -- | -- |
| 30... | 63 | 83 | 90 | 93 | 94 | 100 | -- |
| NOV | | | | | | | |
| 04... | 95 | 99 | 100 | -- | -- | -- | -- |
| 04... | 94 | 98 | 99 | 100 | -- | -- | -- |
| 04... | 91 | 99 | 100 | -- | -- | -- | -- |
| 04... | 57 | 77 | 86 | 91 | 93 | 100 | -- |
| 04... | 34 | 60 | 79 | 90 | 96 | 100 | -- |
| 10... | 66 | 82 | 90 | 95 | 100 | -- | -- |
| 10... | 86 | 97 | 99 | 100 | -- | -- | -- |
| 10... | 74 | 93 | 98 | 100 | -- | -- | -- |
| 10... | 48 | 65 | 77 | 85 | 92 | 100 | -- |
| 10... | 16 | 33 | 49 | 63 | 81 | 100 | -- |
| 17... | 91 | 96 | 98 | 99 | 100 | -- | -- |
| 23... | 73 | 80 | 83 | 85 | 90 | 100 | -- |
| 23... | 86 | 94 | 98 | 99 | 100 | -- | -- |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | 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 |
|-------|------|-----------------------------|---|---|---|---|---|
| NOV | | | | | | | |
| 23... | 1255 | 2.5 | 1 | 0 | 2 | 10 | 56 |
| 23... | 1300 | 2.5 | 1 | 0 | 2 | 10 | 34 |
| 23... | 1305 | 2.5 | 1 | 1 | 3 | 15 | 46 |
| DEC | | | | | | | |
| 02... | 1200 | 7.0 | 1 | 0 | 6 | 46 | 93 |
| 02... | 1205 | 7.0 | 1 | 0 | 1 | 14 | 69 |
| 02... | 1210 | 7.0 | 1 | 0 | 1 | 8 | 45 |
| 02... | 1215 | 7.0 | 1 | 0 | 4 | 15 | 43 |
| 02... | 1220 | 7.0 | 1 | 0 | 3 | 18 | 52 |
| 09... | 1240 | 4.0 | 1 | 1 | 5 | 37 | 76 |
| 09... | 1245 | 4.0 | 1 | 0 | 2 | 15 | 64 |
| 09... | 1250 | 4.0 | 1 | 0 | 2 | 12 | 58 |
| 09... | 1255 | 4.0 | 1 | 0 | 1 | 5 | 22 |
| 09... | 1300 | 4.0 | 1 | 0 | 1 | 9 | 40 |
| 15... | 1330 | 7.0 | 1 | 1 | 4 | 23 | 81 |
| 15... | 1335 | 7.0 | 1 | 0 | 3 | 20 | 72 |
| 15... | 1340 | 7.0 | 1 | 0 | 2 | 9 | 35 |
| 15... | 1345 | 7.0 | 1 | 0 | 2 | 9 | 29 |
| 15... | 1350 | 7.0 | 1 | 0 | 3 | 12 | 34 |
| 20... | 1315 | 6.0 | 1 | 9 | 67 | 95 | 99 |
| 20... | 1320 | 6.0 | 1 | 0 | 1 | 17 | 83 |
| 20... | 1325 | 6.0 | 1 | 0 | 1 | 6 | 51 |
| 20... | 1330 | 6.0 | 1 | 0 | 1 | 4 | 14 |
| 20... | 1335 | 6.0 | 1 | 1 | 4 | 20 | 41 |
| 28... | 1310 | 2.0 | 1 | 6 | 7 | 9 | 13 |
| 28... | 1315 | 2.0 | 1 | 0 | 3 | 18 | 68 |
| 28... | 1320 | 2.0 | 1 | 0 | 2 | 9 | 56 |
| 28... | 1325 | 2.0 | 1 | 0 | 1 | 7 | 44 |
| 28... | 1330 | 2.0 | 1 | 0 | 1 | 7 | 32 |
| JAN | | | | | | | |
| 10... | 1315 | 8.0 | 1 | 0 | 3 | 40 | 99 |
| 10... | 1320 | 8.0 | 1 | 1 | 4 | 20 | 58 |
| 10... | 1325 | 8.0 | 1 | 0 | 2 | 10 | 37 |
| 10... | 1330 | 8.0 | 1 | 0 | 1 | 2 | 6 |
| 10... | 1335 | 8.0 | 1 | 0 | 0 | 4 | 7 |
| 17... | 1245 | 7.0 | 1 | 0 | 2 | 16 | 76 |
| 17... | 1250 | 7.0 | 1 | 0 | 2 | 15 | 62 |
| 17... | 1255 | 7.0 | 1 | 0 | 1 | 11 | 49 |
| 17... | 1300 | 7.0 | 1 | 0 | 1 | 7 | 30 |
| 17... | 1305 | 7.0 | 1 | 0 | 1 | 4 | 21 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 | | | | | | | |
| 23... | 91 | 97 | 99 | 100 | -- | -- | -- |
| 23... | 65 | 86 | 92 | 95 | 100 | -- | -- |
| 23... | 74 | 90 | 95 | 97 | 98 | 100 | -- |
| DEC | | | | | | | |
| 02... | 95 | 97 | 99 | 100 | -- | -- | -- |
| 02... | 90 | 96 | 99 | 100 | -- | -- | -- |
| 02... | 78 | 86 | 90 | 93 | 97 | 100 | -- |
| 02... | 77 | 92 | 96 | 98 | 100 | -- | -- |
| 02... | 90 | 99 | 100 | -- | -- | -- | -- |
| 09... | 84 | 91 | 96 | 99 | 100 | -- | -- |
| 09... | 90 | 97 | 99 | 100 | -- | -- | -- |
| 09... | 91 | 97 | 98 | 99 | 100 | -- | -- |
| 09... | 68 | 96 | 99 | 100 | -- | -- | -- |
| 09... | 74 | 94 | 99 | 100 | -- | -- | -- |
| 15... | 97 | 98 | 99 | 99 | 100 | -- | -- |
| 15... | 96 | 99 | 100 | -- | -- | -- | -- |
| 15... | 64 | 84 | 92 | 96 | 100 | -- | -- |
| 15... | 49 | 59 | 67 | 78 | 91 | 100 | -- |
| 15... | 57 | 72 | 79 | 85 | 90 | 100 | -- |
| 20... | 100 | -- | -- | -- | -- | -- | -- |
| 20... | 95 | 97 | 98 | 100 | -- | -- | -- |
| 20... | 97 | 99 | 100 | -- | -- | -- | -- |
| 20... | 40 | 61 | 69 | 75 | 84 | 100 | -- |
| 20... | 53 | 69 | 88 | 97 | 100 | -- | -- |
| 28... | 25 | 81 | 98 | 100 | -- | -- | -- |
| 28... | 96 | 99 | 100 | -- | -- | -- | -- |
| 28... | 93 | 99 | 100 | 100 | -- | -- | -- |
| 28... | 87 | 98 | 100 | -- | -- | -- | -- |
| 28... | 53 | 73 | 86 | 94 | 100 | -- | -- |
| JAN | | | | | | | |
| 10... | 100 | -- | -- | -- | -- | -- | -- |
| 10... | 90 | 96 | 97 | 98 | 100 | -- | -- |
| 10... | 85 | 96 | 98 | 99 | 100 | -- | -- |
| 10... | 17 | 44 | 60 | 73 | 81 | 83 | 100 |
| 10... | 9 | 16 | 30 | 44 | 65 | 75 | 100 |
| 17... | 94 | 96 | 98 | 99 | 100 | -- | -- |
| 17... | 95 | 100 | -- | -- | -- | -- | -- |
| 17... | 88 | 99 | 100 | -- | -- | -- | -- |
| 17... | 56 | 80 | 91 | 96 | 100 | -- | -- |
| 17... | 40 | 55 | 68 | 84 | 94 | 100 | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | BED | BED | BED | |
|-------|-------|-----------------------------|---|--|--|--|--|----|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM | |
| FEB | 02... | 1210 | 4.0 | 5 | 0 | 2 | 16 | 60 |
| | 16... | 1140 | 7.5 | 1 | 0 | 7 | 60 | 66 |
| | 16... | 1145 | 7.5 | 1 | 0 | 0 | 3 | 28 |
| | 16... | 1150 | 7.5 | 1 | 0 | 1 | 5 | 28 |
| | 16... | 1155 | 7.5 | 1 | 0 | 0 | 1 | 5 |
| | 16... | 1200 | 7.5 | 1 | 0 | 0 | 2 | 7 |
| | 22... | 1210 | 9.0 | 1 | 0 | 2 | 20 | 81 |
| | 22... | 1215 | 9.0 | 1 | 0 | 2 | 13 | 63 |
| | 22... | 1220 | 9.0 | 1 | 0 | 2 | 12 | 40 |
| | 22... | 1225 | 9.0 | 1 | 0 | 1 | 4 | 21 |
| | 22... | 1250 | 9.0 | 1 | 0 | 1 | 6 | 36 |
| | MAR | 07... | 1220 | 9.0 | 1 | 0 | 3 | 29 |
| 07... | | 1225 | 9.0 | 1 | 0 | 1 | 5 | 36 |
| 07... | | 1230 | 9.0 | 1 | 0 | 1 | 2 | 11 |
| 07... | | 1235 | 9.0 | 1 | 0 | 2 | 10 | 32 |
| 07... | | 1240 | 9.0 | 1 | 0 | 2 | 13 | 55 |
| 10... | | 1415 | 10.0 | 1 | 1 | 8 | 37 | 87 |
| 10... | | 1420 | 10.0 | 1 | 1 | 5 | 22 | 76 |
| 10... | | 1425 | 10.0 | 1 | 0 | 1 | 4 | 13 |
| 10... | | 1430 | 10.0 | 1 | 1 | 2 | 5 | 8 |
| 10... | | 1435 | 10.0 | 1 | 0 | 2 | 6 | 13 |
| 11... | | 1140 | 9.0 | 1 | 1 | 11 | 51 | 93 |
| 11... | | 1145 | 9.0 | 1 | 0 | 1 | 7 | 44 |
| 11... | | 1150 | 9.0 | 1 | 0 | 1 | 5 | 23 |
| 11... | | 1155 | 9.0 | 1 | 0 | 1 | 4 | 11 |
| 11... | | 1200 | 9.0 | 1 | 0 | 1 | 4 | 6 |
| 18... | | 1140 | 7.0 | 1 | 1 | 11 | 56 | 98 |
| 18... | | 1145 | 7.0 | 1 | 0 | 0 | 2 | 15 |
| 18... | | 1150 | 7.0 | 1 | 0 | 1 | 3 | 15 |
| 18... | | 1155 | 7.0 | 1 | 0 | 1 | 3 | 14 |
| 18... | | 1200 | 7.0 | 1 | 0 | 1 | 5 | 18 |
| 24... | | 1130 | 8.0 | 1 | 0 | 6 | 44 | 90 |
| 24... | | 1135 | 8.0 | 1 | 0 | 0 | 6 | 33 |
| 24... | | 1140 | 8.0 | 1 | 0 | 0 | 2 | 16 |
| 24... | | 1145 | 8.0 | 1 | 1 | 5 | 12 | 30 |
| 24... | 1150 | 8.0 | 1 | 4 | 13 | 57 | 72 | |
| 29... | 1645 | 9.0 | 1 | 1 | 4 | 15 | 34 | |
| 29... | 1650 | 9.0 | 1 | 1 | 2 | 9 | 36 | |
| 29... | 1655 | 9.0 | 1 | 0 | 1 | 4 | 8 | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 2.00 MM | 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 | | | | | | | | | | | | |
| 02... | 89 | 96 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 16... | 90 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 16... | 85 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 16... | 65 | 86 | 93 | 96 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 16... | 25 | 75 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 16... | 11 | 26 | 40 | 53 | 53 | 84 | 84 | 100 | 100 | 100 | 100 | 100 |
| 22... | 97 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 22... | 95 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 22... | 71 | 88 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 22... | 45 | 65 | 74 | 83 | 83 | 94 | 94 | 100 | 100 | 100 | 100 | 100 |
| 22... | 79 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| MAR | | | | | | | | | | | | |
| 07... | 94 | 96 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 82 | 92 | 96 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 35 | 65 | 76 | 82 | 82 | 92 | 92 | 100 | 100 | 100 | 100 | 100 |
| 07... | 73 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 07... | 74 | 81 | 87 | 93 | 93 | 97 | 97 | 100 | 100 | 100 | 100 | 100 |
| 10... | 95 | 96 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 10... | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 10... | 38 | 65 | 79 | 87 | 87 | 94 | 94 | 100 | 100 | 100 | 100 | 100 |
| 10... | 11 | 20 | 30 | 43 | 43 | 55 | 55 | 100 | 100 | 100 | 100 | 100 |
| 10... | 16 | 18 | 24 | 34 | 34 | 68 | 68 | 100 | 100 | 100 | 100 | 100 |
| 11... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 88 | 95 | 97 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 71 | 94 | 97 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 32 | 74 | 89 | 94 | 94 | 98 | 98 | 100 | 100 | 100 | 100 | 100 |
| 11... | 13 | 32 | 51 | 67 | 67 | 80 | 80 | 100 | 100 | 100 | 100 | 100 |
| 18... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 65 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 18... | 38 | 52 | 64 | 78 | 78 | 97 | 97 | 100 | 100 | 100 | 100 | 100 |
| 18... | 43 | 75 | 88 | 93 | 93 | 96 | 96 | 100 | 100 | 100 | 100 | 100 |
| 18... | 27 | 31 | 36 | 45 | 45 | 65 | 65 | 86 | 86 | 86 | 86 | 100 |
| 24... | 97 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 24... | 83 | 97 | 99 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 24... | 41 | 60 | 71 | 80 | 80 | 93 | 93 | 100 | 100 | 100 | 100 | 100 |
| 24... | 52 | 68 | 79 | 88 | 88 | 97 | 97 | 100 | 100 | 100 | 100 | 100 |
| 24... | 88 | 93 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 51 | 64 | 71 | 80 | 80 | 94 | 94 | 100 | 100 | 100 | 100 | 100 |
| 29... | 84 | 98 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 18 | 38 | 57 | 72 | 72 | 90 | 90 | 100 | 100 | 100 | 100 | 100 |

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | 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 |
|--------|------|-----------------------------|---|---|---|---|---|
| MAR | | | | | | | |
| 29.... | 1700 | 9.0 | 1 | 1 | 4 | 9 | 14 |
| 29.... | 1705 | 9.0 | 1 | 1 | 4 | 8 | 11 |
| 30.... | 1050 | 8.0 | 1 | 1 | 7 | 40 | 87 |
| 30.... | 1055 | 8.0 | 1 | 0 | 3 | 12 | 52 |
| 30.... | 1100 | 8.0 | 1 | 0 | 1 | 3 | 11 |
| 30.... | 1105 | 8.0 | 1 | 0 | 0 | 3 | 3 |
| 30.... | 1110 | 8.0 | 1 | 1 | 8 | 44 | 72 |
| APR | | | | | | | |
| 04.... | 1110 | 7.0 | 1 | 0 | 3 | 20 | 79 |
| 04.... | 1115 | 7.0 | 1 | 0 | 0 | 2 | 10 |
| 04.... | 1120 | 7.0 | 1 | 0 | 0 | 2 | 6 |
| 04.... | 1125 | 7.0 | 1 | 0 | 0 | 1 | 2 |
| 04.... | 1130 | 7.0 | 1 | 0 | 2 | 16 | 68 |
| 11.... | 1135 | 6.0 | 1 | 0 | 0 | 2 | 11 |
| 11.... | 1140 | 6.0 | 1 | 0 | 3 | 7 | 17 |
| 11.... | 1145 | 6.0 | 1 | 0 | 1 | 6 | 28 |
| 11.... | 1150 | 6.0 | 1 | 0 | 1 | 6 | 33 |
| 11.... | 1150 | 6.0 | 1 | 0 | 5 | 34 | 92 |
| 22.... | 1430 | 8.0 | 1 | 1 | 7 | 38 | 78 |
| 22.... | 1435 | 8.0 | 1 | 0 | 1 | 9 | 42 |
| 22.... | 1440 | 8.0 | 1 | 0 | 3 | 13 | 38 |
| 22.... | 1445 | 8.0 | 1 | 1 | 3 | 12 | 25 |
| 22.... | 1450 | 9.0 | 1 | 1 | 3 | 8 | 13 |
| MAY | | | | | | | |
| 02.... | 1200 | 9.0 | 1 | 0 | 1 | 17 | 60 |
| 02.... | 1205 | 9.0 | 1 | 0 | 1 | 12 | 74 |
| 02.... | 1210 | 9.0 | 1 | 0 | 2 | 10 | 48 |
| 02.... | 1215 | 9.0 | 1 | 0 | 2 | 11 | 34 |
| 02.... | 1220 | 9.0 | 1 | 0 | 1 | 5 | 10 |
| 17.... | 1100 | 11.0 | 1 | 0 | 0 | 2 | 8 |
| 17.... | 1105 | 11.0 | 1 | 0 | 2 | 28 | 84 |
| 17.... | 1110 | 11.0 | 1 | 0 | 3 | 17 | 57 |
| 17.... | 1115 | 11.0 | 1 | 0 | 2 | 8 | 28 |
| 17.... | 1120 | 11.0 | 1 | 1 | 3 | 11 | 16 |
| 25.... | 1200 | 15.0 | 1 | 0 | 4 | 22 | 63 |
| 25.... | 1205 | 15.0 | 1 | 0 | 6 | 43 | 92 |
| 25.... | 1210 | 15.0 | 1 | 1 | 5 | 23 | 56 |
| 25.... | 1215 | 15.0 | 1 | 0 | 1 | 3 | 12 |
| 25.... | 1220 | 15.0 | 1 | 1 | 2 | 10 | 14 |
| JUN | | | | | | | |
| 09.... | 1310 | 16.0 | 1 | 1 | 3 | 12 | 24 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 2.00 MM | 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 | | | | | | | | | | | | |
| 29... | 20 | 31 | 42 | 52 | 65 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 16 | 20 | 25 | 35 | 86 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 30... | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 87 | 95 | 97 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 30... | 32 | 79 | 94 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 30... | 5 | 7 | 13 | 25 | 44 | 87 | 100 | 100 | 100 | 100 | 100 | 100 |
| 30... | 73 | 75 | 79 | 86 | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| APR | | | | | | | | | | | | |
| 04... | 95 | 97 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 50 | 83 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 14 | 22 | 30 | 40 | 54 | 68 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 3 | 4 | 5 | 7 | 14 | 54 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 86 | 87 | 88 | 89 | 93 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 19 | 26 | 38 | 57 | 78 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 22 | 28 | 33 | 42 | 50 | 69 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 65 | 78 | 84 | 91 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11... | 89 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | 99 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 22... | 94 | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 88 | 98 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 63 | 74 | 81 | 83 | 85 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 22... | 35 | 37 | 38 | 38 | 43 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 22... | 14 | 16 | 21 | 38 | 89 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| MAY | | | | | | | | | | | | |
| 02... | 78 | 90 | 95 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 02... | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 90 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 02... | 67 | 85 | 90 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 02... | 16 | 44 | 71 | 86 | 92 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 20 | 46 | 66 | 86 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 98 | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 91 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 76 | 97 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 19 | 24 | 31 | 45 | 78 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 25... | 85 | 94 | 97 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 25... | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | 79 | 86 | 91 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 25... | 39 | 60 | 70 | 77 | 84 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 25... | 17 | 20 | 24 | 32 | 49 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| JUN | | | | | | | | | | | | |
| 09... | 31 | 36 | 42 | 50 | 63 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

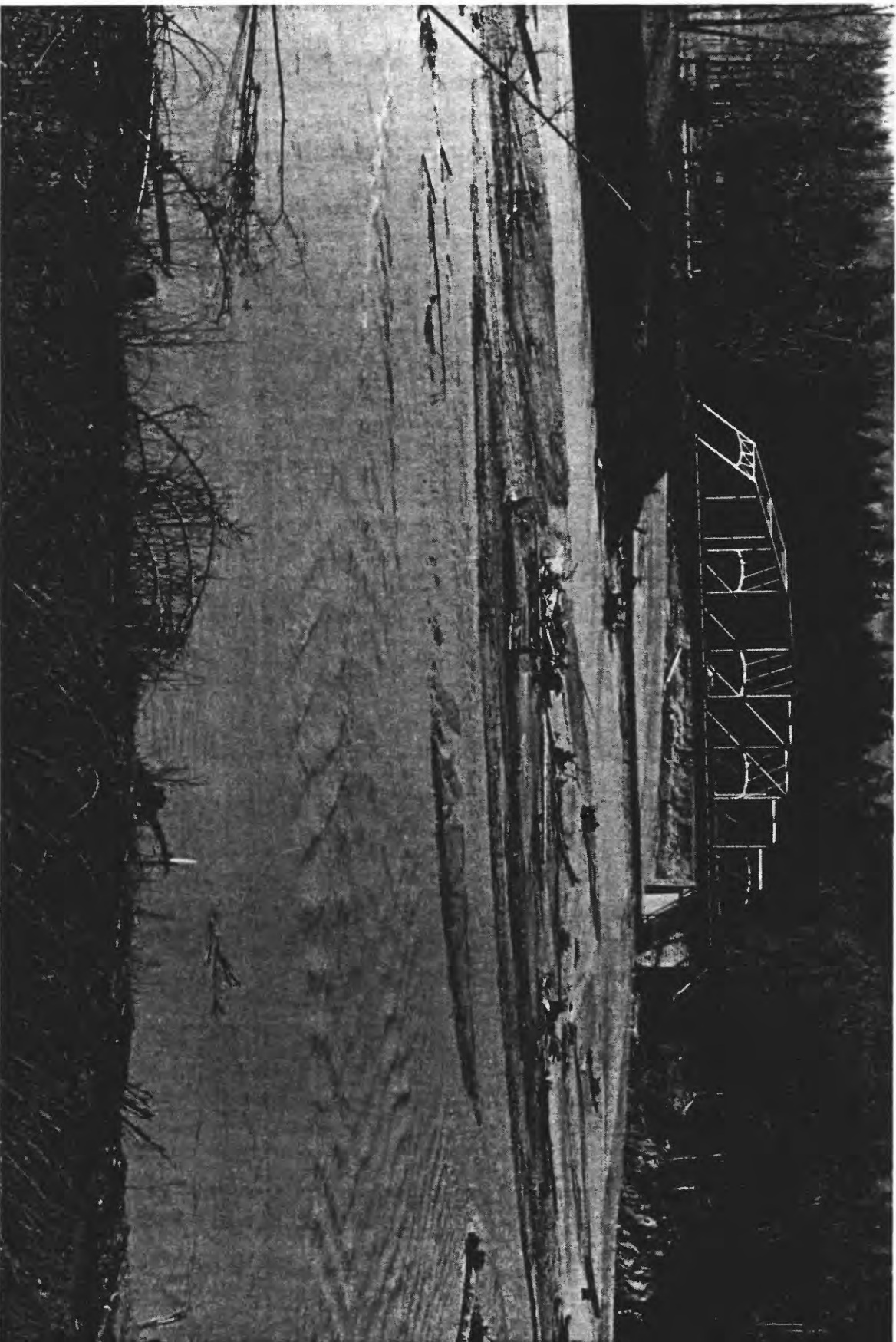
14242560 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | 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 |
|--------|------|-----------------------------|---|---|---|---|---|
| JUN | | | | | | | |
| 09.... | 1315 | 16.0 | 1 | 0 | 1 | 13 | 79 |
| 09.... | 1320 | 16.0 | 1 | 0 | 1 | 8 | 37 |
| 09.... | 1325 | 16.0 | 1 | 0 | 0 | 1 | 5 |
| 09.... | 1330 | 16.0 | 1 | 0 | 1 | 4 | 9 |
| JUL | | | | | | | |
| 12.... | 1210 | 17.0 | 1 | 0 | 2 | 10 | 26 |
| 12.... | 1215 | 17.0 | 1 | 4 | 20 | 70 | 97 |
| 12.... | 1220 | 17.0 | 1 | 0 | 1 | 4 | 17 |
| 12.... | 1225 | 17.0 | 1 | 0 | 1 | 2 | 6 |
| 12.... | 1230 | 17.0 | 1 | 0 | 1 | 3 | 4 |
| 18.... | 1135 | 14.0 | 1 | 1 | 1 | 9 | 32 |
| 18.... | 1140 | 14.0 | 1 | 0 | 1 | 9 | 61 |
| 18.... | 1145 | 14.0 | 1 | 0 | 0 | 3 | 16 |
| 18.... | 1150 | 14.0 | 1 | 0 | 0 | 2 | 4 |
| 18.... | 1155 | 14.0 | 1 | 0 | 0 | 2 | 4 |
| AUG | | | | | | | |
| 30.... | 1215 | 16.0 | 1 | 1 | 11 | 42 | 72 |
| 30.... | 1220 | 16.0 | 1 | 1 | 6 | 20 | 47 |
| 30.... | 1225 | 16.0 | 1 | 0 | 2 | 14 | 49 |
| 30.... | 1230 | 16.0 | 1 | 0 | 0 | 2 | 3 |
| 30.... | 1235 | 16.0 | 1 | 0 | 1 | 4 | 8 |
| SEP | | | | | | | |
| 07.... | 1230 | 14.0 | 1 | 0 | 1 | 11 | 20 |
| 07.... | 1235 | 14.0 | 1 | 0 | 2 | 12 | 46 |
| 07.... | 1240 | 14.0 | 1 | 0 | 1 | 15 | 76 |
| 07.... | 1245 | 14.0 | 1 | 0 | 0 | 4 | 29 |
| 07.... | 1250 | 14.0 | 1 | 0 | 0 | 1 | 3 |
| 14.... | 1215 | 16.5 | 1 | 0 | 1 | 8 | 18 |
| 14.... | 1220 | 16.5 | 1 | 0 | 3 | 17 | 48 |
| 14.... | 1225 | 16.5 | 1 | 0 | 1 | 14 | 71 |
| 14.... | 1230 | 16.5 | 1 | 0 | 1 | 6 | 31 |
| 14.... | 1235 | 16.5 | 1 | 0 | 0 | 1 | 2 |
| 21.... | 1100 | 11.0 | 1 | 0 | 1 | 6 | 14 |
| 21.... | 1105 | 11.0 | 1 | 0 | 1 | 7 | 30 |
| 21.... | 1110 | 11.0 | 1 | 0 | 1 | 16 | 78 |
| 21.... | 1115 | 11.0 | 1 | 0 | 1 | 6 | 45 |
| 21.... | 1120 | 11.0 | 1 | 0 | 0 | 1 | 4 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 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 | | | | | | | | | | | |
| 09... | 98 | 100 | | -- | | -- | | -- | | -- | |
| 09... | 80 | 93 | | 96 | | 99 | | 100 | | -- | |
| 09... | 15 | 28 | | 45 | | 64 | | 89 | | 100 | |
| 09... | 19 | 40 | | 60 | | 78 | | 86 | | 100 | |
| JUL | | | | | | | | | | | |
| 12... | 39 | 50 | | 59 | | 73 | | 87 | | 100 | |
| 12... | 100 | -- | | -- | | -- | | -- | | -- | |
| 12... | 38 | 50 | | 59 | | 69 | | 84 | | 100 | |
| 12... | 32 | 58 | | 65 | | 72 | | 85 | | 100 | |
| 12... | 7 | 17 | | 29 | | 48 | | 83 | | 100 | |
| 18... | 63 | 82 | | 91 | | 97 | | 100 | | -- | |
| 18... | 97 | 100 | | -- | | -- | | -- | | -- | |
| 18... | 69 | 96 | | 99 | | 100 | | -- | | -- | |
| 18... | 8 | 18 | | 33 | | 50 | | 71 | | 100 | |
| 18... | 6 | 12 | | 20 | | 34 | | 58 | | 100 | |
| AUG | | | | | | | | | | | |
| 30... | 84 | 90 | | 93 | | 100 | | -- | | -- | |
| 30... | 63 | 74 | | 84 | | 96 | | 100 | | -- | |
| 30... | 92 | 99 | | 100 | | -- | | -- | | -- | |
| 30... | 10 | 44 | | 66 | | 76 | | 83 | | 100 | |
| 30... | 11 | 18 | | 33 | | 52 | | 69 | | 100 | |
| SEP | | | | | | | | | | | |
| 07... | 25 | 36 | | 50 | | 64 | | 86 | | 100 | |
| 07... | 67 | 76 | | 82 | | 90 | | 96 | | 100 | |
| 07... | 97 | 99 | | 100 | | -- | | -- | | -- | |
| 07... | 71 | 88 | | 94 | | 98 | | 100 | | -- | |
| 07... | 14 | 53 | | 84 | | 97 | | 100 | | -- | |
| 14... | 31 | 51 | | 71 | | 89 | | 96 | | 100 | |
| 14... | 70 | 84 | | 94 | | 99 | | 100 | | -- | |
| 14... | 96 | 99 | | 100 | | -- | | -- | | -- | |
| 14... | 56 | 66 | | 75 | | 86 | | 100 | | -- | |
| 14... | 12 | 50 | | 81 | | 98 | | 100 | | -- | |
| 21... | 17 | 21 | | 27 | | 37 | | 68 | | 100 | |
| 21... | 51 | 66 | | 75 | | 84 | | 97 | | 100 | |
| 21... | 99 | 100 | | -- | | -- | | -- | | -- | |
| 21... | 73 | 82 | | 88 | | 93 | | 97 | | 100 | |
| 21... | 19 | 44 | | 69 | | 92 | | 100 | | -- | |



The Toutle River above the Highway 99 bridge, station 242690. Flow to right about 2500 cubic feet per second.

Photo date: March 19, 1983
Flood, to left in background; discharge

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE, NEAR CASTLE ROCK, WA

LOCATION.--Lat 46°19'10", long 122°54'28", in NE¼SE¼ sec.27, T.10 N., R.2 W., Cowitz County, Hydrologic Unit 17080005, on right bank at old U.S. Highway 99 bridge, 3.0 mi north of Castle Rock, and at mile 1.0.

DRAINAGE AREA.--512 mi², of which approximately 21 mi² is noncontributing. Prior to July 7, 1981, the noncontributing portion was approximately 40 mi².

PERIOD OF SEDIMENT DATA.--March 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 37.88 ft National Geodetic vertical Datum of 1929 (levels by Corps of Engineers).

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|---------------|------|-----------------------------|
| 1981 | Feb. 19, 1981 | 0952 | 428,000 |
| 1982 | Feb. 20, 1982 | 1020 | 261,000 |
| 1982 | Mar. 20, 1982 | 0220 | 977,000 (lahar-runout flow) |
| 1983 | Dec. 5, 1982 | 1440 | 35,600 |

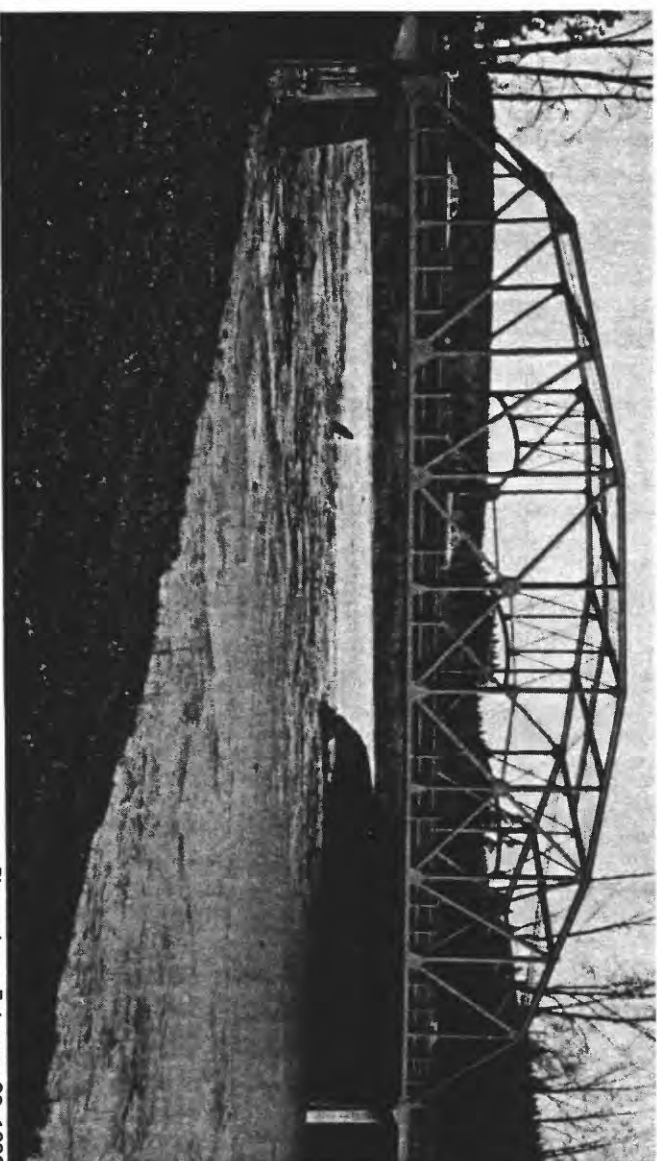


Photo date: February 20, 1982

A tree trunk buoys up from the Toutle River beneath the Highway 99 bridge, station 242690. View is upstream; discharge about 16,000 cubic feet per second.

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 340 | 4300 | 3950 | 870 | --- | 20000 | 2810 | --- | 68000 |
| 2 | 310 | --- | 3400 | 1130 | --- | 60000 | 6700 | 42500 | 1180000 |
| 3 | 275 | --- | 2800 | 1080 | --- | 39000 | 9900 | 26500 | 727000 |
| 4 | 275 | --- | 2800 | 890 | 14800 | 42000 | 6400 | 11400 | 213000 |
| 5 | 280 | --- | 2900 | 790 | --- | 18600 | 4000 | --- | 76000 |
| 6 | 275 | --- | 2800 | 1690 | 22200 | 110000 | 3200 | --- | 43000 |
| 7 | 270 | --- | 2600 | 5850 | 66900 | 1060000 | 2700 | --- | 36000 |
| 8 | 270 | 3500 | 2550 | 5960 | 44200 | 748000 | 2400 | --- | 30000 |
| 9 | 270 | --- | 2500 | 4940 | 17500 | 241000 | 2200 | --- | 27000 |
| 10 | 265 | --- | 2400 | 3670 | --- | 110000 | 2300 | --- | 31000 |
| 11 | 255 | --- | 2300 | 2220 | --- | 56000 | 2600 | 5560 | 40300 |
| 12 | 290 | --- | 2600 | 1630 | --- | 37000 | 2300 | 4300 | 26700 |
| 13 | 405 | --- | 6900 | 1280 | --- | 26000 | 2100 | --- | 24000 |
| 14 | 340 | --- | 5000 | 1040 | --- | 19000 | 2100 | 4400 | 24900 |
| 15 | 285 | --- | 4000 | 900 | --- | 15000 | 2400 | --- | 42000 |
| 16 | 270 | --- | 3800 | 760 | --- | 11000 | 2200 | --- | 28000 |
| 17 | 260 | --- | 3600 | 830 | --- | 10000 | 2000 | 3900 | 21100 |
| 18 | 265 | --- | 3600 | 1110 | 5740 | 17500 | 1800 | --- | 16000 |
| 19 | 260 | --- | 3600 | 1360 | --- | 55000 | 1500 | 3100 | 12600 |
| 20 | 265 | --- | 3600 | 1180 | --- | 30000 | 1420 | --- | 16000 |
| 21 | 270 | --- | 3700 | 5170 | 46200 | 929000 | 2790 | 8920 | 76500 |
| 22 | 270 | --- | 3700 | 5390 | 20900 | 315000 | 8010 | 45300 | 996000 |
| 23 | 265 | --- | 3700 | 4080 | --- | 150000 | 6810 | 22200 | 417000 |
| 24 | 270 | 5550 | 4010 | 3620 | --- | 110000 | 6140 | 19200 | 305000 |
| 25 | 455 | 7010 | 8680 | 2740 | --- | 74000 | 11500 | 67000 | 2360000 |
| 26 | 420 | --- | 7300 | 2220 | --- | 55000 | 16600 | 95600 | 4560000 |
| 27 | 390 | --- | 5400 | 2960 | --- | 140000 | 12400 | 48300 | 1740000 |
| 28 | 360 | --- | 4200 | 3020 | --- | 200000 | 7500 | 19000 | 385000 |
| 29 | 330 | --- | 3300 | 4770 | --- | 380000 | 6600 | --- | 280000 |
| 30 | 300 | --- | 2600 | 3690 | --- | 140000 | 6820 | 21200 | 393000 |
| 31 | 370 | 3800 | 3800 | --- | --- | --- | 5900 | --- | 190000 |
| TOTAL | 9425 | --- | 118090 | 76840 | --- | 5218100 | 154100 | --- | 14385100 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 5500 | --- | 94000 | 960 | --- | 6500 | 2140 | --- | 24000 |
| 2 | 3600 | --- | 58000 | 860 | 2630 | 6110 | 1740 | --- | 21000 |
| 3 | 3000 | --- | 40000 | 820 | 2820 | 6240 | 1580 | --- | 19000 |
| 4 | 2500 | --- | 30000 | 790 | --- | 4200 | 2610 | 6140 | 43300 |
| 5 | 2150 | --- | 23000 | 760 | 1560 | 3200 | 2020 | --- | 34000 |
| 6 | 1900 | --- | 19000 | 730 | --- | 3000 | 1710 | --- | 28000 |
| 7 | 1650 | 4000 | 17800 | 710 | --- | 2800 | 1480 | --- | 24000 |
| 8 | 1530 | --- | 18000 | 690 | --- | 2600 | 1540 | --- | 21000 |
| 9 | 1380 | --- | 18000 | 680 | --- | 2500 | 1590 | --- | 18000 |
| 10 | 1250 | 5270 | 17800 | 690 | 1290 | 2400 | 1460 | --- | 16000 |
| 11 | 1200 | --- | 14000 | 1200 | --- | 2300 | 1440 | --- | 14000 |
| 12 | 1140 | 3520 | 10800 | 2250 | 16500 | 113000 | 1260 | 4130 | 14000 |
| 13 | 1120 | 4090 | 12400 | 1130 | 5620 | 17500 | 1100 | --- | 11000 |
| 14 | 1000 | --- | 10000 | 3070 | 17700 | 176000 | 870 | --- | 10000 |
| 15 | 880 | --- | 9200 | 4160 | --- | 250000 | 840 | --- | 9200 |
| 16 | 850 | --- | 8000 | 10200 | --- | 580000 | 2580 | 2600 | 18100 |
| 17 | 840 | --- | 7200 | 8180 | --- | 490000 | 2180 | 4500 | 26500 |
| 18 | 880 | 3200 | 7600 | 7200 | 23200 | 444000 | 1620 | 3400 | 14900 |
| 19 | 850 | --- | 6800 | 15200 | 101000 | 4470000 | 1220 | 1690 | 5570 |
| 20 | 840 | --- | 6200 | 9400 | 22000 | 558000 | 1040 | 1400 | 3930 |
| 21 | 860 | --- | 5800 | 5800 | 13000 | 204000 | 1110 | 1580 | 4740 |
| 22 | 870 | --- | 9200 | 4620 | --- | 125000 | 1260 | --- | 3600 |
| 23 | 980 | 6660 | 17600 | 3580 | --- | 84000 | 1200 | 1020 | 3300 |
| 24 | 1080 | --- | 19000 | 4280 | --- | 120000 | 1220 | 1230 | 4050 |
| 25 | 1100 | --- | 20000 | 3880 | --- | 65000 | 1860 | 4720 | 28400 |
| 26 | 1200 | --- | 14000 | 3450 | 4660 | 43400 | 1460 | 3200 | 12600 |
| 27 | 1270 | --- | 11000 | 3200 | 3660 | 31600 | 1380 | --- | 9000 |
| 28 | 1200 | --- | 9400 | 2640 | --- | 29000 | 1350 | --- | 8600 |
| 29 | 1320 | --- | 8200 | --- | --- | --- | 1440 | --- | 12000 |
| 30 | 1180 | 2400 | 7650 | --- | --- | --- | 1540 | --- | 16000 |
| 31 | 1080 | --- | 6900 | --- | --- | --- | 2550 | --- | 55000 |
| TOTAL | 46200 | --- | 556550 | 101130 | --- | 7842350 | 48390 | --- | 532790 |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| APRIL | | | | | | | | | |
| 1 | 2530 | --- | 23000 | 1900 | --- | 5200 | 1210 | --- | 840 |
| 2 | 2500 | --- | 17000 | 1740 | --- | 4700 | 1160 | --- | 700 |
| 3 | 2750 | 1770 | 13100 | 1600 | --- | 4300 | 1120 | --- | 600 |
| 4 | 2510 | --- | 12000 | 1600 | --- | 4000 | 1360 | --- | 2000 |
| 5 | 2640 | --- | 14000 | 1540 | 885 | 3680 | 1320 | --- | 1600 |
| 6 | 2670 | --- | 15000 | 1520 | --- | 3600 | 1740 | --- | 9400 |
| 7 | 2590 | 1540 | 10800 | 1800 | --- | 3600 | 1650 | --- | 7000 |
| 8 | 3270 | 2520 | 22200 | 1750 | 734 | 3470 | 4690 | 5550 | 116000 |
| 9 | 4110 | 3490 | 38700 | 1640 | --- | 3000 | 4280 | --- | 42000 |
| 10 | 3120 | 2350 | 19800 | 1530 | --- | 2700 | 3270 | --- | 24000 |
| 11 | 3470 | --- | 26000 | 1530 | 551 | 2280 | 3110 | 2170 | 18200 |
| 12 | 3350 | --- | 24000 | 1430 | 533 | 2060 | 2770 | --- | 13000 |
| 13 | 2840 | 2260 | 17300 | 1380 | --- | 1300 | 2850 | --- | 10000 |
| 14 | 2560 | 1700 | 11800 | 1440 | 236 | 918 | 2640 | --- | 8300 |
| 15 | 2550 | --- | 12000 | 1650 | --- | 2600 | 2300 | --- | 6800 |
| 16 | 2730 | 1930 | 14200 | 1530 | --- | 1800 | 2310 | 3690 | 23000 |
| 17 | 2510 | 1780 | 12100 | 1410 | --- | 1000 | 2520 | 1940 | 13200 |
| 18 | 2380 | --- | 10000 | 1500 | 292 | 1180 | 2210 | --- | 10000 |
| 19 | 2360 | --- | 10000 | 1820 | 753 | 3700 | 2940 | --- | 8500 |
| 20 | 2180 | 2290 | 13500 | 1610 | --- | 4500 | 2700 | --- | 7400 |
| 21 | 2340 | 1500 | 9480 | 1640 | 1310 | 5800 | 2370 | --- | 6700 |
| 22 | 3020 | --- | 18000 | 1550 | --- | 4600 | 2340 | --- | 6100 |
| 23 | 3060 | --- | 19000 | 1500 | --- | 3400 | 2170 | --- | 5600 |
| 24 | 3220 | --- | 22000 | 1510 | --- | 2600 | 1840 | 1080 | 5370 |
| 25 | 2460 | --- | 12000 | 1840 | --- | 14000 | 1650 | --- | 4800 |
| 26 | 2250 | --- | 6800 | 1690 | --- | 6800 | 1470 | --- | 4500 |
| 27 | 2030 | 860 | 4710 | 1540 | --- | 3600 | 1370 | --- | 4200 |
| 28 | 2000 | 1420 | 7670 | 1430 | --- | 2300 | 1280 | --- | 4000 |
| 29 | 1900 | 1330 | 6820 | 1370 | --- | 1700 | 1210 | --- | 3800 |
| 30 | 1880 | --- | 5800 | 1350 | --- | 1300 | 1150 | --- | 3600 |
| 31 | --- | --- | --- | 1280 | --- | 1000 | --- | --- | --- |
| TOTAL | 79780 | --- | 448780 | 48620 | --- | 106688 | 65000 | --- | 371210 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|----------------------------|-------------------------------------|---------------------------------|----------------------------|-------------------------------------|---------------------------------|----------------------------|-------------------------------------|---------------------------------|
| | | | MEAN DISCHARGE (CFS) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | MEAN DISCHARGE (CFS) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | MEAN DISCHARGE (CFS) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) |
| 1 | 1100 | 1160 | | 3450 | 564 | | 810 | 869 | | 2400 | |
| 2 | 1030 | --- | | 3300 | 588 | --- | 780 | 647 | | 1200 | --- |
| 3 | 990 | --- | | 3200 | 596 | 472 | 760 | 548 | | 940 | --- |
| 4 | 940 | --- | | 3100 | 590 | --- | 720 | 492 | | 780 | --- |
| 5 | 880 | --- | | 3000 | 570 | --- | 700 | 460 | | 670 | --- |
| 6 | 860 | --- | | 2900 | 595 | --- | 680 | 410 | | 590 | --- |
| 7 | 920 | --- | | 2800 | 570 | --- | 650 | 355 | | 530 | --- |
| 8 | 874 | 1230 | | 2900 | 450 | --- | 630 | 320 | | 480 | --- |
| 9 | 782 | --- | | 2600 | 345 | --- | 600 | 306 | | 444 | 538 |
| 10 | 782 | --- | | 2600 | 410 | 495 | 548 | 300 | | 410 | --- |
| 11 | 827 | --- | | 2500 | 410 | --- | 560 | 296 | | 380 | --- |
| 12 | 764 | --- | | 2500 | 428 | --- | 540 | 292 | | 360 | --- |
| 13 | 987 | 1550 | | 4130 | 452 | --- | 520 | 290 | | 330 | --- |
| 14 | 872 | --- | | 3100 | 436 | --- | 500 | 286 | | 317 | 410 |
| 15 | 773 | 918 | | 1920 | 380 | --- | 480 | 285 | | 300 | --- |
| 16 | 710 | --- | | 1700 | 372 | --- | 470 | 280 | | 290 | --- |
| 17 | 690 | --- | | 1400 | 364 | --- | 450 | 280 | | 270 | --- |
| 18 | 680 | --- | | 1200 | 358 | --- | 430 | 280 | | 260 | --- |
| 19 | 670 | --- | | 1100 | 350 | 447 | 422 | 320 | | 250 | --- |
| 20 | 665 | 560 | | 1010 | 342 | --- | 400 | 340 | | 370 | --- |
| 21 | 670 | --- | | 940 | 342 | --- | 390 | 442 | | 767 | 643 |
| 22 | 680 | 605 | | 1110 | 334 | --- | 380 | 350 | | 500 | --- |
| 23 | 670 | --- | | 1100 | 324 | --- | 360 | 323 | | 450 | --- |
| 24 | 660 | --- | | 1000 | 314 | 413 | 350 | 303 | | 420 | --- |
| 25 | 640 | --- | | 1000 | 312 | --- | 340 | 290 | | 380 | --- |
| 26 | 620 | --- | | 980 | 310 | --- | 330 | 284 | | 360 | --- |
| 27 | 615 | --- | | 950 | 310 | --- | 320 | 300 | | 330 | --- |
| 28 | 572 | --- | | 920 | 308 | --- | 310 | 849 | | 4700 | 2050 |
| 29 | 588 | --- | | 890 | 304 | --- | 300 | 910 | | 4400 | --- |
| 30 | 604 | --- | | 860 | 380 | --- | 290 | 755 | | 3500 | --- |
| 31 | 596 | --- | | 830 | 410 | 303 | 335 | --- | | --- | --- |
| TOTAL | 23711 | --- | | 60990 | 12818 | --- | 15355 | 12462 | | 27378 | --- |
| YEAR | 678476 | | | 29,683,381 TONS | | | | | | | |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 604 | --- | 2600 | 1590 | --- | 19000 | 3090 | 4300 | 35900 | |
| 2 | 1190 | --- | 7600 | 1340 | --- | 13000 | 7070 | 17200 | 373000 | |
| 3 | 935 | --- | 3800 | 1250 | 2840 | 9580 | 4060 | 9000 | 98700 | |
| 4 | 785 | --- | 2800 | 1170 | --- | 7900 | 3460 | 6900 | 64500 | |
| 5 | 662 | 1300 | 2320 | 1050 | --- | 6800 | 12900 | 42000 | 1670000 | |
| 6 | 5740 | 23900 | 513000 | 938 | --- | 5800 | 12800 | 24700 | 866000 | |
| 7 | 4880 | 31100 | 464000 | 890 | --- | 5300 | 8770 | 18500 | 438000 | |
| 8 | 3140 | --- | 100000 | 875 | --- | 5000 | 6820 | 12000 | 221000 | |
| 9 | 3720 | --- | 150000 | 785 | 1970 | 4180 | 5120 | 8500 | 118000 | |
| 10 | 2040 | 3000 | 16500 | 725 | --- | 3700 | 5430 | 10000 | 147000 | |
| 11 | 1830 | --- | 12000 | 1240 | 3350 | 12400 | 4510 | 8750 | 107000 | |
| 12 | 1730 | --- | 11000 | 2780 | 12500 | 106000 | 3660 | --- | 83000 | |
| 13 | 1420 | 2100 | 8050 | 1590 | 4000 | 17200 | 3140 | --- | 61000 | |
| 14 | 1240 | --- | 6400 | 5200 | 33200 | 548000 | 2780 | 5600 | 42000 | |
| 15 | 1050 | --- | 5100 | 4530 | 14700 | 186000 | 7240 | 10800 | 224000 | |
| 16 | 986 | --- | 4500 | 3860 | 14400 | 150000 | 7080 | 11200 | 214000 | |
| 17 | 940 | --- | 3800 | 4190 | 14200 | 173000 | 5320 | --- | 110000 | |
| 18 | 870 | --- | 3100 | 4820 | 14300 | 194000 | 4270 | 6200 | 71500 | |
| 19 | 800 | 1270 | 2740 | 3560 | 9050 | 87000 | 5280 | 15000 | 214000 | |
| 20 | 800 | --- | 2700 | 3240 | --- | 72000 | 4520 | --- | 160000 | |
| 21 | 725 | --- | 2500 | 4660 | --- | 180000 | 3730 | --- | 79000 | |
| 22 | 605 | --- | 2000 | 5170 | --- | 130000 | 3350 | 6600 | 59700 | |
| 23 | 506 | --- | 1600 | 4820 | 8500 | 111000 | 3000 | 8600 | 69700 | |
| 24 | 534 | --- | 1500 | 3740 | 9000 | 90900 | 3100 | 7600 | 63600 | |
| 25 | 520 | --- | 1300 | 3120 | 6000 | 50500 | 3050 | --- | 54000 | |
| 26 | 520 | 820 | 1150 | 2880 | 4300 | 33400 | 2550 | 6600 | 45400 | |
| 27 | 938 | --- | 5600 | 2710 | 3300 | 24100 | 2700 | --- | 58000 | |
| 28 | 2090 | --- | 79000 | 2520 | 2700 | 18400 | 2850 | --- | 51000 | |
| 29 | 1870 | --- | 24000 | 2420 | 2500 | 16300 | 2420 | 4000 | 26100 | |
| 30 | 1800 | --- | 22000 | 2460 | 2500 | 16600 | 2180 | --- | 22000 | |
| 31 | 2140 | --- | 32000 | --- | --- | --- | 2000 | --- | 17000 | |
| TOTAL | 47610 | --- | 1494660 | 80123 | --- | 2297060 | 148250 | --- | 5864100 | |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 1850 | --- | 14000 | 3500 | 4200 | 39700 | 2860 | --- | 73000 |
| 2 | 1650 | --- | 11000 | 4400 | 6800 | 80800 | 3500 | 9800 | 92600 |
| 3 | 1570 | --- | 9000 | 4300 | 4700 | 54600 | 3760 | --- | 110000 |
| 4 | 1480 | --- | 8000 | 3300 | 3500 | 31200 | 4000 | --- | 110000 |
| 5 | 1350 | --- | 5200 | 2800 | --- | 23000 | 3840 | 9600 | 99500 |
| 6 | 1170 | 1330 | 4200 | 2600 | --- | 20000 | 3700 | --- | 64000 |
| 7 | 1220 | --- | 5900 | 2500 | --- | 18000 | 3600 | --- | 49000 |
| 8 | 1280 | 2500 | 8640 | 2050 | --- | 13000 | 3600 | --- | 47000 |
| 9 | 1340 | 2200 | 7960 | 1840 | 2100 | 10400 | 4220 | 8400 | 95700 |
| 10 | 1370 | 2100 | 7770 | 1850 | --- | 10000 | 3860 | 8000 | 83400 |
| 11 | 1830 | --- | 15000 | 2110 | --- | 11000 | 4780 | 17000 | 219000 |
| 12 | 1990 | 3800 | 20400 | 2460 | --- | 13000 | 3820 | 13000 | 134000 |
| 13 | 2230 | 5400 | 32500 | 4990 | 5270 | 82500 | 3460 | 9500 | 88700 |
| 14 | 2900 | 4500 | 35200 | 12900 | 28600 | 984000 | 3560 | --- | 72000 |
| 15 | 3650 | 13000 | 128000 | 13400 | 18000 | 651000 | 3320 | 6000 | 53800 |
| 16 | 8000 | 11400 | 293000 | 14700 | --- | 850000 | 3540 | 6000 | 57300 |
| 17 | 10800 | 16700 | 488000 | 13800 | 27900 | 1090000 | 3520 | 5500 | 52300 |
| 18 | 8170 | 8740 | 154000 | 11400 | 20500 | 621000 | 2860 | 5000 | 38600 |
| 19 | 4850 | 5800 | 76000 | 10900 | --- | 600000 | 2490 | 5000 | 33600 |
| 20 | 4800 | 5000 | 64800 | 21300 | 81100 | 5430000 | 2840 | 234000 | 3450000 |
| 21 | 5300 | 4200 | 60100 | 14300 | 34600 | 1530000 | 2000 | 37000 | 200000 |
| 22 | 6300 | 4600 | 78200 | 9000 | 22000 | 535000 | 1800 | --- | 140000 |
| 23 | 16000 | 14200 | 689000 | 6000 | 18000 | 292000 | 1700 | --- | 96000 |
| 24 | 24900 | 30300 | 2170000 | 4800 | 13000 | 168000 | 1660 | 15000 | 67200 |
| 25 | 12100 | 16700 | 546000 | 4100 | 9500 | 105000 | 1660 | --- | 54000 |
| 26 | 11400 | 14000 | 431000 | 3500 | 8000 | 75600 | 1680 | --- | 68000 |
| 27 | 7880 | --- | 200000 | 2860 | 7500 | 57900 | 1710 | 20000 | 92300 |
| 28 | 5600 | --- | 130000 | 2260 | 7500 | 45800 | 1760 | --- | 71000 |
| 29 | 4100 | 5400 | 59800 | --- | --- | --- | 1800 | --- | 63000 |
| 30 | 3500 | 4600 | 43500 | --- | --- | --- | 1830 | 12000 | 59300 |
| 31 | 3500 | --- | 41000 | --- | --- | --- | 1700 | --- | 55000 |
| TOTAL | 164080 | --- | 5837170 | 183920 | --- | 13442500 | 90430 | --- | 5989300 |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | APRIL | | MEAN DISCHARGE (CFS) | MAY | | MEAN DISCHARGE (CFS) | JUNE | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 1580 | --- | 47000 | 1850 | --- | 34000 | 1370 | --- | 16000 |
| 2 | 1580 | --- | 43000 | 2290 | --- | 42000 | 1370 | --- | 15200 |
| 3 | 1650 | --- | 40000 | 2310 | 6800 | 42400 | 1270 | --- | 13000 |
| 4 | 1950 | --- | 42000 | 2070 | --- | 37000 | 1230 | --- | 12000 |
| 5 | 2280 | --- | 46000 | 1960 | --- | 32000 | 1200 | --- | 11000 |
| 6 | 2380 | --- | 45000 | 2130 | --- | 31000 | 1390 | --- | 10000 |
| 7 | 2120 | 6000 | 34300 | 2570 | --- | 46000 | 1360 | --- | 10000 |
| 8 | 2220 | --- | 33000 | 2210 | --- | 27000 | 1360 | --- | 10000 |
| 9 | 2400 | --- | 36000 | 1890 | --- | 20000 | 1300 | --- | 9200 |
| 10 | 2500 | --- | 34000 | 1740 | --- | 17000 | 1390 | 2850 | 10700 |
| 11 | 3800 | --- | 130000 | 1780 | --- | 16000 | 1340 | --- | 9700 |
| 12 | 6550 | --- | 580000 | 1810 | --- | 16000 | 1360 | --- | 11000 |
| 13 | 6890 | 25000 | 465000 | 1770 | --- | 15000 | 1300 | --- | 10000 |
| 14 | 4340 | 14000 | 164000 | 1900 | --- | 16000 | 1220 | --- | 10000 |
| 15 | 3050 | 11000 | 90600 | 2020 | --- | 16000 | 1130 | --- | 9300 |
| 16 | 2790 | 13000 | 97900 | 1940 | --- | 19000 | 1170 | --- | 11000 |
| 17 | 2430 | 10000 | 65600 | 2190 | 5000 | 29600 | 1260 | --- | 12000 |
| 18 | 2130 | 8000 | 46000 | 2070 | --- | 24000 | 1320 | 4100 | 14600 |
| 19 | 2630 | 7000 | 49700 | 1920 | --- | 21000 | 1270 | --- | 14000 |
| 20 | 2510 | 6500 | 44100 | 1760 | --- | 19000 | 1230 | --- | 12000 |
| 21 | 2390 | 7500 | 48400 | 1920 | --- | 24000 | 1210 | --- | 14000 |
| 22 | 2410 | 9500 | 61800 | 2190 | --- | 33000 | 1150 | --- | 14000 |
| 23 | 2550 | 10000 | 68900 | 2070 | --- | 26000 | 1140 | --- | 13000 |
| 24 | 2470 | 9000 | 60000 | 2020 | --- | 25000 | 962 | --- | 9300 |
| 25 | 2310 | 7000 | 43700 | 2410 | --- | 43000 | 842 | --- | 7400 |
| 26 | 2210 | 6100 | 36400 | 2190 | --- | 34000 | 874 | --- | 7900 |
| 27 | 2330 | 6100 | 38400 | 1770 | --- | 26000 | 906 | --- | 8400 |
| 28 | 2370 | 8800 | 56300 | 1520 | --- | 21000 | 756 | --- | 6100 |
| 29 | 2170 | --- | 49000 | 1450 | --- | 20000 | 802 | 3200 | 6930 |
| 30 | 1800 | --- | 35000 | 1400 | --- | 18000 | 826 | --- | 7100 |
| 31 | --- | --- | --- | 1460 | --- | 18000 | --- | --- | --- |
| TOTAL | 80790 | --- | 2631100 | 60580 | --- | 808000 | 35308 | --- | 324830 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|----------------------------|-------------------------------------|---------------------------------|----------------------------|-------------------------------------|---------------------------------|----------------------------|-------------------------------------|---------------------------------|
| | | | MEAN DISCHARGE (CFS) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | MEAN DISCHARGE (CFS) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) | MEAN DISCHARGE (CFS) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN CONCENTRATION (MG/L) |
| 1 | 770 | --- | --- | 6000 | 412 | --- | 1700 | --- | 328 | 1200 | --- |
| 2 | 735 | --- | --- | 5600 | 408 | --- | 1700 | --- | 325 | 1100 | --- |
| 3 | 714 | --- | --- | 4800 | 416 | --- | 2000 | --- | 318 | 1100 | --- |
| 4 | 707 | --- | --- | 4500 | 396 | --- | 1800 | --- | 346 | 1300 | --- |
| 5 | 721 | --- | --- | 4400 | 388 | --- | 1600 | --- | 332 | 1200 | --- |
| 6 | 700 | --- | --- | 4000 | 388 | --- | 1600 | --- | 308 | 1000 | --- |
| 7 | 652 | --- | --- | 3300 | 392 | --- | 1900 | --- | 287 | 900 | --- |
| 8 | 610 | 1580 | --- | 2600 | 392 | --- | 1900 | 1300 | 284 | 997 | --- |
| 9 | 640 | --- | --- | 3200 | 396 | --- | 2100 | --- | 355 | 1600 | --- |
| 10 | 670 | --- | --- | 3500 | 404 | --- | 2200 | --- | 561 | 4200 | --- |
| 11 | 658 | --- | --- | 3400 | 400 | --- | 2200 | --- | 505 | 4000 | --- |
| 12 | 634 | --- | --- | 3200 | 388 | --- | 2200 | --- | 777 | 5300 | --- |
| 13 | 616 | --- | --- | 3000 | 376 | 2070 | 2100 | --- | 616 | 5700 | --- |
| 14 | 634 | --- | --- | 3200 | 404 | --- | 2400 | --- | 550 | 4600 | --- |
| 15 | 652 | --- | --- | 3300 | 376 | --- | 1800 | --- | 530 | 4300 | --- |
| 16 | 664 | --- | --- | 3400 | 372 | --- | 1500 | --- | 525 | 4300 | --- |
| 17 | 650 | --- | --- | 3300 | 364 | --- | 1400 | --- | 510 | 4100 | --- |
| 18 | 630 | --- | --- | 3100 | 360 | --- | 1400 | --- | 515 | 4100 | --- |
| 19 | 610 | --- | --- | 3000 | 356 | --- | 1300 | --- | 530 | 4300 | --- |
| 20 | 592 | 1750 | --- | 2800 | 356 | --- | 1300 | --- | 940 | 12000 | --- |
| 21 | 550 | --- | --- | 2500 | 350 | --- | 1300 | 4100 | 786 | 8700 | --- |
| 22 | 525 | --- | --- | 2300 | 346 | --- | 1300 | --- | 694 | 6600 | --- |
| 23 | 505 | --- | --- | 2100 | 342 | --- | 1300 | --- | 676 | 6300 | --- |
| 24 | 476 | --- | --- | 1900 | 350 | --- | 1300 | --- | 658 | 5600 | --- |
| 25 | 468 | --- | --- | 1900 | 350 | --- | 1300 | --- | 658 | 5200 | --- |
| 26 | 452 | --- | --- | 1700 | 342 | --- | 1300 | --- | 658 | 4800 | --- |
| 27 | 440 | --- | --- | 1700 | 342 | --- | 1300 | --- | 646 | 4200 | --- |
| 28 | 432 | 1370 | --- | 1600 | 342 | --- | 1300 | --- | 628 | 3700 | --- |
| 29 | 428 | --- | --- | 1600 | 336 | --- | 1200 | --- | 586 | 2900 | --- |
| 30 | 420 | --- | --- | 1500 | 353 | --- | 1300 | --- | 560 | 2700 | --- |
| 31 | 428 | --- | --- | 1900 | 350 | --- | 1300 | --- | --- | --- | --- |
| TOTAL | 18383 | --- | --- | 94300 | 11547 | --- | 50300 | --- | 15992 | 117997 | --- |
| YEAR | 937013 | --- | 38,951,317 TONS | | | | | | | | |

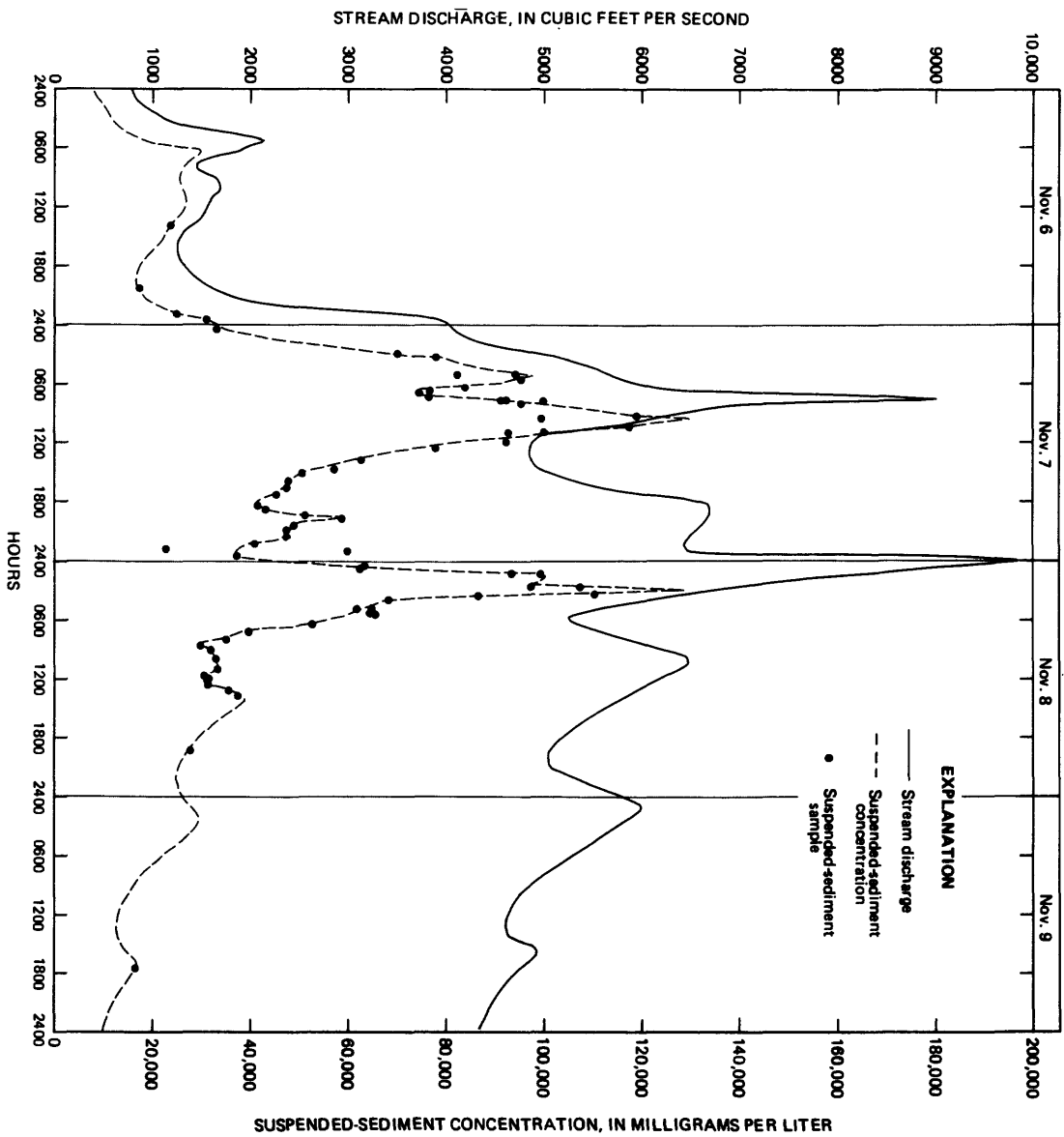


FIGURE 4. — Hydrograph of stream discharge and suspended-sediment concentration at Toutle River at Highway 99 bridge near Castle Rock for November 6-9, 1980.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|-------|------|-----------------------------|---|---|--|---|---|
| OCT | | | | | | | |
| 01... | 1050 | 14.0 | 340 | -- | 4260 | 3910 | -- |
| 08... | 1520 | 17.0 | 270 | -- | 3480 | 2540 | -- |
| 24... | 1720 | 8.5 | 270 | 4 | 5680 | 4140 | -- |
| 25... | 1225 | 9.0 | 500 | 4 | 6720 | 9070 | -- |
| 31... | 1820 | -- | 360 | 4 | 3360 | 3270 | -- |
| 31... | 2000 | 10.5 | 380 | 9 | 4600 | 4720 | -- |
| NOV | | | | | | | |
| 04... | 1020 | 11.0 | 810 | 9 | 13600 | 29700 | -- |
| 06... | 1330 | 10.0 | 1400 | -- | 23500 | 88800 | -- |
| 06... | 2005 | 11.0 | 1630 | -- | 16900 | 74400 | -- |
| 06... | 2230 | -- | 3100 | -- | 24400 | 204000 | -- |
| 06... | 2245 | -- | 3400 | -- | 24500 | 225000 | -- |
| 06... | 2300 | -- | 3800 | -- | 30400 | 312000 | -- |
| 06... | 2320 | -- | 3900 | -- | 30700 | 323000 | 74 |
| 07... | 0005 | -- | 4050 | -- | 33200 | 363000 | -- |
| 07... | 0235 | -- | 4800 | -- | 69500 | 901000 | 76 |
| 07... | 0300 | -- | 5050 | 4 | 77500 | 1060000 | -- |
| 07... | 0440 | -- | 5550 | -- | 94100 | 1410000 | -- |
| 07... | 0445 | -- | 5550 | -- | 82100 | 1230000 | 81 |
| 07... | 0520 | -- | 5750 | -- | 95200 | 1480000 | -- |
| 07... | 0605 | -- | 6000 | -- | 83800 | 1360000 | -- |
| 07... | 0625 | 11.5 | 6200 | -- | 76400 | 1280000 | -- |
| 07... | 0635 | -- | 6300 | -- | 74200 | 1260000 | -- |
| 07... | 0710 | -- | 8400 | -- | 76300 | 1730000 | -- |
| 07... | 0720 | -- | 9000 | -- | 92000 | 2240000 | -- |
| 07... | 0730 | -- | 8800 | -- | 99400 | 2360000 | -- |
| 07... | 0735 | -- | 8700 | -- | 91100 | 2140000 | 67 |
| 07... | 0745 | 11.5 | 7300 | -- | 95000 | 1870000 | -- |
| 07... | 0910 | -- | 6200 | -- | 119000 | 1990000 | 64 |
| 07... | 0915 | 11.5 | 6200 | 4 | 99200 | 1660000 | -- |
| 07... | 1020 | 11.0 | 5500 | -- | 117000 | 1740000 | -- |
| 07... | 1040 | 11.5 | 5300 | -- | 99600 | 1430000 | -- |
| 07... | 1045 | 11.5 | 5300 | -- | 92300 | 1320000 | -- |
| 07... | 1145 | 11.5 | 4900 | -- | 92100 | 1220000 | -- |
| 07... | 1220 | 11.0 | 4850 | -- | 77400 | 1010000 | -- |
| 07... | 1340 | 11.0 | 4850 | 4 | 62500 | 818000 | 59 |
| 07... | 1435 | -- | 4900 | -- | 57000 | 754000 | -- |
| 07... | 1445 | -- | 5000 | -- | 50100 | 676000 | -- |
| 07... | 1530 | -- | 5150 | -- | 47300 | 658000 | -- |
| 07... | 1535 | -- | 5200 | -- | 47700 | 670000 | 56 |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|-----------------------------------|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 07... | 1620 | 11.0 | 5500 | -- | 47000 | 698000 | -- | -- | -- | -- |
| 07... | 1655 | 11.0 | 5800 | -- | 44000 | 689000 | -- | -- | -- | -- |
| 07... | 1700 | 11.0 | 5800 | 4 | 45100 | 706000 | 7 | 12 | 19 | 29 |
| 07... | 1810 | -- | 6650 | -- | 41000 | 736000 | -- | -- | -- | -- |
| 07... | 1820 | 11.0 | 6650 | -- | 43000 | 772000 | -- | -- | -- | -- |
| 07... | 1910 | -- | 6700 | -- | 51200 | 926000 | -- | -- | -- | -- |
| 07... | 1930 | -- | 6650 | -- | 58600 | 1050000 | -- | -- | -- | -- |
| 07... | 2005 | -- | 6600 | -- | 48600 | 866000 | -- | -- | -- | -- |
| 07... | 2040 | -- | 6550 | -- | 47200 | 835000 | -- | -- | -- | -- |
| 07... | 2115 | -- | 6500 | -- | 47200 | 828000 | -- | -- | -- | -- |
| 07... | 2150 | -- | 6450 | -- | 47500 | 827000 | -- | -- | -- | -- |
| 07... | 2155 | -- | 6450 | -- | 40700 | 709000 | -- | -- | -- | -- |
| 07... | 2235 | -- | 6450 | -- | 22400 | 390000 | -- | -- | -- | -- |
| 07... | 2240 | -- | 6450 | -- | 59200 | 1030000 | -- | -- | -- | -- |
| 07... | 2315 | -- | 6600 | -- | 37000 | 659000 | -- | -- | -- | -- |
| 08... | 0015 | -- | 9400 | -- | 63000 | 1600000 | -- | -- | -- | -- |
| 08... | 0020 | -- | 9400 | -- | 62200 | 1580000 | 8 | 11 | 17 | 28 |
| 08... | 0100 | -- | 8500 | -- | 92900 | 2130000 | -- | -- | -- | -- |
| 08... | 0105 | -- | 8500 | -- | 98900 | 2270000 | -- | -- | -- | -- |
| 08... | 0220 | -- | 7100 | -- | 97100 | 1860000 | -- | -- | -- | -- |
| 08... | 0225 | -- | 7000 | -- | 107000 | 2020000 | -- | -- | -- | -- |
| 08... | 0315 | -- | 6400 | -- | 86100 | 1490000 | -- | -- | -- | -- |
| 08... | 0320 | -- | 6300 | -- | 110000 | 1870000 | -- | -- | -- | -- |
| 08... | 0350 | -- | 6100 | 4 | 68100 | 1120000 | -- | -- | -- | -- |
| 08... | 0425 | -- | 5700 | -- | 64600 | 994000 | -- | -- | -- | -- |
| 08... | 0430 | -- | 5700 | -- | 61800 | 951000 | -- | -- | -- | -- |
| 08... | 0500 | -- | 5500 | -- | 64400 | 956000 | -- | -- | -- | -- |
| 08... | 0505 | -- | 5500 | -- | 65300 | 970000 | -- | -- | -- | -- |
| 08... | 0605 | 9.5 | 5250 | -- | 52400 | 743000 | -- | -- | -- | -- |
| 08... | 0700 | -- | 5500 | -- | 39400 | 585000 | -- | -- | -- | -- |
| 08... | 0740 | -- | 5750 | -- | 35000 | 543000 | -- | -- | -- | -- |
| 08... | 0810 | -- | 5950 | -- | 29800 | 479000 | -- | -- | -- | -- |
| 08... | 0855 | 10.5 | 6200 | -- | 31800 | 532000 | -- | -- | -- | -- |
| 08... | 0945 | -- | 6450 | -- | 32800 | 571000 | -- | -- | -- | -- |
| 08... | 1045 | -- | 6400 | -- | 33000 | 570000 | -- | -- | -- | -- |
| 08... | 1130 | -- | 6250 | -- | 30500 | 515000 | -- | -- | -- | -- |
| 08... | 1220 | -- | 6100 | -- | 31200 | 514000 | -- | -- | -- | -- |
| 08... | 1305 | -- | 5950 | -- | 35800 | 575000 | -- | -- | -- | -- |
| 08... | 1335 | -- | 5850 | -- | 35700 | 564000 | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

[illegible]

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 08... | 1900 | -- | 5100 | 4 | 27600 | 380000 | -- | -- | -- | -- | -- |
| 09... | 1720 | -- | 4800 | 4 | 16300 | 211000 | -- | -- | -- | -- | -- |
| 18... | 1315 | 9.5 | 1170 | -- | 5580 | 17600 | -- | -- | -- | -- | -- |
| 1725 | | -- | 10800 | -- | 116000 | 3380000 | 11 | 12 | 22 | 34 | 50 |
| 21... | 1730 | -- | 10800 | -- | 111000 | 3240000 | -- | -- | -- | -- | -- |
| 21... | 1820 | -- | 9500 | -- | 119000 | 3050000 | -- | -- | -- | -- | -- |
| 21... | 1825 | -- | 9500 | -- | 140000 | 3590000 | -- | -- | -- | -- | -- |
| 21... | 1850 | -- | 9000 | -- | 125000 | 3040000 | -- | -- | -- | -- | -- |
| 21... | 1930 | -- | 8500 | -- | 112000 | 2570000 | -- | -- | -- | -- | -- |
| 21... | 2000 | -- | 8400 | -- | 88000 | 2000000 | -- | -- | -- | -- | -- |
| 21... | 2030 | -- | 8400 | -- | 110000 | 2490000 | -- | -- | -- | -- | -- |
| 21... | 2100 | -- | 8250 | -- | 112000 | 2490000 | -- | -- | -- | -- | -- |
| 21... | 2105 | -- | 8250 | -- | 109000 | 2430000 | -- | -- | -- | -- | -- |
| 21... | 2130 | -- | 8000 | -- | 74300 | 1600000 | 12 | 14 | 20 | 33 | 46 |
| 21... | 2135 | -- | 8000 | -- | 91800 | 1980000 | -- | -- | -- | -- | -- |
| 21... | 2200 | -- | 7800 | -- | 75400 | 1590000 | -- | -- | -- | -- | -- |
| 21... | 2205 | -- | 7800 | -- | 67200 | 1420000 | -- | -- | -- | -- | -- |
| 21... | 2320 | -- | 7300 | -- | 58800 | 1160000 | -- | -- | -- | -- | -- |
| 22... | 0045 | -- | 6900 | 3 | 40700 | 584000 | 7 | 9 | 15 | 24 | 35 |
| 22... | 0210 | -- | 6400 | -- | 33800 | 579000 | -- | -- | -- | -- | -- |
| 22... | 0215 | -- | 6400 | -- | 33500 | 579000 | -- | -- | -- | -- | -- |
| 22... | 0245 | -- | 6300 | -- | 30000 | 510000 | -- | -- | -- | -- | -- |
| 22... | 0305 | -- | 6200 | -- | 29800 | 499000 | -- | -- | -- | -- | -- |
| 22... | 0315 | -- | 6100 | -- | 28700 | 473000 | -- | -- | -- | -- | -- |
| 22... | 0345 | -- | 6000 | -- | 26600 | 431000 | -- | -- | -- | -- | -- |
| 22... | 0415 | -- | 5900 | -- | 25900 | 413000 | -- | -- | -- | -- | -- |
| 22... | 0500 | -- | 5800 | -- | 24800 | 388000 | -- | -- | -- | -- | -- |
| 22... | 0530 | -- | 5750 | -- | 24800 | 385000 | -- | -- | -- | -- | -- |
| 22... | 0640 | -- | 5600 | -- | 23500 | 355000 | -- | -- | -- | -- | -- |
| 22... | 0725 | -- | 5600 | -- | 21800 | 330000 | 6 | 8 | 15 | 23 | 33 |
| 22... | 0815 | -- | 5600 | -- | 21600 | 327000 | -- | -- | -- | -- | -- |
| 22... | 0900 | -- | 5550 | -- | 21000 | 315000 | -- | -- | -- | -- | -- |
| 22... | 0945 | -- | 5400 | -- | 25600 | 373000 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 02... | 1440 | -- | 8500 | -- | 110000 | 2520000 | -- | -- | -- | -- | -- |
| 02... | 1445 | -- | 8600 | -- | 113000 | 2620000 | -- | -- | -- | -- | -- |
| 02... | 1455 | -- | 8700 | -- | 111000 | 2610000 | -- | -- | -- | -- | -- |
| 02... | 1520 | -- | 9100 | -- | 86800 | 2130000 | -- | -- | -- | -- | -- |
| 02... | 2345 | -- | 11900 | -- | 46200 | 1480000 | -- | -- | -- | -- | -- |
| 03... | 0045 | -- | 11900 | -- | 51700 | 1660000 | 8 | 10 | 16 | 27 | 39 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 1.00 MM |
|-------|--|--|--|--|--|--|
| NOV | | | | | | |
| 08... | -- | 63 | -- | -- | -- | -- |
| 09... | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- |
| 21... | -- | 69 | -- | 97 | 99 | 100 |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | 53 | -- | -- | -- | -- |
| 21... | -- | 63 | -- | 97 | 100 | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | 48 | -- | 92 | 99 | 100 |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | -- | 58 | -- | -- | -- | -- |
| 22... | -- | 47 | -- | -- | -- | -- |
| 22... | -- | 45 | -- | 93 | 99 | 100 |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- |
| 02... | -- | 63 | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- |
| 02... | -- | 51 | -- | -- | -- | -- |
| 03... | 55 | 74 | 92 | 97 | 100 | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDED (MG/L) | SED1- 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 |
|--------|------|-----------------------------|---|---|--|--|--|--|--|
| DEC | | | | | | | | | |
| 03.... | 0050 | -- | 11900 | -- | 41800 | 1340000 | -- | -- | -- |
| 03.... | 0155 | -- | 11300 | -- | 52700 | 1610000 | -- | -- | -- |
| 03.... | 0250 | -- | 10900 | -- | 46600 | 1370000 | -- | -- | -- |
| 03.... | 0450 | -- | 10300 | -- | 28400 | 790000 | -- | -- | -- |
| 03.... | 0715 | -- | 9900 | -- | 27500 | 735000 | -- | -- | -- |
| 03.... | 1020 | -- | 9600 | -- | 23800 | 617000 | -- | -- | -- |
| 03.... | 1245 | -- | 9500 | -- | 18200 | 467000 | 5 | 8 | 13 |
| 03.... | 1555 | -- | 9300 | -- | 17800 | 447000 | -- | -- | -- |
| 03.... | 1845 | -- | 9900 | -- | 15600 | 417000 | -- | -- | -- |
| 04.... | 0155 | -- | 8300 | -- | 19000 | 426000 | -- | -- | -- |
| 04.... | 0720 | -- | 6100 | -- | 11400 | 188000 | -- | -- | -- |
| 04.... | 1155 | -- | 6200 | -- | 12000 | 201000 | -- | -- | -- |
| 11.... | 1145 | -- | 2600 | 3 | 4680 | 32900 | -- | -- | -- |
| 12.... | 1645 | -- | 2200 | 3 | 3690 | 21900 | -- | -- | -- |
| 14.... | 1605 | -- | 2100 | 3 | 3800 | 21500 | -- | -- | -- |
| 17.... | 1220 | 6.5 | 2000 | -- | 4520 | 24400 | -- | -- | -- |
| 17.... | 1535 | -- | 2000 | 3 | 3860 | 20800 | -- | -- | -- |
| 19.... | 1615 | -- | 1400 | 3 | 3080 | 11600 | -- | -- | -- |
| 21.... | 1450 | -- | 2600 | 4 | 10000 | 70200 | -- | -- | -- |
| 22.... | 1855 | 9.0 | 7950 | -- | 42700 | 917000 | -- | -- | -- |
| 22.... | 2045 | 9.0 | 7900 | -- | 35900 | 766000 | -- | -- | -- |
| 23.... | 1140 | -- | 6800 | -- | 20400 | 375000 | -- | -- | -- |
| 23.... | 1255 | -- | 6600 | -- | 21600 | 385000 | -- | -- | -- |
| 24.... | 1455 | -- | 6300 | -- | 21600 | 367000 | -- | -- | -- |
| 25.... | 1115 | -- | 10600 | -- | 48500 | 1390000 | -- | -- | -- |
| 25.... | 1315 | -- | 14300 | -- | 183000 | 7070000 | -- | -- | -- |
| 25.... | 1625 | -- | 14900 | -- | 93200 | 3750000 | -- | -- | -- |
| 26.... | 0250 | 12.0 | 15500 | -- | 126000 | 5270000 | -- | -- | -- |
| 26.... | 0255 | -- | 15500 | -- | 111000 | 4650000 | -- | -- | -- |
| 26.... | 0310 | -- | 15600 | -- | 118000 | 4970000 | -- | -- | -- |
| 26.... | 0320 | -- | 15600 | -- | 125000 | 5270000 | -- | -- | -- |
| 26.... | 0430 | -- | 17000 | -- | 107000 | 4910000 | -- | -- | -- |
| 26.... | 0440 | 12.0 | 17400 | -- | 96100 | 4510000 | -- | -- | -- |
| 26.... | 0500 | -- | 18800 | -- | 119000 | 6040000 | -- | -- | -- |
| 26.... | 0720 | -- | 20600 | -- | 210000 | 1.17E+07 | -- | -- | -- |
| 26.... | 0735 | -- | 20400 | -- | 319000 | 1.76E+07 | -- | -- | -- |
| 26.... | 0750 | -- | 20000 | -- | 195000 | 1.05E+07 | -- | -- | -- |
| 26.... | 0755 | -- | 19800 | -- | 208000 | 1.11E+07 | -- | -- | -- |
| 26.... | 0815 | -- | 19200 | -- | 190000 | 9850000 | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | 69 | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | 60 | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | 46 | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 20 | 30 | 43 | -- | 62 | 86 | 98 | 100 | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | 40 | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | 36 | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | 63 | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | 61 | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | 55 | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | 30 | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | -- | -- | 51 | -- | -- | -- | -- | -- |
| 25... | -- | -- | -- | 59 | -- | -- | -- | -- | -- |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | 56 | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | 68 | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | 74 | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | 62 | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

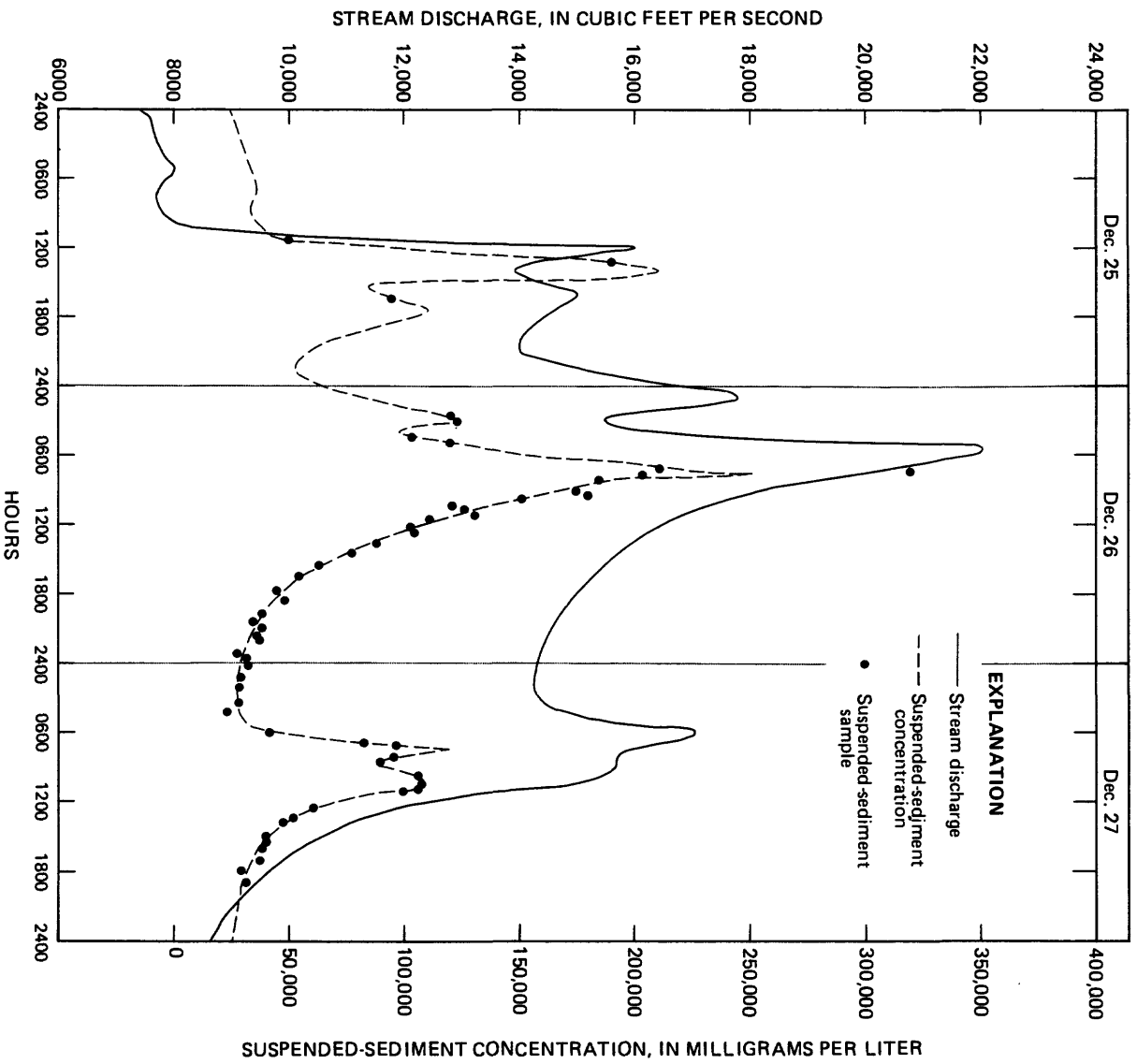


FIGURE 5. — Hydrograph of stream discharge and suspended-sediment concentration at Toulle River at Highway 99 bridge near Castle Rock, Wash., for December 25 - 27, 1980.

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA
 PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) | SED- SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|-------|------|-----------------------------|---|--|---|
| DEC | | | | | |
| 26... | 0830 | 12.0 | 19000 | 179000 | 9180000 |
| 26... | 0910 | -- | 18100 | 164000 | 8010000 |
| 26... | 0930 | -- | 17900 | 168000 | 8120000 |
| 26... | 0950 | -- | 17700 | 150000 | 7170000 |
| 26... | 1025 | -- | 17200 | 131000 | 6080000 |
| 26... | 1030 | -- | 17200 | 108000 | 5020000 |
| 26... | 1040 | -- | 17100 | 165000 | 7620000 |
| 26... | 1045 | -- | 17100 | 125000 | 5770000 |
| 26... | 1110 | -- | 16900 | 132000 | 6020000 |
| 26... | 1115 | -- | 16900 | 127000 | 5800000 |
| 26... | 1150 | -- | 16600 | 113000 | 5060000 |
| 26... | 1155 | -- | 16600 | 108000 | 4840000 |
| 26... | 1210 | -- | 16400 | 101000 | 4470000 |
| 26... | 1235 | -- | 16300 | 107000 | 4710000 |
| 26... | 1240 | -- | 16300 | 99000 | 4360000 |
| 26... | 1345 | -- | 16000 | 86400 | 3730000 |
| 26... | 1355 | -- | 15900 | 82800 | 3550000 |
| 26... | 1425 | -- | 15700 | 75700 | 3210000 |
| 26... | 1530 | -- | 15500 | 63800 | 2670000 |
| 26... | 1535 | -- | 15500 | 59500 | 2490000 |
| 26... | 1625 | -- | 15300 | 53800 | 2220000 |
| 26... | 1735 | -- | 15100 | 47400 | 1930000 |
| 26... | 1740 | -- | 15100 | 41000 | 1670000 |
| 26... | 1835 | -- | 14900 | 51200 | 2060000 |
| 26... | 1840 | -- | 14900 | 42700 | 1720000 |
| 26... | 1940 | -- | 14700 | 37300 | 1480000 |
| 26... | 2000 | -- | 14600 | 37000 | 1460000 |
| 26... | 2025 | -- | 14600 | 36100 | 1420000 |
| 26... | 2030 | -- | 14600 | 33600 | 1320000 |
| 26... | 2100 | -- | 14500 | 38000 | 1490000 |
| 26... | 2145 | -- | 14500 | 35600 | 1390000 |
| 26... | 2200 | -- | 14500 | 36300 | 1420000 |
| 26... | 2310 | -- | 14300 | 26300 | 1020000 |
| 26... | 2345 | -- | 14300 | 30600 | 1180000 |
| 27... | 0010 | -- | 14300 | 31600 | 1220000 |
| 27... | 0110 | -- | 14200 | 28000 | 1070000 |
| 27... | 0205 | -- | 14200 | 28200 | 1080000 |
| 27... | 0320 | -- | 14300 | 26900 | 1040000 |
| 27... | 0405 | -- | 14700 | 23200 | 921000 |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- MENT, SUS- PENDE (MG/L) | SED- 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 |
|-------|------|-----------------------------|---|---|--|--|--|--|--|
| DEC | | | | | | | | | |
| 27... | 0415 | -- | 14700 | -- | 21700 | 861000 | -- | -- | -- |
| 27... | 0555 | 10.0 | 17000 | -- | 37000 | 1700000 | -- | -- | -- |
| 27... | 0600 | -- | 17000 | -- | 43600 | 2000000 | -- | -- | -- |
| 27... | 0700 | -- | 16500 | -- | 81800 | 3640000 | -- | -- | -- |
| 27... | 0715 | -- | 16200 | -- | 96100 | 4200000 | -- | -- | -- |
| 27... | 0810 | -- | 15700 | -- | 95000 | 4030000 | -- | -- | -- |
| 27... | 0835 | -- | 15700 | -- | 86000 | 3650000 | -- | -- | -- |
| 27... | 0840 | -- | 15700 | -- | 91400 | 3870000 | -- | -- | -- |
| 27... | 0945 | -- | 15500 | -- | 109000 | 4560000 | -- | -- | -- |
| 27... | 0950 | -- | 15500 | -- | 101000 | 4230000 | -- | -- | -- |
| 27... | 1025 | -- | 15000 | -- | 104000 | 4210000 | -- | -- | -- |
| 27... | 1030 | -- | 15000 | -- | 110000 | 4460000 | -- | -- | -- |
| 27... | 1055 | -- | 14800 | -- | 105000 | 4200000 | -- | -- | -- |
| 27... | 1100 | -- | 14200 | -- | 99600 | 3820000 | -- | -- | -- |
| 27... | 1130 | -- | 13000 | -- | 73200 | 2570000 | -- | -- | -- |
| 27... | 1135 | -- | 13000 | -- | 78900 | 2770000 | 12 | 13 | 18 |
| 27... | 1240 | -- | 11900 | -- | 60000 | 1930000 | -- | -- | -- |
| 27... | 1315 | -- | 11400 | -- | 53600 | 1650000 | -- | -- | -- |
| 27... | 1320 | -- | 11400 | -- | 49200 | 1510000 | -- | -- | -- |
| 27... | 1350 | -- | 11200 | -- | 45800 | 1380000 | -- | -- | -- |
| 27... | 1500 | -- | 10600 | -- | 39800 | 1140000 | -- | -- | -- |
| 27... | 1530 | -- | 10400 | -- | 38800 | 1090000 | -- | -- | -- |
| 27... | 1600 | -- | 10200 | -- | 37800 | 1040000 | -- | -- | -- |
| 27... | 1715 | -- | 9900 | -- | 37300 | 997000 | -- | -- | -- |
| 27... | 1800 | -- | 9600 | -- | 29700 | 770000 | -- | -- | -- |
| 27... | 1900 | -- | 9400 | -- | 30800 | 782000 | -- | -- | -- |
| 28... | 1205 | -- | 7450 | -- | 17000 | 342000 | -- | -- | -- |
| 28... | 1445 | 7.5 | 7300 | 3 | 18800 | 371000 | 4 | 5 | 9 |
| 28... | 1515 | -- | 7300 | -- | 17000 | 335000 | -- | -- | -- |
| 30... | 1500 | -- | 6800 | -- | 19100 | 351000 | -- | -- | -- |
| 30... | 1635 | -- | 6800 | -- | 21500 | 395000 | -- | -- | -- |
| JAN | | | | | | | | | |
| 07... | 1415 | -- | 1660 | 3 | 4000 | 17900 | -- | -- | -- |
| 10... | 1335 | -- | 1260 | 3 | 5270 | 17900 | -- | -- | -- |
| 12... | 1215 | -- | 1140 | -- | 3520 | 10800 | -- | -- | -- |
| 13... | 1150 | 4.5 | 1110 | 3 | 4090 | 12300 | -- | -- | -- |
| 18... | 1515 | -- | 885 | 3 | 3200 | 7650 | -- | -- | -- |
| 23... | 1630 | -- | 985 | 5 | 6660 | 17700 | -- | -- | -- |
| 30... | 1415 | -- | 1180 | 3 | 2400 | 7650 | -- | -- | -- |
| FEB | | | | | | | | | |
| 02... | 1705 | -- | 859 | 5 | 2630 | 6100 | -- | -- | -- |

[illegible]

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN MM |
|--------|------|-----------------------------|---|---|---------------------------------------|---|--|
| FEB | | | | | | | |
| 03.... | 1500 | 4.5 | 820 | 5 | 2820 | 6240 | -- |
| 05.... | 1240 | 5.0 | 768 | 5 | 1560 | 3230 | -- |
| 10.... | 1445 | -- | 691 | 3 | 1290 | 2410 | -- |
| 12.... | 1525 | -- | 3640 | 3 | 41200 | 405000 | -- |
| 14.... | 1740 | -- | 3750 | 5 | 19200 | 194000 | -- |
| 18.... | 1355 | 8.5 | 6500 | -- | 26500 | 465000 | 56 |
| 18.... | 1400 | 8.5 | 6500 | -- | 25100 | 441000 | -- |
| 18.... | 1550 | 8.5 | 6200 | -- | 19000 | 318000 | 55 |
| 18.... | 1555 | 8.5 | 6200 | -- | 17800 | 298000 | -- |
| 18.... | 1630 | -- | 6600 | -- | 18000 | 321000 | 53 |
| 18.... | 1700 | -- | 7100 | -- | 16300 | 312000 | -- |
| 18.... | 1733 | -- | 7100 | -- | 17100 | 328000 | 49 |
| 18.... | 1825 | -- | 6900 | -- | 14800 | 276000 | 53 |
| 18.... | 1920 | 8.5 | 7400 | -- | 12400 | 248000 | -- |
| 18.... | 2000 | -- | 8000 | -- | 14500 | 313000 | 45 |
| 18.... | 2037 | -- | 8500 | -- | 14700 | 337000 | 45 |
| 18.... | 2045 | -- | 8700 | -- | 17400 | 409000 | -- |
| 18.... | 2115 | -- | 9600 | -- | 16600 | 430000 | 43 |
| 18.... | 2145 | -- | 10500 | -- | 21400 | 607000 | 35 |
| 18.... | 2150 | -- | 10600 | -- | 16400 | 469000 | 47 |
| 18.... | 2305 | -- | 11400 | -- | 19100 | 588000 | -- |
| 18.... | 2315 | -- | 11500 | -- | 19000 | 590000 | 55 |
| 18.... | 2325 | -- | 11600 | -- | 19000 | 595000 | -- |
| 19.... | 0050 | -- | 15400 | -- | 30100 | 1250000 | 56 |
| 19.... | 0110 | -- | 15300 | -- | 36100 | 1490000 | -- |
| 19.... | 0215 | -- | 13700 | -- | 53500 | 1980000 | 69 |
| 19.... | 0655 | -- | 16500 | -- | 64300 | 2860000 | 70 |
| 19.... | 0730 | -- | 24500 | -- | 144000 | 9530000 | 60 |
| 19.... | 0736 | -- | 25000 | -- | 163000 | 1.10E+07 | 61 |
| 19.... | 0755 | -- | 22000 | -- | 252000 | 1.50E+07 | 59 |
| 19.... | 0800 | -- | 20700 | -- | 227000 | 1.27E+07 | 71 |
| 19.... | 0805 | -- | 20000 | -- | 357000 | 1.93E+07 | 50 |
| 19.... | 0810 | -- | 19600 | -- | 325000 | 1.72E+07 | 55 |
| 19.... | 0840 | -- | 19500 | -- | 365000 | 1.92E+07 | 60 |
| 19.... | 0846 | -- | 19500 | -- | 359000 | 1.89E+07 | 56 |
| 19.... | 0935 | -- | 17000 | -- | 309000 | 1.42E+07 | 58 |
| 19.... | 0938 | -- | 17000 | -- | 301000 | 1.38E+07 | 61 |
| 19.... | 0952 | -- | 16700 | -- | 428000 | 1.93E+07 | 42 |
| 19.... | 0957 | -- | 16700 | -- | 325000 | 1.47E+07 | 49 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|-------|------|---|---|--|--|---|
| FEB | | | | | | |
| 19... | 1015 | 16500 | -- | 274000 | 1.22E+07 | 57 |
| 19... | 1025 | 16400 | -- | 268000 | 1.19E+07 | 57 |
| 19... | 1040 | 16200 | -- | 225000 | 9840000 | 64 |
| 19... | 1055 | 16100 | -- | 207000 | 9000000 | 60 |
| 19... | 1110 | 16000 | -- | 183000 | 7910000 | 65 |
| 19... | 1125 | 15900 | -- | 178000 | 7640000 | 62 |
| 19... | 1140 | 15800 | -- | 154000 | 6570000 | 68 |
| 19... | 1155 | 15700 | -- | 141000 | 5980000 | 68 |
| 19... | 1215 | 15200 | -- | 127000 | 5210000 | 64 |
| 19... | 1230 | 15000 | -- | 125000 | 5060000 | 63 |
| 19... | 1240 | 14800 | -- | 109000 | 4360000 | 66 |
| 19... | 1300 | 14800 | -- | 112000 | 4480000 | 60 |
| 19... | 1315 | 14700 | -- | 97700 | 3880000 | 62 |
| 19... | 1330 | 14600 | -- | 111000 | 4380000 | 54 |
| 19... | 1345 | 14500 | -- | 87500 | 3430000 | -- |
| 19... | 1350 | 14500 | -- | 86200 | 3370000 | 62 |
| 19... | 1415 | 14400 | -- | 86700 | 3370000 | -- |
| 19... | 1440 | 14300 | -- | 83000 | 3200000 | -- |
| 19... | 1450 | 14300 | -- | 78800 | 3040000 | -- |
| 19... | 1500 | 14300 | -- | 78100 | 3040000 | 57 |
| 19... | 1515 | 14400 | -- | 91500 | 3560000 | -- |
| 19... | 1530 | 14500 | -- | 103000 | 4030000 | -- |
| 19... | 1540 | 14600 | -- | 87300 | 3440000 | -- |
| 19... | 1600 | 14700 | -- | 95200 | 3780000 | -- |
| 19... | 1615 | 14700 | -- | 65700 | 2610000 | -- |
| 19... | 1630 | 14700 | -- | 61200 | 2430000 | 62 |
| 19... | 1640 | 14700 | -- | 59000 | 2340000 | -- |
| 19... | 1700 | 14700 | -- | 68700 | 2730000 | -- |
| 19... | 1715 | 14700 | -- | 60900 | 2420000 | -- |
| 19... | 1745 | 14600 | -- | 52100 | 2050000 | 59 |
| 19... | 1800 | 14500 | -- | 57900 | 2270000 | -- |
| 19... | 1815 | 14400 | -- | 51900 | 2020000 | -- |
| 19... | 1830 | 14300 | -- | 53700 | 2070000 | -- |
| 19... | 1845 | 14300 | -- | 49700 | 1920000 | 55 |
| 19... | 1900 | 14200 | -- | 54000 | 2070000 | 50 |
| 19... | 1925 | 14100 | -- | 61400 | 2340000 | 47 |
| 19... | 1940 | 14000 | -- | 72800 | 2750000 | -- |
| 19... | 2000 | 13900 | -- | 45600 | 1710000 | -- |
| 19... | 2045 | 13700 | 5 | 40300 | 1490000 | -- |



Photo date: February 20, 1982

Tree debris from the devastated watershed is transported during peak storm runoff at the Toutle River at Highway 99 bridge gaging station, 242690. View is upstream; discharge about 20,000 cubic feet per second.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|-------|------|-----------------------------|---|---|--|---|---|
| FEB | | | | | | | |
| 19... | 2100 | -- | 13700 | -- | 45400 | 1680000 | 47 |
| 19... | 2155 | -- | 13300 | -- | 33500 | 1200000 | -- |
| 19... | 2310 | -- | 13000 | -- | 36700 | 1290000 | -- |
| 20... | 0035 | -- | 12500 | -- | 29800 | 1010000 | -- |
| 20... | 1005 | 7.0 | 9600 | -- | 29700 | 770000 | 32 |
| 20... | 1030 | -- | 9450 | -- | 24600 | 628000 | -- |
| 20... | 1120 | -- | 9250 | -- | 23600 | 589000 | -- |
| 20... | 1155 | 7.0 | 9100 | -- | 22500 | 553000 | 38 |
| 20... | 1200 | -- | 9050 | -- | 21000 | 513000 | -- |
| 20... | 1215 | 7.0 | 9440 | 5 | 22900 | 584000 | 39 |
| 21... | 1635 | -- | 5580 | 5 | 12300 | 185000 | -- |
| 26... | 1640 | 6.0 | 3360 | 5 | 4660 | 42300 | -- |
| 27... | 1220 | -- | 3450 | -- | 3660 | 34100 | -- |
| MAR | | | | | | | |
| 04... | 1230 | -- | 2760 | 5 | 6140 | 45800 | -- |
| 10... | 1450 | 11.0 | 1400 | 5 | 2400 | 9070 | -- |
| 12... | 1510 | 13.0 | 1160 | 3 | 4130 | 12900 | -- |
| 16... | 1800 | -- | 2600 | -- | 3240 | 22700 | -- |
| 17... | 0800 | -- | 2560 | -- | 4900 | 33900 | -- |
| 18... | 1410 | -- | 1540 | -- | 3800 | 15800 | -- |
| 19... | 1520 | 8.5 | 1120 | 5 | 1680 | 5080 | -- |
| 19... | 1530 | 8.5 | 1120 | -- | 1680 | 5080 | -- |
| 20... | 1435 | -- | 1030 | -- | 1400 | 3890 | -- |
| 21... | 1345 | -- | 1110 | -- | 1580 | 4740 | -- |
| 23... | 0835 | -- | 1100 | -- | 1020 | 3030 | -- |
| 24... | 1020 | -- | 1230 | 5 | 1230 | 4080 | -- |
| 25... | 0825 | -- | 1600 | -- | 2180 | 9420 | -- |
| 25... | 1545 | -- | 2640 | -- | 6430 | 45800 | -- |
| 26... | 0835 | -- | 1580 | -- | 3220 | 13700 | -- |
| APR | | | | | | | |
| 03... | 1200 | -- | 2670 | 5 | 1770 | 12800 | -- |
| 07... | 0900 | -- | 2660 | -- | 1260 | 9050 | -- |
| 07... | 1445 | -- | 2530 | -- | 1830 | 12500 | -- |
| 08... | 1705 | 6.0 | 3520 | 5 | 2770 | 26300 | -- |
| 09... | 1410 | -- | 3940 | -- | 3150 | 33500 | -- |
| 10... | 1100 | -- | 3060 | -- | 2350 | 19400 | -- |
| 13... | 1405 | 10.0 | 2750 | 5 | 2260 | 16800 | -- |
| 14... | 1715 | 14.0 | 2480 | 5 | 1700 | 11400 | 30 |
| 15... | 1535 | -- | 2510 | -- | 1620 | 11000 | -- |
| 16... | 1700 | -- | 2600 | -- | 1930 | 13500 | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|--------|------|-----------------------------|---|---|--|--|---|
| APR | | | | | | | |
| 17.... | 0830 | -- | 2500 | -- | 1780 | 12000 | -- |
| 17.... | 1500 | -- | 2450 | -- | 1790 | 11800 | -- |
| 20.... | 1820 | 10.0 | 2050 | 5 | 2290 | 12700 | -- |
| 21.... | 0855 | -- | 2550 | -- | 1550 | 10700 | -- |
| 21.... | 1630 | 10.5 | 2150 | 5 | 1450 | 8420 | -- |
| 23.... | 0815 | -- | 3050 | -- | 2420 | 19900 | -- |
| 23.... | 0835 | -- | 3150 | -- | 2580 | 21900 | -- |
| 23.... | 0850 | -- | 3040 | -- | 2850 | 23400 | -- |
| 23.... | 0905 | -- | 3080 | -- | 2840 | 23600 | -- |
| 23.... | 0925 | -- | 3050 | -- | 2740 | 22600 | -- |
| 27.... | 1010 | -- | -- | -- | 890 | -- | -- |
| 27.... | 1540 | -- | -- | -- | 806 | -- | -- |
| 28.... | 1530 | -- | -- | -- | 1420 | -- | -- |
| 29.... | 0845 | -- | -- | -- | 1040 | -- | -- |
| 29.... | 1515 | -- | -- | -- | 1500 | -- | -- |
| 29.... | 1530 | -- | -- | -- | 1460 | -- | -- |
| 30.... | 1600 | -- | 1900 | -- | 1040 | 5340 | -- |
| 30.... | 1615 | -- | 1900 | -- | 1000 | 5130 | -- |
| 30.... | 1625 | -- | 1900 | -- | 1060 | 5440 | -- |
| MAY | | | | | | | |
| 01.... | 0935 | -- | 1950 | -- | 1620 | 8530 | -- |
| 01.... | 0950 | -- | 1950 | -- | 1530 | 8060 | -- |
| 05.... | 1350 | -- | 1530 | 5 | 885 | 3660 | -- |
| 08.... | 1130 | -- | 1770 | -- | 734 | 3510 | -- |
| 11.... | 1435 | -- | 1620 | -- | 551 | 2410 | -- |
| 12.... | 0935 | -- | 1420 | 5 | 533 | 2040 | -- |
| 14.... | 1445 | -- | 1440 | -- | 236 | 918 | -- |
| 18.... | 1205 | -- | 1430 | -- | 292 | 1130 | -- |
| 19.... | 1405 | -- | 1750 | 5 | 755 | 3570 | -- |
| 21.... | 0810 | -- | 1640 | -- | 1310 | 5800 | -- |
| JUN | | | | | | | |
| 01.... | 1305 | -- | 1230 | -- | 236 | 784 | -- |
| 08.... | 1825 | -- | 8760 | 5 | 13600 | 322000 | -- |
| 11.... | 0845 | -- | 3110 | -- | 2170 | 18200 | -- |
| 16.... | 1545 | -- | 2470 | 5 | 3500 | 23300 | 29 |
| 17.... | 1625 | 14.5 | 2520 | 5 | 1940 | 13200 | 40 |
| 24.... | 1415 | 16.0 | 1880 | 5 | 1080 | 5480 | -- |
| JUL | | | | | | | |
| 01.... | 1110 | 16.5 | 1100 | 5 | 1160 | 3450 | -- |
| 08.... | 1310 | 17.0 | 827 | 5 | 1230 | 2750 | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 .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 |
|-------|------|-----------------------------|---|---|---|---|--|--|--|--|--|--|
| JUL | | | | | | | | | | | | |
| 13... | 1205 | 15.0 | 1210 | 5 | 1580 | 5160 | -- | 24 | -- | -- | -- | -- |
| 15... | 1640 | 21.5 | 770 | 5 | 918 | 1910 | -- | -- | -- | -- | -- | -- |
| 20... | 1650 | 19.0 | 665 | 5 | 560 | 1010 | -- | -- | -- | -- | -- | -- |
| 22... | 1530 | 21.0 | 680 | 5 | 605 | 1110 | -- | 43 | -- | -- | -- | -- |
| 27... | 1450 | 25.5 | 615 | 5 | 521 | 865 | -- | 43 | 68 | -- | 98 | -- |
| AUG | | | | | | | | | | | | |
| 03... | 1340 | 18.0 | 602 | 5 | 472 | 767 | -- | -- | -- | -- | -- | -- |
| 10... | 1425 | 27.0 | 415 | 5 | 495 | 555 | -- | -- | -- | -- | -- | -- |
| 19... | 1325 | 17.5 | 350 | 5 | 447 | 422 | -- | 83 | -- | -- | -- | -- |
| 24... | 1255 | 20.0 | 314 | 5 | 413 | 350 | -- | 75 | -- | -- | -- | -- |
| 31... | 1330 | 19.0 | 352 | 4 | 303 | 288 | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 09... | 1450 | 18.5 | 306 | 9 | 538 | 444 | 45 | 47 | 56 | 83 | 99 | 100 |
| 14... | 1310 | 17.5 | 286 | 5 | 410 | 317 | -- | -- | -- | -- | -- | -- |
| 21... | 1500 | -- | 469 | -- | 1870 | 2370 | -- | -- | -- | -- | -- | -- |
| 28... | 1200 | 13.0 | 805 | -- | 2100 | 4560 | -- | -- | -- | -- | -- | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, 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 |
|-------|------|-----------------------------|---|---|--|--|--|--|--|--|
| OCT | | | | | | | | | | |
| 05... | 1340 | 10.0 | 700 | -- | 1300 | 2460 | -- | -- | -- | -- |
| 05... | 1505 | 10.0 | 700 | 5 | 1130 | 2140 | -- | -- | -- | -- |
| 06... | 0835 | -- | 4600 | -- | 6280 | 78000 | 8 | 16 | 27 | 42 |
| 06... | 0920 | -- | 5300 | -- | 8140 | 116000 | -- | -- | -- | -- |
| 06... | 0930 | -- | 5650 | -- | 9100 | 139000 | -- | -- | -- | -- |
| 06... | 0955 | -- | 6200 | -- | 9440 | 158000 | -- | -- | -- | -- |
| 06... | 1020 | -- | 6400 | -- | 11900 | 206000 | -- | -- | -- | -- |
| 06... | 1025 | -- | 6300 | -- | 11800 | 201000 | -- | -- | -- | -- |
| 06... | 1030 | -- | 6200 | -- | 13000 | 218000 | -- | -- | -- | -- |
| 06... | 1050 | -- | 6500 | -- | 13400 | 235000 | -- | -- | -- | -- |
| 06... | 1100 | 12.0 | 6600 | -- | 14000 | 249000 | -- | -- | -- | -- |
| 06... | 1115 | -- | 6900 | -- | 14400 | 268000 | -- | -- | -- | -- |
| 06... | 1145 | -- | 7500 | -- | 14100 | 286000 | -- | -- | -- | -- |
| 06... | 1205 | -- | 7850 | -- | 14300 | 303000 | -- | -- | -- | -- |
| 06... | 1225 | -- | 8000 | -- | 15500 | 335000 | -- | -- | -- | -- |
| 06... | 1325 | -- | 8250 | -- | 17300 | 385000 | -- | -- | -- | -- |
| 06... | 1345 | -- | 8300 | -- | 18900 | 424000 | -- | -- | -- | -- |
| 06... | 1350 | -- | 8300 | -- | 16400 | 368000 | -- | -- | -- | -- |
| 06... | 1505 | -- | 8200 | -- | 24500 | 542000 | -- | -- | -- | -- |
| 06... | 1510 | -- | 8100 | -- | 26200 | 573000 | -- | -- | -- | -- |
| 06... | 1555 | -- | 7700 | -- | 28500 | 593000 | -- | -- | -- | -- |
| 06... | 1600 | -- | 7650 | -- | 27600 | 570000 | -- | -- | -- | -- |
| 06... | 1605 | -- | 7650 | -- | 26600 | 549000 | -- | -- | -- | -- |
| 06... | 1610 | -- | 7650 | -- | 28800 | 595000 | -- | -- | -- | -- |
| 06... | 1615 | -- | 7700 | -- | 32100 | 667000 | -- | -- | -- | -- |
| 06... | 1745 | -- | 7900 | -- | 31600 | 674000 | -- | -- | -- | -- |
| 06... | 1845 | -- | 7700 | -- | 39300 | 817000 | -- | -- | -- | -- |
| 06... | 1915 | -- | 7750 | -- | 39300 | 822000 | -- | -- | -- | -- |
| 06... | 1925 | -- | 7800 | -- | 39400 | 830000 | -- | -- | -- | -- |
| 06... | 2005 | -- | 9000 | -- | 52500 | 1280000 | -- | -- | -- | -- |
| 06... | 2030 | -- | 9350 | -- | 53000 | 1330000 | -- | -- | -- | -- |
| 06... | 2105 | -- | 8850 | -- | 73500 | 1760000 | 17 | 26 | 43 | 65 |
| 06... | 2130 | -- | 8650 | -- | 89600 | 2090000 | -- | -- | -- | -- |
| 06... | 2215 | -- | 8350 | -- | 78100 | 1760000 | -- | -- | -- | -- |
| 07... | 0930 | -- | 4900 | -- | 36200 | 479000 | -- | -- | -- | -- |
| 07... | 1000 | -- | 4800 | -- | 31000 | 402000 | -- | -- | -- | -- |
| 07... | 1030 | -- | 4700 | -- | 32500 | 412000 | -- | -- | -- | -- |
| 07... | 1100 | -- | 4600 | -- | 27000 | 335000 | -- | -- | -- | -- |
| 07... | 1130 | -- | 4550 | -- | 26500 | 326000 | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 .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 | | | | | | | | | |
| 05... | -- | -- | 24 | -- | -- | -- | -- | -- | -- |
| 05... | -- | 28 | 39 | 34 | -- | 72 | -- | 82 | 93 |
| 06... | 59 | 72 | -- | 85 | 99 | -- | 100 | -- | -- |
| 06... | -- | -- | 75 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 70 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 73 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 68 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 71 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 71 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 74 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 78 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 77 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 78 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 78 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 74 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 79 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 79 | -- | -- | -- | -- | -- | -- |
| 06... | -- | 91 | -- | 95 | 99 | -- | 99 | -- | -- |
| 06... | -- | -- | 85 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 84 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 83 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 86 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 84 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 83 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 86 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 89 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 89 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 89 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 72 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 86 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 06... | 81 | 88 | -- | 94 | 98 | -- | 99 | -- | 99 |
| 06... | -- | -- | 84 | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | 89 | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | 89 | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | 89 | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | 87 | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | 89 | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | 88 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDED (MG/L) | SED1- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED, SUSP. FALL DIAM. % FINER THAN | SED, SUSP. FALL DIAM. % FINER THAN | SED, SUSP. FALL DIAM. % FINER THAN | SED, SUSP. FALL DIAM. % FINER THAN | SED, SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|--|--|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 07.... | 1200 | -- | 4450 | -- | 23300 | 280000 | -- | -- | -- | -- | -- |
| 07.... | 1250 | -- | 4350 | -- | 21900 | 257000 | -- | -- | -- | -- | -- |
| 07.... | 1305 | -- | 4300 | 5 | 21400 | 248000 | 16 | 28 | 46 | 68 | 80 |
| 07.... | 1320 | -- | 4300 | -- | 20600 | 239000 | -- | -- | -- | -- | -- |
| 10.... | 1150 | -- | 1760 | -- | 2380 | 11300 | -- | -- | -- | -- | -- |
| 13.... | 1520 | -- | 1340 | -- | 1240 | 4490 | -- | -- | -- | -- | -- |
| 13.... | 1535 | -- | 1340 | 5 | 1910 | 6910 | -- | -- | -- | -- | -- |
| 13.... | 1550 | -- | 1340 | -- | 1090 | 3940 | -- | -- | -- | -- | -- |
| 19.... | 1615 | 11.0 | 822 | 5 | 1250 | 2770 | -- | -- | -- | -- | -- |
| 26.... | 1535 | 12.0 | 531 | 9 | 820 | 1180 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 03.... | 1200 | 10.5 | 1300 | -- | 2420 | 8490 | -- | -- | -- | -- | -- |
| 03.... | 1215 | 10.5 | 1300 | 5 | 2930 | 10300 | -- | 10 | 15 | 22 | 32 |
| 03.... | 1230 | 10.5 | 1300 | -- | 2140 | 7510 | -- | -- | -- | -- | -- |
| 09.... | 1340 | 10.5 | 852 | 5 | 2020 | 4650 | -- | 8 | 12 | 18 | 26 |
| 11.... | 1810 | 11.5 | 1490 | -- | 5340 | 21500 | -- | -- | -- | -- | -- |
| 11.... | 2040 | -- | 2050 | -- | 3660 | 20300 | -- | -- | -- | -- | -- |
| 12.... | 0930 | 11.0 | 2920 | -- | 15300 | 121000 | -- | -- | -- | -- | -- |
| 12.... | 0955 | 11.0 | 2340 | -- | 16300 | 103000 | -- | -- | -- | -- | -- |
| 12.... | 1005 | 11.0 | 2310 | -- | 14100 | 87900 | -- | -- | -- | -- | -- |
| 12.... | 1105 | 11.0 | 2670 | -- | 12700 | 91600 | -- | -- | -- | -- | -- |
| 12.... | 1200 | 11.0 | 2400 | -- | 11100 | 71900 | -- | -- | -- | -- | -- |
| 12.... | 1220 | 11.0 | 2740 | 5 | 11200 | 82900 | -- | 14 | 24 | 39 | 56 |
| 12.... | 1240 | 11.0 | 2180 | -- | 10900 | 64200 | -- | -- | -- | -- | -- |
| 12.... | 1335 | 11.0 | 2000 | -- | 10200 | 55100 | -- | -- | -- | -- | -- |
| 13.... | 0945 | 9.0 | 1550 | -- | 3640 | 15200 | -- | -- | -- | -- | -- |
| 14.... | 1405 | -- | 7840 | -- | 50200 | 1060000 | -- | -- | -- | -- | -- |
| 14.... | 1415 | -- | 7910 | -- | 51900 | 1110000 | -- | -- | -- | -- | -- |
| 14.... | 1435 | -- | 8250 | -- | 61400 | 1370000 | -- | -- | -- | -- | -- |
| 14.... | 1455 | -- | 8500 | -- | 64000 | 1470000 | -- | -- | -- | -- | -- |
| 14.... | 1505 | -- | 8550 | -- | 68100 | 1570000 | -- | -- | -- | -- | -- |
| 14.... | 1525 | -- | 8270 | -- | 54800 | 1220000 | -- | -- | -- | -- | -- |
| 14.... | 1605 | -- | 8400 | -- | 52400 | 1190000 | -- | -- | -- | -- | -- |
| 14.... | 1630 | -- | 8700 | -- | 52500 | 1230000 | -- | 17 | 27 | 43 | 62 |
| 14.... | 1640 | -- | 8850 | -- | 50800 | 1210000 | -- | -- | -- | -- | -- |
| 14.... | 1655 | -- | 8870 | -- | 48100 | 1150000 | -- | -- | -- | -- | -- |
| 14.... | 1735 | -- | 8460 | -- | 53600 | 1220000 | -- | -- | -- | -- | -- |
| 14.... | 1805 | -- | 8200 | -- | 47500 | 1050000 | -- | -- | -- | -- | -- |
| 14.... | 1905 | -- | 7800 | -- | 48600 | 1020000 | -- | -- | -- | -- | -- |
| 14.... | 2215 | -- | 6450 | -- | 34100 | 594000 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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... | -- | 91 | -- | -- | -- | -- |
| 07... | -- | 90 | -- | -- | -- | -- |
| 07... | 84 | -- | 96 | -- | -- | -- |
| 07... | -- | -- | -- | 98 | 100 | -- |
| 10... | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | |
| 03... | -- | 60 | -- | -- | -- | 100 |
| 03... | -- | 44 | -- | -- | -- | -- |
| 03... | -- | 60 | -- | -- | -- | -- |
| 09... | -- | 37 | 52 | 72 | 94 | 100 |
| 11... | -- | 16 | -- | -- | -- | -- |
| 11... | -- | 44 | -- | -- | -- | -- |
| 12... | -- | 80 | -- | -- | -- | -- |
| 12... | -- | 81 | -- | -- | -- | -- |
| 12... | -- | 80 | -- | -- | -- | -- |
| 12... | -- | 76 | -- | -- | -- | -- |
| 12... | -- | 78 | -- | -- | -- | -- |
| 12... | -- | 68 | -- | -- | 98 | 100 |
| 12... | -- | 71 | 82 | 91 | -- | -- |
| 12... | -- | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | -- | -- | -- |
| 13... | -- | 59 | -- | -- | -- | -- |
| 14... | -- | 83 | -- | -- | -- | -- |
| 14... | -- | 84 | -- | -- | -- | -- |
| 14... | -- | 80 | -- | -- | -- | -- |
| 14... | -- | 77 | -- | -- | -- | -- |
| 14... | -- | 76 | -- | -- | -- | -- |
| 14... | -- | 82 | -- | -- | -- | -- |
| 14... | -- | 80 | -- | -- | -- | -- |
| 14... | -- | 75 | 90 | 95 | 99 | 100 |
| 14... | -- | 78 | -- | -- | -- | -- |
| 14... | -- | 79 | -- | -- | -- | -- |
| 14... | -- | 78 | -- | -- | -- | -- |
| 14... | -- | 80 | -- | -- | -- | -- |
| 14... | -- | 74 | -- | -- | -- | -- |
| 14... | -- | 75 | -- | -- | -- | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDE (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .008 MM |
|--------|------|-----------------------------|---|---|---|---|--|--|
| NOV | | | | | | | | |
| 14.... | 2220 | -- | 6400 | -- | 38100 | 658000 | -- | -- |
| 15.... | 0850 | 8.0 | 4400 | -- | 14300 | 170000 | -- | -- |
| 15.... | 1515 | 8.0 | 4120 | -- | 9960 | 111000 | -- | -- |
| 16.... | 1205 | 7.5 | 3730 | -- | 14400 | 145000 | -- | -- |
| 16.... | 1355 | 7.5 | 3640 | -- | 13900 | 137000 | -- | -- |
| 16.... | 1430 | 7.5 | 3530 | 5 | 14500 | 139000 | 11 | 17 |
| 16.... | 1455 | 8.0 | 3590 | -- | 17300 | 168000 | -- | -- |
| 17.... | 1015 | 8.5 | 3650 | -- | 9200 | 90700 | -- | -- |
| 17.... | 1710 | -- | 4960 | -- | 20500 | 275000 | -- | -- |
| 18.... | 1340 | 8.0 | 4550 | -- | 11700 | 144000 | -- | -- |
| 19.... | 1025 | 7.5 | 3540 | -- | 9970 | 95300 | -- | -- |
| 19.... | 1110 | -- | 3540 | -- | 8030 | 76800 | -- | -- |
| 19.... | 1225 | -- | 3540 | -- | 8150 | 77900 | -- | -- |
| 19.... | 1230 | -- | 3540 | 5 | 9320 | 89100 | 9 | 15 |
| 19.... | 1250 | 6.0 | 3540 | -- | 8160 | 78000 | -- | -- |
| 23.... | 1200 | 8.0 | 4760 | -- | 6980 | 89700 | -- | -- |
| 23.... | 1220 | 8.0 | 4760 | 5 | 8180 | 105000 | 9 | 14 |
| 23.... | 1235 | 8.0 | 4760 | -- | 7260 | 93300 | -- | -- |
| 24.... | 1110 | 6.0 | 3640 | -- | 9380 | 92200 | -- | -- |
| 28.... | 0930 | -- | 2500 | -- | 2820 | 19000 | -- | -- |
| DEC | | | | | | | | |
| 01.... | 1415 | 7.0 | 3030 | -- | 4640 | 38000 | -- | -- |
| 02.... | 0810 | 8.0 | 8720 | -- | 17700 | 417000 | -- | -- |
| 02.... | 0820 | 8.0 | 8960 | -- | 19900 | 481000 | -- | -- |
| 02.... | 0845 | 8.0 | 8840 | -- | 16300 | 389000 | -- | -- |
| 02.... | 0900 | 8.0 | 9080 | -- | 16800 | 412000 | -- | -- |
| 02.... | 0920 | -- | 9780 | -- | 19800 | 523000 | -- | -- |
| 02.... | 0930 | -- | 9780 | -- | 18900 | 499000 | -- | -- |
| 02.... | 0950 | -- | 10500 | -- | 21000 | 595000 | -- | -- |
| 02.... | 1000 | -- | 11000 | -- | 23600 | 701000 | -- | -- |
| 02.... | 1010 | -- | 10500 | -- | 25000 | 707000 | -- | -- |
| 02.... | 1020 | -- | 11100 | -- | 23200 | 694000 | -- | -- |
| 02.... | 1030 | -- | 11600 | -- | 26100 | 815000 | -- | -- |
| 02.... | 1040 | -- | 11100 | -- | 27500 | 824000 | -- | -- |
| 02.... | 1050 | -- | 11700 | -- | 28400 | 896000 | -- | -- |
| 02.... | 1100 | -- | 11700 | -- | 28400 | 897000 | -- | -- |
| 02.... | 1110 | -- | 11900 | -- | 31500 | 1000000 | -- | -- |
| 02.... | 1120 | -- | 11200 | -- | 31800 | 965000 | -- | -- |
| 02.... | 1130 | -- | 12000 | 3 | 33400 | 1080000 | 14 | 22 |
| 02.... | 1135 | -- | 12000 | -- | 31400 | 1020000 | -- | -- |

305

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- MENT, SUS- PENDED (MG/L) | SED- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .008 MM |
|-------|------|-----------------------------|---|---|---|---|--|--|
| DEC | | | | | | | | |
| 02... | 1140 | -- | 11700 | -- | 33600 | 1060000 | -- | -- |
| 02... | 1150 | -- | 11400 | -- | 33600 | 1030000 | -- | -- |
| 02... | 1200 | -- | 11200 | -- | 33400 | 1010000 | -- | -- |
| 02... | 1210 | 8.0 | 11000 | -- | 35700 | 1060000 | -- | -- |
| 02... | 1215 | -- | 10800 | -- | 35000 | 1020000 | -- | -- |
| 02... | 1220 | -- | 10700 | -- | 35000 | 953000 | -- | -- |
| 02... | 1235 | -- | 10300 | -- | 34400 | 957000 | -- | -- |
| 02... | 1305 | -- | 10000 | -- | 40900 | 1100000 | -- | -- |
| 02... | 1340 | -- | 9320 | -- | 29600 | 745000 | -- | -- |
| 02... | 1420 | -- | 8840 | -- | 29200 | 697000 | -- | -- |
| 02... | 1440 | -- | 8390 | -- | 26800 | 607000 | -- | -- |
| 02... | 1530 | -- | 8100 | 5 | 23200 | 507000 | 12 | 22 |
| 02... | 1550 | 7.5 | 7260 | -- | 22200 | 435000 | -- | -- |
| 05... | 1245 | -- | 17300 | -- | 67000 | 3130000 | -- | -- |
| 05... | 1310 | -- | 17400 | -- | 67800 | 3190000 | -- | -- |
| 05... | 1345 | -- | 18600 | -- | 64900 | 3260000 | -- | -- |
| 05... | 1405 | -- | 19000 | -- | 64100 | 3290000 | -- | -- |
| 05... | 1410 | 9.0 | 19100 | -- | 64200 | 3310000 | -- | -- |
| 05... | 1455 | -- | 19600 | -- | 64100 | 3390000 | -- | -- |
| 05... | 1510 | -- | 19000 | -- | 60700 | 3110000 | -- | -- |
| 05... | 1515 | -- | 18800 | -- | 68100 | 3460000 | -- | -- |
| 05... | 1540 | 9.0 | 18200 | -- | 47500 | 2330000 | -- | -- |
| 05... | 1740 | -- | 16500 | -- | 54400 | 2420000 | -- | -- |
| 05... | 1900 | -- | 17400 | -- | 65700 | 3090000 | -- | -- |
| 05... | 1945 | 9.0 | 16600 | -- | 47800 | 2140000 | -- | -- |
| 05... | 2045 | -- | 15600 | -- | 67300 | 2830000 | -- | -- |
| 05... | 2100 | -- | 15300 | -- | 43200 | 1780000 | -- | -- |
| 05... | 2205 | -- | 14500 | -- | 34300 | 1340000 | -- | -- |
| 05... | 2210 | 8.0 | 14400 | -- | 37900 | 1470000 | -- | -- |
| 05... | 2340 | 8.0 | 13900 | -- | 32900 | 1230000 | -- | -- |
| 06... | 0050 | 8.0 | 13900 | -- | 31600 | 1190000 | -- | -- |
| 06... | 0135 | 8.0 | 14000 | -- | 28600 | 1080000 | -- | -- |
| 06... | 0220 | 7.5 | 14100 | -- | 28400 | 1080000 | -- | -- |
| 06... | 0305 | 7.5 | 14100 | -- | 38200 | 1450000 | -- | -- |
| 06... | 0350 | 8.0 | 13900 | -- | 28000 | 1050000 | -- | -- |
| 06... | 0455 | 7.5 | 13500 | -- | 25800 | 940000 | -- | -- |
| 06... | 0555 | 7.5 | 13600 | -- | 24800 | 911000 | -- | -- |
| 06... | 0645 | 7.5 | 13200 | -- | 23600 | 841000 | -- | -- |
| 06... | 0900 | 7.5 | 14800 | -- | 35600 | 1420000 | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 |
|-------|--|--|---|---|---|---|---|
| DEC | | | | | | | |
| 02... | -- | -- | 72 | -- | -- | -- | -- |
| 02... | -- | -- | 72 | -- | -- | -- | -- |
| 02... | -- | -- | 73 | -- | -- | -- | -- |
| 02... | -- | -- | 67 | -- | -- | -- | -- |
| 02... | -- | -- | 67 | -- | -- | -- | -- |
| 02... | -- | -- | 72 | -- | -- | -- | -- |
| 02... | -- | -- | 69 | -- | -- | -- | -- |
| 02... | -- | -- | 63 | -- | -- | -- | -- |
| 02... | -- | -- | 72 | -- | -- | -- | -- |
| 02... | -- | -- | 68 | -- | -- | -- | -- |
| 02... | -- | -- | 68 | -- | -- | -- | -- |
| 02... | 34 | 49 | 64 | 82 | 93 | 98 | 100 |
| 02... | -- | -- | 63 | -- | -- | -- | -- |
| 05... | -- | -- | 70 | -- | -- | -- | -- |
| 05... | -- | -- | 69 | -- | -- | -- | -- |
| 05... | -- | -- | 72 | -- | -- | -- | -- |
| 05... | -- | -- | 72 | -- | -- | -- | -- |
| 05... | -- | -- | 71 | -- | -- | -- | -- |
| 05... | -- | -- | 69 | -- | -- | -- | -- |
| 05... | -- | -- | 70 | -- | -- | -- | -- |
| 05... | -- | -- | 62 | -- | -- | -- | -- |
| 05... | -- | -- | 63 | -- | -- | -- | -- |
| 05... | -- | -- | 64 | -- | -- | -- | -- |
| 05... | -- | -- | 52 | -- | -- | -- | -- |
| 05... | -- | -- | 59 | -- | -- | -- | -- |
| 05... | -- | -- | 50 | -- | -- | -- | -- |
| 05... | -- | -- | 61 | -- | -- | -- | -- |
| 05... | -- | -- | 65 | -- | -- | -- | -- |
| 05... | -- | -- | 63 | -- | -- | -- | -- |
| 05... | -- | -- | 58 | -- | -- | -- | -- |
| 06... | -- | -- | 56 | -- | -- | -- | -- |
| 06... | -- | -- | 59 | -- | -- | -- | -- |
| 06... | -- | -- | 58 | -- | -- | -- | -- |
| 06... | -- | -- | 48 | -- | -- | -- | -- |
| 06... | -- | -- | 56 | -- | -- | -- | -- |
| 06... | -- | -- | 58 | -- | -- | -- | -- |
| 06... | -- | -- | 56 | -- | -- | -- | -- |
| 06... | -- | -- | 53 | -- | -- | -- | -- |
| 06... | -- | -- | 40 | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- 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 |
|-------|------|-----------------------------|---|---|---|---|--|--|--|--|--|--|
| DEC | | | | | | | | | | | | |
| 06... | 1020 | 7.5 | 13200 | -- | 41200 | 1470000 | -- | -- | -- | -- | -- | -- |
| 06... | 1110 | 8.0 | 13100 | 5 | 23400 | 828000 | -- | 10 | 15 | 24 | 36 | -- |
| 06... | 1245 | -- | 13000 | -- | 26900 | 944000 | -- | -- | -- | -- | -- | -- |
| 06... | 1250 | -- | 13000 | -- | 19900 | 698000 | -- | -- | -- | -- | -- | -- |
| 06... | 1335 | -- | 12900 | -- | 20800 | 724000 | -- | -- | -- | -- | -- | -- |
| 06... | 1500 | 8.0 | 12700 | -- | 21900 | 751000 | -- | -- | 14 | 23 | 34 | -- |
| 06... | 1620 | -- | 12400 | 5 | 19800 | 663000 | -- | 10 | -- | -- | -- | -- |
| 06... | 1640 | -- | 11000 | -- | 22600 | 671000 | -- | -- | -- | -- | -- | -- |
| 07... | 1205 | -- | 8300 | -- | 18100 | 406000 | -- | -- | -- | -- | -- | -- |
| 07... | 1245 | 8.0 | 8450 | -- | 16400 | 374000 | -- | -- | -- | -- | -- | -- |
| 07... | 1350 | 8.0 | 8380 | -- | 17400 | 394000 | -- | -- | -- | -- | -- | -- |
| 07... | 1505 | 8.0 | 8100 | 5 | 13700 | 300000 | -- | 8 | 12 | 20 | 30 | -- |
| 07... | 1525 | 8.0 | 8000 | -- | 22100 | 477000 | -- | -- | -- | -- | -- | -- |
| 09... | 1230 | 8.5 | 8400 | -- | 16900 | 383000 | -- | -- | -- | -- | -- | -- |
| 09... | 1245 | 8.5 | 8450 | 5 | 8480 | 193000 | -- | 8 | 12 | 20 | 28 | -- |
| 09... | 1255 | 8.5 | 8480 | -- | 18400 | 421000 | -- | -- | -- | -- | -- | -- |
| 11... | 1050 | 5.5 | 4400 | -- | 18600 | 221000 | -- | -- | -- | -- | -- | -- |
| 11... | 1250 | 5.5 | 4400 | -- | 15600 | 185000 | -- | -- | -- | -- | -- | -- |
| 11... | 1320 | 5.5 | 4400 | 5 | 8090 | 96100 | -- | 8 | 13 | 21 | 31 | -- |
| 11... | 1345 | 5.5 | 4400 | -- | 16600 | 197000 | -- | -- | -- | -- | -- | -- |
| 14... | 1320 | 6.0 | 3000 | 5 | 5000 | 40500 | 6 | 6 | 13 | 21 | 30 | 42 |
| 15... | 1550 | 8.5 | 9950 | -- | 14100 | 379000 | -- | -- | -- | -- | -- | -- |
| 15... | 1620 | 8.5 | 10300 | -- | 14700 | 409000 | -- | -- | -- | -- | -- | -- |
| 16... | 1025 | 7.0 | 7840 | -- | 15400 | 326000 | -- | -- | -- | -- | -- | -- |
| 16... | 1235 | 7.0 | 7380 | -- | 12400 | 247000 | -- | -- | -- | -- | -- | -- |
| 16... | 1310 | 7.0 | 7130 | 5 | 10500 | 202000 | -- | 7 | 11 | 19 | 28 | -- |
| 16... | 1345 | 7.0 | 7320 | -- | 12200 | 241000 | -- | -- | -- | -- | -- | -- |
| 18... | 1000 | 7.0 | 4120 | -- | 5880 | 65400 | -- | -- | -- | -- | -- | -- |
| 18... | 1250 | 7.0 | 4120 | -- | 5820 | 64700 | -- | -- | -- | -- | -- | -- |
| 18... | 1310 | 7.0 | 4120 | 5 | 6150 | 68400 | 6 | 7 | 8 | 16 | 24 | 34 |
| 18... | 1325 | 7.0 | 4120 | -- | 6290 | 70000 | -- | -- | -- | -- | -- | -- |
| 22... | 1010 | 5.5 | 3160 | -- | 7700 | 65700 | -- | -- | -- | -- | -- | -- |
| 22... | 1300 | 5.5 | 3160 | -- | 6670 | 56900 | -- | -- | -- | -- | -- | -- |
| 22... | 1315 | 5.5 | 3160 | 5 | 6200 | 52900 | 6 | 6 | 8 | 17 | 25 | 38 |
| 22... | 1330 | 5.5 | 3160 | -- | 7200 | 61400 | -- | -- | -- | -- | -- | -- |
| 29... | 0945 | 4.0 | 2480 | -- | 3840 | 25700 | -- | -- | -- | -- | -- | -- |
| 29... | 1150 | 4.0 | 2480 | -- | 3590 | 24000 | -- | -- | -- | -- | -- | -- |
| 29... | 1210 | 4.0 | 2480 | 5 | 3800 | 25400 | -- | -- | -- | -- | -- | -- |
| 29... | 1225 | 4.0 | 2480 | -- | 4460 | 29900 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|---|--|--|--|--|--|--|
| DEC | | | | | | | |
| 06... | 34 | -- | -- | -- | -- | -- | -- |
| 06... | 49 | -- | -- | 99 | -- | 100 | -- |
| 06... | 45 | -- | -- | -- | -- | -- | -- |
| 06... | 51 | -- | -- | -- | -- | -- | -- |
| 06... | 51 | -- | -- | -- | -- | -- | -- |
| 06... | 49 | -- | -- | -- | -- | -- | -- |
| 06... | 48 | -- | -- | 99 | -- | 100 | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- |
| 06... | 36 | -- | -- | -- | -- | -- | -- |
| 07... | 37 | -- | -- | -- | -- | -- | -- |
| 07... | 36 | -- | -- | -- | -- | -- | -- |
| 07... | 43 | -- | -- | 97 | -- | 99 | 100 |
| 07... | 27 | -- | -- | -- | -- | -- | -- |
| 09... | 23 | -- | -- | -- | -- | -- | -- |
| 09... | 39 | -- | -- | 97 | -- | 100 | -- |
| 09... | 22 | -- | -- | -- | -- | -- | -- |
| 11... | 20 | -- | -- | -- | -- | -- | -- |
| 11... | 23 | -- | -- | -- | -- | -- | -- |
| 11... | 42 | -- | -- | 98 | -- | 100 | -- |
| 11... | 22 | -- | -- | -- | -- | -- | -- |
| 14... | 40 | 61 | 88 | -- | 100 | -- | -- |
| 15... | 56 | -- | -- | -- | -- | -- | -- |
| 15... | 59 | -- | -- | -- | -- | -- | -- |
| 16... | 30 | -- | -- | -- | -- | -- | -- |
| 16... | 34 | -- | -- | -- | -- | -- | -- |
| 16... | 40 | -- | -- | 97 | -- | 100 | -- |
| 16... | 34 | -- | -- | -- | -- | -- | -- |
| 18... | 36 | -- | -- | -- | -- | -- | -- |
| 18... | 36 | -- | -- | -- | -- | -- | -- |
| 18... | 35 | 53 | 82 | -- | 100 | -- | -- |
| 18... | 32 | -- | -- | -- | -- | -- | -- |
| 22... | 32 | -- | -- | -- | -- | -- | -- |
| 22... | 34 | -- | -- | -- | -- | -- | -- |
| 22... | 40 | 54 | 80 | -- | 99 | -- | 100 |
| 22... | 28 | -- | -- | -- | -- | -- | -- |
| 29... | 25 | -- | -- | -- | -- | -- | -- |
| 29... | 23 | -- | -- | -- | -- | -- | -- |
| 29... | 22 | -- | -- | -- | -- | -- | -- |
| 29... | 19 | -- | -- | -- | -- | -- | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, 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 |
|-------|------|-----------------------------|---|---|--|--|--|--|--|--|--|
| JAN | | | | | | | | | | | |
| 06... | 1200 | .5 | 1260 | -- | 1340 | 4560 | -- | -- | -- | -- | -- |
| 06... | 1205 | .5 | 1260 | -- | 1740 | 5920 | -- | -- | -- | -- | -- |
| 12... | 1135 | 5.0 | 1820 | -- | 3400 | 16700 | -- | -- | -- | -- | -- |
| 12... | 1150 | 5.0 | 1820 | 5 | 3620 | 17800 | -- | 5 | 8 | 13 | 18 |
| 12... | 1205 | 5.0 | 1820 | -- | 3490 | 17100 | -- | -- | -- | -- | -- |
| 14... | 1320 | 6.5 | 2960 | -- | 4250 | 34000 | -- | -- | -- | -- | -- |
| 16... | 1245 | -- | 6500 | -- | 12400 | 218000 | -- | -- | -- | -- | -- |
| 16... | 1355 | 6.0 | 6900 | -- | 9260 | 173000 | -- | -- | -- | -- | -- |
| 16... | 1505 | 6.0 | 6600 | -- | 11100 | 198000 | -- | -- | -- | -- | -- |
| 16... | 1530 | -- | 7100 | 5 | 10400 | 199000 | -- | 6 | 9 | 14 | 22 |
| 16... | 1650 | 6.0 | 8800 | -- | 14000 | 333000 | -- | -- | -- | -- | -- |
| 17... | 1505 | 5.5 | 9000 | -- | 12300 | 299000 | -- | -- | -- | -- | -- |
| 18... | 1015 | 6.5 | 9400 | -- | 6980 | 177000 | -- | -- | -- | -- | -- |
| 18... | 1310 | 6.5 | 6900 | -- | 6340 | 118000 | -- | -- | -- | -- | -- |
| 18... | 1335 | 6.5 | 6850 | 5 | 8200 | 152000 | 4 | 5 | 7 | 12 | 19 |
| 18... | 1355 | 6.5 | 6820 | -- | 5880 | 108000 | -- | -- | -- | -- | -- |
| 23... | 1210 | 6.5 | 21100 | -- | 19400 | 1110000 | -- | -- | -- | -- | -- |
| 23... | 1255 | 7.0 | 22700 | -- | 14400 | 883000 | -- | -- | -- | -- | -- |
| 23... | 1300 | -- | 22800 | -- | 21900 | 1350000 | -- | -- | -- | -- | -- |
| 23... | 1345 | -- | 22800 | -- | 21500 | 1320000 | -- | -- | -- | -- | -- |
| 23... | 1355 | -- | 22700 | -- | 21600 | 1320000 | -- | -- | -- | -- | -- |
| 23... | 1400 | -- | 22700 | -- | 21500 | 1320000 | -- | -- | -- | -- | -- |
| 23... | 1410 | -- | 21500 | -- | 21200 | 1230000 | -- | -- | -- | -- | -- |
| 23... | 1435 | -- | 19500 | -- | 20600 | 1080000 | -- | -- | -- | -- | -- |
| 23... | 1505 | -- | 20600 | -- | 19900 | 1110000 | -- | -- | -- | -- | -- |
| 23... | 1515 | -- | 20500 | -- | 20000 | 1110000 | -- | -- | -- | -- | -- |
| 23... | 1520 | -- | 20500 | -- | 21000 | 1160000 | -- | -- | -- | -- | -- |
| 23... | 1545 | -- | 20200 | -- | 18700 | 1020000 | -- | -- | -- | -- | -- |
| 23... | 1605 | -- | 20200 | -- | 19600 | 1070000 | -- | -- | -- | -- | -- |
| 23... | 1645 | -- | 20300 | -- | 19700 | 1080000 | -- | -- | -- | -- | -- |
| 23... | 2050 | -- | 19500 | -- | 20800 | 1100000 | -- | -- | -- | -- | -- |
| 23... | 2100 | -- | 19600 | -- | 17000 | 900000 | -- | -- | -- | -- | -- |
| 23... | 2330 | -- | 21000 | -- | 18400 | 1040000 | -- | -- | -- | -- | -- |
| 24... | 0125 | -- | 23200 | -- | 23500 | 1470000 | -- | -- | -- | -- | -- |
| 24... | 0145 | -- | 23500 | -- | 22500 | 1430000 | -- | -- | -- | -- | -- |
| 24... | 0245 | -- | 26700 | -- | 30800 | 2220000 | -- | -- | -- | -- | -- |
| 24... | 0315 | 7.0 | 29000 | -- | 34400 | 2690000 | -- | -- | -- | -- | -- |
| 24... | 0320 | 7.0 | 29400 | -- | 30000 | 2380000 | -- | -- | -- | -- | -- |
| 24... | 0425 | -- | 31800 | -- | 42000 | 3610000 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|
| JAN | | | | | | | |
| 06... | -- | 30 | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | 23 | -- | -- | -- | -- | -- |
| 12... | -- | 26 | -- | -- | -- | 100 | -- |
| 12... | -- | 24 | -- | -- | -- | -- | -- |
| 14... | -- | 33 | -- | -- | -- | -- | -- |
| 16... | -- | 31 | -- | -- | -- | -- | -- |
| 16... | -- | 38 | -- | -- | -- | -- | -- |
| 16... | -- | 32 | -- | -- | -- | -- | -- |
| 16... | -- | 34 | -- | -- | -- | 99 | 100 |
| 16... | -- | 35 | -- | -- | -- | -- | -- |
| 17... | -- | 34 | -- | -- | -- | -- | -- |
| 18... | -- | 29 | -- | -- | -- | -- | -- |
| 18... | -- | 30 | -- | -- | -- | -- | -- |
| 18... | 27 | 23 | 76 | 98 | 100 | -- | -- |
| 18... | -- | 32 | -- | -- | -- | -- | -- |
| 23... | -- | 61 | -- | -- | -- | -- | -- |
| 23... | -- | 56 | -- | -- | -- | -- | -- |
| 23... | -- | 57 | -- | -- | -- | -- | -- |
| 23... | -- | 55 | -- | -- | -- | -- | -- |
| 23... | -- | 59 | -- | -- | -- | -- | -- |
| 23... | -- | 55 | -- | -- | -- | -- | -- |
| 23... | -- | 57 | -- | -- | -- | -- | -- |
| 23... | -- | 59 | -- | -- | -- | -- | -- |
| 23... | -- | 55 | -- | -- | -- | -- | -- |
| 23... | -- | 53 | -- | -- | -- | -- | -- |
| 23... | -- | 59 | -- | -- | -- | -- | -- |
| 23... | -- | 55 | -- | -- | -- | -- | -- |
| 23... | -- | 55 | -- | -- | -- | -- | -- |
| 23... | -- | 67 | -- | -- | -- | -- | -- |
| 23... | -- | 53 | -- | -- | -- | -- | -- |
| 24... | -- | 46 | -- | -- | -- | -- | -- |
| 24... | -- | 48 | -- | -- | -- | -- | -- |
| 24... | -- | 51 | -- | -- | -- | -- | -- |
| 24... | -- | 42 | -- | -- | -- | -- | -- |
| 24... | -- | 51 | -- | -- | -- | -- | -- |
| 24... | -- | 52 | -- | -- | -- | -- | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | |
| 24... | 0445 | -- | 32500 | -- | 46700 | 4100000 | -- | -- | -- | -- | -- |
| 24... | 0530 | -- | 35100 | -- | 46500 | 4410000 | -- | -- | -- | -- | -- |
| 24... | 0625 | -- | 33700 | -- | 26100 | 2370000 | -- | -- | -- | -- | -- |
| 24... | 0715 | -- | 32300 | -- | 44900 | 3920000 | -- | -- | -- | -- | -- |
| 24... | 0725 | -- | 32100 | -- | 42300 | 3670000 | -- | -- | -- | -- | -- |
| 24... | 0825 | -- | 31100 | -- | 45700 | 3840000 | -- | -- | -- | -- | -- |
| 24... | 0830 | -- | 30800 | -- | 39900 | 3320000 | -- | -- | -- | -- | -- |
| 24... | 0900 | -- | 29400 | -- | 52200 | 4140000 | -- | -- | -- | -- | -- |
| 24... | 0930 | -- | 28800 | -- | 43100 | 3350000 | -- | -- | -- | -- | -- |
| 24... | 0940 | -- | 28700 | -- | 43200 | 3350000 | -- | -- | -- | -- | -- |
| 24... | 1110 | -- | 26700 | -- | 38200 | 2750000 | -- | -- | -- | -- | -- |
| 24... | 1150 | -- | 26300 | -- | 34100 | 2420000 | -- | -- | -- | -- | -- |
| 24... | 1220 | -- | 26200 | -- | 32600 | 2310000 | -- | -- | -- | -- | -- |
| 24... | 1300 | -- | 25700 | -- | 32200 | 2230000 | -- | -- | -- | -- | -- |
| 24... | 1445 | -- | 22700 | -- | 28300 | 1730000 | -- | -- | -- | -- | -- |
| 24... | 1615 | -- | 21700 | -- | 23700 | 1390000 | -- | -- | -- | -- | -- |
| 25... | 1500 | 7.0 | 10700 | -- | 19500 | 963000 | -- | -- | -- | -- | -- |
| 25... | 1630 | 7.0 | 10800 | -- | 15400 | 449000 | -- | -- | -- | -- | -- |
| 25... | 1655 | 7.0 | 10800 | 5 | 16400 | 478000 | -- | 10 | 15 | 23 | 34 |
| 26... | 1245 | 6.5 | 10700 | -- | 12300 | 355000 | -- | -- | -- | -- | -- |
| 29... | 1150 | 6.5 | 4820 | -- | 6080 | 79100 | -- | -- | -- | -- | -- |
| 29... | 1200 | 6.5 | 4820 | 5 | 4960 | 64500 | -- | -- | -- | -- | -- |
| 29... | 1215 | 6.5 | 4820 | -- | 5830 | 75900 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 02... | 0920 | 7.5 | 4130 | -- | 4940 | 55100 | -- | -- | -- | -- | -- |
| 02... | 1150 | 7.5 | 4130 | -- | 4620 | 51500 | -- | -- | -- | -- | -- |
| 02... | 1215 | 7.5 | 4130 | 5 | 6160 | 68700 | 4 | 5 | 9 | 15 | 22 |
| 02... | 1235 | 7.5 | 4130 | -- | 4760 | 53100 | -- | -- | -- | -- | -- |
| 04... | 1300 | -- | 3420 | -- | 2880 | 26600 | -- | -- | -- | -- | -- |
| 04... | 1320 | -- | 3420 | 5 | 3600 | 33200 | -- | -- | -- | -- | -- |
| 04... | 1335 | -- | 3420 | -- | 3140 | 29000 | -- | -- | -- | -- | -- |
| 09... | 1200 | -- | 1810 | -- | 1880 | 9190 | -- | -- | -- | -- | -- |
| 09... | 1210 | -- | 1810 | 5 | 2120 | 10400 | 4 | 6 | 10 | 14 | 21 |
| 09... | 1225 | -- | 1810 | -- | 1740 | 8500 | -- | -- | -- | -- | -- |
| 12... | 0835 | 5.0 | 2310 | -- | 2010 | 12500 | -- | -- | -- | -- | -- |
| 14... | 1220 | 8.5 | 13200 | -- | 26400 | 941000 | -- | -- | -- | -- | -- |
| 14... | 1240 | 8.5 | 13300 | 5 | 28400 | 1020000 | -- | -- | -- | -- | -- |
| 14... | 1300 | 8.5 | 13300 | -- | 25700 | 923000 | -- | -- | -- | -- | -- |
| 15... | 1235 | 8.5 | 13500 | -- | 18400 | 671000 | -- | -- | -- | -- | -- |
| 17... | 1020 | 8.5 | 15500 | -- | 57300 | 2400000 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT. WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

[illegible]

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, 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 |
|--------|------|-----------------------------|---|---|---------------------------------------|---|--|--|--|
| FEB | | | | | | | | | |
| 17.... | 1100 | -- | 15300 | -- | 46200 | 1910000 | -- | -- | -- |
| 17.... | 1215 | -- | 14700 | -- | 35900 | 1420000 | -- | -- | -- |
| 17.... | 1335 | -- | 14000 | -- | 29000 | 1100000 | -- | -- | -- |
| 17.... | 1435 | -- | 13400 | -- | 24100 | 872000 | -- | -- | -- |
| 17.... | 1535 | -- | 13000 | -- | 21700 | 762000 | -- | -- | -- |
| 17.... | 1620 | -- | 13000 | -- | 22700 | 797000 | -- | -- | -- |
| 17.... | 1730 | -- | 13000 | 5 | 23400 | 821000 | 6 | 8 | 16 |
| 17.... | 1800 | 8.0 | 13000 | -- | 21800 | 765000 | -- | -- | -- |
| 18.... | 1950 | -- | 13700 | -- | 21600 | 799000 | -- | -- | -- |
| 18.... | 2000 | -- | 13700 | -- | 25800 | 954000 | -- | -- | -- |
| 18.... | 2030 | -- | 13800 | -- | 22400 | 835000 | -- | -- | -- |
| 18.... | 2040 | -- | 13800 | -- | 22600 | 842000 | -- | -- | -- |
| 18.... | 2200 | 7.0 | 13500 | 5 | 29500 | 1080000 | 7 | 10 | 18 |
| 18.... | 2310 | -- | 12800 | -- | 31600 | 1090000 | -- | -- | -- |
| 19.... | 0730 | 8.0 | 11800 | -- | 18900 | 602000 | -- | -- | -- |
| 19.... | 0940 | -- | 11000 | -- | 15100 | 448000 | -- | -- | -- |
| 19.... | 0950 | 8.0 | 11000 | -- | 15600 | 463000 | -- | -- | -- |
| 19.... | 1015 | 8.0 | 10700 | 5 | 21000 | 607000 | 6 | 6 | 11 |
| 19.... | 1040 | 8.0 | 10900 | -- | 18400 | 542000 | -- | -- | -- |
| 20.... | 1020 | -- | 24000 | -- | 261000 | 1.69E+07 | -- | -- | -- |
| 20.... | 1022 | -- | 23500 | -- | 222000 | 1.41E+07 | -- | -- | -- |
| 20.... | 1030 | -- | 21000 | -- | 253000 | 1.43E+07 | -- | -- | -- |
| 20.... | 1200 | -- | 19000 | -- | 182000 | 9340000 | -- | -- | -- |
| 20.... | 1205 | -- | 18700 | -- | 188000 | 9490000 | -- | -- | -- |
| 20.... | 1230 | -- | 18600 | -- | 146000 | 7330000 | -- | -- | -- |
| 20.... | 1245 | -- | 19500 | -- | 133000 | 7000000 | -- | -- | -- |
| 20.... | 1250 | -- | 19900 | -- | 136000 | 7310000 | -- | -- | -- |
| 20.... | 1300 | -- | 20700 | -- | 133000 | 7430000 | -- | -- | -- |
| 20.... | 1310 | -- | 21000 | -- | 104000 | 5900000 | -- | -- | -- |
| 20.... | 1315 | -- | 21500 | -- | 103000 | 5980000 | -- | -- | -- |
| 20.... | 1355 | -- | 27000 | -- | 109000 | 7950000 | -- | -- | -- |
| 20.... | 1400 | -- | 27400 | -- | 103000 | 7620000 | -- | -- | -- |
| 20.... | 1435 | -- | 35300 | -- | 98400 | 8900000 | -- | -- | -- |
| 20.... | 1445 | 11.0 | 35200 | -- | 94400 | 8970000 | -- | -- | -- |
| 20.... | 1450 | 10.5 | 33500 | -- | 97700 | 8840000 | -- | -- | -- |
| 20.... | 1500 | 10.5 | 32000 | -- | 99100 | 8560000 | -- | -- | -- |
| 20.... | 1505 | -- | 31500 | -- | 105000 | 8930000 | -- | -- | -- |
| 20.... | 1530 | -- | 30400 | -- | 100000 | 8210000 | -- | -- | -- |
| 20.... | 1540 | -- | 30300 | -- | 105000 | 8590000 | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 |
|-------|--|--|---|---|---|---|---|---|
| FEB | | | | | | | | |
| 17... | -- | -- | 67 | -- | -- | -- | -- | -- |
| 17... | -- | -- | 64 | -- | -- | -- | -- | -- |
| 17... | -- | -- | 61 | -- | -- | -- | -- | -- |
| 17... | -- | -- | 59 | -- | -- | -- | -- | -- |
| 17... | -- | -- | 57 | -- | -- | -- | -- | -- |
| 17... | -- | -- | 60 | -- | -- | -- | -- | -- |
| 17... | -- | -- | 80 | 96 | 99 | 100 | -- | -- |
| 17... | 26 | 41 | 49 | -- | -- | -- | -- | -- |
| 17... | -- | -- | 42 | -- | -- | -- | -- | -- |
| 18... | -- | -- | 38 | -- | -- | -- | -- | -- |
| 18... | -- | -- | 49 | -- | -- | -- | -- | -- |
| 18... | -- | -- | 53 | -- | -- | -- | -- | -- |
| 18... | 31 | 45 | 62 | 75 | 93 | 98 | 100 | -- |
| 18... | -- | -- | 62 | -- | -- | -- | -- | -- |
| 19... | -- | -- | 50 | -- | -- | -- | -- | -- |
| 19... | -- | -- | 56 | -- | -- | -- | -- | -- |
| 19... | -- | -- | 55 | -- | -- | -- | -- | -- |
| 19... | 19 | 29 | 39 | 58 | 85 | 96 | 99 | 100 |
| 19... | -- | -- | 47 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 52 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 38 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 46 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 48 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 55 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 44 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 59 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 51 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 55 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 68 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 67 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 60 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 64 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 62 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 65 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 64 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 62 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 62 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 62 | -- | -- | -- | -- | -- |
| 20... | -- | -- | 57 | -- | -- | -- | -- | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, TOTAL (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SEDI- MENT, DISCH, SUSP., BED MA- TERIAL (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM |
|-------|------|-----------------------------|---|---|--|-----------------------------------|--|--|--|
| FEB | | | | | | | | | |
| 20... | 1815 | 9.0 | 25000 | -- | 62600 | -- | 4230000 | -- | -- |
| 20... | 1905 | -- | 26400 | -- | 61100 | -- | 4360000 | -- | -- |
| 20... | 1930 | -- | 24600 | -- | 55800 | -- | 3710000 | -- | -- |
| 20... | 2000 | -- | 25200 | -- | 55200 | -- | 3760000 | -- | -- |
| 20... | 2040 | -- | 27300 | 3 | 61700 | -- | 4550000 | -- | 8 |
| 20... | 2150 | 7.0 | 27900 | -- | 72000 | -- | 5420000 | -- | -- |
| 20... | 2240 | 6.0 | 25300 | -- | 93800 | -- | 6410000 | -- | -- |
| 20... | 2250 | 6.0 | 24300 | -- | 94600 | -- | 6210000 | -- | -- |
| 20... | 2300 | 6.5 | 23500 | -- | 100000 | -- | 6530000 | -- | -- |
| 20... | 2310 | 6.5 | 23300 | -- | 85700 | -- | 5390000 | -- | -- |
| 21... | 0015 | -- | 22800 | -- | 63400 | -- | 3900000 | -- | -- |
| 21... | 0145 | 5.5 | 21700 | -- | 56000 | -- | 3280000 | -- | -- |
| 21... | 0920 | -- | 15500 | -- | 33600 | -- | 1410000 | -- | -- |
| 21... | 0955 | -- | 15800 | 5 | 35200 | -- | 1500000 | -- | -- |
| 21... | 1035 | -- | 16000 | -- | 32800 | -- | 1420000 | -- | -- |
| 21... | 1245 | -- | 14300 | -- | 31800 | -- | 1230000 | -- | -- |
| 21... | 1305 | -- | 14400 | 5 | 30800 | -- | 1200000 | -- | 6 |
| 21... | 1335 | -- | 14200 | -- | 31400 | -- | 1200000 | -- | -- |
| 21... | 1440 | -- | 13500 | -- | 29400 | -- | 1070000 | -- | -- |
| 21... | 1505 | -- | 13300 | 5 | 26100 | -- | 937000 | -- | -- |
| 21... | 1525 | -- | 12500 | -- | 26300 | -- | 888000 | -- | -- |
| 22... | 1300 | -- | 8480 | -- | 21900 | -- | 501000 | -- | -- |
| 22... | 1610 | -- | 8480 | -- | 20600 | -- | 472000 | -- | -- |
| 25... | 1340 | 7.0 | 4100 | 5 | 9460 | -- | 105000 | -- | -- |
| MAR | | | | | | | | | |
| 02... | 1115 | 6.5 | 4020 | -- | 6430 | -- | 69800 | -- | -- |
| 02... | 1135 | 6.5 | 4020 | 5 | 9580 | -- | 104000 | -- | -- |
| 02... | 1210 | 6.5 | 4020 | -- | 6390 | -- | 69400 | -- | -- |
| 05... | 1310 | 7.5 | 3770 | 5 | 8940 | -- | 91000 | -- | -- |
| 05... | 1400 | 7.5 | 3770 | -- | 4060 | -- | 41300 | -- | -- |
| 09... | 1210 | 9.0 | 3830 | -- | 6740 | -- | 69700 | -- | -- |
| 09... | 1250 | 9.0 | 3830 | 5 | 8920 | -- | 92200 | -- | -- |
| 09... | 1310 | 9.0 | 3830 | -- | 6720 | -- | 69500 | -- | -- |
| 16... | 1155 | 5.5 | 3460 | 5 | 6070 | -- | 56700 | -- | -- |
| 16... | 1325 | 5.5 | 3460 | -- | 6180 | -- | 57700 | -- | -- |
| 20... | 0135 | -- | 11300 | -- | -- | -- | 882000 | -- | 2.69E+07 |
| 20... | 0150 | 9.0 | 10000 | -- | -- | -- | 834000 | -- | 2.25E+07 |
| 20... | 0158 | 11.0 | 9500 | -- | -- | -- | 968000 | -- | 2.48E+07 |
| 20... | 0220 | 15.0 | 8200 | -- | -- | -- | 977000 | -- | 2.16E+07 |
| 20... | 0225 | -- | 8000 | -- | -- | -- | 929000 | -- | 2.01E+07 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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. 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 |
|-------|--|--|--|--|---|---|---|---|---|
| FEB | | | | | | | | | |
| 20... | -- | -- | -- | -- | 55 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | 53 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | 56 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | 58 | -- | -- | -- | -- |
| 20... | 10 | 18 | 29 | 42 | 54 | 69 | 93 | 99 | 100 |
| 20... | -- | -- | -- | -- | 60 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | 57 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | 55 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | 50 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | 52 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | 52 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | 46 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | 49 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | 47 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | 50 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | 47 | -- | -- | -- | -- |
| 21... | 7 | 15 | 25 | 37 | 49 | 67 | 91 | 99 | 100 |
| 21... | -- | -- | -- | -- | 46 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | 42 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | 48 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | 47 | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | 38 | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | 36 | -- | -- | -- | -- |
| 25... | -- | -- | -- | -- | 32 | -- | -- | -- | -- |
| MAR | | | | | | | | | |
| 02... | -- | -- | -- | -- | 53 | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | 39 | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | 52 | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | 27 | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | 53 | -- | -- | -- | -- |
| 09... | -- | -- | -- | -- | 52 | -- | -- | -- | -- |
| 09... | -- | -- | -- | -- | 42 | -- | -- | -- | -- |
| 09... | -- | -- | -- | -- | 54 | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | 26 | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | 22 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDED (MG/L) | SED1- MENT, TOTAL (MG/L) | SED1- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) |
|-------|------|-----------------------------|---|---|--|-----------------------------------|--|
| MAR | | | | | | | |
| 20... | 0230 | -- | 7700 | -- | -- | 960000 | -- |
| 20... | 0235 | -- | 7500 | -- | -- | 914000 | -- |
| 20... | 0245 | -- | 7100 | -- | -- | 918000 | -- |
| 20... | 0315 | -- | 6000 | -- | -- | 864000 | -- |
| 20... | 0330 | -- | 5500 | -- | -- | 790000 | -- |
| 20... | 0357 | -- | 4800 | -- | -- | 692000 | -- |
| 20... | 0405 | 11.0 | 4600 | -- | -- | 724000 | -- |
| 20... | 0440 | -- | 3900 | -- | -- | 544000 | -- |
| 20... | 0445 | -- | 3800 | -- | -- | 596000 | -- |
| 20... | 0520 | 11.0 | 3300 | -- | -- | 460000 | -- |
| 20... | 0600 | 10.0 | 2800 | -- | -- | 373000 | -- |
| 20... | 0640 | -- | 2450 | -- | -- | 308000 | -- |
| 20... | 0720 | -- | 2050 | -- | -- | 267000 | -- |
| 20... | 0800 | -- | 2050 | -- | -- | 235000 | -- |
| 20... | 0930 | -- | 2550 | -- | -- | 150000 | -- |
| 20... | 0945 | 8.5 | 2500 | -- | -- | 155000 | -- |
| 20... | 0950 | 8.5 | 2500 | -- | -- | 150000 | -- |
| 20... | 1120 | 10.0 | 2300 | -- | -- | 118000 | -- |
| 20... | 1230 | 9.5 | 2400 | -- | -- | 91400 | -- |
| 20... | 1430 | -- | 2450 | -- | -- | 75900 | -- |
| 20... | 1435 | -- | 2450 | -- | -- | 78200 | -- |
| 20... | 1648 | -- | 2330 | -- | -- | 66600 | -- |
| 20... | 1655 | -- | 2330 | -- | -- | 75900 | -- |
| 20... | 1700 | -- | 2330 | -- | -- | 68300 | -- |
| 20... | 1955 | -- | 2350 | -- | -- | 57600 | -- |
| 21... | 0840 | 6.0 | 2130 | -- | 44600 | -- | 256000 |
| 21... | 0955 | 6.0 | 2110 | -- | 36400 | -- | 207000 |
| 24... | 1220 | 11.0 | 1660 | -- | 19600 | -- | 87800 |
| 24... | 1250 | 11.0 | 1660 | 5 | 14900 | -- | 66800 |
| 24... | 1305 | 11.0 | 1660 | -- | 20400 | -- | 91400 |
| 30... | 1110 | 7.5 | 1830 | -- | 11400 | -- | 56300 |
| 30... | 1130 | 7.5 | 1830 | 5 | 12000 | -- | 59300 |
| 30... | 1140 | 7.5 | 1830 | -- | 11600 | -- | 57300 |
| APR | | | | | | | |
| 02... | 0950 | 5.5 | 2120 | -- | 16100 | -- | 92200 |
| 04... | 2325 | 6.5 | 2120 | -- | 6240 | -- | 35700 |
| 07... | 1300 | 9.5 | 2190 | 5 | 6220 | -- | 36800 |
| 12... | 1315 | 7.5 | 7410 | -- | 22900 | -- | 458000 |
| 13... | 0930 | 7.0 | 8040 | -- | 24000 | -- | 521000 |
| 13... | 1300 | 7.0 | 6220 | -- | 14000 | -- | 235000 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

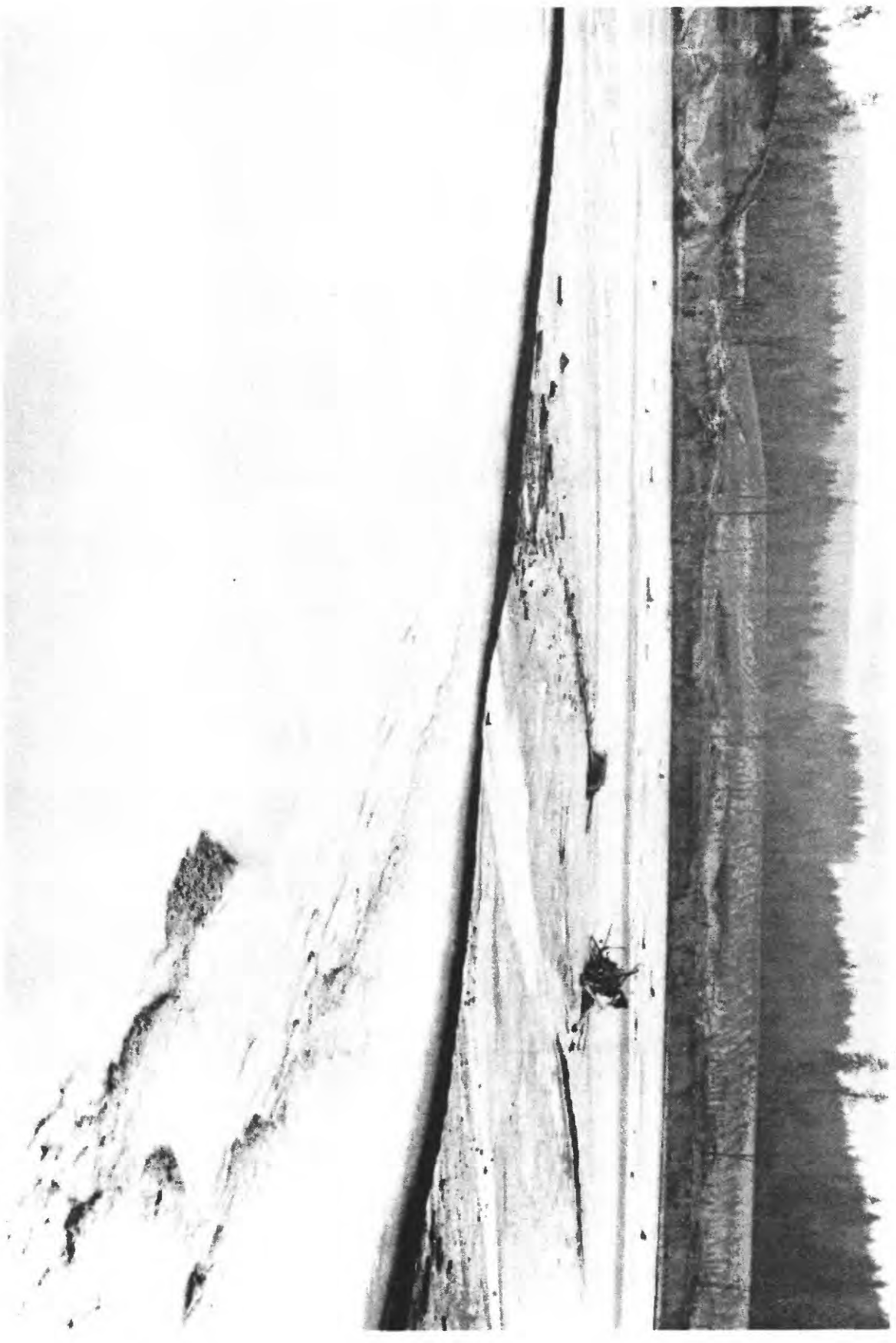
| DATE | SEDIMENT, DISCH, SUSP. + BED MATERIAL (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM | SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM | SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM | SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM | SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM |
|-------|---|---|---|---|---|---|
| MAR | | | | | | |
| 20... | 2.00E+07 | -- | -- | -- | -- | -- |
| 20... | 1.85E+07 | -- | -- | -- | -- | -- |
| 20... | 1.76E+07 | -- | -- | -- | -- | -- |
| 20... | 1.40E+07 | -- | -- | -- | -- | -- |
| 20... | 1.17E+07 | -- | -- | -- | -- | -- |
| 20... | 8970000 | -- | -- | -- | -- | -- |
| 20... | 8990000 | -- | -- | -- | -- | -- |
| 20... | 5730000 | -- | -- | -- | -- | -- |
| 20... | 6110000 | -- | -- | -- | -- | -- |
| 20... | 4100000 | -- | -- | -- | -- | -- |
| 20... | 2820000 | -- | -- | -- | -- | -- |
| 20... | 2040000 | -- | -- | -- | -- | -- |
| 20... | 1480000 | -- | -- | -- | -- | -- |
| 20... | 1300000 | -- | -- | -- | -- | -- |
| 20... | 1030000 | -- | -- | -- | -- | -- |
| 20... | 1050000 | -- | -- | -- | -- | -- |
| 20... | 1010000 | -- | -- | -- | -- | -- |
| 20... | 733000 | -- | -- | -- | -- | -- |
| 20... | 592000 | -- | -- | -- | -- | -- |
| 20... | 502000 | -- | -- | -- | -- | -- |
| 20... | 517000 | -- | -- | -- | -- | -- |
| 20... | 419000 | -- | -- | -- | -- | -- |
| 20... | 477000 | -- | -- | -- | -- | -- |
| 20... | 430000 | -- | -- | -- | -- | -- |
| 20... | 365000 | -- | -- | -- | -- | -- |
| 21... | -- | 52 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- |
| 24... | -- | 64 | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- |
| 30... | -- | 51 | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- |
| APR | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- |
| 07... | -- | 46 | 71 | 90 | 99 | 100 |
| 12... | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- |
| 13... | -- | 76 | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 |
|-------|------|-----------------------------|---|---|---|---|--|--|--|--|--|
| APR | | | | | | | | | | | |
| 13... | 1330 | 7.0 | 6220 | 5 | 24600 | 413000 | -- | -- | -- | -- | -- |
| 13... | 1350 | 7.0 | 5880 | -- | 17000 | 270000 | -- | -- | -- | -- | -- |
| 14... | 0900 | 6.0 | 4270 | -- | 14900 | 172000 | -- | -- | -- | -- | -- |
| 20... | 0830 | 7.0 | 2470 | -- | 5130 | 34200 | -- | -- | -- | -- | -- |
| 20... | 1030 | 7.0 | 2470 | -- | 5410 | 36100 | -- | -- | -- | -- | -- |
| 20... | 1115 | 7.0 | 2470 | -- | 6300 | 42000 | -- | -- | -- | -- | -- |
| 20... | 1125 | 7.0 | 2470 | -- | 4540 | 30300 | -- | -- | -- | -- | -- |
| 27... | 0910 | 11.0 | 2330 | -- | 6270 | 39400 | -- | -- | -- | -- | -- |
| 27... | 1220 | 11.0 | 2330 | -- | 5550 | 34900 | -- | -- | -- | -- | -- |
| 27... | 1240 | 11.0 | 2280 | 5 | 5850 | 36000 | -- | -- | -- | -- | -- |
| 27... | 1250 | 11.0 | 2330 | -- | 6280 | 39500 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 03... | 1005 | 10.5 | 2270 | -- | 3820 | 23400 | -- | -- | -- | -- | -- |
| 03... | 1235 | 10.5 | 2300 | -- | 3760 | 23300 | -- | -- | -- | -- | -- |
| 03... | 1255 | 10.5 | 2270 | 5 | 6820 | 41800 | -- | -- | -- | -- | -- |
| 03... | 1305 | 10.5 | 2300 | -- | 3750 | 23300 | -- | -- | -- | -- | -- |
| 10... | 0855 | 10.0 | 1750 | -- | 2710 | 12800 | -- | -- | -- | -- | -- |
| 10... | 1210 | 10.0 | 1730 | -- | 2570 | 12000 | -- | -- | -- | -- | -- |
| 10... | 1225 | 10.0 | 1620 | 5 | 3760 | 16400 | -- | -- | -- | -- | -- |
| 10... | 1240 | 10.0 | 1730 | -- | 2660 | 12400 | -- | -- | -- | -- | -- |
| 17... | 1150 | 13.5 | 2340 | -- | 3440 | 21700 | -- | -- | -- | -- | -- |
| 17... | 1210 | 13.5 | 2340 | 5 | 5480 | 34600 | -- | -- | -- | -- | -- |
| 24... | 1250 | 16.5 | 1860 | 5 | 3950 | 19800 | 4 | 7 | 12 | 19 | 28 |
| JUN | | | | | | | | | | | |
| 02... | 0750 | 12.0 | 1350 | -- | 1800 | 6560 | -- | -- | -- | -- | -- |
| 02... | 1050 | 12.0 | 1350 | -- | 1890 | 6890 | -- | -- | -- | -- | -- |
| 02... | 1110 | 12.0 | 1350 | 5 | 4220 | 15400 | -- | -- | -- | -- | -- |
| 02... | 1125 | 12.0 | 1350 | -- | 2000 | 7290 | -- | -- | -- | -- | -- |
| 10... | 0855 | 17.0 | 1470 | -- | 2340 | 9290 | -- | -- | -- | -- | -- |
| 10... | 1155 | 17.0 | 1470 | -- | 1970 | 7820 | -- | -- | -- | -- | -- |
| 10... | 1220 | 17.0 | 1470 | 5 | 3260 | 12900 | -- | -- | -- | -- | -- |
| 10... | 1235 | 17.0 | 1470 | -- | 2250 | 8930 | -- | -- | -- | -- | -- |
| 15... | 0800 | 14.0 | 1470 | -- | 3190 | 12700 | -- | -- | -- | -- | -- |
| 18... | 0925 | 18.0 | 1470 | -- | 3520 | 14000 | -- | -- | -- | -- | -- |
| 18... | 1245 | 21.0 | 1470 | 5 | 4370 | 17300 | -- | -- | -- | -- | -- |
| 18... | 1305 | 21.5 | 1470 | -- | 3630 | 14400 | -- | -- | -- | -- | -- |
| 22... | 1035 | 14.5 | 1150 | -- | 2550 | 7920 | -- | -- | -- | -- | -- |
| 22... | 1100 | 14.5 | 1150 | 5 | 4250 | 13200 | -- | -- | -- | -- | -- |
| 29... | 1120 | -- | 724 | 5 | 3100 | 6060 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 08... | 1400 | 21.5 | 584 | 5 | 1570 | 2480 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 .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 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|--|
| APR | | | | | | | | |
| 13... | -- | 45 | 63 | 83 | 96 | -- | 99 | 100 |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 35 | 53 | 79 | 96 | -- | 100 | -- |
| 20... | -- | 46 | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | 50 | 70 | 91 | 99 | -- | 100 | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | |
| 03... | -- | 63 | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | 43 | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 37 | 42 | 88 | 99 | -- | 100 | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | 67 | -- | -- | -- | -- | -- | -- |
| 17... | -- | 45 | -- | -- | -- | -- | -- | -- |
| 24... | 38 | 56 | 85 | 98 | -- | 100 | -- | -- |
| JUN | | | | | | | | |
| 02... | -- | 66 | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | 37 | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | 47 | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 67 | 64 | 94 | 100 | -- | -- | -- | -- |
| 18... | -- | 74 | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | 46 | -- | -- | -- | -- | -- | -- |
| 29... | -- | 43 | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | |
| 08... | -- | 41 | -- | -- | -- | -- | -- | -- |



Toutle River from Highway 99 bridge. Standing waves break upstream during the recession of the lahar-runout flow on March 20, 1982. Flow to right in foreground, to left in background; discharge about 2100 cubic feet per second.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|---|
| JUL | | | | | | | | | | | | |
| 08... | 1440 | 21.5 | 584 | -- | 1870 | 2950 | 36 | -- | -- | -- | -- | -- |
| 20... | 1125 | 19.5 | 518 | 5 | 1630 | 2280 | 47 | -- | -- | -- | -- | -- |
| 28... | 1100 | -- | 431 | 5 | 1350 | 1570 | 47 | -- | -- | -- | -- | -- |
| 28... | 1220 | 19.0 | 431 | -- | 1860 | 2160 | 41 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 13... | 1125 | 17.0 | 381 | -- | 791 | 814 | 32 | -- | -- | -- | -- | -- |
| 13... | 1140 | 17.0 | 381 | 9 | 2050 | 2110 | 13 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 08... | 1155 | 21.0 | 293 | 9 | 1340 | 1060 | 17 | -- | -- | -- | -- | -- |
| 08... | 1220 | -- | 293 | -- | 684 | 541 | -- | -- | -- | -- | -- | -- |
| 20... | 1400 | -- | 978 | -- | 9280 | 24500 | 58 | -- | -- | -- | -- | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|---------------------------------------|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 05... | 1320 | 10.0 | 476 | 5 | 2290 | 2940 | -- | -- | -- | -- | -- | 25 |
| 13... | 1420 | 15.5 | 663 | 9 | 1710 | 3060 | -- | -- | -- | -- | -- | 32 |
| 14... | 1445 | 15.5 | -- | -- | 2860 | -- | -- | -- | -- | -- | -- | -- |
| 29... | 0945 | -- | 10400 | -- | 35200 | 988000 | -- | -- | -- | -- | -- | -- |
| 29... | 1035 | -- | 9900 | -- | 26900 | 719000 | -- | -- | -- | -- | -- | -- |
| 29... | 1235 | -- | 7760 | -- | 26200 | 549000 | -- | -- | -- | -- | -- | -- |
| 29... | 1300 | -- | 8880 | -- | 22500 | 539000 | -- | -- | -- | -- | -- | -- |
| 29... | 1355 | 9.0 | 8000 | 5 | 23100 | 499000 | 9 | 10 | 15 | 24 | 35 | -- |
| 29... | 1415 | -- | 7760 | -- | 21600 | 453000 | -- | -- | -- | -- | -- | -- |
| 29... | 1610 | -- | 6920 | -- | 19100 | 357000 | -- | -- | -- | -- | -- | -- |
| 29... | 1640 | 10.0 | 5940 | -- | 16400 | 263000 | -- | -- | -- | -- | -- | -- |
| 30... | 1130 | -- | 3720 | -- | 8940 | 89800 | -- | -- | -- | -- | -- | -- |
| 30... | 1200 | -- | 3730 | -- | 9070 | 91300 | -- | -- | -- | -- | -- | -- |
| 30... | 1230 | -- | 3750 | -- | 9760 | 98800 | -- | -- | -- | -- | -- | -- |
| 30... | 1315 | -- | 3750 | -- | 9380 | 95000 | -- | -- | -- | -- | -- | -- |
| 30... | 1330 | 9.0 | 3770 | 5 | 13000 | 132000 | 7 | 7 | 9 | 17 | 24 | -- |
| 30... | 1350 | -- | 3770 | -- | 9900 | 101000 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 05... | 1120 | -- | -- | -- | 27300 | -- | -- | -- | -- | -- | -- | -- |
| 05... | 1140 | -- | -- | 5 | 27000 | -- | 7 | 7 | 11 | 20 | 28 | -- |
| 05... | 1225 | -- | -- | -- | 31400 | -- | -- | -- | -- | -- | -- | -- |
| 05... | 1440 | -- | -- | -- | 35600 | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 10... | 0755 | -- | 8340 | -- | 13600 | 306000 | -- | -- | -- | -- | -- | -- |
| 10... | 0910 | -- | 8340 | -- | 13800 | 311000 | -- | -- | -- | -- | -- | -- |
| 10... | 0945 | 8.5 | -- | -- | 15900 | -- | -- | -- | -- | -- | -- | -- |
| 10... | 1000 | 8.5 | 8340 | 5 | 20300 | 457000 | 5 | 6 | 10 | 16 | 24 | -- |
| 10... | 1020 | -- | -- | -- | 16400 | -- | -- | -- | -- | -- | -- | -- |
| 10... | 1325 | -- | -- | -- | 17400 | -- | -- | -- | -- | -- | -- | -- |
| 10... | 1405 | -- | -- | -- | 18600 | -- | 13 | 14 | 17 | 32 | 45 | 62 |
| 10... | 1425 | -- | -- | -- | 19200 | -- | -- | -- | -- | -- | -- | -- |
| 10... | 1500 | -- | 9060 | -- | 20600 | 504000 | -- | -- | -- | -- | -- | -- |
| 10... | 1645 | -- | 9060 | -- | 18900 | 462000 | -- | -- | -- | -- | -- | -- |
| 10... | 1720 | -- | -- | -- | 21800 | -- | -- | -- | -- | -- | -- | -- |
| 11... | 0950 | -- | 6550 | -- | 11800 | 209000 | -- | -- | -- | -- | -- | -- |
| 11... | 1100 | -- | 6550 | -- | 10800 | 191000 | -- | -- | -- | -- | -- | -- |
| 11... | 1110 | -- | -- | 5 | 10800 | -- | 7 | 9 | 12 | 22 | 32 | 47 |
| 11... | 1120 | -- | -- | -- | 12200 | -- | -- | -- | -- | -- | -- | -- |
| 13... | 0850 | -- | 4580 | -- | 8220 | 102000 | -- | -- | -- | -- | -- | -- |
| 13... | 1005 | -- | 4580 | -- | 9320 | 115000 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | SED. SUSP. DIAM. % FINER THAN .062 MM | SED. SUSP. DIAM. % FINER THAN .125 MM | SED. SUSP. DIAM. % FINER THAN .250 MM | SED. SUSP. DIAM. % FINER THAN .500 MM | SED. SUSP. DIAM. % FINER THAN 1.00 MM | SED. SUSP. DIAM. % FINER THAN 2.00 MM | SED. SUSP. DIAM. % FINER THAN 2.00 MM |
|-------|--|--|--|--|--|--|--|
| OCT | | | | | | | |
| 05... | 27 | 47 | 77 | 96 | 98 | 100 | -- |
| 13... | -- | 46 | 65 | 83 | 98 | 100 | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- |
| 29... | 46 | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- |
| 29... | 52 | -- | -- | -- | -- | -- | -- |
| 29... | 56 | -- | -- | -- | -- | -- | -- |
| 29... | 49 | 69 | -- | 99 | 100 | -- | -- |
| 29... | 51 | -- | 92 | -- | -- | -- | -- |
| 29... | 49 | -- | -- | -- | -- | -- | -- |
| 29... | 55 | -- | -- | -- | -- | -- | -- |
| 30... | 50 | -- | -- | -- | -- | -- | -- |
| 30... | 50 | -- | -- | -- | -- | -- | -- |
| 30... | 47 | -- | -- | -- | -- | -- | -- |
| 30... | 47 | -- | -- | -- | -- | -- | -- |
| 30... | 38 | 54 | 71 | 92 | 98 | -- | 100 |
| 30... | 44 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | |
| 05... | 40 | -- | -- | -- | -- | -- | -- |
| 05... | 40 | 54 | 79 | 97 | 100 | -- | -- |
| 05... | 35 | -- | -- | -- | -- | -- | -- |
| 05... | 29 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | |
| 10... | 46 | -- | -- | -- | -- | -- | -- |
| 10... | 43 | -- | -- | -- | -- | -- | -- |
| 10... | 40 | -- | -- | -- | -- | -- | -- |
| 10... | 35 | 48 | 65 | 87 | 97 | -- | 100 |
| 10... | 42 | -- | -- | -- | -- | -- | -- |
| 10... | 53 | -- | -- | -- | -- | -- | -- |
| 10... | 55 | 77 | 88 | 94 | 99 | 100 | -- |
| 10... | 53 | -- | -- | -- | -- | -- | -- |
| 10... | 50 | -- | -- | -- | -- | -- | -- |
| 10... | 55 | -- | -- | -- | -- | -- | -- |
| 10... | 46 | -- | -- | -- | -- | -- | -- |
| 11... | 44 | -- | -- | -- | -- | -- | -- |
| 11... | 46 | -- | -- | -- | -- | -- | -- |
| 11... | 43 | -- | 90 | 98 | 100 | -- | -- |
| 11... | 40 | -- | -- | -- | -- | -- | -- |
| 13... | 44 | -- | -- | -- | -- | -- | -- |
| 13... | 42 | -- | -- | -- | -- | -- | -- |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|---|---|---|---|---|---|---|---|
| MAR | | | | | | | | | | | | |
| 13.... | 1010 | -- | 4580 | 5 | 9050 | 112000 | 8 | 9 | 11 | 22 | 31 | 45 |
| 13.... | 1025 | -- | -- | -- | 9110 | -- | -- | -- | -- | -- | -- | -- |
| 13.... | 1045 | -- | -- | -- | 8760 | -- | -- | -- | -- | -- | -- | -- |
| 14.... | 1300 | 8.0 | 4880 | 5 | 10600 | 140000 | -- | -- | -- | -- | -- | -- |
| 29.... | 1450 | -- | 6030 | -- | 11500 | 187000 | -- | -- | -- | -- | -- | -- |
| 29.... | 1520 | 9.0 | 6030 | 5 | 11800 | 192000 | -- | -- | -- | -- | -- | -- |
| 29.... | 1550 | 9.0 | 7730 | -- | 11200 | 234000 | -- | -- | -- | -- | -- | -- |
| 29.... | 1700 | 9.0 | 7730 | -- | 12400 | 259000 | -- | -- | -- | -- | -- | -- |
| 29.... | 1720 | 9.0 | -- | 5 | 13100 | -- | 9 | 10 | 12 | 22 | 35 | 58 |
| 29.... | 1735 | 9.0 | -- | -- | 12800 | -- | -- | -- | -- | -- | -- | -- |
| 30.... | 0900 | 9.0 | 8390 | -- | 10000 | 227000 | -- | -- | -- | -- | -- | -- |
| 30.... | 1015 | 9.0 | 8390 | -- | 9630 | 218000 | -- | -- | -- | -- | -- | -- |
| 30.... | 1100 | 9.0 | -- | -- | 9760 | -- | -- | -- | -- | -- | -- | -- |
| 30.... | 1115 | 9.0 | -- | 5 | 11100 | -- | 9 | 11 | 12 | 24 | 36 | 54 |
| 30.... | 1135 | 9.0 | -- | -- | 9740 | -- | -- | -- | -- | -- | -- | -- |
| 31.... | 1325 | 9.0 | 6060 | -- | 8570 | 140000 | -- | -- | -- | -- | -- | -- |
| 31.... | 1335 | 9.0 | 6060 | 5 | 7220 | 118000 | -- | -- | -- | -- | -- | -- |
| 31.... | 1345 | 9.0 | 6060 | -- | 6840 | 112000 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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 | SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM |
|--------|---|--|--|--|--|--|---|
| MAR | | | | | | | |
| 13.... | 45 | 67 | 92 | -- | 100 | -- | -- |
| 13.... | 43 | -- | -- | -- | -- | -- | -- |
| 13.... | 46 | -- | -- | -- | -- | -- | -- |
| 14.... | 38 | -- | 71 | 85 | -- | 95 | 100 |
| 29.... | 45 | -- | -- | -- | -- | -- | -- |
| 29.... | 48 | -- | 89 | 97 | -- | 100 | -- |
| 29.... | 57 | -- | -- | -- | -- | -- | -- |
| 29.... | 56 | -- | -- | -- | -- | -- | -- |
| 29.... | 57 | 83 | 93 | 99 | 100 | -- | -- |
| 29.... | 57 | -- | -- | -- | -- | -- | -- |
| 30.... | 58 | -- | -- | -- | -- | -- | -- |
| 30.... | 58 | -- | -- | -- | -- | -- | -- |
| 30.... | 57 | -- | -- | -- | -- | -- | -- |
| 30.... | 51 | 76 | 92 | 98 | -- | 100 | -- |
| 30.... | 58 | -- | -- | -- | -- | -- | -- |
| 31.... | -- | -- | -- | -- | -- | -- | -- |
| 31.... | 43 | -- | 83 | 95 | -- | 99 | 100 |
| 31.... | -- | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMPLING POINTS | 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 |
|-------|------|-----------------------------|------------------------------------|---|---|---|---|
| FEB | | | | | | | |
| 21... | 1700 | -- | 1 | 0 | 1 | 5 | 10 |
| 21... | 1705 | -- | 1 | 0 | 3 | 21 | 62 |
| MAR | | | | | | | |
| 04... | 1250 | -- | 1 | 0 | 3 | 26 | 73 |
| 04... | 1255 | -- | 1 | 0 | 4 | 27 | 75 |
| 04... | 1300 | -- | 1 | 0 | 2 | 20 | 82 |
| 04... | 1305 | -- | 1 | 0 | 1 | 4 | 19 |
| 04... | 1310 | -- | 1 | 0 | 1 | 2 | 13 |
| APR | | | | | | | |
| 03... | 1230 | 8.0 | 1 | 0 | 0 | 2 | 7 |
| 03... | 1235 | 8.0 | 1 | 0 | 1 | 6 | 32 |
| 03... | 1240 | 8.0 | 1 | 0 | 0 | 1 | 6 |
| 03... | 1245 | 8.0 | 1 | 0 | 0 | 1 | 3 |
| 21... | 1300 | 10.5 | 1 | 0 | 2 | 7 | 12 |
| 21... | 1305 | 10.5 | 1 | 1 | 7 | 37 | 76 |
| 21... | 1310 | 10.5 | 1 | 0 | 2 | 14 | 38 |
| 21... | 1315 | 10.5 | 1 | 0 | 0 | 2 | 10 |
| 21... | 1320 | 10.5 | 1 | 0 | 0 | 2 | 13 |
| JUN | | | | | | | |
| 17... | 1650 | 14.5 | 4 | 0 | 2 | 22 | 84 |
| JUL | | | | | | | |
| 01... | 1135 | 16.5 | 5 | 0 | 0 | 4 | 32 |
| 08... | 1340 | 17.0 | 1 | 0 | 0 | 11 | 82 |
| 08... | 1345 | 17.0 | 1 | 0 | 0 | 2 | 17 |
| 08... | 1350 | 17.0 | 1 | 0 | 0 | 1 | 13 |
| 08... | 1355 | 17.0 | 1 | 0 | 0 | 52 | 56 |
| 08... | 1400 | 17.0 | 1 | 0 | 0 | 9 | 45 |
| 13... | 1230 | -- | 4 | 0 | 0 | 5 | 36 |
| 22... | 1600 | 21.0 | 5 | 0 | 0 | 6 | 46 |
| 27... | 1515 | -- | 5 | 0 | 0 | 7 | 51 |
| AUG | | | | | | | |
| 10... | 1440 | 27.0 | 5 | 0 | 1 | 8 | 43 |
| 19... | 1335 | 17.5 | 5 | 0 | 1 | 4 | 29 |
| 24... | 1310 | 20.0 | 5 | 0 | 1 | 8 | 44 |
| 31... | 1330 | 19.0 | 4 | 0 | 1 | 6 | 34 |
| SEP | | | | | | | |
| 08... | 1450 | 18.5 | 1 | 0 | 0 | 5 | 56 |
| 08... | 1455 | 18.5 | 1 | 0 | 0 | 2 | 28 |
| 08... | 1500 | 18.5 | 1 | 0 | 0 | 2 | 26 |
| 08... | 1505 | 18.5 | 1 | 0 | 0 | 3 | 36 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 | | | | | | | |
| 21... | 20 | 34 | 62 | 91 | -- | -- | -- |
| 21... | 97 | 100 | -- | -- | -- | -- | -- |
| MAR | | | | | | | |
| 04... | 91 | 98 | 99 | 100 | -- | -- | -- |
| 04... | 96 | 99 | 99 | 99 | -- | -- | -- |
| 04... | 100 | -- | -- | -- | -- | -- | -- |
| 04... | 76 | 97 | 99 | 99 | -- | -- | -- |
| 04... | 77 | 93 | 96 | 98 | -- | -- | -- |
| APR | | | | | | | |
| 03... | 9 | 10 | 10 | 10 | 10 | 10 | -- |
| 03... | 62 | 73 | 78 | 84 | -- | -- | -- |
| 03... | 29 | 51 | 74 | 90 | -- | -- | -- |
| 03... | 18 | 31 | 41 | 58 | 74 | 83 | -- |
| 21... | 14 | 15 | 17 | 18 | 32 | -- | -- |
| 21... | 91 | 93 | -- | -- | -- | -- | -- |
| 21... | 66 | 85 | 94 | -- | -- | -- | -- |
| 21... | 21 | 39 | 52 | 59 | 67 | -- | -- |
| 21... | 46 | 68 | 78 | 82 | 84 | -- | -- |
| JUN | | | | | | | |
| 17... | 98 | 98 | 99 | 99 | 100 | -- | -- |
| JUL | | | | | | | |
| 01... | 74 | 93 | 97 | 98 | 100 | -- | -- |
| 08... | 99 | 100 | -- | -- | -- | -- | -- |
| 08... | 43 | 56 | 64 | 73 | 83 | -- | -- |
| 08... | 51 | 79 | 89 | 95 | -- | -- | -- |
| 08... | 90 | 97 | 99 | 100 | -- | -- | -- |
| 08... | 66 | 81 | 89 | 95 | -- | -- | -- |
| 13... | 72 | 89 | 94 | 96 | 98 | 100 | -- |
| 22... | 86 | 96 | 98 | 99 | 99 | 100 | -- |
| 27... | 87 | 96 | 98 | 99 | 100 | -- | -- |
| AUG | | | | | | | |
| 10... | 77 | 89 | 93 | 95 | 98 | 100 | -- |
| 19... | 61 | 78 | 85 | 91 | 94 | 100 | -- |
| 24... | 76 | 88 | 93 | 95 | 96 | 100 | -- |
| 31... | 68 | 81 | 85 | 87 | 90 | 100 | -- |
| SEP | | | | | | | |
| 08... | 91 | 98 | 99 | 99 | 100 | -- | -- |
| 08... | 67 | 87 | 96 | 99 | 100 | -- | -- |
| 08... | 66 | 90 | 97 | 99 | 100 | -- | -- |
| 08... | 78 | 93 | 98 | 100 | -- | -- | -- |

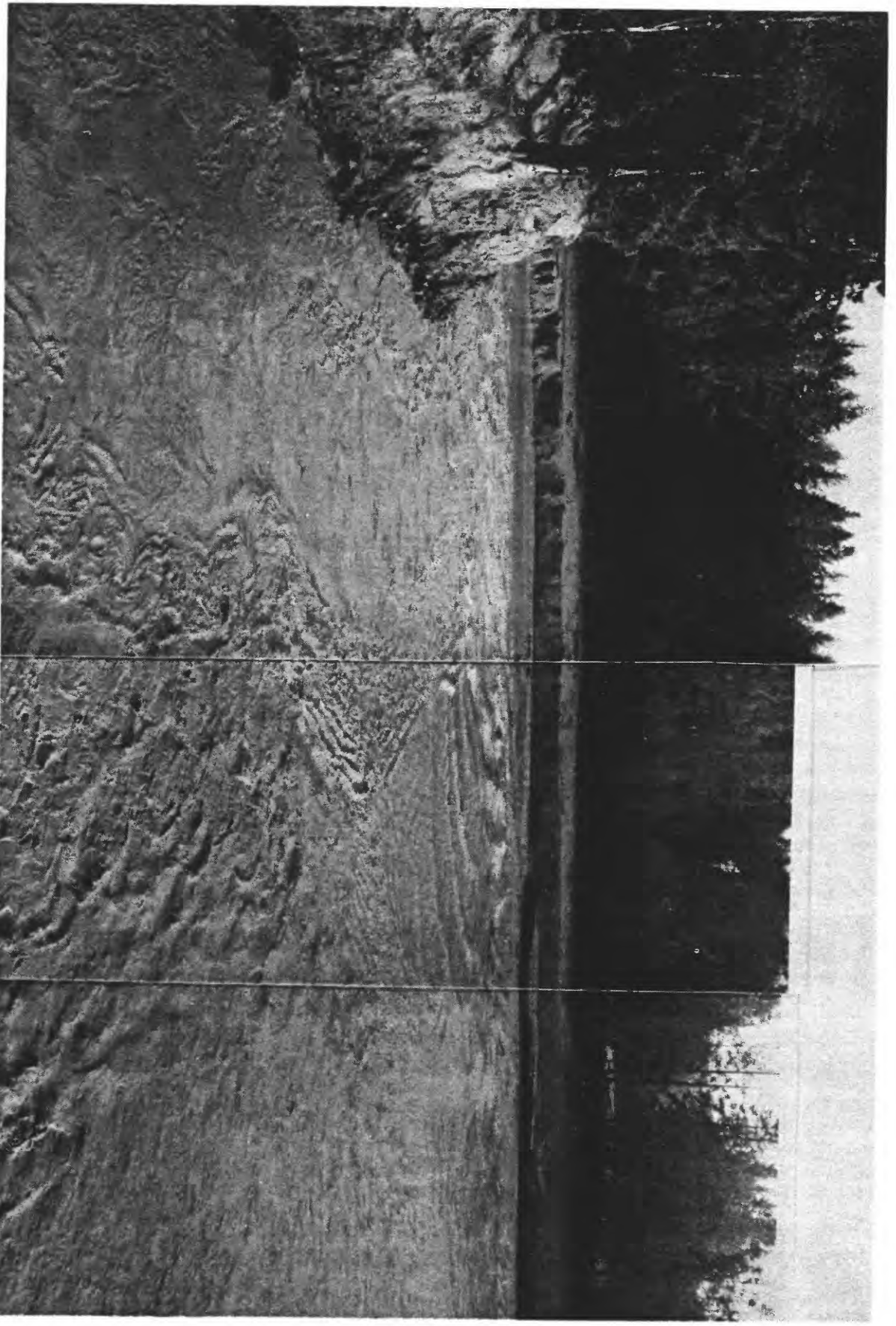


Photo date: November 8, 1980

The Toutle River from Highway 99 bridge, station 242690. Suspended-sediment and stream discharge were measured here on November 6-9, 1980, during the first substantial storm flow in the Toutle River since May 18, 1980. View is upstream; discharge 6000 cubic feet per second.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | BED | | | BED | | |
|-------|------|-----------------------------|---|------|----------------|-----------------|------|----------------|-----------------|------|----------------|-----------------|
| | | | | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN |
| | | | | | | .062 MM | | | .125 MM | | | .250 MM |
| | | | | | | | | | | | | .500 MM |
| SEP | | | | | | | | | | | | |
| 08... | 1510 | 18.5 | 1 | 0 | 0 | 0 | 2 | 22 | | | | |
| 28... | 1235 | -- | 1 | 0 | 0 | 0 | 10 | 89 | | | | |
| 28... | 1240 | -- | 1 | 0 | 0 | 0 | 2 | 25 | | | | |
| 28... | 1245 | -- | 1 | 0 | 0 | 0 | 1 | 16 | | | | |

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | BED | | | BED | | |
|-------|------|-----------------------------|---|------|----------------|-----------------|------|----------------|-----------------|------|----------------|-----------------|
| | | | | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN |
| | | | | | | 8.00 MM | | | 16.0 MM | | | 32.0 MM |
| SEP | | | | | | | | | | | | |
| 08... | 74 | 95 | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | 66 | 88 | 95 | 98 | 100 | 96 | 97 | 100 | | | | |
| 28... | 54 | 81 | 91 | 96 | 97 | 100 | | | | | | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | BED | BED | BED |
|------------|------------|-----------------------------|---|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM |
| OCT | 05... 1540 | -- | 1 | 0 | 0 | 1 | 12 |
| | 05... 1545 | -- | 1 | 0 | 0 | 1 | 10 |
| | 05... 1550 | -- | 1 | 0 | 0 | 2 | 20 |
| | 05... 1555 | -- | 1 | 0 | 0 | 3 | 37 |
| | 13... 1555 | -- | 1 | 0 | 1 | 14 | 85 |
| 13... 1600 | -- | 1 | 0 | 0 | 2 | 24 | |
| 13... 1605 | -- | 1 | 0 | 0 | 5 | 47 | |
| 13... 1610 | -- | 1 | 0 | 0 | 1 | 16 | |
| DEC | 16... 1405 | 7.0 | 1 | 0 | 2 | 10 | 45 |
| | 16... 1410 | 7.0 | 1 | 0 | 1 | 3 | 12 |
| | 16... 1415 | 7.0 | 1 | 0 | 2 | 10 | 41 |
| | 16... 1425 | 7.0 | 1 | 1 | 6 | 23 | 70 |
| JAN | 16... 1605 | 6.0 | 1 | 0 | 1 | 4 | 7 |
| | 16... 1610 | 6.0 | 1 | 0 | 1 | 3 | 6 |
| | 16... 1615 | 6.0 | 1 | 0 | 2 | 11 | 54 |
| | 16... 1620 | 6.0 | 1 | 0 | 1 | 3 | 15 |
| 16... 1625 | 6.0 | 1 | 0 | 2 | 11 | 34 | |
| 18... 1410 | 6.5 | 1 | 0 | 0 | 2 | 3 | |
| 18... 1420 | 6.5 | 1 | 0 | 1 | 6 | 31 | |
| 18... 1425 | 6.5 | 1 | 0 | 2 | 20 | 75 | |
| 29... 1120 | 6.5 | 1 | 0 | 2 | 16 | 64 | |
| 29... 1125 | 6.5 | 1 | 0 | 2 | 10 | 57 | |
| 29... 1130 | 6.5 | 1 | 0 | 2 | 15 | 74 | |
| 29... 1135 | 6.5 | 1 | 0 | 0 | 4 | 20 | |
| 29... 1140 | 6.5 | 1 | 0 | 0 | 2 | 6 | |
| FEB | 02... 1135 | 7.5 | 5 | 0 | 1 | 8 | 38 |
| | 04... 1240 | -- | 5 | 0 | 1 | 7 | 45 |
| | 09... 1145 | -- | 5 | 0 | 1 | 6 | 34 |
| | 19... 1130 | 8.0 | 1 | 0 | 3 | 18 | 62 |
| | 19... 1135 | 8.0 | 1 | 0 | 2 | 4 | 6 |
| | 19... 1140 | 8.0 | 1 | 0 | 1 | 2 | 4 |
| | 19... 1145 | 8.0 | 1 | 1 | 3 | 9 | 17 |
| | 19... 1150 | 8.0 | 1 | 0 | 3 | 13 | 30 |
| | 25... 1415 | 7.0 | 1 | 0 | 2 | 11 | 45 |
| | 25... 1420 | 7.0 | 1 | 0 | 0 | 1 | 6 |
| | 25... 1425 | 7.0 | 1 | 0 | 1 | 6 | 22 |
| | 25... 1430 | 7.0 | 1 | 0 | 1 | 12 | 63 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 | | | | | | | | | | | | |
| 05... | 57 | 88 | 92 | 92 | 92 | 92 | 92 | 92 | 93 | 93 | 100 | 100 |
| 05... | 37 | 70 | 86 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 05... | 72 | 96 | 99 | 99 | 99 | 99 | 99 | 99 | 100 | 100 | 100 | 100 |
| 05... | 85 | 97 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 13... | 97 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 13... | 89 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 13... | 95 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 13... | 61 | 93 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| DEC | | | | | | | | | | | | |
| 16... | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 16... | 42 | 66 | 86 | 99 | 99 | 99 | 99 | 99 | 100 | 100 | 100 | 100 |
| 16... | 86 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 100 | 100 | 100 | 100 |
| 16... | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| JAN | | | | | | | | | | | | |
| 16... | 10 | 16 | 21 | 21 | 21 | 21 | 21 | 21 | 28 | 36 | 100 | 100 |
| 16... | 10 | 14 | 21 | 21 | 21 | 21 | 21 | 21 | 30 | 43 | 100 | 100 |
| 16... | 90 | 96 | 98 | 98 | 98 | 98 | 98 | 98 | 99 | 100 | 100 | 100 |
| 16... | 64 | 93 | 98 | 98 | 98 | 98 | 98 | 98 | 100 | 100 | 100 | 100 |
| 16... | 75 | 94 | 98 | 98 | 98 | 98 | 98 | 98 | 99 | 100 | 100 | 100 |
| 18... | 9 | 26 | 39 | 39 | 39 | 39 | 39 | 39 | 50 | 64 | 100 | 100 |
| 18... | 65 | 76 | 78 | 78 | 78 | 78 | 78 | 78 | 80 | 85 | 100 | 100 |
| 18... | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 96 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 41 | 68 | 80 | 80 | 80 | 80 | 80 | 80 | 86 | 92 | 100 | 100 |
| 29... | 16 | 45 | 66 | 66 | 66 | 66 | 66 | 66 | 82 | 93 | 100 | 100 |
| FEB | | | | | | | | | | | | |
| 02... | 76 | 92 | 96 | 96 | 96 | 96 | 96 | 96 | 98 | 99 | 100 | 100 |
| 04... | 89 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 09... | 74 | 92 | 97 | 97 | 97 | 97 | 97 | 97 | 99 | 100 | 100 | 100 |
| 19... | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 19... | 14 | 25 | 35 | 35 | 35 | 35 | 35 | 35 | 46 | 69 | 100 | 100 |
| 19... | 11 | 29 | 51 | 51 | 51 | 51 | 51 | 51 | 72 | 93 | 100 | 100 |
| 19... | 28 | 34 | 40 | 40 | 40 | 40 | 40 | 40 | 49 | 71 | 100 | 100 |
| 19... | 50 | 80 | 93 | 93 | 93 | 93 | 93 | 93 | 99 | 100 | 100 | 100 |
| 25... | 86 | 95 | 97 | 97 | 97 | 97 | 97 | 97 | 98 | 100 | 100 | 100 |
| 25... | 27 | 66 | 86 | 86 | 86 | 86 | 86 | 86 | 95 | 100 | 100 | 100 |
| 25... | 43 | 60 | 73 | 73 | 73 | 73 | 73 | 73 | 84 | 100 | 100 | 100 |
| 25... | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMP- LING POINTS | 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 |
|---------------|------|-----------------------------|---|---|---|---|---|
| FEB 25.... | 1435 | 7.0 | 1 | 0 | 1 | 3 | 18 |
| MAR 02.... | 1230 | 6.5 | 1 | 1 | 4 | 11 | 24 |
| 02.... | 1235 | 6.5 | 1 | 0 | 1 | 6 | 32 |
| 02.... | 1240 | 6.5 | 1 | 0 | 1 | 5 | 26 |
| 02.... | 1245 | 6.5 | 1 | 0 | 3 | 20 | 90 |
| 02.... | 1250 | 6.5 | 1 | 0 | 2 | 34 | 99 |
| 16.... | 1240 | 5.5 | 1 | 0 | 1 | 6 | 33 |
| 16.... | 1245 | 5.5 | 1 | 0 | 2 | 16 | 88 |
| 16.... | 1250 | 5.5 | 1 | 0 | 2 | 26 | 95 |
| 16.... | 1255 | 5.5 | 1 | 0 | 0 | 1 | 6 |
| 16.... | 1300 | 5.5 | 1 | 0 | 1 | 10 | 60 |
| 24.... | 1335 | 11.0 | 5 | 2 | 9 | 37 | 81 |
| 30.... | 1150 | 7.5 | 5 | 1 | 5 | 19 | 70 |
| APR 07.... | 1325 | 9.5 | 1 | 1 | 2 | 6 | 25 |
| 07.... | 1330 | 9.5 | 1 | 0 | 1 | 6 | 51 |
| 07.... | 1335 | 9.5 | 1 | 1 | 1 | 12 | 52 |
| 07.... | 1340 | 9.5 | 1 | 0 | 4 | 30 | 91 |
| 07.... | 1345 | 9.5 | 1 | 1 | 3 | 22 | 78 |
| 13.... | 1420 | 7.0 | 4 | 1 | 4 | 20 | 67 |
| 20.... | 1145 | 7.0 | 1 | 0 | 0 | 1 | 12 |
| 20.... | 1150 | 7.0 | 1 | 0 | 2 | 6 | 40 |
| 20.... | 1155 | 7.0 | 1 | 0 | 2 | 18 | 86 |
| 20.... | 1200 | 7.0 | 1 | 0 | 6 | 39 | 99 |
| 20.... | 1205 | 7.0 | 1 | 0 | 1 | 10 | 78 |
| 27.... | 1315 | 11.0 | 5 | 0 | 3 | 16 | 55 |
| MAY 03.... | 1320 | 10.0 | 1 | 0 | 2 | 6 | 25 |
| 03.... | 1325 | 10.0 | 1 | 0 | 2 | 11 | 62 |
| 03.... | 1330 | 10.0 | 1 | 0 | 2 | 9 | 42 |
| 03.... | 1335 | 10.0 | 1 | 0 | 2 | 18 | 80 |
| 03.... | 1340 | 10.0 | 1 | 0 | 4 | 26 | 91 |
| 10.... | 1250 | 10.0 | 5 | 0 | 2 | 14 | 65 |
| 24.... | 1220 | --- | 1 | 0 | 2 | 23 | 78 |
| 24.... | 1225 | --- | 1 | 0 | 2 | 20 | 80 |
| 24.... | 1230 | --- | 1 | 0 | 1 | 10 | 58 |
| 24.... | 1235 | --- | 1 | 0 | 2 | 11 | 60 |
| 24.... | 1240 | --- | 1 | 0 | 1 | 7 | 58 |
| JUN 02.... | 1035 | --- | 5 | 0 | 3 | 18 | 65 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 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 | | | | | | | | | | | |
| 25... | 56 | 80 | 89 | 93 | 97 | 100 | | | | | |
| MAR | | | | | | | | | | | |
| 02... | 57 | 74 | 82 | 97 | 100 | -- | | | | | |
| 02... | 84 | 98 | 99 | 100 | -- | -- | | | | | |
| 02... | 59 | 79 | 88 | 94 | 100 | -- | | | | | |
| 02... | 100 | -- | -- | -- | -- | -- | | | | | |
| 02... | 100 | -- | -- | -- | -- | -- | | | | | |
| 16... | 88 | 100 | -- | -- | -- | -- | | | | | |
| 16... | 100 | -- | -- | -- | -- | -- | | | | | |
| 16... | 100 | -- | -- | -- | -- | -- | | | | | |
| 16... | 21 | 54 | 82 | 93 | 97 | 100 | | | | | |
| 16... | 98 | 100 | -- | -- | -- | -- | | | | | |
| 24... | 96 | 100 | -- | -- | -- | -- | | | | | |
| 30... | 96 | 100 | -- | -- | -- | -- | | | | | |
| APR | | | | | | | | | | | |
| 07... | 55 | 75 | 86 | 93 | 97 | 100 | | | | | |
| 07... | 89 | 98 | 100 | -- | -- | -- | | | | | |
| 07... | 83 | 97 | 99 | 99 | 100 | -- | | | | | |
| 07... | 98 | 99 | 100 | -- | -- | -- | | | | | |
| 07... | 98 | 100 | -- | -- | -- | -- | | | | | |
| 13... | 94 | 99 | 100 | -- | -- | -- | | | | | |
| 20... | 63 | 91 | 98 | 100 | -- | -- | | | | | |
| 20... | 86 | 95 | 99 | 100 | -- | -- | | | | | |
| 20... | 100 | -- | -- | -- | -- | -- | | | | | |
| 20... | 100 | -- | -- | -- | -- | -- | | | | | |
| 20... | 99 | 100 | -- | -- | -- | -- | | | | | |
| 27... | 88 | 97 | 100 | -- | -- | -- | | | | | |
| MAY | | | | | | | | | | | |
| 03... | 78 | 94 | 99 | 100 | -- | -- | | | | | |
| 03... | 95 | 100 | -- | -- | -- | -- | | | | | |
| 03... | 76 | 95 | 99 | 100 | -- | -- | | | | | |
| 03... | 100 | 100 | -- | -- | -- | -- | | | | | |
| 03... | 100 | -- | -- | -- | -- | -- | | | | | |
| 10... | 90 | 97 | 99 | 99 | 100 | -- | | | | | |
| 24... | 97 | 100 | -- | -- | -- | -- | | | | | |
| 24... | 98 | 100 | -- | -- | -- | -- | | | | | |
| 24... | 92 | 99 | 100 | -- | -- | -- | | | | | |
| 24... | 95 | 99 | 100 | -- | -- | -- | | | | | |
| 24... | 98 | 100 | -- | -- | -- | -- | | | | | |
| JUN | | | | | | | | | | | |
| 02... | 91 | 96 | 98 | 99 | 100 | -- | | | | | |

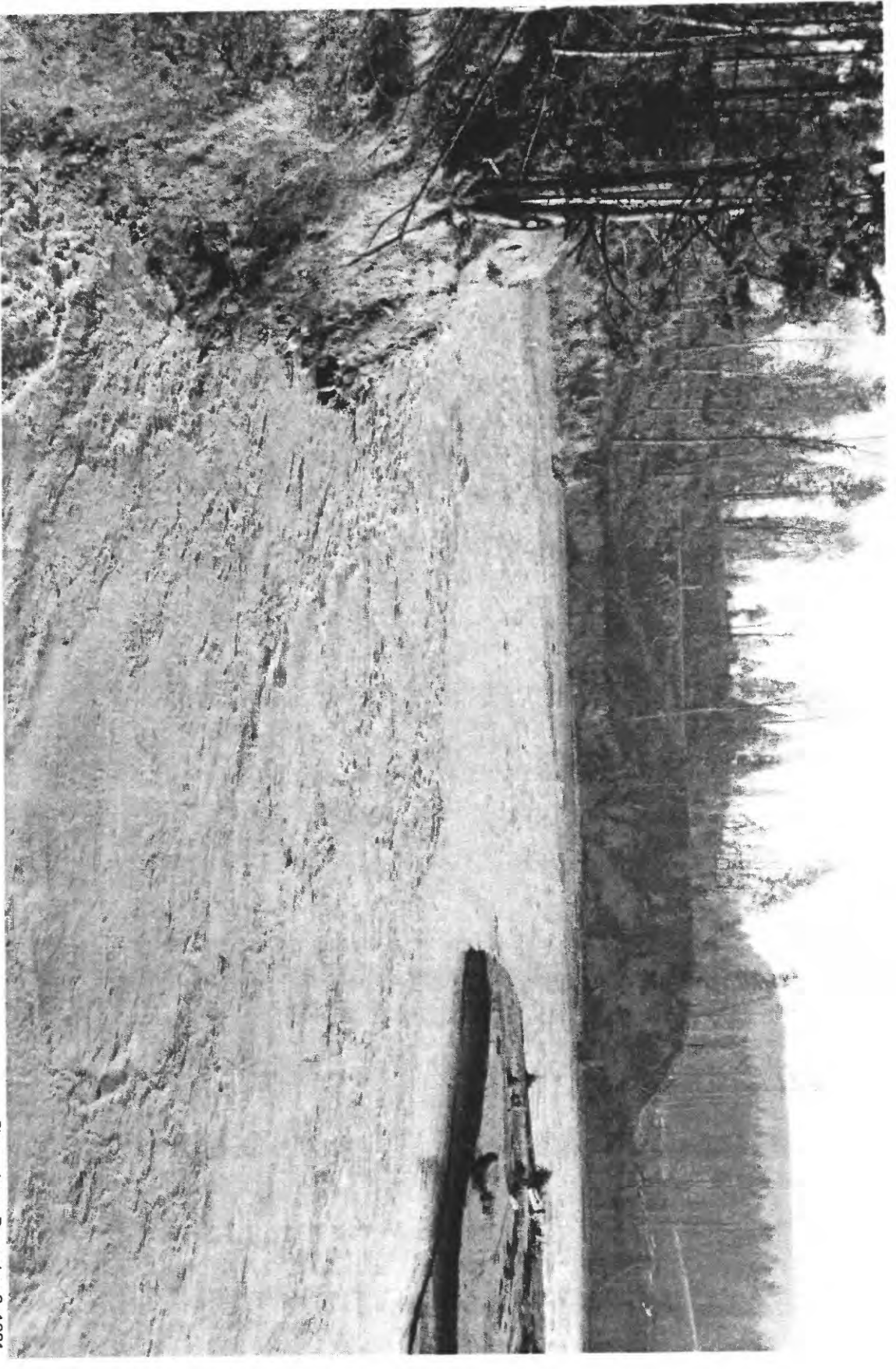


Photo date: December 2, 1981

The Toutle River from Highway 99 bridge, station 242690. The bank in the background receded several tens of feet since the photo of November 8, 1980 (page 330) was taken.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | BED | | | BED | | | BED | | |
|-------|------|-----------------------------|---|------------------------|-----------------|---------|------------------------|-----------------|---------|------------------------|-----------------|---------|------------------------|-----------------|---------|
| | | | | MAT. SIEVE DIAM. | % FINER THAN | .062 MM | MAT. SIEVE DIAM. | % FINER THAN | .125 MM | MAT. SIEVE DIAM. | % FINER THAN | .250 MM | MAT. SIEVE DIAM. | % FINER THAN | .500 MM |
| JUN | | | | | | | | | | | | | | | |
| 22... | 1115 | 14.5 | 5 | | 0 | | 1 | 16 | | | | | | 68 | |
| 29... | 1140 | -- | 1 | | 0 | | 1 | 9 | | | | | | 53 | |
| 29... | 1145 | -- | 1 | | 0 | | 0 | 5 | | | | | | 42 | |
| 29... | 1150 | -- | 1 | | 0 | | 0 | 3 | | | | | | 32 | |
| 29... | 1155 | -- | 1 | | 0 | | 1 | 4 | | | | | | 24 | |
| 29... | 1200 | -- | 1 | | 0 | | 1 | 3 | | | | | | 10 | |
| SEP | | | | | | | | | | | | | | | |
| 08... | 1145 | 21.0 | 1 | | 0 | | 0 | 4 | | | | | | 29 | |
| 08... | 1150 | 21.0 | 1 | | 0 | | 0 | 6 | | | | | | 34 | |
| 08... | 1155 | 21.0 | 1 | | 0 | | 1 | 9 | | | | | | 37 | |
| 08... | 1200 | 21.0 | 1 | | 0 | | 0 | 4 | | | | | | 24 | |
| 08... | 1205 | 21.0 | 1 | | 0 | | 0 | 4 | | | | | | 24 | |
| JUN | | | | | | | | | | | | | | | |
| 22... | | 92 | 97 | | 99 | 100 | | -- | -- | | | | | -- | |
| 29... | | 92 | 99 | | 100 | -- | | -- | -- | | | | | -- | |
| 29... | | 92 | 100 | | -- | -- | | -- | -- | | | | | -- | |
| 29... | | 83 | 98 | | 100 | -- | | -- | -- | | | | | -- | |
| 29... | | 65 | 80 | | 84 | 88 | 94 | 100 | | | | | | 100 | |
| 29... | | 46 | 84 | | 92 | 95 | 98 | 100 | | | | | | 100 | |
| SEP | | | | | | | | | | | | | | | |
| 08... | | 70 | 90 | | 94 | 96 | 100 | -- | | | | | | -- | |
| 08... | | 70 | 91 | | 97 | 99 | 100 | -- | | | | | | -- | |
| 08... | | 65 | 80 | | 86 | 89 | 91 | 100 | | | | | | 100 | |
| 08... | | 60 | 86 | | 94 | 96 | 97 | 100 | | | | | | 100 | |
| 08... | | 66 | 89 | | 97 | 100 | -- | -- | | | | | | -- | |

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED MATERIAL | | | | |
|-------|------|-----------------------------|---|--|--|--|--|--|
| | | | | SIEVE DIAM. % FINER THAN .062 MM | SIEVE DIAM. % FINER THAN .125 MM | SIEVE DIAM. % FINER THAN .250 MM | SIEVE DIAM. % FINER THAN .500 MM | |
| MAR | | | | | | | | |
| 11... | 1125 | 7.0 | 1 | 0 | 0 | 2 | 9 | |
| 11... | 1130 | 7.0 | 1 | 0 | 1 | 5 | 17 | |
| 11... | 1135 | 7.0 | 1 | 0 | 1 | 4 | 20 | |
| 11... | 1140 | 7.0 | 1 | 0 | 1 | 5 | 29 | |
| 11... | 1145 | 7.0 | 1 | 0 | 1 | 10 | 57 | |
| 13... | 1030 | -- | 1 | 0 | 2 | 20 | 78 | |
| 13... | 1035 | -- | 1 | 0 | 2 | 19 | 78 | |
| 13... | 1040 | -- | 1 | 0 | 2 | 9 | 33 | |
| 13... | 1045 | -- | 1 | 0 | 2 | 15 | 57 | |
| 13... | 1050 | -- | 1 | 0 | 1 | 6 | 29 | |
| 14... | 1315 | 8.0 | 1 | 0 | 0 | 2 | 9 | |
| 14... | 1320 | 8.0 | 1 | 0 | 1 | 7 | 32 | |
| 14... | 1325 | 8.0 | 1 | 0 | 1 | 14 | 46 | |
| 14... | 1330 | 8.0 | 1 | 0 | 2 | 15 | 73 | |
| 14... | 1335 | 8.0 | 1 | 1 | 5 | 24 | 83 | |
| 30... | 1145 | 9.0 | 1 | 9 | 33 | 45 | 73 | |
| 30... | 1150 | 9.0 | 1 | 0 | 1 | 3 | 10 | |
| 30... | 1155 | 9.0 | 1 | 0 | 1 | 4 | 13 | |
| 30... | 1200 | 9.0 | 1 | 1 | 5 | 7 | 14 | |
| 31... | 1350 | -- | 1 | 0 | 3 | 10 | 46 | |
| 31... | 1355 | -- | 1 | 0 | 0 | 3 | 9 | |
| 31... | 1400 | -- | 1 | 0 | 0 | 2 | 8 | |
| 31... | 1405 | -- | 1 | 0 | 1 | 5 | 26 | |
| 31... | 1410 | -- | 1 | 0 | 0 | 2 | 5 | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM | 32.0 MM |
|-------|---------|---------|---------|---------|---------|---------|
| MAR | | | | | | |
| 11... | 31 | 51 | 71 | 85 | 92 | 100 |
| 11... | 47 | 83 | 98 | 100 | -- | -- |
| 11... | 67 | 96 | 99 | 100 | -- | -- |
| 11... | 73 | 97 | 99 | 100 | -- | -- |
| 11... | 95 | 100 | -- | -- | -- | -- |
| 13... | 98 | 100 | -- | -- | -- | -- |
| 13... | 96 | 99 | 100 | -- | -- | -- |
| 13... | 53 | 70 | 90 | 98 | 100 | -- |
| 13... | 89 | 98 | 99 | 100 | -- | -- |
| 13... | 82 | 98 | 100 | -- | -- | -- |
| 14... | 42 | 76 | 91 | 96 | 100 | -- |
| 14... | 72 | 91 | 95 | 97 | 100 | -- |
| 14... | 70 | 83 | 96 | 100 | -- | -- |
| 14... | 98 | 100 | -- | -- | -- | -- |
| 14... | 99 | 100 | -- | -- | -- | -- |
| 30... | 90 | 96 | 100 | -- | -- | -- |
| 30... | 34 | 66 | 85 | 95 | 100 | -- |
| 30... | 51 | 86 | 95 | 98 | 98 | 100 |
| 30... | 33 | 58 | 69 | 75 | 82 | 100 |
| 31... | 91 | 99 | 100 | -- | -- | -- |
| 31... | 22 | 48 | 75 | 89 | 100 | -- |
| 31... | 31 | 59 | 77 | 88 | 99 | 100 |
| 31... | 72 | 92 | 96 | 98 | 100 | -- |
| 31... | 32 | 70 | 90 | 96 | 98 | 100 |

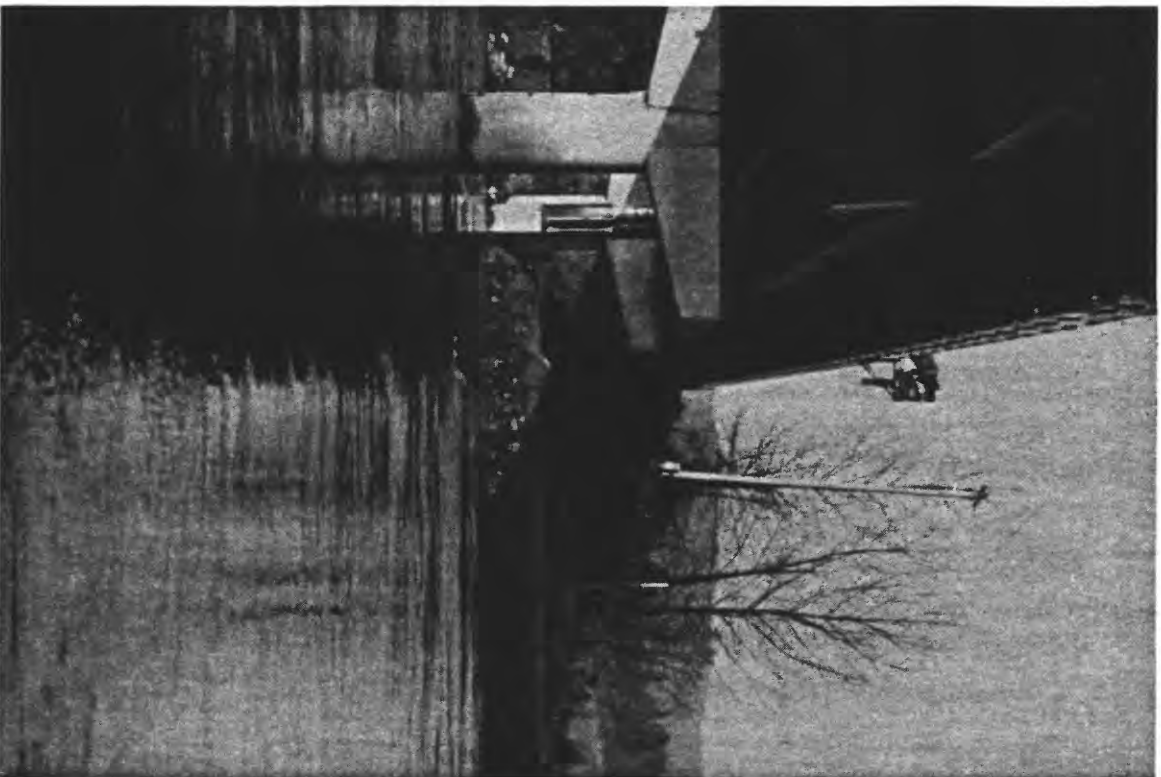


Photo date: November 30, 1983

A D-74 suspended-sediment sampler is operated from the upstream side of the Cowlitz River bridge at Castle Rock, station 243000.

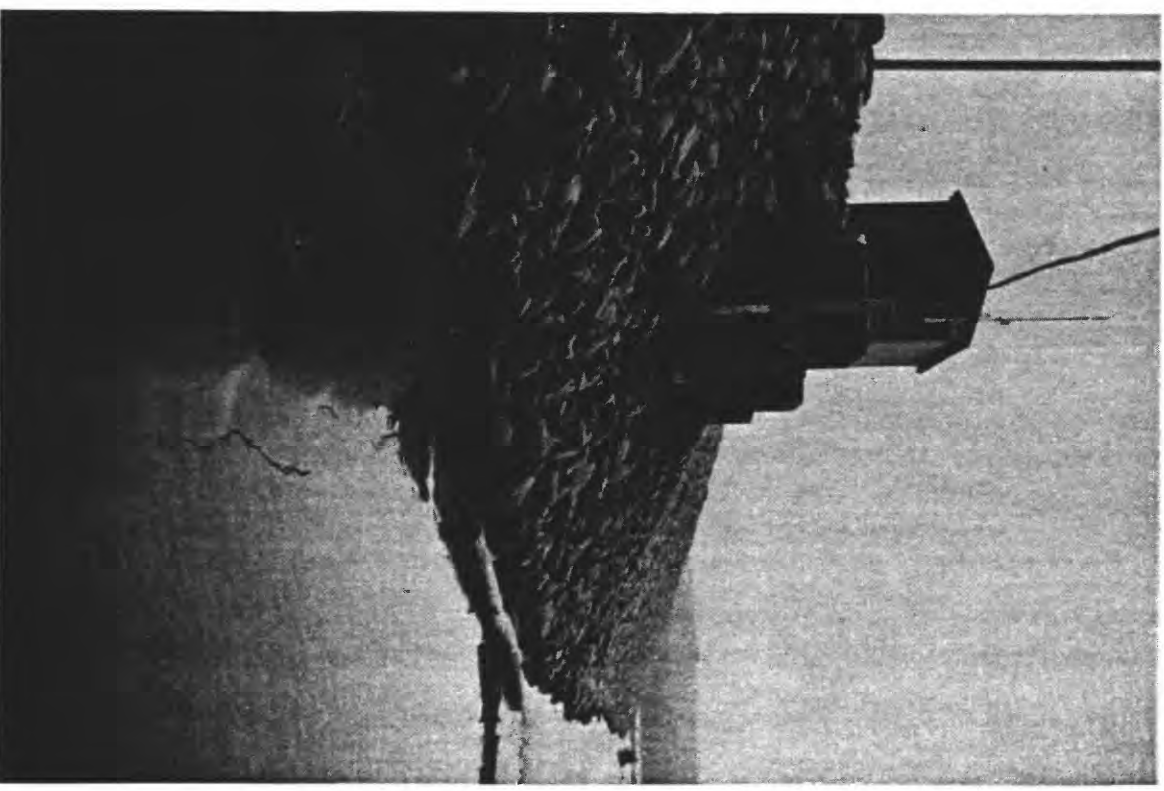


Photo date: November 30, 1983

Gaging station at Cowlitz River at Castle Rock. View is downstream; discharge 18,000 cubic feet per second.

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

LOCATION.--Lat 46°16'30", long 122°54'48", in SW¼SE¼ 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 as approximately 40 mi².

PERIOD OF SEDIMENT DATA.--May 1980 to current year.

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 | Concentration, mg/L |
|------------|---------------|------|-----------------------------|
| 1981 | Dec. 26, 1980 | 0730 | 47,200 |
| 1982 | Feb. 20, 1982 | 1355 | 43,200 |
| 1982 | Mar. 20, 1982 | 0335 | 157,000 (lahar-runout flow) |
| 1983 | Dec. 3, 1982 | 1920 | 33,800 |

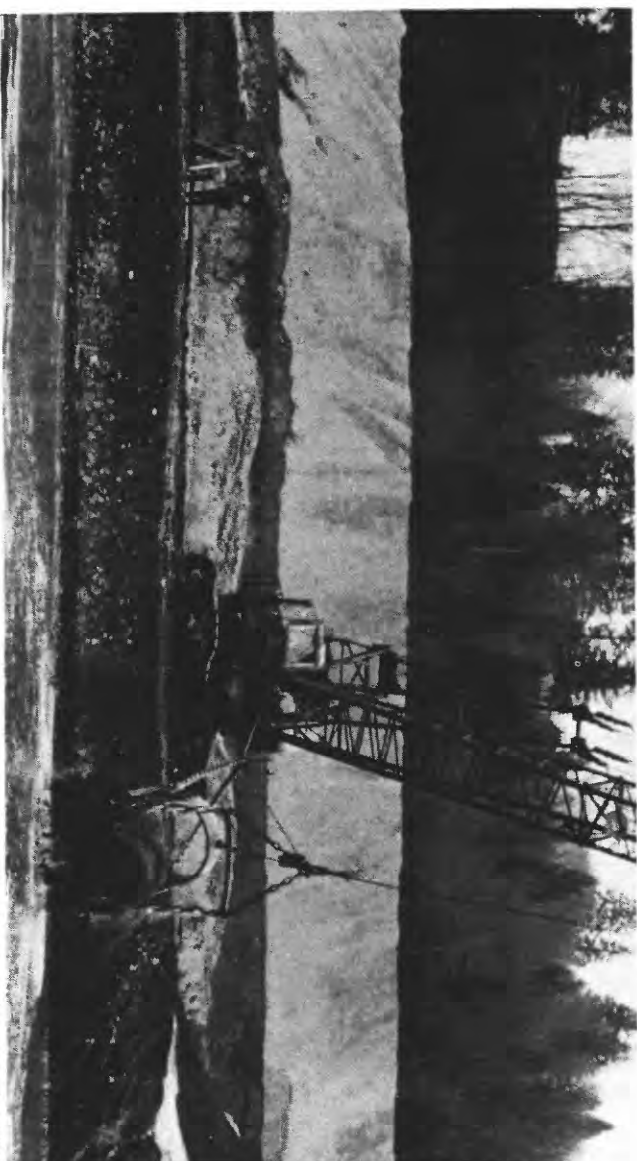


Photo date: February 4, 1981

Dredging of material from the Cowlitz River. Dredging spoils are piled in background.

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | MEAN DISCHARGE (CFS) | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 6080 | --- | 17000 | 5120 | --- | 42000 | 13400 | 2100 | 76000 | |
| 2 | 5960 | --- | 17000 | 6140 | 7500 | 124000 | 19800 | 10600 | 784000 | |
| 3 | 7220 | --- | 23000 | 5330 | 2900 | 41700 | 27800 | 9970 | 762000 | |
| 4 | 7430 | --- | 23000 | 5810 | 2000 | 31400 | 24300 | 4200 | 276000 | |
| 5 | 7180 | --- | 19000 | 6560 | 2000 | 35400 | 20200 | --- | 54000 | |
| 6 | 6650 | --- | 18000 | 7540 | 4500 | 91600 | 17400 | --- | 70000 | |
| 7 | 6230 | --- | 17000 | 13600 | 18500 | 715000 | 16000 | --- | 120000 | |
| 8 | 6500 | --- | 18000 | 21600 | 11000 | 652000 | 15100 | 3100 | 126000 | |
| 9 | 6530 | --- | 18000 | 20500 | 6000 | 332000 | 13400 | 1400 | 50700 | |
| 10 | 6380 | --- | 17000 | 16300 | 3700 | 163000 | 11000 | 2000 | 59400 | |
| 11 | 6320 | --- | 17000 | 15100 | --- | 130000 | 9810 | 2100 | 55600 | |
| 12 | 6530 | --- | 18000 | 14500 | --- | 120000 | 10200 | 1500 | 41300 | |
| 13 | 6900 | --- | 22000 | 10700 | --- | 72000 | 10900 | 2500 | 73600 | |
| 14 | 6770 | 970 | 17700 | 8900 | --- | 48000 | 10400 | 1700 | 47700 | |
| 15 | 6470 | 1050 | 18300 | 7430 | --- | 38000 | 11500 | 3500 | 109000 | |
| 16 | 6440 | 1130 | 19600 | 7430 | --- | 36000 | 14900 | 1800 | 72400 | |
| 17 | 6650 | 1150 | 20600 | 7460 | --- | 32000 | 14000 | 1300 | 49100 | |
| 18 | 6650 | --- | 20000 | 6740 | 1500 | 27300 | 13300 | 1200 | 43100 | |
| 19 | 6710 | --- | 14000 | 6950 | --- | 28000 | 13000 | 1100 | 38600 | |
| 20 | 7080 | 680 | 13000 | 7000 | --- | 32000 | 13600 | --- | 48000 | |
| 21 | 6710 | 870 | 15800 | 11700 | 14200 | 566000 | 16700 | 4000 | 180000 | |
| 22 | 6620 | 970 | 17300 | 16800 | 4240 | 192000 | 23000 | 12000 | 768000 | |
| 23 | 6500 | 800 | 14000 | 9560 | --- | 83000 | 23800 | 3300 | 212000 | |
| 24 | 7010 | 1050 | 19900 | 8760 | --- | 76000 | 24300 | 2000 | 131000 | |
| 25 | 7360 | --- | 28000 | 7880 | 3200 | 68000 | 37500 | 16200 | 1700000 | |
| 26 | 7290 | --- | 20000 | 7920 | 3200 | 68000 | 39600 | 25500 | 2760000 | |
| 27 | 6680 | 700 | 12600 | 8900 | 4500 | 108000 | 33100 | 21700 | 1940000 | |
| 28 | 6470 | 730 | 12800 | 10000 | 4800 | 130000 | 32200 | 11700 | 1020000 | |
| 29 | 5450 | 620 | 9120 | 12400 | --- | 260000 | 29600 | 4500 | 360000 | |
| 30 | 5000 | 770 | 10400 | 15300 | --- | 200000 | 36300 | 4300 | 421000 | |
| 31 | 4550 | 700 | 8600 | --- | --- | --- | 34400 | 2200 | 204000 | |
| TOTAL | 202320 | --- | 535720 | 309930 | --- | 4542400 | 630510 | --- | 12652500 | |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 34600 | --- | 190000 | 5500 | --- | 8200 | 15000 | --- | 73000 |
| 2 | 34500 | 1150 | 107000 | 5300 | 500 | 7150 | 13600 | 1700 | 62400 |
| 3 | 34100 | --- | 97000 | 5300 | 430 | 6150 | 8640 | 2550 | 59500 |
| 4 | 32600 | --- | 92000 | 5030 | 370 | 5020 | 9130 | --- | 84000 |
| 5 | 30200 | 1100 | 89700 | 4790 | 350 | 4530 | 7740 | --- | 63000 |
| 6 | 17400 | 1400 | 65800 | 4730 | 370 | 4730 | 6650 | --- | 42000 |
| 7 | 14400 | 1150 | 44700 | 4550 | --- | 4300 | 6100 | --- | 31000 |
| 8 | 13000 | 1150 | 40400 | 4370 | --- | 3500 | 5900 | --- | 27000 |
| 9 | 11800 | 3020 | 96200 | 4220 | 250 | 2850 | 5740 | --- | 24000 |
| 10 | 12600 | --- | 58000 | 5880 | 550 | 8730 | 5580 | --- | 22000 |
| 11 | 12600 | --- | 44000 | 6350 | 600 | 10300 | 5140 | 1400 | 19400 |
| 12 | 11900 | 1200 | 38600 | 8840 | 3000 | 71600 | 4740 | --- | 17000 |
| 13 | 11100 | 950 | 28500 | 9610 | 2000 | 51900 | 4710 | 1200 | 15300 |
| 14 | 11200 | 850 | 25700 | 8640 | 5000 | 117000 | 4950 | --- | 15000 |
| 15 | 10200 | 1700 | 46800 | 13700 | --- | 130000 | 5070 | --- | 15000 |
| 16 | 5610 | 1100 | 16700 | 26300 | 9200 | 653000 | 4710 | --- | 14000 |
| 17 | 5800 | --- | 10000 | 24000 | --- | 230000 | 5070 | 1050 | 14400 |
| 18 | 6160 | 500 | 8320 | 21500 | 6500 | 377000 | 4800 | 950 | 11000 |
| 19 | 6230 | 600 | 10100 | 34400 | 24100 | 2370000 | 4560 | 800 | 9850 |
| 20 | 5840 | 600 | 9460 | 30800 | 5600 | 466000 | 4710 | --- | 10000 |
| 21 | 5900 | 550 | 8760 | 26200 | 3100 | 219000 | 4770 | --- | 10000 |
| 22 | 5930 | 2200 | 35200 | 22300 | --- | 250000 | 4890 | --- | 11000 |
| 23 | 6200 | 850 | 14200 | 21900 | 5000 | 296000 | 4980 | --- | 11000 |
| 24 | 6170 | --- | 22000 | 22500 | --- | 290000 | 4800 | --- | 10000 |
| 25 | 5930 | --- | 14000 | 23000 | 2600 | 161000 | 5740 | 2100 | 32500 |
| 26 | 5930 | 700 | 11200 | 21500 | 2550 | 148000 | 5670 | --- | 29000 |
| 27 | 5960 | --- | 13000 | 19800 | 2750 | 147000 | 5510 | --- | 22000 |
| 28 | 5930 | --- | 20000 | 15900 | --- | 94000 | 5420 | --- | 17000 |
| 29 | 5930 | --- | 24000 | --- | --- | --- | 5420 | --- | 15000 |
| 30 | 6000 | --- | 8900 | --- | --- | --- | 5480 | --- | 15000 |
| 31 | 5600 | --- | 9100 | --- | --- | --- | 6030 | 1700 | 27700 |
| TOTAL | 387320 | --- | 1299340 | 406910 | --- | 6136960 | 191250 | --- | 829050 |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| APRIL | | | | | | | | | |
| 1 | 8300 | 1750 | 39200 | 11100 | --- | 12000 | 6380 | 52 | 896 |
| 2 | 7570 | --- | 27000 | 13900 | --- | 11000 | 7090 | 89 | 1700 |
| 3 | 7440 | --- | 22000 | 13700 | --- | 11000 | 6600 | 38 | 677 |
| 4 | 6990 | --- | 19000 | 13700 | --- | 11000 | 6510 | 200 | 3520 |
| 5 | 7050 | --- | 24000 | 12600 | --- | 10000 | 6270 | --- | 2000 |
| 6 | 7020 | --- | 20000 | 10300 | --- | 5600 | 6850 | --- | 3700 |
| 7 | 6800 | 750 | 13800 | 8660 | 200 | 4680 | 8970 | --- | 6800 |
| 8 | 7220 | 750 | 14600 | 7380 | --- | 3600 | 12800 | 428 | 17300 |
| 9 | 8780 | --- | 31000 | 6600 | --- | 2900 | 20000 | 1140 | 60600 |
| 10 | 10100 | 900 | 24500 | 5800 | --- | 2200 | 21900 | --- | 45000 |
| 11 | 10700 | --- | 20000 | 5000 | 130 | 1760 | 19400 | 540 | 28300 |
| 12 | 10900 | --- | 18000 | 5120 | --- | 2000 | 12700 | --- | 17000 |
| 13 | 10200 | --- | 14000 | 4980 | --- | 1900 | 11000 | --- | 9400 |
| 14 | 9270 | 500 | 12500 | 5000 | 1400 | 18900 | 10400 | --- | 6300 |
| 15 | 7940 | --- | 12000 | 5360 | --- | 2900 | 9430 | 189 | 4810 |
| 16 | 7020 | 600 | 11400 | 5190 | --- | 2500 | 8680 | --- | 4100 |
| 17 | 6360 | 600 | 10300 | 4980 | --- | 2100 | 9080 | --- | 3500 |
| 18 | 6160 | --- | 10000 | 5120 | --- | 1800 | 9300 | --- | 3000 |
| 19 | 6160 | --- | 10000 | 5710 | 308 | 4750 | 13500 | --- | 10000 |
| 20 | 5840 | 700 | 11000 | 5600 | --- | 4800 | 17000 | --- | 7600 |
| 21 | 5600 | 450 | 6800 | 6850 | --- | 4700 | 16400 | --- | 6000 |
| 22 | 7740 | --- | 10000 | 6870 | --- | 4600 | 13800 | --- | 4700 |
| 23 | 8040 | --- | 14000 | 7320 | --- | 4600 | 11900 | --- | 3900 |
| 24 | 8600 | 750 | 17400 | 7300 | --- | 4500 | 10100 | 115 | 3140 |
| 25 | 8510 | --- | 13000 | 8530 | --- | 4500 | 10900 | --- | 2500 |
| 26 | 7840 | --- | 9500 | 10400 | 160 | 4490 | 9890 | --- | 2100 |
| 27 | 7840 | --- | 8500 | 11100 | 137 | 4110 | 7780 | --- | 1800 |
| 28 | 9920 | 400 | 10700 | 9230 | --- | 2700 | 7540 | --- | 1400 |
| 29 | 10600 | --- | 11000 | 9280 | --- | 2000 | 7360 | --- | 1200 |
| 30 | 10400 | 400 | 11200 | 7620 | --- | 1500 | 7240 | --- | 1000 |
| 31 | --- | --- | --- | 7640 | --- | 1200 | --- | --- | --- |
| TOTAL | 242910 | --- | 476400 | 247940 | --- | 156290 | 326770 | --- | 263943 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DAY | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 7140 | 42 | 810 | 2750 | --- | 370 | 2840 | --- | 1500 |
| 2 | 6780 | --- | 750 | 2730 | --- | 340 | 2730 | 205 | 1510 |
| 3 | 6330 | --- | 640 | 2770 | 42 | 314 | 2620 | --- | 900 |
| 4 | 5890 | --- | 550 | 2760 | --- | 350 | 2550 | --- | 610 |
| 5 | 5430 | --- | 470 | 2730 | 53 | 391 | 2540 | --- | 440 |
| 6 | 5250 | 28 | 397 | 2770 | --- | 350 | 2530 | --- | 320 |
| 7 | 5230 | --- | 370 | 2770 | 40 | 299 | 2520 | --- | 240 |
| 8 | 6030 | --- | 350 | 2690 | --- | 310 | 2500 | 28 | 189 |
| 9 | 5990 | --- | 330 | 2580 | --- | 330 | 2500 | --- | 230 |
| 10 | 6000 | --- | 310 | 2600 | 49 | 344 | 2510 | --- | 270 |
| 11 | 6000 | --- | 290 | 2630 | --- | 360 | 2500 | --- | 320 |
| 12 | 5970 | --- | 280 | 2630 | 53 | 376 | 2490 | --- | 390 |
| 13 | 6110 | 111 | 1830 | 2650 | --- | 450 | 2490 | --- | 450 |
| 14 | 5860 | --- | 1300 | 2650 | 72 | 515 | 2470 | 83 | 554 |
| 15 | 4260 | 67 | 771 | 2620 | --- | 450 | 2500 | --- | 480 |
| 16 | 3220 | --- | 430 | 2620 | --- | 410 | 2630 | --- | 420 |
| 17 | 3140 | 30 | 254 | 2610 | 53 | 373 | 2730 | --- | 380 |
| 18 | 3060 | --- | 250 | 2600 | --- | 430 | 2750 | --- | 350 |
| 19 | 3030 | --- | 250 | 2570 | 73 | 507 | 2770 | --- | 310 |
| 20 | 3060 | 29 | 240 | 2570 | --- | 470 | 2820 | --- | 290 |
| 21 | 3090 | --- | 280 | 2570 | 59 | 409 | 2970 | --- | 650 |
| 22 | 2960 | 41 | 328 | 2560 | --- | 340 | 3110 | 189 | 1590 |
| 23 | 2900 | --- | 320 | 2540 | --- | 280 | 3000 | --- | 1300 |
| 24 | 2900 | --- | 320 | 2540 | 32 | 219 | 2940 | --- | 960 |
| 25 | 2890 | --- | 310 | 2540 | --- | 250 | 2910 | --- | 750 |
| 26 | 2870 | --- | 300 | 2520 | 45 | 306 | 2930 | --- | 600 |
| 27 | 2830 | 39 | 298 | 2500 | --- | 290 | 3000 | --- | 490 |
| 28 | 2760 | --- | 380 | 2500 | 42 | 283 | 3340 | --- | 3000 |
| 29 | 2770 | 66 | 494 | 2520 | --- | 290 | 3310 | 285 | 2550 |
| 30 | 2770 | --- | 450 | 2540 | --- | 300 | 3170 | --- | 2400 |
| 31 | 2770 | 52 | 389 | 2560 | 46 | 318 | --- | --- | --- |
| TOTAL | 135290 | --- | 14741 | 81190 | --- | 11024 | 82670 | --- | 24443 |
| YEAR | 3245010 | | 26,942,811 TONS | | | | | | |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | NOVEMBER | | | DECEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | | | | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | |
| 1 | 3220 | --- | 2500 | 7900 | --- | 16000 | 13400 | 730 | 26400 | |
| 2 | 3610 | --- | 3400 | 7820 | 445 | 9400 | 20000 | 3870 | 230000 | |
| 3 | 3420 | --- | 740 | 8290 | --- | 9000 | 18000 | 900 | 43700 | |
| 4 | 3290 | --- | 530 | 8140 | --- | 8100 | 16000 | 550 | 23600 | |
| 5 | 3290 | 46 | 410 | 8020 | --- | 7400 | 29000 | 10900 | 992000 | |
| 6 | 9260 | 7600 | 273000 | 7840 | --- | 6800 | 32400 | 5200 | 455000 | |
| 7 | 11800 | 8740 | 293000 | 7680 | --- | 6000 | 26000 | 3800 | 267000 | |
| 8 | 11600 | --- | 93000 | 7660 | --- | 5200 | 27200 | 2200 | 162000 | |
| 9 | 13300 | --- | 140000 | 7460 | 206 | 4150 | 25000 | 2200 | 149000 | |
| 10 | 11200 | --- | 21000 | 6830 | --- | 2800 | 25800 | 3000 | 209000 | |
| 11 | 9830 | --- | 12000 | 7140 | --- | 12000 | 24100 | 1800 | 117000 | |
| 12 | 9320 | --- | 8300 | 9520 | 3500 | 90000 | 16700 | 1400 | 63100 | |
| 13 | 7740 | 212 | 4430 | 8570 | 700 | 16200 | 15800 | 1400 | 59700 | |
| 14 | 7440 | --- | 4000 | 11100 | 7030 | 250000 | 16100 | 2000 | 86900 | |
| 15 | 7280 | --- | 3600 | 11700 | 4500 | 142000 | 23700 | 4800 | 307000 | |
| 16 | 7120 | --- | 3300 | 11200 | 4000 | 121000 | 23400 | 4800 | 303000 | |
| 17 | 6740 | --- | 2800 | 12300 | 3400 | 113000 | 18500 | 2850 | 142000 | |
| 18 | 6650 | --- | 2500 | 14300 | 4200 | 162000 | 16700 | 1440 | 64900 | |
| 19 | 6020 | --- | 2100 | 12900 | 1600 | 55700 | 19500 | 2890 | 152000 | |
| 20 | 5380 | 116 | 1690 | 12200 | 1300 | 42800 | 19200 | 2720 | 141000 | |
| 21 | 5740 | 159 | 2460 | 15000 | --- | 110000 | 17200 | 1980 | 92000 | |
| 22 | 5060 | --- | 1600 | 18200 | --- | 120000 | 15200 | 1680 | 68900 | |
| 23 | 5590 | --- | 1700 | 18100 | 2000 | 97700 | 14500 | 1430 | 56000 | |
| 24 | 5700 | --- | 1700 | 16700 | 940 | 42400 | 14000 | 1320 | 49900 | |
| 25 | 5700 | --- | 1700 | 15300 | 440 | 18200 | 13300 | --- | 32000 | |
| 26 | 5700 | 109 | 1680 | 14600 | 320 | 12600 | 12800 | 850 | 29400 | |
| 27 | 5830 | --- | 1900 | 14000 | 250 | 9450 | 12200 | 1350 | 44500 | |
| 28 | 7540 | 2210 | 48900 | 13600 | 170 | 6240 | 11800 | 1420 | 45200 | |
| 29 | 7760 | --- | 6300 | 13300 | 250 | 8980 | 11400 | --- | 43000 | |
| 30 | 7900 | --- | 9600 | 13500 | 560 | 20400 | 10600 | --- | 40000 | |
| 31 | 8490 | --- | 30000 | --- | --- | --- | 10700 | --- | 40000 | |
| TOTAL | 218520 | --- | 979840 | 340870 | --- | 1525520 | 570200 | --- | 4535400 | |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA
 SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | 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) |
| 1 | 10500 | --- | 40000 | 22300 | 1470 | 88500 | 23300 | 1920 | 121000 |
| 2 | 10100 | --- | 38000 | 18900 | 1360 | 69400 | 23600 | 1560 | 99400 |
| 3 | 9700 | --- | 37000 | 15400 | 1440 | 59900 | 23400 | 2400 | 152000 |
| 4 | 10700 | --- | 40000 | 14000 | 1160 | 43800 | 26200 | 2400 | 170000 |
| 5 | 9810 | --- | 36000 | 13200 | 1000 | 35600 | 26000 | 1500 | 105000 |
| 6 | 10000 | 1350 | 36500 | 11700 | --- | 31000 | 22300 | 900 | 54200 |
| 7 | 9410 | --- | 30000 | 11100 | --- | 28000 | 19400 | 800 | 41900 |
| 8 | 8950 | --- | 27000 | 10700 | 1720 | 49700 | 18700 | 1200 | 60600 |
| 9 | 8490 | --- | 23000 | 11100 | 1880 | 56300 | 17100 | 2400 | 111000 |
| 10 | 8080 | --- | 20000 | 10900 | 720 | 21200 | 17100 | 2600 | 120000 |
| 11 | 8220 | 785 | 17400 | 10900 | 1420 | 41800 | 18800 | 4800 | 244000 |
| 12 | 8290 | 790 | 17700 | 10600 | 3300 | 94400 | 17000 | 2100 | 96400 |
| 13 | 8660 | 870 | 20300 | 12400 | 2700 | 90400 | 17800 | 3000 | 144000 |
| 14 | 9190 | 1700 | 42200 | 24700 | 9840 | 656000 | 19300 | ---- | 170000 |
| 15 | 9590 | 1700 | 44000 | 30400 | 6600 | 542000 | 18600 | 1600 | 80400 |
| 16 | 14600 | 3600 | 142000 | 46500 | 8180 | 1030000 | 17400 | 1300 | 61100 |
| 17 | 26800 | 4800 | 347000 | 47900 | 9910 | 1280000 | 13200 | 1400 | 49900 |
| 18 | 21000 | 2600 | 147000 | 38100 | 6630 | 682000 | 11600 | 900 | 28200 |
| 19 | 15300 | 1760 | 72700 | 34300 | 7820 | 724000 | 11400 | 900 | 27700 |
| 20 | 12100 | 1540 | 50300 | 49000 | 23400 | 3470000 | 13400 | 36200 | 1310000 |
| 21 | 10800 | 1100 | 32100 | 36200 | 13600 | 1330000 | 13100 | 8300 | 294000 |
| 22 | 9340 | 1210 | 30500 | 38400 | 5040 | 523000 | 13900 | 5800 | 218000 |
| 23 | 22300 | 5320 | 444000 | 36900 | 2640 | 263000 | 12600 | 4800 | 163000 |
| 24 | 51900 | 8670 | 1290000 | 38700 | 2160 | 226000 | 11300 | ---- | 130000 |
| 25 | 29500 | 5390 | 429000 | 35500 | 4080 | 391000 | 9380 | ---- | 110000 |
| 26 | 32800 | 5040 | 446000 | 21500 | 2160 | 125000 | 9030 | 4200 | 102000 |
| 27 | 31600 | 3060 | 261000 | 20900 | 1560 | 88000 | 9000 | 4600 | 112000 |
| 28 | 26500 | 1650 | 118000 | 20900 | 1440 | 81300 | 8420 | 4400 | 100000 |
| 29 | 21100 | 1300 | 74100 | ---- | ---- | ---- | 8720 | 3600 | 84800 |
| 30 | 20500 | 1120 | 62000 | ---- | ---- | ---- | 8980 | 2700 | 65500 |
| 31 | 22400 | 950 | 57500 | ---- | ---- | ---- | 9490 | 4600 | 118000 |
| TOTAL | 508230 | ---- | 4472300 | 693100 | ---- | 12121300 | 489520 | ---- | 4744100 |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DAY | APRIL | | MAY | | JUNE | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 9560 | 6000 | 155000 | 8530 | 1400 | 32200 |
| 2 | 9380 | 4900 | 124000 | 8500 | 2000 | 45900 |
| 3 | 10700 | 4000 | 116000 | 8550 | 1920 | 44300 |
| 4 | 10100 | 3800 | 104000 | 7770 | 1680 | 35200 |
| 5 | 9880 | 5000 | 133000 | 7750 | 1320 | 27600 |
| 6 | 9920 | 3600 | 96400 | 7590 | 1680 | 34400 |
| 7 | 9810 | 2500 | 66200 | 7890 | 1560 | 33200 |
| 8 | 9600 | 2100 | 54400 | 7960 | 1440 | 30900 |
| 9 | 9880 | 2200 | 58700 | 7980 | 1440 | 31000 |
| 10 | 10400 | 2900 | 81400 | 8090 | 1320 | 28800 |
| 11 | 12400 | 5000 | 167000 | 7770 | 1080 | 22700 |
| 12 | 13800 | 16600 | 619000 | 7910 | 1540 | 32900 |
| 13 | 14300 | 13800 | 533000 | 7910 | 1000 | 21400 |
| 14 | 14300 | 8400 | 324000 | 8000 | 1000 | 21600 |
| 15 | 14000 | 5600 | 212000 | 8020 | 1300 | 28200 |
| 16 | 12500 | 4800 | 162000 | 8160 | 2000 | 44100 |
| 17 | 11100 | 6080 | 182000 | 8450 | 1440 | 32900 |
| 18 | 10700 | 5100 | 147000 | 8250 | 1440 | 32100 |
| 19 | 9600 | 3060 | 79300 | 7960 | --- | 32000 |
| 20 | 9600 | 6300 | 163000 | 7980 | --- | 32000 |
| 21 | 10800 | 6200 | 181000 | 7910 | 1650 | 35200 |
| 22 | 11600 | 3000 | 94000 | 8020 | 2040 | 44200 |
| 23 | 11800 | 4800 | 153000 | 7660 | --- | 32000 |
| 24 | 10900 | 2300 | 67700 | 8640 | 1960 | 45700 |
| 25 | 9310 | --- | 50000 | 10800 | --- | 150000 |
| 26 | 8720 | 1950 | 45900 | 10400 | --- | 150000 |
| 27 | 8700 | --- | 45000 | 10700 | --- | 150000 |
| 28 | 9420 | --- | 48000 | 10600 | --- | 150000 |
| 29 | 8980 | --- | 46000 | 10000 | --- | 140000 |
| 30 | 9140 | --- | 47000 | 10900 | --- | 140000 |
| 31 | --- | --- | --- | 10800 | --- | 140000 |
| TOTAL | 320900 | --- | 4355000 | 267450 | --- | 1820500 |
| | | | | | | 322150 |
| | | | | | | --- |
| | | | | | | 1770130 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| | | | | | | | | | |
| | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 6250 | --- | 6900 | 3160 | --- | 1500 | 2640 | --- | 820 |
| 2 | 6200 | --- | 6500 | 3200 | --- | 1500 | 2630 | --- | 780 |
| 3 | 6330 | --- | 6500 | 3220 | --- | 1400 | 2650 | --- | 750 |
| 4 | 6350 | --- | 6300 | 3210 | --- | 1400 | 2710 | --- | 730 |
| 5 | 6310 | --- | 6100 | 3190 | --- | 1400 | 2680 | --- | 720 |
| 6 | 6290 | 347 | 5890 | 3150 | --- | 1300 | 2640 | --- | 710 |
| 7 | 6060 | --- | 5600 | 3150 | --- | 1300 | 2620 | --- | 710 |
| 8 | 5990 | --- | 5500 | 3160 | --- | 1300 | 2640 | --- | 710 |
| 9 | 5910 | --- | 5300 | 3240 | 151 | 1320 | 2710 | --- | 730 |
| 10 | 5910 | --- | 5100 | 3620 | --- | 1600 | 3100 | --- | 1200 |
| 11 | 5950 | --- | 5000 | 4320 | --- | 2600 | 3020 | --- | 1300 |
| 12 | 5990 | --- | 4900 | 4540 | --- | 2700 | 3560 | --- | 4200 |
| 13 | 5660 | --- | 4400 | 4330 | --- | 2000 | 3430 | --- | 3300 |
| 14 | 5300 | --- | 4000 | 3850 | --- | 1700 | 3520 | --- | 3300 |
| 15 | 4950 | --- | 3600 | 3280 | --- | 1400 | 3420 | --- | 3100 |
| 16 | 4500 | --- | 3200 | 3150 | --- | 1300 | 3380 | 323 | 2950 |
| 17 | 4000 | --- | 2700 | 3160 | --- | 1200 | 3320 | --- | 2700 |
| 18 | 3800 | --- | 2500 | 3160 | 124 | 1060 | 3250 | --- | 2500 |
| 19 | 3730 | 232 | 2340 | 3150 | --- | 1000 | 3210 | --- | 2200 |
| 20 | 3720 | --- | 2300 | 3130 | --- | 1000 | 3500 | 1100 | 10400 |
| 21 | 3700 | --- | 2200 | 3070 | --- | 980 | 3450 | --- | 10000 |
| 22 | 3510 | --- | 2000 | 3040 | --- | 950 | 3320 | --- | 8100 |
| 23 | 3480 | --- | 2000 | 3020 | --- | 930 | 3250 | --- | 7000 |
| 24 | 3470 | --- | 1900 | 2960 | --- | 900 | 3670 | --- | 6900 |
| 25 | 3480 | --- | 1800 | 2790 | 110 | 829 | 3820 | --- | 6200 |
| 26 | 3480 | --- | 1800 | 2660 | --- | 790 | 3850 | --- | 5200 |
| 27 | 3360 | 186 | 1690 | 2580 | --- | 700 | 3880 | --- | 4200 |
| 28 | 3250 | --- | 1700 | 2560 | --- | 690 | 3860 | 324 | 3380 |
| 29 | 3220 | --- | 1600 | 2580 | --- | 700 | 3860 | --- | 2500 |
| 30 | 3130 | --- | 1500 | 2660 | --- | 850 | 3820 | --- | 1700 |
| 31 | 3200 | --- | 1500 | 2650 | 118 | 844 | --- | --- | --- |
| TOTAL | 146480 | --- | 114320 | 98940 | --- | 39143 | 97410 | --- | 98990 |
| YEAR | 4073770 | | 36,576,543 TONS | | | | | | |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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 | | | | | | | | | |
| 1 | 3820 | --- | 1900 | 10900 | 2190 | 64500 | 16800 | 5440 | 247000 |
| 2 | 3800 | --- | 1900 | 10200 | --- | 52000 | 16100 | --- | 210000 |
| 3 | 3850 | --- | 2100 | 9720 | 1760 | 46200 | 32700 | 17200 | 1880000 |
| 4 | 3800 | --- | 2300 | 9850 | --- | 51000 | 54100 | 15000 | 2310000 |
| 5 | 3780 | --- | 2300 | 10500 | 4000 | 113000 | 33300 | 7830 | 704000 |
| 6 | 3840 | --- | 2500 | 12000 | --- | 250000 | 27500 | 4510 | 335000 |
| 7 | 3960 | --- | 2800 | 12200 | --- | 280000 | 24700 | --- | 290000 |
| 8 | 4040 | --- | 2900 | 11200 | 7540 | 228000 | 21200 | 4380 | 251000 |
| 9 | 4040 | --- | 3100 | 10600 | --- | 190000 | 19900 | --- | 170000 |
| 10 | 4040 | --- | 3300 | 10200 | 5710 | 157000 | 17600 | 2630 | 125000 |
| 11 | 3720 | --- | 3100 | 9980 | --- | 140000 | 12100 | --- | 68000 |
| 12 | 3860 | --- | 3300 | 10000 | 4920 | 133000 | 12300 | --- | 110000 |
| 13 | 3790 | 327 | 3350 | 9980 | --- | 120000 | 12900 | 4280 | 149000 |
| 14 | 4140 | --- | 3500 | 9520 | --- | 110000 | 12700 | --- | 150000 |
| 15 | 5030 | 441 | 5990 | 9150 | 3830 | 94600 | 16100 | 4840 | 210000 |
| 16 | 4930 | --- | 8000 | 8650 | 7460 | 174000 | 29700 | 14200 | 1160000 |
| 17 | 5080 | --- | 8800 | 12800 | 11100 | 401000 | 25200 | 8400 | 572000 |
| 18 | 5150 | 600 | 8340 | 15400 | --- | 390000 | 22900 | --- | 320000 |
| 19 | 5080 | --- | 7400 | 15100 | 7200 | 294000 | 20500 | --- | 240000 |
| 20 | 5030 | --- | 6000 | 13900 | --- | 200000 | 20100 | 4000 | 217000 |
| 21 | 5060 | 341 | 4660 | 12600 | --- | 170000 | 18900 | --- | 200000 |
| 22 | 6030 | --- | 52000 | 12200 | 5180 | 171000 | 17200 | --- | 180000 |
| 23 | 5990 | --- | 79000 | 12500 | --- | 180000 | 15300 | --- | 150000 |
| 24 | 5640 | --- | 59000 | 12100 | 5350 | 175000 | 13000 | 2740 | 96200 |
| 25 | 5450 | 4080 | 60000 | 13000 | --- | 190000 | 12300 | --- | 82000 |
| 26 | 6370 | --- | 100000 | 13900 | 5550 | 208000 | 11900 | --- | 90000 |
| 27 | 6840 | 4730 | 87400 | 13500 | --- | 220000 | 13000 | 2380 | 75000 |
| 28 | 7580 | --- | 74000 | 15100 | --- | 330000 | 11100 | 2640 | 79100 |
| 29 | 16700 | 10900 | 514000 | 14600 | 5500 | 217000 | 9950 | 2360 | 63400 |
| 30 | 13100 | 3700 | 131000 | 15800 | --- | 200000 | 9800 | --- | 59000 |
| 31 | 11400 | --- | 77000 | --- | --- | --- | 9250 | 2220 | 55400 |
| TOTAL | 174940 | --- | 13320940 | 357150 | --- | 5549300 | 590100 | --- | 10848100 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | JANUARY | | | FEBRUARY | | | MARCH | | |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN- TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 8600 | --- | 48000 | 11700 | --- | 82000 | 10500 | 1870 | 53000 |
| 2 | 8250 | --- | 50000 | 10800 | --- | 70000 | 11000 | --- | 62000 |
| 3 | 9100 | 2940 | 72200 | 10000 | --- | 59000 | 10800 | --- | 64000 |
| 4 | 11900 | 3230 | 104000 | 10300 | 2060 | 57300 | 9550 | --- | 57000 |
| 5 | 33100 | 7440 | 713000 | 9590 | --- | 52000 | 9400 | --- | 58000 |
| 6 | 34000 | 7390 | 678000 | 9700 | --- | 50000 | 9620 | --- | 62000 |
| 7 | 39900 | 8080 | 874000 | 10000 | --- | 51000 | 10200 | 2580 | 71100 |
| 8 | 44200 | 7150 | 857000 | 9930 | --- | 48000 | 13600 | --- | 110000 |
| 9 | 35700 | 4110 | 396000 | 10600 | --- | 52000 | 18400 | --- | 240000 |
| 10 | 33200 | 3710 | 333000 | 11700 | 1690 | 53400 | 21800 | 5400 | 318000 |
| 11 | 31800 | --- | 340000 | 12400 | --- | 67000 | 27800 | 3020 | 227000 |
| 12 | 23100 | 2770 | 173000 | 13000 | --- | 74000 | 26100 | --- | 160000 |
| 13 | 19900 | --- | 110000 | 15300 | --- | 100000 | 21000 | 4150 | 235000 |
| 14 | 19200 | 1760 | 91200 | 13800 | --- | 89000 | 21800 | 2900 | 171000 |
| 15 | 18600 | --- | 90000 | 11500 | --- | 50000 | 17600 | --- | 110000 |
| 16 | 18000 | --- | 90000 | 11000 | 1700 | 50500 | 14200 | 2060 | 79000 |
| 17 | 17400 | 1890 | 88800 | 13900 | --- | 83000 | 13200 | --- | 70000 |
| 18 | 16000 | --- | 78000 | 15600 | --- | 100000 | 13600 | --- | 70000 |
| 19 | 16700 | 1760 | 79400 | 14200 | --- | 81000 | 13400 | --- | 70000 |
| 20 | 20100 | 1660 | 90100 | 12100 | --- | 59000 | 12300 | --- | 60000 |
| 21 | 19800 | 1330 | 71100 | 10400 | --- | 47000 | 11600 | --- | 53000 |
| 22 | 19400 | --- | 120000 | 11500 | 1760 | 54600 | 10400 | --- | 48000 |
| 23 | 15200 | --- | 130000 | 13400 | --- | 80000 | 9250 | --- | 40000 |
| 24 | 12500 | 3200 | 108000 | 14000 | --- | 91000 | 8240 | 1560 | 34700 |
| 25 | 13700 | --- | 96000 | 11600 | --- | 72000 | 8320 | --- | 35000 |
| 26 | 14600 | 2320 | 91500 | 11500 | --- | 68000 | 7820 | --- | 32000 |
| 27 | 17800 | --- | 150000 | 11300 | --- | 64000 | 7860 | --- | 32000 |
| 28 | 16100 | 3460 | 150000 | 10800 | --- | 58000 | 7900 | 1530 | 32600 |
| 29 | 15000 | --- | 130000 | --- | --- | --- | 12600 | 4190 | 170000 |
| 30 | 14000 | --- | 110000 | --- | --- | --- | 19100 | 4830 | 253000 |
| 31 | 13200 | --- | 100000 | --- | --- | --- | 17400 | 2780 | 131000 |
| TOTAL | 630050 | --- | 6612300 | 331620 | --- | 1862800 | 426360 | --- | 3208400 |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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) |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|
| APRIL | | | | | | | | | |
| 1 | 16800 | --- | 120000 | 7300 | --- | 24000 | 8210 | 1740 | 38600 |
| 2 | 19600 | --- | 130000 | 7230 | --- | 21000 | 7760 | 1490 | 31200 |
| 3 | 18700 | --- | 120000 | 7120 | --- | 19000 | 7510 | 1220 | 24700 |
| 4 | 16000 | --- | 95000 | 7060 | --- | 19000 | 7300 | --- | 24000 |
| 5 | 12800 | --- | 69000 | 7090 | 920 | 17600 | 7230 | --- | 21000 |
| 6 | 11100 | --- | 57000 | 7200 | --- | 17000 | 7230 | 1130 | 22100 |
| 7 | 9810 | --- | 45000 | 7510 | --- | 16000 | 7160 | 1020 | 19700 |
| 8 | 8760 | 1580 | 37400 | 8100 | --- | 24000 | 7160 | 970 | 18800 |
| 9 | 8350 | --- | 36000 | 8210 | --- | 33000 | 7090 | 1400 | 26800 |
| 10 | 8360 | --- | 34000 | 8000 | --- | 30000 | 7860 | --- | 40000 |
| 11 | 8410 | --- | 34000 | 7510 | --- | 27000 | 7860 | --- | 35000 |
| 12 | 8460 | --- | 34000 | 7720 | 1330 | 27700 | 7930 | --- | 37000 |
| 13 | 8500 | --- | 32000 | 7260 | --- | 25000 | 7620 | 1280 | 26300 |
| 14 | 8280 | --- | 31000 | 7340 | --- | 24000 | 7620 | 1220 | 25100 |
| 15 | 8000 | 1380 | 29800 | 7820 | --- | 25000 | 7900 | 1270 | 27100 |
| 16 | 7820 | --- | 30000 | 7620 | 1120 | 23000 | 7300 | --- | 24000 |
| 17 | 7720 | --- | 29000 | 7230 | 960 | 18700 | 7160 | 1240 | 24000 |
| 18 | 7760 | --- | 29000 | 7200 | 950 | 18500 | 7480 | --- | 28000 |
| 19 | 7680 | --- | 29000 | 7060 | 864 | 16500 | 8350 | --- | 36000 |
| 20 | 7540 | --- | 29000 | 6950 | --- | 16000 | 8650 | 1940 | 45300 |
| 21 | 7510 | --- | 28000 | 7090 | --- | 18000 | 8000 | 1930 | 41700 |
| 22 | 7480 | --- | 28000 | 6920 | --- | 18000 | 7650 | 1600 | 33000 |
| 23 | 7650 | --- | 29000 | 6820 | 984 | 18100 | 7620 | 1460 | 30000 |
| 24 | 9060 | --- | 39000 | 6880 | --- | 20000 | 7790 | 1460 | 30700 |
| 25 | 8320 | 1550 | 34800 | 6850 | 1090 | 20200 | 7440 | --- | 26000 |
| 26 | 7930 | --- | 32000 | 6760 | 1210 | 22100 | 7300 | --- | 24000 |
| 27 | 7650 | --- | 29000 | 6620 | 1170 | 20900 | 7340 | 1180 | 23400 |
| 28 | 7400 | --- | 28000 | 6620 | --- | 21000 | 7230 | 1160 | 22600 |
| 29 | 7370 | --- | 26000 | 6850 | --- | 24000 | 7340 | 1310 | 26000 |
| 30 | 7340 | --- | 24000 | 6920 | --- | 28000 | 7580 | 1400 | 28700 |
| 31 | --- | --- | --- | 6920 | 1770 | 33100 | --- | --- | --- |
| TOTAL | 288160 | --- | 1348000 | 223780 | --- | 685400 | 227670 | --- | 860800 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DAY | MEAN DISCHARGE (CFS) | JULY | | | AUGUST | | | SEPTEMBER | | |
|-------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|----------------------------|---------------------------------|-------------------------------------|--|
| | | 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) | |
| 1 | 7760 | 1590 | 33300 | 6150 | 915 | 15200 | 4470 | --- | 8900 | |
| 2 | 9020 | --- | 58000 | 5250 | 800 | 11300 | 4450 | 771 | 9260 | |
| 3 | 8950 | --- | 46000 | 4540 | 615 | 7540 | 4360 | --- | 8500 | |
| 4 | 8460 | 1650 | 37700 | 4180 | 590 | 6660 | 4270 | --- | 7100 | |
| 5 | 8240 | --- | 36000 | 4620 | 864 | 10800 | 4170 | --- | 5600 | |
| 6 | 8100 | --- | 36000 | 4650 | --- | 11000 | 4000 | 376 | 4060 | |
| 7 | 7960 | 1640 | 35200 | 4000 | --- | 8000 | 3910 | 327 | 3450 | |
| 8 | 8070 | --- | 35000 | 3670 | --- | 7000 | 3690 | --- | 3400 | |
| 9 | 7930 | --- | 32000 | 3810 | 690 | 7100 | 4150 | 370 | 4150 | |
| 10 | 7930 | --- | 30000 | 4050 | --- | 8000 | 4390 | --- | 5500 | |
| 11 | 7580 | 1420 | 29100 | 4130 | --- | 8600 | 5280 | --- | 7700 | |
| 12 | 6720 | 1270 | 23000 | 4150 | 772 | 8650 | 5280 | 543 | 7740 | |
| 13 | 8020 | 3280 | 76700 | 4080 | --- | 7100 | 5070 | 516 | 7060 | |
| 14 | 9920 | --- | 120000 | 4030 | --- | 4600 | 4860 | 486 | 6380 | |
| 15 | 10100 | --- | 100000 | 3910 | 300 | 3170 | 4780 | --- | 5200 | |
| 16 | 8880 | --- | 65000 | 3930 | 338 | 3590 | 4700 | 306 | 3880 | |
| 17 | 8320 | --- | 43000 | 3960 | 433 | 4630 | 4690 | --- | 3800 | |
| 18 | 7960 | --- | 39000 | 3930 | --- | 5200 | 4680 | --- | 4400 | |
| 19 | 7900 | 1620 | 34600 | 3930 | 514 | 5450 | 4660 | --- | 5200 | |
| 20 | 9020 | --- | 44000 | 3930 | --- | 4700 | 4650 | 437 | 5490 | |
| 21 | 8760 | 1550 | 36700 | 3910 | --- | 4000 | 4650 | 475 | 5960 | |
| 22 | 8500 | 1460 | 33500 | 3880 | 340 | 3560 | 4750 | --- | 7400 | |
| 23 | 7790 | --- | 29000 | 3790 | --- | 3500 | 4850 | --- | 9600 | |
| 24 | 7580 | --- | 29000 | 3810 | 368 | 3790 | 4960 | --- | 12000 | |
| 25 | 6880 | --- | 26000 | 3840 | --- | 4100 | 4980 | --- | 13000 | |
| 26 | 6270 | --- | 17000 | 3810 | 432 | 4100 | 5010 | 1030 | 13900 | |
| 27 | 5910 | 994 | 15900 | 3860 | --- | 4500 | 4830 | --- | 13000 | |
| 28 | 5940 | --- | 16000 | 3840 | --- | 4500 | 4540 | 974 | 11900 | |
| 29 | 6500 | --- | 18000 | 4100 | 714 | 4500 | 4650 | 1020 | 12800 | |
| 30 | 7230 | --- | 21000 | 5470 | --- | 28000 | 4750 | 1070 | 13700 | |
| 31 | 6720 | --- | 18000 | 4490 | 837 | 25000 | --- | --- | --- | |
| TOTAL | 244920 | --- | 1213700 | 129700 | --- | 237840 | 138480 | --- | 230030 | |
| YEAR | 3762930 | | 33,977,610 TONS | | | | | | | |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM |
|--------|------|-----------------------------|---|---|--|--|--|
| OCT | | | | | | | |
| 14.... | 1500 | 11.0 | 6750 | 4 | 948 | 17300 | -- |
| 15.... | 1645 | 12.5 | 6400 | -- | 1100 | 19000 | -- |
| 16.... | 1730 | 13.0 | 6400 | -- | 1130 | 19500 | -- |
| 17.... | 1730 | 12.0 | 6550 | -- | 1160 | 20500 | -- |
| 20.... | 0700 | 10.0 | 7000 | -- | 664 | 12500 | -- |
| 21.... | 0730 | 12.0 | 6900 | -- | 860 | 16000 | -- |
| 22.... | 0720 | 8.0 | 6700 | -- | 634 | 11500 | -- |
| 22.... | 1300 | -- | 6540 | 4 | 1260 | 22200 | -- |
| 23.... | 1730 | 12.0 | 6500 | -- | 750 | 13200 | -- |
| 24.... | 0500 | 10.0 | 6700 | -- | 932 | 16900 | -- |
| 27.... | 0645 | 10.0 | 6800 | -- | 691 | 12700 | -- |
| 28.... | 0700 | 9.0 | 6500 | -- | 752 | 13200 | -- |
| 29.... | 0645 | 9.5 | 5400 | -- | 578 | 8430 | -- |
| 30.... | 0700 | 9.5 | 5100 | -- | 798 | 11000 | -- |
| 31.... | 0700 | 10.0 | 4600 | -- | 748 | 9290 | -- |
| NOV | | | | | | | |
| 02.... | 0830 | 10.5 | 6400 | -- | 9100 | 157000 | -- |
| 03.... | 0700 | 12.0 | 5100 | -- | 3330 | 45900 | -- |
| 04.... | 0700 | 11.0 | 5800 | -- | 2100 | 32900 | -- |
| 05.... | 0655 | 11.0 | 7000 | -- | 1700 | 32100 | -- |
| 06.... | 0700 | 11.0 | 7200 | -- | 3840 | 74600 | -- |
| 07.... | 0005 | 12.0 | 9500 | -- | 6200 | 159000 | -- |
| 07.... | 0415 | -- | 12800 | -- | 21000 | 726000 | -- |
| 07.... | 0420 | -- | 12800 | -- | 20600 | 712000 | -- |
| 07.... | 0715 | -- | 15000 | -- | 26100 | 1060000 | -- |
| 07.... | 0910 | -- | 15300 | 4 | 28400 | 1170000 | 13 |
| 07.... | 1035 | -- | 13800 | -- | 28600 | 1070000 | -- |
| 07.... | 1210 | -- | 13200 | -- | 31600 | 1130000 | -- |
| 07.... | 1320 | -- | 13100 | -- | 21500 | 760000 | -- |
| 07.... | 1500 | -- | 13300 | -- | 17200 | 618000 | -- |
| 07.... | 1620 | -- | 13800 | -- | 14800 | 551000 | -- |
| 07.... | 1640 | -- | 14100 | -- | 15400 | 586000 | -- |
| 07.... | 2035 | -- | 15800 | -- | 12300 | 525000 | -- |
| 07.... | 2045 | -- | 15800 | -- | 13700 | 584000 | -- |
| 07.... | 2055 | -- | 16000 | -- | 13200 | 570000 | -- |
| 07.... | 2125 | -- | 16200 | -- | 13500 | 590000 | -- |
| 07.... | 2200 | -- | 16600 | -- | 14200 | 636000 | -- |
| 07.... | 2230 | -- | 17000 | -- | 14500 | 666000 | -- |
| 08.... | 0300 | -- | 22400 | -- | 22100 | 1340000 | -- |
| 08.... | 0400 | -- | 22300 | -- | 17800 | 1070000 | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | 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 | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM |
|-------|--|--|--|--|--|--|--|
| OCT | | | | | | | |
| 14... | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | 93 | -- |
| 07... | -- | -- | -- | -- | -- | -- | 100 |
| 07... | 20 | 31 | 49 | 72 | 95 | -- | -- |
| 07... | -- | -- | -- | -- | -- | 93 | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | 81 | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | 76 | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM |
|-------|------|-----------------------------|---|---|---------------------------------------|---|--|--|
| NOV | | | | | | | | |
| 08... | 0500 | -- | 22200 | -- | 11800 | 707000 | -- | -- |
| 08... | 0600 | -- | 22100 | -- | 10100 | 603000 | -- | -- |
| 08... | 0700 | -- | 22000 | -- | 10700 | 636000 | -- | -- |
| 08... | 0800 | -- | 21900 | -- | 7160 | 423000 | -- | -- |
| 08... | 0945 | -- | 21700 | 4 | 8090 | 474000 | -- | -- |
| 08... | 1010 | -- | 21600 | -- | 8350 | 487000 | -- | -- |
| 08... | 1215 | -- | 21500 | -- | 8950 | 520000 | -- | -- |
| 08... | 1335 | -- | 21600 | -- | 9620 | 561000 | -- | -- |
| 08... | 1440 | -- | 21800 | -- | 8810 | 519000 | -- | -- |
| 08... | 1445 | -- | 21800 | -- | 8530 | 502000 | -- | -- |
| 08... | 1720 | -- | 22000 | 4 | 7710 | 458000 | -- | -- |
| 09... | 2000 | -- | 18800 | 4 | 4380 | 222000 | -- | -- |
| 10... | 1135 | -- | 16300 | 4 | 3620 | 159000 | -- | -- |
| 18... | 1230 | 10.0 | 6700 | 5 | 1440 | 26000 | -- | -- |
| 21... | 1000 | -- | 9500 | -- | 2870 | 73600 | -- | -- |
| 21... | 1500 | -- | 13300 | -- | 13800 | 496000 | -- | -- |
| 21... | 1600 | -- | 14500 | -- | 25700 | 1010000 | -- | -- |
| 21... | 1830 | -- | 16600 | -- | 42200 | 1890000 | -- | -- |
| 21... | 2040 | -- | 15300 | -- | 41300 | 1710000 | -- | -- |
| 21... | 2045 | -- | 15300 | -- | 36300 | 1500000 | 14 | 16 |
| 21... | 2140 | -- | 15100 | -- | 29400 | 1200000 | -- | -- |
| 21... | 2150 | -- | 15100 | -- | 28300 | 1150000 | -- | -- |
| 21... | 2305 | -- | 15400 | -- | 19300 | 802000 | -- | -- |
| 22... | 0010 | 9.5 | 16000 | -- | 11800 | 510000 | -- | -- |
| 22... | 0055 | 9.0 | 16600 | 3 | 11000 | 493000 | 14 | 20 |
| 22... | 0300 | 8.5 | 18400 | -- | 6080 | 302000 | -- | -- |
| 22... | 0420 | 8.5 | 18800 | -- | 4860 | 247000 | -- | -- |
| 22... | 0530 | 8.5 | 19000 | -- | 4460 | 229000 | -- | -- |
| 22... | 0635 | 8.0 | 18900 | -- | 4000 | 204000 | -- | -- |
| 22... | 0735 | 8.0 | 18800 | -- | 3730 | 189000 | -- | -- |
| 22... | 0905 | -- | 18500 | -- | 3040 | 152000 | -- | -- |
| 22... | 1000 | -- | 18300 | 5 | 3480 | 172000 | 11 | 15 |
| 27... | 1105 | -- | 7680 | -- | 3170 | 65700 | -- | -- |
| 28... | 1025 | -- | 9980 | -- | 3040 | 81900 | -- | -- |
| DEC | | | | | | | | |
| 01... | 1115 | -- | 13300 | -- | 2260 | 81200 | -- | -- |
| 02... | 0950 | -- | 14300 | -- | 1620 | 62500 | -- | -- |
| 02... | 1830 | -- | 29000 | -- | 33200 | 2600000 | -- | -- |
| 02... | 1920 | -- | 30200 | -- | 31300 | 2550000 | -- | -- |
| 02... | 2005 | -- | 30200 | -- | 23300 | 1900000 | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| 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. SIEVE DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM |
|-------|--|--|--|--|---|--|--|
| NOV | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | 83 | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | 72 | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | 74 | -- | -- | -- |
| 08... | -- | -- | -- | 65 | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | -- | -- | 35 | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | 66 | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- |
| 21... | 29 | 45 | 89 | -- | -- | 99 | 100 |
| 21... | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | 90 | -- | -- | -- |
| 21... | -- | -- | -- | 85 | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 22... | 34 | 50 | 72 | 92 | -- | 100 | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 22... | 24 | 38 | 53 | 74 | 87 | 97 | 100 |
| 27... | -- | -- | -- | -- | 32 | -- | -- |
| 28... | -- | -- | -- | -- | 48 | -- | -- |
| DEC | | | | | | | |
| 01... | -- | -- | -- | -- | 50 | -- | -- |
| 02... | -- | -- | -- | -- | 67 | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | 93 | -- | -- |
| 02... | -- | -- | -- | -- | 92 | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM |
|--------|------|-----------------------------|---|---|-----------------------------|--|--|--|
| DEC | | | | | | | | |
| 02.... | 2050 | -- | 30200 | -- | 23900 | 1950000 | -- | -- |
| 02.... | 2055 | -- | 30000 | -- | 20300 | 1640000 | -- | -- |
| 02.... | 2130 | -- | 29500 | 5 | 21000 | 1670000 | 13 | 16 |
| 03.... | 1125 | -- | 27300 | 5 | 6780 | 500000 | 7 | 10 |
| 03.... | 1145 | -- | 27200 | -- | 5610 | 412000 | -- | -- |
| 03.... | 1150 | -- | 27200 | -- | 6990 | 513000 | -- | -- |
| 03.... | 1340 | -- | 26800 | -- | 7350 | 532000 | -- | -- |
| 03.... | 1345 | -- | 26800 | -- | 6390 | 462000 | -- | -- |
| 03.... | 1510 | -- | 26800 | -- | 6420 | 465000 | -- | -- |
| 03.... | 1635 | -- | 26700 | -- | 6460 | 466000 | -- | -- |
| 03.... | 1955 | -- | 27200 | -- | 9420 | 692000 | -- | -- |
| 03.... | 2000 | -- | 27200 | -- | 7240 | 532000 | -- | -- |
| 04.... | 0810 | -- | 25100 | -- | 4860 | 329000 | -- | -- |
| 04.... | 1020 | -- | 24500 | 4 | 4190 | 277000 | 4 | 6 |
| 04.... | 1025 | -- | 25600 | -- | 4860 | 336000 | -- | -- |
| 04.... | 1430 | -- | 23600 | -- | 2250 | 143000 | -- | -- |
| 08.... | 1400 | -- | 15600 | -- | 3170 | 134000 | -- | -- |
| 09.... | 1115 | -- | 14000 | -- | 1220 | 46100 | -- | -- |
| 10.... | 1110 | 6.5 | 10200 | -- | 2160 | 59500 | -- | -- |
| 11.... | 1010 | 6.0 | 9800 | 3 | 2140 | 56600 | -- | -- |
| 12.... | 1105 | -- | 9470 | 3 | 1400 | 35800 | -- | -- |
| 13.... | 1015 | -- | 10700 | 3 | 2720 | 78600 | -- | -- |
| 14.... | 1015 | -- | 10400 | 3 | 1610 | 45200 | -- | -- |
| 15.... | 0950 | -- | 11000 | 3 | 2880 | 85500 | -- | -- |
| 16.... | 1130 | -- | 14200 | 3 | 1270 | 48700 | -- | -- |
| 17.... | 1020 | -- | 13700 | 5 | 1440 | 53300 | -- | -- |
| 17.... | 1130 | -- | 13700 | 3 | 1350 | 49900 | -- | -- |
| 18.... | 1000 | -- | 13500 | 3 | 1280 | 46700 | -- | -- |
| 19.... | 1000 | 6.0 | 12900 | 3 | 1030 | 35900 | -- | -- |
| 21.... | 1120 | -- | 14300 | -- | 3210 | 124000 | -- | -- |
| 22.... | 1330 | -- | 27400 | -- | 18400 | 1360000 | -- | -- |
| 22.... | 2010 | 8.5 | 27100 | -- | 10100 | 739000 | -- | -- |
| 23.... | 1710 | 8.0 | 21800 | -- | 2550 | 150000 | -- | -- |
| 24.... | 1230 | -- | 24500 | -- | 1740 | 115000 | -- | -- |
| 25.... | 1710 | -- | 42500 | -- | 17500 | 2010000 | -- | -- |
| 26.... | 0730 | 11.0 | 42400 | -- | 47200 | 5400000 | -- | -- |
| 26.... | 2130 | -- | 36900 | 3 | 13300 | 1330000 | -- | -- |
| 26.... | 2350 | -- | 35200 | -- | 15300 | 1450000 | -- | -- |
| 27.... | 0915 | -- | 34800 | -- | 46600 | 4380000 | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 29 | 46 | 64 | 89 | -- | -- | -- | 100 | -- |
| 02... | 16 | 25 | 37 | 55 | -- | 62 | -- | 99 | 100 |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | 53 | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | 38 | -- | -- | -- |
| 04... | 10 | 15 | 23 | 38 | -- | 37 | 70 | 96 | 100 |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | 60 | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 |
|-------|------|-----------------------------|---|---|--|--|--|--|
| DEC | | | | | | | | |
| 27... | 1240 | -- | 31600 | 3 | 29000 | 2470000 | 13 | 13 |
| 27... | 1400 | -- | 32400 | -- | 22600 | 1980000 | -- | -- |
| 27... | 1635 | -- | 32900 | -- | 15400 | 1370000 | -- | -- |
| 27... | 1700 | -- | 33200 | -- | 17600 | 1580000 | -- | -- |
| 28... | 0915 | -- | 34500 | -- | 12100 | 1130000 | -- | -- |
| 29... | 1640 | -- | 28600 | -- | 2200 | 170000 | -- | -- |
| 30... | 1630 | -- | 36000 | -- | 4020 | 391000 | -- | -- |
| 31... | 0915 | 9.0 | 34000 | -- | 1890 | 174000 | -- | -- |
| JAN | | | | | | | | |
| 02... | 1225 | 8.0 | 34200 | -- | 1060 | 97900 | -- | -- |
| 05... | 1430 | -- | 31000 | -- | 1100 | 92100 | -- | -- |
| 06... | 1340 | -- | 17600 | 3 | 1490 | 70800 | -- | -- |
| 07... | 1105 | -- | 13800 | 3 | 1110 | 41400 | -- | -- |
| 08... | 1020 | -- | 13200 | 3 | 1180 | 42100 | -- | -- |
| 09... | 1120 | -- | 11600 | 3 | 3230 | 101000 | -- | -- |
| 10... | 1055 | -- | 12900 | 3 | 1530 | 53300 | -- | -- |
| 12... | 1005 | -- | 12700 | 3 | 1210 | 41500 | -- | -- |
| 13... | 0950 | -- | 10100 | 3 | 966 | 26300 | -- | -- |
| 14... | 1050 | 6.5 | 11700 | 3 | 841 | 26600 | -- | -- |
| 14... | 1305 | -- | 11700 | 5 | 1080 | 34100 | -- | -- |
| 15... | 1045 | -- | 11800 | 3 | 1890 | 60200 | -- | -- |
| 16... | 1035 | -- | 6280 | 3 | 1130 | 19200 | -- | -- |
| 18... | 1220 | 6.0 | 6000 | 5 | 476 | 7710 | -- | -- |
| 19... | 1015 | -- | 5960 | 5 | 627 | 10100 | -- | -- |
| 20... | 1000 | -- | 5870 | 5 | 594 | 9410 | -- | -- |
| 21... | 1110 | -- | 6030 | 5 | 477 | 7770 | -- | -- |
| 22... | 1520 | -- | 5520 | 5 | 3040 | 45300 | -- | -- |
| 23... | 1255 | -- | 5770 | 5 | 808 | 12600 | -- | -- |
| 26... | 1545 | -- | 6120 | 5 | 662 | 10900 | -- | -- |
| 27... | 1025 | 6.0 | 6130 | 5 | 765 | 12700 | -- | -- |
| 28... | 1225 | 6.5 | 6430 | 5 | 1180 | 20500 | -- | -- |
| 29... | 1100 | 6.5 | 6710 | 5 | 1500 | 27200 | -- | -- |
| 30... | 1050 | 6.0 | 6070 | 5 | 520 | 8520 | -- | -- |
| 31... | 1205 | 6.0 | 5600 | 5 | 612 | 9250 | -- | -- |
| FEB | | | | | | | | |
| 02... | 1020 | 5.5 | 5320 | 5 | 497 | 7140 | -- | -- |
| 03... | 0925 | 4.5 | 5300 | 5 | 437 | 6250 | -- | -- |
| 04... | 0930 | 5.5 | 5040 | 5 | 395 | 5380 | -- | -- |
| 05... | 1010 | 5.0 | 4680 | 5 | 336 | 4250 | -- | -- |
| 06... | 1050 | 5.5 | 4410 | 5 | 384 | 4570 | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| 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. 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 |
|-------|--|--|--|---|---|---|---|
| DEC | | | | | | | |
| 27... | 19 | 32 | 47 | 65 | 89 | 99 | 100 |
| 27... | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | 17 | 40 | 94 | 100 |
| 15... | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | 40 | -- | -- | -- |
| 19... | -- | -- | -- | 49 | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) |
|-------|------|-----------------------------|---|---|--|--|
| FEB | | | | | | |
| 09... | 1545 | -- | 4410 | 5 | 230 | 2740 |
| 10... | 1135 | -- | 4810 | 5 | 334 | 4340 |
| 11... | 1330 | 4.5 | 5830 | 5 | 519 | 8170 |
| 12... | 1155 | 5.0 | 7220 | 5 | 2550 | 49700 |
| 13... | 1320 | -- | 9920 | 5 | 1290 | 34600 |
| 14... | 1425 | 6.5 | 9110 | 5 | 8950 | 220000 |
| 16... | 1300 | -- | 25300 | 5 | 6670 | 456000 |
| 18... | 1405 | -- | 21900 | 5 | 7310 | 432000 |
| 19... | 1545 | -- | 37600 | 5 | 28000 | 2840000 |
| 20... | 1055 | 6.0 | 31800 | -- | 2940 | 252000 |
| 20... | 1245 | -- | 31100 | 5 | 3160 | 265000 |
| 21... | 1140 | -- | 25800 | 5 | 2460 | 171000 |
| 23... | 1120 | -- | 21600 | 5 | 5070 | 296000 |
| 23... | 1505 | 5.0 | 35900 | -- | 2200 | 213000 |
| 25... | 1445 | -- | 23000 | 5 | 2360 | 147000 |
| 26... | 1255 | -- | 21500 | 5 | 2750 | 160000 |
| 27... | 1130 | 7.0 | 20500 | 5 | 2780 | 154000 |
| MAR | | | | | | |
| 02... | 1305 | 6.0 | 14700 | 5 | 1670 | 66300 |
| 03... | 1330 | -- | 8660 | 5 | 2710 | 63400 |
| 11... | 1140 | 9.0 | 5080 | 5 | 1390 | 19100 |
| 12... | 1100 | 13.0 | 4870 | 5 | 2780 | 36600 |
| 13... | 1035 | 10.0 | 4680 | 5 | 1180 | 14900 |
| 17... | 1515 | 8.5 | 5070 | 5 | 1060 | 14500 |
| 18... | 1200 | 7.0 | 4820 | 5 | 786 | 10200 |
| 19... | 1135 | -- | 4600 | 5 | 813 | 10100 |
| 25... | 1230 | -- | 5760 | 5 | 2580 | 40100 |
| 31... | 1615 | 8.0 | 6180 | 5 | 2070 | 34500 |
| APR | | | | | | |
| 01... | 1410 | 8.0 | 8120 | 5 | 1660 | 36400 |
| 07... | 1245 | -- | 6180 | 5 | 762 | 12700 |
| 08... | 1310 | -- | 6800 | 5 | 667 | 12200 |
| 10... | 1550 | 7.5 | 10400 | -- | 857 | 24100 |
| 10... | 1610 | 8.0 | 10400 | -- | 858 | 24100 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|-------|------|-----------------------------|---|---|--|--|---|
| APR | | | | | | | |
| 14... | 1300 | 10.0 | 9460 | 5 | 521 | 13300 | 52 |
| 16... | 1200 | 10.0 | 7050 | 5 | 588 | 11200 | -- |
| 17... | 1125 | 10.0 | 3670 | 5 | 591 | 5860 | -- |
| 20... | 1110 | 10.0 | 6100 | 5 | 706 | 11600 | -- |
| 21... | 1435 | 9.5 | 5640 | 5 | 441 | 6720 | -- |
| 24... | 1220 | 10.0 | 8070 | 5 | 983 | 21400 | -- |
| 28... | 1320 | 10.5 | 8920 | 5 | 400 | 9630 | -- |
| 30... | 1410 | -- | 10500 | 5 | 400 | 11300 | -- |
| MAY | | | | | | | |
| 07... | 1140 | 9.0 | 8550 | 5 | 192 | 4430 | -- |
| 07... | 1150 | 9.0 | 8550 | -- | 226 | 5220 | -- |
| 07... | 1205 | 9.0 | 8350 | -- | 252 | 5680 | -- |
| 07... | 1215 | 9.0 | 8350 | -- | 242 | 5460 | -- |
| 11... | 1150 | -- | 5050 | 5 | 130 | 1770 | 89 |
| 14... | 1130 | -- | 4880 | 5 | 140 | 1840 | -- |
| 19... | 1030 | -- | 5790 | 5 | 308 | 4810 | -- |
| 26... | 1155 | 11.0 | 10100 | 5 | 160 | 4360 | -- |
| 27... | 1300 | -- | 10900 | 5 | 137 | 4030 | -- |
| JUN | | | | | | | |
| 01... | 1215 | -- | 6650 | 5 | 52 | 934 | -- |
| 02... | 1315 | -- | 7220 | -- | 89 | 1730 | 40 |
| 03... | 1255 | -- | 6630 | 5 | 38 | 680 | -- |
| 04... | 1100 | -- | 7060 | 5 | 200 | 3810 | -- |
| 08... | 1245 | -- | 10100 | 5 | 158 | 4310 | -- |
| 09... | 1230 | -- | 18000 | 5 | 1060 | 51500 | -- |
| 11... | 1035 | -- | 21600 | 5 | 540 | 31500 | -- |
| 15... | 1245 | -- | 9920 | 5 | 180 | 4820 | 79 |
| 24... | 1125 | 11.5 | 9960 | 5 | 115 | 3090 | -- |
| JUL | | | | | | | |
| 01... | 1450 | 12.5 | 7560 | 5 | 42 | 857 | -- |
| 06... | 1400 | 13.5 | 5470 | 5 | 28 | 414 | -- |
| 13... | 1625 | 13.0 | 6660 | 5 | 111 | 2000 | -- |
| 15... | 1235 | 13.5 | 4260 | 5 | 67 | 771 | 88 |
| 17... | 1340 | 15.0 | 3060 | 5 | 30 | 248 | -- |
| 20... | 1240 | 14.0 | 3170 | 5 | 29 | 248 | -- |
| 22... | 1220 | 14.5 | 3000 | 5 | 41 | 332 | -- |
| 27... | 1135 | 19.0 | 2830 | 5 | 39 | 298 | -- |
| 29... | 1200 | 15.0 | 2770 | 5 | 64 | 479 | -- |
| 31... | 1115 | 14.0 | 2790 | 5 | 52 | 392 | -- |
| AUG | | | | | | | |
| 03... | 1040 | 14.0 | 2780 | 5 | 42 | 315 | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- MENT, SUS- PENDE (MG/L) | SED- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|--------|------|-----------------------------|---|---|--|--|---|
| AUG | | | | | | | |
| 05.... | 1110 | 16.0 | 2750 | 5 | 53 | 394 | -- |
| 07.... | 1055 | 18.5 | 2770 | 5 | 40 | 299 | -- |
| 10.... | 1100 | 18.5 | 2610 | 5 | 49 | 345 | -- |
| 12.... | 1240 | 17.0 | 2640 | 5 | 53 | 378 | -- |
| 14.... | 1030 | 16.0 | 2660 | 5 | 72 | 517 | -- |
| 17.... | 1115 | 16.0 | 2570 | 5 | 53 | 368 | -- |
| 19.... | 1055 | 15.0 | 2580 | 5 | 73 | 509 | 97 |
| 21.... | 1215 | 15.0 | 2620 | 5 | 59 | 417 | -- |
| 24.... | 1050 | 15.5 | 2520 | 5 | 32 | 218 | -- |
| 26.... | 1100 | 14.0 | 2470 | 5 | 45 | 300 | -- |
| 28.... | 1100 | 15.0 | 2480 | 5 | 42 | 281 | -- |
| 31.... | 1100 | 15.0 | 2550 | 5 | 46 | 317 | -- |
| SEP | | | | | | | |
| 02.... | 1030 | 14.5 | 2760 | 5 | 205 | 1530 | -- |
| 08.... | 1215 | 15.5 | 2490 | 5 | 28 | 188 | -- |
| 14.... | 1100 | 14.5 | 2430 | 5 | 62 | 407 | 96 |
| 22.... | 1230 | 13.0 | 3240 | 5 | 166 | 1450 | 99 |
| 29.... | 1205 | 13.0 | 3510 | 5 | 226 | 2140 | 98 |

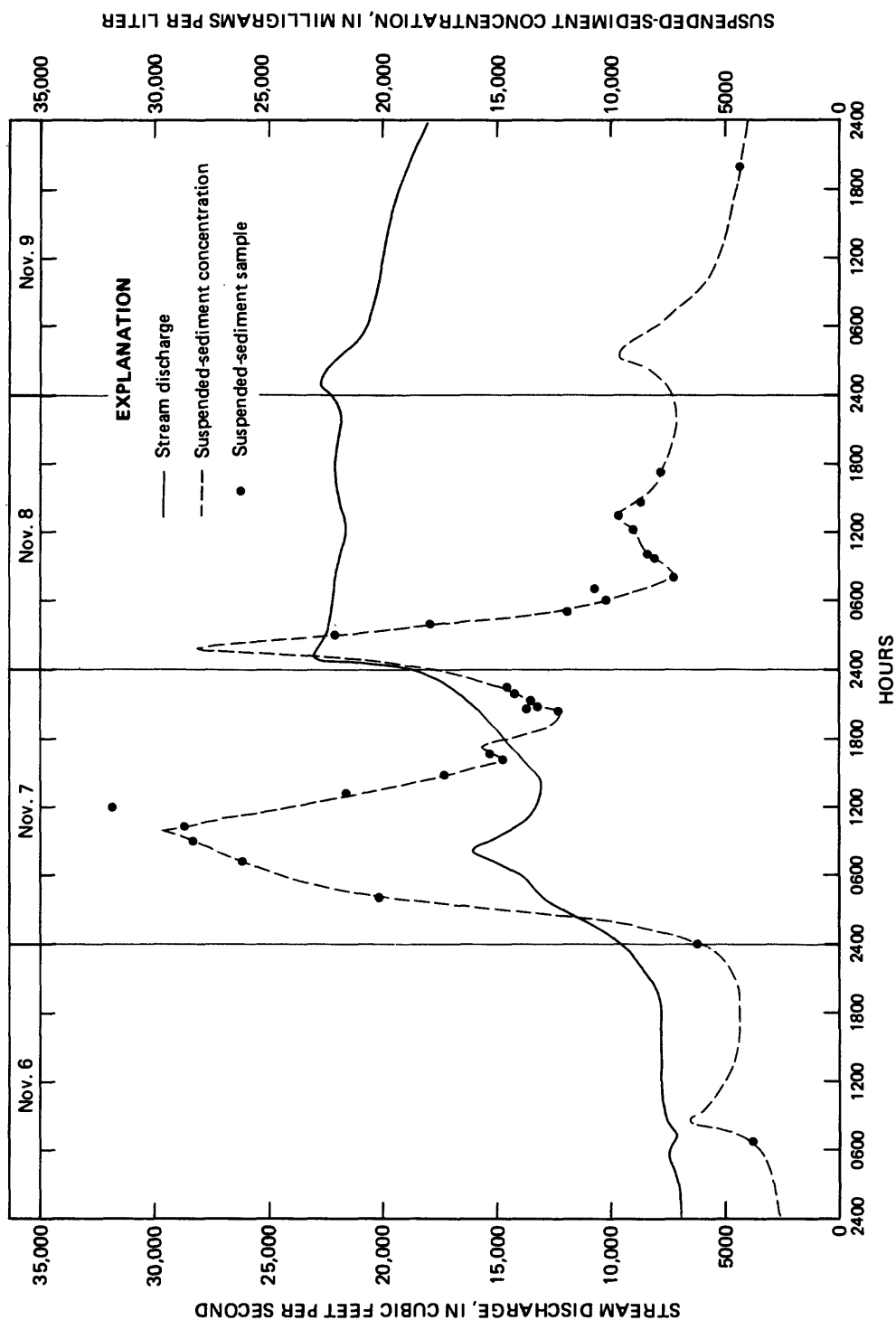


FIGURE 6. — Hydrograph of stream discharge and suspended-sediment concentration at Cowlitz River at Castle Rock for November 6-9, 1980.

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- I- MENT, SUS- PENDED (MG/L) | SED- I- 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 | | | | | | | | | |
| 05.... | 1155 | 10.5 | 3160 | 5 | 43 | 367 | -- | -- | -- |
| 06.... | 1330 | --- | 10400 | 5 | 6680 | 188000 | -- | -- | -- |
| 06.... | 1810 | 13.0 | 11900 | 5 | 14400 | 463000 | -- | -- | -- |
| 07.... | 1655 | --- | 9830 | 5 | 5200 | 138000 | -- | -- | -- |
| 13.... | 1200 | --- | 7700 | 5 | 212 | 4410 | -- | -- | -- |
| 20.... | 1255 | --- | 5920 | --- | 122 | 1950 | -- | -- | -- |
| 20.... | 1310 | --- | 5840 | 5 | 105 | 1660 | -- | -- | -- |
| 20.... | 1320 | --- | 5760 | --- | 122 | 1900 | -- | -- | -- |
| 21.... | 1210 | 11.0 | 7090 | --- | 159 | 3040 | -- | -- | -- |
| 26.... | 1240 | 10.5 | 5700 | 5 | 109 | 1680 | -- | -- | -- |
| 28.... | 1220 | 11.0 | 8460 | --- | 8770 | 200000 | -- | -- | -- |
| 28.... | 1240 | 11.0 | 8420 | 5 | 9340 | 212000 | -- | -- | -- |
| 28.... | 1255 | 11.0 | 8380 | --- | 8210 | 186000 | -- | -- | -- |
| NOV | | | | | | | | | |
| 02.... | 1120 | 10.0 | 7480 | --- | 497 | 10000 | -- | -- | -- |
| 02.... | 1145 | 10.0 | 7480 | 5 | 445 | 8990 | 15 | 18 | 26 |
| 02.... | 1205 | 10.0 | 7480 | --- | 441 | 8910 | -- | -- | -- |
| 09.... | 1335 | 11.0 | 7560 | --- | 234 | 4780 | -- | -- | -- |
| 09.... | 1400 | 11.0 | 7560 | 5 | 206 | 4200 | -- | -- | -- |
| 09.... | 1410 | 11.0 | 7560 | --- | 239 | 4880 | -- | -- | -- |
| 12.... | 0900 | 10.0 | 9920 | --- | 5170 | 138000 | -- | -- | -- |
| 12.... | 0945 | 10.0 | 9850 | --- | 4600 | 122000 | -- | -- | -- |
| 12.... | 1035 | 10.0 | 9810 | --- | 3570 | 94600 | -- | -- | -- |
| 12.... | 1150 | 10.0 | 9700 | --- | 3240 | 84900 | -- | -- | -- |
| 12.... | 1215 | 10.0 | 9700 | 5 | 2820 | 73900 | -- | -- | -- |
| 12.... | 1235 | 10.0 | 9630 | --- | 2860 | 74400 | -- | -- | -- |
| 12.... | 1330 | 10.0 | 9590 | --- | 2500 | 64700 | -- | -- | -- |
| 13.... | 1125 | 10.0 | 8600 | --- | 748 | 17400 | -- | -- | -- |
| 14.... | 2130 | --- | 13600 | --- | 13700 | 503000 | -- | -- | -- |
| 15.... | 0800 | 9.0 | 12000 | --- | 4180 | 135000 | -- | -- | -- |
| 15.... | 1545 | 9.5 | 11400 | --- | 2740 | 84300 | -- | -- | -- |
| 16.... | 0920 | --- | 11100 | --- | 4460 | 134000 | -- | -- | -- |
| 16.... | 1030 | --- | 11100 | --- | 4240 | 127000 | -- | -- | -- |
| 16.... | 1130 | 9.0 | 11000 | --- | 4300 | 128000 | -- | -- | -- |
| 16.... | 1255 | 9.0 | 10900 | --- | 3940 | 116000 | -- | -- | -- |
| 16.... | 1320 | 9.0 | 10800 | 5 | 3760 | 110000 | -- | -- | -- |
| 16.... | 1335 | --- | 10800 | --- | 3860 | 113000 | -- | -- | -- |
| 17.... | 0940 | 9.5 | 12000 | --- | 2040 | 66100 | -- | -- | -- |
| 17.... | 1745 | 9.0 | 13300 | --- | 4540 | 163000 | -- | -- | -- |
| 18.... | 1410 | 9.0 | 14300 | --- | 3880 | 150000 | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. 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 .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 |
|-------|--|--|--|--|--|--|--|--|--|
| OCT | | | | | | | | | |
| 05... | -- | -- | -- | 90 | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | 97 | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | 99 | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | 97 | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | 61 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | 40 | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | 43 | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | 97 | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | 98 | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | 97 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | |
| 02... | -- | -- | -- | 67 | -- | -- | -- | -- | -- |
| 02... | 35 | 48 | 68 | 68 | 88 | 88 | 100 | 100 | -- |
| 02... | -- | -- | -- | 68 | -- | -- | -- | -- | -- |
| 09... | -- | -- | -- | 50 | -- | -- | -- | -- | -- |
| 09... | -- | -- | -- | 53 | -- | 81 | 99 | 100 | -- |
| 09... | -- | -- | -- | 47 | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | 86 | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | 86 | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | 89 | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | 82 | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | 84 | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | 83 | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | 80 | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | 64 | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | 92 | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | 82 | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | 82 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 79 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 78 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 75 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 76 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 78 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 76 | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | 64 | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | 83 | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | 66 | -- | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 |
|-------|------|-----------------------------|---|---|--|--|--|--|
| NOV | | | | | | | | |
| 19... | 1420 | 8.5 | 12800 | -- | 1340 | 46300 | -- | -- |
| 20... | 1340 | 9.0 | 12200 | 5 | 1380 | 45500 | -- | 11 |
| 23... | 1025 | -- | 15000 | -- | 2120 | 85900 | -- | -- |
| 23... | 1330 | 9.5 | 17900 | -- | 1660 | 80200 | -- | -- |
| 23... | 1355 | 9.5 | 17800 | 5 | 1610 | 77400 | -- | 11 |
| 23... | 1415 | -- | 17800 | -- | 1720 | 82700 | -- | -- |
| 24... | 0935 | 8.0 | 16700 | -- | 812 | 36600 | -- | -- |
| 30... | 1200 | -- | 13400 | -- | 612 | 22100 | -- | -- |
| 30... | 1233 | 8.0 | 13300 | 5 | 548 | 19700 | 10 | 10 |
| 30... | 1240 | 8.0 | 13400 | -- | 725 | 26200 | -- | -- |
| DEC | | | | | | | | |
| 01... | 1445 | 9.0 | 13300 | -- | 757 | 27200 | -- | -- |
| 02... | 1020 | 7.5 | 22600 | -- | 8240 | 503000 | -- | -- |
| 02... | 1030 | 7.5 | 22600 | -- | 4900 | 299000 | -- | -- |
| 02... | 1115 | 7.5 | 23700 | -- | 6710 | 429000 | -- | -- |
| 02... | 1145 | 7.5 | 24400 | -- | 9260 | 610000 | -- | -- |
| 02... | 1215 | 7.5 | 24500 | -- | 9870 | 653000 | -- | -- |
| 02... | 1245 | 7.5 | 24800 | -- | 10200 | 683000 | -- | -- |
| 02... | 1315 | 7.5 | 24900 | -- | 9310 | 626000 | -- | -- |
| 02... | 1345 | 7.5 | 24600 | -- | 9230 | 613000 | -- | -- |
| 02... | 1505 | 7.5 | 23700 | 5 | 8100 | 518000 | -- | 19 |
| 02... | 1545 | 7.5 | 23000 | -- | 6600 | 410000 | -- | -- |
| 05... | 1230 | -- | 34400 | -- | 20400 | 1890000 | -- | -- |
| 05... | 1300 | -- | 35400 | -- | 22200 | 2120000 | -- | -- |
| 05... | 1330 | -- | 35800 | -- | 22200 | 2150000 | -- | -- |
| 05... | 1400 | -- | 36000 | -- | 22300 | 2170000 | -- | -- |
| 05... | 1430 | -- | 36600 | -- | 22400 | 2210000 | -- | -- |
| 05... | 1500 | -- | 37400 | -- | 22300 | 2250000 | -- | -- |
| 05... | 1515 | -- | 38000 | -- | 21700 | 2230000 | -- | -- |
| 05... | 1600 | -- | 38400 | -- | 20300 | 2100000 | -- | -- |
| 05... | 1630 | -- | 38200 | -- | 18500 | 1910000 | -- | -- |
| 05... | 1650 | 9.0 | 38200 | 5 | 22200 | 2290000 | -- | -- |
| 05... | 1700 | -- | 38200 | -- | 17200 | 1770000 | -- | -- |
| 05... | 1730 | -- | 38200 | -- | 15500 | 1600000 | -- | -- |
| 05... | 1800 | -- | 38300 | -- | 16600 | 1720000 | -- | -- |
| 05... | 1830 | -- | 38200 | -- | 14000 | 1440000 | -- | -- |
| 05... | 2000 | -- | 37900 | -- | 11600 | 1190000 | -- | -- |
| 05... | 2030 | -- | 37500 | -- | 11700 | 1180000 | -- | -- |
| 05... | 2100 | -- | 37000 | -- | 12100 | 1210000 | -- | -- |
| 05... | 2130 | -- | 36700 | -- | 10600 | 1050000 | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA
 PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 .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 |
|-------|--|--|--|--|--|--|--|--|
| NOV | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | 81 | -- | -- |
| 20... | 18 | 28 | 41 | -- | -- | 57 | 99 | 100 |
| 23... | -- | -- | -- | -- | -- | 54 | -- | -- |
| 23... | -- | -- | -- | -- | -- | 52 | -- | -- |
| 23... | 17 | 27 | 40 | -- | -- | 56 | 99 | 100 |
| 23... | -- | -- | -- | -- | -- | 51 | -- | -- |
| 24... | -- | -- | -- | -- | -- | 78 | -- | -- |
| 30... | -- | -- | -- | -- | -- | 23 | -- | -- |
| 30... | 13 | 16 | 21 | 31 | -- | 31 | 96 | 100 |
| 30... | -- | -- | -- | -- | -- | 20 | -- | -- |
| DEC | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | 50 | -- | -- |
| 02... | -- | -- | -- | -- | -- | 91 | -- | -- |
| 02... | -- | -- | -- | -- | -- | 85 | -- | -- |
| 02... | -- | -- | -- | -- | -- | 89 | -- | -- |
| 02... | -- | -- | -- | -- | -- | 89 | -- | -- |
| 02... | -- | -- | -- | -- | -- | 89 | -- | -- |
| 02... | -- | -- | -- | -- | -- | 87 | -- | -- |
| 02... | -- | -- | -- | -- | -- | 91 | -- | -- |
| 02... | -- | -- | -- | -- | -- | 92 | -- | -- |
| 02... | 31 | 48 | 69 | -- | -- | 86 | 100 | -- |
| 02... | -- | -- | -- | -- | -- | 89 | -- | -- |
| 03... | -- | -- | -- | -- | -- | 94 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 92 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 92 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 93 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 91 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 92 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 92 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 92 | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | 89 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 90 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 88 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 91 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 92 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 93 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 90 | -- | -- |
| 05... | -- | -- | -- | -- | -- | 93 | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDE (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .008 MM |
|-------|------|-----------------------------|---|---|---|---|--|--|
| DEC | | | | | | | | |
| 05... | 2200 | -- | 36300 | -- | 10500 | 1030000 | -- | -- |
| 05... | 2230 | -- | 36000 | -- | 10400 | 1010000 | -- | -- |
| 05... | 2300 | -- | 35800 | -- | 10000 | 967000 | -- | -- |
| 05... | 2330 | -- | 35600 | -- | 8890 | 855000 | -- | -- |
| 06... | 0005 | -- | 35200 | -- | 8670 | 824000 | -- | -- |
| 06... | 0030 | -- | 35200 | -- | 8090 | 769000 | -- | -- |
| 06... | 0100 | -- | 35100 | -- | 7880 | 747000 | -- | -- |
| 06... | 0130 | -- | 35500 | -- | 7490 | 718000 | -- | -- |
| 06... | 0200 | -- | 35600 | -- | 7670 | 737000 | -- | -- |
| 06... | 0330 | -- | 36000 | -- | 7140 | 694000 | -- | -- |
| 06... | 0405 | -- | 36000 | -- | 7120 | 692000 | -- | -- |
| 06... | 0500 | -- | 36400 | -- | 6500 | 639000 | -- | -- |
| 06... | 0535 | -- | 36600 | -- | 6680 | 660000 | -- | -- |
| 06... | 0600 | -- | 36700 | -- | 6610 | 655000 | -- | -- |
| 06... | 0605 | -- | 36700 | -- | 6740 | 668000 | -- | -- |
| 06... | 0700 | -- | 36700 | -- | 6380 | 632000 | -- | -- |
| 06... | 0800 | 8.5 | 35800 | -- | 6210 | 600000 | -- | -- |
| 06... | 0900 | -- | 34200 | -- | 5560 | 513000 | -- | -- |
| 06... | 1050 | -- | 35000 | -- | 5210 | 492000 | -- | -- |
| 06... | 1115 | -- | 33500 | -- | 14800 | 1340000 | -- | -- |
| 06... | 1135 | -- | 33400 | -- | 4950 | 446000 | -- | -- |
| 06... | 1200 | -- | 33200 | -- | 5140 | 461000 | -- | -- |
| 06... | 1230 | -- | 32800 | -- | 4750 | 421000 | -- | -- |
| 06... | 1300 | -- | 32400 | -- | 5110 | 447000 | -- | -- |
| 06... | 1330 | -- | 32000 | -- | 4580 | 396000 | -- | -- |
| 06... | 1400 | -- | 31900 | -- | 4900 | 422000 | -- | -- |
| 06... | 1430 | -- | 31800 | -- | 4480 | 385000 | -- | -- |
| 06... | 1500 | -- | 31400 | -- | 4900 | 415000 | -- | -- |
| 06... | 1530 | -- | 31300 | -- | 4620 | 390000 | -- | -- |
| 06... | 1600 | -- | 31000 | -- | 4540 | 380000 | -- | -- |
| 07... | 1655 | 8.0 | 26000 | -- | 5730 | 402000 | -- | -- |
| 08... | 1000 | -- | 27200 | -- | 1700 | 125000 | -- | -- |
| 08... | 1220 | -- | 27000 | -- | 4840 | 353000 | -- | -- |
| 08... | 1305 | -- | 27000 | 5 | 2190 | 160000 | 8 | 14 |
| 08... | 1345 | -- | 27000 | -- | 1640 | 120000 | -- | -- |
| 09... | 1400 | 9.5 | 24800 | -- | 2220 | 149000 | -- | -- |
| 10... | 1300 | 8.5 | 25800 | -- | 3660 | 255000 | -- | -- |
| 10... | 1340 | 8.5 | 25800 | 5 | 3200 | 223000 | 5 | 8 |
| 10... | 1415 | 8.5 | 25800 | -- | 3150 | 219000 | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA
 PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 |
|-------|--|--|--|--|--|--|--|
| DEC | | | | | | | |
| 05... | -- | -- | 90 | -- | -- | -- | -- |
| 05... | -- | -- | 89 | -- | -- | -- | -- |
| 05... | -- | -- | 88 | -- | -- | -- | -- |
| 05... | -- | -- | 89 | -- | -- | -- | -- |
| 06... | -- | -- | 86 | -- | -- | -- | -- |
| 06... | -- | -- | 86 | -- | -- | -- | -- |
| 06... | -- | -- | 86 | -- | -- | -- | -- |
| 06... | -- | -- | 85 | -- | -- | -- | -- |
| 06... | -- | -- | 84 | -- | -- | -- | -- |
| 06... | -- | -- | 85 | -- | -- | -- | -- |
| 06... | -- | -- | 82 | -- | -- | -- | -- |
| 06... | -- | -- | 85 | -- | -- | -- | -- |
| 06... | -- | -- | 82 | -- | -- | -- | -- |
| 06... | -- | -- | 82 | -- | -- | -- | -- |
| 06... | -- | -- | 83 | -- | -- | -- | -- |
| 06... | -- | -- | 82 | -- | -- | -- | -- |
| 06... | -- | -- | 79 | -- | -- | -- | -- |
| 06... | -- | -- | 81 | -- | -- | -- | -- |
| 06... | -- | -- | 84 | -- | -- | -- | -- |
| 06... | -- | -- | 94 | -- | -- | -- | -- |
| 06... | -- | -- | 81 | -- | -- | -- | -- |
| 06... | -- | -- | 80 | -- | -- | -- | -- |
| 06... | -- | -- | 85 | -- | -- | -- | -- |
| 06... | -- | -- | 77 | -- | -- | -- | -- |
| 06... | -- | -- | 81 | -- | -- | -- | -- |
| 06... | -- | -- | 80 | -- | -- | -- | -- |
| 06... | -- | -- | 82 | -- | -- | -- | -- |
| 06... | -- | -- | 80 | -- | -- | -- | -- |
| 06... | -- | -- | 82 | -- | -- | -- | -- |
| 06... | -- | -- | 85 | -- | -- | -- | -- |
| 07... | -- | -- | 38 | -- | -- | -- | -- |
| 08... | -- | -- | 73 | -- | -- | -- | -- |
| 08... | -- | -- | 25 | -- | -- | -- | -- |
| 08... | 22 | 33 | 48 | 75 | 98 | 100 | -- |
| 08... | -- | -- | 62 | -- | -- | -- | -- |
| 09... | -- | -- | 30 | -- | -- | -- | -- |
| 10... | -- | -- | 26 | -- | -- | -- | -- |
| 10... | 13 | 18 | 28 | 48 | 85 | 99 | 100 |
| 10... | -- | -- | 26 | -- | -- | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, 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 |
|--------|------|-----------------------------|---|---|---------------------------------------|---|--|--|--|--|--|
| DEC | | | | | | | | | | | |
| 15.... | 0930 | 9.0 | 22000 | -- | 1740 | 103000 | -- | -- | -- | -- | -- |
| 15.... | 1215 | 9.0 | 24200 | -- | 1620 | 106000 | -- | -- | -- | -- | -- |
| 15.... | 1300 | 9.0 | 25000 | -- | 1870 | 126000 | -- | -- | -- | -- | -- |
| 15.... | 1330 | 9.0 | 25500 | 5 | 4020 | 277000 | 4 | 6 | 11 | 16 | 31 |
| 15.... | 1350 | 9.0 | 25900 | -- | 2110 | 148000 | -- | -- | -- | -- | -- |
| 18.... | 1540 | -- | 16500 | 5 | 2890 | 129000 | 2 | 3 | 6 | 9 | 13 |
| 21.... | 1210 | 8.0 | 17300 | -- | 1140 | 53200 | -- | -- | -- | -- | -- |
| 21.... | 1235 | 8.0 | 17200 | 5 | 1800 | 83600 | 5 | 8 | 12 | 20 | 28 |
| 21.... | 1305 | 8.0 | 17100 | -- | 1440 | 66500 | -- | -- | -- | -- | -- |
| 28.... | 1030 | 6.0 | 11400 | -- | 1700 | 52300 | -- | -- | -- | -- | -- |
| 28.... | 1400 | 6.0 | 11400 | -- | 1910 | 58800 | -- | -- | -- | -- | -- |
| 28.... | 1415 | 6.0 | 11500 | 5 | 1420 | 44100 | -- | -- | -- | -- | -- |
| 28.... | 1440 | 6.0 | 11500 | -- | 1550 | 48100 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 06.... | 1315 | 4.0 | 9390 | -- | 640 | 16200 | -- | -- | -- | -- | -- |
| 06.... | 1325 | 4.0 | 9390 | 5 | 1350 | 34200 | -- | -- | -- | -- | -- |
| 06.... | 1335 | 4.0 | 9390 | -- | 602 | 15300 | -- | -- | -- | -- | -- |
| 11.... | 1320 | 6.0 | 8460 | -- | 799 | 18300 | -- | -- | -- | -- | -- |
| 11.... | 1335 | 6.0 | 8460 | 5 | 785 | 17900 | -- | -- | -- | -- | -- |
| 11.... | 1350 | 6.0 | 8460 | -- | 938 | 21400 | -- | -- | -- | -- | -- |
| 17.... | 1308 | 5.5 | 25100 | 5 | 4080 | 277000 | -- | 10 | 13 | 21 | 32 |
| 17.... | 1355 | -- | 25000 | -- | 2980 | 201000 | -- | -- | -- | -- | -- |
| 18.... | 1330 | 6.0 | 20000 | 5 | 2500 | 135000 | -- | 7 | 11 | 17 | 24 |
| 18.... | 1335 | 6.0 | 19900 | -- | 2130 | 114000 | -- | -- | -- | -- | -- |
| 20.... | 1145 | 5.0 | 12000 | -- | 1260 | 40800 | -- | -- | -- | -- | -- |
| 20.... | 1220 | 5.0 | 12000 | 5 | 1760 | 57000 | -- | -- | -- | -- | -- |
| 20.... | 1300 | 5.0 | 11900 | -- | 1320 | 42400 | -- | -- | -- | -- | -- |
| 23.... | 1900 | 9.0 | 38800 | -- | 6440 | 675000 | -- | -- | -- | -- | -- |
| 23.... | 2010 | 8.5 | 38700 | -- | 6260 | 654000 | -- | -- | -- | -- | -- |
| 23.... | 2140 | 8.5 | 40200 | -- | 6180 | 671000 | -- | -- | -- | -- | -- |
| 23.... | 2400 | -- | 41200 | -- | 5700 | 634000 | -- | -- | -- | -- | -- |
| 24.... | 0140 | -- | 44500 | -- | 5900 | 709000 | -- | -- | -- | -- | -- |
| 24.... | 0228 | 8.0 | 46800 | 5 | 7370 | 931000 | -- | 16 | 23 | 37 | 56 |
| 24.... | 0300 | 8.0 | 48300 | -- | 8200 | 1070000 | -- | -- | -- | -- | -- |
| 24.... | 0710 | 8.0 | 58900 | -- | 14400 | 2290000 | -- | -- | -- | -- | -- |
| 24.... | 0900 | 8.0 | 64800 | -- | 11200 | 1960000 | -- | -- | -- | -- | -- |
| 24.... | 1305 | -- | 62700 | -- | 7100 | 1200000 | -- | -- | -- | -- | -- |
| 24.... | 1525 | -- | 56800 | -- | 6110 | 937000 | -- | -- | -- | -- | -- |
| 24.... | 1640 | 7.0 | 51500 | -- | 6250 | 869000 | -- | -- | -- | -- | -- |
| 25.... | 1220 | 6.0 | 29000 | -- | 6230 | 488000 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 |
|-------|--|--|--|--|--|--|--|--|--|
| DEC | | | | | | | | | |
| 15... | -- | 73 | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | 70 | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | 68 | -- | -- | -- | -- | -- | -- | -- |
| 15... | 38 | 39 | 58 | 83 | 99 | -- | 100 | -- | -- |
| 15... | -- | 71 | -- | -- | -- | -- | -- | -- | -- |
| 18... | 19 | -- | 32 | 76 | 100 | -- | -- | -- | -- |
| 21... | -- | 46 | -- | -- | -- | -- | -- | -- | -- |
| 21... | 43 | 33 | 69 | 94 | 100 | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | 17 | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | 14 | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | 23 | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | 16 | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | |
| 06... | -- | 8 | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | 8 | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | 10 | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | 32 | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | 39 | -- | -- | -- | -- | -- | -- | -- |
| 11... | -- | 30 | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | 48 | -- | -- | 96 | 100 | -- | -- | -- |
| 17... | -- | 57 | -- | -- | 89 | 99 | -- | 100 | -- |
| 18... | -- | 37 | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | 44 | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 28 | -- | -- | -- | -- | -- | -- | -- |
| 20... | 21 | 29 | 38 | 86 | 97 | 100 | -- | -- | -- |
| 20... | -- | 26 | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 85 | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 86 | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 84 | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 80 | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 76 | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 77 | -- | 99 | 100 | -- | -- | -- | -- |
| 24... | -- | 82 | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 83 | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 84 | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 75 | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 72 | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | 68 | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | 59 | -- | -- | -- | -- | -- | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, PENDE (MG/L) | SEDIMENT, DIS- CHARGE, PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|------------------------------|--|---|---|---|
| JAN | | | | | | | | | |
| 25... | 1320 | 6.0 | 28000 | -- | 11600 | 877000 | 10 | 14 | 25 |
| 25... | 1335 | 6.0 | 27800 | -- | 11900 | 893000 | -- | -- | -- |
| 26... | 1140 | 6.0 | 33800 | -- | 3480 | 318000 | -- | -- | -- |
| 27... | 1315 | 6.0 | 31400 | -- | 1610 | 136000 | -- | -- | -- |
| 27... | 1345 | 6.0 | 31200 | 5 | 3010 | 254000 | 3 | 3 | 6 |
| 27... | 1435 | 6.0 | 31000 | -- | 1730 | 145000 | -- | -- | -- |
| FEB | | | | | | | | | |
| 01... | 1330 | 7.0 | 23000 | -- | 1060 | 65800 | -- | -- | -- |
| 01... | 1400 | 7.0 | 22800 | -- | 1500 | 92300 | -- | -- | -- |
| 01... | 1430 | 7.0 | 22500 | -- | 1190 | 72300 | -- | -- | -- |
| 05... | 1125 | -- | 13400 | -- | 1160 | 42000 | -- | -- | -- |
| 05... | 1145 | -- | 13400 | 5 | 1040 | 37600 | -- | -- | -- |
| 05... | 1200 | -- | 13300 | -- | 1100 | 39500 | -- | -- | -- |
| 08... | 1220 | 4.0 | 10200 | -- | 885 | 24400 | -- | -- | -- |
| 08... | 1235 | 4.0 | 10200 | 5 | 1640 | 45200 | -- | -- | -- |
| 08... | 1250 | 4.0 | 10200 | -- | 1340 | 36900 | -- | -- | -- |
| 16... | 0935 | 8.0 | 43600 | -- | 7860 | 925000 | -- | -- | -- |
| 16... | 1140 | 8.0 | 48000 | -- | 6610 | 857000 | -- | -- | -- |
| 16... | 1350 | 8.0 | 50300 | 5 | 9740 | 1320000 | 7 | 10 | 15 |
| 16... | 1445 | 8.0 | 50200 | -- | 7800 | 1060000 | -- | -- | -- |
| 16... | 1715 | 8.0 | 50200 | -- | 7710 | 1050000 | -- | -- | -- |
| 16... | 1735 | 8.0 | 50200 | -- | 7870 | 1070000 | -- | -- | -- |
| 16... | 1750 | 8.0 | 50500 | 5 | 8740 | 1190000 | -- | -- | -- |
| 16... | 1810 | 8.0 | 50700 | -- | 6580 | 901000 | -- | -- | -- |
| 17... | 1035 | 8.0 | 49900 | -- | 16700 | 2250000 | -- | -- | -- |
| 17... | 1230 | -- | 48000 | -- | 10900 | 1410000 | -- | -- | -- |
| 17... | 1320 | 8.0 | 47100 | 5 | 13600 | 1730000 | -- | -- | -- |
| 18... | 1340 | 8.0 | 46900 | -- | 8380 | 1060000 | -- | -- | -- |
| 18... | 2105 | 8.0 | 39200 | 5 | 8990 | 952000 | 8 | 9 | 14 |
| 18... | 2125 | 8.0 | 39200 | -- | 5260 | 557000 | -- | -- | -- |
| 19... | 0715 | -- | 35700 | -- | 3630 | 350000 | -- | -- | -- |
| 19... | 1135 | -- | 33600 | 5 | 7320 | 664000 | 6 | 7 | 8 |
| 19... | 1200 | -- | 34200 | -- | 3140 | 290000 | -- | -- | -- |
| 20... | 1040 | -- | 58100 | -- | 26600 | 4170000 | -- | -- | -- |
| 20... | 1355 | -- | 54800 | 5 | 43200 | 6390000 | -- | -- | -- |
| 20... | 1400 | -- | 55800 | -- | 32300 | 4870000 | -- | -- | -- |
| 20... | 1415 | -- | 56500 | -- | 32400 | 4940000 | -- | -- | -- |
| 20... | 1550 | -- | 62500 | -- | 32400 | 5470000 | -- | -- | -- |
| 20... | 1615 | -- | 62500 | 5 | 38500 | 6500000 | 11 | 17 | 29 |
| 20... | 1630 | -- | 62800 | -- | 31500 | 5340000 | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| 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 |
|-------|--|--|--|--|--|--|--|--|--|
| JAN | | | | | | | | | |
| 25... | 39 | 56 | 69 | 72 | 91 | 100 | -- | -- | -- |
| 25... | -- | -- | -- | 78 | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | 66 | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | 53 | -- | -- | -- | -- | -- |
| 27... | 10 | 14 | 20 | 31 | 41 | 72 | 99 | 100 | -- |
| 27... | -- | -- | -- | 47 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | |
| 01... | -- | -- | -- | 22 | -- | -- | -- | -- | -- |
| 01... | -- | -- | 14 | 15 | 22 | 47 | 90 | 100 | -- |
| 01... | -- | -- | -- | 20 | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | 24 | -- | -- | -- | -- | -- |
| 05... | -- | -- | 8 | 26 | 12 | 29 | 63 | 99 | 100 |
| 05... | -- | -- | -- | 24 | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | 22 | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | 16 | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | 10 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 70 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 70 | -- | -- | -- | -- | -- |
| 16... | 27 | 41 | 57 | 63 | 77 | 90 | 98 | 100 | -- |
| 16... | -- | -- | -- | 74 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 70 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 72 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 62 | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | 74 | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | 84 | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | 79 | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | 55 | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | 73 | -- | -- | -- | -- | -- |
| 18... | 24 | 36 | 47 | 47 | 68 | 81 | 96 | 100 | -- |
| 18... | -- | -- | -- | 82 | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | 77 | -- | -- | -- | -- | -- |
| 19... | 15 | 23 | 35 | 38 | 58 | 91 | 99 | 100 | -- |
| 19... | -- | -- | -- | 73 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | 88 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | 78 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | 93 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | 90 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | 90 | -- | -- | -- | -- | -- |
| 20... | 44 | 62 | 80 | 77 | 95 | 100 | -- | -- | -- |
| 20... | -- | -- | -- | 84 | -- | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL .002 MM | SED. SUSP. FALL .004 MM | SED. SUSP. FALL .008 MM | SED. SUSP. FALL .016 MM | SED. SUSP. FALL .031 MM |
|-------|------|-----------------------------|---|---|---|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| FEB | | | | | | | | | | | |
| 20... | 1835 | -- | 63700 | -- | 19200 | 3300000 | -- | -- | 21 | -- | -- |
| 20... | 1850 | -- | 61300 | 5 | 25200 | 4170000 | 10 | 13 | -- | 34 | 48 |
| 20... | 1905 | -- | 61300 | -- | 17200 | 2850000 | -- | -- | -- | -- | -- |
| 20... | 2000 | -- | 60400 | -- | 17800 | 2900000 | -- | -- | -- | -- | -- |
| 20... | 2050 | -- | 59300 | -- | 19900 | 3190000 | -- | -- | -- | -- | -- |
| 20... | 2310 | -- | 52300 | -- | 29000 | 4100000 | -- | -- | -- | -- | -- |
| 20... | 2325 | -- | 50300 | -- | 29600 | 4020000 | -- | -- | -- | -- | -- |
| 20... | 2355 | -- | 48000 | -- | 31800 | 4120000 | -- | -- | -- | -- | -- |
| 21... | 0100 | -- | 45600 | -- | 19100 | 2350000 | -- | -- | -- | -- | -- |
| 21... | 0125 | -- | 44600 | -- | 19000 | 2290000 | -- | -- | -- | -- | -- |
| 21... | 0155 | -- | 43900 | -- | 16000 | 1900000 | -- | -- | -- | -- | -- |
| 21... | 0250 | -- | 42000 | -- | 16000 | 1810000 | -- | -- | -- | -- | -- |
| 21... | 1040 | 6.5 | 32200 | -- | 12500 | 1090000 | -- | -- | -- | -- | -- |
| 21... | 1205 | 6.0 | 31700 | -- | 11000 | 941000 | -- | -- | -- | -- | -- |
| 21... | 1230 | 6.5 | 31700 | -- | 11600 | 993000 | -- | -- | -- | -- | -- |
| 21... | 1300 | 6.5 | 31500 | -- | 11100 | 944000 | -- | -- | -- | -- | -- |
| 21... | 1315 | 6.5 | 31700 | -- | 18900 | 1620000 | -- | -- | -- | -- | -- |
| 21... | 1320 | 6.5 | 31700 | 5 | 13400 | 1150000 | -- | -- | -- | -- | -- |
| 21... | 1335 | 6.5 | 31000 | -- | 11700 | 979000 | -- | -- | -- | -- | -- |
| 23... | 1245 | 5.0 | 35900 | -- | 2380 | 231000 | -- | -- | -- | -- | -- |
| 23... | 1505 | 5.0 | 35900 | -- | 2200 | 213000 | -- | -- | -- | -- | -- |
| 25... | 1330 | 7.0 | 36000 | -- | 9100 | 885000 | -- | -- | -- | -- | -- |
| 25... | 1350 | 7.0 | 36000 | -- | 7990 | 777000 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 03... | 1235 | 6.0 | 22800 | -- | 1690 | 104000 | -- | -- | -- | -- | -- |
| 03... | 1255 | 6.0 | 22900 | 5 | 1830 | 113000 | -- | -- | -- | -- | -- |
| 03... | 1325 | 6.0 | 23000 | -- | 1840 | 114000 | -- | -- | -- | -- | -- |
| 10... | 1200 | 8.5 | 16900 | -- | 2330 | 106000 | -- | -- | -- | -- | -- |
| 10... | 1230 | 8.5 | 16800 | 5 | 2080 | 94300 | -- | -- | -- | -- | -- |
| 10... | 1245 | 8.5 | 16600 | -- | 2170 | 97300 | -- | -- | -- | -- | -- |
| 11... | 0755 | 6.5 | 19800 | -- | 5320 | 284000 | -- | -- | -- | -- | -- |
| 15... | 1215 | 6.0 | 17600 | 5 | 1920 | 91200 | -- | -- | -- | -- | -- |
| 15... | 1230 | 6.0 | 17700 | -- | 1830 | 87500 | -- | -- | -- | -- | -- |
| 20... | 0035 | -- | 12600 | -- | 987 | 33600 | -- | -- | -- | -- | -- |
| 20... | 0037 | -- | 12600 | -- | 837 | 28500 | -- | -- | -- | -- | -- |
| 20... | 0130 | -- | 12600 | -- | 1640 | 55800 | -- | -- | -- | -- | -- |
| 20... | 0145 | -- | 13600 | -- | 36700 | 1350000 | -- | -- | -- | -- | -- |
| 20... | 0218 | -- | 17200 | -- | 65800 | 3060000 | -- | -- | -- | -- | -- |
| 20... | 0220 | -- | 17600 | -- | 67100 | 3190000 | -- | -- | -- | -- | -- |
| 20... | 0225 | -- | 17800 | -- | 66700 | 3210000 | -- | -- | -- | -- | -- |

| DATE | 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 |
|-------|--|--|--|--|--|--|--|--|--|--|
| FEB | | | | | | | | | | |
| 20... | -- | 80 | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 64 | 66 | 90 | 99 | -- | 100 | -- | -- | -- | -- |
| 20... | -- | 85 | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 82 | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 78 | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 82 | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 85 | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 65 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 84 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 82 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 84 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 81 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 66 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 64 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 62 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 64 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 56 | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | 60 | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | 31 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | 34 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 33 | 25 | 49 | 87 | -- | 99 | -- | 100 | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 50 | 46 | 70 | 87 | -- | 98 | -- | 100 | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 21 | 20 | 34 | 67 | -- | 94 | -- | 100 | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | 13 | -- | -- | 60 | -- | -- | -- | -- | 98 |
| 20... | -- | 24 | -- | -- | 61 | -- | -- | -- | -- | 100 |
| 20... | -- | 81 | -- | -- | 100 | -- | -- | -- | -- | -- |
| 20... | -- | 97 | -- | -- | 100 | -- | 100 | -- | 100 | -- |
| 20... | -- | 90 | -- | -- | 100 | -- | -- | -- | -- | -- |
| 20... | -- | 89 | -- | -- | 100 | -- | -- | -- | -- | -- |
| 20... | -- | 90 | -- | -- | 100 | -- | -- | -- | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|
| MAR | | | | | | | | | | | |
| 20... | 0235 | -- | 18000 | -- | 67600 | 3290000 | -- | -- | -- | -- | -- |
| 20... | 0325 | -- | 14200 | -- | 124000 | 4750000 | -- | -- | -- | -- | -- |
| 20... | 0328 | -- | 13900 | -- | 124000 | 4650000 | -- | -- | -- | -- | -- |
| 20... | 0335 | -- | 13600 | -- | 157000 | 5770000 | -- | -- | -- | -- | -- |
| 20... | 0346 | -- | 13300 | -- | 136000 | 4880000 | -- | -- | -- | -- | -- |
| 20... | 0350 | -- | 13300 | -- | 138000 | 4960000 | -- | -- | -- | -- | -- |
| 20... | 0445 | -- | 16700 | -- | 95400 | 4300000 | -- | -- | -- | -- | -- |
| 20... | 0540 | -- | 13600 | -- | 73200 | 2690000 | -- | -- | -- | -- | -- |
| 20... | 0542 | -- | 13600 | -- | 66900 | 2460000 | -- | -- | -- | -- | -- |
| 20... | 0545 | -- | 13600 | -- | 68200 | 2500000 | -- | -- | -- | -- | -- |
| 20... | 0650 | -- | 12500 | -- | 60600 | 2050000 | -- | -- | -- | -- | -- |
| 20... | 0850 | 7.0 | 12000 | -- | 57700 | 1870000 | -- | -- | -- | -- | -- |
| 20... | 1045 | 8.0 | 13300 | -- | 30700 | 1100000 | -- | -- | -- | -- | -- |
| 20... | 1210 | -- | 14000 | -- | 22400 | 847000 | -- | -- | -- | -- | -- |
| 20... | 1544 | 7.0 | 13900 | 5 | 16700 | 627000 | 11 | 13 | 20 | 34 | 47 |
| 20... | 1545 | -- | 13900 | 5 | 18100 | 679000 | -- | -- | -- | -- | -- |
| 20... | 1600 | -- | 13700 | -- | 16100 | 596000 | -- | -- | -- | -- | -- |
| 21... | 0815 | 5.0 | 12600 | -- | 11000 | 374000 | -- | -- | -- | -- | -- |
| 21... | 0816 | 5.0 | 12600 | -- | 6550 | 223000 | -- | -- | -- | -- | -- |
| 21... | 0925 | 6.0 | 12600 | -- | 8820 | 300000 | -- | -- | -- | -- | -- |
| 21... | 0932 | 6.0 | 12600 | -- | 8140 | 277000 | -- | -- | -- | -- | -- |
| 23... | 1155 | 7.0 | 12800 | 5 | 4800 | 166000 | -- | -- | -- | -- | -- |
| 23... | 1220 | -- | 12800 | -- | 4990 | 172000 | -- | -- | -- | -- | -- |
| 29... | 1127 | -- | 8980 | -- | 3530 | 85600 | -- | -- | -- | -- | -- |
| 29... | 1145 | 8.0 | 8980 | 5 | 3540 | 85800 | -- | -- | -- | -- | -- |
| 29... | 1200 | 8.0 | 8980 | -- | 3410 | 82700 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 05... | 0915 | 6.5 | 9830 | -- | 2100 | 55700 | -- | -- | -- | -- | -- |
| 05... | 1100 | 6.5 | 9830 | -- | 1950 | 51800 | -- | -- | -- | -- | -- |
| 05... | 1110 | 6.5 | 9830 | 5 | 5300 | 141000 | -- | -- | -- | -- | -- |
| 05... | 1125 | 6.5 | 9830 | -- | 2110 | 56000 | -- | -- | -- | -- | -- |
| 12... | 0915 | 8.0 | 14400 | -- | 24200 | 941000 | -- | -- | -- | -- | -- |
| 12... | 1110 | 8.0 | 14100 | -- | 16400 | 624000 | -- | -- | -- | -- | -- |
| 12... | 1140 | 8.0 | 13900 | 5 | 18800 | 706000 | -- | -- | -- | -- | -- |
| 12... | 1155 | 8.0 | 13900 | -- | 16400 | 615000 | -- | -- | -- | -- | -- |
| 19... | 0920 | 9.0 | 9530 | -- | 2300 | 59200 | -- | -- | -- | -- | -- |
| 19... | 1150 | 9.0 | 9530 | -- | 2000 | 51500 | -- | -- | -- | -- | -- |
| 19... | 1215 | 9.0 | 9530 | 5 | 3870 | 99600 | -- | -- | -- | -- | -- |
| 19... | 1240 | 9.0 | 9530 | -- | 2240 | 57600 | -- | -- | -- | -- | -- |
| 26... | 0952 | 9.0 | 8630 | -- | 1600 | 37300 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 1.00 MM |
|-------|--|--|--|--|--|--|
| MAR | | | | | | |
| 20... | -- | 86 | -- | 100 | -- | -- |
| 20... | -- | 93 | -- | -- | -- | -- |
| 20... | -- | 93 | -- | -- | -- | -- |
| 20... | -- | 84 | -- | 99 | 100 | -- |
| 20... | -- | 90 | -- | 100 | -- | -- |
| 20... | -- | 91 | -- | 100 | -- | -- |
| 20... | -- | 86 | -- | 99 | 100 | -- |
| 20... | -- | 83 | -- | 99 | 100 | -- |
| 20... | -- | 87 | -- | 100 | -- | -- |
| 20... | -- | 87 | -- | 100 | -- | -- |
| 20... | -- | 88 | -- | 100 | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- |
| 20... | -- | 76 | -- | 100 | -- | -- |
| 20... | 63 | -- | 88 | -- | 100 | -- |
| 20... | -- | 61 | -- | 98 | -- | 100 |
| 20... | -- | 70 | -- | 98 | 100 | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 23... | 45 | 41 | 69 | 100 | -- | -- |
| 23... | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- |
| 29... | 50 | 39 | 70 | 99 | 100 | -- |
| 29... | -- | -- | -- | -- | -- | -- |
| APR | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- |
| 05... | 21 | 52 | -- | -- | -- | -- |
| 05... | -- | 23 | 61 | -- | 100 | -- |
| 05... | -- | -- | -- | -- | -- | -- |
| 12... | -- | 58 | -- | -- | -- | -- |
| 12... | -- | 61 | -- | -- | 100 | -- |
| 12... | 63 | -- | 97 | -- | -- | -- |
| 12... | -- | 36 | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- |
| 19... | 20 | 26 | 77 | 98 | 100 | -- |
| 19... | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUS- PENDED (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|-------|------|-----------------------------|---|---|--|--|--|
| APR | | | | | | | |
| 26... | 0953 | 9.0 | 8630 | -- | 2420 | 56400 | -- |
| 26... | 1223 | 9.0 | 8630 | -- | 1840 | 42900 | -- |
| 26... | 1235 | 9.0 | 8640 | 5 | 2040 | 47600 | 32 |
| 26... | 1252 | 9.0 | 8630 | -- | 1600 | 37300 | -- |
| MAY | | | | | | | |
| 03... | 0608 | 8.0 | 8660 | -- | 2110 | 49300 | -- |
| 03... | 0609 | 8.0 | 8660 | -- | 1560 | 36500 | -- |
| 03... | 0825 | 8.0 | 8700 | -- | 1440 | 33800 | -- |
| 03... | 0845 | 8.0 | 8700 | 5 | 2670 | 62700 | 16 |
| 03... | 0900 | 8.0 | 8660 | -- | 1550 | 36200 | -- |
| 11... | 0910 | 8.5 | 7840 | -- | 1020 | 21600 | -- |
| 11... | 1215 | 9.0 | 7840 | -- | 809 | 17100 | -- |
| 11... | 1225 | 9.0 | 7840 | 5 | 1050 | 22200 | 35 |
| 11... | 1245 | 9.0 | 7840 | -- | 832 | 17600 | -- |
| 17... | 0955 | 10.5 | 8950 | -- | 1650 | 39900 | -- |
| 17... | 1235 | 11.5 | 9150 | -- | 1640 | 40500 | -- |
| 17... | 1300 | 11.5 | 9280 | 5 | 1440 | 36100 | 49 |
| 17... | 1315 | 11.5 | 9380 | -- | 1780 | 45100 | -- |
| 24... | 0935 | 10.5 | 7720 | -- | 1130 | 23600 | -- |
| 24... | 1215 | 11.5 | 7720 | -- | 1250 | 26100 | -- |
| 24... | 1235 | 11.5 | 7750 | 5 | 1570 | 32900 | 26 |
| 24... | 1305 | 11.5 | 7560 | -- | 1060 | 21600 | -- |
| JUN | | | | | | | |
| 01... | 0918 | 9.5 | 10600 | -- | 633 | 18100 | -- |
| 01... | 0919 | 9.5 | 10600 | -- | 151 | 4320 | -- |
| 01... | 1150 | 9.5 | 10600 | -- | 928 | 26600 | -- |
| 01... | 1205 | 9.5 | 10600 | 5 | 1390 | 39800 | 17 |
| 01... | 1220 | 9.5 | 10600 | -- | 981 | 28100 | -- |
| 08... | 0947 | 9.5 | 7170 | -- | 518 | 10000 | -- |
| 08... | 1235 | 11.0 | 7170 | 5 | 539 | 10400 | -- |
| 08... | 1305 | 11.0 | 7170 | -- | 671 | 13000 | 30 |
| 08... | 1338 | 11.0 | 7170 | -- | 572 | 11100 | -- |
| 15... | 0927 | 9.5 | 11800 | -- | 812 | 25900 | -- |
| 15... | 1155 | 11.5 | 11800 | -- | 834 | 26600 | -- |
| 15... | 1203 | 11.5 | 11800 | 5 | 837 | 26700 | 38 |
| 15... | 1225 | 11.5 | 11800 | -- | 1560 | 49700 | -- |
| 15... | 1226 | 11.5 | 11800 | -- | 2950 | 94000 | -- |
| 21... | 0918 | 10.0 | 14000 | -- | 862 | 32600 | -- |
| 21... | 0919 | 10.0 | 14000 | -- | 1090 | 41200 | -- |
| 21... | 1150 | 11.0 | 14000 | -- | 949 | 35900 | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. SUSP. STEEVE 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 | | | | | | |
| 26... | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- |
| 26... | 37 | 46 | 86 | 99 | 100 | -- |
| 26... | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- |
| 03... | 46 | -- | -- | -- | -- | -- |
| 03... | 34 | 21 | 40 | 87 | 98 | 100 |
| 03... | -- | -- | -- | -- | -- | -- |
| 11... | -- | -- | -- | -- | -- | -- |
| 11... | 48 | -- | -- | -- | -- | -- |
| 11... | 28 | 51 | 82 | 99 | 100 | -- |
| 11... | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- |
| 17... | 54 | -- | -- | -- | -- | -- |
| 17... | 44 | 65 | 87 | 98 | 100 | -- |
| 17... | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- |
| 24... | 27 | 37 | 61 | 97 | 100 | -- |
| 24... | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- |
| 01... | 8 | 23 | 44 | 84 | 99 | 100 |
| 01... | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- |
| 08... | 10 | 45 | 71 | 99 | 100 | -- |
| 08... | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- |
| 15... | 38 | 47 | 73 | 98 | 100 | -- |
| 15... | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, SUSP. MENT, SUS- PENDE (MG/L) | SEDIM- ENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|-------|------|-----------------------------|---|---|---|---|--|---|
| JUN | | | | | | | | |
| 21... | 1215 | 11.0 | 14000 | 5 | 1750 | 66100 | 21 | 18 |
| 21... | 1230 | 11.0 | 14000 | -- | 1040 | 39300 | -- | -- |
| 30... | 0955 | 11.5 | 7170 | -- | 420 | 8130 | -- | -- |
| 30... | 1150 | 12.0 | 7020 | -- | 448 | 8490 | -- | -- |
| 30... | 1215 | 12.0 | 7000 | 5 | 433 | 8180 | -- | -- |
| 30... | 1240 | 12.0 | 6980 | -- | 592 | 11200 | -- | -- |
| JUL | | | | | | | | |
| 06... | 0908 | 13.0 | 6300 | -- | 468 | 7960 | -- | -- |
| 06... | 0909 | 13.0 | 6300 | -- | 756 | 12900 | -- | -- |
| 06... | 1125 | 13.0 | 6300 | -- | 346 | 5890 | -- | -- |
| 06... | 1130 | 13.0 | 6300 | 5 | 344 | 5850 | 23 | 17 |
| 06... | 1150 | 13.0 | 6300 | -- | 438 | 7450 | -- | -- |
| 19... | 1025 | 14.5 | 3720 | -- | 289 | 2900 | -- | -- |
| 19... | 1238 | 15.0 | 3720 | -- | 344 | 3460 | -- | -- |
| 19... | 1255 | 15.0 | 3720 | 5 | 232 | 2330 | 16 | 28 |
| 19... | 1336 | 15.0 | 3720 | -- | 321 | 3220 | -- | -- |
| 27... | 1150 | 16.5 | 3350 | 5 | 173 | 1560 | -- | 37 |
| 27... | 1215 | 16.5 | 3350 | -- | 212 | 1920 | -- | -- |
| AUG | | | | | | | | |
| 09... | 1310 | 14.5 | 3220 | -- | 192 | 1670 | -- | -- |
| 09... | 1315 | 14.5 | 3220 | 5 | 166 | 1440 | -- | 31 |
| 09... | 1345 | 14.5 | 3220 | -- | 204 | 1770 | -- | -- |
| 18... | 1130 | 17.0 | 3190 | -- | 137 | 1180 | -- | -- |
| 18... | 1140 | 17.0 | 3190 | 5 | 123 | 1060 | -- | 23 |
| 18... | 1205 | 17.0 | 3190 | -- | 128 | 1100 | -- | -- |
| 25... | 1249 | -- | 2810 | -- | 635 | 4820 | -- | -- |
| 25... | 1250 | 16.5 | 2810 | 5 | 121 | 918 | -- | 23 |
| 25... | 1251 | -- | 2810 | -- | 161 | 1220 | -- | -- |
| 31... | 1050 | 15.0 | 2650 | -- | 188 | 1350 | -- | 21 |
| 31... | 1055 | 15.0 | 2650 | 5 | 799 | 5720 | 5 | -- |
| 31... | 1115 | 15.0 | 2650 | -- | 159 | 1140 | -- | 21 |
| SEP | | | | | | | | |
| 16... | 1235 | 15.0 | 3350 | -- | 303 | 2740 | -- | -- |
| 16... | 1250 | 15.0 | 3350 | 5 | 323 | 2920 | -- | 34 |
| 16... | 1310 | 15.0 | 3350 | -- | 761 | 6880 | -- | -- |
| 20... | 1155 | 13.0 | 3730 | 5 | 629 | 6330 | -- | 59 |
| 20... | 1540 | 14.0 | 3360 | -- | 2950 | 26800 | -- | 87 |
| 28... | 1310 | 12.5 | 3850 | 5 | 324 | 3370 | -- | 41 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 |
|-------|--|--|--|--|--|--|--|
| JUN | | | | | | | |
| 21... | 27 | 39 | -- | 73 | -- | 100 | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- |
| 06... | 38 | 62 | -- | 98 | -- | 100 | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- |
| 19... | 22 | 34 | -- | 88 | -- | 100 | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | 82 | -- | 98 | -- | 100 |
| 27... | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | -- | 75 | -- | 95 | -- | 100 |
| 09... | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | -- | -- | -- | -- | -- |
| 18... | -- | -- | 77 | -- | 96 | -- | 100 |
| 18... | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | -- | -- | -- | -- | -- | -- |
| 25... | -- | -- | 74 | -- | 97 | -- | 100 |
| 25... | -- | -- | -- | -- | -- | -- | -- |
| 31... | 6 | 11 | -- | 54 | -- | 100 | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | |
| 16... | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- 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 | | | | | | | | | | | | |
| 13... | 1345 | -- | 3800 | -- | 318 | 3260 | -- | -- | -- | -- | -- | -- |
| 13... | 1355 | -- | 3800 | 5 | 323 | 3310 | -- | -- | -- | -- | -- | -- |
| 21... | 1155 | 10.5 | 5100 | -- | 373 | 5140 | -- | -- | -- | -- | -- | 38 |
| 21... | 1225 | 10.5 | 5100 | 5 | 360 | 4960 | -- | -- | -- | -- | -- | 11 |
| 21... | 1255 | 10.5 | 5100 | -- | 322 | 4430 | -- | -- | -- | -- | -- | -- |
| 27... | 1420 | 11.0 | 6820 | 5 | 4260 | 78400 | -- | -- | -- | -- | -- | -- |
| 27... | 1500 | -- | 6820 | -- | 4930 | 90800 | -- | -- | -- | -- | -- | -- |
| 29... | 1530 | -- | 15600 | -- | 9100 | 383000 | -- | -- | -- | -- | -- | -- |
| 29... | 1625 | -- | 15100 | -- | 8720 | 356000 | -- | -- | -- | -- | -- | -- |
| 29... | 1700 | -- | 15100 | -- | 8500 | 347000 | -- | -- | -- | -- | -- | -- |
| 29... | 1715 | -- | 15100 | 5 | 7320 | 298000 | 10 | 11 | 16 | 26 | 38 | -- |
| 29... | 1720 | -- | 15100 | -- | 8310 | 339000 | -- | -- | -- | -- | -- | -- |
| 30... | 1430 | -- | 12600 | -- | 4100 | 139000 | -- | -- | -- | -- | -- | -- |
| 30... | 1445 | -- | 12600 | -- | 4120 | 140000 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 03... | 1230 | 10.5 | 9620 | -- | 2140 | 55600 | -- | -- | -- | -- | -- | -- |
| 03... | 1250 | 10.5 | 9620 | 5 | 1780 | 46200 | -- | -- | -- | -- | -- | 18 |
| 03... | 1305 | 10.5 | 9620 | -- | 2380 | 61800 | -- | -- | -- | -- | -- | -- |
| 16... | 1320 | 9.0 | 8700 | -- | 7350 | 173000 | -- | -- | -- | -- | -- | -- |
| 16... | 1425 | 9.0 | 8750 | -- | 8120 | 192000 | -- | -- | -- | -- | -- | -- |
| 17... | 0955 | 10.0 | 11800 | -- | 9230 | 294000 | -- | -- | -- | -- | -- | -- |
| 17... | 1255 | 10.0 | 13200 | 5 | 11400 | 406000 | -- | -- | -- | -- | -- | 73 |
| 17... | 1310 | 10.0 | 13200 | -- | 11700 | 417000 | -- | -- | -- | -- | -- | -- |
| 17... | 1430 | 10.0 | 13900 | -- | 12800 | 480000 | -- | -- | -- | -- | -- | -- |
| 22... | 1330 | 8.0 | 11600 | -- | 5400 | 169000 | -- | -- | -- | -- | -- | -- |
| 22... | 1345 | 8.0 | 11600 | 5 | 4720 | 148000 | -- | -- | -- | -- | -- | 46 |
| 22... | 1405 | 8.0 | 11600 | -- | 5010 | 157000 | -- | -- | -- | -- | -- | -- |
| 29... | 1230 | 9.0 | 14600 | -- | 5210 | 205000 | -- | -- | -- | -- | -- | -- |
| 29... | 1250 | 9.0 | 14400 | 5 | 4930 | 192000 | -- | -- | -- | -- | -- | 48 |
| DEC | | | | | | | | | | | | |
| 03... | 0800 | 10.0 | 23000 | -- | 11200 | 696000 | -- | -- | -- | -- | -- | -- |
| 03... | 0820 | 10.0 | 23100 | -- | 10900 | 680000 | -- | -- | -- | -- | -- | -- |
| 03... | 0945 | 10.0 | 23000 | -- | 13200 | 820000 | -- | -- | -- | -- | -- | -- |
| 03... | 1050 | -- | 24400 | -- | 13700 | 903000 | -- | -- | -- | -- | -- | -- |
| 03... | 1125 | 10.0 | 25400 | 5 | 14400 | 988000 | 14 | 15 | 21 | 36 | 50 | -- |
| 03... | 1145 | -- | 25800 | -- | 15300 | 1070000 | -- | -- | -- | -- | -- | -- |
| 03... | 1235 | 10.0 | 26600 | -- | 14600 | 1050000 | -- | -- | -- | -- | -- | -- |
| 03... | 1305 | 10.0 | 27300 | -- | 14300 | 1050000 | -- | -- | -- | -- | -- | -- |
| 03... | 1335 | 10.0 | 27900 | -- | 15000 | 1130000 | -- | -- | -- | -- | -- | -- |
| 03... | 1645 | -- | 37100 | 5 | 19500 | 1950000 | 9 | 12 | 19 | 30 | 45 | -- |

| DATE | SED. SUSP. SIEVE 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. 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. FALL DIAM. % FINER THAN 2.00 MM |
|-------|---|--|--|--|--|--|---|--|--|--|--|
| OCT | | | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 34 | 64 | -- | 89 | -- | 99 | -- | 100 | -- | -- | -- |
| 21... | 17 | -- | -- | -- | -- | 69 | -- | 100 | -- | -- | -- |
| 21... | 23 | 19 | -- | 40 | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | 39 | -- | -- | -- | 70 | -- | 82 | -- | 97 | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 57 | -- | -- | -- | 85 | -- | 99 | -- | 100 | -- | -- |
| 29... | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 03... | 24 | -- | -- | -- | -- | -- | -- | -- | -- | 100 | -- |
| 03... | 19 | 40 | -- | 80 | -- | 92 | -- | 99 | -- | -- | -- |
| 03... | 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 67 | 89 | -- | 96 | -- | 99 | -- | 100 | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 75 | 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 46 | 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 43 | 22... | 78 | -- | 98 | -- | 100 | -- | -- | -- | -- | -- |
| 51 | 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 46 | 73 | -- | 91 | -- | 98 | -- | 100 | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 03... | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 71 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 70 | -- | -- | -- | -- | -- | -- | -- | 100 | -- | -- |
| 03... | 66 | -- | 82 | -- | 93 | -- | 98 | -- | -- | -- | -- |
| 03... | 64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 64 | -- | 80 | -- | 92 | -- | 96 | -- | 99 | -- | 100 |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM, % FINER THAN | SED. SUSP. FALL DIAM, % FINER THAN | SED. SUSP. FALL DIAM, % FINER THAN | SED. SUSP. FALL DIAM, % FINER THAN | SED. SUSP. FALL DIAM, % FINER THAN | SED. SUSP. FALL DIAM, % FINER THAN |
|-------|------|-----------------------------|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 03... | 1920 | -- | 50600 | -- | 33800 | 4620000 | -- | -- | -- | -- | -- | -- |
| 03... | 2240 | -- | 60300 | -- | 28800 | 4690000 | -- | -- | -- | -- | -- | -- |
| 03... | 2310 | 9.0 | 62500 | -- | 27500 | 4640000 | -- | -- | -- | -- | -- | -- |
| 04... | 0010 | 8.5 | 64000 | -- | 27900 | 4820000 | -- | -- | -- | -- | -- | -- |
| 04... | 0215 | 8.0 | 64100 | 5 | 27600 | 4780000 | 13 | 15 | 21 | 34 | 48 | -- |
| 04... | 0235 | -- | 65000 | -- | 23500 | 4120000 | -- | -- | -- | -- | -- | -- |
| 04... | 0452 | 8.0 | 66100 | -- | 15300 | 2730000 | -- | -- | -- | -- | -- | -- |
| 04... | 0630 | -- | 66200 | -- | 12400 | 2220000 | -- | -- | -- | -- | -- | -- |
| 04... | 0840 | 8.0 | 61800 | 5 | 15200 | 2540000 | 6 | 10 | 15 | 24 | 36 | -- |
| 04... | 0850 | -- | 61700 | -- | 14000 | 2330000 | -- | -- | -+0 | -- | -- | -- |
| 04... | 1140 | -- | 53300 | -- | 10900 | 1570000 | -- | -- | -- | -- | -- | -- |
| 04... | 1610 | 8.0 | 46500 | 5 | 10500 | 1320000 | 10 | 10 | 15 | 26 | 37 | -- |
| 04... | 1615 | -- | 46500 | -- | 10500 | 1320000 | -- | -- | -- | -- | -- | -- |
| 05... | 0850 | -- | 31800 | -- | 6750 | 580000 | -- | -- | -- | -- | -- | -- |
| 05... | 1115 | 7.0 | 31200 | -- | 7740 | 652000 | -- | -- | -- | -- | -- | -- |
| 05... | 1125 | 7.0 | 31200 | 5 | 8460 | 713000 | 7 | 7 | 12 | 19 | 28 | -- |
| 13... | 1230 | 8.0 | 13400 | -- | 3420 | 124000 | -- | -- | -- | -- | -- | -- |
| 13... | 1250 | 8.0 | 13400 | 5 | 3480 | 126000 | -- | -- | -- | -- | -- | 55 |
| 13... | 1305 | 8.0 | 13400 | -- | 3480 | 126000 | -- | -- | -- | -- | -- | -- |
| 16... | 1145 | 9.0 | 32700 | -- | 15900 | 1400000 | -- | -- | -- | -- | -- | -- |
| 16... | 1200 | 9.0 | 32600 | 5 | 16300 | 1430000 | 9 | 13 | 20 | 34 | 49 | -- |
| 17... | 0855 | 7.0 | 24400 | -- | 8900 | 586000 | -- | -- | -- | -- | -- | -- |
| 17... | 1205 | 7.0 | 25100 | -- | 8580 | 581000 | -- | -- | -- | -- | -- | -- |
| 17... | 1225 | 7.0 | 25100 | 5 | 8700 | 590000 | 8 | 9 | 16 | 25 | 36 | -- |
| 17... | 1235 | 7.0 | 25100 | -- | 7880 | 534000 | -- | -- | -- | -- | -- | -- |
| 20... | 0900 | -- | 20900 | -- | 4010 | 226000 | -- | -- | -- | -- | -- | -- |
| 20... | 1155 | 7.0 | 21200 | -- | 3970 | 227000 | -- | -- | -- | -- | -- | -- |
| 20... | 1210 | 7.0 | 21200 | 5 | 4440 | 254000 | -- | -- | -- | -- | -- | 40 |
| 20... | 1225 | 7.0 | 21200 | -- | 4180 | 239000 | -- | -- | -- | -- | -- | -- |
| 28... | 1505 | 5.5 | 10700 | 5 | 2720 | 78600 | -- | -- | -- | -- | -- | 60 |
| JAN | | | | | | | | | | | | |
| 04... | 1240 | 7.5 | 10900 | -- | 2860 | 84200 | -- | -- | -- | -- | -- | -- |
| 04... | 1330 | 7.5 | 11200 | 5 | 3120 | 94300 | -- | -- | -- | -- | -- | 42 |
| 04... | 1355 | 7.5 | 11300 | -- | 2840 | 86600 | -- | -- | -- | -- | -- | -- |
| 05... | 1310 | -- | 38300 | -- | 7240 | 749000 | -- | -- | -- | -- | -- | -- |
| 05... | 1645 | -- | 42800 | -- | 9060 | 1050000 | -- | -- | -- | -- | -- | -- |
| 05... | 1910 | -- | 43700 | 5 | 11800 | 1390000 | 9 | 9 | 14 | 23 | 34 | 50 |
| 05... | 2205 | -- | 38000 | 5 | 8520 | 874000 | 10 | 10 | 15 | 24 | 36 | 54 |
| 06... | 1650 | -- | 35500 | 5 | 8120 | 778000 | 6 | 10 | 16 | 25 | 37 | -- |
| 07... | 1115 | 7.5 | 39600 | -- | 6920 | 744000 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|--|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 03... | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 79 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 85 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 84 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 66 | -- | 86 | -- | 96 | -- | 98 | -- | 99 | -- | 100 | -- |
| 04... | 74 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 76 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 75 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 50 | -- | 76 | -- | 93 | -- | 96 | -- | 99 | -- | 100 | -- |
| 04... | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 48 | -- | 72 | -- | 93 | -- | 97 | -- | 100 | -- | -- | -- |
| 04... | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 40 | -- | 61 | -- | 92 | -- | 98 | -- | 100 | -- | -- | -- |
| 13... | 54 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 46 | 74 | -- | 93 | -- | 100 | -- | -- | -- | -- | -- | -- |
| 13... | 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 67 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 68 | -- | 85 | -- | 96 | -- | 99 | -- | 100 | -- | -- | -- |
| 17... | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 49 | -- | 66 | -- | 91 | -- | 99 | -- | 100 | -- | -- | -- |
| 17... | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 37 | 61 | -- | 93 | -- | 99 | -- | 100 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28... | 58 | 79 | -- | 96 | -- | 100 | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 53 | 57 | -- | 71 | -- | 81 | -- | 98 | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 63 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 56 | 74 | 77 | -- | 91 | -- | 97 | -- | 100 | -- | 99 | -- |
| 05... | 55 | -- | -- | 79 | -- | 94 | -- | 99 | -- | 100 | -- | -- |
| 06... | 50 | -- | 74 | -- | 92 | -- | 98 | -- | 100 | -- | -- | -- |
| 07... | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- IMENT, SUS- PENDED (MG/L) | SED- IMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|
| JAN | | | | | | | | | | | |
| 07... | 1135 | 7.5 | 40200 | -- | 5460 | 593000 | -- | -- | -- | -- | -- |
| 07... | 1355 | 8.0 | 41100 | 5 | 7040 | 781000 | 6 | 8 | 10 | 14 | 26 |
| 07... | 1415 | 8.0 | 41800 | -- | 6480 | 731000 | -- | -- | -- | -- | -- |
| 07... | 1710 | -- | 43800 | 5 | 9530 | 1130000 | 4 | 5 | 10 | 16 | 25 |
| 07... | 1735 | -- | 43800 | -- | 7440 | 880000 | -- | -- | -- | -- | -- |
| 08... | 1055 | 7.5 | 45700 | 5 | 6850 | 845000 | -- | -- | -- | -- | -- |
| 08... | 1605 | 7.0 | 44200 | 5 | 6310 | 753000 | 8 | 8 | 10 | 18 | 26 |
| 08... | 1620 | 7.0 | 44100 | -- | 5060 | 602000 | -- | -- | -- | -- | -- |
| 08... | 1700 | 7.0 | 44100 | -- | 5900 | 703000 | -- | -- | -- | -- | -- |
| 08... | 1810 | 7.0 | 43900 | -- | 5240 | 621000 | -- | -- | -- | -- | -- |
| 08... | 1905 | 6.5 | 43300 | -- | 4980 | 582000 | -- | -- | -- | -- | -- |
| 08... | 2010 | 6.5 | 43700 | -- | 5120 | 604000 | -- | -- | -- | -- | -- |
| 08... | 2105 | 6.5 | 43600 | -- | 4680 | 551000 | -- | -- | -- | -- | -- |
| 08... | 2205 | 6.0 | 43600 | -- | 5090 | 599000 | -- | -- | -- | -- | -- |
| 08... | 2305 | 6.0 | 43500 | -- | 5100 | 599000 | -- | -- | -- | -- | -- |
| 09... | 0005 | 6.0 | 42300 | -- | 4740 | 541000 | -- | -- | -- | -- | -- |
| 09... | 0105 | 6.0 | 41700 | -- | 4980 | 561000 | -- | -- | -- | -- | -- |
| 09... | 0205 | 6.0 | 41000 | -- | 4640 | 514000 | -- | -- | -- | -- | -- |
| 09... | 0305 | 6.0 | 40200 | -- | 4870 | 529000 | -- | -- | -- | -- | -- |
| 09... | 0405 | 6.0 | 39400 | -- | 5080 | 540000 | -- | -- | -- | -- | -- |
| 09... | 0505 | 6.0 | 38600 | -- | 4460 | 465000 | -- | -- | -- | -- | -- |
| 09... | 0605 | 6.0 | 37900 | -- | 4740 | 485000 | -- | -- | -- | -- | -- |
| 09... | 0940 | 6.0 | 34900 | 5 | 4320 | 407000 | 5 | 7 | 12 | 19 | 28 |
| 09... | 0955 | 6.0 | 34800 | -- | 4390 | 412000 | -- | -- | -- | -- | -- |
| 10... | 1440 | 7.0 | 33100 | 5 | 3730 | 333000 | 5 | 6 | 11 | 17 | 25 |
| 17... | 1130 | 7.0 | 17400 | -- | 1820 | 85500 | -- | -- | -- | -- | -- |
| 17... | 1150 | 7.0 | 17400 | 5 | 2100 | 98700 | -- | -- | -- | -- | -- |
| 17... | 1210 | 7.0 | 17400 | -- | 1960 | 92100 | -- | -- | -- | -- | -- |
| 20... | 1230 | 7.0 | 20600 | -- | 1390 | 77300 | -- | -- | -- | -- | -- |
| 20... | 1500 | 7.0 | 20700 | -- | 1420 | 79400 | -- | -- | -- | -- | -- |
| 26... | 1245 | 7.5 | 14400 | 5 | 2150 | 83600 | -- | -- | -- | -- | -- |
| 28... | 1345 | 7.0 | 15700 | 5 | 3260 | 138000 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 04... | 0930 | 8.0 | 10100 | -- | 2440 | 66500 | -- | -- | -- | -- | -- |
| 04... | 1240 | 8.0 | 9930 | -- | 2290 | 61400 | -- | -- | -- | -- | -- |
| 04... | 1315 | 8.0 | 10100 | 5 | 2060 | 56200 | -- | -- | -- | -- | -- |
| 10... | 0910 | 6.5 | 11400 | -- | 1650 | 50800 | -- | -- | -- | -- | -- |
| 10... | 1105 | 7.0 | 11100 | -- | 1470 | 44100 | -- | -- | -- | -- | -- |
| 10... | 1120 | 6.5 | 11100 | 5 | 1660 | 49800 | -- | -- | -- | -- | -- |
| 10... | 1140 | 6.5 | 11100 | -- | 1640 | 49200 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 |
|-------|--|--|--|--|--|--|--|--|--|--|
| JAN | | | | | | | | | | |
| 07... | -- | 57 | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 37 | 38 | 58 | 87 | -- | 97 | 100 | -- | -- | -- |
| 07... | -- | 38 | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | 33 | -- | -- | 84 | -- | -- | 95 | 100 | -- |
| 07... | -- | 43 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 37 | 38 | 60 | 89 | -- | 100 | -- | -- | -- | -- |
| 08... | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 44 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 42 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 43 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 45 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 41 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | 39 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | 44 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | 39 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | 43 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | 39 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | 39 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | 42 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | -- | 43 | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 40 | 38 | 65 | 94 | -- | 100 | -- | -- | -- | -- |
| 09... | -- | 36 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | 34 | -- | 77 | -- | -- | -- | 99 | 100 | -- |
| 17... | -- | -- | 52 | -- | -- | -- | -- | -- | -- | -- |
| 17... | 38 | 42 | 51 | 78 | -- | 99 | 100 | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | 49 | -- | -- | 88 | -- | 99 | -- | -- | -- |
| 28... | 53 | 53 | 77 | 94 | -- | 99 | 100 | -- | -- | -- |
| FEB | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 44 | 47 | 60 | 86 | -- | 99 | 100 | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 25 | 24 | 48 | 80 | -- | 99 | 99 | -- | -- | 100 |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|---------------------------------------|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | | |
| 16.... | 0920 | 7.5 | 11400 | -- | 1580 | 48600 | -- | -- | -- | -- | -- | -- |
| 16.... | 1130 | 9.0 | 11100 | -- | 1630 | 48900 | -- | -- | -- | -- | -- | -- |
| 16.... | 1220 | 8.0 | 11100 | 5 | 1740 | 52100 | -- | -- | -- | -- | -- | 34 |
| 22.... | 1205 | 7.5 | 11700 | -- | 2170 | 68600 | -- | -- | -- | -- | -- | -- |
| 22.... | 1220 | 7.5 | 11700 | 5 | 1760 | 55600 | -- | -- | -- | -- | -- | 33 |
| 22.... | 1235 | 7.5 | 11700 | -- | 1720 | 54300 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 01.... | 1030 | 7.5 | 10300 | -- | 2010 | 55900 | -- | -- | -- | -- | -- | -- |
| 01.... | 1045 | 7.5 | 10300 | 5 | 2570 | 71500 | -- | -- | -- | -- | -- | -- |
| 01.... | 1050 | 7.5 | 10300 | -- | 1890 | 52600 | -- | -- | -- | -- | -- | -- |
| 07.... | 0955 | 8.5 | 10300 | -- | 2530 | 70400 | -- | -- | -- | -- | -- | -- |
| 07.... | 1250 | 9.5 | 10300 | -- | 2640 | 73400 | -- | -- | -- | -- | -- | -- |
| 07.... | 1440 | -- | 10300 | 5 | 2660 | 74000 | -- | -- | -- | -- | -- | -- |
| 10.... | 0655 | 9.0 | 20100 | -- | 4390 | 238000 | -- | -- | -- | -- | -- | -- |
| 10.... | 0850 | 9.0 | 21000 | -- | 4300 | 244000 | -- | -- | -- | -- | -- | -- |
| 10.... | 0935 | 9.0 | 21200 | -- | 4240 | 243000 | -- | -- | -- | -- | -- | -- |
| 10.... | 0955 | 9.0 | 21400 | 5 | 4640 | 268000 | 11 | 12 | 15 | 26 | 38 | 56 |
| 10.... | 1000 | 9.0 | 21400 | -- | 4050 | 234000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1050 | 9.0 | 21800 | -- | 4880 | 287000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1135 | 9.0 | 21900 | -- | 5110 | 302000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1210 | 9.0 | 22000 | -- | 5100 | 303000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1310 | 9.0 | 22300 | -- | 5660 | 341000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1430 | 9.5 | 22600 | -- | 6140 | 375000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1520 | 9.5 | 22800 | -- | 6570 | 404000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1535 | 9.5 | 22800 | 5 | 6970 | 429000 | -- | -- | -- | -- | -- | 65 |
| 10.... | 1545 | 9.5 | 22900 | -- | 6580 | 407000 | -- | -- | -- | -- | -- | -- |
| 10.... | 1700 | 9.5 | 23200 | -- | 6920 | 433000 | -- | -- | -- | -- | -- | -- |
| 11.... | 1225 | 9.0 | 26200 | -- | 2780 | 197000 | -- | -- | -- | -- | -- | -- |
| 11.... | 1400 | -- | 26900 | -- | 3160 | 230000 | -- | -- | -- | -- | -- | -- |
| 11.... | 1425 | 9.0 | 27100 | 5 | 3090 | 226000 | 5 | 6 | 9 | 14 | 31 | 31 |
| 11.... | 1445 | -- | 27200 | -- | 3300 | 242000 | -- | -- | -- | -- | -- | -- |
| 13.... | 1120 | 8.5 | 19900 | -- | 2320 | 125000 | -- | -- | -- | -- | -- | -- |
| 13.... | 1335 | -- | 20200 | -- | 2910 | 159000 | -- | -- | -- | -- | -- | -- |
| 13.... | 1340 | 8.5 | 20200 | 5 | 2920 | 159000 | 8 | 9 | 11 | 21 | 32 | 45 |
| 13.... | 1350 | 8.5 | 20300 | -- | 2760 | 151000 | -- | -- | -- | -- | -- | -- |
| 13.... | 1420 | -- | 20400 | -- | 2850 | 157000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1045 | 7.5 | 21500 | -- | 2720 | 158000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1050 | 7.5 | 21600 | 5 | 2720 | 159000 | -- | -- | -- | -- | -- | -- |
| 14.... | 1105 | 7.5 | 21600 | -- | 2550 | 149000 | -- | -- | -- | -- | -- | -- |
| 16.... | 1135 | 7.0 | 14500 | -- | 2900 | 114000 | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| 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 | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|-------|---|--|--|--|--|--|--|
| FEB | | | | | | | |
| 16... | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- |
| 16... | 36 | 59 | 87 | 99 | 100 | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| 22... | 34 | 54 | 85 | 97 | 100 | -- | -- |
| 22... | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- |
| 01... | 33 | -- | -- | 95 | -- | 99 | 100 |
| 01... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | 56 | -- | -- | 99 | 100 | -- | -- |
| 07... | 55 | -- | -- | -- | -- | -- | -- |
| 10... | 59 | -- | -- | -- | -- | -- | -- |
| 10... | 61 | -- | -- | -- | -- | -- | -- |
| 10... | 55 | 77 | 93 | -- | 100 | -- | -- |
| 10... | 63 | -- | -- | -- | -- | -- | -- |
| 10... | 60 | -- | -- | -- | -- | -- | -- |
| 10... | 62 | -- | -- | -- | -- | -- | -- |
| 10... | 65 | -- | -- | -- | -- | -- | -- |
| 10... | 66 | -- | -- | -- | -- | -- | -- |
| 10... | 67 | -- | -- | -- | -- | -- | -- |
| 10... | 68 | -- | -- | -- | -- | -- | -- |
| 10... | 64 | 83 | 95 | 100 | -- | -- | -- |
| 10... | 69 | -- | -- | -- | -- | -- | -- |
| 10... | 65 | -- | -- | -- | -- | -- | -- |
| 11... | 51 | -- | -- | -- | -- | -- | -- |
| 11... | 44 | -- | -- | -- | -- | -- | -- |
| 11... | 43 | 45 | 68 | 92 | 99 | -- | 100 |
| 11... | 44 | -- | -- | -- | -- | -- | -- |
| 13... | 50 | -- | -- | -- | -- | -- | -- |
| 13... | 50 | -- | -- | -- | -- | -- | -- |
| 13... | 44 | 62 | 83 | 99 | 100 | -- | -- |
| 13... | 50 | -- | -- | -- | -- | -- | -- |
| 13... | 52 | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- |
| 14... | 41 | -- | -- | 97 | -- | 100 | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDI- MENT, SUS- PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|--------|------|-----------------------------|---|---|---|---|---|---|---|---|---|
| MAR | | | | | | | | | | | |
| 16.... | 1150 | 7.0 | 14500 | 5 | 2060 | 80600 | -- | -- | -- | -- | -- |
| 16.... | 1205 | 7.0 | 14500 | -- | 2180 | 85300 | -- | -- | -- | -- | -- |
| 24.... | 1140 | 9.5 | 8200 | -- | 1850 | 41000 | -- | -- | -- | -- | -- |
| 24.... | 1155 | 9.5 | 8200 | 5 | 1560 | 34500 | -- | -- | -- | -- | -- |
| 24.... | 1210 | 9.5 | 8200 | -- | 1850 | 41000 | -- | -- | -- | -- | -- |
| 28.... | 1135 | 9.5 | 8000 | -- | 1640 | 35400 | -- | -- | -- | -- | -- |
| 28.... | 1215 | 7.5 | 8000 | 5 | 1530 | 33000 | -- | -- | -- | -- | -- |
| 28.... | 1230 | 7.5 | 8000 | -- | 1710 | 36900 | -- | -- | -- | -- | -- |
| 29.... | 1338 | 9.0 | 11900 | -- | 4140 | 133000 | -- | -- | -- | -- | -- |
| 29.... | 1519 | 9.0 | 13200 | -- | 5140 | 183000 | -- | -- | -- | -- | -- |
| 29.... | 1558 | 9.5 | 14000 | -- | 6230 | 235000 | -- | -- | -- | -- | -- |
| 29.... | 1605 | 9.5 | 14000 | 5 | 4680 | 177000 | -- | -- | -- | -- | -- |
| 29.... | 1614 | 9.5 | 14100 | -- | 6470 | 246000 | -- | -- | -- | -- | -- |
| 29.... | 1642 | 9.5 | 14900 | -- | 6250 | 251000 | -- | -- | -- | -- | -- |
| 30.... | 0800 | 8.0 | 19700 | -- | 5340 | 284000 | -- | -- | -- | -- | -- |
| 30.... | 0820 | 8.0 | 19700 | -- | 4950 | 263000 | -- | -- | -- | -- | -- |
| 30.... | 0900 | 8.5 | 19600 | -- | 5140 | 272000 | -- | -- | -- | -- | -- |
| 30.... | 0925 | 8.5 | 19600 | -- | 5690 | 301000 | -- | -- | -- | -- | -- |
| 30.... | 0940 | 8.5 | 19600 | 5 | 4720 | 250000 | 11 | 13 | 17 | 26 | 40 |
| 30.... | 0950 | 9.0 | 19600 | -- | 4820 | 255000 | -- | -- | -- | -- | -- |
| 30.... | 1020 | 9.0 | 19500 | -- | 4730 | 249000 | -- | -- | -- | -- | -- |
| 31.... | 1043 | 8.5 | 17800 | -- | 2950 | 142000 | -- | -- | -- | -- | -- |
| 31.... | 1055 | 8.5 | 17400 | 5 | 2760 | 130000 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 08.... | 1200 | 9.5 | 8850 | -- | 3680 | 87900 | -- | -- | -- | -- | -- |
| 08.... | 1215 | 9.5 | 8850 | 5 | 2150 | 51400 | -- | -- | -- | -- | -- |
| 08.... | 1225 | 9.5 | 8850 | -- | 2060 | 49200 | -- | -- | -- | -- | -- |
| 15.... | 1130 | 11.0 | 8030 | -- | 1650 | 35800 | -- | -- | -- | -- | -- |
| 15.... | 1150 | 11.0 | 8030 | 5 | 1380 | 29900 | -- | -- | -- | -- | -- |
| 15.... | 1210 | 11.0 | 8030 | -- | 1510 | 32700 | -- | -- | -- | -- | -- |
| 25.... | 1145 | 5.5 | 8280 | -- | 1220 | 27300 | -- | -- | -- | -- | -- |
| 25.... | 1200 | 5.5 | 8280 | 5 | 1550 | 34700 | -- | -- | -- | -- | -- |
| 25.... | 1215 | 5.5 | 8280 | -- | 1310 | 29300 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 05.... | 1140 | 11.0 | 7060 | -- | 814 | 15500 | -- | -- | -- | -- | -- |
| 05.... | 1200 | 11.0 | 7060 | 5 | 920 | 17500 | -- | -- | -- | -- | -- |
| 05.... | 1215 | 11.0 | 7060 | -- | 828 | 15800 | -- | -- | -- | -- | -- |
| 12.... | 1420 | 15.0 | 7720 | 5 | 1330 | 27700 | -- | -- | -- | -- | -- |
| 16.... | 1250 | 10.0 | 7620 | 5 | 1060 | 21800 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 03.... | 1350 | 12.0 | 7820 | -- | 1400 | 29600 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 1.00 MM |
|-------|--|--|--|--|--|--|
| MAR | | | | | | |
| 16... | -- | 46 | 63 | 87 | 99 | 100 |
| 16... | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- |
| 24... | -- | 47 | 62 | 83 | 99 | 100 |
| 24... | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- |
| 28... | -- | 43 | 60 | 82 | 99 | 100 |
| 28... | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- |
| 29... | -- | 53 | 72 | 90 | 99 | 100 |
| 29... | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- |
| 30... | -- | 53 | -- | -- | -- | -- |
| 30... | -- | 56 | -- | -- | -- | -- |
| 30... | -- | 56 | -- | -- | -- | -- |
| 30... | -- | 49 | -- | -- | -- | -- |
| 30... | 58 | 82 | 95 | 99 | 100 | 100 |
| 30... | -- | 57 | -- | -- | -- | -- |
| 30... | -- | 59 | -- | -- | -- | -- |
| 31... | -- | -- | -- | -- | -- | -- |
| 31... | -- | 47 | 65 | 89 | 97 | 100 |
| APR | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- |
| 08... | -- | 20 | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- |
| 15... | -- | 32 | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- |
| 25... | -- | -- | -- | -- | -- | -- |
| 25... | -- | 35 | -- | -- | -- | -- |
| 25... | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- |
| 05... | -- | 44 | 60 | 79 | 97 | 100 |
| 05... | -- | -- | -- | -- | -- | -- |
| 12... | -- | 15 | 21 | 31 | 75 | 100 |
| 16... | -- | 41 | 62 | 84 | 96 | 100 |
| JUN | | | | | | |
| 03... | -- | 47 | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, MENT, SUS- PENDED (MG/L) | SEDIMENT, MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN | SED. SUSP. SIEVE DIAM. % FINER THAN |
|-------|------|-----------------------------|---|---|--|--|--|--|--|--|--|--|--|
| JUN | | | | | | | | | | | | | |
| 03... | 1410 | 12.0 | 7820 | 5 | 1240 | 26200 | 42 | 60 | 79 | 95 | 100 | 100 | 100 |
| 09... | 1315 | 13.5 | 7100 | -- | 1730 | 33200 | 33 | 47 | 68 | 83 | 94 | 100 | 100 |
| 09... | 1340 | 13.5 | 7100 | 5 | 1380 | 26500 | 37 | 52 | 73 | 87 | 97 | 100 | 100 |
| 14... | 0935 | 15.0 | 7510 | -- | 1170 | 23700 | -- | -- | -- | -- | -- | -- | -- |
| 14... | 1305 | 15.0 | 7580 | -- | 1260 | 25800 | -- | -- | -- | -- | -- | -- | -- |
| 14... | 1330 | 15.0 | 7580 | 5 | 1100 | 22500 | 40 | -- | -- | -- | -- | -- | -- |
| 14... | 1345 | 15.0 | 7580 | -- | 1220 | 25000 | -- | -- | -- | -- | -- | -- | -- |
| 20... | 1115 | 12.0 | 8650 | -- | 2000 | 46700 | -- | -- | -- | -- | -- | -- | -- |
| 20... | 1130 | 12.0 | 8650 | 5 | 1970 | 46000 | 34 | 50 | 64 | 81 | 95 | 100 | 100 |
| 20... | 1145 | 12.0 | 8650 | -- | 1940 | 45300 | -- | -- | -- | -- | -- | -- | -- |
| 29... | 1150 | 12.5 | 7370 | -- | 1170 | 23300 | -- | -- | -- | -- | -- | -- | -- |
| 29... | 1205 | 12.5 | 7370 | 3 | 1320 | 26300 | 39 | -- | -- | -- | -- | -- | -- |
| 29... | 1220 | 12.5 | 7370 | -- | 1110 | 22100 | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | | |
| 13... | 1000 | 14.0 | 7000 | -- | 1840 | 34800 | -- | -- | -- | -- | -- | -- | -- |
| 13... | 1250 | 14.0 | 7530 | -- | 3750 | 76200 | -- | -- | -- | -- | -- | -- | -- |
| 13... | 1310 | 14.0 | 7530 | 5 | 3650 | 74200 | 75 | 87 | 95 | 99 | 100 | 100 | 100 |
| 13... | 1325 | 14.0 | 7750 | -- | 4200 | 87900 | -- | -- | -- | -- | -- | -- | -- |
| 21... | 1240 | 15.0 | 8650 | -- | 1730 | 40400 | -- | -- | -- | -- | -- | -- | -- |
| 21... | 1255 | 15.0 | 8650 | 5 | 1510 | 35300 | 19 | -- | -- | -- | -- | -- | -- |
| 21... | 1310 | 15.0 | 8650 | -- | 1350 | 31500 | -- | -- | -- | -- | -- | -- | -- |
| 27... | 1100 | 13.5 | 5890 | -- | 823 | 13100 | -- | -- | -- | -- | -- | -- | -- |
| 27... | 1125 | 13.5 | 5890 | 5 | 992 | 15800 | 47 | 67 | 88 | 98 | 100 | 100 | 100 |
| 27... | 1140 | 13.5 | 5890 | -- | 766 | 12200 | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | | |
| 09... | 1400 | 17.5 | 3860 | 5 | 631 | 6580 | 18 | 35 | 68 | 90 | 98 | 98 | 98 |
| 12... | 1140 | 15.5 | 4140 | -- | 816 | 9120 | -- | -- | -- | -- | -- | -- | -- |
| 12... | 1155 | 15.5 | 4140 | 5 | 804 | 8990 | 18 | 31 | 57 | 85 | 98 | 98 | 98 |
| 15... | 1215 | 16.0 | 3940 | -- | 244 | 2600 | 49 | -- | -- | -- | -- | -- | -- |
| 17... | 0950 | -- | 3970 | -- | 362 | 3880 | -- | -- | -- | -- | -- | -- | -- |
| 19... | 0935 | 16.0 | 3920 | -- | 324 | 3430 | -- | -- | -- | -- | -- | -- | -- |
| 19... | 1240 | 17.5 | 3920 | 5 | 579 | 6130 | -- | -- | -- | -- | -- | -- | -- |
| 19... | 1315 | 17.5 | 3920 | -- | 514 | 5440 | 13 | -- | -- | -- | -- | -- | -- |
| 19... | 1325 | 17.5 | 3920 | -- | 379 | 4010 | -- | -- | -- | -- | -- | -- | -- |
| 22... | 0950 | 16.5 | 3890 | -- | 244 | 2560 | -- | -- | -- | -- | -- | -- | -- |
| 22... | 1225 | 16.5 | 3890 | -- | 366 | 3840 | -- | -- | -- | -- | -- | -- | -- |
| 24... | 1325 | 15.5 | 3830 | -- | 759 | 7850 | -- | -- | -- | -- | -- | -- | -- |
| 24... | 1400 | 15.5 | 3830 | -- | 338 | 3500 | -- | -- | -- | -- | -- | -- | -- |
| 24... | 1410 | 15.5 | 3830 | 5 | 2240 | 23200 | 3 | 6 | 19 | 59 | 93 | 93 | 93 |
| 26... | 1015 | 16.5 | 3810 | -- | 318 | 3270 | -- | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | 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 |
|-------|------|-----------------------------|---|---|--|--|---|---|---|---|---|
| AUG | | | | | | | | | | | |
| 26... | 1220 | 16.5 | 3810 | -- | 440 | 4530 | -- | -- | -- | -- | -- |
| 29... | 1000 | 15.5 | 4010 | -- | 496 | 5370 | -- | -- | -- | -- | -- |
| 29... | 1220 | 15.5 | 4010 | -- | 521 | 5640 | -- | -- | -- | -- | -- |
| 31... | 1320 | 23.0 | 4480 | -- | 690 | 8350 | -- | -- | -- | -- | -- |
| 31... | 1340 | 18.0 | 4480 | 5 | 726 | 8780 | 49 | 65 | 86 | 98 | 100 |
| 31... | 1400 | 18.0 | 4480 | -- | 568 | 6870 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 02... | 1035 | 15.0 | 4450 | -- | 874 | 10500 | -- | -- | -- | -- | -- |
| 02... | 1310 | 16.0 | 4450 | -- | 773 | 9290 | -- | -- | -- | -- | -- |
| 06... | 0900 | 14.0 | 4070 | -- | 342 | 3760 | -- | -- | -- | -- | -- |
| 06... | 1100 | 15.0 | 4070 | -- | 422 | 4640 | -- | -- | -- | -- | -- |
| 07... | 0900 | 13.5 | 4030 | -- | 269 | 2930 | -- | -- | -- | -- | -- |
| 07... | 1135 | 14.5 | 4030 | -- | 326 | 3950 | -- | -- | -- | -- | -- |
| 07... | 1210 | 14.5 | 4030 | 5 | 326 | 3550 | 42 | 62 | 80 | 94 | 100 |
| 07... | 1215 | 14.5 | 4030 | -- | 328 | 3570 | -- | -- | -- | -- | -- |
| 09... | 0910 | 13.5 | 4570 | -- | 349 | 4310 | -- | -- | -- | -- | -- |
| 09... | 1140 | 14.5 | 4570 | -- | 361 | 4450 | -- | -- | -- | -- | -- |
| 12... | 1300 | 15.0 | 5180 | -- | 459 | 6420 | -- | -- | -- | -- | -- |
| 14... | 0910 | 15.0 | 4860 | -- | 432 | 5670 | -- | -- | -- | -- | -- |
| 14... | 1055 | 15.0 | 4860 | -- | 571 | 7490 | -- | -- | -- | -- | -- |
| 14... | 1220 | 15.0 | 4860 | -- | 395 | 5180 | -- | -- | -- | -- | -- |
| 14... | 1250 | 15.0 | 4860 | 5 | 536 | 7030 | 21 | 52 | 80 | 94 | 100 |
| 14... | 1300 | 15.0 | 4860 | -- | 291 | 3820 | -- | -- | -- | -- | -- |
| 16... | 1045 | 14.5 | 4700 | -- | 250 | 3170 | -- | -- | -- | -- | -- |
| 16... | 1335 | 14.5 | 4700 | -- | 257 | 3260 | -- | -- | -- | -- | -- |
| 21... | 1220 | 14.0 | 4650 | -- | 298 | 3740 | -- | -- | -- | -- | -- |
| 21... | 1500 | 15.5 | 4640 | -- | 286 | 3580 | -- | -- | -- | -- | -- |
| 21... | 1525 | 15.5 | 4640 | 5 | 475 | 5950 | 21 | -- | -- | -- | -- |
| 21... | 1530 | 15.5 | 4640 | -- | 358 | 4490 | -- | -- | -- | -- | -- |
| 26... | 1035 | 14.0 | 5010 | -- | 904 | 12200 | -- | -- | -- | -- | -- |
| 26... | 1245 | 14.0 | 5010 | -- | 896 | 12100 | -- | -- | -- | -- | -- |
| 28... | 0910 | 11.5 | 4590 | -- | 801 | 9930 | -- | -- | -- | -- | -- |
| 28... | 1240 | 12.5 | 4670 | -- | 878 | 11100 | -- | -- | -- | -- | -- |
| 28... | 1250 | 12.5 | 4670 | 5 | 974 | 12300 | 49 | 66 | 89 | 97 | 100 |
| 30... | 1305 | 12.5 | 4670 | -- | 850 | 10700 | -- | -- | -- | -- | -- |
| 30... | 1105 | 13.0 | 4790 | -- | 868 | 11200 | -- | -- | -- | -- | -- |
| 30... | 1310 | 13.0 | 4790 | -- | 836 | 10800 | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 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 | | | | | | | | | | | |
| 17... | 46 | 85 | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 88 | 92 | 94 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 61 | 67 | 74 | 81 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 14... | 57 | 70 | 80 | 86 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| 14... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 17 | 18 | 20 | 26 | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| FEB | | | | | | | | | | | |
| 16... | 23 | 34 | 41 | 48 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| 16... | 80 | 80 | 81 | 82 | 84 | 84 | 84 | 84 | 84 | 84 | 84 |
| 16... | 98 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 19 | 20 | 22 | 25 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |
| 16... | 42 | 77 | 92 | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 26 | 45 | 53 | 59 | 72 | 72 | 72 | 72 | 72 | 72 | 72 |
| 18... | 77 | 88 | 91 | 95 | -- | -- | -- | -- | -- | -- | -- |
| 18... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 13 | 14 | 15 | 22 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| 18... | 7 | 9 | 10 | 10 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 19... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19... | 73 | 77 | 80 | 82 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| 19... | 98 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 1 | 2 | 3 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 21... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 28 | 48 | 62 | 78 | 94 | 94 | 94 | 94 | 94 | 94 | 94 |
| MAR | | | | | | | | | | | |
| 31... | 3 | 3 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 31... | 84 | 93 | 94 | 96 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| 31... | 48 | 68 | 84 | 93 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| 31... | 93 | 96 | 97 | 99 | -- | -- | -- | -- | -- | -- | -- |

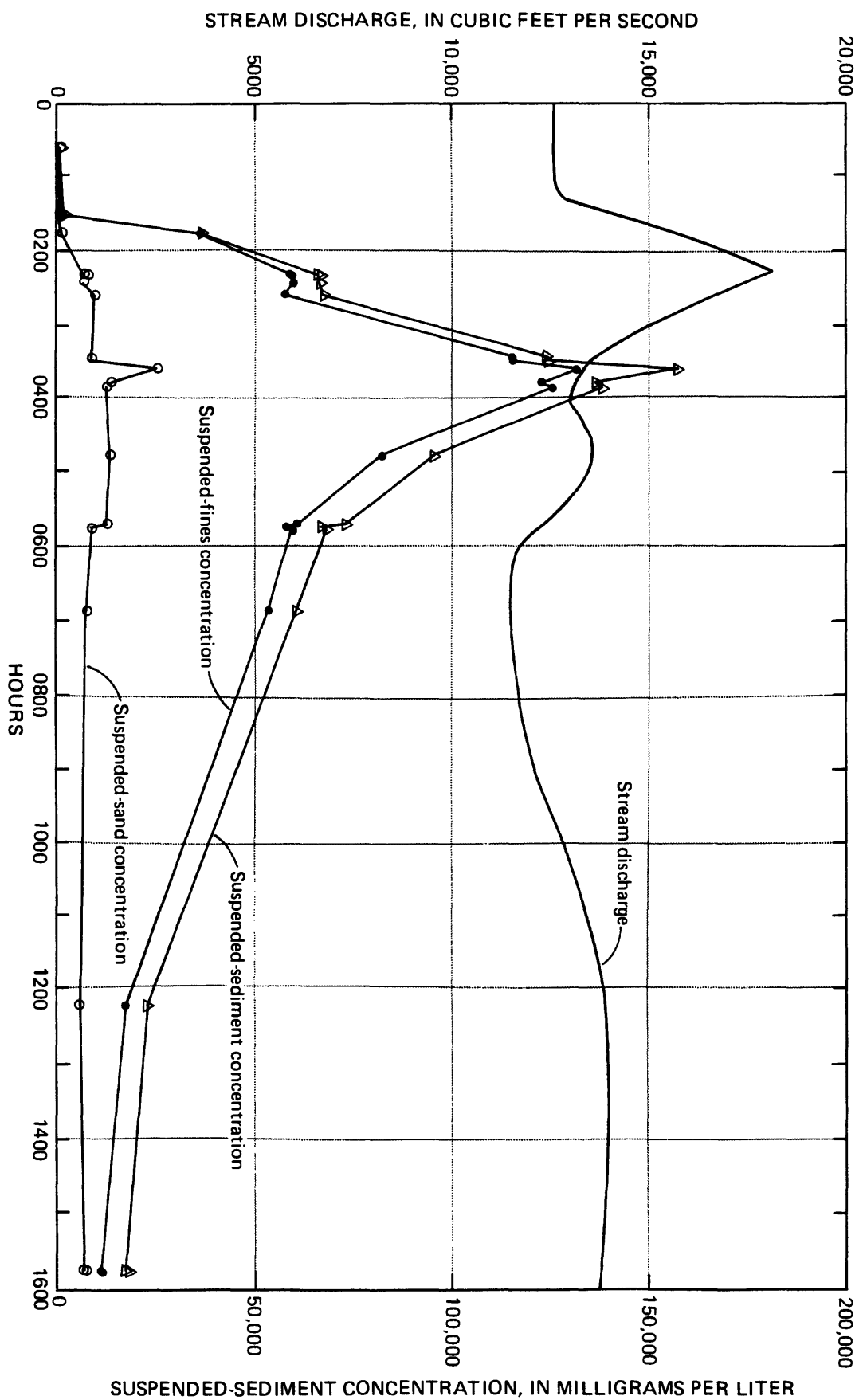


FIGURE 7. — Hydrograph of stream discharge and suspended-sediment concentration at Cowlitz River at Castle Rock, Wash., for March 20, 1982.

14243000 CONLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | 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 |
|-------|------|-----------------------------|---|---|---|---|---|
| DEC | | | | | | | |
| 17... | 1100 | 8.0 | 1 | 0 | 0 | 2 | 10 |
| 17... | 1105 | 8.0 | 1 | 0 | 0 | 13 | 66 |
| 17... | 1110 | 8.0 | 1 | 0 | 1 | 10 | 48 |
| 17... | 1115 | 8.0 | 1 | 0 | 7 | 79 | 100 |
| 17... | 1120 | 8.0 | 1 | 0 | 6 | 82 | 100 |
| JAN | | | | | | | |
| 14... | 1230 | -- | 1 | 0 | 0 | 5 | 45 |
| 14... | 1235 | -- | 1 | 0 | 2 | 44 | 99 |
| 14... | 1240 | -- | 1 | 0 | 9 | 83 | 100 |
| 14... | 1245 | -- | 1 | 0 | 6 | 63 | 99 |
| 14... | 1250 | -- | 1 | 0 | 1 | 8 | 15 |
| FEB | | | | | | | |
| 16... | 1350 | -- | 1 | 1 | 2 | 5 | 10 |
| 16... | 1355 | -- | 1 | 1 | 4 | 20 | 68 |
| 16... | 1400 | -- | 1 | 1 | 3 | 18 | 79 |
| 16... | 1405 | -- | 1 | 2 | 8 | 14 | 18 |
| 16... | 1410 | -- | 1 | 1 | 7 | 16 | 20 |
| 18... | 1435 | -- | 1 | 1 | 2 | 7 | 12 |
| 18... | 1440 | -- | 1 | 0 | 4 | 11 | 33 |
| 18... | 1445 | -- | 1 | 1 | 9 | 93 | 99 |
| 18... | 1450 | -- | 1 | 1 | 4 | 8 | 10 |
| 18... | 1455 | -- | 1 | 0 | 2 | 6 | 6 |
| 19... | 1655 | -- | 1 | 6 | 23 | 92 | 99 |
| 19... | 1700 | -- | 1 | 3 | 11 | 59 | 70 |
| 19... | 1705 | -- | 1 | 3 | 20 | 87 | 94 |
| 20... | 1115 | -- | 1 | 1 | 9 | 48 | 94 |
| 20... | 1120 | -- | 1 | 0 | 2 | 46 | 96 |
| 20... | 1125 | -- | 1 | 0 | 2 | 53 | 98 |
| 20... | 1130 | -- | 1 | 1 | 14 | 94 | 100 |
| 20... | 1135 | -- | 1 | 0 | 0 | 1 | 1 |
| 21... | 1210 | 7.0 | 1 | 0 | 3 | 35 | 99 |
| 21... | 1215 | 7.0 | 1 | 0 | 6 | 47 | 98 |
| 21... | 1220 | 7.0 | 1 | 0 | 9 | 85 | 100 |
| 21... | 1225 | 7.0 | 1 | 0 | 6 | 83 | 97 |
| 21... | 1230 | 7.0 | 1 | 0 | 1 | 8 | 13 |
| MAR | | | | | | | |
| 31... | 1520 | -- | 1 | 0 | 1 | 2 | 3 |
| 31... | 1525 | -- | 1 | 0 | 1 | 5 | 43 |
| 31... | 1530 | -- | 1 | 0 | 0 | 4 | 26 |
| 31... | 1535 | -- | 1 | 0 | 2 | 17 | 79 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME (DEG C) | TEMPER- ATURE | NUMBER OF SAM- PLING POINTS | BED | | | BED | | | BED | | | BED | | |
|-----------|-----------------|------------------|---|------|----------------|-----------------|------|----------------|-----------------|------|----------------|-----------------|------|----------------|-----------------|
| | | | | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN |
| | | | | | | .062 MM | | | .125 MM | | | .250 MM | | | .500 MM |
| MAR 31... | 1540 | -- | 1 | 1 | 0 | 1 | 5 | 22 | 28 | | | | | | |
| APR 01... | 1445 | 8.0 | 1 | 0 | 1 | 1 | 5 | 9 | | | | | | | |
| 01... | 1450 | 8.0 | 1 | 0 | 1 | 1 | 7 | 29 | | | | | | | |
| 01... | 1455 | 8.0 | 1 | 0 | 1 | 1 | 7 | 56 | | | | | | | |
| 01... | 1500 | 8.0 | 1 | 0 | 4 | 60 | 99 | | | | | | | | |
| 01... | 1505 | 8.0 | 1 | 0 | 7 | 43 | 62 | | | | | | | | |
| 21... | 1440 | 9.5 | 1 | 0 | 2 | 5 | 12 | | | | | | | | |
| 21... | 1445 | 9.5 | 1 | 0 | 0 | 1 | 18 | | | | | | | | |
| 21... | 1450 | 9.5 | 1 | 0 | 1 | 3 | 5 | | | | | | | | |
| 21... | 1455 | 9.5 | 1 | 0 | 0 | 2 | 15 | | | | | | | | |
| 21... | 1500 | 9.5 | 1 | 1 | 8 | 30 | 50 | | | | | | | | |

| DATE | TIME (DEG C) | TEMPER- ATURE | NUMBER OF SAM- PLING POINTS | BED | | | BED | | | BED | | | BED | | |
|-----------|-----------------|------------------|---|------|----------------|-----------------|------|----------------|-----------------|------|----------------|-----------------|------|----------------|-----------------|
| | | | | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN | MAT. | SIEVE DIAM. | % FINER THAN |
| | | | | | | 1.00 MM | | | 2.00 MM | | | 4.00 MM | | | 8.00 MM |
| | | | | | | 16.0 MM | | | 32.0 MM | | | | | | |
| MAR 31... | 29 | | 31 | 36 | 50 | 77 | -- | | | | | | | | |
| APR 01... | 10 | | 12 | 16 | 26 | 44 | -- | | | | | | | | |
| 01... | 81 | | 95 | 98 | 100 | -- | -- | | | | | | | | |
| 01... | 84 | | 94 | 96 | 97 | 98 | -- | | | | | | | | |
| 01... | 100 | | -- | -- | -- | -- | -- | | | | | | | | |
| 01... | 62 | | 63 | 64 | 68 | 86 | -- | | | | | | | | |
| 21... | 20 | | 22 | 25 | 31 | 44 | 67 | | | | | | | | |
| 21... | 69 | | 91 | 97 | -- | -- | -- | | | | | | | | |
| 21... | 28 | | 29 | 32 | 35 | 54 | -- | | | | | | | | |
| 21... | 52 | | 80 | 93 | 97 | -- | -- | | | | | | | | |
| 21... | 50 | | 50 | 50 | 50 | 51 | -- | | | | | | | | |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | |
|-------|------|-----------------------------|---|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM |
| DEC | | | | | | | |
| 21... | 1340 | 8.0 | 1 | 0 | 1 | 8 | 13 |
| 21... | 1345 | 8.0 | 1 | 0 | 5 | 61 | 99 |
| 21... | 1350 | 8.0 | 1 | 0 | 9 | 90 | 100 |
| JAN | | | | | | | |
| 06... | 1250 | 4.0 | 5 | 0 | 1 | 19 | 87 |
| 20... | 1315 | 5.0 | 1 | 1 | 16 | 75 | 97 |
| 20... | 1320 | 5.0 | 1 | 0 | 3 | 38 | 93 |
| 20... | 1325 | 5.0 | 1 | 0 | 1 | 14 | 55 |
| 20... | 1330 | 5.0 | 1 | 0 | 0 | 13 | 96 |
| 25... | 1350 | 6.0 | 1 | 1 | 11 | 76 | 99 |
| 25... | 1355 | 6.0 | 1 | 1 | 5 | 28 | 85 |
| 25... | 1400 | 6.0 | 1 | 0 | 4 | 22 | 94 |
| 25... | 1405 | 6.0 | 1 | 1 | 3 | 8 | 50 |
| 25... | 1410 | 6.0 | 1 | 0 | 2 | 4 | 5 |
| FEB | | | | | | | |
| 01... | 1445 | 7.0 | 1 | 0 | 2 | 21 | 92 |
| 01... | 1450 | 7.0 | 1 | 0 | 3 | 26 | 94 |
| 01... | 1455 | 7.0 | 1 | 0 | 2 | 21 | 92 |
| 16... | 1145 | 8.0 | 1 | 0 | 1 | 1 | 4 |
| 16... | 1150 | 8.0 | 1 | 0 | 1 | 2 | 18 |
| 17... | 1415 | 8.0 | 1 | 1 | 3 | 14 | 46 |
| 17... | 1420 | 8.0 | 1 | 1 | 14 | 75 | 100 |
| 17... | 1425 | 8.0 | 1 | 1 | 11 | 81 | 100 |
| 17... | 1430 | 8.0 | 1 | 0 | 5 | 35 | 73 |
| 19... | 1230 | 13.5 | 1 | 0 | 1 | 2 | 14 |
| 19... | 1235 | 13.5 | 1 | 4 | 18 | 48 | 88 |
| 19... | 1240 | 13.5 | 1 | 1 | 3 | 35 | 96 |
| 19... | 1250 | --- | 1 | 0 | 2 | 38 | 98 |
| 19... | 1255 | --- | 1 | 0 | 6 | 64 | 100 |
| 21... | 1745 | --- | 5 | 1 | 6 | 40 | 87 |
| MAR | | | | | | | |
| 03... | 1340 | 6.0 | 1 | 0 | 0 | 2 | 9 |
| 03... | 1345 | 6.0 | 1 | 0 | 1 | 24 | 78 |
| 03... | 1350 | 6.0 | 1 | 0 | 4 | 38 | 98 |
| 03... | 1355 | 6.0 | 1 | 0 | 1 | 18 | 95 |
| 03... | 1400 | 6.0 | 1 | 0 | 2 | 34 | 98 |
| 10... | 1325 | 8.5 | 4 | 0 | 2 | 20 | 72 |
| 15... | 1305 | 6.0 | 1 | 0 | 0 | 1 | 5 |
| 15... | 1310 | 6.0 | 1 | 0 | 0 | 1 | 11 |
| 15... | 1315 | 6.0 | 1 | 0 | 2 | 17 | 88 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM | 32.0 MM |
|-------|---------|---------|---------|---------|---------|---------|
| DEC | | | | | | |
| 21... | 14 | 15 | 16 | 20 | 33 | 100 |
| 21... | 100 | -- | -- | -- | -- | -- |
| 21... | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | |
| 06... | 98 | 99 | 99 | 99 | 99 | 100 |
| 20... | 100 | -- | -- | -- | -- | -- |
| 20... | 100 | -- | -- | -- | -- | -- |
| 20... | 84 | 88 | 89 | 90 | 97 | 100 |
| 20... | 100 | -- | -- | -- | -- | -- |
| 25... | 100 | -- | -- | -- | -- | -- |
| 25... | 100 | -- | -- | -- | -- | -- |
| 25... | 100 | -- | -- | -- | -- | -- |
| 25... | 97 | 99 | 100 | -- | -- | -- |
| 25... | 6 | 9 | 22 | 44 | 74 | 100 |
| FEB | | | | | | |
| 01... | 100 | -- | -- | -- | -- | -- |
| 01... | 100 | -- | -- | -- | -- | -- |
| 01... | 100 | -- | -- | -- | -- | -- |
| 16... | 26 | 50 | 66 | 76 | 89 | 100 |
| 16... | 44 | 52 | 58 | 68 | 88 | 100 |
| 17... | 85 | 95 | 98 | 100 | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- |
| 17... | 82 | 86 | 90 | 92 | 95 | 100 |
| 19... | 87 | 98 | 99 | 99 | 100 | -- |
| 19... | 94 | 98 | 100 | -- | -- | -- |
| 19... | 99 | 100 | -- | -- | -- | -- |
| 19... | 100 | -- | -- | -- | -- | -- |
| 19... | -- | -- | -- | -- | -- | -- |
| 21... | 99 | 100 | -- | -- | -- | -- |
| MAR | | | | | | |
| 03... | 47 | 73 | 80 | 84 | 91 | 100 |
| 03... | 96 | 97 | 97 | 97 | 100 | -- |
| 03... | 100 | -- | -- | -- | -- | -- |
| 03... | 100 | -- | -- | -- | -- | -- |
| 03... | 100 | -- | -- | -- | -- | -- |
| 10... | 91 | 97 | 98 | 99 | 100 | -- |
| 15... | 55 | 84 | 90 | 93 | 97 | 100 |
| 15... | 48 | 70 | 79 | 88 | 95 | 100 |
| 15... | 100 | -- | -- | -- | -- | -- |

14243000 COWLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | BED | BED | BED |
|------------|------------|-----------------------------|---|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM |
| MAR | 15... 1320 | 6.0 | 1 | 0 | 1 | 8 | 62 |
| | 15... 1325 | 6.0 | 1 | 0 | 1 | 15 | 89 |
| | 20... 1500 | -- | 1 | 6 | 37 | 85 | 99 |
| | 20... 1505 | -- | 1 | 4 | 25 | 84 | 100 |
| | 20... 1510 | -- | 1 | 3 | 13 | 28 | 47 |
| | 20... 1515 | -- | 1 | 1 | 8 | 28 | 89 |
| | 20... 1520 | -- | 1 | 2 | 11 | 32 | 97 |
| | 23... 1230 | -- | 3 | 1 | 8 | 46 | 97 |
| | 29... 1210 | 8.0 | 1 | 1 | 20 | 94 | 100 |
| | 29... 1215 | 8.0 | 1 | 2 | 9 | 45 | 89 |
| APR | 29... 1220 | 8.0 | 1 | 1 | 12 | 62 | 98 |
| | 29... 1225 | 8.0 | 1 | 2 | 11 | 49 | 98 |
| | 29... 1230 | 8.0 | 1 | 0 | 2 | 9 | 60 |
| | 05... 1130 | 6.5 | 5 | 0 | 4 | 29 | 88 |
| MAY | 12... 1200 | 8.0 | 1 | 2 | 11 | 45 | 98 |
| | 12... 1205 | 8.0 | 1 | 1 | 4 | 25 | 78 |
| | 12... 1210 | 8.0 | 1 | 2 | 8 | 21 | 92 |
| | 12... 1215 | 8.0 | 1 | 1 | 2 | 8 | 67 |
| | 12... 1220 | 8.0 | 1 | 1 | 2 | 6 | 34 |
| | 19... 1300 | 9.0 | 5 | 1 | 6 | 40 | 83 |
| | 26... 1305 | 9.0 | 1 | 1 | 2 | 44 | 99 |
| | 26... 1310 | 9.0 | 1 | 0 | 4 | 40 | 95 |
| | 26... 1315 | 9.0 | 1 | 0 | 1 | 6 | 27 |
| | 26... 1320 | 9.0 | 1 | 0 | 3 | 28 | 98 |
| JUN | 26... 1325 | 9.0 | 1 | 0 | 2 | 15 | 52 |
| | 03... 0925 | 8.0 | 5 | 1 | 1 | 17 | 79 |
| | 11... 1300 | 9.0 | 5 | 0 | 1 | 10 | 50 |
| | 17... 1325 | 11.5 | 1 | 0 | 1 | 20 | 94 |
| | 17... 1330 | 11.5 | 1 | 0 | 1 | 18 | 89 |
| | 17... 1345 | 11.5 | 1 | 0 | 0 | 4 | 29 |
| | 17... 1350 | 11.5 | 1 | 0 | 2 | 15 | 56 |
| | 17... 1355 | 11.5 | 1 | 0 | 2 | 14 | 46 |
| | 24... 1325 | 11.5 | 1 | 0 | 0 | 8 | 63 |
| | 24... 1330 | 11.5 | 1 | 1 | 1 | 12 | 69 |
| 24... 1335 | 11.5 | 1 | 0 | 1 | 23 | 95 | |
| 24... 1340 | 11.5 | 1 | 0 | 1 | 7 | 36 | |
| 24... 1345 | 11.5 | 1 | 1 | 2 | 20 | 47 | |
| 01... 1240 | 9.5 | 5 | 0 | 0 | 5 | 42 | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM | 32.0 MM |
|-------|--|--|--|--|--|--|
| | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN |
| MAR | | | | | | |
| 15... | 91 | 95 | 96 | 96 | 99 | 100 |
| 15... | 100 | -- | -- | -- | -- | -- |
| 20... | 100 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- |
| 20... | 52 | 53 | 53 | 54 | 54 | 100 |
| 20... | 100 | -- | -- | -- | -- | -- |
| 20... | 100 | -- | -- | -- | -- | -- |
| 23... | 100 | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- |
| 29... | 95 | 96 | 96 | 97 | 97 | 100 |
| 29... | 100 | -- | -- | -- | -- | -- |
| 29... | 100 | -- | -- | -- | -- | -- |
| 29... | 97 | 99 | 99 | 100 | -- | -- |
| APR | | | | | | |
| 05... | 100 | -- | -- | -- | -- | -- |
| 12... | 100 | -- | -- | -- | -- | -- |
| 12... | 94 | 98 | 99 | 99 | 100 | -- |
| 12... | 100 | -- | -- | -- | -- | -- |
| 12... | 100 | -- | -- | -- | -- | -- |
| 12... | 87 | 97 | 98 | 99 | 100 | -- |
| 19... | 98 | 99 | 100 | -- | -- | -- |
| 26... | 100 | -- | -- | -- | -- | -- |
| 26... | 100 | -- | -- | -- | -- | -- |
| 26... | 56 | 69 | 74 | 78 | 88 | 100 |
| 26... | 100 | -- | -- | -- | -- | -- |
| 26... | 97 | 100 | -- | -- | -- | -- |
| MAY | | | | | | |
| 03... | 96 | 98 | 99 | 100 | -- | -- |
| 11... | 88 | 98 | 99 | 100 | -- | -- |
| 17... | 100 | -- | -- | -- | -- | -- |
| 17... | 100 | -- | -- | -- | -- | -- |
| 17... | 69 | 87 | 94 | 97 | 100 | -- |
| 17... | 90 | 96 | 98 | 99 | 100 | -- |
| 17... | 85 | 94 | 97 | 99 | 100 | -- |
| 24... | 92 | 96 | 98 | 98 | 100 | -- |
| 24... | 96 | 99 | 100 | -- | -- | -- |
| 24... | 100 | -- | -- | -- | -- | -- |
| 24... | 72 | 84 | 88 | 91 | 97 | 100 |
| 24... | 78 | 91 | 95 | 97 | 100 | -- |
| JUN | | | | | | |
| 01... | 84 | 93 | 94 | 96 | 98 | 100 |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | BED | | BED | | BED | |
|-------|------|-----------------------------|---|--|--|--|--|-----|--|-----|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM | | | | |
| JUN | | | | | | | | | | | |
| 08... | 1335 | 11.0 | 1 | 0 | 0 | 6 | 71 | | | | |
| 08... | 1355 | 11.0 | 1 | 0 | 0 | 5 | 55 | | | | |
| 08... | 1400 | 11.0 | 1 | 0 | 0 | 6 | 67 | | | | |
| 08... | 1410 | 11.0 | 1 | 2 | 2 | 11 | 36 | | | | |
| 15... | 1245 | 11.5 | 1 | 0 | 0 | 1 | 29 | | | | |
| 15... | 1250 | 11.5 | 1 | 0 | 0 | 10 | 95 | | | | |
| 15... | 1255 | 11.5 | 1 | 0 | 0 | 4 | 32 | | | | |
| 15... | 1300 | 11.5 | 1 | 0 | 0 | 5 | 27 | | | | |
| 15... | 1305 | 11.5 | 1 | 0 | 0 | 3 | 20 | | | | |
| 21... | 1250 | 11.0 | 5 | 0 | 0 | 3 | 42 | | | | |
| 30... | 1250 | 12.0 | 1 | 0 | 0 | 3 | 33 | | | | |
| 30... | 1255 | 12.0 | 1 | 0 | 0 | 6 | 61 | | | | |
| 30... | 1300 | 12.0 | 1 | 0 | 0 | 6 | 52 | | | | |
| 30... | 1305 | 12.0 | 1 | 0 | 1 | 7 | 38 | | | | |
| 30... | 1310 | 12.0 | 1 | 0 | 0 | 4 | 27 | | | | |
| JUL | | | | | | | | | | | |
| 19... | 1340 | 15.0 | 1 | 0 | 2 | 3 | 48 | | | | |
| 19... | 1345 | 15.0 | 1 | 0 | 0 | 7 | 61 | | | | |
| 19... | 1350 | 15.0 | 1 | 0 | 0 | 8 | 65 | | | | |
| 19... | 1355 | 15.0 | 1 | 0 | 2 | 4 | 41 | | | | |
| 19... | 1400 | 15.0 | 1 | 0 | 1 | 4 | 41 | | | | |
| 27... | 1235 | 16.5 | 1 | 0 | 0 | 4 | 39 | | | | |
| 27... | 1240 | 16.5 | 1 | 0 | 0 | 4 | 52 | | | | |
| 27... | 1245 | 16.5 | 1 | 0 | 0 | 3 | 39 | | | | |
| 27... | 1250 | 16.5 | 1 | 0 | 0 | 4 | 63 | | | | |
| AUG | | | | | | | | | | | |
| 09... | 1400 | -- | 1 | 1 | 6 | 12 | 34 | | | | |
| 09... | 1405 | -- | 1 | 0 | 0 | 6 | 54 | | | | |
| 09... | 1410 | -- | 1 | 0 | 0 | 1 | 40 | | | | |
| 09... | 1415 | -- | 1 | 0 | 0 | 2 | 32 | | | | |
| 09... | 1420 | -- | 1 | 0 | 0 | 2 | 39 | | | | |
| 18... | 1230 | -- | 1 | 0 | 0 | 0 | 11 | | | | |
| 18... | 1235 | -- | 1 | 0 | 0 | 2 | 34 | | | | |
| 18... | 1240 | -- | 1 | 0 | 0 | 5 | 49 | | | | |
| 18... | 1245 | -- | 1 | 0 | 0 | 15 | 62 | | | | |
| 18... | 1250 | -- | 1 | 0 | 0 | 15 | 75 | | | | |
| 31... | 1130 | 15.0 | 3 | 0 | 1 | 15 | 71 | | | | |
| SEP | | | | | | | | | | | |
| 16... | 1330 | 15.0 | 5 | 0 | 1 | 6 | 48 | | | | |
| 28... | 1325 | 12.5 | 5 | 0 | 0 | 2 | 25 | | | | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | BED MAT. SIEVE DIAM. % FINER 1.00 MM | BED MAT. SIEVE DIAM. % FINER 2.00 MM | BED MAT. SIEVE DIAM. % FINER 4.00 MM | BED MAT. SIEVE DIAM. % FINER 8.00 MM | BED MAT. SIEVE DIAM. % FINER 16.0 MM | BED MAT. SIEVE DIAM. % FINER 32.0 MM |
|-------|---|---|---|---|---|---|
| JUN | | | | | | |
| 08... | 97 | 99 | 100 | -- | -- | -- |
| 08... | 90 | 96 | 98 | 99 | 100 | -- |
| 08... | 99 | 100 | -- | -- | -- | -- |
| 08... | 82 | 95 | 97 | 98 | 100 | -- |
| 15... | 74 | 87 | 92 | 95 | 100 | -- |
| 15... | 100 | -- | -- | -- | -- | -- |
| 15... | 76 | 90 | 93 | 95 | 100 | -- |
| 15... | 76 | 95 | 98 | 100 | -- | -- |
| 15... | 67 | 85 | 90 | 94 | 100 | -- |
| 21... | 92 | 98 | 98 | 99 | 99 | 100 |
| 30... | 67 | 77 | 82 | 86 | 93 | 100 |
| 30... | 97 | 100 | -- | -- | -- | -- |
| 30... | 85 | 94 | 97 | 98 | 100 | -- |
| 30... | 66 | 73 | 76 | 81 | 90 | 100 |
| 30... | 94 | 99 | 99 | 99 | 100 | -- |
| JUL | | | | | | |
| 19... | 91 | 97 | 98 | 99 | 100 | -- |
| 19... | 98 | 100 | -- | -- | -- | -- |
| 19... | 96 | 98 | 98 | 98 | 100 | -- |
| 19... | 78 | 88 | 93 | 98 | 100 | -- |
| 19... | 86 | 96 | 98 | 99 | 100 | -- |
| 27... | 77 | 86 | 89 | 92 | 95 | 100 |
| 27... | 96 | 99 | 100 | -- | -- | -- |
| 27... | 94 | 100 | -- | -- | -- | -- |
| 27... | 99 | 100 | -- | -- | -- | -- |
| AUG | | | | | | |
| 09... | 85 | 96 | 99 | 100 | -- | -- |
| 09... | 95 | 99 | 100 | -- | -- | -- |
| 09... | 96 | 97 | 97 | 97 | 98 | 100 |
| 09... | 92 | 98 | 99 | 99 | 100 | -- |
| 09... | 96 | 99 | 99 | 100 | -- | -- |
| 18... | 76 | 97 | 99 | 100 | -- | -- |
| 18... | 89 | 97 | 98 | 99 | 100 | -- |
| 18... | 89 | 98 | 99 | 100 | -- | -- |
| 18... | 85 | 95 | 98 | 99 | 100 | -- |
| 18... | 97 | 99 | 100 | -- | -- | -- |
| 31... | 94 | 97 | 98 | 99 | 100 | -- |
| SEP | | | | | | |
| 16... | 90 | 98 | 99 | 100 | -- | -- |
| 28... | 71 | 90 | 95 | 98 | 100 | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | NUMBER OF SAMP- PLING POINTS | 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 |
|--------|------|--|---|---|---|---|---|
| OCT | | | | | | | |
| 13.... | 1410 | 5 | 0 | 0 | 4 | 34 | 76 |
| 21.... | 1140 | 5 | 0 | 0 | 4 | 34 | 83 |
| 27.... | 1450 | 1 | 4 | 42 | 68 | 76 | 95 |
| 27.... | 1455 | 1 | 0 | 1 | 3 | 17 | 68 |
| 27.... | 1500 | 1 | 0 | 2 | 7 | 35 | 88 |
| 27.... | 1505 | 1 | 1 | 5 | 16 | 46 | 82 |
| 27.... | 1510 | 1 | 0 | 1 | 7 | 33 | 79 |
| NOV | | | | | | | |
| 03.... | 1325 | 5 | 0 | 3 | 24 | 55 | 93 |
| 17.... | 1345 | 1 | 0 | 1 | 5 | 34 | 77 |
| 17.... | 1350 | 1 | 1 | 8 | 56 | 100 | -- |
| 22.... | 1430 | 5 | 1 | 11 | 46 | 74 | 92 |
| 29.... | 1320 | 1 | 0 | 9 | 48 | 90 | 96 |
| 29.... | 1325 | 1 | 0 | 1 | 4 | 32 | 67 |
| 29.... | 1330 | 1 | 0 | 2 | 12 | 42 | 80 |
| 29.... | 1335 | 1 | 0 | 2 | 7 | 71 | 98 |
| 29.... | 1340 | 1 | 0 | 1 | 4 | 31 | 91 |
| DEC | | | | | | | |
| 03.... | 1200 | 1 | 0 | 1 | 4 | 19 | 63 |
| 03.... | 1205 | 1 | 0 | 2 | 5 | 30 | 71 |
| 03.... | 1210 | 1 | 1 | 6 | 18 | 73 | 98 |
| 03.... | 1215 | 1 | 0 | 2 | 18 | 79 | 94 |
| 03.... | 1220 | 1 | 1 | 5 | 65 | 97 | 100 |
| 03.... | 1830 | 1 | 1 | 2 | 6 | 59 | 100 |
| 03.... | 1835 | 1 | 1 | 2 | 4 | 28 | 70 |
| 03.... | 1840 | 1 | 1 | 4 | 8 | 41 | 74 |
| 03.... | 1845 | 1 | 2 | 7 | 16 | 32 | 48 |
| 03.... | 1850 | 1 | 2 | 7 | 37 | 91 | 100 |
| 04.... | 0630 | 1 | 1 | 4 | 8 | 20 | 86 |
| 04.... | 0635 | 1 | 1 | 2 | 4 | 11 | 25 |
| 04.... | 0640 | 1 | 10 | 24 | 42 | 74 | 96 |
| 04.... | 0645 | 1 | 0 | 2 | 7 | 36 | 83 |
| 04.... | 0650 | 1 | 1 | 9 | 44 | 87 | 99 |
| 04.... | 1630 | 1 | 0 | 1 | 3 | 4 | 26 |
| 04.... | 1640 | 1 | 1 | 4 | 24 | 76 | 99 |
| 04.... | 1650 | 1 | 1 | 13 | 59 | 96 | 100 |
| 05.... | 1150 | 1 | 0 | 2 | 6 | 15 | 51 |
| 05.... | 1155 | 1 | 0 | 3 | 27 | 73 | 95 |
| 05.... | 1200 | 1 | 1 | 12 | 78 | 100 | -- |
| 05.... | 1205 | 1 | 0 | 4 | 40 | 85 | 98 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 | | | | | | | | | | | | |
| 13... | 94 | 97 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 21... | 96 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 27... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | 91 | 97 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 27... | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 27... | 94 | 96 | 97 | 97 | 98 | 98 | 98 | 98 | 100 | 100 | 100 | 100 |
| 27... | 95 | 98 | 100 | 100 | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 03... | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | 90 | 93 | 96 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 22... | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 98 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 29... | 84 | 89 | 92 | 92 | 98 | 98 | 98 | 98 | 100 | 100 | 100 | 100 |
| 29... | 93 | 96 | 98 | 98 | 99 | 99 | 99 | 99 | 100 | 100 | 100 | 100 |
| 29... | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 98 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| DEC | | | | | | | | | | | | |
| 03... | 91 | 94 | 95 | 95 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 03... | 88 | 90 | 90 | 90 | 94 | 94 | 94 | 94 | 100 | 100 | 100 | 100 |
| 03... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 97 | 98 | 98 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 03... | 84 | 88 | 91 | 91 | 95 | 95 | 95 | 95 | 100 | 100 | 100 | 100 |
| 03... | 78 | 79 | 80 | 80 | 81 | 81 | 81 | 81 | 100 | 100 | 100 | 100 |
| 03... | 55 | 58 | 64 | 64 | 70 | 70 | 70 | 70 | 100 | 100 | 100 | 100 |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 26 | 26 | 27 | 27 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| 04... | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 96 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 83 | 89 | 91 | 91 | 92 | 92 | 92 | 92 | 100 | 100 | 100 | 100 |
| 04... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 91 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 05... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | NUMBER OF SAM- PLING POINTS | BED MAT. SIEVE DIAM. | BED MAT. SIEVE DIAM. | BED MAT. SIEVE DIAM. | BED MAT. SIEVE DIAM. | BED MAT. SIEVE DIAM. |
|-------|------|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | | | % FINER THAN .062 MM | % FINER THAN .125 MM | % FINER THAN .250 MM | % FINER THAN .500 MM | % FINER THAN 1.00 MM |
| DEC | | | | | | | |
| 05... | 1210 | 1 | 0 | 8 | 51 | 96 | 100 |
| 13... | 1330 | 1 | 0 | 2 | 9 | 27 | 61 |
| 13... | 1335 | 1 | 0 | 0 | 7 | 39 | 59 |
| 13... | 1340 | 1 | 0 | 2 | 16 | 75 | 99 |
| 13... | 1345 | 1 | 0 | 0 | 2 | 24 | 91 |
| 13... | 1350 | 1 | 0 | 4 | 60 | 99 | 100 |
| 16... | 1230 | 1 | 0 | 1 | 2 | 7 | 63 |
| 16... | 1235 | 1 | 1 | 6 | 21 | 75 | 98 |
| 16... | 1240 | 1 | 1 | 4 | 13 | 69 | 98 |
| 16... | 1245 | 1 | 2 | 9 | 65 | 97 | 100 |
| 16... | 1250 | 1 | 1 | 3 | 24 | 83 | 100 |
| 17... | 1245 | 1 | 0 | 1 | 2 | 2 | 4 |
| 17... | 1250 | 1 | 0 | 2 | 10 | 48 | 94 |
| 17... | 1255 | 1 | 1 | 9 | 46 | 95 | 100 |
| 17... | 1300 | 1 | 0 | 6 | 40 | 93 | 100 |
| 17... | 1305 | 1 | 1 | 13 | 85 | 100 | --- |
| 20... | 1245 | 1 | 0 | 1 | 4 | 10 | 35 |
| 20... | 1250 | 1 | 0 | 3 | 24 | 82 | 97 |
| 20... | 1255 | 1 | 0 | 3 | 21 | 83 | 97 |
| 20... | 1300 | 1 | 0 | 1 | 17 | 82 | 96 |
| 20... | 1305 | 1 | 0 | 7 | 65 | 100 | --- |
| JAN | | | | | | | |
| 04... | 1345 | 1 | 0 | 1 | 4 | 21 | 74 |
| 04... | 1350 | 1 | 0 | 0 | 3 | 35 | 93 |
| 04... | 1355 | 1 | 0 | 2 | 17 | 96 | 100 |
| 04... | 1400 | 1 | 0 | 2 | 18 | 83 | 99 |
| 04... | 1405 | 1 | 0 | 4 | 55 | 100 | --- |
| 05... | 2230 | 1 | 1 | 6 | 39 | 94 | 100 |
| 05... | 2235 | 1 | 0 | 3 | 12 | 59 | 95 |
| 05... | 2240 | 1 | 0 | 3 | 10 | 36 | 84 |
| 05... | 2245 | 1 | 0 | 1 | 2 | 16 | 94 |
| 10... | 1535 | 1 | 0 | 1 | 10 | 44 | 97 |
| 10... | 1540 | 1 | 0 | 2 | 20 | 90 | 100 |
| 10... | 1545 | 1 | 0 | 2 | 19 | 87 | 100 |
| 10... | 1550 | 1 | 0 | 4 | 38 | 98 | 100 |
| 17... | 1220 | 5 | 0 | 3 | 27 | 71 | 78 |
| 26... | 1325 | 1 | 0 | 1 | 2 | 11 | 21 |
| 26... | 1330 | 1 | 0 | 1 | 3 | 13 | 18 |
| 26... | 1335 | 1 | 0 | 6 | 32 | 97 | 100 |
| 26... | 1340 | 1 | 0 | 4 | 28 | 99 | 100 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 89 | 94 | 96 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 13... | 71 | 78 | 84 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| 13... | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 13... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 95 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 16... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 14 | 30 | 63 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| 17... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 54 | 63 | 71 | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 84 |
| 20... | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 20... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 99 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 04... | 94 | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 98 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 05... | 97 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 05... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 89 | 95 | 98 | 99 | 98 | 98 | 99 | 99 | 99 | 99 | 99 | 99 |
| 26... | 24 | 26 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 26... | 22 | 24 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMP- LING POINTS | 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 |
|--------|------|-----------------------------|---|---|---|---|---|
| JAN | | | | | | | |
| 26.... | 1345 | -- | 1 | 0 | 2 | 36 | 99 |
| 28.... | 1350 | 7.0 | 1 | 0 | 1 | 4 | 11 |
| 28.... | 1355 | 7.0 | 1 | 0 | 1 | 4 | 33 |
| 28.... | 1400 | 7.0 | 1 | 0 | 3 | 27 | 90 |
| 28.... | 1405 | 7.0 | 1 | 0 | 2 | 16 | 88 |
| 28.... | 1410 | 7.0 | 1 | 0 | 5 | 46 | 100 |
| FEB | | | | | | | |
| 04.... | 1325 | -- | 1 | 0 | 1 | 20 | 90 |
| 04.... | 1330 | -- | 1 | 0 | 2 | 18 | 82 |
| 04.... | 1335 | -- | 1 | 0 | 2 | 23 | 94 |
| 04.... | 1340 | -- | 1 | 0 | 2 | 20 | 62 |
| 04.... | 1345 | -- | 1 | 0 | 3 | 20 | 80 |
| 10.... | 1200 | -- | 5 | 0 | 1 | 12 | 67 |
| 16.... | 1230 | 8.0 | 1 | 0 | 1 | 8 | 36 |
| 16.... | 1235 | 8.0 | 1 | 0 | 2 | 15 | 65 |
| 16.... | 1240 | 8.0 | 1 | 0 | 1 | 8 | 46 |
| 16.... | 1245 | 8.0 | 1 | 0 | 2 | 10 | 30 |
| 16.... | 1250 | 8.0 | 1 | 0 | 1 | 9 | 26 |
| 22.... | 1300 | 7.5 | 1 | 0 | 0 | 3 | 10 |
| 22.... | 1305 | 7.5 | 1 | 0 | 0 | 5 | 25 |
| 22.... | 1310 | 7.5 | 1 | 0 | 0 | 3 | 19 |
| 22.... | 1315 | 7.5 | 1 | 0 | 0 | 7 | 43 |
| 22.... | 1320 | 7.5 | 1 | 0 | 1 | 27 | 98 |
| MAR | | | | | | | |
| 01.... | 1100 | -- | 1 | 0 | 1 | 25 | 94 |
| 01.... | 1105 | -- | 1 | 0 | 1 | 24 | 89 |
| 01.... | 1110 | -- | 1 | 0 | 1 | 9 | 53 |
| 01.... | 1115 | -- | 1 | 0 | 0 | 3 | 24 |
| 01.... | 1120 | -- | 1 | 0 | 0 | 3 | 13 |
| 07.... | 1500 | -- | 1 | 0 | 3 | 46 | 99 |
| 07.... | 1505 | -- | 1 | 0 | 1 | 10 | 79 |
| 07.... | 1510 | -- | 1 | 0 | 0 | 5 | 74 |
| 07.... | 1515 | -- | 1 | 0 | 1 | 8 | 56 |
| 07.... | 1520 | -- | 1 | 0 | 0 | 5 | 24 |
| 10.... | 1030 | -- | 1 | 0 | 0 | 2 | 20 |
| 10.... | 1035 | -- | 1 | 0 | 2 | 11 | 66 |
| 10.... | 1040 | -- | 1 | 0 | 3 | 16 | 61 |
| 10.... | 1045 | -- | 1 | 0 | 2 | 13 | 65 |
| 10.... | 1050 | -- | 1 | 0 | 1 | 4 | 49 |
| 10.... | 1600 | -- | 1 | 0 | 0 | 2 | 11 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 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 | | | | | | |
| 26... | 100 | -- | -- | -- | -- | -- |
| 28... | 65 | 88 | 93 | 96 | 100 | -- |
| 28... | 91 | 98 | 100 | -- | -- | -- |
| 28... | 99 | 100 | -- | -- | -- | -- |
| 28... | 100 | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | |
| 04... | 99 | 100 | -- | -- | -- | -- |
| 04... | 96 | 99 | 100 | -- | -- | -- |
| 04... | 100 | -- | -- | -- | -- | -- |
| 04... | 68 | 70 | 72 | 77 | 87 | 100 |
| 04... | 98 | 100 | -- | -- | -- | -- |
| 10... | 93 | 98 | 99 | 100 | -- | -- |
| 16... | 70 | 89 | 96 | 98 | 99 | 100 |
| 16... | 98 | 100 | -- | -- | -- | -- |
| 16... | 90 | 96 | 97 | 97 | 100 | -- |
| 16... | 74 | 86 | 92 | 96 | 100 | -- |
| 16... | 81 | 95 | 97 | 98 | 98 | 100 |
| 22... | 32 | 67 | 85 | 95 | 100 | -- |
| 22... | 53 | 82 | 90 | 94 | 95 | 100 |
| 22... | 59 | 94 | 99 | 100 | -- | -- |
| 22... | 94 | 99 | 100 | -- | -- | -- |
| 22... | 100 | -- | -- | -- | -- | -- |
| MAR | | | | | | |
| 01... | 100 | -- | -- | -- | -- | -- |
| 01... | 99 | 100 | -- | -- | -- | -- |
| 01... | 91 | 100 | -- | -- | -- | -- |
| 01... | 78 | 94 | 97 | 98 | 100 | -- |
| 01... | 47 | 76 | 87 | 92 | 97 | 100 |
| 07... | 100 | -- | -- | -- | -- | -- |
| 07... | 100 | -- | -- | -- | -- | -- |
| 07... | 100 | -- | -- | -- | -- | -- |
| 07... | 91 | 97 | 98 | 100 | -- | -- |
| 07... | 75 | 93 | 97 | 99 | 100 | -- |
| 10... | 80 | 96 | 98 | 98 | 100 | -- |
| 10... | 96 | 99 | 100 | -- | -- | -- |
| 10... | 94 | 99 | 99 | 100 | -- | -- |
| 10... | 92 | 96 | 97 | 97 | 98 | 100 |
| 10... | 98 | 100 | -- | -- | -- | -- |
| 10... | 69 | 98 | 100 | -- | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | BED | | BED | | BED | |
|-------|------|-----------------------------|---|--------------------------------|-----------------|--------------------------------|-----------------|--------------------------------|-----------------|--------------------------------|-----------------|
| | | | | NUMBER OF SIEVE DIAM. | % FINER THAN | NUMBER OF SIEVE DIAM. | % FINER THAN | NUMBER OF SIEVE DIAM. | % FINER THAN | NUMBER OF SIEVE DIAM. | % FINER THAN |
| | | | | | .062 MM | | .125 MM | | .250 MM | | .500 MM |
| MAR | | | | | | | | | | | |
| 10... | 1605 | -- | 1 | 0 | 0 | 0 | 3 | 3 | 33 | | |
| 10... | 1610 | -- | 1 | 0 | 0 | 3 | 16 | 76 | | | |
| 10... | 1615 | -- | 1 | 0 | 1 | 1 | 9 | 61 | | | |
| 10... | 1620 | -- | 1 | 1 | 8 | 55 | 98 | | | | |
| 11... | 1500 | -- | 1 | 0 | 2 | 29 | 93 | | | | |
| 11... | 1505 | -- | 1 | 0 | 0 | 6 | 65 | | | | |
| 11... | 1510 | -- | 1 | 0 | 3 | 16 | 71 | | | | |
| 11... | 1520 | -- | 1 | 0 | 1 | 4 | 16 | | | | |
| 11... | 1525 | -- | 1 | 0 | 0 | 0 | 2 | | | | |
| 13... | 1300 | -- | 1 | 0 | 0 | 1 | 4 | | | | |
| 13... | 1305 | -- | 1 | 0 | 0 | 3 | 27 | | | | |
| 13... | 1310 | -- | 1 | 0 | 0 | 6 | 76 | | | | |
| 13... | 1315 | -- | 1 | 0 | 0 | 7 | 62 | | | | |
| 13... | 1320 | -- | 1 | 0 | 2 | 27 | 94 | | | | |
| 14... | 1105 | 7.5 | 1 | 0 | 3 | 46 | 99 | | | | |
| 14... | 1110 | 7.5 | 1 | 0 | 1 | 10 | 53 | | | | |
| 14... | 1115 | 7.5 | 1 | 0 | 1 | 9 | 76 | | | | |
| 14... | 1120 | 7.5 | 1 | 0 | 1 | 9 | 65 | | | | |
| 14... | 1125 | 7.5 | 1 | 0 | 1 | 6 | 8 | | | | |
| 16... | 1215 | -- | 1 | 0 | 4 | 50 | 98 | | | | |
| 16... | 1220 | -- | 1 | 0 | 2 | 14 | 88 | | | | |
| 16... | 1225 | -- | 1 | 0 | 2 | 17 | 87 | | | | |
| 16... | 1230 | -- | 1 | 0 | 1 | 10 | 62 | | | | |
| 16... | 1235 | -- | 1 | 0 | 1 | 4 | 13 | | | | |
| 24... | 1230 | -- | 1 | 0 | 3 | 15 | 44 | | | | |
| 24... | 1235 | -- | 1 | 0 | 3 | 29 | 72 | | | | |
| 24... | 1240 | -- | 1 | 0 | 1 | 8 | 46 | | | | |
| 24... | 1245 | -- | 1 | 0 | 0 | 5 | 37 | | | | |
| 24... | 1250 | -- | 1 | 0 | 1 | 11 | 60 | | | | |
| 28... | 1245 | -- | 1 | 0 | 2 | 12 | 42 | | | | |
| 28... | 1250 | -- | 1 | 0 | 4 | 33 | 95 | | | | |
| 28... | 1255 | -- | 1 | 0 | 5 | 42 | 93 | | | | |
| 28... | 1300 | -- | 1 | 0 | 1 | 16 | 80 | | | | |
| 28... | 1305 | -- | 1 | 0 | 1 | 9 | 75 | | | | |
| 29... | 1630 | -- | 1 | 0 | 1 | 6 | 50 | | | | |
| 29... | 1635 | -- | 1 | 0 | 2 | 10 | 48 | | | | |
| 29... | 1640 | -- | 1 | 0 | 2 | 28 | 98 | | | | |
| 29... | 1645 | -- | 1 | 0 | 1 | 4 | 45 | | | | |
| 29... | 1650 | -- | 1 | 0 | 1 | 5 | 43 | | | | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | BED MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN | 4.00 MM | 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN | 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN | 32.0 MM |
|-------|--|---------|---------|--|---------|---------|--|---------|--|---------|
| MAR | | | | | | | | | | |
| 10... | 98 | 100 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 10... | 99 | 100 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 10... | 79 | 84 | 85 | 85 | 86 | 86 | 86 | 86 | 100 | 100 |
| 10... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | 98 | 100 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 11... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11... | 79 | 95 | 98 | 99 | 99 | 100 | 100 | 100 | 100 | 100 |
| 11... | 40 | 84 | 94 | 98 | 98 | 100 | 100 | 100 | 100 | 100 |
| 13... | 10 | 26 | 50 | 76 | 76 | 96 | 96 | 96 | 100 | 100 |
| 13... | 84 | 98 | 100 | 100 | -- | -- | -- | -- | -- | -- |
| 13... | 97 | 99 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 13... | 87 | 94 | 97 | 98 | 98 | 100 | 100 | 100 | 100 | 100 |
| 13... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 83 | 88 | 90 | 90 | 90 | 92 | 92 | 92 | 100 | 100 |
| 14... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 99 | 100 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 14... | 14 | 47 | 69 | 83 | 83 | 100 | 100 | 100 | 100 | 100 |
| 16... | 99 | 100 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 16... | 99 | 100 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 16... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 100 | 100 |
| 16... | 56 | 88 | 96 | 96 | 99 | 100 | 100 | 100 | 100 | 100 |
| 24... | 84 | 96 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 |
| 24... | 93 | 96 | 97 | 97 | 98 | 98 | 98 | 98 | 100 | 100 |
| 24... | 85 | 91 | 91 | 91 | 92 | 95 | 95 | 95 | 100 | 100 |
| 24... | 74 | 91 | 95 | 95 | 97 | 98 | 98 | 98 | 100 | 100 |
| 24... | 90 | 96 | 98 | 98 | 99 | 100 | 100 | 100 | 100 | 100 |
| 28... | 87 | 97 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 |
| 28... | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 28... | 97 | 98 | 98 | 98 | 100 | 100 | 100 | 100 | 100 | 100 |
| 28... | 96 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 28... | 99 | 100 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 29... | 94 | 99 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 29... | 87 | 98 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 29... | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 89 | 99 | 100 | -- | -- | -- | -- | -- | -- | -- |
| 29... | 77 | 91 | 96 | 97 | 97 | 100 | 100 | 100 | 100 | 100 |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | BED | BED | BED |
|-------|------|-----------------------------|---|--|--|--|--|
| | | | | MAT. SIEVE DIAM. % FINER THAN .062 MM | MAT. SIEVE DIAM. % FINER THAN .125 MM | MAT. SIEVE DIAM. % FINER THAN .250 MM | MAT. SIEVE DIAM. % FINER THAN .500 MM |
| MAR | | | | | | | |
| 30... | 1000 | -- | 1 | 0 | 1 | 3 | 32 |
| 30... | 1005 | -- | 1 | 0 | 2 | 9 | 74 |
| 30... | 1010 | -- | 1 | 1 | 5 | 23 | 83 |
| 30... | 1015 | -- | 1 | 0 | 4 | 28 | 87 |
| 30... | 1020 | -- | 1 | 1 | 8 | 47 | 99 |
| 31... | 1105 | -- | 1 | 0 | 1 | 17 | 62 |
| 31... | 1110 | -- | 1 | 0 | 2 | 20 | 80 |
| 31... | 1115 | -- | 1 | 0 | 1 | 11 | 58 |
| 31... | 1120 | -- | 1 | 0 | 1 | 5 | 56 |
| 31... | 1125 | -- | 1 | 0 | 1 | 4 | 22 |
| APR | | | | | | | |
| 08... | 1245 | -- | 1 | 0 | 5 | 46 | 87 |
| 08... | 1250 | -- | 1 | 0 | 2 | 19 | 70 |
| 08... | 1255 | -- | 1 | 0 | 1 | 15 | 70 |
| 08... | 1300 | -- | 1 | 0 | 1 | 10 | 59 |
| 15... | 1305 | -- | 1 | 0 | 1 | 12 | 81 |
| 15... | 1215 | -- | 1 | 0 | 1 | 13 | 93 |
| 15... | 1220 | -- | 1 | 0 | 1 | 10 | 61 |
| 15... | 1225 | -- | 1 | 0 | 1 | 14 | 79 |
| 15... | 1230 | -- | 1 | 0 | 1 | 15 | 95 |
| 15... | 1235 | -- | 1 | 0 | 2 | 12 | 50 |
| 25... | 1215 | -- | 1 | 0 | 1 | 7 | 50 |
| 25... | 1220 | -- | 1 | 0 | 3 | 23 | 96 |
| 25... | 1225 | -- | 1 | 0 | 1 | 10 | 77 |
| 25... | 1230 | -- | 1 | 0 | 0 | 6 | 57 |
| 25... | 1235 | -- | 1 | 0 | 0 | 2 | 47 |
| MAY | | | | | | | |
| 05... | 1230 | -- | 1 | 0 | 1 | 6 | 40 |
| 05... | 1235 | -- | 1 | 0 | 0 | 3 | 26 |
| 05... | 1240 | -- | 1 | 0 | 1 | 7 | 48 |
| 05... | 1245 | -- | 1 | 0 | 1 | 11 | 76 |
| 05... | 1250 | -- | 1 | 0 | 0 | 2 | 31 |
| 16... | 1305 | -- | 1 | 0 | 6 | 25 | 56 |
| 16... | 1310 | -- | 1 | 0 | 2 | 9 | 42 |
| 16... | 1315 | -- | 1 | 0 | 0 | 5 | 25 |
| 16... | 1320 | -- | 1 | 0 | 0 | 3 | 25 |
| 16... | 1325 | -- | 1 | 0 | 0 | 2 | 35 |
| JUN | | | | | | | |
| 03... | 1430 | 11.0 | 1 | 0 | 0 | 4 | 44 |
| 03... | 1435 | 11.0 | 1 | 0 | 0 | 3 | 21 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM | 32.0 MM | 64.0 MM |
|-------|---------|---------|---------|---------|---------|---------|---------|
| MAR | | | | | | | |
| 30... | 88 | 98 | 98 | 99 | 100 | -- | -- |
| 30... | 97 | 100 | -- | -- | -- | -- | -- |
| 30... | 99 | 100 | -- | -- | -- | -- | -- |
| 30... | 99 | 100 | -- | -- | -- | -- | -- |
| 30... | 100 | -- | -- | -- | -- | -- | -- |
| 31... | 94 | 99 | 100 | -- | -- | -- | -- |
| 31... | 92 | 94 | 96 | 98 | 100 | -- | -- |
| 31... | 94 | 99 | 100 | -- | -- | -- | -- |
| 31... | 98 | 99 | 100 | 100 | -- | -- | -- |
| 31... | 67 | 85 | 92 | 96 | 98 | 100 | -- |
| APR | | | | | | | |
| 08... | 99 | 100 | -- | -- | -- | -- | -- |
| 08... | 98 | 99 | 100 | -- | -- | -- | -- |
| 08... | 95 | 98 | 99 | 100 | -- | -- | -- |
| 08... | 86 | 94 | 95 | 96 | 97 | 100 | -- |
| 08... | 100 | -- | -- | -- | -- | -- | -- |
| 15... | 100 | -- | -- | -- | -- | -- | -- |
| 15... | 95 | 100 | -- | -- | -- | -- | -- |
| 15... | 99 | 100 | -- | -- | -- | -- | -- |
| 15... | 100 | -- | -- | -- | -- | -- | -- |
| 15... | 75 | 83 | 84 | 85 | 89 | 89 | 100 |
| 25... | 91 | 98 | 99 | 99 | 100 | -- | -- |
| 25... | 100 | -- | -- | -- | -- | -- | -- |
| 25... | 99 | 100 | -- | -- | -- | -- | -- |
| 25... | 96 | 100 | -- | -- | -- | -- | -- |
| 25... | 95 | 97 | 98 | 98 | 98 | 100 | -- |
| MAY | | | | | | | |
| 05... | 81 | 93 | 97 | 99 | 100 | -- | -- |
| 05... | 62 | 75 | 80 | 84 | 94 | 100 | -- |
| 05... | 88 | 96 | 99 | 100 | -- | -- | -- |
| 05... | 100 | -- | -- | -- | -- | -- | -- |
| 05... | 88 | 98 | 99 | 99 | 100 | -- | -- |
| 16... | 95 | 100 | -- | -- | -- | -- | -- |
| 16... | 80 | 90 | 95 | 98 | 100 | -- | -- |
| 16... | 66 | 88 | 95 | 97 | 100 | -- | -- |
| 16... | 67 | 79 | 81 | 82 | 82 | 83 | 100 |
| 16... | 96 | 100 | -- | -- | -- | -- | -- |
| JUN | | | | | | | |
| 03... | 96 | 99 | 100 | -- | -- | -- | -- |
| 03... | 77 | 96 | 99 | 100 | -- | -- | -- |

14243000 COMBLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | | | BED | | | |
|--------|------|-----------------------------|---|--------------------------------|----------------------------|--------------------------------|----------------------------|--------------------------------|----------------------------|--------------------------------|----------------------------|
| | | | | NUMBER OF SIEVE DIAM. | MAT. % FINER THAN | NUMBER OF SIEVE DIAM. | MAT. % FINER THAN | NUMBER OF SIEVE DIAM. | MAT. % FINER THAN | NUMBER OF SIEVE DIAM. | MAT. % FINER THAN |
| | | | | | .062 MM | | .125 MM | | .250 MM | | .500 MM |
| JUN | | | | | | | | | | | |
| 03.... | 1440 | 11.0 | 1 | 0 | 2 | 19 | 89 | | | | |
| 03.... | 1445 | 11.0 | 1 | 0 | 2 | 21 | 85 | | | | |
| 03.... | 1450 | 11.0 | 1 | 2 | 11 | 46 | 69 | | | | |
| 09.... | 1355 | 13.5 | 1 | 0 | 0 | 2 | 29 | | | | |
| 09.... | 1400 | 13.5 | 1 | 0 | 0 | 7 | 42 | | | | |
| 09.... | 1405 | 13.5 | 1 | 0 | 0 | 4 | 16 | | | | |
| 09.... | 1410 | 13.5 | 1 | 0 | 1 | 14 | 43 | | | | |
| 09.... | 1415 | 13.5 | 1 | 1 | 7 | 70 | 90 | | | | |
| 20.... | 1200 | -- | 1 | 0 | 2 | 4 | 10 | | | | |
| 20.... | 1205 | -- | 1 | 0 | 2 | 10 | 45 | | | | |
| 20.... | 1210 | -- | 1 | 0 | 2 | 12 | 53 | | | | |
| 20.... | 1215 | -- | 1 | 0 | 0 | 2 | 19 | | | | |
| 20.... | 1220 | -- | 1 | 0 | 0 | 4 | 34 | | | | |
| 29.... | 1215 | -- | 1 | 0 | 5 | 40 | 74 | | | | |
| 29.... | 1220 | -- | 1 | 0 | 1 | 10 | 58 | | | | |
| 29.... | 1225 | -- | 1 | 0 | 1 | 8 | 58 | | | | |
| 29.... | 1230 | -- | 1 | 0 | 0 | 7 | 52 | | | | |
| 29.... | 1235 | -- | 1 | 0 | 0 | 5 | 56 | | | | |
| JUL | | | | | | | | | | | |
| 13.... | 1345 | 14.0 | 5 | 1 | 1 | 8 | 32 | | | | |
| 21.... | 1220 | -- | 1 | 0 | 1 | 3 | 14 | | | | |
| 21.... | 1225 | -- | 1 | 0 | 2 | 16 | 82 | | | | |
| 21.... | 1230 | -- | 1 | 0 | 0 | 2 | 20 | | | | |
| 21.... | 1235 | -- | 1 | 0 | 1 | 15 | 77 | | | | |
| 21.... | 1240 | -- | 1 | 0 | 0 | 5 | 46 | | | | |
| 27.... | 1155 | 13.5 | 5 | 0 | 1 | 6 | 32 | | | | |
| AUG | | | | | | | | | | | |
| 09.... | 1415 | 17.5 | 1 | 0 | 0 | 5 | 53 | | | | |
| 09.... | 1420 | 17.5 | 1 | 0 | 0 | 4 | 46 | | | | |
| 09.... | 1425 | 17.5 | 1 | 0 | 0 | 4 | 42 | | | | |
| 12.... | 1230 | -- | 1 | 0 | 0 | 7 | 85 | | | | |
| 12.... | 1235 | -- | 1 | 0 | 1 | 35 | 76 | | | | |
| 12.... | 1240 | -- | 1 | 0 | 5 | 34 | 77 | | | | |
| 12.... | 1245 | -- | 1 | 0 | 0 | 3 | 40 | | | | |
| 12.... | 1250 | -- | 1 | 0 | 0 | 3 | 47 | | | | |
| 19.... | 1335 | 17.5 | 5 | 0 | 0 | 5 | 52 | | | | |
| 24.... | 1410 | 15.5 | 1 | 0 | 0 | 6 | 66 | | | | |
| 24.... | 1415 | 15.5 | 1 | 0 | 0 | 4 | 34 | | | | |
| 24.... | 1420 | 15.5 | 1 | 0 | 0 | 9 | 82 | | | | |
| 24.... | 1425 | 15.5 | 1 | 0 | 0 | 3 | 26 | | | | |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM | 32.0 MM |
|-------|--|--|--|--|--|--|
| | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN | BED MAT. SIEVE DIAM. % FINER THAN |
| JUN | | | | | | |
| 03... | 100 | -- | -- | -- | -- | -- |
| 03... | 100 | -- | -- | -- | -- | -- |
| 03... | 78 | 84 | 88 | 92 | 96 | 100 |
| 09... | 88 | 98 | 99 | 99 | 100 | -- |
| 09... | 93 | 100 | -- | -- | -- | -- |
| 09... | 52 | 73 | 82 | 90 | 97 | 100 |
| 09... | 88 | 99 | 100 | -- | -- | -- |
| 09... | 98 | 100 | -- | -- | -- | -- |
| 20... | 35 | 77 | 95 | 99 | 100 | -- |
| 20... | 82 | 91 | 93 | 96 | 98 | 100 |
| 20... | 93 | 100 | -- | -- | -- | -- |
| 20... | 69 | 96 | 99 | 100 | -- | -- |
| 20... | 85 | 98 | 99 | 100 | -- | -- |
| 29... | 97 | 99 | 99 | 100 | -- | -- |
| 29... | 60 | 91 | 95 | 97 | 100 | -- |
| 29... | 92 | 96 | 97 | 98 | 98 | 100 |
| 29... | 97 | 100 | -- | -- | -- | -- |
| 29... | 97 | 100 | -- | -- | -- | -- |
| JUL | | | | | | |
| 13... | 69 | 91 | 96 | 99 | 100 | -- |
| 21... | 57 | 86 | 93 | 97 | 100 | -- |
| 21... | 100 | -- | -- | -- | -- | -- |
| 21... | 63 | 91 | 97 | 98 | 100 | -- |
| 21... | 96 | 100 | -- | -- | -- | -- |
| 21... | 96 | 100 | -- | -- | -- | -- |
| 27... | 73 | 90 | 96 | 99 | 100 | -- |
| AUG | | | | | | |
| 09... | 96 | 99 | 100 | -- | -- | -- |
| 09... | 92 | 100 | -- | -- | -- | -- |
| 09... | 84 | 93 | 95 | 96 | 100 | -- |
| 12... | 99 | 100 | -- | -- | -- | -- |
| 12... | 93 | 97 | 97 | 98 | 99 | 100 |
| 12... | 95 | 98 | 99 | 100 | -- | -- |
| 12... | 88 | 97 | 98 | 100 | 100 | -- |
| 12... | 88 | 92 | 93 | 93 | 94 | 100 |
| 19... | 94 | 99 | 100 | -- | -- | -- |
| 24... | 96 | 99 | 99 | 100 | -- | -- |
| 24... | 85 | 97 | 98 | 99 | 100 | -- |
| 24... | 100 | -- | -- | -- | -- | -- |
| 24... | 83 | 98 | 99 | 100 | -- | -- |

14243000 COMLITZ RIVER AT CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAMPLING POINTS | 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 |
|---------------|------|-----------------------------|------------------------------------|---|---|---|---|
| AUG 24.... | 1430 | 15.5 | 1 | 0 | 0 | 1 | 12 |
| SEP 07.... | 1230 | 14.5 | 1 | 0 | 0 | 1 | 2 |
| 07.... | 1235 | 14.5 | 1 | 0 | 0 | 0 | 32 |
| 07.... | 1240 | 14.5 | 1 | 0 | 0 | 1 | 14 |
| 07.... | 1245 | 14.5 | 1 | 0 | 0 | 2 | 25 |
| 07.... | 1250 | 14.5 | 1 | 0 | 0 | 2 | 14 |
| 21.... | 1540 | 15.5 | 1 | 1 | 2 | 6 | 23 |
| 21.... | 1545 | 15.5 | 1 | 0 | 0 | 0 | 10 |
| 28.... | 1315 | 12.5 | 1 | 0 | 0 | 1 | 14 |
| 28.... | 1320 | 12.5 | 1 | 0 | 0 | 4 | 31 |
| 28.... | 1325 | 12.5 | 1 | 0 | 0 | 3 | 19 |
| 28.... | 1330 | 12.5 | 1 | 0 | 0 | 6 | 44 |
| AUG 24.... | 44 | 69 | 81 | 88 | 96 | 100 | -- |
| SEP 07.... | 5 | 7 | 8 | 9 | 11 | 37 | 100 |
| 07.... | 65 | 87 | 89 | 89 | 90 | 90 | 100 |
| 07.... | 60 | 89 | 95 | 97 | 100 | -- | -- |
| 07.... | 89 | 100 | -- | -- | -- | -- | -- |
| 07.... | 62 | 91 | 98 | 99 | 100 | 37 | 100 |
| 21.... | 48 | 62 | 66 | 71 | 77 | 80 | 100 |
| 21.... | 70 | 97 | 99 | 100 | -- | -- | -- |
| 28.... | 64 | 89 | 94 | 95 | 99 | 100 | -- |
| 28.... | 85 | 96 | 97 | 98 | 98 | 100 | -- |
| 28.... | 57 | 83 | 93 | 98 | 100 | -- | -- |
| 28.... | 88 | 99 | 99 | 100 | -- | -- | -- |

LOCATION.--Lat 46°08'44", long 122°54'47", near center of SE¼ sec.27, T.8 N., R.2 W., Cowlitz County, Hydrologic Unit 17090005, at Main Street bridge between Kelso and West Kelso, 3.6 mi (5.8 km) upstream from Cowman River, and at mile 4.9 (7.9 km).

DRAINAGE AREA.--2,349 mi² (6,084 km²).

PERIOD OF SEDIMENT DATA.--Water years 1960-1966, 1971-75, 1977 to current year.

REMARKS.--Some water discharges obtained by routing flow from nearby station; discharge value is fair.

MAXIMUM MEASURED SUSPENDED-SEDIMENT CONCENTRATION.--

| Water Year | Date | Time | Concentration, mg/L |
|------------|---------------|------|---------------------|
| 1981 | Nov. 20, 1980 | 0830 | 3,160 |
| 1982 | Nov. 14, 1981 | 2340 | 16,400 |
| 1983 | Nov. 29, 1982 | 1145 | 4,680 |

14244200 COMLITZ RIVER AT KELSO, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED1- MENT, SUS- PENDE (MG/L) | SED1- MENT, DIS- CHARGE, SUS- PENDE (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 |
|---------------|------|-----------------------------|---|---|---|---|--|---|--|--|--|--|
| NOV 20.... | 0830 | 10.0 | 7000 | 4 | 3160 | 59700 | -- | -- | -- | -- | -- | -- |
| DEC 19.... | 1400 | 7.0 | 13000 | 3 | 1330 | 46700 | -- | -- | -- | -- | -- | -- |
| FEB 04.... | 1400 | 5.5 | 5030 | 5 | 274 | 3720 | -- | -- | -- | -- | -- | -- |
| 26.... | 1100 | 7.5 | 21500 | 5 | 1900 | 110000 | -- | -- | -- | -- | -- | -- |
| MAR 19.... | 1000 | 8.0 | 4560 | 3 | 347 | 4270 | -- | -- | -- | -- | -- | -- |
| APR 13.... | 1400 | 9.0 | 10200 | 5 | 793 | 21800 | -- | 53 | -- | -- | -- | -- |
| MAY 12.... | 1650 | 12.0 | 5120 | 9 | 335 | 4630 | -- | 41 | -- | -- | -- | -- |
| JUN 16.... | 1200 | 12.0 | 8680 | 9 | 209 | 4900 | -- | 51 | -- | -- | -- | -- |
| JUL 16.... | 1045 | 16.5 | 3220 | 9 | 97 | 843 | 41 | 41 | 67 | 94 | 97 | 97 |
| AUG 20.... | 1130 | -- | 3620 | 5 | 141 | 1380 | -- | 74 | -- | -- | -- | -- |
| SEP 17.... | 1300 | 15.0 | 2730 | 5 | 66 | 486 | 56 | 35 | 80 | 100 | -- | -- |

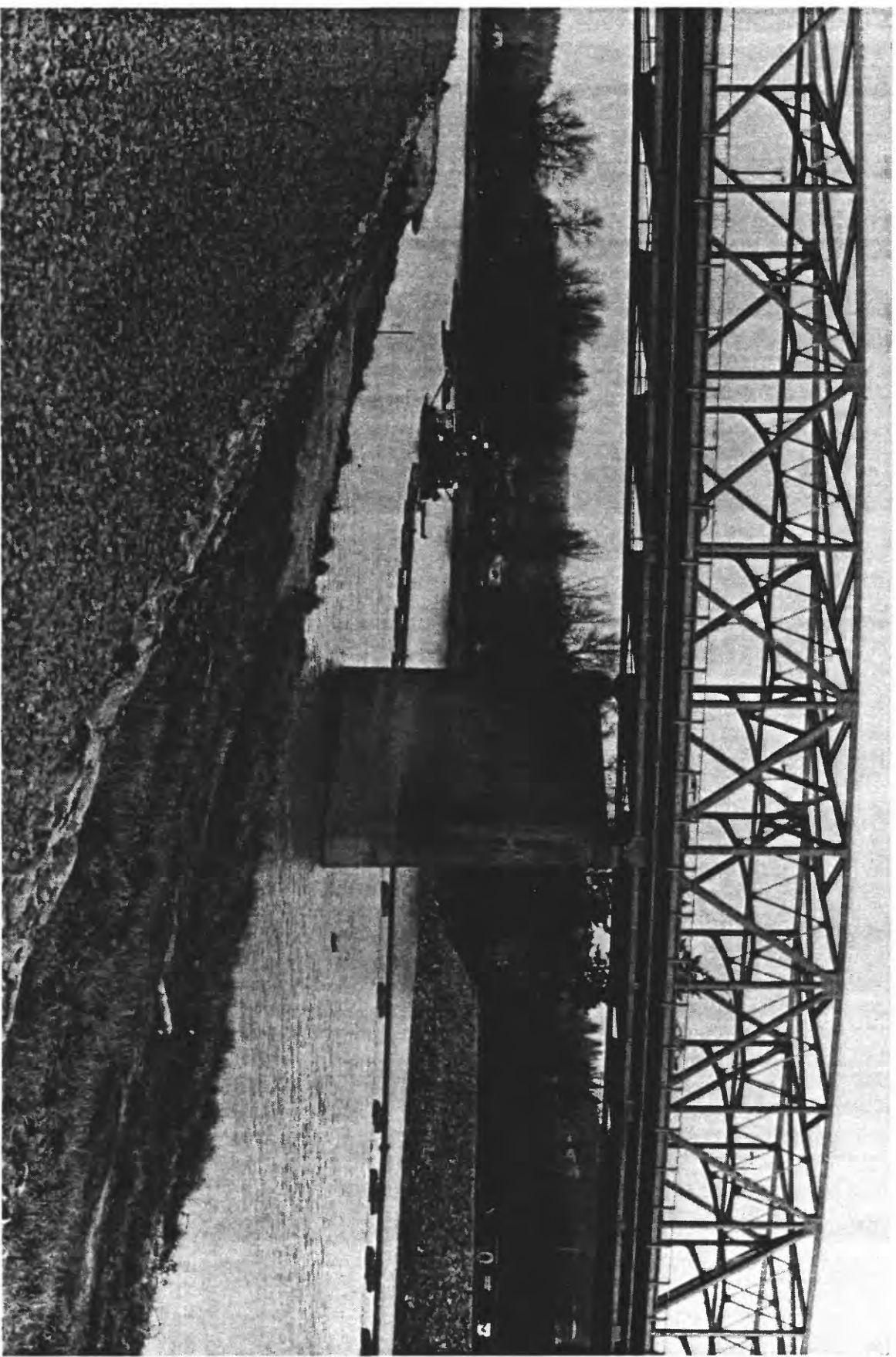


Photo date: March 16, 1981

The Allen Street bridge over the Cowlitz River at Kelso, station 244200. Deposited sediment is being pumped from the channel as part of the dredging activity. View is upstream.

14244200 COMLITZ RIVER AT KELSO, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTANT- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIMENT, SUS- PENDED (MG/L) | SEDIMENT, 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 |
|---------------|------|-----------------------------|--|---|---------------------------------------|---|--|--|--|--|
| OCT 23.... | 1215 | 9.5 | 5620 | 5 | 118 | 1790 | -- | -- | -- | -- |
| NOV 13.... | 1205 | 10.0 | 8570 | -- | 836 | 19300 | -- | -- | -- | -- |
| 14.... | 2340 | -- | 14000 | -- | 16400 | -- | -- | -- | -- | -- |
| 25.... | 1230 | 8.0 | 15500 | 5 | 904 | 37800 | 8 | 9 | 12 | 24 |
| DEC 29.... | 1400 | 6.0 | 12900 | 5 | 549 | 19100 | -- | -- | -- | -- |
| MAR 05.... | 1100 | 6.0 | 22000 | 5 | 1100 | 65300 | -- | -- | -- | -- |
| 25.... | 1130 | 9.0 | 9100 | 5 | 3440 | -- | -- | -- | -- | -- |
| APR 21.... | 1145 | 13.0 | 10500 | 5 | 2080 | 59000 | -- | -- | -- | -- |
| MAY 28.... | 0930 | 10.5 | 10600 | 5 | 820 | 23500 | -- | -- | -- | -- |
| JUN 28.... | 1230 | 13.0 | 9920 | 5 | 524 | 14000 | -- | -- | -- | -- |
| JUL 20.... | 1445 | 17.0 | 3720 | 5 | 731 | 7340 | -- | -- | -- | -- |
| AUG 25.... | 1445 | 18.5 | 2790 | 5 | 126 | 949 | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | 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 .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 |
|-----------|--|--|--|--|--|--|--|--|--|
| OCT 23... | -- | 53 | -- | 66 | -- | 100 | -- | -- | -- |
| NOV 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | 95 | -- | -- | -- | -- | -- | -- |
| 25... | 36 | 56 | -- | 81 | -- | 100 | -- | -- | -- |
| DEC 28... | -- | -- | 61 | -- | -- | -- | -- | -- | -- |
| MAR 05... | -- | -- | 40 | -- | 66 | -- | 93 | -- | 100 |
| 25... | -- | -- | 57 | -- | 75 | -- | 95 | -- | 100 |
| APR 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY 28... | -- | -- | 50 | -- | 77 | -- | 99 | -- | 100 |
| JUN 28... | -- | -- | 36 | -- | 64 | -- | 98 | -- | 100 |
| JUL 20... | -- | 19 | -- | 41 | -- | 99 | -- | 100 | -- |
| AUG 25... | -- | 42 | -- | 71 | -- | 100 | -- | -- | -- |

14244200 COWLITZ RIVER AT KELSO, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SED- I- MENT, SUS- PENDED (MG/L) | SED- I- 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 |
|---------------|------|-----------------------------|---|---|---|---|--|--|--|--|
| OCT 22.... | 1300 | 11.0 | 6100 | 5 | 767 | 12600 | -- | -- | -- | -- |
| NOV 29.... | 1145 | 8.0 | 15000 | 4 | 4680 | 190000 | -- | -- | -- | -- |
| DEC 28.... | 1400 | 6.0 | 12900 | 5 | 549 | 19100 | -- | -- | -- | -- |
| MAR 01.... | 1320 | 7.5 | 11000 | 5 | 1760 | 52300 | -- | -- | -- | -- |
| 13.... | 1200 | 8.5 | 21200 | -- | 2600 | 149000 | -- | -- | -- | -- |
| 13.... | 1410 | 8.5 | 21200 | -- | 2940 | 168000 | -- | -- | -- | -- |
| 13.... | 1505 | 8.5 | 21200 | 5 | 3060 | 175000 | 12 | 13 | 19 | 30 |
| 13.... | 1530 | 8.5 | 21200 | -- | 2200 | 126000 | -- | -- | -- | -- |
| 14.... | 1110 | 8.5 | 21900 | -- | 3100 | 183000 | -- | -- | -- | -- |
| 14.... | 1250 | 8.5 | 21900 | -- | 3060 | 181000 | -- | -- | -- | -- |
| 14.... | 1350 | 8.5 | 21900 | -- | 4370 | 258000 | -- | -- | -- | -- |
| 14.... | 1510 | 8.5 | 21900 | 5 | 2660 | 157000 | -- | -- | -- | -- |
| MAY 14.... | 1545 | 8.5 | 21900 | -- | 3900 | 231000 | -- | -- | -- | -- |
| JUL 12.... | 1130 | 11.5 | 8000 | 5 | 2170 | 46900 | -- | -- | -- | -- |
| SEP 13.... | 1150 | 14.0 | 7420 | 5 | 1670 | 33500 | -- | -- | -- | -- |
| SEP 13.... | 1255 | 14.5 | 5120 | 5 | 583 | 8060 | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | .031 MM | | .062 MM | | .125 MM | | .250 MM | | .500 MM | | .500 MM | |
|-----------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
| OCT 22... | -- | 29 | -- | 62 | -- | 97 | -- | 100 | -- | -- | -- | -- |
| NOV 29... | -- | 51 | -- | 78 | -- | 96 | -- | 100 | -- | -- | -- | -- |
| DEC 28... | -- | -- | 61 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 01... | -- | -- | 47 | -- | 67 | -- | 96 | -- | 100 | -- | -- | 100 |
| 13... | -- | -- | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 45 | -- | 62 | -- | 85 | -- | 99 | -- | 100 | -- | -- | 100 |
| 13... | -- | -- | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | 51 | -- | 74 | -- | 97 | -- | 100 | -- | -- | 100 |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY 12... | -- | -- | 32 | -- | 53 | -- | 88 | -- | 100 | -- | -- | 100 |
| JUL 13... | -- | -- | 32 | -- | 46 | -- | 74 | -- | 100 | -- | -- | 100 |
| SEP 13... | -- | -- | 30 | -- | 60 | -- | 92 | -- | 100 | -- | -- | 100 |

14244200 COWLITZ RIVER AT KELSO, WA

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | BED | | BED | | BED | | BED | | BED | | BED | | BED | |
|-------|------|-----------------------------|---|---|---------|---|---------|---|---------|---|---------|---|---------|---|---------|---|---------|
| | | | | MAT. SIEVE DIAM. % FINER THAN | .062 MM | MAT. SIEVE DIAM. % FINER THAN | .125 MM | MAT. SIEVE DIAM. % FINER THAN | .250 MM | MAT. SIEVE DIAM. % FINER THAN | .500 MM | MAT. SIEVE DIAM. % FINER THAN | 1.00 MM | MAT. SIEVE DIAM. % FINER THAN | 2.00 MM | MAT. SIEVE DIAM. % FINER THAN | 4.00 MM |
| MAR | | | | | | | | | | | | | | | | | |
| 13... | 1540 | -- | 1 | 3 | 19 | 89 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 1545 | -- | 1 | 2 | 24 | 94 | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 1550 | -- | 1 | 1 | 4 | 47 | 93 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 100 | 100 |
| 13... | 1555 | -- | 1 | 1 | 9 | 49 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 13... | 1600 | -- | 1 | 1 | 9 | 59 | 99 | 99 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 14... | 1530 | 8.5 | 5 | 1 | 10 | 66 | 99 | 99 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Table 2.--March 19-20, 1982 lahar-runcout flow size analyses

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, TOTAL (MG/L) | SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM | SED. TOTAL, SIEVE DIAM. % FINER THAN .125 MM |
|-------|------|-----------------------------|---|---|-----------------------------------|--|--|
| MAR | | | | | | | |
| 20... | 0001 | 16.5 | 6500 | -- | 1140000 | 28 | 40 |
| 20... | 0003 | 16.5 | 6500 | -- | 1150000 | 29 | 40 |
| 20... | 0010 | 16.5 | 5900 | -- | 1160000 | 29 | 40 |
| 20... | 0015 | 16.5 | 5500 | -- | 1090000 | 31 | 42 |
| 20... | 0050 | 14.0 | 4100 | -- | 998000 | 33 | 47 |
| 20... | 0058 | 14.0 | 3900 | -- | 935000 | 37 | 51 |
| 20... | 0118 | 15.5 | 3300 | -- | 790000 | 43 | 58 |
| 20... | 0120 | 15.5 | 3300 | -- | 790000 | 42 | 54 |
| 20... | 0130 | -- | 3000 | -- | 911000 | 43 | 56 |
| 20... | 0142 | 13.5 | 2700 | -- | 676000 | 47 | 64 |
| 20... | 0143 | 13.5 | 2700 | -- | 660000 | 48 | 66 |
| 20... | 0155 | 13.0 | 2500 | -- | 627000 | 50 | 68 |
| 20... | 0156 | 13.0 | 2500 | -- | 611000 | 50 | 67 |
| 20... | 0218 | 13.0 | 2100 | -- | 517000 | 57 | 76 |
| 20... | 0220 | 15.0 | 2100 | -- | 551000 | 52 | 71 |
| 20... | 0237 | 12.0 | 1900 | -- | 503000 | 55 | 75 |
| 20... | 0238 | 12.0 | 1900 | -- | 499000 | 56 | 75 |
| 20... | 0257 | 11.5 | 1600 | -- | 417000 | 62 | 79 |
| 20... | 0259 | 11.5 | 1600 | -- | 438000 | 58 | 80 |
| 20... | 0330 | 11.0 | 1590 | -- | 410000 | 55 | 74 |
| 20... | 0333 | 11.0 | 1590 | -- | 384000 | 57 | 75 |
| 20... | 0335 | 11.0 | 1590 | -- | 376000 | 58 | 76 |
| 20... | 0400 | 11.0 | 1570 | -- | 311000 | 61 | 77 |
| 20... | 0403 | 11.0 | 1570 | -- | 288000 | 66 | 82 |
| 20... | 0515 | 9.5 | 1580 | -- | 180000 | 72 | 89 |
| 20... | 0530 | 9.5 | 1560 | -- | 174000 | 72 | 86 |
| 20... | 0700 | 8.0 | 1470 | -- | 126000 | 72 | 88 |
| 20... | 0702 | 8.0 | 1470 | -- | 124000 | 72 | 88 |
| 20... | 0733 | 8.0 | 1460 | -- | 107000 | 74 | 89 |
| 20... | 0734 | 8.0 | 1460 | -- | 93400 | 82 | 93 |
| 20... | 0800 | 8.0 | 1470 | -- | 98400 | 77 | 91 |
| 20... | 0802 | 8.0 | 1470 | -- | 97900 | 77 | 91 |
| 20... | 0820 | 8.0 | 1450 | -- | 97900 | 73 | 88 |
| 20... | 0822 | 8.0 | 1450 | -- | 95700 | 75 | 89 |
| 20... | 1430 | -- | 1360 | -- | 59800 | 70 | -- |
| 20... | 1505 | -- | 1370 | -- | 58200 | 70 | -- |
| 20... | 1718 | -- | 1310 | 5 | 46800 | 74 | -- |
| 20... | 1720 | -- | 1310 | -- | 46600 | 74 | 91 |

Table 2.--March 19-20, 1982 lahar-runout flow size analyses--Continued

14241100 NORTH FORK TOUTLE RIVER AT KID VALLEY, WA
PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN |
|-------|---|---|---|---|---|---|
| | .250 MM | .500 MM | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM |
| | 16.0 MM | | | | | |
| MAR | | | | | | |
| 20... | 56 | 76 | 90 | 97 | 98 | 100 |
| 20... | 56 | 71 | 91 | 98 | 99 | 100 |
| 20... | 57 | 77 | 92 | 98 | 100 | -- |
| 20... | 60 | 78 | 93 | 98 | 99 | 100 |
| 20... | 64 | 84 | 96 | 99 | 99 | 100 |
| 20... | 70 | 88 | 97 | 99 | 99 | 100 |
| 20... | 78 | 94 | 99 | 100 | -- | -- |
| 20... | 75 | 93 | 99 | 100 | -- | -- |
| 20... | 74 | 91 | 98 | 100 | -- | -- |
| 20... | 85 | 98 | 99 | 100 | -- | -- |
| 20... | 86 | 98 | 99 | 100 | -- | -- |
| 20... | 89 | 98 | 99 | 100 | -- | -- |
| 20... | 88 | 98 | 99 | 100 | -- | -- |
| 20... | 94 | 99 | 100 | -- | -- | -- |
| 20... | 92 | 99 | 100 | -- | -- | -- |
| 20... | 95 | 99 | 100 | -- | -- | -- |
| 20... | 94 | 100 | -- | -- | -- | -- |
| 20... | 98 | 100 | -- | -- | -- | -- |
| 20... | 86 | 100 | -- | -- | -- | -- |
| 20... | 94 | 99 | 100 | -- | -- | -- |
| 20... | 92 | 99 | 100 | -- | -- | -- |
| 20... | 93 | 99 | 100 | -- | -- | -- |
| 20... | 92 | 98 | 100 | -- | -- | -- |
| 20... | 95 | 99 | 100 | -- | -- | -- |
| 20... | 99 | 100 | -- | -- | -- | -- |
| 20... | 97 | 100 | -- | -- | -- | -- |
| 20... | 98 | 100 | -- | -- | -- | -- |
| 20... | 97 | 100 | -- | -- | -- | -- |
| 20... | 98 | 100 | -- | -- | -- | -- |
| 20... | 99 | 100 | -- | -- | -- | -- |
| 20... | 98 | 100 | -- | -- | -- | -- |
| 20... | 99 | 100 | -- | -- | -- | -- |
| 20... | 98 | 100 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- |
| 20... | 98 | 100 | -- | -- | -- | -- |

Table 2.--March 19-20, 1982 lahár-runout flow size analyses--Continued

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | NUMBER OF SAM- PLING POINTS | SEDIM- ENT, TOTAL (MG/L) | SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM | SED. TOTAL, SIEVE DIAM. % FINER THAN .125 MM |
|-------|------|-----------------------------|---|---|-----------------------------------|--|--|
| MAR | | | | | | | |
| 20... | 0001 | -- | 11000 | -- | 60000 | 64 | 83 |
| 20... | 0004 | 6.5 | 14000 | -- | 98300 | 70 | 90 |
| 20... | 0014 | 7.0 | 23000 | -- | 158000 | 74 | 90 |
| 20... | 0044 | 9.5 | 16700 | -- | 1040000 | 27 | 38 |
| 20... | 0048 | -- | 16000 | -- | 1160000 | 23 | 31 |
| 20... | 0051 | -- | 15500 | -- | 966000 | 29 | 41 |
| 20... | 0111 | -- | 12400 | -- | 1140000 | 24 | 34 |
| 20... | 0123 | -- | 10700 | -- | 1030000 | 24 | 34 |
| 20... | 0145 | -- | 8500 | -- | 1040000 | 29 | 37 |
| 20... | 0151 | -- | 8000 | -- | 974000 | 30 | 38 |
| 20... | 0211 | -- | 6400 | -- | 962000 | 32 | 44 |
| 20... | 0215 | -- | 6100 | -- | 935000 | 32 | 44 |
| 20... | 0233 | -- | 5300 | -- | 751000 | 44 | 56 |
| 20... | 0238 | 10.5 | 5100 | -- | 737000 | 43 | 57 |
| 20... | 0348 | -- | 3600 | -- | 606000 | 46 | 58 |
| 20... | 0353 | -- | 3600 | -- | 621000 | 46 | 58 |
| 20... | 0625 | 9.0 | 2900 | 5 | 281000 | 66 | 84 |
| 20... | 0626 | 9.0 | 2900 | 5 | 292000 | 61 | 80 |
| 20... | 0817 | 8.5 | 2600 | -- | 158000 | 72 | 89 |
| 20... | 0819 | 8.5 | 2600 | -- | 158000 | 72 | 88 |
| 20... | 1110 | 9.0 | 2170 | -- | 80900 | 75 | -- |
| 20... | 1115 | 9.0 | 2170 | -- | 80200 | 74 | -- |
| 20... | 1130 | 9.0 | 2300 | -- | 93100 | -- | -- |
| 20... | 1205 | -- | 2300 | -- | 72600 | 72 | -- |
| 20... | 1210 | -- | 2300 | -- | 73200 | 72 | -- |
| 20... | 1220 | -- | 2300 | 5 | 69500 | 74 | 89 |
| 20... | 1230 | -- | 2330 | -- | 72200 | 67 | -- |
| 20... | 1235 | -- | 2330 | -- | 72500 | 75 | -- |
| 20... | 1405 | -- | 2300 | -- | 56500 | 72 | -- |
| 20... | 1410 | -- | 2300 | -- | 58500 | 71 | -- |
| 20... | 1420 | -- | 2310 | 5 | 56900 | 71 | 88 |
| 20... | 1625 | 9.0 | 2490 | -- | 47200 | 76 | -- |
| 20... | 1630 | 9.0 | 2490 | -- | 47900 | 76 | -- |
| 20... | 1705 | 9.0 | 2480 | 5 | 48700 | 71 | 86 |
| 20... | 1715 | 9.0 | 2480 | -- | 46800 | 74 | -- |
| 20... | 1720 | 9.0 | 2490 | -- | 45800 | 75 | -- |

Table 2.--March 19-20, 1982 lahar-runout flow size analyses--Continued

14242580 TOUTLE RIVER AT TOWER ROAD NEAR SILVER LAKE, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

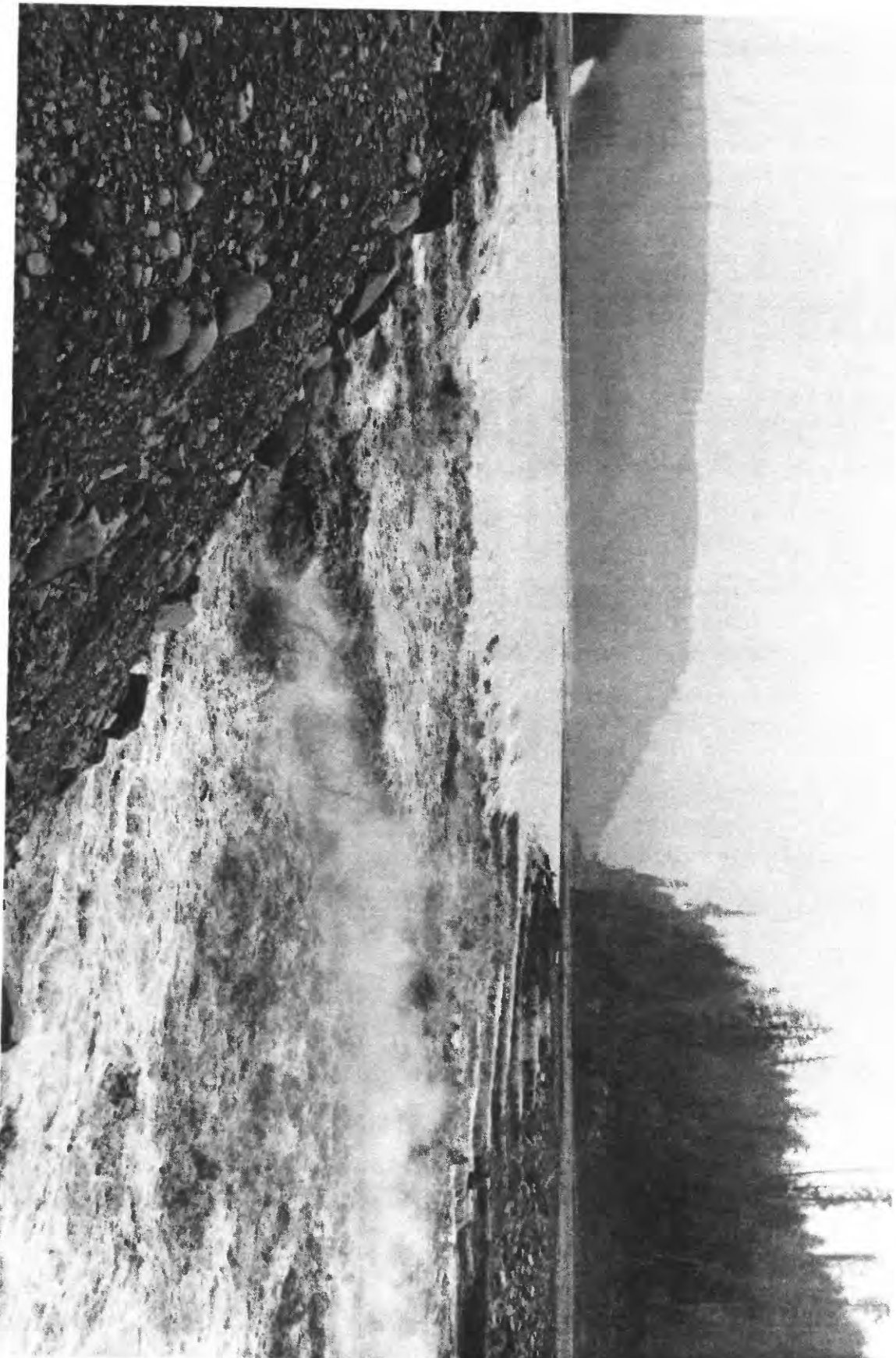
| DATE | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN | SED. TOTAL, SIEVE DIAM. % FINER THAN |
|-------|---|---|---|---|---|---|---|
| | .250 MM | .500 MM | 1.00 MM | 2.00 MM | 4.00 MM | 8.00 MM | 16.0 MM |
| MAR | | | | | | | |
| 20... | 95 | 99 | 100 | -- | -- | -- | -- |
| 20... | 98 | 100 | -- | -- | -- | -- | -- |
| 20... | 98 | 99 | 100 | -- | -- | -- | -- |
| 20... | 53 | 78 | 93 | 99 | 100 | 100 | -- |
| 20... | 47 | 67 | 85 | 96 | 99 | 97 | 100 |
| 20... | 58 | 77 | 87 | 89 | 92 | 98 | 100 |
| 20... | 50 | 72 | 89 | 96 | 97 | 83 | 95 |
| 20... | 48 | 66 | 74 | 75 | 77 | 98 | 100 |
| 20... | 58 | 78 | 92 | 95 | 96 | 96 | 99 |
| 20... | 55 | 76 | 88 | 92 | 93 | 100 | -- |
| 20... | 62 | 82 | 94 | 98 | 99 | 99 | 100 |
| 20... | 63 | 95 | 98 | 99 | 100 | 100 | -- |
| 20... | 78 | 94 | 97 | 98 | 99 | 100 | -- |
| 20... | 76 | 95 | 98 | 99 | 99 | 100 | -- |
| 20... | 77 | 94 | 99 | 100 | -- | -- | -- |
| 20... | 81 | 96 | 100 | 100 | -- | -- | -- |
| 20... | 96 | 99 | 100 | -- | -- | -- | -- |
| 20... | 95 | 99 | 100 | -- | -- | -- | -- |
| 20... | 97 | 100 | -- | -- | -- | -- | -- |
| 20... | 96 | 99 | 100 | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | 98 | 100 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | 98 | 100 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | 97 | 100 | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- |

Table 2.--March 19-20, 1982 Laboratory flow size analyses--Continued

14242690 TOUTLE RIVER AT HIGHWAY 99 BRIDGE NEAR CASTLE ROCK, WA

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SEDIM- ENT, TOTAL (MG/L) | SED. | | SED. | | SED. | | SED. | | SED. | | SED. | |
|-------|------|-----------------------------|---|-----------------------------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|
| | | | | | TOTAL, SIEVE DIAM. | % FINER THAN | TOTAL, SIEVE DIAM. | % FINER THAN | TOTAL, SIEVE DIAM. | % FINER THAN | TOTAL, SIEVE DIAM. | % FINER THAN | TOTAL, SIEVE DIAM. | % FINER THAN | TOTAL, SIEVE DIAM. | % FINER THAN |
| | | | | | .062 MM | | .125 MM | | .250 MM | | .500 MM | | 1.00 MM | | 2.00 MM | |
| MAR | | | | | | | | | | | | | | | | |
| 20... | 0135 | -- | 11300 | 882000 | 30 | 41 | 60 | 82 | 96 | 99 | 100 | | | | | |
| 20... | 0150 | 9.0 | 10000 | 834000 | 39 | 54 | 73 | 90 | 98 | 99 | 100 | | | | | |
| 20... | 0158 | 11.0 | 9500 | 968000 | 31 | 42 | 60 | 83 | 96 | 99 | 100 | | | | | |
| 20... | 0220 | 15.0 | 8200 | 977000 | 32 | 45 | 63 | 84 | 96 | 99 | 100 | | | | | |
| 20... | 0225 | -- | 8000 | 929000 | 35 | 48 | 66 | 87 | 97 | 99 | 100 | | | | | |
| 20... | 0230 | -- | 7700 | 960000 | 32 | 44 | 63 | 85 | 96 | 99 | 100 | | | | | |
| 20... | 0235 | -- | 7500 | 914000 | 34 | 46 | 67 | 89 | 97 | 99 | 100 | | | | | |
| 20... | 0245 | -- | 7100 | 918000 | 33 | 45 | 65 | 88 | 98 | 99 | 100 | | | | | |
| 20... | 0315 | -- | 6000 | 864000 | 34 | 45 | 64 | 88 | 97 | 99 | 100 | | | | | |
| 20... | 0330 | -- | 5500 | 790000 | 37 | 50 | 70 | 92 | 98 | 99 | 100 | | | | | |
| 20... | 0357 | -- | 4800 | 692000 | 42 | 56 | 75 | 94 | 99 | 100 | | | | | | |
| 20... | 0405 | 11.0 | 4600 | 724000 | 38 | 52 | 75 | 94 | 99 | 100 | | | | | | |
| 20... | 0440 | -- | 3900 | 544000 | 54 | 71 | 90 | 98 | 99 | 100 | | | | | | |
| 20... | 0445 | -- | 3800 | 596000 | 44 | 59 | 83 | 97 | 99 | 100 | | | | | | |
| 20... | 0520 | 11.0 | 3300 | 460000 | 58 | 78 | 94 | 99 | 100 | | | | | | | |
| 20... | 0600 | 10.0 | 2800 | 373000 | 65 | 81 | 97 | 100 | | | | | | | | |
| 20... | 0640 | -- | 2450 | 308000 | 72 | 90 | 98 | 100 | | | | | | | | |
| 20... | 0720 | -- | 2050 | 267000 | 73 | 89 | 98 | 100 | | | | | | | | |
| 20... | 0800 | -- | 2050 | 235000 | 75 | 92 | 98 | 100 | | | | | | | | |
| 20... | 0930 | -- | 2550 | 150000 | 79 | 94 | 98 | 100 | | | | | | | | |
| 20... | 0945 | 8.5 | 2500 | 155000 | 73 | -- | -- | -- | | | | | | | | |
| 20... | 0950 | 8.5 | 2500 | 150000 | 74 | -- | -- | -- | | | | | | | | |
| 20... | 1120 | 10.0 | 2300 | 118000 | 70 | -- | -- | -- | | | | | | | | |
| 20... | 1230 | 9.5 | 2400 | 91400 | 72 | -- | -- | -- | | | | | | | | |
| 20... | 1430 | -- | 2450 | 75900 | 69 | 88 | 96 | 98 | 100 | | | | | | | |
| 20... | 1435 | -- | 2450 | 78200 | 72 | 89 | 97 | 99 | 100 | | | | | | | |
| 20... | 1648 | -- | 2330 | 66600 | 67 | 87 | 96 | 99 | 100 | | | | | | | |
| 20... | 1655 | -- | 2330 | 75900 | 61 | 79 | 91 | 97 | 99 | | | | | | | |
| 20... | 1700 | -- | 2330 | 68300 | 65 | 84 | 95 | 99 | 100 | | | | | | | |
| 20... | 1955 | -- | 2350 | 57600 | 66 | -- | -- | -- | | | | | | | | |



Storm water splashes through the spillway of the South Fork Toutle River debris-retention structure. Discharge about 7500 cubic feet per second.

Photo date: February 20, 1982

Analyses of samples from miscellaneous stations

| DATE | TIME | TEMPER- ATURE (DEG C) | INSTAN- TANEOUS (CFS) | SED1- MENT, (MG/L) | SED1- MENT, (T/DAY) | SED. SUSP. MM | SED. SUSP. MM | SED. SUSP. MM | SED. SUSP. MM | SED. SUSP. MM | SED. SUSP. MM | SED. SUSP. MM | SED. SUSP. MM |
|------|------|-----------------------------|-----------------------------|--------------------------|---------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | | | | | | | | | | | | |

14216100 - MUDDY RIVER ABOVE SMITH CREEK NEAR COUGAR, WA (LAT 46 00 02 LONG 122 03 12)

| | | | | | | | | | | | | | |
|-----------|------|-----|----|-------|------|----|----|----|----|----|----|----|----|
| OCT, 1980 | | | | | | | | | | | | | |
| 29... | 0900 | 4.5 | 21 | 364 | 20 | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | | |
| 06... | 1115 | -- | -- | 32100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 1300 | 7.0 | 45 | 15400 | 1870 | 5 | 6 | 10 | 16 | 23 | 35 | -- | -- |
| 10... | 1610 | 5.0 | -- | 9390 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

14216200 - SMITH CREEK AT MOUTH NEAR COUGAR, WA (LAT 46 00 02 LONG 122 03 10)

| | | | | | | | | | | | | | |
|-----------|------|------|-----|--------|-------|----|----|----|----|----|----|----|----|
| OCT, 1980 | | | | | | | | | | | | | |
| 28... | 1430 | 15.5 | -- | 4780 | -- | 14 | 18 | 24 | 34 | 46 | 60 | -- | -- |
| 29... | 1620 | 13.0 | -- | 4650 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 1620 | 12.5 | -- | 4440 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | | |
| 07... | 1205 | 10.0 | -- | 82600 | -- | 6 | 10 | 17 | 29 | 39 | 56 | -- | -- |
| 08... | 1225 | 10.5 | 339 | 28200 | 25800 | 2 | 4 | 6 | 10 | 15 | 23 | -- | -- |
| 09... | 1410 | -- | -- | 19800 | -- | 3 | 4 | 7 | 12 | 17 | 29 | -- | -- |
| 10... | 1615 | 10.0 | -- | 16100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 1040 | 9.0 | -- | 110000 | -- | 12 | 16 | 22 | 31 | 42 | 62 | -- | -- |

461053122030700 - MUDDY RIVER BELOW SMITH CREEK NEAR COUGAR, WA (LAT 46 10 53 LONG 122 03 07)

| | | | | | | | | | | | | | |
|-----------|------|------|----|--------|----|----|----|----|----|----|----|----|----|
| OCT, 1980 | | | | | | | | | | | | | |
| 28... | 1440 | 10.5 | -- | 2810 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29... | 1625 | 5.0 | -- | 260 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 1620 | 6.5 | -- | 315 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | | |
| 07... | 1140 | 9.5 | -- | 467000 | -- | 3 | 6 | 10 | 16 | 23 | 43 | -- | -- |
| 07... | 1141 | 9.5 | -- | 525000 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 1410 | -- | -- | 15000 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 1500 | -- | -- | 8190 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 21... | 1025 | 7.0 | -- | 91400 | -- | 4 | 7 | 13 | 21 | 32 | 54 | -- | -- |

Analyses of samples from miscellaneous stations--Continued

| DATE | .062 MM | .125 MM | .250 MM | .500 MM | 1.00 MM | 2.00 MM | 2.00 MM |
|------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE |
| | % FINER | % FINER | % FINER | % FINER | % FINER | % FINER | % FINER |
| | THAN | THAN | THAN | THAN | THAN | THAN | THAN |
| | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE | SED. SUSP. SIEVE |
| | DIAM. | DIAM. | DIAM. | DIAM. | DIAM. | DIAM. | DIAM. |
| | % FINER | % FINER | % FINER | % FINER | % FINER | % FINER | % FINER |
| | THAN | THAN | THAN | THAN | THAN | THAN | THAN |

14216100 - MUDDY RIVER ABOVE SMITH CREEK NEAR COUGAR, WA (LAT 46 00 02 LONG 122 03 12)

| | | | | | | | |
|-----------|----|----|----|----|-----|----|----|
| OCT, 1980 | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- |
| NOV | -- | -- | -- | -- | -- | -- | -- |
| 06... | -- | -- | -- | -- | -- | -- | -- |
| 08... | 57 | 83 | -- | 97 | 100 | -- | -- |
| 10... | 24 | -- | -- | -- | -- | -- | -- |

14216200 - SMITH CREEK AT MOUTH NEAR COUGAR, WA (LAT 46 00 02 LONG 122 03 10)

| | | | | | | | |
|-----------|----|----|----|----|----|-----|-----|
| OCT, 1980 | -- | 84 | -- | 95 | -- | -- | 100 |
| 29... | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| NOV | -- | 73 | -- | 86 | -- | -- | -- |
| 07... | -- | 36 | -- | 63 | -- | 99 | 100 |
| 08... | -- | 42 | -- | 63 | -- | 98 | 100 |
| 09... | -- | -- | -- | -- | -- | 94 | 96 |
| 10... | 23 | -- | -- | -- | -- | -- | -- |
| 21... | -- | 81 | -- | 96 | -- | 100 | -- |

451053122030700 - MUDDY RIVER BELOW SMITH CREEK NEAR COUGAR, WA (LAT 46 10 53 LONG 122 03 07)

| | | | | | | | |
|-----------|----|----|----|----|----|-----|----|
| OCT, 1980 | -- | -- | -- | -- | -- | -- | -- |
| 28... | -- | -- | -- | -- | -- | -- | -- |
| 29... | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | -- | -- | -- | -- | -- | -- |
| NOV | -- | 67 | -- | 90 | -- | 96 | 97 |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 07... | -- | -- | -- | -- | -- | -- | -- |
| 09... | 28 | -- | -- | -- | -- | -- | -- |
| 15... | 20 | -- | -- | -- | -- | -- | -- |
| 21... | -- | 76 | -- | 95 | -- | 100 | -- |

Analyses of samples from miscellaneous stations--Continued

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SEDIM- MENT, SUS- PENDED (MG/L) | SEDIM- 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 |
|--|------|-----------------------------|---|---|---|--|--|--|--|--|--|
| 14216500 - MUDDY RIVER BELOW CLEAR CREEK NEAR COUGAR, WA (LAT 46 06 50 LONG 122 00 24) | | | | | | | | | | | |
| JUL, 1983 | | | | | | | | | | | |
| 21.... | 1410 | 14.0 | 498 | 38 | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 11.... | 1445 | 11.0 | 330 | 224 | -- | -- | -- | -- | -- | -- | -- |
| 23.... | 1145 | 11.5 | 244 | 40 | -- | -- | -- | -- | -- | -- | -- |
| 30.... | 1200 | 7.5 | 355 | 3110 | -- | 27 | 30 | 43 | 58 | 79 | 92 |
| 30.... | 1505 | 13.0 | 228 | 1590 | -- | 19 | 23 | 27 | 51 | 76 | 90 |
| SEP | | | | | | | | | | | |
| 01.... | 1455 | 13.0 | 326 | 857 | -- | -- | -- | -- | -- | -- | -- |
| 13.... | 1450 | 14.5 | 261 | 219 | -- | -- | -- | -- | -- | -- | -- |
| 20.... | 1435 | 10.5 | 245 | 205 | -- | -- | -- | -- | -- | -- | -- |
| 14232500 - CISPUS RIVER NEAR RANDLE, WA (LAT 46 26 30 LONG 121 51 46) | | | | | | | | | | | |
| OCT, 1980 | | | | | | | | | | | |
| 02.... | 1600 | 15.0 | 350 | 14 | 13 | -- | -- | -- | -- | -- | -- |
| 15.... | 1435 | 8.5 | 307 | 10 | 8.3 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 06.... | 1105 | 8.0 | 531 | 655 | 939 | -- | -- | -- | -- | -- | -- |
| 24.... | 1330 | 15.0 | 1720 | 638 | 2960 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 15.... | 1420 | 5.0 | 2070 | 544 | 3040 | -- | -- | -- | -- | -- | -- |
| JAN, 1981 | | | | | | | | | | | |
| 23.... | 1255 | -- | 1100 | 8 | 24 | -- | -- | -- | -- | -- | -- |

Analyses of samples from miscellaneous stations--Continued

| DATE | SED. SUSP. 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 .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. FALL DIAM. % FINER THAN 2.00 MM |
|------|--|--|--|--|--|--|--|--|--|
|------|--|--|--|--|--|--|--|--|--|

14216500 - MUDDY RIVER BELOW CLEAR CREEK NEAR COUGAR, WA (LAT 46 06 50 LONG 122 00 24)

| | | | | | | | | | |
|-----------|----|----|----|-----|----|----|-----|----|-----|
| JUL, 1983 | | | | | | | | | |
| 21... | 43 | -- | 51 | -- | 64 | -- | 91 | -- | 100 |
| AUG | | | | | | | | | |
| 11... | 39 | -- | 47 | -- | 51 | -- | 53 | -- | 59 |
| 23... | 74 | -- | 78 | -- | 87 | -- | 96 | -- | 100 |
| 30... | -- | 98 | -- | 100 | -- | -- | -- | -- | -- |
| 30... | -- | 96 | -- | 100 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | |
| 01... | 86 | -- | 93 | -- | 98 | -- | 100 | -- | -- |
| 13... | 52 | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 43 | -- | 58 | -- | 79 | -- | 92 | -- | 96 |

14232500 - CISPUS RIVER NEAR RANDLE, WA (LAT 46 26 30 LONG 121 51 46)

| | | | | | | | | | |
|-----------|----|----|----|----|----|----|----|----|----|
| OCT, 1980 | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN, 1981 | | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Analyses of samples from miscellaneous stations--Continued

| DATE | TIME | TEMPER- ATURE (DEG C) | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SEDIMENT, MENT, DIS- CHARGE, PENDE (MG/L) | SEDIMENT, MENT, DIS- CHARGE, PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN | SED. SUSP. FALL DIAM. % FINER THAN |
|---|------|-----------------------------|---|--|---|---|---|---|---|---|---|
| 461714122305000 - SOUTH FORK TOUTLE RIVER AT BRIDGE ABOVE CORPS DAM RESERVOIR (LAT 46 17 14 LONG 122 30 50) | | | | | | | | | | | |
| OCT, 1980 | 1030 | -- | 148 | 1980 | 751 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 25... | 1340 | -- | 400 | 9920 | 9630 | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 26... | 1330 | -- | 2800 | 43500 | 329000 | -- | -- | -- | -- | -- | -- |
| SEP, 1981 | | | | | | | | | | | |
| 15... | 1315 | 19.5 | 78 | 5670 | 1190 | 3 | 5 | 9 | 15 | 27 | 46 |
| OCT | | | | | | | | | | | |
| 13... | 1330 | -- | 374 | 1410 | 1420 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 02... | 1220 | 8.0 | 450 | 1280 | 1560 | -- | -- | -- | -- | -- | -- |
| 461749122305200 - SOUTH FORK TOUTLE RIVER AT CORPS DAM SPILLWAY (LAT 46 17 49 LONG 122 30 52) | | | | | | | | | | | |
| NOV, 1980 | | | | | | | | | | | |
| 02... | 1315 | -- | -- | 2640 | -- | -- | -- | -- | -- | -- | -- |
| 04... | 1325 | -- | 438 | 3220 | 3810 | -- | -- | -- | -- | -- | -- |
| 08... | 1235 | -- | 2200 | 20200 | 120000 | -- | -- | -- | -- | -- | -- |
| 461836122143800 - COLDWATER CREEK NEAR SPIRIT LAKE, WA (LAT 46 18 36 LONG 122 14 38) | | | | | | | | | | | |
| OCT, 1980 | | | | | | | | | | | |
| 30... | 1315 | 12.0 | 9.6 | 862 | 22 | -- | -- | -- | -- | -- | -- |
| 461704122143900 - SOUTH COLDWATER CREEK NEAR SPIRIT LAKE, WA (LAT 46 17 04 LONG 122 14 39) | | | | | | | | | | | |
| OCT, 1980 | | | | | | | | | | | |
| 30... | 1245 | 10.0 | 6.0 | 1900 | 31 | -- | -- | -- | -- | -- | -- |

Analyses of samples from miscellaneous stations--Continued

| DATE | 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 .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 | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|------|--|--|--|--|--|--|--|--|--|--|
|------|--|--|--|--|--|--|--|--|--|--|

461714122305000 - SOUTH FORK TOUTLE RIVER AT BRIDGE ABOVE CORPS DAM RESERVOIR (LAT 46 17 14 LONG 122 30 50)

| | | | | | | | | | |
|-----------|----|----|----|----|----|----|----|-----|----|
| OCT, 1980 | | | | | | | | | |
| 25... | 38 | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | |
| 04... | 41 | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP, 1981 | | | | | | | | | |
| 15... | 53 | 72 | -- | 94 | -- | 99 | -- | 100 | -- |
| OCT | | | | | | | | | |
| 13... | 22 | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | |
| 02... | 14 | -- | 23 | -- | 50 | -- | 84 | -- | 93 |

461749122305200 - SOUTH FORK TOUTLE RIVER AT CORPS DAM SPILLWAY (LAT 46 17 49 LONG 122 30 52)

| | | | | | | | | | |
|-----------|----|----|----|----|----|----|----|----|----|
| NOV, 1980 | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04... | 98 | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

461836122143900 - COLDWATER CREEK NEAR SPIRIT LAKE, WA (LAT 46 18 36 LONG 122 14 38)

| | | | | | | | | | |
|-----------|----|----|----|----|----|----|----|----|----|
| OCT, 1980 | | | | | | | | | |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

461704122143900 - SOUTH COLDWATER CREEK NEAR SPIRIT LAKE, WA (LAT 46 17 04 LONG 122 14 39)

| | | | | | | | | | |
|-----------|----|----|----|----|----|----|----|----|----|
| OCT, 1980 | | | | | | | | | |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

—

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