MEASURED TOTAL SEDIMENT LOADS

(SUSPENDED LOADS AND BEDLOADS)

FOR 93 UNITED STATES STREAMS

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By Garnett P. Williams and David L. Rosgen

ABSTRACT

The report presents field data of suspended-sediment loads and approximately concurrently measured bedloads for 93 United States streams. Also included are the associated hydraulic variables and (where available) the particle-size analyses of the bed material and sediment loads. The data, many of which have not been published heretofore, were measured by various individuals and organizations. Suspended loads were measured with standard methods. Bedloads, except for one site, were measured with the Helley-Smith sampler, generally at a minimum of ten sampling points over the stream cross section. In spite of the well-known sampling problems, the data probably are the best available at the present (1986) stage of sampling capability. They are the first comprehensive collection of field-measured total sediment loads (bedloads plus suspended loads) in a variety of streams.

INTRODUCTION

The total sediment load of streams usually is considered to be the sum of two components, called for convenience the suspended load and bedload. Suspended loads have been measured routinely for many years, but bedload measurements have been scarce. In recent years, however, the U.S. Geological Survey, U.S. Forest Service and others have made a considerable number of approximately-concurrent bedload and suspended load measurements on various streams. Such data are valuable in that they represent the first extensive measurements of total sediment loads for a variety of streams. This report presents these data, along with associated hydraulic variables.

MEASUREMENT TECHNIQUES

Suspended Load

Suspended loads were determined with a common depth-integrating discharge-weighted sampler, generally the D-49, D-74, DH-48, P-61, or P-63 (Guy and Norman, 1970). These devices sample the water-sediment mixture from the water surface to within about 8 or 9 cm of the streambed. For the data reported here, such sampling was done at 3-20 "verticals" across the channel. The verticals in most cases were equally spaced across the stream, using a method known as equal transit rate or equal width increment.

The separate samples for a channel cross section were composited in the analysis to yield a mean suspended-sediment concentration that is representative of the entire cross section. Results usually are published in milligrams per liter. Suspended load, in mass per unit time, is calculated as water discharge times sediment concentration times a units-conversion constant.

Bedload

Sediment moving within about 8 cm of the streambed, herein called bedload, was sampled with a pressure-difference sampler called the Helley-Smith (H-S) bedload sampler (Helley and Smith, 1971). Several sizes are available; the most commonly used one has a square orifice measuring 7.6 × 7.6 cm. One site reported here--Oak Creek near Corvallis, Oreg.--is an exception; this site used a slot or pit sampler whereby a flume placed diagonally across the streambed (with tops of flume sidewalls at streambed elevation) generated a vortex-type flow to route bedload to an off-channel trap.

Bedloads using the H-S sampler were obtained by sampling at a minimum of 10 equidistant lateral stations across the streambed. More than one traverse across the channel was made in many cases, especially if the channel was less than 1 or 2 meters wide.

The H-S sampler usually was placed on the streambed for periods of 30 to 60 seconds. For 52 Colorado sites, the total sampling time for an entire cross section totaled 10-20 min, and at least 20 samples were taken over each cross section.

All individual samples at a cross section were combined for an average stream-wide bedload rate. Inasmuch as both suspended load and bedload represent composited values for the entire stream width, they do not necessarily reflect the rates or proportions at any selected vertical. Hydraulic variables presented in this report also apply to the entire cross section rather than to any particular vertical.

Hydraulic Variables

Water discharges (Q) were determined either by standard current-meter streamflow-gaging techniques or from a rating curve (plot of gage height versus discharge).

Mean flow velocities (V), water-surface widths (W), and mean flow depths (D) (= A/W, where A = cross-sectional flow area) were determined by one of three methods: (1) standard streamflow-gaging measurement; (2) a rating curve-hydraulic geometry technique, whereby discharge for a given gage height is read from a rating curve and V, W, and D are estimated from previously prepared log plots relating these variables to instantaneous discharge; or (3) a rating curve-area method in which discharge is read from a rating curve, A (and hence W and D) are determined from the verticals of the bedload sampling, and V = Q/A. In some instances a value for width was measured during the bedload sampling, but A, D, and V were not determined.

The product VWD in this report may or may not equal the water discharge listed for bedload and (or) suspended load. Three situations where VWD does equal the listed discharge are: (1) Water discharge measured by current meter, and discharge remained (or was assumed to remain) essentially unchanged while the sediment loads were measured; (2) water discharge taken from rating curve, A, W and D given by the cross section as obtained during the bedload measurement, and V = Q/A; and (3) water discharge taken from rating curve and, for this discharge, V, W and D estimated from least-squares-fitted hydraulic geometry relations. (All values of V, W, and D given by hydraulic geometry relations are estimates rather than measurements.)

The product VWD may not equal the listed water discharges at some stations where rating curves were available. When measured by current meter, water discharge (and hence V, W and D) generally were the first features measured on a given day. By the time sediment loads were measured, the discharge may have changed. The investigator in such instances read a discharge from the rating curve for the time at which the particular sediment load was measured.

Water-surface slopes, when measured, generally were determined by reading water-surface elevations along the reach, either (a) by a direct level-and-stadia rod survey or (b) from a series of precalibrated staff gages.

Normally, only one set of sediment and hydraulic measurements was made on a given day. The observations cover periods ranging from one runoff season (a few months) to several years.

Particle Sizes

Suspended loads generally were analyzed by visual-accumulation tube for particles >0.062 mm and by pipette for particles <0.062 mm. Bedload usually was analyzed by dry sieving; the exceptions are nine Colorado sites (stations 35, 39-44, 51-52), where bedload sediments were wet-sieved in the field and the data then adjusted by an empirically determined factor to equate approximately to dry weight.

Surficial bed material that did not include particles larger than about 128 mm in diameter was sampled in a variety of ways from one stream to another. The size distribution of such sediment generally was determined by dry-sieving and therefore is expressed in percent by weight. Where the streambed material included particles coarser than about 128 mm, as in nearly all Colorado streams of this report, bed sediment (including even the sand-sized particles, if present) was analyzed by the pebble-count method. The size distribution then is expressed in percent by number.

ERRORS IN SEDIMENT-TRANSPORT MEASUREMENT

Sampling efficiency is the ratio of quantity of sediment trapped in the sampler to the quantity of sediment the stream actually would transport at the same time and place had the sampler not been there. Due mainly to the extreme difficulty of calibrating them, suspended-load samplers generally are assumed to have an efficiency of 1.0, that is, perfect efficiency.

Inaccuracy in the measured suspended-sediment load can arise from sampler inefficiency, improper sampling in the vertical, and errors in measuring water discharge. Probably a more serious problem arises in determining the average transport rate for the entire cross section from a group of verticals. This problem is due to hydraulic causes and to natural fluctuations in sediment concentrations, both spatially and temporally. These fluctuations can vary by several orders of magnitude.

How efficiently the H-S device samples the true rate of "bedload" transport at a station has not been decisively established. Some tests (Emmett, 1980) indicate an efficiency of about 1.0 to 1.1. Other tests (Hubbell and others, 1981; Hubbell and Stevens, 1986; Pitlick, 1988) suggest that the efficiency can vary considerably, depending on transport rate, size of bed particles, and dimensions and wall thickness of sampler orifice. At some sites included in this report, particles larger than the H-S orifice may have been in transport. For lack of sufficient evidence to the contrary, however, we made no adjustments to any of the reported bedload values.

For given streamflow conditions, wide variations in measured bedload transport rate can occur at a sampling spot because of sampling duration, rate of bedform travel, and natural cyclic variations in sediment transport (Hubbell and others, 1981). Variations also occur across the stream, due to irregular lateral distribution of bedload and to number and location of sampling sites. (Indeed, at some places along a traverse, no bedload at all may be moving. For this reason, caution is needed in applying stream-width mean hydraulic variables to stream-wide mean transport rates.) Sampling problems due to cross-channel variability can be reduced or nearly eliminated as the investigator systematically samples at many (for example, 10-20) sites across the stream (Emmett, 1984). Even so, it is probably not possible to specify precisely the extent to which a "measured" stream-wide bedload transport rate might vary from the true mean transport rate for the cross section.

On a larger scale, both bedload and suspended-load transport rate can be a nonunique function of water discharge, as with hysteresis loops. For a given discharge, sediment loads can vary with time, namely from rising to falling stages during floods, early to late stage of annual runoff season, and year to year (Nordin, 1980). The relations with time also can be affected by the location of the measuring section relative to a pool or riffle (Meade and others, 1981; Emmett and others, 1982).

SITE CRITERIA

Arbitrarily, we accepted for inclusion in this report only those stream sites at which at least 10 pairs of concurrent measurements of bedload and suspended load had been made. (The bedload measurement can take an hour or longer; the associated suspended load usually was measured just before or just after the bedload measurement. For practical purposes, such measurements herein are considered concurrent or simultaneous.)

Some data were measured on unstable streams, that is, streams on which the bed and possibly banks were (or may have been) aggrading or degrading. Examples are the two Mt. St. Helens streams (Toutle River at Tower Road near Silver Lake, Wash., and North Fork Toutle River near Kid Valley, Wash.) and possibly one or more of those in the Redwood Creek basin of California.

EXPLANATION OF TABLES

Table 1 lists the hydraulic- and sediment-transport data. Hydraulic data include the instantaneous water discharge associated with the bedload (called water discharge--bedload), the instantaneous water discharge associated with the suspended load (called water discharge--suspended load), mean flow velocity, water-surface width, mean flow depth, water-surface slope, and water temperature. Sediment-transport data include suspended sediment concentration, suspended load, number of sampling points for bedload, and bedload. Where more than about 20 sampling points are indicated for bedload, the investigator made two or more trips across the channel. In some instances the number of bedload-sampling points was known only approximately, such as 16-25 or $\geq$ 20.

Water discharge in some cases remained essentially constant during the measurement of bedload and suspended load. (Such a constant discharge was assumed for table 1 unless information to the contrary was available.) In other instances, water discharge changed slightly during the measuring period, in which case the water discharge (bedload) and water discharge (suspended load) for a given date in table 1 have different values.

Tables 2, 3, and 4 give particle-size analyses of suspended loads, bedloads, and bed material, respectively. For many of the sediment loads of table 1, size analyses of the trapped material were not made. This is especially true of suspended loads because of the typically small amounts of sediment in the sample. If no particle-size data are available for a date listed in table 1 under a particular station, no entry is made (that is, the date is not listed) in tables 2, 3, or 4.

Whenever possible, bed-material size analyses are given for samples taken on the same day as the sediment transport measurements. For stations lacking such concurrent data, a bed-material size analysis is given for any available date.

Some of the data in the four tables have been published in Andrews (1977), Burrows and others (1981), Burrows and Harrold (1983), Elliott and others (1984), Emmett and Seitz (1973), Emmett and others (1980), Harrold and Burrows (1983), Jones and Seitz (1980), Knott and Lipscomb (1983; 1985), Knott and others (1986), Milhous (1973), and Williams and Krupin (1984). Much of the data also are available on WATSTORE and STORET, which are U.S. Government computer data bases.

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Table 1.--*Hydraulic and sediment-transport data*

[m^3/s, cubic meters per second; m/s, meters per second; m, meters; m/m, meters per meter; °C, degrees Celsius; mg/L, milligrams per liter; kg/s, kilograms per second; --, no data available]

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				1. Susitna River near Talkeetna, Alaska[3]							
06-03-82	1,010	1,010	2.2	191	2.4	--	6.0	769	777	16-25	29.8
06-15-82	685	685	2.3	189	1.6	--	8.0	181	124	16-25	8.73
06-22-82	1,050	1,050	2.4	197	2.0	0.0015	10.0	438	460	16-25	10.4
06-30-82	855	855	2.3	190	2.0	.0018	11.5	438	374	16-25	4.64
07-08-82	589	586	2.0	182	1.6	.0013	14.5	145	85.0	16-25	3.40
07-14-82	872	872	2.3	190	2.0	.0014	12.0	768	670	16-25	9.51
07-21-82	705	705	2.1	184	1.8	.0015	13.5	383	270	16-25	3.78
07-28-82	872	872	2.1	188	2.2	.0016	--	461	402	16-25	6.30
08-04-82	646	643	2.1	184	1.7	.0014	13.0	341	219	16-25	2.26
08-10-82	572	566	2.1	182	1.5	.0013	10.0	289	164	16-25	2.96
08-18-82	504	501	2.0	170	1.5	.0014	10.5	285	143	16-25	1.11
08-25-82	479	476	2.0	170	1.4	.0013	12.0	219	104	16-25	1.16
08-31-82	549	547	2.2	178	1.4	.0013	9.0	251	137	16-25	1.97
09-19-82	818	813	2.4	188	1.8	.0014	6.5	442	359	16-25	3.91
05-19-83	612	612	1.8	188	1.8	.0013	4.5	386	236	16-25	4.52
05-25-83	547	547	1.8	183	1.7	.0012	6.5	164	89.7	16-25	3.13
06-01-83	1,110	1,080	2.4	202	2.3	.0016	9.0	663	716	16-25	2.36
06-08-83	685	685	2.0	190	1.8	.0013	10.5	287	197	16-25	6.64
06-23-83	765	784	2.2	187	1.8	.0014	14.0	346	271	16-25	8.82
07-07-83	776	776	2.1	183	2.0	.0015	--	958	743	16-25	8.15
07-21-83	544	535	1.9	182	1.6	.0013	13.0	297	159	16-25	3.17
08-02-83	680	674	2.1	183	1.8	.0014	14.0	521	351	16-25	7.01
08-11-83	932	923	2.7	186	1.9	.0015	11.0	603	557	16-25	8.97
08-31-83	759	759	2.0	194	2.0	.0014	9.0	297	225	16-25	4.19
09-14-83	320	320	1.5	172	1.2	.0014	6.0	41	13.1	16-25	.735
10-06-83	303	300	1.5	166	1.2	.0014	.5	23	6.90	16-25	.284
06-13-84	700	733	2.2	187	1.7	.0014	10.5	279	205	16-25	4.11
07-09-84	632	634	2.0	184	1.7	.0014	12.5	323	205	16-25	2.50
07-30-84	875	875	2.2	191	2.1	--	--	458	401	16-25	5.92
08-16-84	430	430	1.7	170	1.5	.0012	12.0	220	94.6	16-25	2.54
08-26-84	1,160	1,160	2.6	194	2.3	.0014	7.5	732	849	16-25	9.39
09-13-84	265	266	1.2	168	1.2	.0011	7.5	27	7.18	16-25	.147
09-25-84	240	238	1.3	165	1.1	.0012	6.0	14	3.33	16-25	.305
05-29-85	1,310	1,300	2.7	201	2.4	--	4.0	703	914	16-25	6.20
06-26-85	867	875	2.4	189	1.9	--	9.0	251	220	16-25	3.65
07-26-85	595	595	1.8	185	1.8	--	12.5	310	184	16-25	2.23
08-13-85	833	850	2.3	190	1.9	--	9.5	474	403	16-25	5.88
09-06-85	405	402	1.8	171	1.3	--	7.5	69	27.7	16-25	.704
09-19-85	535	535	1.9	181	1.6	--	3.5	110	58.9	16-25	2.23

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				2. Talkeetna River near Talkeetna, Alaska[3]							
06-09-82	396	402	2.0	107	1.8	0.00096	6.0	302	121	16-25	60.8
06-16-82	323	323	1.8	107	1.7	--	--	171	55.2	16-25	17.1
06-23-82	351	351	1.9	105	1.7	--	7.0	171	60.0	16-25	14.8
06-29-82	309	303	1.7	106	1.7	--	9.5	309	93.6	16-25	6.51
07-07-82	194	191	1.4	101	1.3	--	13.0	90	17.2	16-25	11.3
07-13-82	255	251	1.7	104	1.5	--	10.0	226	56.7	16-25	2.55
07-20-82	242	238	1.6	105	1.5	--	13.0	226	53.8	16-25	5.42
07-28-82	405	402	2.0	106	1.9	--	9.0	696	280	16-25	9.29
08-03-82	259	254	1.7	105	1.5	--	11.0	206	52.3	16-25	8.42
08-10-82	200	198	1.5	103	1.3	--	9.0	203	40.2	16-25	25.9
08-17-82	177	176	1.5	103	1.2	--	9.0	212	37.3	16-25	25.0
08-24-82	169	168	1.5	102	1.1	--	--	179	30.1	16-25	18.9
08-31-82	261	258	1.8	107	1.4	--	8.5	276	71.2	16-25	15.3
09-20-82	413	419	2.0	106	2.0	.00049	6.0	301	126	16-25	28.8
05-23-83	192	190	1.3	105	1.4	--	6.5	126	23.9	16-25	2.87
05-26-83	164	164	1.2	102	1.3	--	5.5	90	14.8	16-25	1.97
06-03-83	385	408	1.9	106	1.9	--	5.5	724	295	16-25	17.9
06-09-83	212	212	1.5	104	1.3	--	8.0	114	24.2	16-25	7.73
06-22-83	280	283	2.0	102	1.4	--	11.0	287	81.2	16-25	5.61
07-08-83	323	323	1.9	105	1.6	--	9.0	806	260	16-25	6.03
07-18-83	212	211	1.5	103	1.3	--	10.0	372	78.5	16-25	17.9
08-03-83	259	267	1.7	104	1.4	--	10.5	1,060	283	16-25	10.9
08-11-83	281	279	1.7	104	1.6	--	10.0	253	70.6	16-25	7.90
09-01-83	172	171	1.4	102	1.2	--	7.0	120	20.5	16-25	2.52
09-12-83	95.7	95.7	1.1	98.5	.85	--	8.0	49	4.69	16-25	.767
09-27-83	64.6	64.6	.91	97.5	.73	--	.5	28	1.81	16-25	.336
05-31-84	116	118	1.2	98.8	1.0	--	--	46	5.43	16-25	3.75
06-13-84	340	340	1.9	102	1.7	--	7.5	1,310	445	16-25	8.10
06-28-84	239	237	--	--	--	--	--	290	68.7	16-25	7.48
07-26-84	374	374	2.0	105	1.8	--	--	764	286	16-25	8.00
07-28-84	317	317	1.8	105	1.7	--	9.0	396	126	16-25	7.22
08-16-84	186	188	1.5	102	1.2	--	11.0	438	82.3	16-25	12.7
08-26-84	663	643	2.6	108	2.4	--	6.5	916	589	16-25	28.2
09-26-84	82.1	82.1	.98	97.5	.85	--	--	15	1.23	16-25	.504
05-28-85	484	484	2.1	107	2.1	--	3.0	607	294	16-25	13.5
05-30-85	357	357	--	--	--	--	--	409	146	16-25	16.5
06-26-85	267	264	1.7	104	1.5	--	6.0	146	38.5	16-25	4.03
07-25-85	273	276	1.7	102	1.6	--	--	418	115	16-25	12.8
08-15-85	447	450	2.1	104	2.0	--	8.5	680	306	16-25	19.4
08-29-85	194	193	1.5	100	1.3	--	8.5	192	37.1	16-25	8.42
09-05-85	167	166	1.4	99.7	1.2	--	8.0	181	30.0	16-25	8.78
09-16-85	391	394	2.1	107	1.8	--	6.0	503	198	16-25	12.0

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
					3. Chulitna River below Canyon near Talkeetna, Alaska[4]						
06-04-82	354	326	1.7	105	2.0	0.00080	6.0	424	138	16-25	120
06-09-82	487	479	1.9	106	2.4	--	6.5	760	364	16-25	192
06-16-82	413	411	1.8	105	2.2	.00068	4.5	428	176	16-25	120
06-22-82	549	552	2.1	109	2.5	.0012	7.5	880	486	16-25	107
06-29-82	818	821	2.4	119	2.9	.0014	7.0	1,600	1,310	16-25	137
07-07-82	583	586	2.1	109	2.5	.0012	9.0	1,000	586	16-25	101
07-13-82	646	643	2.1	114	2.6	.0011	6.5	1,270	817	16-25	95.7
07-20-82	654	654	2.1	112	2.7	.0012	9.0	1,140	746	16-25	145
07-27-82	946	903	2.5	123	3.1	.0014	6.0	1,110	1,000	16-25	72.5
08-03-82	666	660	2.3	115	2.5	.0014	8.0	803	530	16-25	78.6
08-11-82	615	603	2.2	110	2.5	.0010	6.0	766	462	16-25	102
08-17-82	623	620	2.2	110	2.6	.0012	5.0	1,180	732	16-25	127
08-24-82	507	515	1.9	109	2.4	.0010	5.5	830	427	16-25	79.4
09-01-82	484	490	1.9	108	2.3	.00092	6.0	506	248	16-25	78.5
09-08-82	838	827	2.5	119	2.8	.0012	5.0	1,680	1,390	16-25	26.9
05-19-83	346	348	1.8	98.5	1.9	.00068	5.5	347	121	16-25	35.3
05-25-83	323	329	1.6	102	2.0	.00068	--	235	77.3	16-25	74.0
05-31-83	524	524	2.1	108	2.3	.0010	7.0	1,080	566	16-25	49.8
06-02-83	504	498	2.0	103	2.4	.0012	7.5	773	385	16-25	86.5
06-09-83	388	388	1.8	108	2.0	.0010	6.5	443	172	16-25	50.5
06-22-83	666	666	2.2	113	2.7	.0015	10.0	1,500	1,600	16-25	71.8
07-06-83	821	830	2.3	118	3.1	.0015	16.5	2,040	1,690	16-25	124
07-20-83	566	566	2.0	109	2.6	.0010	6.0	1,240	702	16-25	68.3
08-02-83	629	634	2.2	113	2.5	.0013	6.5	1,770	1,120	16-25	73.3
08-09-83	1,350	1,350	2.7	136	3.6	.0026	6.0	4,690	6,330	16-25	83.8
08-31-83	770	765	2.3	118	2.8	.0012	6.5	1,500	1,150	16-25	122
09-13-83	279	279	1.5	101	1.8	.00064	5.5	614	171	16-25	60.7
10-05-83	260	260	1.5	101	1.8	.00044	1.5	200	52.0	16-25	35.5
05-18-84	261	261	1.5	100	1.7	.00074	4.0	580	151	16-25	29.9
06-11-84	456	456	2.0	105	2.2	.0010	8.5	571	260	16-25	69.2
06-14-84	549	544	2.2	108	2.3	.0011	6.5	895	487	16-25	54.3
07-11-84	572	572	2.1	109	2.5	.00098	8.0	1,010	578	16-25	40.5
07-31-84	660	649	2.2	113	2.7	.0012	6.0	921	598	16-25	54.5
08-17-84	564	575	2.0	108	2.6	.0012	6.0	931	535	16-25	59.2
08-28-84	507	513	2.0	106	2.4	.00083	4.0	556	285	16-25	43.1
09-14-84	317	314	1.6	103	1.9	.00057	4.0	388	122	16-25	21.9
09-27-84	212	212	1.2	101	1.7	.00039	4.0	133	28.2	16-25	22.3
05-31-85	518	510	2.1	104	2.3	--	2.0	594	303	16-25	63.1
06-27-85	632	643	2.3	105	2.6	--	6.5	1,240	797	16-25	73.4
07-24-85	668	697	2.3	105	2.8	--	6.5	985	687	16-25	37.7
08-16-85	1,104	1,102	2.7	120	3.4	--	7.0	1,920	2,120	16-25	49.0
09-05-85	405	391	1.7	103	2.3	--	4.5	410	160	16-25	41.0
09-17-85	515	515	2.0	104	2.5	--	3.0	544	280	16-25	63.2

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
4. Yentna River near Susitna Station, Alaska[3]											
05-14-84	705	691	1.0	393	1.7	--	--	227	157	16-25	119
06-12-84	1,240	1,260	1.2	390	2.6	--	--	363	457	16-25	105
07-17-84	1,300	1,220	1.3	393	2.6	--	--	684	834	16-25	71.4
09-19-84	578	581	.94	387	1.6	--	--	257	149	16-25	86.3
05-23-85	660	654	.82	389	2.1	--	5.0	494	323	16-25	60.1
06-20-85	1,210	1,210	1.2	390	2.6	--	8.5	322	390	16-25	64.4
07-17-85	1,540	1,520	1.4	393	2.9	--	10.5	784	1,190	16-25	84.7
08-14-85	1,500	1,490	1.4	393	2.7	--	9.0	657	979	16-25	140
08-19-85	1,120	1,130	1.2	392	2.3	--	8.0	669	756	16-25	45.8
09-18-85	640	643	1.0	392	1.7	--	4.0	355	228	16-25	78.6
5. Susitna River (Right Channel) below Chulitna River near Talkeetna, Alaska[5]											
06-12-84	668	668	2.2	219	1.4	--	10.5	707	472	16	73.3
07-10-84	827	827	2.3	230	1.6	--	6.5	1,070	885	16	22.6
07-30-84	1,010	1,010	2.5	235	1.7	--	6.5	975	985	16	57.4
08-27-84	821	821	2.2	390	.94	--	5.0	831	682	16	128
09-12-84	473	473	1.9	206	1.2	--	6.5	209	98.9	16	6.85
09-26-84	357	357	1.7	183	1.1	--	6.0	159	56.8	16	24.5
05-30-85	963	963	2.6	335	1.1	--	2.5	912	878	16	58.1
06-25-85	892	892	2.8	247	1.3	--	7.5	591	527	16	37.9
07-25-85	954	954	2.2	287	1.5	--	10.5	1,120	1.070	16	28.8
08-15-85	1,100	1,100	2.2	506	1.0	--	7.5	3,400	3,740	16	25.6
09-04-85	736	736	2.1	250	1.4	--	8.0	365	269	16	7.14
09-18-85	765	765	2.1	250	1.5	--	3.5	388	297	16	24.4
6. Susitna River (Left Channel) below Chulitna River near Talkeetna, Alaska[5]											
06-12-84	459	459	1.8	189	1.4	--	11.5	215	98.7	16	3.78
07-10-84	425	453	1.8	177	1.3	--	12.0	314	142	16	3.35
07-29-84	558	558	1.6	226	1.5	--	12.0	509	284	16	8.30
09-12-84	172	172	1.2	152	1.0	--	8.0	36	6.19	16	.263
09-26-84	76.5	76.5	1.2	89.0	.73	--	7.0	21	1.61	16	.189
05-30-85	680	680	1.6	469	.88	--	3.5	554	377	16	3.05
06-25-85	408	408	1.6	241	1.1	--	9.0	193	78.7	16	7.78
07-25-85	385	385	1.6	226	1.0	--	12.0	390	150	16	6.01
08-15-85	708	708	1.6	518	.82	--	10.0	508	360	16	10.8
09-04-85	278	278	1.7	165	1.0	--	10.0	126	35.0	16	1.42
09-18-85	283	283	1.4	238	.85	--	4.0	222	62.8	16	3.90
7. Susitna River at Sunshine, Alaska[3]											
06-03-82	2,010	2,090	2.1	311	3.1	--	--	847	1,770	16	63.8
06-10-82	1,830	1,830	1.9	311	3.1	0.0015	7.5	414	758	16	143
06-17-82	1,440	1,440	1.8	295	2.7	.0014	7.0	360	518	16	19.6
06-21-82	2,230	2,220	2.0	308	3.7	.0018	7.0	683	1,520	16	26.4
06-28-82	2,140	2,140	2.1	305	3.4	--	11.0	702	1,500	16	67.1
07-06-82	1,320	1,320	1.8	274	2.7	.0014	10.0	503	664	16	63.2
07-12-82	1,680	1,690	2.0	286	2.9	.0015	--	800	1,350	16	39.9
07-19-82	1,740	1,720	1.9	305	3.0	.0022	9.5	548	943	16	41.6

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				7. Susitna River at Sunshine, Alaska--Continued							
07-26-82	2,800	2,740	2.1	308	4.4	0.0024	9.5	1,430	3,920	16	91.9
08-02-82	1,800	1,770	1.9	305	3.1	.0022	11.0	704	1,250	16	36.5
08-09-82	1,520	1,530	1.8	290	2.9	.0019	10.5	813	1,240	16	54.8
08-16-82	1,360	1,350	1.8	262	2.9	.0016	10.5	726	980	16	28.8
08-23-82	1,090	1,090	2.0	209	2.6	.0017	10.0	527	574	16	11.0
08-30-82	1,110	1,130	2.0	206	2.7	.0015	9.0	424	479	16	15.5
09-17-82	2,480	2,450	2.0	305	4.1	.0022	6.5	1,300	3,190	16	85.3
05-18-83	1,230	1,230	2.2	194	2.8	--	5.5	396	487	16	23.0
05-24-83	1,110	1,110	2.0	197	2.8	.0023	6.5	225	250	16	27.1
06-01-83	2,120	2,130	2.3	290	3.2	.0023	7.5	871	1,860	16	49.1
06-08-83	1,330	1,330	2.3	205	2.9	.0019	11.0	431	573	16	46.6
06-23-83	1,940	1,920	2.3	275	3.1	.0021	14.0	850	1,630	16	98.5
07-05-83	1,880	1,890	2.1	275	3.2	.0020	14.0	1,060	2,000	16	58.9
07-19-83	1,440	1,440	2.3	206	3.0	.0020	10.0	753	1,080	16	20.6
08-01-83	1,680	1,680	2.2	275	2.8	.0018	13.0	950	1,600	16	30.5
08-03-83	1,630	1,630	2.1	275	2.8	--	10.5	1,030	1,680	16	20.4
08-08-83	2,090	2,160	2.3	291	3.2	.0021	10.0	2,840	6,130	16	27.3
08-29-83	1,350	1,350	2.2	204	3.0	.0018	8.5	401	541	16	25.2
09-12-83	714	714	1.7	181	2.3	.0012	7.5	167	119	16	51.1
10-04-83	799	793	1.8	186	2.4	.0014	2.0	171	136	16	13.9
05-16-84	697	697	1.7	181	2.3	--	5.0	440	307	16	14.3
06-14-84	1,930	1,930	2.3	287	3.0	--	--	990	1,910	16	30.7
07-13-84	1,480	1,480	2.0	288	2.5	--	10.5	638	944	16	17.0
07-28-84	2,210	2,200	2.3	291	3.3	--	9.0	960	2,110	16	34.9
08-14-84	1,300	1,300	1.9	260	2.7	--	9.5	748	972	16	37.7
09-11-84	660	660	1.6	177	2.3	--	7.0	168	111	16	12.5
09-21-84	838	838	1.9	181	2.5	--	--	284	238	16	27.2
09-28-84	504	504	1.4	174	2.1	--	5.0	88	44.4	16	12.5
05-31-85	1,910	1,890	2.0	288	3.2	--	3.5	560	1,060	16	27.2
06-25-85	1,580	1,580	2.0	288	2.8	--	--	333	526	16	25.0
07-23-85	2,070	2,050	--	--	--	--	11.0	912	1,870	16	6.13
08-12-85	1,790	1,920	2.6	291	3.1	--	8.5	1,680	3,230	16	13.2
09-03-85	1,330	1,310	2.0	286	2.4	--	--	381	499	16	9.65
09-16-85	2,170	2,140	2.2	290	3.4	--	6.5	710	1,520	16	15.0
				8. Tanana River at Upper End of Goose Island, Alaska[3]							
09-05-80	666	666	1.9	140	2.5	--	--	597	398	18	2.97
09-17-80	643	643	1.8	154	2.3	--	--	1,130	727	18	1.65
10-08-80	581	581	1.9	129	2.4	--	--	374	217	18	2.16
03-06-81	156	156	--	--	--	--	--	47	7.33	18	3.91
03-24-81	161	161	--	--	--	--	--	51	8.21	18	.270
06-19-81	842	842	2.5	179	1.9	--	--	1,250	1,050	18	35.5
07-16-81	1,480	1,480	--	--	--	--	--	2,540	3,760	18	40.8
07-28-81	1,840	1,840	2.0	311	3.0	--	--	3,120	5,740	18	38.1
08-14-81	1,650	1,650	1.9	311	2.7	--	--	2,940	4,850	18	31.9
10-07-81	354	354	1.1	152	2.1	--	--	166	58.8	18	1.38
06-29-82	1,310	1,310	--	--	--	--	--	2,600	3,410	18	13.4
07-21-82	1,760	1,760	--	--	--	--	--	2,620	4,610	18	16.7

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				9. Tanana River at Fairbanks, Alaska[5]							
06-07-77	750	750	1.6	264	1.8	0.00047	--	952	714	18	10.2
06-29-77	1,320	1,320	1.3	360	2.8	.00050	--	1,860	2,460	18	89.4
07-06-77	1,170	1,170	1.7	326	2.2	.00050	--	1,510	1,770	18	21.4
07-12-77	1,080	1,080	1.7	323	2.0	.00049	--	1,490	1,610	18	30.1
07-20-77	1,270	1,270	1.6	360	2.3	.00050	--	2,210	2,810	18	16.3
08-03-77	1,680	1,680	1.8	396	2.3	.00052	--	4,340	7,290	18	63.2
08-11-77	1,460	1,460	1.7	372	2.3	.00041	--	3,270	4,770	18	46.2
08-18-77	1,450	1,450	1.7	378	2.2	.00051	--	2,620	3,800	18	26.2
08-31-77	1,410	1,410	1.8	305	2.5	.00051	--	2,020	2,850	18	19.2
10-03-77	592	592	1.6	134	2.8	.00046	--	563	333	18	9.07
05-18-78	566	566	1.5	145	2.5	.00046	--	769	435	18	4.21
05-30-78	521	521	1.6	116	2.8	.00045	--	476	248	18	4.04
06-20-78	804	804	1.6	207	2.4	.00048	--	975	784	18	17.3
07-10-78	983	983	1.5	317	2.0	.00049	--	1,790	1,760	18	8.68
07-17-78	1,650	1,650	1.6	463	2.2	.00052	--	3,700	6,110	18	74.5
07-31-78	1,460	1,460	1.7	402	2.1	.00051	--	2,700	3,940	18	28.6
08-08-78	1,540	1,540	1.6	399	2.4	.00051	--	2,870	4,420	18	30.0
08-14-78	1,640	1,640	1.7	415	2.4	.00052	--	2,680	4,400	18	62.6
08-25-78	1,220	1,220	1.6	366	2.1	.00050	--	1,250	1,530	18	26.6
09-07-78	966	966	1.7	277	2.1	.00049	--	1,020	985	18	21.6
10-04-78	411	411	1.4	154	1.9	.00044	--	389	160	18	4.81
05-23-79	484	484	1.3	201	1.9	.00045	--	197	95.3	18	7.80
06-18-79	1,000	1,000	1.5	375	1.8	.00049	--	863	863	18	33.5
07-10-79	1,490	1,490	1.7	408	2.1	.00051	--	2,100	3,130	18	35.0
07-24-79	1,950	1,950	1.7	454	2.5	.00053	--	3,180	6,200	18	38.8
08-01-79	2,020	2,020	1.6	469	2.6	.00051	--	3,090	6,240	18	40.9
08-08-79	1,880	1,880	1.6	466	2.5	.00053	--	2,130	4,000	18	49.3
08-29-79	1,460	1,460	1.7	436	2.0	.00053	--	1,650	2,410	18	33.1
09-06-79	912	912	1.6	326	1.8	.00048	--	788	719	18	16.7
09-12-79	895	895	1.6	290	1.9	.00048	--	634	567	18	17.5
10-02-79	487	487	1.6	143	2.1	.00045	--	578	281	18	16.3
06-18-80	1,010	1,010	1.6	296	2.2	--	--	2,530	2,560	18	30.2
06-25-80	711	711	1.3	282	2.0	--	--	790	562	18	16.5
07-15-80	1,400	1,400	1.7	320	2.5	--	--	2,520	3,530	18	17.7
07-30-80	1,640	1,640	1.8	313	2.9	--	--	3,500	5,740	18	53.1
08-11-80	1,340	1,340	--	--	--	--	--	2,620	3,510	18	39.3
09-03-80	714	714	--	--	--	--	--	679	485	18	5.73
09-16-80	532	532	--	--	--	--	--	452	240	18	4.12
10-07-80	586	586	1.5	169	2.3	--	--	470	275	18	15.5
10-23-80	345	345	1.6	107	2.0	--	--	352	121	18	3.50
05-22-81	558	558	1.6	177	2.0	--	--	589	329	18	20.8
06-18-81	864	864	1.8	284	1.7	--	--	1,140	985	18	48.5
06-30-81	1,070	1,070	1.8	284	2.1	--	--	1,260	1,350	18	16.4
07-13-81	1,760	1,760	1.9	406	2.3	--	--	5,700	10,030	18	54.3
07-29-81	1,720	1,720	1.8	378	2.5	--	--	2,940	5,060	18	81.7

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				9. Tanana River at Fairbanks, Alaska--Continued							
08-13-81	1,530	1,530	1.7	357	2.6	--	--	3,250	4,970	18	24.3
09-03-81	920	920	1.5	294	2.0	--	--	1,060	975	18	14.0
10-06-81	368	368	1.0	247	1.4	--	--	164	60.4	18	.608
06-04-82	1,310	1,310	--	--	--	--	--	1,940	2,540	18	7.10
06-28-82	1,160	1.160	1.6	302	2.4	--	--	1,940	2,250	18	38.8
07-20-82	1,880	1,880	1.8	374	2.8	--	--	2,660	5,000	18	32.0
08-09-82	1,290	1,290	1.6	306	2.7	--	--	1,700	2,190	18	5.35
09-08-82	634	634	1.2	299	1.8	--	--	644	408	18	7.97
09-28-82	688	688	1.2	301	1.9	--	--	812	559	18	10.4
				10. Snake River near Anatone, Wash.[6]							
05-10-72	2,200	2,200	2.5	181	4.8	0.00094	11.0	28	61.6	≥20	1.07
05-19-72	2,920	2,920	2.9	189	5.3	.00109	10.0	119	347	≥20	2.72
06-02-72	3,770	3,770	3.3	197	5.8	.00124	13.0	338	1,270	≥20	4.65
06-14-72	2,600	2,600	2.7	184	5.1	.00103	13.5	149	387	≥20	1.53
05-01-73	878	878	1.6	158	3.5	.00059	--	18	15.8	≥20	.062
05-17-73	1,520	1,440	2.1	171	4.2	.00078	15.0	58	83.5	≥20	3.09
06-18-73	1,020	1,020	1.7	162	3.7	.00064	17.0	13	13.3	≥20	.949
04-11-74	2,450	2,380	2.6	186	5.0	.00101	8.0	28	66.6	≥20	28.5
04-24-74	2,510	2,450	2.7	187	5.1	.00102	10.0	80	196	≥20	17.7
05-07-74	3,060	2,950	2.9	192	5.4	.00112	11.0	106	313	≥20	17.9
05-16-74	2,450	2,370	2.6	186	5.0	.00101	10.5	28	66.4	≥20	11.0
06-11-74	3,140	2,600	3.0	194	5.5	.00114	11.5	88	229	≥20	6.82
04-15-75	1,600	1,600	2.1	175	4.3	.00082	8.5	31	49.6	≥20	3.83
05-01-75	2,140	2,150	2.5	183	4.8	.00094	10.0	44	94.6	≥20	9.40
05-14-75	2,660	2,660	2.7	189	5.2	.00105	11.5	123	327	≥20	9.49
05-20-75	3,000	3,000	2.9	192	5.4	.00112	11.0	91	273	≥20	15.0
06-11-75	2,750	2,750	2.8	189	5.2	.00107	13.0	245	674	≥20	3.29
06-26-75	2,950	2,950	2.9	192	5.3	.00110	12.0	118	348	≥20	5.19
04-07-76	1,750	1,750	2.2	177	4.5	.00084	8.0	152	266	≥20	4.00
04-13-76	2,810	2,790	2.8	191	5.2	.00108	8.0	141	393	≥20	18.3
04-15-76	2,690	2,690	2.8	189	5.2	.00105	9.0	64	172	>20	58.7
04-19-76	2,320	2,320	2.6	184	4.9	.00098	9.0	30	69.6	≥20	51.9
04-21-76	2,380	2,380	2.6	186	5.0	.00099	9.0	34	80.9	≥20	14.5
05-05-76	2,630	2,600	2.7	189	5.4	.00104	11.0	64	166	≥20	9.85
05-13-76	3,260	3,260	3.0	195	5.5	.00116	12.0	20	65.2	≥20	9.69
05-25-76	2,890	2,890	2.8	191	5.3	.00109	13.0	95	275	≥20	7.78
05-27-76	2,890	2,890	2.8	191	5.3	.00109	13.0	94	272	≥20	9.15
06-08-76	2,740	2,740	2.8	189	5.2	.00107	15.0	77	211	≥20	6.73
06-10-76	2,700	2,680	2.8	189	5.2	.00106	--	77	206	≥20	10.8
04-04-78	1,850	1,780	2.3	178	5.3	.00087	8.5	22	39.2	≥20	26.3
04-05-78	1,630	1,640	2.1	177	4.3	.00082	8.5	20	32.8	≥20	16.5
04-29-78	2,270	2,270	2.5	184	4.9	.00098	12.0	111	252	≥20	27.7
05-02-78	2,170	2,170	2.5	183	4.8	.00094	12.0	42	91.1	≥20	20.6
05-03-78	2,290	2,290	2.5	184	4.9	.00098	12.0	50	115	≥20	20.0
05-16-78	2,180	2,170	2.5	183	4.8	.00094	11.0	66	143	≥20	8.93

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				10. Snake River near Anatone, Wash.--Continued							
05-17-78	2,130	2,120	2.5	183	4.8	0.00094	11.0	125	265	≥20	16.1
06-07-78	2,320	2,290	2.6	186	4.9	.00098	16.0	89	204	≥20	3.26
06-13-78	2,070	2,040	2.4	183	4.7	.00092	13.5	82	167	≥20	4.20
06-20-78	1,810	1,900	2.3	177	4.5	.00086	16.5	29	55.1	≥20	5.78
05-02-79	1,510	1,400	2.1	172	4.2	.00078	13.0	52	72.8	≥20	1.91
05-15-79	1,220	1,180	1.9	169	3.9	.00072	14.0	20	23.6	≥20	.431
05-22-79	1,710	1,720	2.2	177	4.4	.00084	13.0	54	92.9	≥20	5.64
05-24-79	1,990	2,000	2.4	181	4.7	.00090	14.0	82	164	≥20	3.92
06-05-79	1,650	1,590	2.2	177	4.4	.00082	14.5	20	31.8	≥20	4.03
06-07-79	1,350	1,390	2.0	171	4.1	.00074	13.5	17	23.6	≥20	1.72
				11. Toutle River at Tower Road near Silver Lake, Wash.[7]							
01-17-85	37.9	38.2	1.6	20.0	1.2	--	5.0	3,000	115	18	17.6
01-31-85	29.2	29.2	1.2	22.5	1.0	--	3.0	2,080	60.7	17	11.9
02-21-85	47.1	46.7	1.7	28.5	.94	--	5.5	2,430	113	22	53.9
03-06-85	41.9	41.9	--	--	--	--	7.5	2,280	95.5	21	6.39
03-23-85	112	90.9	1.7	61	.77	0.0024	8.5	7,140	649	33	33.3
04-02-85	83.2	83.8	1.8	61	.76	.0024	10.5	3,050	256	32	67.9
04-11-85	94.1	92.6	1.9	63	.76	.0026	11.0	6,860	635	24	158
04-30-85	69.2	69.2	--	--	--	.0026	9.5	2,340	162	24	37.5
06-07-85	248	253	2.5	69	1.5	.0055	12.0	23,000	5,820	23	81.4
06-08-85	163	160	2.3	66	1.1	--	13.0	10,400	1,660	25	95.0
08-23-85	15.6	15.5	1.5	17.5	.58	--	27.0	2,410	37.4	28	3.36
10-25-85	167	162	--	--	--	--	12.0	9,230	1,500	44	46.0
11-06-85	152	158	2.2	67	1.1	.0032	8.5	5,720	904	22	232
11-08-85	148	151	2.3	67	1.0	.0035	7.0	6,290	950	22	158
12-09-85	83.4	85.0	1.9	63	.78	--	3.5	1,980	168	13	83.8
01-03-86	56.3	57.2	1.5	59	.64	.0021	4.5	1,240	70.9	12	6.57
01-19-86	226	235	2.4	67	1.6	--	7.5	9,780	2,300	20	18.9
01-29-86	56.7	64.6	1.6	57	.73	--	6.5	2,570	166	11	24.7
02-11-86	42.8	43.6	1.7	24.5	1.0	.0020	4.0	1,480	64.5	15	10.4
02-16-86	178	164	2.2	66	1.2	.0029	4.5	4,240	695	25	72.6
05-22-86	65.0	67.4	1.5	62	.72	.0020	14.0	2,640	178	13	[8]2.09
07-02-86	17.6	18.0	.89	41	.49	--	19.5	1,020	18.4	27	1.92
07-22-86	16.5	16.5	.95	41	.42	--	17.5	927	15.3	26	3.06
08-07-86	12.0	12.0	.79	40.5	.37	--	20.5	1,110	13.3	26	2.24
10-31-86	51.5	56.6	1.5	62	.62	.0021	12.0	5,410	306	12	[8]9.04
11-14-86	34.8	34.6	1.4	53	.46	.0013	9.5	2,250	77.9	16	[8]2.67
11-21-86	191	189	2.3	66	1.2	.0027	9.5	7,540	1,430	13	[8]141
11-22-86	247	260	2.7	67	1.5	.0028	9.5	6,810	1,770	12	[8]169
01-14-87	90.3	94.7	1.7	63	.86	--	6.5	2,195	208	11	[8]45.1
01-28-87	135	125	1.9	64	1.1	.0019	7.5	4,300	538	12	[8]121.8
02-01-87	592	592	3.1	70	2.3	--	8.0	23,900	14,100	9	[8]188

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				12. No. Fork Toutle River near Kid Valley, Wash.[7]							
06-07-85	185	171	2.8	56	1.1	0.0038	--	29,100	4,980	18	110
06-08-85	110	113	2.4	56	.90	.0037	--	15,200	1,720	20	163
12-18-85	23.3	23.4	1.6	24.5	.59	.0049	--	2,440	57.1	19	39.5
01-19-86	123	124	2.6	56	.85	.0041	6.5	15,000	1,860	28	185
02-13-86	26.2	26.1	1.7	20.5	.74	--	2.0	2,980	77.8	11	[8]24.4
02-26-86	147	127	2.4	59	.85	.0037	8.5	12,500	1,590	11	[8]124
08-07-86	9.32	9.35	1.3	18.5	.39	.0047	--	280	2.62	10	[8]5.37
09-09-86	8.95	8.86	1.2	18.5	.41	.0047	--	432	3.83	11	.884
10-10-86	8.95	8.95	1.2	18.0	.42	--	--	384	3.44	11	1.82
02-02-87	153	132	2.4	59	.98	.0032	--	12,400	1,640	9	[8]338
				13. Oak Creek near Corvallis, Oreg.							
01-08-71	0.153	0.150	--	[9]3.7	[10]0.11	0.0083	--	2	0.000300	[11]0	0.00000197
01-10-71	.337	.340	--	3.7	.15	.0086	--	11	.00374	0	.00000500
01-10-71	.391	.425	--	3.7	.17	.0083	--	14	.00595	0	.0000228
01-11-71	.447	.408	--	3.7	.18	.0087	5.0	7	.00286	0	.0000389
01-11-71	.382	.354	--	3.7	.16	.0086	5.0	5	.00177	0	.0000156
01-12-71	.323	.289	--	3.7	.15	.0086	4.0	1	.000289	0	.00000500
01-13-71	.275	.261	--	3.7	.13	.0085	3.5	3	.000783	0	.00000256
01-14-71	.227	.193	--	3.7	.13	.0084	3.5	5	.000965	0	.00000119
01-16-71	2.61	2.69	--	3.7	.40	.0097	5.0	67	.180	0	.156
01-16-71	2.83	2.97	--	3.7	.42	.0098	5.0	110	.327	0	.107
01-18-71	1.90	1.93	--	3.7	.34	.0100	6.5	39	.0753	0	.0281
01-20-71	.906	.935	--	3.7	.24	.0098	6.0	13	.0122	0	.000669
01-21-71	.765	.765	--	3.7	.23	.0097	6.0	21	.0161	0	.0000917
01-23-71	.708	.736	--	3.7	.22	.0097	6.5	8	.00589	0	.0000694
01-25-71	1.70	1.76	--	3.7	.32	.0100	7.5	63	.111	0	.00583
01-25-71	1.53	1.33	--	3.7	.31	.0100	7.5	25	.0333	0	.00333
01-26-71	1.16	.906	--	3.7	.27	.0099	7.5	8	.00725	0	.00103
01-26-71	.821	.736	--	3.7	.23	.0098	7.5	7	.00515	0	.000164
01-27-71	.623	.538	--	3.7	.21	.0097	7.5	7	.00377	0	.0000361
01-28-71	.453	.411	--	3.7	.19	.0096	6.5	6	.00247	0	.0000133
02-04-71	.651	.609	--	3.7	.22	.0097	5.5	19	.0116	0	.0000944
02-05-71	.453	.354	--	3.7	.19	.0096	5.5	8	.00283	0	.0000122
02-09-71	.221	.295	--	3.7	.15	.0094	6.5	16	.00472	0	.00000128
02-14-71	.193	.204	--	3.7	.14	.0094	7.5	4	.000816	0	.00000258
02-15-71	.198	.235	--	3.7	.14	.0094	8.0	7	.00165	0	.00000556
02-18-71	.218	.221	--	3.7	.15	.0094	6.5	5	.00111	0	.000000444
02-22-71	.204	.198	--	3.7	.14	.0094	7.5	13	.00257	0	.000000722
02-25-71	.238	.303	--	3.7	.15	.0094	5.5	51	.0155	0	.00000161
02-26-71	.300	.283	--	3.7	.16	.0096	4.5	3	.000849	0	.00000500
02-27-71	.269	.255	--	3.7	.16	.0095	4.0	6	.00153	0	.00000333
03-01-71	.232	.190	--	3.7	.15	.0094	4.5	9	.00171	0	.00000333
03-03-71	.566	.722	--	3.7	.20	.0097	4.5	31	.0224	0	.000119
03-04-71	.600	.439	--	3.7	.21	.0097	4.5	4	.00176	0	.0000306
03-05-71	.419	.357	--	3.7	.18	.0096	5.0	7	.00250	0	.00000333
03-06-71	.362	.351	--	3.7	.17	.0096	5.0	7	.00246	0	.00000172

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				13. Oak Creek near Corvallis, Oreg.--Continued							
03-10-71	1.76	1.78	--	3.7	.36	0.0100	5.0	247	0.440	0	0.0119
03-10-71	2.04	2.10	--	3.7	.37	.0101	5.5	217	.456	0	.0250
03-10-71	2.21	2.12	--	3.7	.37	.0108	5.5	649	1.38	0	.406
03-10-71	1.53	1.59	--	3.7	.34	.0105	5.5	47	.0747	0	.0361
03-11-71	1.33	.963	--	3.7	.33	.0104	5.5	19	.0183	0	.0175
03-11-71	1.02	1.30	--	3.7	.31	.0102	5.5	24	.0312	0	.00528
03-11-71	1.44	1.64	--	3.7	.34	.0100	5.5	50	.0820	0	.0217
03-11-71	1.93	1.95	--	3.7	.36	.0100	5.5	200	.390	0	.109
				14. San Antonio River near Lockwood, Calif.[7]							
11-21-72	1.81	1.81	0.50	34.5	0.11	--	12.0	24	0.0434	47	0.714
01-17-73	28.0	28.9	1.0	55.0	.49	--	9.5	1,350	39.0	17	12.4
03-28-74	17.8	17.8	1.0	43.0	.40	--	14.0	791	14.1	27	6.77
12-10-74	1.05	1.05	.50	16.0	.13	--	16.0	19	.0200	37	.189
01-06-75	.793	.793	.45	14.5	.12	--	7.5	18	.0143	23	.210
02-06-75	8.84	8.84	.82	36.0	.30	--	13.5	151	1.33	23	6.24
03-06-75	4.64	4.64	.60	42.0	.18	--	14.0	118	.548	26	2.10
04-04-75	5.78	5.78	.73	38.0	.21	--	11.5	113	.653	25	2.83
05-07-75	2.44	2.44	.55	25.0	.18	--	24.0	26	.0634	19	1.38
06-05-75	.821	.821	.46	15.0	.12	--	28.0	8	.00657	23	.263
03-12-76	.538	.538	.43	15.0	.091	--	19.5	4	.00215	16	.263
04-09-76	.368	.368	.45	7.9	.11	--	19.0	4	.00147	12	.147
05-06-76	.0680	.0680	.35	2.9	.066	--	17.0	3	.000204	9	.0147
01-18-78	39.6	39.6	--	67.0	--	--	--	1,030	40.8	42	11.6
02-21-78	13.5	13.5	--	55.0	--	--	--	305	4.12	26	5.39
03-28-78	10.7	10.7	--	51.0	--	--	--	168	1.80	33	6.59
05-06-78	3.23	3.23	--	23.0	--	--	--	44	.142	15	1.46
06-16-78	1.56	1.56	--	11.5	--	--	--	42	.0655	13	.756
07-11-78	.425	.425	--	9.1	--	--	--	8	.00340	16	.179
12-04-78	.396	.396	--	14.0	--	--	--	9	.00356	12	.137
01-08-79	.538	.538	--	6.1	--	--	--	12	.00646	10	.294
02-06-79	2.97	2.97	--	32.5	--	--	--	28	.0832	25	2.65
04-05-79	5.30	5.30	--	27.5	--	--	--	65	.345	11	3.71
05-21-79	.906	.906	.53	11.5	.15	--	25.5	8	.00725	10	.903
02-27-80	19.0	20.1	.76	62	.42	--	--	377	7.58	20	6.42
04-17-80	3.91	3.91	.53	36.0	.20	--	23.5	40	.156	23	1.28
05-17-80	2.04	2.04	.51	28.0	.14	--	29.0	32	.0653	20	.882
06-07-80	1.05	1.05	.41	18.0	.14	--	30.0	14	.0147	20	.767
02-04-81	2.95	2.95	--	25.5	--	--	--	43	.127	23	.767
03-18-81	1.90	1.90	--	23.0	--	--	--	9	.0171	20	.609
04-07-81	2.75	2.69	--	28.0	--	--	--	8	.0215	20	1.20
11-16-81	2.46	2.52	.44	42.5	.14	--	14.5	71	.179	23	1.22
12-14-81	.680	.680	.45	12.0	.13	--	17.0	4	.00272	26	.294
02-10-82	2.46	2.46	.49	21.0	.24	--	--	32	.0787	22	1.03
02-14-83	23.1	24.3	.84	49.0	.61	--	--	342	8.31	19	31.1
03-01-83	156	157	1.7	69	1.5	--	13.0	2,530	397	10	139
04-22-83	10.0	10.0	.66	36.5	.35	--	15.0	109	1.09	23	6.25
12-06-83	4.73	4.73	.55	35.5	.23	--	8.5	31	.147	22	1.24
01-19-84	2.66	2.66	--	26.0	--	--	13.5	33	.0878	18	1.91

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
14. San Antonio River near Lockwood, Calif.--Continued											
04-13-84	0.793	0.793	0.40	17.5	0.11	--	18.5	10	0.00793	23	0.210
01-14-85	.878	.878	.42	20.5	.10	--	7.5	1	.000878	22	.336
02-07-85	.538	.538	.34	21.0	.076	--	8.5	3	.00161	23	.884
03-04-85	.878	.878	.41	21.0	.10	--	11.0	6	.00527	22	.462
04-04-85	2.18	2.18	.49	34.0	.12	--	15.5	11	.0240	22	1.14
04-29-85	.708	.708	.45	14.5	.11	--	24.5	5	.00354	25	.0599
15. Chamise Creek near Island Mtn, Calif.[7]											
11-07-72	1.56	1.56	0.47	8.2	0.40	--	11.0	29	0.0452	13	0.0147
02-28-73	3.57	3.57	1.1	12.5	.26	--	10.5	78	.278	19	.0536
04-05-73	1.19	1.19	.60	8.8	.23	--	11.0	12	.0143	--	.00
05-14-73	.187	.187	.28	5.1	.13	--	22.0	1	.000187	--	.00
11-14-73	8.33	8.21	1.1	19.5	.38	--	12.0	373	3.06	21	2.69
12-21-73	12.7	12.7	1.4	20.0	.46	--	9.5	751	9.54	21	5.77
03-05-74	3.74	3.77	.85	22.0	.20	--	10.0	161	.607	19	.441
04-11-74	1.76	1.76	.60	17.5	.16	--	10.5	44	.0774	10	.0179
11-07-75	.481	.481	.33	10.0	.14	--	13.5	16	.00770	--	.00
12-12-75	.595	.595	.36	11.5	.14	--	7.5	6	.00357	--	.00
03-03-76	3.77	3.77	.81	19.5	.24	--	9.0	156	.588	28	.0557
16. Redwood Creek near Blue Lake, Calif.[7]											
01-12-74	7.14	7.14	1.1	25.5	0.27	--	5.0	70	0.500	13	1.40
04-01-75	13.6	13.6	1.4	24.0	.42	--	8.5	218	2.96	17	6.49
03-10-78	17.9	17.9	1.3	24.0	.58	--	8.5	116	2.08	14	6.14
01-27-81	57.8	54.7	2.0	28.5	.89	--	7.5	2,440	133	10	25.5
04-02-81	12.1	12.1	1.1	21.5	.53	--	9.0	34	.411	10	.357
01-27-82	--	18.0	1.2	20.5	.71	--	7.0	76	1.37	18	5.04
11-30-82	34.0	33.4	1.7	23.0	.93	--	--	464	15.5	17	9.57
12-16-82	84.1	86.2	2.1	30.0	1.2	--	8.0	1,765	152	10	12.8
01-27-83	76.2	77.0	2.3	29.5	1.0	--	7.5	3,290	253	10	5.97
02-28-83	28.2	27.4	1.5	22.5	.83	--	8.5	497	13.6	10	31.3
11-17-83	52.1	53.0	2.1	28.5	.94	--	9.5	1,110	58.8	16	26.9
12-14-83	88.4	84.7	2.2	31.0	1.4	--	9.5	1,420	120	15	48.4
03-01-84	13.8	13.6	1.1	20.0	.63	--	8.0	64	.870	12	.662
17. Redwood Creek above Panther Creek near Orick, Calif.[7]											
12-03-80	47.3	46.7	1.7	32.0	0.90	--	10.5	480	22.4	10	8.32
01-23-81	36.2	32.6	1.6	28.5	.74	--	9.5	306	9.98	10	7.42
01-28-81	112	112	2.1	31.0	1.6	--	9.0	1,350	151	10	53.1
02-05-81	14.2	14.2	1.1	28.0	.48	--	8.5	23	.327	10	1.05
11-02-81	4.02	4.02	.68	22.0	.27	--	11.5	2	.00804	21	.0651
12-09-81	43.0	44.5	1.6	29.5	.87	--	10.5	272	12.1	10	4.98
02-10-82	12.5	12.5	1.0	27.0	.45	--	6.0	10	.125	20	1.19
03-19-82	17.5	17.8	1.3	27.0	.50	--	8.5	74	1.32	17	2.27
12-01-82	70.0	72.8	--	31.0	--	--	--	393	28.6	16	30.2
12-22-82	107	106	--	32.5	--	--	--	831	88.1	10	52.9

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				17. Redwood Creek above Panther Creek near Orick, Calif.--Continued							
01-20-83	30.0	31.2	--	30.0	--	--	--	129	4.02	13	5.94
01-26-83	201	172	--	34.5	--	--	--	3,420	588	12	39.3
02-23-83	54.9	55.2	--	30.0	--	--	--	415	22.9	14	40.6
04-05-83	41.3	41.6	--	29.0	--	--	--	185	7.70	15	12.6
11-16-83	33.4	34.8	--	28.0	--	--	11.0	240	8.37	16	10.1
01-13-84	13.6	13.4	--	23.5	--	--	6.0	9	.121	12	.315
03-08-84	16.8	16.6	--	26.0	--	--	9.5	19	.315	20	1.34
04-03-84	18.3	18.3	--	28.5	--	--	--	19	.348	16	.368
				18. Redwood Creek at Orick, Calif.[7]							
11-14-79	14.2	14.2	0.81	44.0	0.40	--	11.5	11	0.156	10	3.68
02-01-80	19.9	19.7	.91	49.0	.45	--	8.5	24	.473	19	2.64
02-21-80	87.2	85.8	1.2	39.0	1.9	--	10.0	350	30.0	10	24.4
12-11-80	14.9	14.8	.72	43.5	.48	--	7.5	23	.340	10	1.80
01-29-81	135	131	1.3	58	1.7	--	9.0	444	58.2	10	93.7
02-24-81	66.6	62.9	1.1	54	1.1	--	9.0	157	9.88	10	18.7
04-11-81	26.5	26.5	--	33.5	--	--	--	20	.530	11	6.53
11-13-81	44.5	44.5	.90	52	.89	--	12.0	332	14.8	19	9.11
12-14-81	153	153	1.3	61	2.0	--	9.5	577	88.3	11	24.5
12-23-81	122	119	1.3	52	1.8	--	10.0	502	59.7	21	11.3
03-03-82	133	130	1.2	57	1.8	--	9.5	498	64.7	19	43.2
11-22-82	39.1	39.6	--	50	--	--	--	97	3.84	22	6.58
12-22-82	190	187	--	59	--	--	--	859	161	15	58.2
01-24-83	110	113	--	53	--	--	--	1,080	122	15	49.0
03-30-83	374	385	--	95	--	--	--	1,940	747	29	49.5
12-07-83	331	312	--	85	--	--	--	1,150	359	15	153
02-29-84	57.8	58.6	--	49.5	--	--	--	105	6.15	10	16.5
				19. Hayes Creek near Orick, Calif.[7]							
12-14-77	0.852	0.852	0.62	6.1	0.22	--	--	356	0.303	12	0.116
12-14-77	.708	.708	--	5.8	--	--	--	190	.135	12	.0777
01-11-79	.212	.212	.55	2.6	.15	--	11.5	254	.0538	9	.00483
02-13-79	.276	.276	.51	4.3	.13	--	9.5	31	.00856	--	.00
02-20-79	.133	.133	.44	3.0	.10	--	8.5	19	.00253	--	.00
02-26-79	.261	.261	.54	3.8	.12	--	9.5	34	.00887	--	.00
02-27-79	.232	.232	.56	4.0	.10	--	8.5	20	.00464	--	.00
05-08-79	.204	.204	.53	3.3	.12	--	9.0	20	.00408	--	.00
01-14-80	.481	.481	.66	4.0	.18	--	10.0	168	.0808	13	.00578
01-15-80	.368	.368	.68	4.3	.13	--	10.0	49	.0180	7	.0189
02-21-80	.144	.144	.56	1.9	.14	--	9.5	22	.00317	--	.00
03-14-80	.623	.595	.71	4.0	.22	--	9.5	412	.245	12	.0588
04-09-80	.261	.261	--	--	--	--	9.5	5	.00131	--	.00
				20. Lacks Creek near Orick, Calif.[7]							
02-03-78	10.5	10.5	--	9.8	--	--	--	196	2.06	13	0.683
03-09-78	8.44	8.44	--	11.0	--	--	--	176	1.49	15	.945
02-13-79	25.5	24.5	2.0	16.0	0.87	--	9.5	1,140	27.9	10	9.22

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				20. Lacks Creek near Orick, Calif.--Continued							
01-22-81	16.8	17.2	1.8	14.5	.70	--	11.0	1,520	26.1	12	4.64
01-23-81	4.87	4.87	1.0	12.0	.38	--	10.0	69	.336	12	.0441
02-17-82	13.7	13.3	1.4	14.5	.72	--	10.0	354	4.71	20	1.68
03-01-82	5.58	5.21	.88	12.5	.51	--	9.5	80	.417	11	.0420
12-06-82	9.23	9.35	--	13.5	--	--	--	40	.374	13	.105
01-26-83	18.0	16.7	--	14.5	--	--	--	516	8.62	13	3.52
01-26-83	21.3	19.5	--	14.5	--	--	--	1,040	20.3	13	2.38
03-29-83	15.0	12.8	--	14.5	--	--	--	325	4.16	13	.352
				21. Sacramento River above Bend Bridge near Red Bluff, Calif.[7]							
12-01-77	120	120	1.5	104	0.79	--	10.5	9	1.08	18	0.0200
01-03-78	242	226	1.6	109	1.4	--	9.0	118	26.7	20	.263
02-02-78	195	204	1.4	110	1.2	--	9.0	32	6.53	20	.420
03-01-78	202	202	1.4	109	1.3	--	10.0	24	4.85	19	.252
05-01-78	430	429	1.5	112	2.5	--	10.5	31	13.3	20	.914
06-02-78	234	234	1.4	110	1.5	--	13.5	9	2.11	19	.242
07-05-78	300	300	1.4	111	1.9	--	12.0	7	2.10	17	1.03
07-31-78	317	317	1.5	111	2.0	--	12.0	9	2.85	18	.462
11-07-78	189	185	1.4	110	1.2	--	12.0	3	.555	13	.168
01-02-79	198	197	--	110	--	--	8.5	9	1.77	17	.0861
03-01-79	447	459	1.5	113	2.9	--	8.0	127	58.3	16	2.31
05-02-79	261	261	--	110	--	--	12.0	16	4.18	17	.336
12-03-79	193	193	1.5	109	1.7	--	11.0	10	1.93	23	.536
12-26-79	374	372	--	110	--	--	7.5	69	25.7	23	18.1
01-02-80	340	338	1.5	111	2.0	--	9.0	37	12.5	22	14.8
02-01-80	368	368	1.4	113	2.3	--	8.5	41	15.1	18	6.10
04-01-80	282	281	1.4	110	1.8	--	10.0	20	5.62	23	.515
05-01-80	242	242	1.4	108	1.6	--	12.5	12	2.90	17	.210
06-03-80	240	240	1.4	111	1.5	--	13.0	9	2.16	17	.284
				22. Clearwater River at Spalding, Idaho[6,12]							
05-10-72	1,590	1,590	2.3	140	4.9	0.00037	10.0	78	124	≥20	2.42
06-01-72	2,740	2,740	3.4	146	5.5	.00056	10.0	209	573	≥20	8.66
06-15-72	1,510	1,510	2.2	140	4.8	.00035	11.0	46	69.5	≥20	2.88
04-30-73	312	312	.70	125	3.5	.000098	--	26	8.11	≥20	1.10
05-16-73	736	827	1.3	133	4.2	.000195	13.5	55	45.5	≥20	2.65
06-05-73	388	374	.82	128	3.6	.000117	--	2	.748	≥20	.0109
06-19-73	496	496	1.0	130	3.8	.000142	--	2	.992	≥20	.191
04-10-74	1,200	1,230	1.9	139	4.6	.00029	7.0	23	28.3	≥20	.578
05-08-74	1,810	1,860	2.5	143	5.1	.00040	7.0	55	102	≥20	5.51
05-15-74	793	810	1.4	134	4.2	.00021	7.0	33	26.7	≥20	.391
04-16-75	481	481	1.0	130	3.8	.000139	8.5	29	13.9	≥20	.229
05-13-75	1,290	1,240	2.0	140	4.7	.000307	10.5	46	57.0	≥20	1.62
05-21-75	1,170	1,170	1.8	139	4.6	.000283	9.5	25	29.3	≥20	1.10
06-10-75	1,670	1,670	2.4	141	5.0	.000379	11.0	42	70.1	≥20	4.53
06-12-75	1,730	1,730	2.4	142	5.0	.000388	12.0	41	70.9	≥20	3.28

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				22. Clearwater River at Spalding, Idaho--Continued							
06-17-75	1,550	1,550	2.3	143	4.9	0.000402	10.5	22	34.1	≥20	1.05
04-06-76	971	1,040	1.6	137	4.4	.000245	6.0	96	99.8	≥20	1.03
04-08-76	1,150	1,200	1.8	139	4.6	.000280	5.5	63	75.6	≥20	1.94
04-14-76	1,350	1,330	2.0	140	4.8	.000318	8.5	21	27.9	≥20	1.55
05-06-76	1,540	1,520	2.3	142	4.9	.000353	6.5	53	80.6	≥20	2.05
05-11-76	2,290	2,270	3.0	145	5.3	.000490	10.0	185	420	≥20	4.49
05-12-76	1,810	1,950	2.5	143	5.1	.000405	10.0	81	158	≥20	2.70
05-24-76	1,580	1,680	2.3	142	4.9	.000360	11.0	53	89.0	≥20	3.80
05-26-76	1,620	1,660	2.3	142	4.9	.000367	11.0	42	69.7	≥20	6.54
06-11-76	1,550	1,530	2.3	142	4.9	.000354	12.0	36	55.1	≥20	4.07
04-26-77	677	677	1.2	134	4.1	.000183	10.0	29	19.6	≥20	1.18
05-04-77	680	680	1.2	134	4.1	.000184	9.5	11	7.4	≥20	8.399
04-28-78	847	841	1.4	135	4.3	.000218	8.5	67	56.3	≥20	.620
05-15-78	1,060	1,060	1.7	138	4.5	.000262	8.5	19	20.1	≥20	1.37
05-17-78	1,080	1,070	1.7	138	4.5	.000266	6.5	19	20.3	≥20	1.37
06-05-78	1,420	1,410	2.1	140	4.8	.000330	10.0	35	49.4	≥20	2.31
06-06-78	1,580	1,560	2.3	141	4.9	.000360	10.0	46	71.8	≥20	2.42
06-08-78	1,490	1,570	2.2	141	4.8	.000346	9.5	23	36.1	≥20	2.31
06-12-78	1,060	1,060	1.7	138	4.5	.000262	10.5	11	11.7	≥20	2.42
06-14-78	1,124	1,130	1.8	139	4.6	.000275	11.0	14	15.8	≥20	4.20
06-19-78	926	918	1.6	136	4.4	.000235	14.5	5	4.59	≥20	1.47
05-01-79	872	875	1.5	136	4.3	.000225	12.0	55	48.1	≥20	1.14
05-03-79	878	884	1.5	136	4.3	.000225	10.5	34	30.1	≥20	1.01
05-08-79	1,390	1,350	2.1	140	4.8	.000325	7.0	1,070	1,440	≥20	1.01
05-11-79	881	884	1.5	136	4.3	.000227	8.0	30	26.5	≥20	1.25
05-14-79	1,010	1,050	1.7	137	4.5	.000252	11.0	32	33.6	≥20	2.78
05-16-79	1,270	1,310	2.0	140	4.7	.000302	10.0	41	53.7	≥20	3.01
05-21-79	1,340	1,340	2.0	140	4.7	.000315	11.0	21	28.1	≥20	3.48
05-23-79	1,560	1,560	2.3	141	4.9	.000359	10.0	60	93.6	≥20	5.06
06-04-79	1,100	1,150	1.8	139	4.5	.000271	12.0	27	31.1	≥20	3.68
06-06-79	1,100	1,100	1.8	139	4.5	.000270	10.0	11	12.1	≥20	2.34
06-18-79	753	753	1.3	128	4.2	.000200	10.0	4	3.01	≥20	.977
				23. North Fork of Big Lost River at Wild Horse (near Chilly), Idaho[5,13]							
04-27-81	4.93	4.93	0.77	16.0	0.41	--	--	19	0.0937	15-20	0.0315
04-30-81	6.85	6.85	.88	16.0	.49	--	--	49	.336	15-20	.297
04-30-81	6.85	6.85	.88	16.0	.49	--	--	49	.336	15-20	.0609
05-07-81	5.47	5.47	.93	7.6	.77	--	--	31	.170	15-20	.116
05-15-81	6.77	6.77	.88	15.0	.50	--	--	22	.149	15-20	.161
05-27-81	14.3	14.3	1.7	7.6	1.1	--	--	137	1.96	15-20	.636
05-28-81	15.2	15.2	1.7	7.6	1.2	--	--	171	2.60	15-20	.477
05-30-81	17.6	17.6	1.8	7.6	1.2	--	--	244	4.29	15-20	13.1
06-01-81	16.9	16.9	1.8	7.6	1.2	--	--	204	3.45	15-20	.414
06-03-81	13.5	13.5	1.6	7.6	1.1	--	--	121	1.63	15-20	.208
06-05-81	12.8	12.8	1.5	7.6	1.1	--	--	82	1.05	15-20	.283
06-09-81	22.4	22.4	2.0	7.6	1.4	--	--	236	5.29	15-20	.517
06-10-81	16.1	16.1	1.8	7.6	1.2	--	4.0	204	3.28	15-20	2.51
06-10-81	16.1	16.1	1.8	7.6	1.2	--	4.0	196	3.16	15-20	3.32
06-11-81	13.2	13.2	1.6	7.6	1.1	--	9.0	126	1.66	15-20	.413

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
			23. North Fork of Big Lost River at Wild Horse (near Chilly), Idaho[5,13]--Continued								
06-16-81	7.93	7.93	1.2	7.6	0.91	--	--	36	0.285	15-20	0.116
06-17-81	11.2	11.2	1.4	7.6	1.0	--	3.0	33	.370	15-20	.0714
06-18-81	8.61	8.61	1.2	7.6	.93	--	4.0	24	.207	15-20	.0273
06-23-81	10.2	10.2	1.3	7.6	.99	--	8.0	46	.469	15-20	.170
06-25-81	9.63	9.63	1.3	7.6	.96	--	--	27	.260	15-20	.120
07-01-81	8.61	8.61	1.2	7.6	.99	--	10.0	18	.155	15-20	.117
07-09-81	5.18	5.18	.90	7.6	.76	--	--	9	.0466	15-20	.00210
07-20-81	3.29	3.29	.61	14.5	.37	--	--	18	.0592	15-20	.00105
			24. Big Lost River at Howell Ranch (near Chilly), Idaho[5,13]								
04-30-81	23.7	23.7	1.5	15.5	1.0	--	--	43	1.02	15-20	0.898
05-07-81	18.5	18.8	1.4	15.5	.86	--	--	26	.489	15-20	.230
05-15-81	15.1	15.1	1.3	15.5	.76	--	--	30	.453	15-20	.0200
05-27-81	43.3	43.3	2.0	15.5	1.4	--	--	92	3.98	15-20	2.18
05-28-81	41.2	41.2	1.9	15.5	1.4	--	--	135	5.56	15-20	.578
05-30-81	54.9	54.9	2.2	15.5	1.6	--	--	197	10.8	15-20	1.95
06-01-81	51.8	51.8	2.1	15.5	1.6	--	--	135	6.99	15-20	.189
06-03-81	46.0	46.0	2.0	15.5	1.5	--	--	87	4.00	15-20	.851
06-04-81	44.2	44.2	1.9	15.5	1.5	--	--	64	2.83	15-20	.180
06-05-81	43.6	43.6	2.0	15.5	1.4	--	--	81	3.53	15-20	.540
06-09-81	80.1	80.1	2.6	15.5	2.0	--	--	277	22.2	15-20	8.02
06-09-81	76.5	76.5	2.5	15.5	1.9	--	--	369	28.2	15-20	7.75
06-10-81	51.8	51.8	2.1	15.5	1.6	--	--	109	5.65	15-20	.285
06-10-81	51.8	51.8	2.1	15.5	1.6	--	--	143	7.41	15-20	.285
06-11-81	43.0	43.0	1.9	15.5	1.5	--	--	92	3.96	15-20	3.57
06-16-81	23.7	23.7	1.5	15.5	1.0	--	--	42	.995	15-20	.677
06-17-81	23.7	23.7	1.5	15.5	1.0	--	4.0	39	.924	15-20	.0914
06-18-81	22.7	22.7	1.5	15.5	.98	--	6.0	29	.658	15-20	.0630
06-23-81	33.7	33.7	1.8	15.5	1.2	--	9.0	76	2.56	15-20	.239
06-25-81	31.2	31.2	1.7	15.5	1.2	--	--	43	1.34	15-20	.678
07-01-81	27.4	27.4	1.6	15.5	1.1	--	11.0	28	.767	15-20	.0420
			25. Big Lost River at Chilly Bridge, Idaho[5,13]								
04-30-81	16.8	16.8	1.3	19.0	0.65	--	--	51	0.857	15-20	0.226
05-07-81	13.3	13.3	1.3	18.0	.57	--	--	23	.306	15-20	.00945
05-11-81	10.8	10.8	1.2	19.0	.48	--	--	13	.140	15-20	.0242
05-14-81	9.01	9.01	.92	20.5	.48	--	--	9	.0811	15-20	.00945
05-15-81	9.35	9.35	1.2	19.0	.43	--	--	11	.103	15-20	.0231
05-27-81	34.3	34.3	1.8	18.0	1.1	--	--	117	4.01	15-20	.575
05-28-81	38.1	38.1	1.8	18.0	1.2	--	--	182	6.93	15-20	6.41
05-30-81	49.6	49.6	2.0	18.0	1.4	--	--	267	13.2	15-20	8.32
06-01-81	45.3	45.3	1.9	18.0	1.3	--	--	167	7.57	15-20	1.37
06-03-81	40.0	40.0	1.8	18.0	1.2	--	--	109	4.36	15-20	.391
06-04-81	38.1	38.1	1.8	18.0	1.2	--	--	85	3.24	15-20	1.70
06-05-81	37.9	37.9	1.8	18.0	1.2	--	--	89	3.37	15-20	.869
06-09-81	69.7	69.7	2.4	18.0	1.6	--	5.0	497	34.6	15-20	3.43
06-10-81	47.9	47.9	1.9	18.0	1.4	--	--	200	9.58	15-20	.859
06-11-81	37.5	37.5	1.9	18.0	1.1	--	7.0	171	6.41	15-20	8.91

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
25. Big Lost River at Chilly Bridge, Idaho[5,13]--Continued											
06-11-81	37.5	37.5	1.9	18.0	1.1	--	7.0	171	6.41	15-20	7.92
06-16-81	16.7	16.7	1.4	18.0	.67	--	--	26	.434	15-20	.0935
06-16-81	16.7	16.7	1.4	18.0	.67	--	--	26	.434	15-20	.0998
06-17-81	16.4	16.4	1.4	18.0	.66	--	6.0	65	1.07	15-20	.148
06-18-81	15.2	15.2	1.4	18.0	.62	--	8.0	19	.289	15-20	.137
06-23-81	13.8	13.8	1.3	18.0	.59	--	10.0	101	1.39	15-20	1.27
06-25-81	21.8	21.8	1.5	18.0	.80	--	--	50	1.09	15-20	.637
07-01-81	9.72	9.72	1.2	18.0	.45	--	12.0	22	.214	15-20	.307
07-01-81	9.72	9.72	1.2	18.0	.45	--	--	22	.214	15-20	.204
07-09-81	6.80	6.80	1.0	17.0	.40	--	--	11	.0748	15-20	.00525
26. Big Lost River below Chilly Sinks, Idaho[5,13]											
05-01-81	16.5	16.5	1.1	26.5	0.59	--	--	207	3.42	15-20	0.792
05-07-81	10.1	10.1	.77	26.5	.49	--	--	19	.192	15-20	.537
05-11-81	8.10	8.10	.85	20.5	.46	--	--	11	.0891	15-20	.00525
05-15-81	6.94	6.94	.78	20.5	.42	--	--	8	.0555	15-20	.0452
05-27-81	23.8	23.8	1.5	20.5	.79	--	--	99	2.36	15-20	.331
05-28-81	25.8	25.8	1.5	20.5	.83	--	--	143	3.69	15-20	.756
05-30-81	34.0	34.0	1.6	20.5	1.0	--	--	250	8.50	15-20	2.25
06-01-81	34.8	34.8	1.6	20.5	1.0	--	--	144	5.01	15-20	1.97
06-03-81	33.0	33.0	1.6	20.5	.99	--	9.0	81	2.67	15-20	.236
06-03-81	32.6	32.6	1.6	20.5	.99	--	--	79	2.58	15-20	.236
06-04-81	29.2	29.2	1.4	20.5	.97	--	--	67	1.96	15-20	.969
06-05-81	28.9	28.9	1.5	20.5	.91	--	12.0	65	1.88	15-20	.674
06-08-81	40.5	40.5	1.7	20.5	1.2	--	--	117	4.74	15-20	6.09
06-09-81	53.9	53.9	1.7	21.0	1.5	--	14.0	369	19.9	15-20	.666
06-09-81	53.9	53.9	1.7	21.0	1.5	--	14.0	440	23.7	15-20	.297
06-10-81	41.5	41.5	1.7	21.0	1.2	--	12.0	171	7.10	15-20	6.15
06-10-81	41.5	41.5	1.7	21.0	1.2	--	12.0	156	6.47	15-20	6.15
06-11-81	34.6	34.6	1.6	20.5	1.0	--	--	127	4.39	15-20	1.39
06-12-81	30.3	30.3	1.5	20.5	.94	--	--	115	3.48	15-20	.935
06-16-81	16.9	16.9	1.3	20.5	.61	--	--	53	.896	15-20	.492
06-17-81	16.1	16.1	1.3	20.5	.59	--	9.0	47	.757	15-20	.515
06-18-81	15.0	15.0	1.2	20.5	.58	--	10.0	23	.345	15-20	.281
06-23-81	27.2	27.2	1.5	20.5	.87	--	14.0	64	1.74	15-20	.645
06-25-81	19.3	19.3	1.4	20.5	.67	--	--	31	.598	15-20	.870
07-01-81	14.6	14.6	1.2	20.5	.57	--	16.0	22	.321	15-20	.0945
07-09-81	9.06	9.06	.91	20.5	.48	--	--	11	.0997	15-20	.0945
07-23-81	2.55	2.55	.54	14.5	.33	--	--	5	.0128	15-20	.00137
27. Big Lost River above East and West Channels, Idaho[5,13]											
05-01-81	16.8	16.8	1.8	11.5	0.82	--	--	235	3.95	15-20	0.181
05-07-81	10.2	10.2	1.4	11.5	.64	--	--	20	.204	15-20	.0105
05-11-81	8.21	8.21	1.3	12.0	.54	--	--	12	.0985	15-20	.0410
05-15-81	7.70	7.70	1.0	18.5	.41	--	--	7	.0539	15-20	.0788
05-27-81	22.1	22.1	1.7	14.0	.90	--	--	110	2.43	15-20	.509

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water surface width (m)	Mean flow depth (m)	Water surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
27. Big Lost River above East and West Channels, Idaho[5,13]--Continued											
05-28-81	24.9	24.9	1.8	14.0	0.98	--	--	167	4.16	15-20	0.416
05-30-81	32.0	32.0	2.0	14.0	1.1	--	--	275	8.80	15-20	5.80
06-01-81	27.8	27.8	1.9	14.0	1.0	--	--	196	5.45	15-20	.851
06-04-81	30.3	30.3	1.8	14.0	1.2	--	--	106	3.21	15-20	1.67
06-05-81	27.4	27.4	1.9	13.5	1.1	--	--	107	2.93	15-20	1.17
06-10-81	38.2	38.2	2.2	14.0	1.3	--	12.0	170	6.49	15-20	5.37
06-10-81	38.2	38.2	2.2	14.0	1.3	--	12.0	173	6.61	15-20	6.41
06-11-81	34.8	34.8	2.1	14.0	1.2	--	11.0	266	9.26	15-20	.278
06-11-81	34.8	34.8	2.1	14.0	1.2	--	11.0	266	9.26	15-20	.0483
06-16-81	16.1	16.1	1.5	14.0	.75	--	--	58	.934	15-20	.108
06-17-81	15.0	15.0	1.5	14.0	.72	--	9.0	83	1.25	15-20	.925
06-18-81	13.9	13.9	1.4	14.0	.69	--	10.0	49	.681	15-20	.105
06-23-81	26.1	26.1	1.8	14.0	1.0	--	14.0	58	1.51	15-20	.0473
06-25-81	20.1	20.1	1.7	14.0	.85	--	--	41	.824	15-20	.0168
07-01-81	14.4	14.4	1.5	14.0	.70	--	15.0	32	.461	15-20	.389
07-09-81	9.35	9.35	1.4	9.8	.67	--	--	11	.103	15-20	.0536
07-22-81	2.89	2.89	.93	9.8	.32	--	--	37	.107	15-20	.00315
28. North Fork of Lick Creek near Yellow Pine, Idaho[13]											
05-08-85	2.12	2.12	0.63	7.9	0.42	0.00500	5.0	4	0.00848	15-17	0.00555
05-15-85	1.49	1.49	.56	7.6	.35	.00890	--	4	.00596	15-17	.000500
05-22-85	2.77	2.77	.80	8.8	.39	.00500	6.0	9	.0249	15-17	.0107
05-29-85	2.43	2.43	.75	8.5	.37	.00833	5.0	5	.0122	15-17	.00405
06-06-85	2.59	2.59	.80	8.5	.39	.00810	5.5	10	.0259	15-17	.00401
06-12-85	1.78	1.78	.63	8.2	.34	.00500	10.0	3	.00534	15-17	.00261
06-18-85	1.28	1.28	.54	7.3	.32	.00578	--	3	.00384	15-17	.000688
06-26-85	.66	.66	.37	7.0	.28	.00789	9.5	4	.00264	15-17	.0000307
07-10-85	.43	.43	.26	6.7	.25	.00731	13.0	2	.000860	15-17	.0000293
07-18-85	.35	.35	.23	6.4	.23	.00364	10.5	1	.000350	15-17	.000000
07-23-85	.35	.35	.23	6.4	.23	.00714	15.0	4	.00140	15-17	.0000140
07-30-85	.27	.27	.22	6.1	.21	.00571	13.0	4	.00108	15-17	.0000133
08-07-85	.22	.22	.18	6.1	.20	.00600	10.0	2	.000440	15-17	.000200
08-21-85	.10	.10	.12	5.5	.16	.00209	9.0	5	.000500	15-17	.0000240
04-23-86	3.03	3.03	.90	8.5	.40	.00552	3.0	12	.0364	15-17	.00926
04-25-86	2.29	2.29	.78	7.9	.37	.00552	3.0	8	.0183	15-17	.00196
04-28-86	1.47	1.47	.52	7.6	.37	.00793	5.0	2	.00294	15-17	.000517
05-21-86	2.97	2.97	.81	8.5	.43	.00621	4.0	18	.0535	15-17	.0243
05-22-86	2.59	2.59	.78	8.2	.41	.00500	3.0	16	.0414	15-17	.0212
05-26-86	3.14	3.14	.85	8.5	.43	.00534	5.5	13	.0408	15-17	.0109
06-03-86	4.25	4.25	.95	8.8	.51	.0124	7.5	23	.0978	15-17	.0292
06-09-86	3.03	3.03	.89	8.2	.41	.00586	7.5	10	.0303	15-17	.00463

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				29. Buckhorn Creek above Krassel Ranger Station near Cascade, Idaho[13]							
05-07-85	4.28	4.28	1.1	10.5	0.37	0.00797	--	6	0.0257	15-17	0.00348
05-16-85	3.51	3.51	.94	9.8	.38	.00944	--	2	.00702	15-17	.000960
05-21-85	6.12	6.12	1.3	9.8	.50	.00630	6.5	9	.0551	15-17	.0273
05-30-85	4.33	4.33	1.1	9.4	.41	.00714	--	57	.247	15-17	.00591
06-06-85	4.87	4.87	1.2	9.1	.44	.00760	--	4	.0195	15-17	.00894
06-11-85	4.30	4.30	1.1	9.1	.44	.00960	6.0	3	.0129	15-17	.00354
06-17-85	2.83	2.83	.92	9.1	.34	.00564	10.0	5	.0142	15-17	.00132
06-25-85	1.73	1.73	.55	9.1	.34	.00559	8.0	2	.00346	15-17	.000980
07-09-85	.91	.91	.33	9.1	.30	.00660	14.5	2	.00182	15-17	.000160
07-17-85	.71	.71	.29	8.8	.28	.00681	15.0	1	.000710	15-17	.000000
07-23-85	.63	.63	.28	8.5	.26	.00574	15.0	2	.00126	15-17	.000466
07-30-85	.62	.62	.27	8.5	.26	.00511	14.0	2	.00124	15-17	.000187
08-05-85	.50	.50	.25	8.5	.24	.00553	16.0	2	.00100	15-17	.000000
08-20-85	.57	.57	.25	8.8	.26	.00553	13.0	2	.00114	15-17	.000000
04-23-86	6.71	6.71	1.3	10.5	.49	.00850	4.0	17	.114	15-17	.0137
04-24-86	5.27	5.27	1.2	9.8	.45	.00978	3.0	9	.0474	15-17	.00704
04-29-86	3.09	3.09	.66	10.5	.45	.00591	5.0	4	.0124	15-17	.00191
05-21-86	7.82	7.82	1.5	9.8	.53	.00760	5.0	34	.266	15-17	.0499
05-22-86	5.66	5.66	1.2	9.8	.47	.00710	3.0	17	.0962	15-17	.0281
05-26-86	7.93	7.93	1.7	9.8	.48	.00839	5.0	20	.159	15-17	.00772
05-29-86	23.5	23.5	2.9	11.5	.70	.0200	5.0	716	16.8	15-17	.970
05-30-86	11.9	11.9	1.8	11.5	.60	.00882	8.0	44	.524	15-17	.256
06-09-86	6.34	6.34	1.2	9.4	.52	.00745	7.0	18	.114	15-17	.0300
				30. South Fork of Salmon River near Cascade, Idaho[13]							
04-18-85	36.1	36.1	0.84	32.5	1.3	0.00100	7.0	19	0.686	20	0.0881
04-30-85	22.0	22.0	.62	31.5	1.1	.000833	7.0	6	.132	20	.00632
05-01-85	27.0	27.0	.69	31.5	1.2	.000780	5.5	13	.351	20	.00879
05-02-85	37.5	37.5	.83	32.5	1.4	.000722	6.0	14	.525	20	.0582
05-07-85	37.2	37.2	.82	33.0	1.4	.000500	7.0	12	.446	20	.128
05-08-85	43.3	43.3	.91	33.0	1.4	.000667	6.0	17	.736	20	.0533
05-09-85	41.1	41.1	.87	33.0	1.4	.000667	5.5	14	.575	20	.115
05-15-85	30.2	30.2	.75	32.0	1.3	.000500	5.5	8	.242	20	.0620
05-16-85	29.3	29.3	.73	32.5	1.3	.000722	5.5	6	.176	20	.00961
05-17-85	34.1	34.1	.79	32.5	1.3	.000722	6.0	9	.307	20	.0557
05-21-85	52.8	52.8	1.0	33.5	1.6	.00112	8.0	28	1.48	20	.530
05-22-85	57.8	57.8	1.1	34.0	1.6	.000556	6.0	38	2.20	20	1.48
05-23-85	63.3	63.3	1.1	34.5	1.7	.000556	7.0	51	3.23	20	.842
05-29-85	51.7	51.7	1.0	33.0	1.5	.000556	7.0	17	.879	20	2.25
05-30-85	45.3	45.3	.95	33.0	1.4	.000667	5.0	13	.589	20	1.46
05-31-85	40.1	40.1	.89	33.0	1.4	.000778	5.0	12	.481	20	1.40
06-05-85	38.4	38.4	.86	33.0	1.4	.000722	7.0	10	.384	20	.414
06-06-85	45.6	45.6	.94	33.5	1.4	.000778	8.0	12	.547	20	.990
06-07-85	46.4	46.4	.95	33.5	1.5	.000833	9.0	22	1.02	20	.254
06-11-85	32.7	32.7	.79	32.5	1.3	.000833	11.0	9	.294	20	.0912

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				30. South Fork of Salmon River near Cascade, Idaho[13]--Continued							
06-12-85	33.0	33.0	0.79	32.5	1.3	.000722	11.0	7	0.231	20	0.265
06-17-85	24.1	24.1	.66	32.0	1.1	.000722	13.0	7	.169	20	.0827
06-18-85	24.8	24.8	.67	32.0	1.1	.000611	11.0	10	.248	20	.192
06-19-85	22.8	22.8	.64	32.0	1.1	.000611	11.0	6	.137	20	.113
06-25-85	14.6	14.6	.49	31.0	.96	.000667	13.0	5	.0730	20	.0457
06-26-85	14.0	14.0	.48	31.0	.94	.000890	9.0	4	.0560	20	.0941
07-09-85	7.53	7.53	.34	30.5	.73	.000556	22.0	3	.0226	20	.0128
07-10-85	7.31	7.31	.34	30.5	.72	.000611	18.0	4	.0292	20	.00613
07-17-85	5.58	5.58	.28	30.0	.67	.000500	22.0	2	.0112	20	.00152
07-18-85	5.98	5.98	.30	30.0	.66	.000556	16.0	4	.0239	20	.000263
07-23-85	5.27	5.27	.28	30.0	.63	.000600	23.0	5	.0264	20	.000200
07-30-85	5.24	5.24	.28	30.0	.62	.000556	18.0	6	.0314	20	.000126
08-06-85	4.47	4.47	.25	30.0	.60	.000556	16.0	3	.0134	20	.0000630
08-20-85	4.05	4.05	.23	29.5	.60	.000500	18.0	3	.0122	20	.000578
09-04-85	3.68	3.68	.23	29.5	.55	.000556	15.0	4	.0147	20	.0000630
10-02-85	4.59	4.59	.26	30.0	.59	.000444	9.0	2	.00918	20	.0000630
04-22-86	42.2	42.2	.90	32.5	1.4	.00128	8.0	26	1.10	20	.249
04-23-86	54.5	54.5	1.0	34.0	1.6	.000750	5.0	44	2.40	20	.420
04-24-86	48.6	48.6	.98	33.0	1.5	.000610	4.0	26	1.26	20	.292
04-25-86	45.6	45.6	.93	33.0	1.5	.000670	5.0	16	.730	20	.381
04-29-86	31.7	31.7	.80	32.5	1.2	.000610	5.0	10	.317	20	.227
05-20-86	50.6	50.6	1.0	33.5	1.5	.000690	8.0	26	1.32	20	.414
05-21-86	63.3	63.3	1.1	34.5	1.7	.000390	6.5	53	3.35	20	1.12
05-22-86	54.5	54.5	1.0	34.0	1.6	.000722	5.5	31	1.69	20	.791
05-23-86	49.7	49.7	.99	33.5	1.5	.000528	3.5	29	1.44	20	.511
05-26-86	65.6	65.6	1.2	34.0	1.6	.000444	8.0	43	2.82	20	1.77
05-27-86	91.3	91.3	1.4	35.0	1.9	.000444	6.0	104	9.50	20	2.86
05-29-86	123	123	1.6	37.5	2.1	.000806	5.5	125	15.4	20	2.76
05-30-86	149	149	--	38.0	--	.00108	--	109	16.2	20	6.13
06-02-86	124	124	--	37.0	--	.000861	8.0	60	7.44	20	6.60
06-03-86	123	123	1.6	37.0	2.1	.000972	8.0	92	11.3	20	5.82
06-07-86	77.5	77.5	1.3	34.5	1.7	.000583	8.0	53	4.11	20	5.24
06-08-86	91.1	91.1	--	35.0	--	.000583	--	60	5.47	20	2.96
06-10-86	63.2	63.2	1.2	34.0	1.6	.000583	7.0	47	2.97	20	6.42
06-24-86	25.2	25.2	.69	31.5	1.2	.000667	14.0	29	.731	20	.150
				31. Muddy Creek near Pinedale, Wyo.[6]							
04-21-75	0.18	0.18	0.25	4.6	0.16	0.0012	4.9	32	0.00576	13	0.00354
04-22-75	.23	.21	.28	4.6	.18	.0012	4.0	52	.0109	13	.00320
04-23-75	.27	.28	.30	4.6	.20	.0012	2.0	96	.0269	13	.00816
04-24-75	.39	.36	.39	4.6	.22	.0012	2.0	163	.0587	13	.0157
04-25-75	.60	.56	.46	4.6	.29	.0012	1.5	255	.143	13	.0306
04-26-75	.74	.67	.52	4.6	.31	.0012	2.5	180	.121	13	.0408
04-27-75	.86	.80	.53	4.7	.34	.0012	1.0	424	.339	13	.0211
04-28-75	.48	.54	.43	4.7	.23	.0012	3.5	105	.0567	13	.0763
04-29-75	.47	.46	.45	4.7	.23	.0012	3.0	102	.0469	13	.174
04-30-75	.70	.74	.54	4.7	.28	.0012	2.0	184	.136	13	.194

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
31. Muddy Creek near Pinedale, Wyo.[6]--Continued											
05-01-75	0.62	0.57	0.50	4.7	0.27	0.0012	4.0	149	0.0849	13	0.361
05-02-75	.82	.87	.56	4.7	.31	.0012	4.0	156	.136	13	.288
05-03-75	.94	.98	.52	4.6	.40	.0012	3.5	32	.0314	13	.245
05-03-75	1.51	1.39	.76	4.7	.42	.0012	7.5	765	1.06	13	.387
05-04-75	1.30	1.69	.66	4.0	.50	.0012	2.5	252	.426	13	.578
05-06-75	1.18	1.16	.66	4.6	.39	.0012	1.5	434	.503	13	.238
05-08-75	.89	.89	.50	4.6	.39	.0012	7.0	100	.0890	13	.170
05-09-75	.98	.99	.53	4.6	.40	.0012	4.5	78	.0772	13	.259
05-23-75	.42	.42	.44	4.6	.21	.0012	7.5	25	.0105	13	.184
06-20-75	1.41	1.41	.64	4.6	.48	.0012	12.5	92	.130	13	.578
07-11-75	1.57	1.57	.63	4.7	.52	.0012	--	69	.108	13	.598
32. East Fork River near Pinedale, Wyo.[6,14]											
05-23-79	18.6	18.5	0.86	24.5	0.89	0.0007	9.5	88	1.63	20	0.883
05-24-79	20.2	20.3	.88	24.5	.94	.0007	7.0	92	1.87	20	1.30
05-25-79	20.1	20.1	.87	24.5	.93	.0007	8.0	78	1.57	20	2.95
05-26-79	20.5	20.5	.88	24.5	.94	.0007	8.5	68	1.39	20	2.16
05-28-79	22.4	22.3	.90	25.0	.99	.0007	6.5	64	1.43	20	4.31
05-30-79	16.8	16.6	.83	24.0	.84	.0007	4.0	51	.847	20	2.22
06-01-79	6.21	5.74	.65	20.5	.47	.0007	7.0	31	.178	20	.920
06-02-79	4.54	4.54	.60	19.5	.40	.0007	9.0	18	.0817	20	.299
06-03-79	5.90	5.74	.64	20.0	.46	.0007	8.0	15	.0861	20	.210
06-04-79	9.35	9.40	.72	21.5	.60	.0007	11.0	18	.169	20	.212
06-05-79	14.6	14.8	.81	23.5	.78	.0007	8.5	37	.548	20	.442
06-06-79	17.2	17.0	.84	24.0	.85	.0007	7.0	72	1.22	20	1.02
06-07-79	14.2	14.8	.80	23.0	.76	.0007	5.5	28	.414	20	1.90
06-08-79	8.08	8.32	.69	21.0	.55	.0007	5.5	35	.291	20	2.06
06-09-79	4.49	4.54	.59	19.5	.39	.0007	4.5	19	.0863	20	1.22
06-10-79	3.43	3.36	.55	18.5	.34	.0007	7.0	6	.0202	20	.250
06-11-79	6.70	6.70	.66	20.5	.49	.0007	9.0	17	.114	20	.153
06-13-79	14.6	14.5	.81	23.5	.78	.0007	10.0	43	.624	20	.681
06-14-79	17.3	17.4	.84	24.0	.86	.0007	11.0	34	.592	20	.688
06-15-79	15.8	15.7	.82	23.5	.81	.0007	9.5	23	.361	20	.648
06-16-79	9.77	9.68	.73	22.0	.61	.0007	10.5	15	.145	20	3.23
06-17-79	7.99	7.88	.69	21.0	.55	.0007	10.5	24	.189	20	1.86
06-18-79	6.62	6.54	.66	20.5	.49	.0007	9.0	13	.0850	20	.444
06-19-79	3.97	3.90	.58	19.0	.37	.0007	7.0	12	.0468	20	.253
06-20-79	2.67	2.54	.52	17.5	.29	.0007	10.0	15	.0381	20	.589
33. Yampa River at Deerlodge Park, Colo.[5]											
04-27-82	215	215	1.2	93	1.9	--	10.5	3,020	649	20	14.3
05-12-82	266	266	1.2	93	2.4	--	8.0	1,840	489	20	16.0
05-13-82	250	250	1.1	93	2.4	--	8.0	970	243	20	20.3
05-24-82	275	275	1.2	94	2.5	--	14.0	1,020	281	20	8.68
05-25-82	309	309	1.2	94	2.7	--	13.0	1,020	315	20	9.84

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				33. Yampa River at Deerlodge Park, Colo.[5]--Continued							
06-08-82	266	266	1.1	93	2.5	--	11.5	1,040	277	20	16.0
06-24-82	283	283	1.3	93	2.4	--	15.5	340	96.2	20	19.5
06-25-82	272	272	1.3	93	2.3	--	15.0	939	255	20	49.8
07-07-82	177	177	1.3	91	1.4	--	17.5	283	50.1	20	23.1
07-08-82	177	177	1.3	91	1.4	--	19.0	1,200	212	20	18.4
07-29-82	66.6	66.6	.83	89	.91	--	21.5	706	47.0	20	9.42
04-07-83	26.3	26.3	.59	69	.65	.00072	5.5	579	15.2	20	.557
04-08-83	24.3	24.3	.56	69	.63	--	5.0	322	7.82	20	.756
04-19-83	34.3	34.3	.57	88	.68	--	9.5	855	29.3	20	6.52
04-21-83	103	103	.77	89	1.5	--	10.0	2,480	255	20	3.68
04-22-83	108	108	.81	90	1.5	.00047	9.5	2,620	283	20	3.60
05-07-83	185	185	1.1	91	1.8	.00071	5.0	1,400	259	20	12.2
05-09-83	172	172	1.1	91	1.7	--	--	812	140	20	17.7
05-12-83	337	337	1.2	93	2.9	.00085	9.5	2,900	977	20	13.3
05-23-83	244	244	1.1	92	2.4	.00060	14.5	1,480	361	20	11.2
05-26-83	430	430	1.3	92	3.6	.00087	14.5	2,320	998	20	10.4
05-27-83	447	447	1.3	92	3.9	.00078	14.0	2,060	921	20	9.74
05-28-83	498	498	1.3	92	4.1	--	12.5	2,020	1,010	20	10.4
06-08-83	408	408	1.3	92	3.4	.00067	11.5	1,030	420	20	8.45
06-10-83	425	425	1.3	91	3.5	.00073	13.0	819	348	20	5.63
06-21-83	447	447	1.3	91	3.7	.00065	16.5	634	283	20	13.2
06-23-83	445	445	1.2	91	3.9	--	16.0	552	246	20	6.66
07-12-83	203	203	1.0	92	2.1	.00040	20.0	559	113	20	9.26
07-14-83	157	157	.90	91	1.9	--	21.0	382	60.0	20	7.99
				34. Rock Creek near Toponas, Colo.[5]							
05-02-85	5.07	5.07	1.1	8.1	0.57	--	--	32	0.162	26	0.0567
05-08-85	9.26	9.26	1.3	8.1	.85	--	--	17	.157	24	.0872
05-14-85	6.43	6.43	1.2	8.4	.62	--	--	18	.116	24	.0725
05-16-85	5.81	5.81	1.2	7.8	.62	--	--	11	.0639	24	.158
05-20-85	7.14	7.14	1.4	8.0	.66	--	--	11	.0785	26	.168
05-22-85	6.40	6.40	1.3	8.4	.60	--	--	13	.0832	26	.105
05-29-85	7.65	7.65	1.3	8.3	.71	--	--	12	.0918	26	.0714
06-04-85	4.90	4.90	1.1	8.2	.52	--	--	3	.0147	26	.0116
06-10-85	4.16	4.16	1.1	8.2	.47	--	--	6	.0250	13	.0179
06-18-85	2.04	2.04	.70	7.9	.37	--	--	4	.00816	24	.00032
06-26-85	1.59	1.59	.68	8.1	.29	--	--	4	.00636	24	.00053
07-10-85	.48	.48	.36	7.5	.18	--	--	1	.000480	11	.00011
07-22-85	.65	.65	.40	8.1	.20	--	--	9	.00585	24	.00158
04-24-86	4.90	4.90	1.2	8.2	.50	--	2.5	38	.186	24	.165
04-28-86	2.95	2.95	1.0	7.9	.37	--	4.5	17	.0502	20	.0489
05-12-86	5.16	5.16	1.2	8.1	.54	--	6.5	15	.0774	24	.0659
05-15-86	5.92	5.92	1.2	8.2	.59	--	4.5	16	.0947	24	.0750
05-20-86	6.39	6.39	1.3	8.2	.61	--	8.5	17	.109	24	.0725
05-21-86	6.92	6.92	1.3	8.2	.67	--	6.0	16	.111	24	.122
05-27-86	7.42	7.42	1.4	8.2	.67	--	10.5	14	.104	24	.152
06-09-86	6.21	6.21	1.2	8.2	.61	--	9.5	29	.180	22	.0930
07-02-86	.840	.840	.44	7.9	.24	--	16.0	9	.00756	22	.00189

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				35. McIntyre Creek near Glendevey, Colo.[5]							
05-12-77	1.39	1.39	0.64	7.5	0.29	--	--	6	0.00834	≥20	0.000095
05-27-77	1.50	1.50	.63	7.5	.32	--	--	13	.0195	≥20	.00011
05-31-77	2.24	2.24	.75	7.8	.38	--	--	22	.0493	≥20	.00021
06-06-77	5.85	5.85	1.8	8.0	.41	--	--	51	.298	≥20	.00200
06-14-77	2.04	2.04	.77	7.5	.35	--	--	6	.0122	≥20	.00084
06-22-77	1.10	1.10	.54	7.6	.27	--	--	4	.00440	≥20	.00032
06-28-77	.74	.74	.47	6.9	.23	--	--	8	.00592	≥20	.000095
07-06-77	.76	.76	.46	6.7	.25	--	--	4	.00304	≥20	.000095
07-12-77	.45	.45	--	6.4	--	--	--	3	.00135	≥20	.000095
07-19-77	.34	.34	.83	6.1	.22	--	--	2	.000680	≥20	.000063
				36. Joe Wright Creek above Culvert #1 near Chambers Lake, Colo.[3]							
05-25-79	0.42	0.42	--	6.1	--	--	--	20	0.00840	≥20	0.00053
05-25-79	.25	.25	--	5.8	--	--	--	16	.00400	≥20	.00578
05-26-79	.31	.31	--	5.8	--	--	--	6	.00186	≥20	.00189
05-27-79	.42	.42	--	6.1	--	--	--	13	.00546	≥20	.00084
05-27-79	.37	.37	--	6.1	--	--	--	20	.00740	≥20	.00095
05-28-79	.51	.51	--	6.1	--	--	--	23	.0117	≥20	.00137
06-03-79	.25	.25	--	5.8	--	--	--	8	.00200	≥20	.000084
06-03-79	.37	.37	--	6.1	--	--	--	43	.0159	≥20	.000032
06-04-79	.31	.31	--	5.8	--	--	--	5	.00155	≥20	.00063
06-12-79	.37	.37	--	6.1	--	--	--	5	.00185	≥20	.00021
06-12-79	.93	.93	--	6.7	--	--	--	90	.0837	≥20	.00074
06-13-79	.48	.48	--	6.1	--	--	--	9	.00432	≥20	.00021
06-13-79	1.08	1.08	--	6.7	--	--	--	27	.0292	≥20	.00063
06-19-79	.65	.65	--	6.4	--	--	--	16	.0104	≥20	.00021
				37. Joe Wright Creek at Bridge #4 near Chambers Lake, Colo.[3]							
05-20-79	1.98	1.98	--	8.2	--	--	--	173	0.343	≥20	0.00221
05-20-79	1.98	1.98	--	8.2	--	--	--	166	.329	≥20	.00273
05-21-79	1.61	1.61	--	8.2	--	--	--	427	.688	≥20	.00105
05-25-79	1.98	1.98	--	8.2	--	--	--	131	.259	≥20	.00126
05-25-79	2.15	2.15	--	8.2	--	--	--	213	.458	≥20	.00095
05-26-79	2.32	2.32	--	8.5	--	--	--	331	.768	≥20	.00315
05-27-79	2.49	2.49	--	8.5	--	--	--	243	.605	≥20	.00084
05-27-79	2.69	2.69	--	8.5	--	--	--	240	.646	≥20	.00063
05-28-79	2.83	2.83	--	8.5	--	--	--	680	1.92	≥20	.00683
06-03-79	.48	.48	--	7.9	--	--	--	45	.0216	≥20	.00032
06-03-79	2.32	2.32	--	8.5	--	--	--	298	.691	≥20	.00126
06-04-79	2.32	2.32	--	8.5	--	--	--	95	.220	≥20	.00053
06-12-79	2.49	2.49	--	8.5	--	--	--	55	.137	≥20	.00210
06-12-79	5.18	5.18	--	8.8	--	--	--	308	1.60	≥20	.0125
06-13-79	4.53	4.53	--	8.8	--	--	--	31	.140	≥20	.00168
07-11-79	3.12	3.12	--	8.5	--	--	--	144	.449	≥20	.00042
07-12-79	2.32	2.32	--	8.5	--	--	--	380	.882	≥20	.00042
07-12-79	2.69	2.69	--	8.5	--	--	--	110	.296	≥20	.00042
07-20-79	1.73	1.73	--	8.2	--	--	--	93	.161	≥20	.00032

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
38. North Fork of Joe Wright Creek Lower Station near Chambers Lake, Colo.[3]											
06-29-77	0.198	0.198	--	4.6	--	--	--	2	0.000396	≥20	0.00011
05-20-79	1.53	1.53	--	8.5	--	--	--	795	1.22	≥20	.00063
05-20-79	1.53	1.53	--	8.5	--	--	--	290	.444	≥20	.00095
05-21-79	1.27	1.27	--	8.5	--	--	--	112	.142	≥20	.00074
05-25-79	1.19	1.19	--	8.5	--	--	--	1,160	1.38	≥20	.00053
05-25-79	1.13	1.13	--	8.5	--	--	--	370	.418	≥20	.00084
05-27-79	1.30	1.30	--	8.5	--	--	--	190	.247	≥20	.00063
05-27-79	1.47	1.47	--	8.5	--	--	--	357	.525	≥20	.00095
05-28-79	1.70	1.70	--	8.5	--	--	--	831	1.41	≥20	.00200
06-03-79	1.22	1.22	--	8.5	--	--	--	64	.0781	≥20	.00189
06-04-79	1.42	1.42	--	8.5	--	--	--	140	.199	≥20	.00053
06-12-79	1.59	1.59	--	8.5	--	--	--	63	.100	≥20	.00063
06-12-79	2.49	2.49	--	8.5	--	--	--	294	.732	≥20	.0111
06-13-79	1.93	1.93	--	8.5	--	--	--	41	.0791	≥20	.00137
06-26-79	1.08	1.08	--	8.5	--	--	--	19	.0205	≥20	.00084
07-11-79	1.81	1.81	--	8.5	--	--	--	236	.427	≥20	.00063
07-12-79	1.42	1.42	--	8.5	--	--	--	814	1.16	≥20	.00074
07-12-79	1.59	1.59	--	8.5	--	--	--	180	.286	≥20	.00053
07-20-79	1.19	1.19	--	8.5	--	--	--	136	.162	≥20	.00032
39. Cabin Creek at Mouth near Granby, Colo.[5]											
06-20-78	1.90	1.90	1.1	5.6	0.30	--	--	55	0.105	≥20	0.00189
06-27-78	1.02	1.02	.87	4.8	.24	--	--	26	.0265	≥20	.00032
07-06-78	.45	.45	.53	4.6	.19	--	--	9	.00405	≥20	.00063
07-11-78	.31	.31	.43	3.9	.19	--	--	5	.00155	≥20	.00042
07-19-78	.17	.17	.29	3.6	.17	--	--	6	.00102	≥20	.000053
07-25-78	.14	.14	.25	3.4	.17	--	--	11	.00154	≥20	.000042
07-27-78	.094	.094	.18	3.4	.15	--	--	5	.000470	≥20	.000084
08-01-78	.066	.066	.12	3.2	.17	--	--	4	.000264	≥20	.000032
08-08-78	.051	.051	.11	3.3	.15	--	--	1	.000051	≥20	.000032
08-10-78	.057	.057	.12	3.2	.15	--	--	2	.000114	≥20	.000021
05-30-79	2.97	2.97	--	6.1	--	--	--	118	.350	≥20	.00914
06-20-79	1.84	1.84	1.2	5.9	.27	--	--	27	.0497	≥20	.00053
06-26-79	1.22	1.22	1.0	5.9	.20	--	--	6	.00732	≥20	.00105
07-03-79	.62	.62	.61	5.8	.18	--	--	11	.00682	≥20	.00021
07-11-79	.23	.23	--	5.8	--	--	--	10	.00230	≥20	.00053
07-18-79	.14	.14	--	5.5	--	--	--	1	.000140	≥20	.000042
08-20-79	.057	.057	--	5.5	--	--	--	13	.000741	≥20	.000021
40. Lower North Fork of Cabin Creek near Granby, Colo.[5]											
06-22-78	1.13	1.13	0.98	3.5	0.32	--	--	26	0.0294	≥20	0.00126
06-27-78	.74	.74	.85	3.5	.25	--	--	20	.0148	≥20	.00042
07-06-78	.27	.27	.45	3.4	.18	--	--	8	.00216	≥20	.00021
07-11-78	.13	.13	.27	3.4	.15	--	--	16	.00208	≥20	.000032
07-20-78	.090	.090	.20	3.4	.13	--	--	1	.000090	≥20	.000042

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
40. Lower North Fork of Cabin Creek near Granby, Colo.[5]--Continued											
07-25-78	0.066	0.066	0.17	3.4	0.11	--	--	7	0.000462	≥20	0.000032
06-19-79	1.16	1.16	1.1	3.7	.28	--	--	22	.0255	≥20	.00221
06-26-79	.65	.65	.76	3.7	.23	--	--	222	.144	≥20	.00053
07-03-79	.17	.17	--	3.7	--	--	--	8	.00136	≥20	.00011
07-10-79	.057	.057	--	2.4	--	--	--	20	.00114	≥20	.00011
07-16-79	.025	.025	--	2.1	--	--	--	1	.000025	≥20	.000032
41. Upper North Fork of Cabin Creek near Granby, Colo.[5]											
06-20-78	0.48	0.48	1.0	2.2	0.22	--	--	18	0.00864	≥20	0.00032
06-28-78	.23	.23	.68	1.8	.18	--	--	5	.00115	≥20	.00032
07-06-78	.085	.085	.40	1.8	.12	--	--	4	.000340	≥20	.00011
07-11-78	.066	.066	.37	1.7	.12	--	--	11	.000726	≥20	.000021
07-20-78	.033	.033	.23	1.7	.083	--	--	8	.000264	≥20	.000011
07-25-78	.017	.017	.14	1.5	.081	--	--	4	.000068	≥20	.000011
07-27-78	.015	.015	.12	1.6	.076	--	--	3	.000045	≥20	.000011
08-10-78	.010	.010	.087	1.4	.079	--	--	4	.000040	≥20	.000011
06-18-79	.45	.45	.86	2.4	.22	--	--	17	.00765	≥20	.00042
06-25-79	.27	.27	.75	2.0	.18	--	--	29	.00783	≥20	.00011
42. Lower Left Fork of North Fork of Cabin Creek near Granby, Colo.[5]											
06-21-78	0.62	0.62	1.1	1.8	0.31	--	--	17	0.0105	≥20	0.00084
06-28-78	.38	.38	.80	1.8	.27	--	--	16	.00608	≥20	.00084
07-06-78	.16	.16	.46	1.7	.21	--	--	13	.00208	≥20	.00021
07-20-78	.051	.051	.20	1.6	.16	--	--	9	.000459	≥20	.000032
07-25-78	.028	.028	.12	1.5	.15	--	--	4	.000112	≥20	.000021
08-03-78	.019	.019	.090	1.5	.14	--	--	2	.000038	≥20	.000042
08-08-78	.014	.014	--	1.5	--	--	--	6	.000084	≥20	.000042
06-18-79	.68	.68	1.3	2.1	.25	--	--	47	.0320	≥20	.00021
06-25-79	.40	.40	.97	1.9	.22	--	--	27	.0108	≥20	.000074
07-09-79	.028	.028	--	1.8	--	--	--	4	.000112	≥20	.00021
07-16-79	.020	.020	--	1.5	--	--	--	5	.000100	≥20	.000011
43. Upper Left Fork of North Fork of Cabin Creek near Granby, Colo.[5]											
06-21-78	0.34	0.34	0.77	2.0	0.22	--	--	18	0.00612	≥20	0.00137
06-28-78	.20	.20	.62	1.9	.18	--	--	6	.00120	≥20	.00042
07-06-78	.085	.085	.39	1.6	.14	--	--	7	.000595	≥20	.000042
07-11-78	.057	.057	.37	1.5	.11	--	--	4	.000228	≥20	.000084
07-20-78	.023	.023	.20	1.2	.087	--	--	9	.000207	≥20	.000021
07-25-78	.014	.014	.16	1.2	.072	--	--	5	.000070	≥20	.000011
07-27-78	.014	.014	.17	1.2	.074	--	--	503	.00704	≥20	.000011
08-08-78	.007	.007	.092	1.1	.067	--	--	6	.000042	≥20	.000011
06-18-79	.34	.34	.87	2.2	.18	--	--	74	.0252	≥20	.00063
06-25-79	.25	.25	.75	2.2	.15	--	--	21	.00525	≥20	.00011

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				44. Upper Elk Creek near Granby, Colo.[5]							
06-19-78	0.25	0.25	0.78	1.5	0.21	--	--	16	0.00400	≥20	0.00042
06-26-78	.24	.24	.75	1.6	.20	--	--	10	.00240	≥20	.00021
07-05-78	.17	.17	.67	1.5	.17	--	--	6	.00102	≥20	.00053
07-10-78	.13	.13	.71	1.8	.11	--	--	7	.000910	≥20	.00021
07-13-78	.10	.10	.58	1.4	.12	--	--	10	.00100	≥20	.00021
07-17-78	.10	.10	.67	1.4	.11	--	--	10	.00100	≥20	.000095
06-20-79	.16	.16	.80	1.6	.13	--	--	15	.00240	≥20	.00021
06-26-79	.17	.17	.75	1.6	.14	--	--	197	.0335	≥20	.00011
07-05-79	.34	.34	--	1.5	--	--	--	12	.00408	≥20	.00011
07-10-79	.25	.25	--	1.5	--	--	--	16	.00400	≥20	.00011
07-18-79	.20	.20	--	1.5	--	--	--	2	.000400	≥20	.000063
				45. Upper Beaver Creek near Hot Sulphur Springs, Colo.[5]							
04-28-77	0.30	0.30	0.36	5.3	0.15	--	--	11	0.00330	≥20	0.00011
05-04-77	.37	.37	.45	4.9	.17	--	--	24	.00888	≥20	.00011
05-10-77	.88	.88	.59	6.2	.24	--	--	29	.0255	≥20	.00042
05-12-77	.96	.96	.69	6.1	.23	--	--	19	.0182	≥20	.00158
05-18-77	.51	.51	.47	6.3	.17	--	--	5	.00255	≥20	.00032
05-24-77	.45	.45	.43	5.3	.20	--	--	5	.00225	≥20	.00042
05-31-77	.34	.34	.39	5.5	.16	--	--	7	.00238	≥20	.00021
06-07-77	.27	.27	.34	5.3	.15	--	--	8	.00216	≥20	.00032
06-16-77	.17	.17	.31	4.3	.13	--	--	7	.00119	≥20	.000063
06-20-77	.14	.14	.28	4.3	.12	--	--	2	.00028	≥20	.000095
06-25-77	.082	.082	.20	4.0	.10	--	--	1	.000082	≥20	.000074
06-28-77	.071	.071	.21	4.0	.087	--	--	1	.000071	≥20	.000063
				46. Upper Vasquez Creek near Winter Park, Colo.[3]							
05-25-77	0.27	0.27	1.5	4.0	0.15	--	--	14	0.00378	≥20	0.00011
06-03-77	.48	.48	.60	4.0	.20	--	--	2	.000960	≥20	.000084
06-08-77	.71	.71	.78	4.0	.23	--	--	4	.00284	≥20	.00011
06-15-77	.54	.54	.71	4.0	.20	--	--	3	.00162	≥20	.00011
06-19-77	.48	.48	.61	3.8	.21	--	--	2	.000960	≥20	.00032
06-26-77	.37	.37	.51	3.8	.19	--	--	2	.000740	≥20	.00011
07-02-77	.31	.31	.47	3.9	.17	--	--	2	.000620	≥20	.00011
07-09-77	.28	.28	.46	3.8	.16	--	--	3	.000840	≥20	.00021
07-26-77	.21	.21	.37	3.8	.15	--	--	1	.000210	≥20	.00021
06-14-78	1.27	1.27	1.1	3.9	.31	--	--	18	.0229	≥20	.00063

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
46. Upper Vasquez Creek near Winter Park, Colo.[3]--Continued											
06-22-78	1.39	1.39	1.1	3.9	0.32	--	--	5	0.00695	≥20	0.00105
06-30-78	1.67	1.67	1.3	4.0	.33	--	--	3	.00501	≥20	.00231
07-07-78	1.13	1.13	1.0	3.9	.28	--	--	1	.00113	≥20	.000032
07-20-78	.68	.68	.74	3.9	.24	--	--	5	.00340	≥20	.00074
07-26-78	.54	.54	.66	3.9	.21	--	--	4	.00216	≥20	.00011
08-02-78	.51	.51	.61	3.9	.21	--	--	2	.00102	≥20	.000053
08-09-78	.34	.34	.48	3.9	.19	--	--	2	.000680	≥20	.000042
47. Fraser River at USGS Station near Winter Park, Colo.[3]											
06-03-77	0.23	0.23	--	4.9	--	--	--	4	0.000920	≥20	0.000053
06-18-77	.20	.20	--	4.9	--	--	--	2	.000400	≥20	.000074
06-19-77	.28	.28	--	4.9	--	--	--	3	.000840	≥20	.000063
06-14-78	.23	.23	--	4.6	--	--	--	7	.00161	≥20	.00011
06-22-78	.25	.25	--	4.6	--	--	--	3	.000750	≥20	.00021
06-30-78	1.33	1.33	--	5.2	--	--	--	6	.00798	≥20	.00095
07-07-78	.20	.20	--	4.6	--	--	--	2	.000400	≥20	.00021
07-12-78	.17	.17	--	4.6	--	--	--	4	.000680	≥20	.000032
07-20-78	.17	.17	--	4.9	--	--	--	4	.000680	≥20	.00011
07-26-78	.20	.20	--	4.6	--	--	--	4	.000800	≥20	.00011
08-02-78	.14	.14	--	4.6	--	--	--	2	.000280	≥20	.000063
08-30-78	.20	.20	--	4.9	--	--	--	1	.000200	≥20	.00011
48. Fraser River at Berthoud Pass, Colo.[5]											
04-29-77	0.075	0.075	0.36	3.2	0.065	--	--	5	0.000375	≥20	0.000032
05-09-77	.54	.54	.89	4.9	.12	--	--	48	.0259	≥20	.00147
05-11-77	.37	.37	.68	4.3	.13	--	--	16	.00592	≥20	.00599
05-16-77	.23	.23	.54	3.7	.12	--	--	2	.000460	≥20	.00074
05-23-77	.19	.19	.51	3.4	.11	--	--	3	.000570	≥20	.00021
05-30-77	.48	.48	.78	4.4	.14	--	--	61	.0293	≥20	.00084
06-13-77	.57	.57	.73	3.5	.22	--	--	3	.00171	≥20	.00032
06-19-77	.41	.41	.63	3.4	.19	--	--	2	.000820	≥20	.00021
06-26-77	.24	.24	.46	3.2	.16	--	--	2	.000480	≥20	.00021
07-02-77	.18	.18	.42	3.0	.14	--	--	1	.000180	≥20	.00042
07-09-77	.16	.16	.36	3.0	.15	--	--	6	.000960	≥20	.00053
07-12-77	.14	.14	.35	2.8	.15	--	--	2	.000280	≥20	.00032
07-16-77	.11	.11	.34	2.7	.13	--	--	1	.000100	≥20	.00011
07-19-77	.25	.25	.54	2.9	.17	--	--	1	.000250	≥20	.00042
07-23-77	.15	.15	.34	3.1	.14	--	--	1	.000150	≥20	.00042
07-30-77	.16	.16	.36	2.9	.16	--	--	2	.000320	≥20	.00021
08-29-77	.12	.12	.33	2.7	.13	--	--	1	.000120	≥20	.000074

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				49. Union Creek near Leadville, Colo.[5]							
05-24-78	0.28	0.28	--	--	--	--	--	25	0.00700	20-40	0.000021
06-05-78	.54	.54	--	--	--	--	--	32	.0173	20-40	.000042
06-14-78	1.10	1.10	--	--	--	--	--	2	.00220	20-40	.00053
06-27-78	.79	.79	--	--	--	--	--	13	.0103	20-40	.00011
07-06-78	.68	.68	--	--	--	--	--	10	.00680	20-40	.000053
08-08-78	.28	.28	--	--	--	--	--	1	.000280	20-40	.000032
09-13-78	.17	.17	--	--	--	--	--	1	.000170	20-40	.000021
06-16-79	.57	.57	--	--	--	--	--	28	.0160	20-40	.00042
07-11-79	.51	.51	--	--	--	--	--	13	.00663	20-40	.00011
05-21-80	.14	.14	--	--	--	--	--	8	.00112	20-40	.00011
				50. Fourmile Creek near Fairplay, Colo.[5]							
05-16-84	0.44	0.44	0.66	3.2	0.21	0.016	--	4	0.00176	40	0.00102
05-24-84	1.23	1.23	1.0	3.4	.36	--	--	31	.0381	40	.0193
05-29-84	1.24	1.24	1.1	3.4	.34	--	--	15	.0186	40	.0109
05-31-84	1.21	1.21	.94	3.4	.38	--	--	14	.0169	40	.00696
06-06-84	.96	.96	.88	3.3	.33	.016	--	8	.00768	40	.00093
06-12-84	.79	.79	.75	3.2	.33	--	--	4	.00316	40	.0129
06-14-84	1.45	1.45	1.0	3.5	.40	--	--	20	.0290	40	.0292
06-18-84	1.39	1.39	1.1	3.4	.38	--	--	22	.0306	40	.00423
06-22-84	1.48	1.48	1.1	3.4	.39	--	--	22	.0326	40	.00958
06-26-84	1.40	1.40	.98	3.5	.41	--	--	18	.0252	40	.0386
06-29-84	1.53	1.53	1.2	3.5	.38	--	--	31	.0474	40	.00913
07-03-84	1.66	1.66	1.2	3.6	.40	--	--	46	.0764	40	.00465
07-06-84	1.40	1.40	1.1	3.4	.38	--	--	10	.0140	40	.00288
07-10-84	2.18	2.18	1.3	3.6	.45	.018	--	29	.0632	40	.00990
07-17-84	1.08	1.08	1.0	3.3	.32	--	--	22	.0238	40	.0321
07-24-84	1.08	1.08	1.0	3.3	.32	--	--	10	.0108	40	.0268
08-03-84	.88	.88	.89	3.2	.31	--	--	40	.0352	40	.00326
08-08-84	.95	.95	.96	3.3	.30	--	--	39	.0371	40	.00119
				51. Mad Creek (Site 1) near Empire, Colo.[5]							
06-16-83	0.10	0.10	--	--	--	--	2.5	3	0.000300	≥20	0.000049
07-14-83	.31	.31	--	--	--	--	5.0	4	.00124	≥20	.000038
07-28-83	.25	.25	--	--	--	--	4.0	2	.000500	≥20	.0000084
05-22-84	.029	.029	0.19	1.3	0.12	0.188	2.0	5	.000145	≥20	.000048
05-29-84	.11	.11	.34	1.8	.18	.188	4.5	3	.000330	≥20	.00147
06-06-84	.15	.15	.42	2.1	.17	.188	3.0	2	.000300	≥20	.000608
06-18-84	.19	.19	.45	2.2	.19	.188	4.0	8	.00152	≥20	.00336
06-25-84	.21	.21	.46	2.3	.20	.188	3.5	5	.00105	≥20	.00260
07-03-84	.24	.24	.57	1.9	.22	.188	6.0	3	.000720	≥20	.00234
07-12-84	.14	.14	.37	2.2	.17	.188	7.0	2	.000280	≥20	.000428

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
					52. Mad Creek (Site 3) near Empire, Colo.[5]						
06-17-83	0.17	0.17	--	--	--	--	4.0	2	0.000340	≥20	0.000079
07-14-83	.43	.43	--	--	--	--	4.0	11	.00473	≥20	.000686
07-28-83	.42	.42	--	--	--	--	6.0	3	.00126	≥20	.000077
08-04-83	.22	.22	--	--	--	--	6.0	5	.00110	≥20	.000070
08-11-83	.18	.18	--	--	--	--	7.0	4	.000720	≥20	.000044
05-29-84	.19	.19	0.53	1.9	0.19	--	3.5	7	.00133	≥20	.000590
06-06-84	.24	.24	.57	1.9	.22	--	3.5	3	.000720	≥20	.00837
06-11-84	.12	.12	.42	1.8	.16	--	3.5	4	.000480	≥20	.000366
06-18-84	.35	.35	.77	1.9	.24	--	3.5	10	.00350	≥20	.0038
06-25-84	.46	.46	.81	1.9	.30	--	3.5	73	.0336	≥20	.0113
07-03-84	.55	.55	1.1	2.0	.25	--	6.0	6	.00330	≥20	.00918
07-12-84	.36	.36	.78	2.0	.23	--	7.0	2	.000720	≥20	.00590
07-20-84	.22	.22	.64	1.9	.18	--	7.0	2	.000440	≥20	.000662
07-31-84	.20	.20	.66	1.9	.16	--	6.0	1	.000200	≥20	.000469
08-16-84	.083	.083	.42	1.8	.11	0.0856	7.0	2	.000166	≥20	.000614
08-29-84	.12	.12	.48	1.8	.14	--	6.5	4	.000480	≥20	.000354
					53. Middle Fork of Boulder Creek at Nederland, Colo.[5]						
05-14-84	3.68	3.68	0.84	14.0	0.31	0.0163	--	8	0.0294	20-40	0.0321
05-17-84	5.01	5.01	.96	16.5	.32	.0163	7.0	13	.0651	20-40	.0119
05-23-84	7.76	7.76	1.2	20.0	.33	.0163	5.5	15	.116	20-40	.0134
06-04-84	6.77	6.77	1.1	19.0	.33	.0163	7.0	4	.0271	20-40	.0134
06-08-84	4.53	4.53	.92	15.5	.32	.0163	8.5	4	.0181	20-40	.00223
06-15-84	7.84	7.84	1.2	20.0	.33	.0163	9.0	7	.0549	20-40	.0240
06-20-84	8.21	8.21	1.2	20.5	.33	.0163	7.0	5	.0411	20-40	.0161
06-27-84	8.21	8.21	1.2	20.5	.33	.0163	8.5	6	.0493	20-40	.0107
07-02-84	9.52	9.52	1.3	22.0	.34	.0163	13.0	9	.0857	20-40	.0612
07-11-84	6.26	6.26	1.1	18.0	.33	.0163	13.0	5	.0313	20-40	.0146
07-19-84	3.79	3.79	.85	14.5	.31	.0163	13.0	4	.0152	20-40	.0260
07-27-84	4.45	4.45	.91	15.5	.32	.0163	13.0	3	.0134	20-40	.0237
08-03-84	3.31	3.31	.80	13.5	.31	.0163	12.0	2	.00662	20-40	.00051
08-15-84	2.58	2.58	.72	12.0	.30	.0163	14.0	2	.00516	20-40	.00130
					54. Jefferson Creek near Jefferson, Colo.[5]						
05-10-84	0.093	0.093	0.26	3.5	0.10	0.016	--	6	0.000558	20-40	0.000137
05-16-84	.42	.42	.58	3.6	.20	.016	--	5	.00210	20-40	.00923
05-26-84	1.16	1.16	.86	4.1	.33	.016	9.0	5	.00580	20-40	.00973
06-07-84	.77	.77	.75	4.1	.25	.016	2.5	4	.00308	20-40	.00401
06-13-84	.61	.61	.68	3.9	.23	.016	8.0	2	.00122	20-40	.00414
06-21-84	1.08	1.08	.79	4.1	.33	.016	6.0	4	.00432	20-40	.00160
06-28-84	1.05	1.05	.80	4.0	.33	.016	14.0	4	.00420	20-40	.00517
07-10-84	1.24	1.24	.88	4.1	.35	.016	14.5	5	.00620	20-40	.00596
07-18-84	.56	.56	.62	4.1	.22	.016	11.5	284	.159	20-40	.00180
07-25-84	1.37	1.37	.93	4.1	.36	.016	10.0	5	.00685	20-40	.0204
08-02-84	1.05	1.05	.91	4.0	.29	.016	9.0	5	.00525	20-40	.00152
09-19-84	.36	.36	.57	3.6	.18	.016	10.0	4	.00144	20-40	.00207

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				55. Craig Creek near Bailey, Colo.[5]							
04-16-84	0.051	0.051	0.047	4.3	0.25	0.0213	2.0	3	0.000153	20-40	0.00106
04-26-84	.38	.38	.31	6.4	.19	.0213	0.5	2	.000760	20-40	.00431
04-30-84	.35	.35	.35	6.2	.16	.0213	4.0	3	.00105	20-40	.00653
05-03-84	.31	.31	.26	5.5	.22	.0213	3.0	6	.00186	20-40	.00227
05-10-84	.69	.69	.44	6.6	.24	.0213	3.0	9	.00621	20-40	.0112
05-15-84	1.39	1.39	.61	6.9	.33	.0213	4.0	12	.0167	20-40	.0235
05-17-84	1.65	1.65	.68	6.9	.35	.0213	4.5	23	.0380	20-40	.0138
05-24-84	2.05	2.05	.72	6.9	.42	.0213	--	23	.0472	20-40	.0194
05-29-84	2.25	2.25	.86	6.7	.39	.0213	--	14	.0315	20-40	.0181
05-31-84	1.81	1.81	.76	6.8	.35	.0213	--	13	.0235	20-40	.00776
06-04-84	1.77	1.77	--	--	--	.0213	--	9	.0159	20-40	.00447
06-06-84	1.38	1.38	.66	6.8	.31	.0213	--	8	.0110	20-40	.00180
06-11-84	1.28	1.28	.61	6.7	.31	.0213	9.0	12	.0154	20-40	.00334
06-19-84	1.25	1.25	.62	6.7	.30	.025	--	8	.0100	20-40	.00218
06-26-84	.88	.88	.55	6.7	.24	.025	8.0	1	.000880	20-40	.0197
07-03-84	.66	.66	.40	6.7	.25	.025	11.0	9	.00594	20-40	.00532
07-12-84	.46	.46	.36	6.6	.19	.025	--	17	.00782	20-40	.00962
07-16-84	.48	.48	.37	6.6	.20	.025	13.0	20	.00960	20-40	.00136
08-01-84	.57	.57	.46	6.6	.19	.025	--	5	.00285	20-40	.0165
08-15-84	.49	.49	.44	6.6	.17	.025	13.0	3	.00147	20-40	.00472
08-21-84	1.45	1.45	.45	6.7	.48	.025	--	34	.0493	20-40	.0121
09-05-84	.74	.74	.51	6.7	.22	.025	15.0	2	.00148	20-40	.00157
				56. Geneva Creek near Grant, Colo.[5]							
05-10-84	0.40	0.40	0.39	6.5	0.16	0.01	--	67	0.0268	20-40	0.00326
05-16-84	.93	.93	.64	6.7	.22	.01	--	20	.0186	20-40	.000630
05-26-84	2.16	2.16	.96	7.0	.32	.01	9.0	35	.0756	20-40	.0422
06-07-84	1.82	1.82	.91	6.9	.29	.01	7.0	15	.0273	20-40	.0135
06-13-84	1.42	1.42	.79	6.9	.26	.01	9.5	9	.0128	20-40	.0121
06-21-84	2.52	2.52	1.1	7.4	.32	.01	7.5	23	.0580	20-40	.0356
06-28-84	2.69	2.69	1.1	7.2	.33	.01	12.0	16	.0430	20-40	.0320
07-10-84	2.39	2.39	1.0	7.2	.33	.01	13.0	21	.0502	20-40	.0300
07-18-84	1.09	1.09	.62	6.9	.25	.01	12.5	11	.0120	20-40	.00714
07-25-84	1.30	1.30	.70	6.9	.27	.01	10.5	12	.0156	20-40	.0142
08-02-84	1.34	1.34	.77	6.9	.25	.01	8.5	20	.0268	20-40	.0203
08-20-84	1.38	1.38	.80	6.9	.25	.01	10.0	12	.0166	20-40	.0326
				57. Pony Creek near Antero Reservoir, Colo.[5]							
05-16-84	0.057	0.057	0.54	1.1	0.096	0.005	--	181	0.0103	20-40	0.00284
05-24-84	.068	.068	.67	1.1	.093	.005	--	125	.00850	20-40	.00095
05-29-84	.054	.054	.42	1.1	.11	.005	--	107	.00578	20-40	.00060
06-06-84	.048	.048	.35	1.1	.13	.005	--	98	.00470	20-40	.00040
06-12-84	.042	.042	.46	1.1	.086	.005	--	64	.00269	20-40	.00101

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
57. Pony Creek near Antero Reservoir, Colo.[5]--Continued											
06-14-84	0.040	0.040	0.34	1.1	0.11	0.005	--	67	0.00268	20-40	0.00102
06-19-84	.037	.037	.33	1.1	.10	.005	--	82	.00303	20-40	.00073
06-22-84	.037	.037	.36	1.0	.10	.005	--	70	.00259	20-40	.00050
06-26-84	.031	.031	.29	1.1	.098	.005	--	58	.00180	20-40	.00077
06-29-84	.028	.028	.27	1.1	.096	.005	--	335	.00938	20-40	.00039
07-03-84	.023	.023	.22	1.1	.092	.005	--	59	.00136	20-40	.00053
07-06-84	.025	.025	.25	1.1	.095	.005	--	52	.00130	20-40	.00085
07-10-84	.029	.029	.28	1.1	.099	.006	--	45	.00131	20-40	.00198
07-24-84	.027	.027	.26	1.1	.097	.006	--	61	.00165	20-40	.00036
58. North Fork of South Platte River at Shawnee, Colo.[5]											
05-03-85	3.12	3.12	0.70	15.0	0.30	--	--	20	0.0624	≥20	0.0419
05-06-85	4.47	4.47	.85	15.0	.35	--	--	17	.0760	≥20	.166
05-09-85	5.81	5.81	1.0	15.5	.38	--	--	34	.198	≥20	.0385
05-14-85	3.96	3.96	.78	15.0	.34	--	--	12	.0475	≥20	.0979
05-17-85	4.50	4.50	.85	15.0	.36	--	--	7	.0315	≥20	.0634
05-21-85	4.47	4.47	.87	15.0	.34	--	--	7	.0313	≥20	.0858
05-24-85	5.81	5.81	.96	15.5	.40	--	--	7	.0407	≥20	.103
05-28-85	7.65	7.65	1.1	15.5	.43	--	--	22	.168	≥20	.137
05-31-85	7.62	7.62	1.1	15.5	.43	--	--	9	.0686	≥20	.160
06-10-85	10.9	10.9	1.3	16.0	.52	--	--	23	.251	≥20	.332
06-13-85	9.94	9.94	1.2	16.0	.51	--	8.5	15	.149	≥20	.167
06-17-85	8.64	8.64	1.1	16.0	.48	--	10.0	6	.0518	≥20	.145
06-20-85	8.35	8.35	1.1	16.0	.47	--	10.0	4	.0334	≥20	.345
06-25-85	6.88	6.88	1.0	15.5	.44	0.0068	10.0	10	.0688	≥20	.185
06-28-85	5.75	5.75	.84	15.5	.44	--	9.0	7	.0403	≥20	.0323
06-30-85	5.66	5.66	.87	15.5	.42	--	8.5	6	.0340	≥20	.190
07-03-85	5.07	5.07	.84	15.0	.40	--	10.5	8	.0406	≥20	.0962
07-10-85	4.90	4.90	.89	15.0	.36	--	11.0	26	.127	≥20	.0664
07-16-85	3.94	3.94	.80	15.0	.33	--	12.5	3	.0118	≥20	.0538
07-18-85	6.12	6.12	.92	15.5	.43	--	12.5	372	2.28	≥20	.0701
07-23-85	4.87	4.87	.86	15.0	.38	--	12.5	12	.0584	≥20	.0572
59. North Fork of South Platte River at Grossons, Colo.[5]											
05-14-85	7.22	7.22	0.74	19.5	0.51	--	--	13	0.0939	≥20	0.164
05-17-85	7.36	7.36	.73	19.0	.53	--	--	16	.118	≥20	.0569
05-21-85	8.41	8.41	.80	19.5	.54	--	--	10	.0841	≥20	.153
05-24-85	9.26	9.26	.86	19.0	.56	--	--	20	.185	≥20	.211
05-28-85	10.9	10.9	.92	19.0	.62	--	--	21	.229	≥20	.442
05-31-85	11.0	11.0	.95	19.0	.61	--	--	13	.143	≥20	.343
06-13-85	12.5	12.5	.96	19.5	.67	--	9.0	33	.413	≥20	.292
06-17-85	12.3	12.3	.96	19.5	.66	--	13.0	11	.135	≥20	.224
06-20-85	11.1	11.1	.94	19.5	.61	--	9.0	8	.0888	≥20	.221
06-25-85	9.63	9.63	.88	19.0	.57	0.0047	8.0	21	.202	≥20	.0716
06-28-85	8.44	8.44	.78	19.5	.56	--	8.0	11	.0928	≥20	.202
06-30-85	7.33	7.33	.75	19.5	.50	--	12.5	10	.0733	≥20	.0622
07-03-85	6.91	6.91	.69	19.5	.52	--	9.0	18	.124	≥20	.0512
07-10-85	6.23	6.23	.67	19.0	.48	--	14.5	5	.0312	≥20	.0320
07-16-85	5.35	5.35	.65	19.5	.42	--	15.5	7	.0375	≥20	.0434
07-23-85	6.74	6.74	.74	19.5	.47	--	15.5	7	.0472	≥20	.103

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				60. North Fork of South Platte River at Buffalo, Colo.[5]							
05-03-85	10.6	10.6	1.1	14.0	0.66	--	--	94	0.996	≥20	1.36
05-06-85	11.9	11.9	1.1	14.5	.73	--	--	85	1.01	≥20	.623
05-09-85	13.7	13.7	1.2	15.0	.74	--	--	127	1.74	≥20	1.98
05-15-85	9.32	9.32	1.1	14.0	.62	--	--	34	.317	≥20	2.41
05-17-85	8.98	8.98	1.0	13.5	.64	--	--	25	.225	≥20	1.48
05-21-85	9.46	9.46	1.0	14.0	.66	--	--	21	.199	≥20	.0753
05-23-85	9.32	9.32	1.0	14.0	.67	--	--	23	.214	≥20	.107
05-28-85	11.9	11.9	1.2	14.5	.70	--	--	31	.369	≥20	.401
05-30-85	12.5	12.5	1.2	15.0	.72	--	--	26	.325	≥20	.457
06-10-85	18.0	18.0	1.4	15.5	.81	--	8.0	38	.684	≥20	.705
06-12-85	13.8	13.8	1.2	15.0	.74	--	15.0	15	.207	≥20	.558
06-17-85	12.7	12.7	1.2	14.5	.70	--	14.0	20	.254	≥20	.149
06-19-85	11.6	11.6	1.2	14.5	.70	--	15.0	13	.151	≥20	.182
06-26-85	11.2	11.2	1.1	14.0	.69	0.0107	12.5	23	.258	≥20	.122
06-27-85	11.0	11.0	1.0	14.0	.74	--	13.5	17	.187	≥20	.0502
06-30-85	7.67	7.67	.94	13.0	.62	--	13.5	11	.0844	≥20	.0119
07-02-85	6.88	6.88	.83	13.0	.63	--	14.0	12	.0826	≥20	.0729
07-11-85	5.95	5.95	.75	13.0	.62	--	12.5	2	.0119	≥20	.0138
07-16-85	5.38	5.38	.71	13.0	.59	--	12.5	11	.0592	≥20	.0262
07-24-85	6.23	6.23	.81	13.0	.59	--	13.0	15	.0935	≥20	.0309
				61. South Fork of South Platte River above Vermillion Creek, Colo.[5]							
05-15-85	9.88	9.88	0.63	25.5	0.61	--	--	68	0.672	≥20	1.31
05-16-85	9.63	9.63	.61	25.5	.62	--	--	52	.501	≥20	1.32
05-21-85	10.5	10.5	.67	25.0	.63	--	--	50	.525	≥20	1.02
05-23-85	10.4	10.4	.66	25.5	.62	--	--	72	.749	≥20	1.29
05-29-85	10.6	10.6	.68	25.0	.62	--	--	47	.498	≥20	1.13
05-30-85	10.3	10.3	.66	25.0	.62	--	--	36	.371	≥20	1.40
06-11-85	14.0	14.0	.73	25.5	.75	--	17.5	55	.770	≥20	.890
06-12-85	14.8	14.8	.74	25.5	.78	--	12.5	54	.799	≥20	.719
06-18-85	14.7	14.7	.81	25.5	.72	--	18.0	37	.544	≥20	.782
06-19-85	14.9	14.9	.80	25.5	.73	--	14.0	30	.447	≥20	.932
06-27-85	10.7	10.7	.67	25.5	.62	0.0004	15.5	15	.161	≥20	.550
07-01-85	9.43	9.43	.66	25.5	.56	--	17.0	17	.160	≥20	.622
07-02-85	8.41	8.41	.61	25.5	.55	--	12.5	10	.0841	≥20	.0825
07-12-85	7.96	7.96	.59	25.5	.53	--	15.5	29	.231	≥20	.167
07-17-85	8.47	8.47	.61	25.5	.54	--	21.5	33	.280	≥20	.189
07-18-85	8.44	8.44	.58	25.5	.57	--	15.5	31	.262	≥20	.284
07-25-85	14.8	14.8	.79	26.0	.73	--	16.0	35	.518	≥20	1.37
				62. South Fork of South Platte River at Trumbull, Colo.[5]							
05-02-85	29.8	29.8	1.3	27.0	0.85	--	--	105	3.13	≥20	7.12
05-07-85	30.6	30.6	1.4	27.0	.83	--	--	50	1.53	≥20	8.06
05-08-85	30.5	30.5	1.4	27.0	.82	--	--	31	.946	≥20	6.63
05-15-85	27.7	27.7	1.2	26.5	.85	--	--	20	.554	≥20	.486
05-16-85	26.1	26.1	1.2	26.0	.84	--	--	14	.365	≥20	.472

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
62. South Fork of South Platte River at Trumbull, Colo.[5]--Continued											
05-22-85	26.9	26.9	1.2	25.5	0.86	--	--	23	0.619	≥20	0.271
05-23-85	24.7	24.7	1.1	26.5	.82	--	--	24	.593	≥20	.219
05-29-85	22.8	22.8	1.1	25.5	.79	--	--	11	.251	≥20	.356
05-30-85	24.7	24.7	1.2	26.5	.80	--	--	11	.272	≥20	.600
06-11-85	29.3	29.3	1.3	26.5	.87	--	15.5	8	.234	≥20	.173
06-12-85	30.4	30.4	1.3	26.5	.91	--	16.0	5	.152	≥20	.170
06-18-85	26.7	26.7	1.3	25.5	.83	--	17.5	3	.0801	≥20	.0866
06-26-85	19.4	19.4	1.1	25.5	.71	0.0035	18.5	4	.0776	≥20	.115
07-01-85	12.8	12.8	.81	26.0	.60	--	18.0	2	.0256	≥20	.0102
07-02-85	12.8	12.8	.85	25.0	.61	--	18.0	8	.102	≥20	.0240
07-11-85	22.3	22.3	1.0	26.5	.80	--	8.0	10	.223	≥20	.493
07-17-85	19.3	19.3	1.0	26.0	.74	--	7.5	4	.0772	≥20	.0892
07-24-85	13.7	13.7	.86	25.5	.63	--	14.0	55	.754	≥20	.0278
63. Buffalo Creek at Buffalo, Colo.[5]											
05-03-85	1.56	1.56	0.71	5.7	0.39	--	--	76	0.119	≥20	1.36
05-06-85	1.30	1.30	.63	5.5	.37	--	--	67	.0871	≥20	.412
05-08-85	1.30	1.30	.71	5.5	.33	--	--	65	.0845	≥20	.545
05-14-85	1.10	1.10	.61	5.5	.33	--	--	29	.0319	≥20	.590
05-17-85	.99	.99	.56	5.4	.33	--	--	27	.0267	≥20	.0834
05-21-85	1.30	1.30	.64	5.5	.37	--	--	33	.0429	≥20	.301
05-23-85	1.22	1.22	.62	5.5	.36	--	--	34	.0415	≥20	.0852
05-28-85	1.16	1.16	.64	5.5	.33	--	--	20	.0232	≥20	.384
05-30-85	1.10	1.10	.62	5.4	.33	--	12.5	16	.0176	≥20	.288
06-10-85	1.16	1.16	.64	5.4	.33	--	15.5	23	.0267	≥20	.377
06-12-85	1.02	1.02	.59	5.4	.32	--	15.0	13	.0133	≥20	.201
06-17-85	.93	.93	.58	5.3	.30	--	17.0	16	.0149	≥20	.339
06-19-85	.88	.88	.56	5.3	.30	--	10.0	9	.00792	≥20	.225
06-26-85	.91	.91	.59	5.3	.29	0.0009	13.5	32	.0291	≥20	.0102
06-30-85	.68	.68	.52	5.2	.25	--	13.5	15	.0102	≥20	.0828
07-02-85	.59	.59	.50	5.2	.23	--	13.5	13	.00767	≥20	.0601
07-11-85	.79	.79	.52	5.3	.29	--	13.5	15	.0119	≥20	.0800
07-16-85	.85	.85	.53	5.3	.31	--	15.5	15	.0128	≥20	.0806
07-19-85	.96	.96	.54	5.4	.33	--	15.5	19	.0182	≥20	.116
07-23-85	.42	.42	.35	5.2	.23	--	15.5	16	.00672	≥20	.00878
64. Trail Creek near Westcreek, Colo.[5]											
05-02-84	0.13	0.13	0.28	2.6	0.18	0.018	--	38	0.00494	40	0.00540
05-08-84	.33	.33	.60	2.8	.20	.018	--	57	.0188	40	.0120
05-11-84	.49	.49	.64	3.0	.25	.018	--	242	.119	40	.00968
05-15-84	.59	.59	.50	7.2	.16	.018	--	308	.182	40	.0122
05-26-84	.29	.29	.57	2.2	.23	.018	--	66	.0191	40	.00251
06-01-84	.23	.23	.52	2.5	.17	.018	--	53	.0122	40	.00386
06-08-84	.21	.21	.55	2.4	.16	.018	--	57	.0120	40	.00370
06-16-84	.16	.16	.48	2.4	.14	.018	--	23	.00368	40	.00318
06-26-84	.17	.17	.47	2.4	.15	.018	--	56	.00952	40	.00392
07-10-84	.13	.13	.48	2.1	.12	.018	--	22	.00286	40	.00105

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				64. Trail Creek near Westcreek, Colo.[5]--Continued							
07-27-84	0.071	0.071	0.37	2.0	0.098	0.018	--	16	0.00114	40	0.00138
08-13-84	.20	.20	.44	2.5	.18	.018	--	193	.0386	40	.0271
09-04-84	.31	.31	.69	2.5	.18	.018	--	106	.0329	40	.258
				65. Horse Creek near Westcreek, Colo.[5]							
05-02-85	7.84	7.84	1.6	9.3	0.54	--	--	229	1.80	≥20	10.0
05-07-85	5.98	5.98	1.4	8.3	.50	--	--	138	.825	≥20	.555
05-08-85	5.61	5.61	1.3	8.4	.51	--	--	106	.595	≥20	.522
05-15-85	4.90	4.90	1.2	8.1	.50	--	--	79	.387	≥20	.227
05-16-85	4.47	4.47	1.2	7.8	.50	--	--	64	.286	≥20	.157
05-22-85	5.64	5.64	1.3	8.0	.56	--	--	88	.496	≥20	1.30
05-23-85	5.13	5.13	1.2	8.2	.54	--	--	48	.246	≥20	.547
05-29-85	4.05	4.05	1.1	7.9	.48	--	--	34	.138	≥20	.307
05-30-85	3.51	3.51	.99	7.7	.46	--	--	32	.112	≥20	.419
06-11-85	2.69	2.69	.85	7.7	.41	--	14.5	31	.0834	≥20	.0309
06-12-85	2.49	2.49	.88	7.6	.38	--	15.5	29	.0722	≥20	.568
06-18-85	2.04	2.04	.72	7.3	.38	--	17.5	13	.0265	≥20	.139
06-19-85	1.98	1.98	.70	7.3	.39	--	17.0	11	.0218	≥20	.0569
06-27-85	1.30	1.30	.58	7.0	.32	0.0039	10.0	19	.0247	≥20	.0147
07-01-85	1.36	1.36	.63	7.1	.30	--	18.0	15	.0204	≥20	.0305
07-02-85	1.27	1.27	.54	7.2	.33	--	15.5	14	.0178	≥20	.0218
07-12-85	1.10	1.10	.54	6.9	.29	--	18.5	12	.0132	≥20	.00729
07-17-85	1.33	1.33	.60	7.1	.31	--	21.5	19	.0253	≥20	.0347
07-19-85	1.30	1.30	.61	7.1	.30	--	18.5	14	.0182	≥20	.0324
07-24-85	2.29	2.29	.94	7.4	.33	--	17.0	37	.0847	≥20	1.79
07-25-85	2.38	2.38	1.0	7.7	.31	--	16.0	41	.0976	≥20	1.82
				66. Blue River below Green Mountain Reservoir, Colo.[5]							
05-30-85	25.1	25.1	0.96	33.5	0.79	--	--	8	0.201	≥20	0.0439
06-04-85	21.5	21.5	.83	33.0	.78	--	--	4	.0860	≥20	.0518
06-06-85	21.3	21.3	.85	33.5	.74	--	--	4	.0852	≥20	.0188
06-10-85	31.7	31.7	1.1	34.0	.88	--	--	31	.983	≥20	.0918
06-17-85	36.4	36.4	1.1	34.0	.94	--	12.5	11	.400	≥20	.0726
06-18-85	43.8	43.8	1.3	34.5	1.0	--	11.0	19	.832	≥20	.143
06-25-85	43.6	43.6	1.2	34.5	1.0	--	12.5	15	.654	≥20	.0443
06-26-85	46.1	46.1	1.3	34.5	1.0	--	10.0	10	.461	≥20	.102
06-30-85	37.2	37.2	1.2	34.0	.94	0.0026	13.5	10	.372	≥20	.0677
07-10-85	18.0	18.0	.81	32.5	.68	--	14.5	5	.0900	≥20	.00188
07-17-85	31.0	31.0	1.0	34.0	.91	--	13.5	6	.186	≥20	.106
07-31-85	28.1	28.1	.90	33.5	.93	--	15.5	7	.197	≥20	.126
				67. Williams Fork near Leal, Colo.[5]							
05-15-85	4.59	4.59	1.0	17.0	0.26	--	--	2	0.00918	≥20	0.0202
05-21-85	4.76	4.76	.92	17.0	.29	--	--	8	.0381	≥20	.0313
05-22-85	5.21	5.21	1.0	17.0	.31	--	--	6	.0313	≥20	.0342
05-22-85	5.07	5.07	1.1	17.0	.29	--	--	5	.0254	≥20	.0466

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
67. Williams Fork near Leal, Colo.[5]--Continued											
05-28-85	9.71	9.71	1.1	17.5	0.49	--	--	15	0.146	≥20	0.0812
05-29-85	9.88	9.88	1.2	17.5	.49	--	--	15	.148	≥20	.722
06-05-85	14.2	14.2	1.4	17.5	.59	--	8.0	9	.128	≥20	.334
06-06-85	15.3	15.3	1.4	18.0	.60	--	--	10	.153	≥20	.104
06-10-85	22.7	22.7	1.8	21.0	.62	--	--	12	.272	≥20	.0473
06-11-85	20.3	20.3	1.7	19.5	.63	--	--	7	.142	≥20	.0660
06-18-85	18.4	18.4	1.6	18.5	.63	--	6.5	9	.166	≥20	.0423
06-18-85	17.9	17.9	1.6	18.5	.62	--	--	5	.0895	≥20	.0487
06-26-85	13.5	13.5	1.5	17.5	.53	--	5.0	11	.149	≥20	.0609
06-26-85	13.7	13.7	1.3	17.5	.58	--	4.5	11	.151	≥20	.0504
07-01-85	8.69	8.69	1.1	17.5	.45	0.0058	10.0	10	.0869	≥20	.0276
07-01-85	7.96	7.96	1.1	17.5	.42	--	10.0	10	.0796	≥20	.0532
07-11-85	6.60	6.60	1.0	17.5	.37	--	12.5	4	.0264	≥20	.114
07-18-85	5.72	5.72	1.0	17.5	.33	--	12.5	7	.0400	≥20	.0261
08-01-85	4.08	4.08	.90	17.0	.26	--	12.5	7	.0286	≥20	.0134
68. Upper South Fork of Williams Fork near Leal, Colo.[5]											
05-16-85	0.74	0.74	0.82	5.3	0.17	--	--	1	0.000740	≥20	0.0342
05-23-85	.99	.99	.73	6.4	.21	--	--	3	.00297	≥20	.0435
05-30-85	2.80	2.80	.93	11.0	.28	--	--	5	.0140	≥20	.0295
06-04-85	2.80	2.80	.88	10.5	.30	--	--	6	.0168	≥20	.152
06-05-85	2.80	2.80	.93	10.5	.29	--	5.0	3	.00840	≥20	.113
06-10-85	5.27	5.27	1.2	11.5	.39	--	--	19	.100	≥20	.353
06-11-85	4.50	4.50	1.1	11.5	.36	--	--	5	.0225	≥20	.201
06-17-85	5.15	5.15	1.1	11.5	.41	--	9.0	19	.0979	≥20	.165
06-18-85	3.71	3.71	.97	11.0	.35	--	8.5	6	.0223	≥20	.189
07-01-85	1.44	1.44	.81	8.8	.20	0.0096	5.0	3	.00432	≥20	.0175
07-18-85	.74	.74	.71	6.7	.15	--	9.0	8	.00592	≥20	.0236
69. Lower South Fork of Williams Fork near Leal, Colo.[5]											
05-15-85	1.44	1.44	0.44	8.8	0.37	--	--	1	0.00144	≥20	0.00652
05-28-85	4.13	4.13	.96	9.0	.48	--	--	22	.0909	≥20	.185
05-29-85	3.96	3.96	.94	9.0	.47	--	--	9	.0356	≥20	.123
06-05-85	4.13	4.13	.96	9.0	.48	--	--	7	.0289	≥20	.0247
06-05-85	6.34	6.34	1.3	9.0	.54	--	--	35	.222	≥20	.0593
06-06-85	4.70	4.70	1.1	9.0	.48	--	--	8	.0376	≥20	.0955
06-11-85	6.80	6.80	1.4	9.0	.55	--	--	11	.0748	≥20	.104
06-11-85	7.05	7.05	1.4	9.0	.56	--	--	7	.0494	≥20	.197
06-17-85	7.05	7.05	1.4	9.0	.56	--	9.0	11	.0776	≥20	.0223
06-18-85	5.86	5.86	1.2	9.0	.53	--	6.5	4	.0234	≥20	.0298
06-25-85	4.13	4.13	.96	9.0	.48	--	9.0	13	.0537	≥20	.0171
06-26-85	3.85	3.85	.92	9.0	.47	--	3.5	32	.123	≥20	.0307
07-01-85	2.32	2.32	.63	8.9	.41	0.016	9.5	33	.0766	≥20	.0117
07-03-85	2.12	2.12	.59	8.9	.41	--	10.5	14	.0297	≥20	.00144
07-18-85	1.22	1.22	.39	8.8	.36	--	9.5	37	.0451	≥20	.00376
08-01-85	1.16	1.16	.39	8.7	.34	--	10.5	12	.0139	≥20	.00139

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				70. Williams Fork below Steelman Creek near Leal, Colo.[5]							
05-16-85	0.68	0.68	0.58	4.4	0.27	--	--	4	0.00272	≥20	0.000331
05-23-85	.71	.71	.60	4.4	.27	--	--	3	.00213	≥20	.00118
05-23-85	.74	.74	.62	4.4	.27	--	--	7	.00518	≥20	.00189
06-03-85	3.71	3.71	1.3	7.9	.37	--	--	3	.0111	≥20	.0991
06-03-85	3.99	3.99	1.3	7.9	.39	--	5.5	10	.0399	≥20	.0924
06-03-85	4.28	4.28	1.3	8.0	.40	--	3.5	2	.00856	≥20	.146
06-13-85	5.86	5.86	1.5	8.1	.47	--	--	3	.0176	≥20	.0912
06-13-85	6.06	6.06	1.6	8.1	.48	--	--	1	.00606	≥20	.113
06-20-85	5.07	5.07	1.4	8.0	.45	--	6.0	4	.0203	≥20	.0448
06-20-85	5.30	5.30	1.5	8.0	.45	--	6.0	4	.0212	≥20	.0998
06-27-85	3.74	3.74	1.3	7.9	.37	--	5.5	10	.0374	≥20	.0496
06-27-85	4.16	4.16	1.3	7.9	.40	--	6.5	15	.0624	≥20	.0428
07-02-85	2.78	2.78	1.1	7.7	.32	--	8.0	15	.0417	≥20	.00154
07-16-85	2.21	2.21	1.1	7.4	.28	--	6.0	8	.0177	≥20	.000632
07-30-85	1.78	1.78	.98	7.3	.25	--	8.5	9	.0160	≥20	.00115
				71. Kinney Creek near Leal, Colo.[5]							
05-15-85	0.54	0.54	0.49	4.6	0.23	--	--	4	0.00216	≥20	0.00159
05-16-85	.57	.57	.52	4.7	.24	--	--	2	.00114	≥20	.000703
05-22-85	.57	.57	.52	4.7	.23	--	--	9	.00513	≥20	.00278
05-28-85	1.22	1.22	.79	4.9	.31	--	--	20	.0244	≥20	.0202
05-29-85	1.19	1.19	.79	5.0	.30	--	--	8	.00952	≥20	.00361
06-05-85	1.33	1.33	.80	4.9	.34	--	5.5	11	.0146	≥20	.0607
06-06-85	1.27	1.27	.78	5.0	.33	--	3.5	7	.00889	≥20	.0284
06-11-85	2.41	2.41	1.1	5.1	.42	--	--	4	.00964	≥20	.0139
06-11-85	2.52	2.52	1.2	5.1	.42	--	--	11	.0277	≥20	.00730
06-18-85	1.76	1.76	1.0	5.0	.35	--	4.5	7	.0123	≥20	.0251
06-26-85	1.30	1.30	.76	5.0	.33	--	6.5	10	.0130	≥20	.00175
06-26-85	1.33	1.33	.84	4.9	.32	--	3.5	11	.0146	≥20	.00119
07-01-85	.68	.68	.55	4.9	.25	0.019	3.5	14	.00952	≥20	.000355
07-03-85	.59	.59	.52	4.7	.25	--	7.5	19	.0112	≥20	.000414
07-11-85	.54	.54	.51	4.6	.23	--	11.0	8	.00432	≥20	.000598
08-01-85	.48	.48	.50	4.6	.21	--	5.5	19	.00912	≥20	.000584
				72. West Fork of San Juan River near Pagosa Springs, Colo.[5,15]							
04-17-85	16.6	16.6	1.15	25.5	0.57	--	8.5	132	2.19	20	0.158
04-23-85	6.80	6.80	.68	24.0	.41	--	4.0	265	1.80	80	.0105
05-02-85	9.91	9.91	.80	24.5	.47	--	13.0	43	.426	40	.0777
05-05-85	24.1	24.1	--	26.0	--	--	9.0	215	5.18	42	.0273
05-08-85	24.0	24.0	1.42	26.0	.65	--	9.0	144	3.46	20	.0399
05-12-85	17.2	17.2	--	24.5	--	--	5.5	37	.636	20	.126
05-15-85	13.4	13.4	--	24.5	--	--	11.0	201	2.69	20	.0168
05-20-85	12.7	12.7	--	24.5	--	--	7.0	26	.330	20	.0609
05-26-85	33.4	33.4	--	26.0	--	--	8.0	475	15.9	21	.168
05-30-85	30.6	30.6	--	26.0	--	--	7.5	98	3.00	21	.683
06-03-85	32.9	32.9	--	26.0	--	--	7.0	103	3.39	21	.515
06-06-85	30.3	30.3	--	26.0	--	--	8.0	85	2.58	21	.210
06-18-85	31.7	31.7	--	27.5	--	--	9.0	63	2.00	22	.294
07-18-85	5.52	5.52	.54	23.5	.44	--	11.0	6	.0331	50	.00284

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				73. Rich Creek near Weston Pass, Colo.[5]							
05-16-84	0.29	0.29	0.59	3.0	0.16	0.039	--	16	0.00464	40	0.00325
05-24-84	1.51	1.51	1.2	4.2	.30	.039	--	24	.0362	40	.0282
05-29-84	1.25	1.25	.94	4.9	.27	.039	--	24	.0300	40	.0135
05-31-84	1.46	1.46	1.1	5.0	.28	.039	--	17	.0248	40	.00701
06-06-84	1.13	1.13	.98	4.5	.26	.039	--	9	.0102	40	.0267
06-12-84	.73	.73	.76	4.4	.22	.039	--	10	.00730	40	.00786
06-14-84	.93	.93	.79	4.5	.26	.039	--	8	.00744	40	.0126
06-18-84	1.13	1.13	1.0	4.6	.24	.039	--	25	.0283	40	.00290
06-23-84	1.04	1.04	.87	4.6	.26	.039	--	25	.0260	40	.00298
06-26-84	1.13	1.13	.97	4.6	.25	.039	--	18	.0203	40	.00259
06-29-84	.73	.73	.71	4.6	.23	.039	--	8	.00584	40	.00120
07-03-84	.62	.62	.64	4.4	.22	.039	--	28	.0174	40	.00830
07-06-84	.69	.69	.76	4.4	.21	.039	--	15	.0104	40	.00359
07-10-84	.60	.60	.57	4.4	.24	.039	--	6	.00360	40	.00154
07-17-84	.38	.38	.52	4.0	.18	.039	--	23	.00874	40	.00393
08-08-84	.18	.18	.32	3.7	.16	.039	--	36	.00648	40	.000287
				74. Trout Creek near Bayfield, Colo.[5]							
05-02-84	0.037	0.037	0.26	0.82	0.17	--	2.0	17	0.000629	10	0.0000063
05-03-84	.038	.038	.25	.85	.11	--	0.5	15	.000570	10	.0000063
05-07-84	.11	.11	.41	.94	.28	--	1.5	28	.00308	10	.000084
05-08-84	.10	.10	.47	1.0	.21	--	1.0	14	.00140	10	.000176
05-15-84	.35	.35	.72	1.6	.30	--	3.0	51	.0179	10	.000567
05-16-84	.28	.28	.67	1.3	.31	--	3.0	25	.00700	10	.000227
05-21-84	.26	.26	.61	1.2	.35	--	7.5	29	.00754	10	.000233
05-22-84	.29	.29	.64	1.3	.37	--	3.5	13	.00377	10	.000337
05-30-84	.068	.068	.26	.94	.27	--	9.5	5	.000340	10	.000017
05-31-84	.061	.061	.27	.98	.23	--	5.5	4	.000244	10	.0000053
06-05-84	.051	.051	.26	.91	.21	--	--	19	.000969	10	.000018
06-11-84	.030	.030	.19	.85	.19	--	5.0	7	.000210	10	.0000011
06-12-84	.031	.031	.29	.64	.16	--	5.0	3	.000093	10	.0000011
04-23-85	.10	.10	.56	.88	.20	--	--	25	.00250	10	.000032
04-29-85	.11	.11	.50	1.0	.21	--	--	15	.00165	10	.000081
04-30-85	.11	.11	.50	.98	.24	--	--	8	.000880	10	.000021
05-06-85	.40	.40	.86	1.2	.38	--	--	36	.0144	10	.000389
05-07-85	.33	.33	.80	1.2	.34	--	--	14	.00462	10	.000166
05-20-85	.13	.13	.53	.91	.27	--	--	2	.000260	10	.000076
05-21-85	.11	.11	.46	.94	.26	--	--	8	.000880	10	.000017
05-21-85	.11	.11	.44	.91	.28	--	--	5	.000550	10	.000046
05-22-85	.11	.11	.41	.98	.26	--	--	4	.000440	10	.000031
05-29-85	.18	.18	.62	.94	.31	--	--	8	.00144	10	.000042
05-30-85	.13	.13	.41	1.0	.31	--	--	9	.00117	10	.000056
06-04-85	.12	.12	.50	.94	.26	--	--	4	.000480	10	.000020
06-05-85	.10	.10	.46	.91	.24	--	--	7	.000700	10	.000049
06-13-85	.050	.050	.29	.91	.19	--	--	7	.000350	10	.000047

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
					75. Clear Creek near Bayfield, Colo.[5]						
05-07-84	0.056	0.056	0.55	1.2	0.084	--	3.5	59	0.00330	10	0.000049
05-08-84	.040	.040	.37	1.2	.088	--	1.0	18	.000720	10	.000014
05-15-84	.18	.18	.89	1.5	.13	--	3.0	157	.0283	10	.000616
05-16-84	.15	.15	.80	1.4	.14	--	3.5	41	.00615	10	.000452
05-21-84	.13	.13	.78	1.3	.12	--	9.0	23	.00299	10	.000285
05-22-84	.14	.14	.84	1.2	.13	--	5.0	52	.00728	10	.000231
05-30-84	.038	.038	.34	1.4	.083	--	10.0	9	.000342	10	.0000053
05-31-84	.036	.036	.29	1.3	.099	--	6.5	5	.000180	10	.000069
06-05-84	.037	.037	--	1.2	--	--	--	26	.000962	10	.000187
04-23-85	.049	.049	.33	1.2	.12	--	--	32	.00157	10	.000097
04-29-85	.062	.062	.44	1.3	.11	--	--	35	.00217	10	.000309
04-30-85	.052	.052	.35	1.3	.11	--	--	10	.000520	10	.000048
05-06-85	.15	.15	.78	1.5	.13	--	--	72	.0108	10	.00127
05-07-85	.14	.14	.68	1.7	.12	--	--	33	.00462	10	.000017
05-20-85	.056	.056	.52	1.2	.093	--	--	8	.000448	10	.000142
05-21-85	.062	.062	.68	1.1	.085	--	--	9	.000558	10	.000054
05-21-85	.060	.060	.54	1.1	.10	--	--	7	.000420	10	.000055
05-22-85	.047	.047	.43	1.1	.099	--	--	6	.000282	10	.000020
05-29-85	.092	.092	.55	1.3	.13	--	--	12	.00110	10	.000199
05-30-85	.10	.10	.62	1.3	.13	--	--	10	.00100	10	.000953
06-04-85	.058	.058	.55	1.2	.090	--	--	6	.000348	10	.000028
06-05-85	.044	.044	.50	1.2	.078	--	--	11	.000484	10	.000050
					76. West Prong Creek near Bayfield, Colo.[5]						
05-02-84	0.27	0.27	0.93	1.80	.16	--	2.0	21	0.00567	10	0.000026
05-03-84	.24	.24	.71	1.8	.18	--	2.0	14	.00336	10	.000042
05-07-84	.63	.63	.95	2.7	.25	--	5.5	27	.0170	10	.000492
05-08-84	.61	.61	.96	2.7	.23	--	2.0	16	.00976	10	.000126
05-15-84	1.25	1.25	1.1	3.7	.30	--	4.5	145	.181	10	.00217
05-16-84	.91	.91	.97	3.4	.27	--	4.5	94	.0855	10	.000419
05-21-84	.72	.72	.93	3.2	.24	--	6.5	18	.0130	10	.000227
05-22-84	.76	.76	.93	3.2	.26	--	8.0	21	.0160	10	.000219
05-30-84	.26	.26	.56	2.6	.18	--	6.5	5	.00130	10	.000548
05-31-84	.17	.17	.46	2.4	.15	--	7.5	2	.000340	10	.000029
06-05-84	.16	.16	--	2.6	--	--	--	14	.00224	10	.000077
06-11-84	.14	.14	.50	2.3	.13	--	11.0	4	.000560	10	.000020
06-12-84	.16	.16	.53	2.5	.12	--	6.5	3	.000480	10	.0000042
04-23-85	.39	.39	.79	2.7	.18	--	--	27	.0105	10	.000126
04-29-85	.50	.50	.86	2.9	.20	--	--	16	.00800	10	.000302

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
76. West Prong Creek near Bayfield, Colo.[5]--Continued											
04-30-85	0.54	0.54	0.89	2.9	0.21	--	--	7	0.00378	10	0.000105
05-06-85	1.73	1.73	1.5	3.4	.33	--	--	41	.0709	10	.00273
05-07-85	1.24	1.24	1.1	3.3	.33	--	--	29	.0360	10	.00582
05-20-85	.60	.60	.94	2.7	.23	--	--	3	.00180	10	.000103
05-21-85	.55	.55	.88	2.7	.23	--	--	6	.00330	10	.000382
05-22-85	.45	.45	.71	2.9	.22	--	--	6	.00270	10	.000109
05-22-85	.45	.45	--	2.9	--	--	--	5	.00225	10	.000114
05-29-85	.49	.49	.81	2.7	.22	--	--	7	.00343	10	.000038
05-30-85	.49	.49	.84	2.8	.21	--	--	5	.00245	10	.000044
06-04-85	.32	.32	.70	2.7	.17	--	--	4	.00128	10	.000063
06-05-85	.33	.33	.88	2.6	.15	--	--	13	.00429	10	.00433
06-14-85	.11	.11	.39	2.0	.13	--	--	3	.000330	10	.0000011
77. Red Creek near Bayfield, Colo.[5]											
05-07-84	0.14	0.14	0.53	2.4	0.11	--	5.5	16	0.00224	10	0.000639
05-08-84	.15	.15	.59	2.3	.11	--	4.5	16	.00240	10	.000041
05-15-84	.40	.40	.85	3.3	.14	--	4.5	66	.0264	10	.00404
05-16-84	.51	.51	--	2.9	--	--	3.5	61	.0311	10	.00189
05-21-84	.26	.26	.68	2.7	.15	--	5.0	12	.00312	10	.00132
05-22-84	.29	.29	.71	2.7	.15	--	9.5	17	.00493	10	.000511
05-30-84	.069	.069	.32	2.1	.10	--	5.5	7	.000483	10	.000042
05-31-84	.056	.056	.28	2.0	.10	--	9.5	6	.000336	10	.000021
06-05-84	.055	.055	--	2.0	--	--	6.0	13	.000715	10	.000042
06-11-84	.030	.030	.17	2.1	.084	--	12.5	5	.000150	10	.0000074
06-12-84	.031	.031	.19	1.6	.10	--	6.5	5	.000155	10	.00000032
04-23-85	.087	.087	.31	2.2	.13	--	--	39	.00339	10	.000167
04-29-85	.12	.12	.32	2.1	.17	--	--	16	.00192	10	.000254
04-30-85	.14	.14	.40	2.3	.15	--	--	9	.00126	10	.000227
05-06-85	.35	.35	.68	2.5	.20	--	--	28	.00980	10	.000576
05-07-85	.34	.34	.71	2.5	.19	--	--	30	.0102	10	.0103
05-20-85	.13	.13	.43	2.4	.13	--	--	8	.00104	10	.000205
05-21-85	.13	.13	.40	2.3	.14	--	--	6	.000780	10	.000137
05-22-85	.12	.12	.40	2.3	.13	--	--	28	.00336	10	.000288
05-22-85	.12	.12	.40	2.3	.13	--	--	9	.00108	10	.000055
05-29-85	.21	.21	.50	2.5	.17	--	--	9	.00189	10	.000171
05-30-85	.19	.19	.52	2.5	.15	--	--	9	.00171	10	.000363
06-04-85	.14	.14	.49	2.4	.12	--	--	4	.000560	10	.000126
06-05-85	.10	.10	.37	2.2	.12	--	--	7	.000700	10	.000223
06-14-85	.027	.027	.15	2.0	.088	--	--	4	.000108	10	.0000021
78. Sheep Creek at Guard Station near Saguache, Colo.[5]											
04-21-83	0.32	0.32	0.27	4.1	0.29	--	--	14	0.00448	20-40	0.000434
04-27-83	.55	.55	.44	4.3	.29	--	--	27	.0149	20-40	.00130
04-29-83	.29	.29	.26	4.3	.26	--	--	14	.00406	20-40	.000427
05-03-83	.28	.28	.26	4.3	.25	--	--	20	.00560	20-40	.000270
05-05-83	.39	.39	.32	4.3	.28	--	--	25	.00975	20-40	.000013

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				78. Sheep Creek at Guard Station near Saguache, Colo.[5]--Continued							
05-10-83	0.34	0.34	0.31	4.3	0.26	--	--	26	0.00884	20-40	0.000015
05-12-83	.39	.39	.33	4.3	.27	--	--	18	.00702	20-40	.000046
05-17-83	.38	.38	.33	4.3	.27	--	--	19	.00722	20-40	.000017
05-19-83	.28	.28	.29	4.3	.23	--	--	313	.0908	20-40	.000188
05-23-83	.23	.23	.28	4.2	.20	--	--	23	.00529	20-40	.0000021
05-25-83	.38	.38	.38	4.6	.22	--	--	1,040	.395	20-40	.000608
06-01-83	.47	.47	.41	4.6	.25	--	--	372	.175	20-40	.00144
06-03-83	.66	.66	.50	5.2	.25	--	--	3	.00198	20-40	.0112
06-06-83	.56	.56	.41	5.2	.27	--	--	4	.00224	20-40	.00366
06-08-83	.59	.59	.39	5.4	.28	--	--	3	.00177	20-40	.00287
06-15-83	.86	.86	.42	5.8	.36	--	--	9	.00774	20-40	.00159
06-20-83	.82	.82	.44	5.8	.32	--	--	1	.000820	20-40	.00153
06-22-83	.66	.66	.37	5.2	.34	--	--	16	.0106	20-40	.00487
06-27-83	.77	.77	.44	5.8	.30	--	--	12	.00924	20-40	.00276
06-30-83	.43	.43	.32	4.5	.30	--	--	11	.00473	20-40	.000411
07-06-83	.38	.38	.35	4.0	.27	--	--	7	.00266	20-40	.00117
07-13-83	.38	.38	.40	4.0	.24	--	--	10	.00380	20-40	.00149
07-19-83	.30	.30	.41	4.0	.19	--	--	44	.0132	20-40	.000417
07-26-83	.29	.29	.29	4.3	.24	--	--	31	.00899	20-40	.000889
08-02-83	.29	.29	.27	4.3	.25	--	--	18	.00522	20-40	.000179
08-09-83	.29	.29	.27	4.3	.25	--	--	21	.00609	20-40	.00000074
08-15-83	.34	.34	.28	4.3	.28	--	--	15	.00510	20-40	.000331
08-22-83	.24	.24	.24	4.3	.23	--	--	29	.00696	20-40	.000094
08-30-83	.27	.27	.23	4.3	.28	--	--	13	.00351	20-40	.0000029
09-12-83	.13	.13	.15	3.8	.22	--	--	6	.000780	20-40	.000179
				79. Embargo Creek near Del Norte, Colo.[5]							
04-18-83	0.15	0.15	0.31	4.3	0.11	--	--	23	0.00345	20-40	0.000154
04-20-83	.22	.22	.39	4.5	.13	--	--	27	.00594	20-40	.000209
04-25-83	.39	.39	.46	4.5	.19	--	--	64	.0250	20-40	.00478
04-27-83	.28	.28	.46	4.6	.13	--	--	51	.0143	20-40	.000700
05-02-83	.28	.28	.49	4.7	.12	--	--	22	.00616	20-40	.00185
05-04-83	.31	.31	.50	4.8	.13	--	--	31	.00961	20-40	.000570
05-07-83	.21	.21	.38	4.7	.12	--	--	17	.00357	20-40	.000484
05-11-83	.48	.48	.62	4.9	.16	--	--	41	.0197	20-40	.00210
05-16-83	.37	.37	.52	4.9	.14	--	--	15	.00555	20-40	.00106
05-23-83	.43	.43	.59	4.9	.15	--	--	27	.0116	20-40	.000748
05-25-83	.98	.98	.78	4.9	.26	--	--	72	.0706	20-40	.00352
05-26-83	1.31	1.31	.88	5.2	.29	--	--	78	.102	20-40	.0112
06-01-83	1.87	1.87	1.1	5.5	.32	--	--	38	.0711	20-40	.00582
06-06-83	1.74	1.74	1.0	5.4	.31	--	--	27	.0470	20-40	.00128
06-13-83	1.52	1.52	1.0	5.2	.29	--	--	30	.0456	20-40	.00243
06-15-83	1.64	1.64	1.0	5.3	.30	--	--	25	.0410	20-40	.00382
06-23-83	.92	.92	.79	5.0	.23	--	--	14	.0129	20-40	.000429
06-24-83	.95	.95	.79	5.0	.24	--	--	14	.0133	20-40	.000862
06-27-83	1.86	1.86	1.1	5.4	.33	--	--	69	.128	20-40	.0109
06-29-83	1.19	1.19	.89	5.1	.26	--	--	11	.0131	20-40	.00193

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
79. Embargo Creek near Del Norte, Colo.[5]--Continued											
07-08-83	0.38	0.38	0.35	4.9	0.23	--	--	25	0.00950	20-40	0.000418
07-13-83	.42	.42	.57	4.8	.16	--	--	10	.00420	20-40	.000289
07-18-83	.24	.24	.39	4.2	.15	--	--	8	.00192	20-40	.000744
07-27-83	.45	.45	.55	4.8	.17	--	--	14	.00630	20-40	.000280
08-03-83	.23	.23	.36	4.3	.15	--	--	12	.00276	20-40	.000190
08-10-83	.26	.26	.38	4.0	.17	--	--	14	.00364	20-40	.000090
08-18-83	.18	.18	.30	3.8	.15	--	--	11	.00198	20-40	.0000080
08-24-83	.24	.24	.36	4.2	.16	--	--	16	.00384	20-40	.000586
08-29-83	.17	.17	.30	3.8	.15	--	--	11	.00187	20-40	.000142
80. Pinos Creek near Del Norte, Colo.[5]											
04-20-83	0.58	0.58	0.54	7.9	0.13	--	--	27	0.0157	20-40	0.000537
04-25-83	.99	.99	.66	8.1	.19	--	--	46	.0455	20-40	.00579
04-27-83	1.04	1.04	.68	7.8	.20	--	--	23	.0239	20-40	.00450
05-02-83	.98	.98	.66	8.1	.18	--	--	23	.0225	20-40	.00177
05-04-83	.86	.86	.56	7.8	.20	--	--	22	.0189	20-40	.00189
05-07-83	1.16	1.16	.66	7.8	.22	--	--	35	.0406	20-40	.00543
05-11-83	1.91	1.91	.75	8.3	.31	--	--	66	.126	20-40	.00614
05-16-83	1.31	1.31	.64	8.2	.25	--	--	20	.0262	20-40	.00261
05-18-83	1.23	1.23	.62	8.1	.25	--	--	34	.0418	20-40	.000734
05-23-83	2.06	2.06	.77	8.4	.32	--	--	47	.0968	20-40	.00555
05-25-83	2.83	2.83	--	--	--	--	--	104	.294	20-40	.00633
07-08-83	2.25	2.25	.85	8.5	.31	--	--	27	.0608	20-40	.00190
07-13-83	1.73	1.73	.71	8.3	.29	--	--	19	.0329	20-40	.00125
07-18-83	1.26	1.26	.64	8.1	.25	--	--	12	.0151	20-40	.000354
07-27-83	1.06	1.06	.59	7.9	.23	--	--	13	.0138	20-40	.000153
08-03-83	1.04	1.04	.60	7.9	.22	--	--	62	.0645	20-40	.000833
08-10-83	1.23	1.23	.68	8.0	.23	--	--	36	.0443	20-40	.00398
08-18-83	1.01	1.01	.62	8.0	.20	--	--	19	.0192	20-40	.00104
08-24-83	.86	.86	.58	7.9	.19	--	--	12	.0103	20-40	.000181
08-29-83	.80	.80	.56	7.9	.18	--	--	17	.0136	20-40	.000130
09-13-83	.39	.39	.39	7.4	.14	--	--	10	.00390	20-40	.000073
81. Cross Creek near South Fork, Colo.[5]											
04-20-83	0.11	0.11	0.21	4.1	0.13	--	--	4	0.000440	20-40	0.000192
04-25-83	.16	.16	.28	4.2	.14	--	--	11	.00176	20-40	.000355
04-27-83	.22	.22	.34	4.2	.15	--	--	11	.00242	20-40	.000245
05-03-83	.20	.20	.35	4.2	.13	--	--	6	.00120	20-40	.000103
05-05-83	.23	.23	.33	4.2	.16	--	--	13	.00299	20-40	.000546
05-10-83	.33	.33	.40	4.2	.20	--	--	17	.00561	20-40	.00296
05-13-83	.30	.30	.40	4.1	.18	--	--	10	.00300	20-40	.00296
05-20-83	.24	.24	.39	4.2	.15	--	--	4	.000960	20-40	.000645
05-24-83	.40	.40	.48	4.1	.20	--	--	10	.00400	20-40	.000540
05-29-83	.84	.84	.83	4.1	.25	--	--	29	.0244	20-40	.00586
05-31-83	1.26	1.26	.98	4.1	.31	--	--	70	.0882	20-40	.00472
06-03-83	.98	.98	.82	4.2	.29	--	--	60	.0588	20-40	.00313
06-07-83	.83	.83	.73	4.1	.27	--	--	17	.0141	20-40	.000997
06-09-83	.93	.93	.89	4.1	.26	--	--	14	.0130	20-40	.000404
06-14-83	.80	.80	--	4.1	--	--	--	11	.00880	20-40	.000248

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				81. Cross Creek near South Fork, Colo.[5]--Continued							
06-16-83	0.76	0.76	0.74	4.1	0.25	--	--	9	0.00684	20-40	0.000608
06-20-83	.59	.59	.63	4.1	.23	--	--	16	.00944	20-40	.000908
06-22-83	.74	.74	.82	4.1	.22	--	--	11	.00814	20-40	.00127
06-25-83	.93	.93	--	4.1	--	--	--	51	.0474	20-40	.00780
06-28-83	.74	.74	.71	4.3	.24	--	--	14	.0104	20-40	.00197
06-30-83	.55	.55	.55	4.1	.25	--	--	8	.00220	20-40	.000197
07-07-83	.24	.24	.31	4.0	.19	--	--	5	.00120	20-40	.000050
07-12-83	.26	.26	.38	4.1	.16	--	--	2	.000520	20-40	.000198
07-19-83	.22	.22	.32	4.1	.17	--	--	4	.000880	20-40	.000188
07-21-83	.35	.35	.46	4.1	.19	--	--	34	.0119	20-40	.000211
07-26-83	.22	.22	.34	4.0	.16	--	--	3	.000660	20-40	.000143
08-02-83	.18	.18	.26	4.1	.17	--	--	3	.000540	20-40	.000010
08-11-83	.29	.29	.38	4.1	.19	--	--	7	.00203	20-40	.000032
08-16-83	.24	.24	.33	4.1	.17	--	--	3	.000720	20-40	.000020
08-23-83	.19	.19	.28	4.1	.16	--	--	2	.000380	20-40	.0000091
08-29-83	.20	.20	.35	2.8	.21	--	--	3	.000600	20-40	.0000024
				82. La Garita Creek near La Garita, Colo.[5]							
04-22-83	0.46	0.46	0.44	5.2	0.20	--	--	57	0.0262	20-40	0.00182
04-26-83	.75	.75	.58	5.2	.25	--	--	211	.158	20-40	.00673
04-28-83	.53	.53	.52	5.0	.20	--	--	72	.0382	20-40	.00365
05-02-83	.44	.44	.44	5.2	.19	--	--	36	.0158	20-40	.00457
05-04-83	.47	.47	.48	4.9	.20	--	--	35	.0158	20-40	.00431
05-07-83	.60	.60	.52	5.1	.23	--	--	84	.0504	20-40	.00865
05-11-83	1.48	1.48	.82	5.0	.36	--	--	243	.360	20-40	.0185
05-16-83	.69	.69	.59	4.7	.25	--	--	36	.0248	20-40	.00318
05-23-83	1.19	1.19	.72	5.5	.30	--	--	86	.102	20-40	.0159
05-25-83	1.95	1.95	.95	5.5	.38	--	--	280	.546	20-40	.0342
06-01-83	3.40	3.40	1.3	6.6	.41	--	--	193	.656	20-40	.0107
06-03-83	3.00	3.00	1.1	6.1	.45	--	--	110	.330	20-40	.0852
06-08-83	2.46	2.46	.99	5.9	.42	--	--	62	.153	20-40	.0105
06-13-83	2.08	2.08	.88	5.8	.41	--	--	51	.106	20-40	.00943
06-15-83	1.97	1.97	.84	5.7	.41	--	--	49	.0965	20-40	.00748
06-21-83	1.63	1.63	.79	5.7	.37	--	--	41	.0668	20-40	.00368
06-22-83	1.78	1.78	.85	5.7	.37	--	--	49	.0872	20-40	.00475
06-26-83	2.36	2.36	--	6.0	--	--	--	120	.283	20-40	.0179
06-27-83	2.34	2.34	.95	6.0	.41	--	--	83	.194	20-40	.0235
06-29-83	1.62	1.62	.77	5.6	.37	--	--	31	.0502	20-40	.0307
07-06-83	1.10	1.10	.55	5.5	.37	--	--	18	.0198	20-40	.00527
07-13-83	.71	.71	.47	5.1	.30	--	--	3	.00213	20-40	.00140
07-27-83	.65	.65	.44	5.0	.29	--	--	48	.0312	20-40	.00129
08-03-83	.44	.44	.35	4.8	.26	--	--	15	.00660	20-40	.000071
08-04-83	.91	.91	.54	5.2	.32	--	--	89	.0810	20-40	.00591
08-10-83	.37	.37	.37	4.6	.22	--	--	15	.00555	20-40	.00102
08-15-83	.38	.38	.34	4.6	.24	--	--	7	.00266	20-40	.00202
08-24-83	.44	.44	.39	4.8	.24	--	--	16	.00704	20-40	.000525
08-29-83	.28	.28	.29	4.6	.21	--	--	9	.00252	20-40	.00143
09-08-83	.37	.37	.34	4.7	.23	--	--	10	.00370	20-40	.000497

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				83. House Canyon Creek near Creede, Colo.[5]							
04-26-83	0.058	0.058	0.56	0.97	0.11	--	--	157	0.00911	20-40	0.000100
04-28-83	.033	.033	.48	.99	.068	--	--	14	.000462	20-40	.000029
05-03-83	.033	.033	.42	1.0	.076	--	--	12	.000396	20-40	.000044
05-05-83	.043	.043	.46	1.0	.092	--	--	22	.000946	20-40	.000088
05-10-83	.059	.059	.43	1.1	.13	--	--	19	.00112	20-40	.000072
05-12-83	.078	.078	.52	1.1	.13	--	--	37	.00289	20-40	.000626
05-17-83	.099	.099	.62	1.1	.14	--	--	347	.0344	20-40	.000219
05-19-83	.10	.10	.54	1.2	.16	--	--	17	.00170	20-40	.000570
05-24-83	.12	.12	.67	1.2	.15	--	--	26	.00312	20-40	.00119
05-26-83	.12	.12	.63	1.2	.17	--	--	37	.00444	20-40	.00139
05-31-83	.14	.14	.64	1.2	.18	--	--	31	.00434	20-40	.00108
06-02-83	.15	.15	.68	1.2	.18	--	--	25	.00375	20-40	.00161
06-07-83	.13	.13	.65	1.2	.16	--	--	18	.00234	20-40	.000435
06-09-83	.11	.11	.58	1.2	.16	--	--	21	.00231	20-40	.000433
06-14-83	.080	.080	.49	1.2	.14	--	--	28	.00224	20-40	.000365
06-16-83	.067	.067	.41	1.2	.14	--	--	18	.00121	20-40	.000152
06-21-83	.061	.061	.41	1.2	.12	--	--	18	.00110	20-40	.000022
06-23-83	.060	.060	.44	1.2	.12	--	--	19	.00114	20-40	.000086
06-28-83	.048	.048	.36	1.1	.12	--	--	10	.000480	20-40	.000079
06-30-83	.043	.043	.34	1.1	.11	--	--	13	.000559	20-40	.000196
07-07-83	.042	.042	.34	1.1	.12	--	--	23	.000966	20-40	.000086
07-12-83	.038	.038	.32	1.1	.11	--	--	12	.000456	20-40	.000094
07-19-83	.030	.030	.29	1.1	.092	--	--	11	.000330	20-40	.000039
07-26-83	.028	.028	.29	1.1	.086	--	--	6	.000168	20-40	.000196
08-02-83	.029	.029	.33	1.1	.080	--	--	31	.000899	20-40	.000061
08-11-83	.022	.022	.24	1.1	.080	--	--	10	.000220	20-40	.0000076
08-16-83	.025	.025	.28	1.2	.076	--	--	6	.000150	20-40	.000010
08-23-83	.018	.018	.11	1.2	.14	--	--	6	.000108	20-40	.000018
09-01-83	.016	.016	.18	1.1	.078	--	--	3	.000048	20-40	.0000017
				84. Crooked Canyon Creek near Creede, Colo.[5]							
04-19-83	0.064	0.064	0.23	2.5	0.11	--	--	82	0.00525	20-40	0.000059
04-26-83	.18	.18	.45	2.6	.15	--	--	19	.00342	20-40	.000120
04-28-83	.18	.18	.46	2.8	.14	--	--	26	.00468	20-40	.000030
05-03-83	.22	.22	.55	2.8	.14	--	--	12	.00264	20-40	.000033
05-05-83	.26	.26	.64	2.8	.15	--	--	17	.00442	20-40	.000026
05-10-83	.60	.60	.82	3.2	.23	--	--	63	.0378	20-40	.000925
05-12-83	.62	.62	.75	3.3	.25	--	--	40	.0248	20-40	.000407
05-17-83	.44	.44	.73	3.1	.19	--	--	24	.0106	20-40	.000112
05-19-83	.41	.41	.63	3.0	.22	--	--	24	.00984	20-40	.000034
05-24-83	.87	.87	.96	3.4	.27	--	--	91	.0792	20-40	.00136

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				84. Crooked Canyon Creek near Creede, Colo.[5]--Continued							
05-26-83	1.20	1.20	1.1	3.5	0.31	--	--	70	0.0840	20-40	0.00296
05-31-83	.77	.77	.95	3.3	.25	--	--	149	.115	20-40	.000312
06-02-83	.58	.58	.89	4.4	.15	--	--	42	.0244	20-40	.000149
06-07-83	.51	.51	.79	2.8	.23	--	--	23	.0117	20-40	.000145
06-09-83	.38	.38	.78	2.7	.18	--	--	19	.00722	20-40	.00197
06-14-83	.31	.31	.72	2.7	.16	--	--	16	.00496	20-40	.000015
06-16-83	.26	.26	.60	2.8	.15	--	--	19	.00494	20-40	.0000048
06-21-83	.17	.17	.48	2.7	.13	--	--	17	.00289	20-40	.0000032
06-23-83	.13	.13	.44	2.7	.11	--	--	17	.00221	20-40	.0000079
06-28-83	.17	.17	.47	2.6	.14	--	--	15	.00255	20-40	.0000045
06-30-83	.13	.13	.39	2.6	.12	--	--	17	.00221	20-40	.0000018
07-07-83	.12	.12	.45	2.4	.11	--	--	18	.00216	20-40	.000295
07-12-83	.075	.075	.32	2.4	.10	--	--	13	.000975	20-40	.00000041
07-19-83	.072	.072	.34	2.4	.088	--	--	22	.00158	20-40	.0000050
07-26-83	.11	.11	.43	2.6	.10	--	--	20	.00220	20-40	.000109
08-16-83	.062	.062	.30	2.4	.085	--	--	14	.000868	20-40	.00000041
09-01-83	.26	.26	.61	2.7	.15	--	--	18	.00468	20-40	.000140
09-06-83	.23	.23	.58	2.7	.14	--	--	22	.00506	20-40	.0000014
				85. Rough Creek near Antonito, Colo.[5]							
04-28-83	0.14	0.14	0.18	4.6	0.16	--	--	18	0.00252	20-40	0.000013
05-02-83	.15	.15	.25	4.0	.15	--	--	5	.000750	20-40	.0000068
05-04-83	.17	.17	.24	4.1	.17	--	--	3	.000510	20-40	.0000056
05-09-83	.21	.21	.28	4.3	.17	--	--	6	.00126	20-40	.0000037
05-11-83	.28	.28	.35	4.3	.19	--	--	14	.00392	20-40	.000641
05-16-83	.17	.17	.24	4.3	.16	--	--	4	.000680	20-40	.000160
05-18-83	.28	.28	.31	4.3	.21	--	--	7	.00196	20-40	.0000015
05-22-83	.31	.31	.34	4.3	.21	--	--	9	.00279	20-40	.000038
05-24-83	.54	.54	.45	4.9	.25	--	--	27	.0146	20-40	.000265
05-31-83	1.53	1.53	.72	5.2	.41	--	--	9	.0138	20-40	.00534
06-02-83	1.81	1.81	.76	6.1	.39	--	--	38	.0688	20-40	.0454
06-07-83	1.64	1.64	.64	6.4	.40	--	--	31	.0508	20-40	.00358
06-09-83	1.47	1.47	.71	6.1	.34	--	--	4	.00588	20-40	.00314
06-14-83	1.13	1.13	.71	6.1	.26	--	--	5	.00565	20-40	.00228
06-16-83	1.01	1.01	.65	6.1	.25	--	--	3	.00303	20-40	.000733
06-21-83	1.06	1.06	.66	5.8	.28	--	--	3	.00318	20-40	.00237
06-23-83	.81	.81	.58	5.8	.24	--	--	3	.00243	20-40	.00178
06-29-83	.79	.79	.56	5.2	.27	--	--	9	.00711	20-40	.000642
07-05-83	.20	.20	.27	4.9	.15	--	--	3	.000600	20-40	.00000084
07-11-83	.20	.20	.29	4.9	.14	--	--	3	.000600	20-40	.0000017
07-20-83	.23	.23	.29	4.7	.17	--	--	1	.000230	20-40	.000013
08-03-83	.25	.25	.35	4.6	.16	--	--	1	.000250	20-40	.000191
08-10-83	.19	.19	.26	4.6	.16	--	--	4	.000760	20-40	.0000079
08-17-83	.16	.16	.29	4.3	.13	--	--	3	.000480	20-40	.000047
08-23-83	.15	.15	.24	4.6	.13	--	--	6	.000900	20-40	.000861
09-01-83	.19	.19	.29	4.6	.14	--	--	2	.000380	20-40	.0000024

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
86. Grouse Creek near Osier, Colo.[5]											
05-04-83	0.10	0.10	0.31	3.0	0.11	--	--	7	0.000700	20-40	0.000020
05-09-83	.16	.16	.46	3.0	.11	--	--	12	.00192	20-40	.000018
05-11-83	.18	.18	.45	3.2	.13	--	--	13	.00234	20-40	.000229
05-16-83	.10	.10	.29	3.2	.11	--	--	5	.000500	20-40	.0000028
05-18-83	.11	.11	.34	3.4	.094	--	--	13	.00143	20-40	.000027
05-22-83	.082	.082	.32	3.4	.078	--	--	1	.000082	20-40	.000051
05-24-83	.12	.12	.36	3.4	.10	--	--	13	.00156	20-40	.000203
05-31-83	.51	.51	.57	4.3	.21	--	--	14	.00714	20-40	.00281
06-02-83	.53	.53	.56	4.3	.22	--	--	15	.00795	20-40	.00188
06-07-83	.29	.29	.33	4.3	.21	--	--	1	.000290	20-40	.000818
06-09-83	.78	.78	.86	3.6	.25	--	--	8	.00624	20-40	.00570
06-14-83	.57	.57	.74	3.0	.25	--	--	6	.00342	20-40	.000286
06-16-83	.56	.56	.74	3.0	.25	--	--	7	.00392	20-40	.000426
06-21-83	.57	.57	.73	3.0	.26	--	--	12	.00684	20-40	.00315
06-23-83	.72	.72	.83	3.4	.26	--	--	12	.00864	20-40	.000601
06-29-83	.69	.69	.81	3.4	.25	--	--	11	.00759	20-40	.000113
07-05-83	.46	.46	.66	3.0	.23	--	--	9	.00414	20-40	.000765
07-11-83	.45	.45	.74	3.0	.20	--	--	114	.0513	20-40	.000011
07-27-83	.10	.10	.29	2.7	.13	--	--	2	.000200	20-40	.00000047
08-03-83	.11	.11	.31	2.9	.13	--	--	7	.000770	20-40	.0000040
08-10-83	.083	.083	.24	2.9	.12	--	--	4	.000332	20-40	.00000050
08-23-83	.075	.075	.23	3.6	.13	--	--	2	.000150	20-40	.0000013
09-01-83	.073	.073	.25	2.4	.12	--	--	2	.000146	20-40	.0000034
87. Wapsipinicon River near Dewitt, Iowa[16]											
04-13-78	173	173	0.95	91	2.0	--	10.5	189	32.7	19	10.2
06-22-78	61.7	61.7	.73	72	1.2	--	--	234	14.4	20	1.17
03-21-79	277	277	1.1	94	2.7	--	--	538	149	20	14.4
04-26-79	169	169	.94	93	1.9	--	--	218	36.8	20	1.47
08-22-79	171	171	.95	79	2.3	--	--	292	49.9	17	4.40
07-02-80	66.3	68.0	.63	61	1.8	--	26.0	423	28.8	19	1.79
08-25-80	210	208	1.1	94	2.0	--	24.5	196	40.8	17	8.22
04-14-81	90.1	90.1	.82	66	1.7	--	--	565	50.9	14	4.28
06-17-81	137	137	.97	66	2.2	--	21.5	1,680	230	14	5.12
09-04-81	154	154	.85	76	2.4	--	19.0	308	47.4	15	2.36
88. Iowa River at Wapello, Iowa[17]											
03-28-78	623	578	1.2	144	3.4	--	10.0	423	244	19	20.2
04-25-78	578	578	1.2	144	3.4	--	--	633	366	19	20.2
06-21-78	368	368	.93	141	2.8	--	24.0	700	258	21	11.7
07-25-78	564	564	1.1	155	3.3	--	26.0	370	209	25	16.7
06-13-79	300	267	.67	137	2.9	--	23.0	207	55.3	18	1.93
04-03-80	184	184	.70	136	1.9	--	9.0	74	13.6	19	4.57
06-02-80	280	280	.92	137	2.2	--	27.0	720	202	13	14.1
09-03-80	297	323	.95	137	2.5	--	23.0	198	64.0	17	16.5
06-18-81	343	343	.95	140	2.6	--	23.5	1,160	398	13	24.7
07-02-81	518	518	1.1	146	3.1	--	25.0	665	344	21	20.0

Table 1.--*Hydraulic and sediment-transport data--Continued*

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				89. Wisconsin River at Muscoda, Wis.[18]							
03-24-77	149	149	0.60	283	0.88	0.00022	7.5	12	1.79	20	14.6
04-19-77	210	210	.63	--	1.2	.00031	18.5	32	6.72	20	2.78
05-16-77	118	118	.52	278	.82	.00041	25.0	12	1.42	20	1.76
06-15-77	193	193	.64	292	1.0	.00031	21.0	18	3.47	20	3.99
07-20-77	114	114	.58	278	.71	--	28.0	59	6.73	20	5.16
08-24-77	86.9	86.9	.47	219	.85	.00028	22.0	7	1.48	20	1.05
09-27-77	183	183	.73	306	.82	--	15.0	19	3.48	20	10.8
10-18-77	289	289	.71	302	1.3	.00031	10.0	23	6.65	20	17.3
11-14-77	379	379	.76	--	1.7	.00030	6.0	21	7.96	20	23.3
04-17-78	456	456	.75	309	2.0	.00031	9.0	10	4.56	20	5.59
05-08-78	195	195	.53	299	1.2	.00033	13.5	28	5.46	20	5.52
06-06-78	368	368	.75	306	1.6	.00035	22.5	15	5.52	20	12.9
07-11-78	714	714	.88	310	2.6	.00037	22.0	28	20.0	20	14.7
08-15-78	145	145	.49	292	1.0	.00029	26.0	36	5.22	20	5.59
10-24-78	210	210	.64	--	1.2	.00028	9.5	13	2.73	20	4.75
11-14-78	196	196	.62	--	1.1	.00025	5.5	27	5.29	20	6.66
03-28-79	1,240	1,240	1.2	--	3.4	.00052	1.0	67	83.1	20	49.0
04-24-79	413	413	.78	--	2.0	.00025	13.0	15	6.20	20	10.0
07-05-79	178	178	.60	--	1.3	.00033	22.0	27	4.81	20	4.02
08-25-79	229	229	.65	--	1.4	.00036	20.5	20	4.58	20	5.47
				90. Black River near Galesville, Wis.[18]							
04-23-77	65.1	65.1	--	--	--	0.00021	18.0	65	4.23	20	1.22
05-27-77	19.3	19.3	--	--	--	--	25.0	46	.888	20	.504
06-29-77	16.7	16.7	--	--	--	.00028	26.0	41	.685	20	1.32
07-12-77	20.7	20.7	--	--	--	.00029	27.0	40	.828	20	1.05
08-02-77	13.0	13.0	--	--	--	.00035	24.0	51	.663	20	.840
09-27-77	67.1	67.1	0.50	117	1.2	--	15.5	82	5.50	20	1.68
10-19-77	36.3	36.3	.49	--	--	.00023	12.0	18	.653	20	2.06
11-08-77	32.3	32.3	.45	94	.77	.00023	10.0	16	.517	20	1.20
03-31-78	163	163	1.0	84	1.9	.00018	5.5	100	16.3	20	3.75
04-10-78	256	256	--	--	--	.00020	6.0	160	41.0	20	3.00
05-10-78	28.9	28.9	.54	94	.57	.00024	15.5	19	.549	20	4.09
06-13-78	26.1	26.1	.45	77	.75	.00029	21.0	24	.626	20	2.11
08-09-78	20.1	20.1	.51	72	.55	.00027	16.0	21	.422	20	1.60
10-28-78	24.2	24.2	.44	96	.58	.00018	8.0	20	.484	20	1.28
04-25-79	80.7	80.7	.48	122	1.4	--	14.0	13	1.05	20	2.46
05-31-79	92.9	92.9	.50	122	1.5	.00011	18.0	1,130	105	20	1.60
07-23-79	17.3	17.3	--	--	--	.00017	24.5	35	.606	20	.189
				91. Chippewa River near Caryville, Wis.[18]							
08-30-76	31.4	31.4	0.23	157	0.89	--	23.5	5	0.157	20	0
09-20-76	32.6	32.6	.22	159	.92	--	19.5	7	.228	20	0
10-18-76	30.6	30.6	.23	124	1.1	0.00011	7.0	4	.122	20	0
11-17-76	32.0	32.0	.23	132	1.0	.000093	4.5	5	.160	20	0
03-15-77	149	149	.57	185	1.4	--	5.5	4	.596	20	0

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				91. Chippewa River near Caryville, Wis.[18]--Continued							
04-13-77	117	117	0.45	185	1.4	0.00013	11.5	8	0.936	20	0
05-10-77	51.8	51.8	.30	176	.99	.00011	17.0	6	.311	20	0
07-06-77	337	337	.75	209	2.2	.00023	26.0	23	7.75	20	0
09-13-77	255	255	.70	204	1.8	.00021	19.0	11	2.81	20	0
10-12-77	433	433	.87	231	2.2	.00025	13.0	10	4.33	20	5.29
11-16-77	141	141	.53	185	1.4	.00015	8.5	3	.423	20	0
04-05-78	320	320	.78	225	1.8	.00023	4.5	16	5.12	20	1.04
04-14-78	374	374	.80	231	2.0	.00025	6.5	7	2.62	20	7.51
05-15-78	94.0	94.0	--	--	--	--	13.0	9	.846	20	.0525
06-06-78	172	172	.59	200	1.5	.00019	22.0	8	1.38	20	.788
07-06-78	348	348	.80	226	1.9	.00025	21.0	12	4.18	20	2.50
09-19-78	273	273	--	--	--	.00021	19.5	4	1.09	20	.830
10-31-78	123	123	.51	190	1.3	.00017	10.5	5	.615	20	0
04-17-79	620	620	1.0	245	2.5	.00025	4.5	14	8.68	20	1.90
04-23-79	779	779	1.1	247	2.8	.00025	8.0	21	16.4	20	13.5
05-29-79	118	118	--	--	--	.00016	18.5	11	1.30	20	0
07-24-79	55.2	55.2	--	--	--	.00013	25.5	4	.221	20	0
09-10-79	41.3	41.3	--	--	--	.00013	18.5	7	.289	20	0
				92. Chippewa River at Durand, Wis.[18]							
11-11-75	320	320	0.90	224	1.6	--	7.0	119	38.1	20	17.9
04-06-76	833	833	--	--	--	--	5.5	36	30.0	20	28.2
04-14-76	513	513	--	--	--	--	10.0	57	29.2	20	8.69
06-03-76	167	167	--	--	--	--	23.0	8	1.34	20	5.60
07-01-76	146	146	.68	204	1.0	--	20.0	14	2.04	20	.924
08-31-76	91.2	91.2	.65	178	.79	--	22.5	11	1.00	20	2.06
10-18-76	50.7	50.7	.52	160	.61	0.00029	6.0	6	.304	20	1.11
11-16-76	51.5	51.5	.55	153	.62	.00032	3.0	5	.258	20	.588
02-02-77	67.1	67.1	.59	164	.69	--	.0	7	.470	20	1.12
03-17-77	219	219	.77	215	1.3	.00032	3.0	53	11.6	20	3.35
04-13-77	139	139	.69	187	1.1	.00034	15.0	20	2.78	20	5.52
05-10-77	132	132	.69	188	1.0	.00033	17.5	22	2.90	20	3.33
06-15-77	73.6	73.6	.58	170	.74	--	22.0	15	1.10	20	3.31
07-06-77	377	377	.94	225	1.8	.00036	26.0	60	22.6	20	15.4
08-24-77	53.8	53.8	.50	160	.68	.00032	20.0	4	.215	20	2.39
09-13-77	279	279	.85	223	1.5	.00034	19.0	144	40.2	20	8.96
10-12-77	479	479	.95	227	2.2	.00032	13.0	52	24.9	20	8.55
11-16-77	198	198	.78	199	1.3	.00031	5.0	22	4.36	20	4.94
04-05-78	382	382	--	--	1.8	--	4.5	146	55.8	20	10.1
06-06-78	247	247	.71	224	1.6	.00035	22.0	12	2.96	20	1.69
07-06-78	473	473	.99	233	2.0	.00029	24.0	48	22.7	20	13.8
10-31-78	187	187	--	--	--	.00034	10.0	15	2.81	20	7.72
04-17-79	739	739	1.1	239	2.9	.00031	5.0	41	30.3	20	25.1
04-23-79	884	884	1.1	244	3.2	.00032	9.5	73	64.5	20	23.3
05-29-79	170	170	--	--	--	.00023	18.5	52	8.84	20	10.2

Table 1.--*Hydraulic and sediment-transport data*--Continued

Date	Water discharge (bedload)[1] (m^3/s)	Water discharge (suspended load)[2] (m^3/s)	Mean flow velocity (m/s)	Water-surface width (m)	Mean flow depth (m)	Water-surface slope (m/m)	Water temp. (°C)	Suspended sediment concentration (mg/L)	Suspended load (kg/s)	Number of sampling points for bedload	Bedload (kg/s)
				93. Chippewa River near Pepin, Wis.[5]							
09-01-76	76.2	76.2	0.45	195	0.88	0.00039	19.0	14	1.07	20	2.06
09-20-76	70.5	70.5	.52	171	.80	.00039	16.0	18	1.27	20	5.94
10-19-76	72.5	72.5	.57	171	.75	.00036	6.0	10	.725	20	3.93
11-17-76	70.0	70.0	.54	171	.76	.00058	4.0	13	.910	20	4.20
03-16-77	257	257	.66	265	1.5	.00045	4.5	178	45.7	20	5.85
04-14-77	155	155	.57	241	1.1	.00041	15.0	162	25.1	20	4.99
05-11-77	110	110	.48	243	.95	.00032	18.5	15	1.65	20	2.00
07-07-77	399	399	.90	273	1.6	.00037	25.5	324	129	20	13.4
09-14-77	295	295	.86	274	1.3	.00037	18.5	39	11.5	20	13.5
11-17-77	210	210	.58	270	1.4	.00036	3.5	20	4.20	20	10.4
04-06-78	391	391	.80	276	1.8	.00028	5.0	84	32.8	20	5.80
05-16-78	170	170	.67	261	.97	.00025	16.5	42	7.14	20	2.89
06-07-78	217	217	.73	264	1.1	.00024	22.5	18	3.91	20	9.84
09-20-78	320	320	.79	277	1.5	.00033	19.0	35	11.2	20	14.7
11-01-78	187	187	.64	246	1.2	.00029	7.5	17	3.18	20	7.61
05-30-79	219	219	.66	242	1.4	.00017	20.5	24	5.26	20	7.44
07-24-79	140	140	.66	247	.85	.00029	24.5	21	2.94	20	1.69
09-11-79	118	118	.68	229	.76	.00025	18.5	19	2.24	20	5.88

[1]Water discharge at time of bedload measurement.

[2]Water discharge at time of suspended-load measurement.

[3]Water discharges (bedload and suspended load) determined from rating curve; velocities, widths and depths, where given, determined by the rating curve-area technique.

[4]Water discharges (bedload and suspended load) determined in some cases from rating curve (with velocities, widths and depths by the rating curve-area technique) and in other cases by a direct discharge measurement (latter also providing velocity, width and depth).

[5]Water discharges (bedload and suspended load), velocities, widths and depths determined from a direct (current-meter) discharge measurement.

[6]Water discharges (bedload and suspended load) determined from rating curve; velocities, widths and depths estimated by the rating curve-hydraulic geometry method.

[7]Water discharges (bedload and suspended load) determined from rating curve; velocities, widths and depths determined by a direct discharge measurement.

[8]Helley-Smith-type sampler, with orifice six inches high and 12 inches wide, used.

[9]Bed width (3.7 meters) only data available, for all dates and measurements.

[10]Hydraulic radius, for all dates and measurements.

[11]Bedload sampled by vortex flume and pit apparatus (see Milhous, 1973), on all dates.

[12]Six-inch×six-inch-orifice Helley-Smith sampler used for 1973-79 bedload measurements.

[13]Data measured at somewhat constricted cross section (bridge).

[14]Data for section 3256 of Emmett and others (1980).

[15]Six-inch×six-inch-orifice Helley-Smith sampler used.

[16]Water discharges (bedload and suspended load) measured directly (with V,W and D as byproducts) except for 4/13/78, 7/2/80 and 8/25/80, for which dates Q taken from rating curve, W measured directly, and A estimated (V=Q/A and D=A/W).

[17]Water discharges (bedload and suspended load) measured directly (with V, W and D as byproducts) except for 3/28/78, 9/3/80 and 6/18/81, for which dates Q taken from rating curve, W measured directly, and A estimated (V=Q/A and D=A/W).

[18]Water discharges (bedload and suspended load) determined in some cases from rating curve (V and D from hydraulic geometry, W from bedload measurement) and in other cases by a direct discharge measurement (latter also providing V, W, D).

Table 2.--*Suspended load particle-size distributions*

[--, no data available]

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
1. Susitna River near Talkeetna, Alaska											
06-03-82	8	10	--	16	--	31	48	78	100		
06-15-82	--	--	--	--	--	40	47	75	100		
06-22-82	13	16	--	27	--	46	59	82	100		
06-30-82	22	34	--	52	--	73	79	90	100		
07-08-82	--	--	--	--	--	76	80	92	100		
07-14-82	30	42	50	59	71	80	87	94	100		
07-21-82	29	35	--	56	--	72	78	86	97	100	
07-28-82	21	27	32	44	58	68	75	88	99	100	
08-04-82	30	39	--	63	--	77	82	90	100		
08-10-82	30	43	--	71	--	87	90	96	100		
08-18-82	43	51	54	77	88	92	93	97	100		
08-25-82	32	44	--	68	--	89	92	97	100		
08-31-82	23	29	--	48	--	72	80	94	100		
09-19-82	33	41	47	53	60	67	74	88	99	100	
05-19-83	9	11	--	18	--	36	52	76	97	100	
05-25-83	--	--	--	--	--	31	40	57	76	99	100
06-01-83	9	13	16	28	44	63	72	91	100		
06-08-83	--	--	--	--	--	35	46	76	98	100	
06-23-83	14	21	--	35	--	49	57	74	89	98	100
07-07-83	--	--	--	--	--	73	--	--	--	--	--
07-21-83	--	--	--	--	--	66	73	84	99	100	
08-02-83	28	33	36	46	55	64	73	89	100		
08-11-83	23	26	33	46	58	76	88	98	100		
08-31-83	--	--	--	--	--	22	36	71	99	100	
09-14-83	--	--	--	--	--	41	52	73	100		
10-06-83	--	--	--	--	--	32	36	53	98	100	
06-13-84	--	--	--	--	--	29	43	66	96	100	
07-09-84	31	37	--	55	--	74	80	91	100		
07-30-84	17	20	--	29	--	47	58	82	98	100	
08-16-84	44	50	55	65	75	81	86	93	100		
08-26-84	10	11	14	21	32	43	58	85	98	99	99
09-13-84	--	--	--	--	--	71	76	89	100		
09-25-84	--	--	--	--	--	69	73	85	100		
05-29-85	6	9	--	18	--	37	54	84	99	100	
06-26-85	5	8	--	22	--	47	62	81	100		
07-26-85	25	29	41	50	56	62	70	88	100		
08-13-85	8	12	18	25	35	47	65	87	100		
09-06-85	24	34	43	52	62	68	74	85	99	100	
09-19-85	--	--	--	--	--	43	50	78	99	100	
2. Talkeetna River near Talkeetna, Alaska											
06-09-82	--	--	--	--	--	28	40	66	100		
06-16-82	--	--	--	--	--	29	44	68	92	100	
06-23-82	--	--	--	--	--	29	42	63	100		
06-29-82	--	--	--	--	--	42	59	82	100		
07-07-82	--	--	--	--	--	36	46	67	99	100	

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
					2. Talkeetna River near Talkeetna, Alaska--Continued						
07-13-82	--	--	--	--	--	64	72	92	100		
07-20-82	--	--	--	--	--	69	--	--	--	--	--
07-28-82	17	22	27	35	47	56	66	79	94	100	
08-03-82	--	--	--	--	--	40	56	74	100		
08-10-82	--	--	--	--	--	32	43	62	100		
08-17-82	--	--	--	--	--	41	54	74	100		
08-24-82	--	--	--	--	--	51	62	79	100		
08-31-82	--	--	--	--	--	32	46	82	100		
09-20-82	--	--	--	--	--	32	41	66	91	96	100
05-23-83	--	--	--	--	--	21	36	63	100		
05-26-83	--	--	--	--	--	17	28	49	100		
06-03-83	9	11	13	19	30	42	59	84	100		
06-09-83	--	--	--	--	--	17	27	56	100		
06-22-83	23	28	--	41	--	61	71	85	99	100	
07-08-83	--	--	--	--	--	67	--	--	--	--	--
07-18-83	--	--	--	--	--	45	54	64	99	100	
08-03-83	16	20	22	31	39	73	81	92	100		
08-11-83	--	--	--	--	--	66	88	100			
09-01-83	--	--	--	--	--	29	41	74	99	100	
09-12-83	--	--	--	--	--	31	50	83	100		
09-27-83	--	--	--	--	--	32	64	96	100		
05-31-84	--	--	--	--	--	15	28	53	100		
06-13-84	8	9	12	19	31	46	71	89	99	100	
06-28-84	10	17	--	27	--	42	53	79	98	100	
07-26-84	16	19	25	36	50	61	76	92	99	100	
07-28-84	--	--	--	--	--	44	53	80	99	100	
08-16-84	14	19	27	34	44	56	67	83	98	100	
08-26-84	5	7	10	16	24	36	68	92	99	100	
09-26-84	--	--	--	--	--	36	52	79	100		
05-28-85	5	9	--	19	--	39	56	83	95	100	
05-30-85	--	--	--	--	--	18	30	67	94	100	
06-26-85	--	--	--	--	--	26	38	64	100		
07-25-85	14	20	27	35	42	50	60	85	99	100	
08-15-85	11	18	25	34	43	52	63	81	96	100	
08-29-85	--	--	--	--	--	22	33	55	97	100	
09-05-85	--	--	--	--	--	19	--	--	--	--	--
09-16-85	--	--	--	--	--	34	49	81	99	100	
					3. Chulitna River below Canyon near Talkeetna, Alaska						
06-04-82	22	32	37	46	54	59	68	88	99	100	
06-09-82	19	27	--	41	--	77	83	96	99	100	
06-16-82	24	36	--	48	--	62	68	84	100		
06-22-82	19	25	32	39	47	58	64	75	98	100	
06-29-82	34	45	56	62	70	77	83	94	100		
07-07-82	26	36	51	60	69	78	84	93	100		
07-13-82	--	--	--	--	--	71	76	83	99	100	
07-20-82	30	44	54	65	77	78	84	92	100		
07-27-82	16	25	30	42	51	60	70	85	98	99	100
08-03-82	24	33	42	55	67	73	77	87	99	100	

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
3. Chulitna River below Canyon near Talkeetna, Alaska--Continued											
08-11-82	23	34	40	51	60	68	75	85	99	100	
08-17-82	25	37	48	59	68	75	80	87	97	100	
08-24-82	24	34	42	54	65	75	81	93	100		
09-01-82	17	26	--	42	--	64	68	84	100		
09-18-82	33	43	52	58	62	68	74	86	96	100	
05-19-83	11	18	--	28	--	42	51	67	97	98	99
05-25-83	25	33	--	50	--	63	70	86	100		
05-31-83	17	19	27	35	44	53	66	84	99	100	
06-02-83	22	31	37	43	50	54	61	75	100		
06-09-83	29	40	44	55	61	66	70	79	100		
06-22-83	33	34	44	54	62	67	77	87	97	99	100
07-06-83	31	33	34	35	36	75	82	91	100		
07-20-83	--	--	--	--	--	73	--	--	--	--	--
08-02-83	23	32	42	51	61	70	79	92	100		
08-09-83	19	25	28	38	50	60	73	87	97	100	
08-31-83	20	29	34	43	51	58	69	87	99	100	
09-13-83	9	11	13	18	21	22	24	30	50	100	
10-05-83	18	21	--	30	--	39	48	67	99	100	
05-18-84	8	10	14	22	32	46	60	74	96	100	
06-11-84	24	31	41	51	59	68	76	86	91	100	
06-14-84	23	27	34	42	49	56	69	78	96	99	100
07-11-84	30	42	47	58	65	70	75	83	94	100	
07-31-84	29	35	41	49	58	64	71	82	98	100	
08-17-84	30	35	42	52	63	70	77	87	97	100	
08-28-84	20	22	29	37	46	56	64	80	94	97	100
09-14-84	18	23	34	43	53	62	70	83	99	100	
09-27-84	32	38	44	50	60	66	69	77	98	100	
05-31-85	12	18	25	33	43	53	64	82	97	100	
06-27-85	19	29	40	53	62	71	80	91	99	100	
07-24-85	28	40	52	64	72	79	84	92	98	98	100
08-16-85	18	26	35	43	53	63	74	89	97	100	
09-05-85	22	31	41	50	57	64	69	80	96	100	
09-17-85	16	23	30	36	42	49	58	76	99	100	
4. Yentna River near Susitna Station, Alaska											
05-14-84	--	--	--	--	--	30	53	85	98	100	
06-12-84	20	23	27	32	42	50	64	91	100		
07-17-84	28	36	46	54	63	68	76	89	99	100	
09-19-84	--	--	--	--	--	45	58	77	97	100	
05-23-85	6	9	--	22	--	52	76	98	100		
06-20-85	--	--	--	--	--	34	48	83	100		
07-17-85	21	30	40	49	57	64	73	87	100		
08-14-85	17	25	--	42	--	61	72	90	100		
08-19-85	20	29	38	47	55	63	73	89	100		
09-18-85	14	19	23	26	30	35	44	72	99	100	

Table 2.--Suspended load particle-size distributions--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
	5. Susitna River (Right Channel) below Chulitna River near Talkeetna, Alaska										
06-12-84	18	25	33	40	46	52	60	73	97	100	
07-10-84	31	39	49	59	66	72	77	86	99	100	
07-30-84	--	--	--	--	--	57	--	--	--	--	--
08-27-84	16	20	24	28	41	55	67	83	97	100	
09-12-84	27	30	38	45	53	60	64	75	97	100	
09-26-84	17	20	--	28	--	37	44	57	93	98	100
05-30-85	9	14	20	28	38	52	66	81	99	100	
06-25-85	20	29	38	46	54	64	73	85	98	100	
07-25-85	23	33	45	55	64	73	76	84	98	100	
08-15-85	9	15	22	32	45	69	85	92	98	100	
09-04-85	10	19	--	39	--	53	60	64	93	100	
09-18-85	12	17	--	28	--	39	45	65	96	100	
	6. Susitna River (Left Channel) below Chulitna River near Talkeetna, Alaska										
06-12-84	--	--	--	--	--	30	40	69	97	100	
07-10-84	33	41	--	56	--	74	80	90	99	100	
07-29-84	12	18	--	30	--	51	61	87	100		
09-12-84	--	--	--	--	--	67	74	84	99	100	
09-26-84	--	--	--	--	--	60	64	73	100		
05-30-85	--	--	--	--	--	37	50	80	100		
06-25-85	7	13	--	26	--	40	47	74	100		
07-25-85	22	31	41	49	58	63	72	91	100		
08-15-85	11	16	23	33	45	58	71	93	100		
09-04-85	21	29	--	52	--	70	77	92	100		
09-18-85	--	--	--	--	--	40	48	83	100		
	7. Susitna River at Sunshine, Alaska										
06-03-82	--	--	--	--	--	42	62	85	97	99	100
06-10-82	16	20	--	32	--	52	62	95	100		
06-17-82	--	--	--	--	--	35	42	62	100		
06-21-82	17	20	27	37	48	60	76	93	100		
06-28-82	25	33	43	53	62	73	82	92	100		
07-06-82	25	40	45	54	62	67	72	84	100		
07-12-82	--	--	--	--	--	75	82	90	100		
07-19-82	27	39	47	60	69	78	85	93	99	100	
07-26-82	13	18	27	36	47	59	74	90	99	100	
08-02-82	--	--	--	--	--	61	--	--	--	--	--
08-09-82	28	33	43	55	66	75	81	89	100		
08-16-82	37	42	55	67	77	83	88	93	100		
08-23-82	27	41	50	62	73	81	86	94	100	--	
08-30-82	19	25	34	49	62	72	80	90	99	100	
09-17-82	28	38	46	54	65	72	82	94	99	100	
05-18-83	13	16	--	26	--	47	56	72	85	97	100
05-24-83	--	--	--	--	--	35	43	65	98	99	100
06-01-83	10	12	17	24	34	41	57	83	98	100	
06-08-83	--	--	--	--	--	46	--	--	--	--	--
06-23-83	25	33	43	52	61	69	78	89	100		

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
					7. Susitna River at Sunshine, Alaska--Continued						
07-05-83	--	--	--	--	--	80	--	--	--	--	--
07-19-83	--	--	--	--	--	71	--	--	--	--	--
08-01-83	20	29	41	49	59	70	79	90	100		
08-03-83	22	31	42	54	66	73	80	91	100		
08-08-83	13	22	23	35	51	71	85	95	99	100	
08-29-83	--	--	--	--	--	59	--	--	--	--	--
09-12-83	20	27	--	34	--	41	47	66	100		
10-04-83	12	15	--	19	--	29	37	68	99	100	
05-16-84	10	13	--	22	--	43	56	72	99	100	
06-14-84	15	17	20	26	34	48	70	87	99	100	
07-13-84	21	31	37	47	55	60	66	82	98	100	
07-28-84	27	31	36	45	55	64	74	87	96	99	100
08-14-84	22	27	40	50	57	63	70	84	100		
09-11-84	23	29	--	46	--	57	63	76	100		
09-21-84	13	16	--	25	--	35	41	63	96	100	
09-28-84	22	27	--	34	--	46	51	67	100		
05-31-85	6	9	--	19	--	35	52	83	99	100	
06-25-85	15	23	32	39	48	57	65	80	100		
07-23-85	18	27	36	46	53	64	72	88	100		
08-12-85	8	13	20	32	52	73	88	96	100		
09-03-85	16	25	33	41	49	57	66	83	99	100	
09-16-85	11	17	23	32	42	56	73	93	99	100	
					8. Tanana River at Upper End of Goose Island, Alaska						
09-05-80	--	--	--	--	--	33	--	--	--	--	--
09-17-80	--	--	--	--	--	42	--	--	--	--	--
10-08-80	--	--	--	--	--	41	--	--	--	--	--
03-06-81	--	--	--	--	--	41	--	--	--	--	--
03-24-81	--	--	--	--	--	51	--	--	--	--	--
06-19-81	13	20	30	42	53	63	79	100			
07-02-81	14	22	28	35	42	54	75	98	100		
07-16-81	12	18	27	39	49	60	85	100			
07-28-81	16	23	33	45	58	75	94	100			
08-14-81	16	25	36	50	63	78	94	100			
09-04-81	12	18	28	38	44	50	66	98	100		
10-07-81	--	--	--	--	--	37	--	--	--	--	--
06-03-82	--	--	--	--	--	54	76	100			
06-29-82	20	28	36	50	67	81	95	100			
07-21-82	15	19	24	31	44	62	83	100			
08-10-82	21	30	37	46	55	66	80	96	100		
09-10-82	--	--	--	--	--	45	60	94	100		
09-29-82	38	43	--	55	--	71	80	99	100		

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
					9. Tanana River at Fairbanks, Alaska						
06-07-77	10	16	22	29	37	45	68	95	100		
06-29-77	6	9	16	30	35	51	74	96	100		
07-06-77	8	14	16	20	29	43	71	94	99	100	
07-12-77	6	15	23	33	44	52	77	97	100		
07-20-77	5	14	23	31	36	52	75	97	100		
08-03-77	12	21	27	43	56	71	88	98	100		
08-11-77	8	19	26	36	45	61	81	98	100		
08-18-77	11	20	27	39	51	62	83	97	100		
08-31-77	5	12	18	25	31	41	61	95	100		
10-03-77	2	4	6	10	14	20	32	88	100		
05-18-78	6	8	12	17	23	29	47	92	100		
05-30-78	7	10	15	21	28	37	56	94	100		
06-20-78	16	22	28	33	40	50	68	97	100		
07-10-78	18	25	37	50	63	76	89	99	100		
07-17-78	18	22	30	42	56	74	91	99	100		
07-31-78	16	22	29	39	52	64	87	98	100		
08-08-78	22	28	36	48	62	77	92	99	100		
08-14-78	18	24	30	41	55	71	88	99	100		
08-25-78	13	16	23	31	42	56	79	99	100		
09-07-78	16	20	28	39	49	57	73	97	100		
10-04-78	--	--	--	--	--	19	32	89	100		
06-18-79	--	14	21	28	36	48	68	97	100		
07-10-79	--	26	37	50	63	74	90	100			
07-24-79	--	18	25	35	50	64	77	94	96	96	--
08-01-79	--	24	30	42	53	67	88	99	100		
08-08-79	--	21	29	39	53	67	88	99	100		
08-29-79	23	29	40	52	63	69	80	98	100		
09-06-79	12	17	24	31	39	49	69	96	100		
09-12-79	9	9	14	20	27	43	61	95	100		
10-02-79	6	7	9	12	16	23	39	93	100		
06-18-80	10	16	25	39	57	74	91	99	100		
06-25-80	15	21	28	34	42	53	75	98	100		
07-15-80	17	27	38	51	64	79	92	99	100		
07-30-80	15	24	34	47	61	78	92	98	100		
08-11-80	15	23	35	47	59	72	87	99	100		
09-03-80	--	--	--	--	--	31	--	--	--		
09-16-80	--	--	--	--	--	35	--	--	--		
10-07-80	--	--	--	--	--	35	--	--	--		
10-23-80	--	--	--	--	--	36	--	--	--		
05-22-81	--	--	--	--	--	43	--	--	--		
06-18-81	12	20	31	42	51	61	76	98	100		
06-30-81	8	14	22	29	36	48	74	98	100		
07-13-81	17	25	41	58	72	86	97	100			
07-29-81	12	20	28	40	52	67	88	100			
08-13-81	12	20	29	41	53	65	86	100			

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
					9. Tanana River at Fairbanks, Alaska--Continued						
09-03-81	18	26	28	45	51	59	75	99	100		
10-06-81	--	--	--	--	--	40	--	--	--		
06-04-82	16	18	21	23	38	59	81	97	100		
06-28-82	15	19	28	41	53	65	80	95	100		
07-20-82	12	16	21	32	50	72	92	99	100		
08-09-82	28	32	38	45	54	64	78	99	100		
09-08-82	--	--	--	--	--	36	54	97	100		
09-28-82	29	34	--	43	--	57	69	97	100		
					10.--Snake River near Anatone, Wash.						
06-02-72	15	20	35	48	63	73	79	92	100		
05-17-73	--	--	--	--	--	82	91	99	100		
06-11-74	--	--	--	--	--	65	76	92	--	100	
05-14-75	17	27	38	52	66	75	82	91	99	100	
04-07-76	21	28	39	54	69	80	87	95	99	100	
04-13-76	17	24	35	47	58	68	76	89	99	100	
04-15-76	16	22	31	42	52	58	66	80	97	99	--
04-19-76	--	--	--	--	--	58	66	79	98	100	
04-21-76	--	--	--	--	--	63	72	84	97	100	
05-05-76	19	25	31	40	51	58	76	87	99	100	
05-13-76	15	22	31	42	57	68	80	93	99	100	
05-25-76	14	18	24	32	43	54	70	89	99	100	
05-27-76	14	17	25	34	44	54	70	88	99	100	
06-08-76	12	14	18	24	32	44	65	89	99	100	
06-10-76	13	16	21	27	36	48	69	94	100		
04-04-78	--	--	--	--	--	89	94	98	100		
04-05-78	--	--	--	--	--	92	96	99	100		
04-29-78	16	25	38	56	76	92	96	99	100		
05-02-78	33	43	51	63	76	84	92	98	100		
05-03-78	31	37	45	56	68	77	85	94	98	99	100
05-16-78	21	27	33	42	54	66	84	96	100		
05-17-78	19	24	31	40	50	60	78	96	99	100	
06-07-78	10	15	22	32	45	56	69	89	98	100	
06-13-78	13	22	33	48	63	75	86	95	100		
06-20-78	--	--	--	--	--	71	82	95	99	100	
05-02-79	32	38	48	60	73	80	91	96	99	100	
05-15-79	--	--	--	--	--	88	97	100			
05-22-79	25	30	39	49	60	67	80	91	99	100	
05-24-79	18	22	31	40	52	61	79	93	99	100	
06-05-79	--	--	--	--	--	61	74	91	98	100	
06-07-79	--	--	--	--	--	68	82	92	100		
					14. San Antonio River near Lockwood, Calif.						
11-21-72	--	--	--	--	--	68	70	77	100		
01-17-73	--	--	--	--	--	06	08	18	42	71	100
03-28-74	--	--	16	21	28	36	44	64	90	100	
02-06-75	--	--	--	--	--	13	20	53	89	100	
03-06-75	--	--	--	--	--	27	33	50	90	98	100

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
					14. San Antonio River near Lockwood, Calif.--Continued						
04-04-75	--	--	--	--	--	10	15	38	73	96	100
01-18-78	--	--	8	10	13	16	28	57	74	87	95
02-21-78	--	--	--	--	--	11	16	46	89	97	100
03-28-78	--	--	--	--	--	16	23	62	94	100	
01-08-79	--	--	--	--	--	54	--	--	--	--	--
02-06-79	--	--	--	--	--	39	--	--	--	--	--
04-05-79	--	--	--	--	--	27	--	--	--	--	--
11-16-81	--	--	--	--	--	8	--	--	--	--	--
12-14-81	--	--	--	--	--	17	--	--	--	--	--
02-14-83	--	--	--	--	--	12	16	41	76	95	100
03-01-83	--	--	--	--	--	23	34	51	69	88	97
04-22-83	--	--	--	--	--	26	29	48	88	96	100
12-06-83	--	--	--	--	--	25	--	--	--	--	--
01-19-84	--	--	--	--	--	16	--	--	--	--	--
					15. Chamise Creek near Island Mountain, Calif.						
11-07-72	--	--	--	--	--	96	100				
02-28-73	--	--	--	--	--	82	84	91	100		
04-05-73	--	--	--	--	--	57	--	--	--	--	--
05-14-73	--	--	--	--	--	100					
11-14-73	29	40	55	70	81	92	98	99	100		
12-21-73[1]	25	34	41	56	67	74	82	90	97	100	
03-05-74[1]	39	53	66	81	90	95	98	99	100		
04-11-74	--	--	--	--	--	94	98	100			
03-03-76	--	--	--	--	--	94	96	98	100		
					16. Redwood Creek near Blue Lake, Calif.						
01-12-74	--	--	--	--	--	83	87	91	96	100	
04-01-75	--	--	--	--	--	73	76	80	85	94	100
03-10-78	--	--	--	--	--	61	67	75	86	99	100
01-27-81	--	20	26	35	43	53	64	79	93	99	99
04-02-81	--	--	--	--	--	69	75	84	96	100	
01-27-82	--	--	--	--	--	57	62	71	85	97	100
11-30-82	20	27	36	45	52	58	66	78	91	99	100
12-16-82	--	17	25	35	45	54	66	81	93	98	99
01-27-83	--	23	26	37	46	54	65	78	91	97	99
02-28-83	18	26	34	43	52	58	67	73	83	94	100
11-17-83	19	21	27	37	48	56	66	78	92	98	100
12-14-83	16	22	31	41	50	59	68	80	93	99	100
03-01-84	--	--	--	--	--	80	84	88	92	97	100
					17. Redwood Creek above Panther Creek near Orick, Calif.						
12-03-80	30	40	51	61	69	75	81	90	98	100	
01-23-81	--	--	--	--	--	69	--	--	--	--	--
01-28-81	--	18	33	44	54	62	74	83	91	96	99
02-05-81	--	--	--	--	--	80	85	93	98	100	
11-02-81	--	--	--	--	--	91	--	--	--	--	--

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
				17. Redwood Creek above Panther Creek near Orick, Calif.--Continued							
12-09-81	--	--	--	--	--	54	--	--	--	--	--
02-10-82	--	--	--	--	--	70	--	--	--	--	--
03-19-82	--	--	--	--	--	55	--	--	--	--	--
12-01-82	17	24	30	38	46	53	60	71	84	95	100
12-22-82	16	23	32	41	50	58	67	79	90	97	100
01-20-83	--	--	--	--	--	61	66	79	91	99	100
01-26-83	--	20	26	42	52	62	75	88	96	99	100
02-23-83	24	26	32	38	43	46	53	63	80	93	100
04-05-83	--	--	--	--	--	59	--	--	--	--	--
11-16-83	27	35	44	52	56	59	63	68	76	84	100
01-13-84	--	--	--	--	--	46	--	--	--	--	--
03-08-84	--	--	--	--	--	68	--	--	--	--	--
04-03-84	--	--	--	--	--	77	--	--	--	--	--
				18. Redwood Creek at Orick, Calif.							
11-14-79	--	--	--	--	--	75	--	--	--	--	--
02-01-80	--	--	--	--	--	64	--	--	--	--	--
02-21-80	29	36	46	55	66	72	79	86	98	99	100
12-11-80	--	--	--	--	--	84	87	91	96	100	
01-29-81	24	33	43	55	64	71	77	87	95	96	100
02-24-81	--	--	--	--	--	63	67	77	93	95	100
04-11-81	--	--	--	--	--	78	82	89	98	100	
11-13-81	25	32	43	54	65	71	80	87	97	100	
12-14-81	15	21	29	38	46	53	59	70	88	96	97
12-23-81	24	33	43	55	65	73	81	90	99	100	
03-03-82	20	26	35	45	54	61	71	82	92	97	100
11-22-82	--	--	--	--	--	64	72	82	96	100	
12-22-82	--	23	32	43	55	64	73	84	94	97	100
01-24-83	--	27	35	46	59	68	75	83	88	89	95
03-30-83	--	26	35	49	59	69	80	92	98	99	100
12-07-83	--	--	--	--	--	68	--	--	--	--	--
02-29-84	--	--	--	--	--	61	--	--	--	--	--
				19. Hayes Creek near Orick, Calif.							
12-14-77	--	--	--	--	--	59	--	--	--	--	--
12-14-77	--	--	--	--	--	71	78	87	96	100	
01-11-79	--	--	--	--	--	72	--	--	--	--	--
02-13-79	--	--	--	--	--	72	--	--	--	--	--
02-20-79	--	--	--	--	--	67	--	--	--	--	--
02-26-79	--	--	--	--	--	68	--	--	--	--	--
02-27-79	--	--	--	--	--	60	--	--	--	--	--
05-08-79	--	--	--	--	--	62	--	--	--	--	--
01-14-80	--	--	--	--	--	74	--	--	--	--	--
01-15-80	--	--	--	--	--	82	--	--	--	--	--
02-21-80	--	--	--	--	--	78	--	--	--	--	--
03-14-80	--	--	--	--	--	64	--	--	--	--	--
04-09-80	--	--	--	--	--	93	--	--	--	--	--

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
					20. Lacks Creek near Orick, Calif.						
02-03-78	--	--	--	--	--	68	--	--	--	--	--
03-09-78	--	--	--	--	--	51	--	--	--	--	--
02-13-79	--	27	35	45	55	60	68	76	86	97	100
01-22-81	18	23	30	38	46	52	58	66	79	93	100
01-23-81	--	--	--	--	--	80	--	--	--	--	--
02-17-82	20	27	34	42	49	55	61	66	77	88	100
03-01-82	--	--	--	--	--	80	--	--	--	--	--
12-06-82	--	--	--	--	--	67	--	--	--	--	--
01-26-83	21	28	35	43	52	58	65	74	84	96	98
01-26-83	15	20	27	35	44	51	56	64	73	81	88
03-29-83	42	49	56	63	70	73	80	86	94	99	100
					21. Sacramento River above Bend Bridge near Red Bluff, Calif.						
01-03-78	36	51	68	84	92	96	97	98	99	100	
03-01-78	--	--	--	--	--	73	80	90	98	100	
05-01-78	--	--	--	--	--	49	58	78	97	100	
03-01-79	--	--	--	--	--	68	78	88	98	100	
12-26-79	--	--	--	--	--	41	46	57	87	100	
01-02-80	--	--	--	--	--	52	58	66	84	100	
02-01-80	--	--	--	--	--	59	63	72	95	100	
04-01-80	--	--	--	--	--	36	50	80	96	100	
					22. Clearwater River at Spalding, Idaho						
06-01-72	10	11	23	33	46	56	69	86	99	100	
05-16-73	--	--	--	--	--	57	68	82	99	100	
06-10-75	--	--	--	--	--	31	47	70	98	100	
06-17-75	--	--	--	--	--	41	48	62	90	100	
04-06-76	24	33	45	62	80	91	94	96	99	100	
04-08-76	21	30	39	53	68	80	83	88	98	100	
04-14-76	--	--	--	--	--	73	80	89	98	100	
05-06-76	--	--	--	--	--	47	64	84	99	100	
05-11-76	--	--	--	--	--	49	65	88	100		
05-12-76	8	12	17	23	33	36	52	74	97	100	
05-24-76	--	--	--	--	--	24	42	67	100		
05-26-76	--	--	--	--	--	30	47	74	99	100	
06-11-76	--	--	--	--	--	22	34	63	100		
04-26-77	--	--	--	--	--	64	74	85	98	100	
05-04-77	--	--	--	--	--	68	76	84	96	100	
04-28-78	39	48	58	73	88	96	98	100			
05-15-78	--	--	--	--	--	54	68	88	98	100	
05-17-78	--	--	--	--	--	67	76	87	96	100	
06-05-78	--	--	--	--	--	43	54	75	95	100	
06-06-78	--	--	--	--	--	42	49	72	94	100	
06-08-78	--	--	--	--	--	43	53	72	93	99	100
06-12-78	--	--	--	--	--	39	47	66	94	100	
06-14-78	--	--	--	--	--	29	34	52	86	100	
06-19-78	--	--	--	--	--	58	70	83	100		
05-01-79	--	--	--	--	--	52	69	83	94	100	

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
					22. Clearwater River at Spalding, Idaho--Continued						
05-03-79	--	--	--	--	--	43	55	77	97	100	
05-08-79	38	48	56	77	91	98	99	99	100		
05-11-79	--	--	--	--	--	65	75	81	93	100	
05-14-79	--	--	--	--	--	39	51	66	89	100	
05-16-79	--	--	--	--	--	49	66	80	95	100	
05-21-79	--	--	--	--	--	38	53	71	92	100	
05-23-79	--	--	--	--	--	31	44	65	91	100	
06-04-79	--	--	--	--	--	23	30	44	81	100	
06-06-79	--	--	--	--	--	37	45	55	90	100	
06-18-79	--	--	--	--	--	68	76	84	93	100	
					24. Big Lost River at Howell Ranch, Idaho						
06-09-81	22	30	39	50	63	71	84	94	99	100	
06-10-81	14	19	28	38	48	58	75	85	95	98	100
					25. Big Lost River at Chilly Bridge, Idaho						
06-09-81[2]	18	25	32	40	50	57	67	76	90	94	95
06-10-81	12	16	23	29	36	41	49	61	73	98	100
					26. Big Lost River below Chilly Sinks, Idaho						
06-09-81	24	34	43	53	64	73	84	94	98	100	
06-10-81	20	28	33	41	49	59	64	77	95	99	100
					27. Big Lost River above East and West Channels, Idaho						
06-10-81	16	24	31	40	48	54	64	72	91	98	100
					32. East Fork River near Pinedale, Wyo.						
05-23-79	--	--	--	--	--	37	--	--	--	--	--
05-24-79	--	--	--	--	--	34	--	--	--	--	--
05-25-79	--	--	--	--	--	22	--	--	--	--	--
05-26-79	--	--	--	--	--	27	--	--	--	--	--
05-28-79	--	--	--	--	--	17	--	--	--	--	--
05-30-79	--	--	--	--	--	41	--	--	--	--	--
06-01-79	--	--	--	--	--	24	--	--	--	--	--
06-02-79	--	--	--	--	--	30	--	--	--	--	--
06-03-79	--	--	--	--	--	62	--	--	--	--	--
06-04-79	--	--	--	--	--	67	--	--	--	--	--
06-05-79	--	--	--	--	--	62	--	--	--	--	--
06-10-79	--	--	--	--	--	64	--	--	--	--	--
06-11-79	--	--	--	--	--	67	--	--	--	--	--
06-13-79	--	--	--	--	--	64	--	--	--	--	--
06-14-79	--	--	--	--	--	57	--	--	--	--	--
06-15-79	--	--	--	--	--	54	--	--	--	--	--

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
					32. East Fork River near Pinedale, Wyo.--Continued						
06-16-79	--	--	--	--	--	48	--	--	--	--	--
06-17-79	--	--	--	--	--	26	--	--	--	--	--
06-18-79	--	--	--	--	--	72	--	--	--	--	--
06-19-79	--	--	--	--	--	76	--	--	--	--	--
06-20-79	--	--	--	--	--	75	--	--	--	--	--
					33. Yampa River at Deerlodge Park, Colo.						
04-27-82	--	--	--	--	--	65	74	85	94	100	
05-12-82	--	--	--	--	--	23	30	48	80	98	--
05-13-82	--	--	--	--	--	39	52	68	84	100	
05-24-82	--	--	--	--	--	59	74	92	100		
05-25-82	--	--	--	--	--	63	80	96	100		
06-08-82	--	--	--	--	--	20	27	43	84	100	
06-24-82	--	--	--	--	--	48	64	76	97	100	
06-25-82	--	--	--	--	--	17	23	28	80	100	
07-07-82	--	--	--	--	--	45	62	80	97	100	
07-08-82	--	--	--	--	--	8	9	12	19	94	--
07-29-82	--	--	--	--	--	84	90	94	96	100	
04-07-83	--	--	--	--	--	65	66	70	88	100	
04-08-83	--	--	--	--	--	92	95	99	100		
04-19-83	--	--	--	--	--	88	91	96	100		
04-21-83	--	--	--	--	--	66	73	79	88	100	
04-22-83	--	--	--	--	--	81	89	95	100		
05-07-83	--	--	--	--	--	70	80	87	96	100	
05-09-83	--	--	--	--	--	71	82	91	98	100	
05-12-83	--	--	--	--	--	65	77	82	89	100	
05-23-83	--	--	--	--	--	80	90	96	100		
05-26-83	--	--	--	--	--	82	95	98	100		
05-27-83	--	--	--	--	--	80	95	98	100		
05-28-83	--	--	--	--	--	73	87	92	97	100	
06-08-83	--	--	--	--	--	65	79	94	99	100	
06-10-83	--	--	--	--	--	66	80	93	99	100	
06-21-83	--	--	--	--	--	63	76	86	97	100	
06-23-83	--	--	--	--	--	66	82	93	98	100	
07-12-83	--	--	--	--	--	25	33	52	81	100	
07-14-83	--	--	--	--	--	47	61	83	100		
					34. Rock Creek near Toponas, Colo.						
05-22-85	--	--	--	--	--	47	--	--	--	--	--
05-29-85	--	--	--	--	--	56	--	--	--	--	--
06-10-85	--	--	--	--	--	95	--	--	--	--	--
07-22-85	--	--	--	--	--	23	--	--	--	--	--

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
72. West Fork of San Juan River near Pagosa Springs, Colo.											
04-23-85	--	--	--	--	--	5	--	--	--	--	--
05-05-85	--	--	--	--	--	67	--	--	--	--	--
05-08-85	--	--	--	--	--	76	--	--	--	--	--
05-12-85	--	--	--	--	--	68	--	--	--	--	--
05-15-85	--	--	--	--	--	88	--	--	--	--	--
05-20-85	--	--	--	--	--	81	--	--	--	--	--
05-26-85	--	--	--	--	--	48	--	--	--	--	--
05-30-85	--	--	--	--	--	53	--	--	--	--	--
06-03-85	--	--	--	--	--	47	--	--	--	--	--
06-06-85	--	--	--	--	--	44	--	--	--	--	--
06-18-85	--	--	--	--	--	44	--	--	--	--	--
07-18-85	--	--	--	--	--	57	--	--	--	--	--
87. Wapsipinicon River near DeWitt, Iowa											
04-13-78[1]	36	40	--	50	--	72	79	89	99	100	
06-22-78[1]	55	58	65	66	--	93	94	98	100		
03-21-79[1]	14	15	--	19	--	23	24	33	71	100	
04-26-79[1]	22	24	--	38	--	66	70	87	100		
08-22-79[1]	34	40	--	55	--	75	78	86	100		
07-02-80[1]	38	49	61	74	--	95	--	--	--	--	--
08-25-80	--	--	--	--	--	37	--	--	--	--	--
04-14-81	31	38	--	58	--	90	91	94	100		
06-17-81	55	71	--	82	--	95	95	97	97	100	
09-04-81	27	30	--	41	--	71	82	99	100		
88. Iowa River at Wapello, Iowa											
03-28-78[1]	34	38	--	47	--	70	73	78	95	100	
04-25-78[1]	40	42	43	55	--	88	89	92	98	100	
06-21-78[1]	50	59	68	78	--	97	98	99	100		
07-25-78[1]	51	56	61	71	--	96	98	100			
06-13-79[1]	39	52	--	75	--	98	99	100			
04-03-80[1]	--	--	--	--	--	91	--	--	--	--	--
06-02-80[1]	39	47	56	68	--	92	--	--	--	--	--
09-03-80[1]	--	--	--	--	--	79	--	--	--	--	--
06-18-81[1]	51	67	75	80	--	97	--	--	--	--	--
07-02-81[1]	48	55	66	77	--	92	93	94	98	99	100
89. Wisconsin River at Muscoda, Wis.											
07-20-77	--	--	--	--	--	94	--	--	--	--	--
08-24-77	--	--	--	--	--	90	--	--	--	--	--
10-18-77	--	--	--	--	--	51	--	--	--	--	--
11-14-77	--	--	--	--	--	54	--	--	--	--	--
05-08-78	--	--	--	--	--	50	--	--	--	--	--
06-06-78	--	--	--	--	--	80	--	--	--	--	--
10-24-78	--	--	--	--	--	80	--	--	--	--	--
11-14-78	--	--	--	--	--	45	--	--	--	--	--
03-28-79	--	--	--	--	--	29	34	59	100		
07-05-79	--	--	--	--	--	90	--	--	--	--	--
08-25-79	--	--	--	--	--	87	--	--	--	--	--

Table 2.--*Suspended load particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated										
	0.002	0.004	0.008	0.016	0.031	0.062	0.12	0.25	0.5	1	2
					90. Black River near Galesville, Wis.						
04-23-77	--	--	--	--	--	75	--	--	--	--	--
05-27-77	--	--	--	--	--	95	--	--	--	--	--
06-29-77	--	--	--	--	--	86	--	--	--	--	--
07-12-77	--	--	--	--	--	90	--	--	--	--	--
09-27-77	--	--	--	--	--	83	--	--	--	--	--
10-19-77	--	--	--	--	--	52	--	--	--	--	--
06-13-78	--	--	--	--	--	67	--	--	--	--	--
04-25-79	--	--	--	--	--	82	--	--	--	--	--
05-31-79	--	--	--	--	--	94	--	--	--	--	--
07-23-79	--	--	--	--	--	94	--	--	--	--	--
					91. Chippewa River near Caryville, Wis.						
08-30-76	--	--	--	--	--	63	--	--	--	--	--
09-20-76	--	--	--	--	--	71	--	--	--	--	--
04-17-79	--	--	--	--	--	85	100				
04-23-79	--	--	--	--	--	54	100				
05-29-79	--	--	--	--	--	82	--	--	--	--	--
07-24-79	--	--	--	--	--	74	--	--	--	--	--
09-10-79	--	--	--	--	--	90	--	--	--	--	--
					92. Chippewa River at Durand, Wis.						
11-11-75	17	21	25	30	46	52	55	73	83	100	
04-14-76	--	--	--	--	--	17	--	--	--	--	--
08-31-76	--	--	--	--	--	81	--	--	--	--	--
02-02-77	--	--	--	--	--	57	--	--	--	--	--
05-10-77	--	--	--	--	--	42	--	--	--	--	--
06-15-77	--	--	--	--	--	74	--	--	--	--	--
07-06-77	--	--	--	--	--	70	--	--	--	--	--
11-16-77	--	--	--	--	--	13	--	--	--	--	--
06-06-78	--	--	--	--	--	50	--	--	--	--	--
04-17-79	--	--	--	--	--	41	56	58	100		
04-23-79	--	--	--	--	--	22	27	100			
					93. Chippewa River near Pepin, Wis.						
07-07-77	--	--	--	--	--	38	--	--	--	--	--
06-07-78	--	--	--	--	--	61	--	--	--	--	--
09-20-78	--	--	--	--	--	5	--	--	--	--	--
05-30-79	--	--	--	--	--	53	--	--	--	--	--
07-24-79	--	--	--	--	--	63	--	--	--	--	--
09-11-79	--	--	--	--	--	81	--	--	--	--	--

[1]All values are in terms of fall diameter.

[2]100 percent is less than 4 millimeters.

Table 3.--*Bedload particle-size distributions*

[--, no data available]

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
				1. Susitna River near Talkeetna, Alaska								
06-03-82[1]	--	--	3	37	47	48	49	52	54	58	74	--
06-15-82[1]	--	--	--	24	32	32	33	35	38	44	76	--
06-22-82[1]	--	--	2	47	58	60	60	61	61	62	64	--
06-30-82	--	--	1	33	39	40	41	43	46	84	100	
07-08-82	--	--	--	65	94	96	97	99	99	100		
07-14-82	--	--	1	51	71	74	75	77	81	90	100	
07-21-82	--	--	1	65	90	92	93	94	96	100		
07-28-82	--	--	1	70	85	86	88	91	93	100		
08-04-82	--	--	2	78	98	99	99	99	100			
08-10-82	--	--	1	66	94	96	96	96	97	100		
08-18-82	--	--	1	68	92	94	96	99	100			
08-25-82	--	--	1	69	97	99	100					
08-31-82	--	1	1	73	95	97	97	98	98	100		
09-19-82	--	--	2	63	78	80	80	82	84	91	100	
05-19-83		0	1	76	98	100						
05-25-83		0	1	64	87	88	89	89	90	92	100	
06-01-83		0	1	19	21	21	21	23	27	29	100	
06-08-83		0	1	62	80	83	83	86	88	91	100	
06-23-83		0	1	60	80	82	82	83	85	86	100	
07-07-83		0	1	65	87	90	91	92	94	95	100	
07-21-83		0	1	87	94	95	95	95	96	100		
08-02-83		0	1	63	78	80	81	83	85	89	100	
08-11-83		0	13	44	96	98	98	98	99	100		
08-31-83		0	1	80	98	99	99	100				
09-14-83			0	76	88	92	93	93	93	100		
10-06-83			0	84	98	99	99	99	100			
06-13-84			0	63	95	96	97	97	99	100		
07-09-84		0	1	67	88	89	90	90	91	94	100	
07-30-84		0	1	61	80	81	83	86	89	90	100	
08-16-84		0	1	72	96	97	98	98	98	100		
08-26-84		0	2	74	94	95	96	98	99	100		
09-13-84			0	73	95	95	98	99	100			
09-25-84			0	77	100							
05-29-85		0	2	65	82	84	86	88	91	100		
06-26-85		0	1	72	94	95	96	98	100			
07-26-85		0	1	82	99	100						
08-13-85		0	1	68	88	89	90	90	91	91	100	
09-06-85			0	70	98	99	99	100				
09-19-85		0	1	75	94	95	96	96	100			

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					2. Talkeetna River near Talkeetna, Alaska							
06-09-82	--	--	1	12	30	34	36	41	56	85	100	
06-16-82	--	--	--	13	31	35	38	41	46	59	86	100
06-23-82	--	--	1	32	60	64	66	71	82	98	100	
06-29-82	--	--	2	44	73	76	77	79	83	91	100	
07-07-82	--	--	--	39	91	93	93	93	94	96	100	
07-13-82	--	--	18	66	89	91	92	93	95	96	100	
07-20-82	--	--	1	42	64	65	65	65	65	67	100	
07-28-82	--	--	3	52	81	85	88	90	92	95	100	
08-03-82	--	--	2	38	62	64	65	67	69	78	84	100
08-10-82	--	--	1	55	97	98	99	99	99	100		
08-17-82	--	--	1	23	82	93	96	98	99	100		
08-24-82	--	--	--	14	84	95	97	98	99	100		
08-31-82	--	--	1	18	84	92	93	94	95	99	100	
09-20-82	--	--	1	12	26	27	28	33	49	82	100	
05-23-83		0	1	58	95	99	99	99	100			
05-26-83		0	1	69	97	100						
06-03-83		0	1	20	34	38	38	46	64	90	100	
06-09-83		0	1	54	89	93	93	94	95	98	100	
06-22-83		0	1	39	78	85	85	87	90	99	100	
07-08-83		0	2	41	71	74	75	76	78	87	100	
07-18-83		0	1	50	89	91	91	91	92	93	100	
08-03-83		0	1	28	62	68	70	75	82	93	100	
08-11-83	--	1	4	60	88	91	91	92	94	100		
09-01-83		0	1	65	96	100						
09-12-83			0	63	98	100						
09-27-83			0	50	91	98	99	99	100			
05-31-84			0	27	90	95	96	97	97	100		
06-13-84	0	1	4	30	76	81	83	85	87	90	100	
06-28-84		0	2	34	87	91	92	94	96	99	100	
07-26-84		0	1	23	66	70	72	75	80	97	100	
07-28-84		0	2	38	81	84	85	87	88	96	100	
08-16-84		0	1	44	95	98	99	99	100			
08-26-84		0	1	7	12	15	19	30	54	79	98	100
09-26-84		0	3	58	99	99	100					
05-28-85			0	8	15	20	23	29	41	61	82	100
05-30-85		0	2	25	49	53	57	65	77	93	100	
06-26-85			0	42	81	85	86	88	90	98	100	
07-25-85		0	3	48	80	84	86	88	91	97	100	
08-15-85		0	1	16	36	40	42	44	52	69	94	100
08-29-85		0	1	36	89	92	95	97	99	100		
09-05-85			0	34	80	89	94	96	97	99	100	
09-16-85		0	2	31	53	55	58	63	71	88	100	

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					3. Chulitna River below Canyon near Talkeetna, Alaska							
06-04-82	--	--	1	14	28	35	54	74	90	99	100	
06-09-82	--	--	1	15	38	47	54	67	82	95	100	
06-16-82	--	--	1	11	40	52	63	74	83	93	100	
06-22-82	--	--	1	28	53	58	64	71	79	91	100	
06-29-82	--	--	2	26	61	65	70	77	84	91	100	
07-07-82	--	--	1	16	43	49	58	71	84	96	100	
07-13-82	--	--	--	11	20	24	34	50	69	88	99	100
07-20-82	--	--	1	12	35	40	45	57	67	85	100	
07-27-82	--	--	1	15	28	35	42	53	63	84	100	
08-03-82	--	--	1	16	38	46	53	62	75	90	98	100
08-11-82	--	--	--	13	30	35	41	51	67	90	100	
08-17-82	--	--	1	12	39	46	54	66	80	93	100	
08-24-82	--	--	1	12	25	29	37	52	70	91	100	
09-01-82	--	--	1	17	40	56	64	75	86	95	100	
09-18-82	--	--	1	22	36	41	45	53	64	82	100	
05-19-83		0	1	31	70	79	79	85	93	99	100	
05-25-83			0	12	40	60	64	78	90	99	100	
05-31-83		0	2	18	38	59	60	71	82	92	100	
06-02-83		0	1	20	39	51	52	66	76	87	100	
06-09-83			0	20	42	56	57	71	86	96	100	
06-22-83		0	1	29	50	63	64	70	78	90	100	
07-06-83		0	1	21	45	57	58	67	76	88	100	
07-20-83		0	1	25	51	58	61	70	79	93	100	
08-02-83		0	1	21	42	46	47	53	65	80	97	
08-09-83		0	1	11	19	22	27	41	63	86	100	
08-31-83		0	1	19	30	36	41	54	69	84	98	
09-13-83			0	31	50	71	77	87	94	100		
10-05-83		0	1	30	52	61	68	81	90	98	100	
05-18-84		0	1	26	54	63	74	84	91	98	100	
06-11-84		0	1	13	42	48	55	66	83	94	100	
06-14-84		0	1	12	25	31	38	47	64	90	100	
07-11-84		0	1	12	35	38	42	53	69	86	100	
07-31-84		0	1	12	26	31	38	54	70	88	100	
08-17-84		0	1	14	37	41	47	57	73	91	100	
08-28-84			0	8	33	37	43	55	73	92	100	
09-14-84		0	1	24	61	71	78	84	92	98	100	
09-27-84			0	26	74	87	94	97	99	100		
05-31-85		0	1	12	35	42	53	71	82	95	100	
06-27-85		0	1	15	33	37	43	50	65	83	98	100
07-24-85		0	1	13	31	39	46	55	71	92	100	
08-16-85		0	1	12	24	27	34	46	61	80	100	
09-05-85		0	1	20	50	66	73	79	88	97	100	
09-17-85		0	1	18	45	51	56	63	76	92	100	

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
4. Yentna River near Susitna Station, Alaska												
05-14-84		0	5	65	77	84	90	96	100			
06-12-84		0	5	46	79	84	88	92	96	100		
07-17-84		0	2	43	88	91	94	96	99	100		
09-19-84		0	2	48	82	85	90	93	97	100		
05-23-85	0	1	14	66	82	85	86	88	94	99	100	
06-20-85		0	3	70	91	94	96	98	99	100		
07-17-85		0	3	60	90	93	95	98	99	100		
08-14-85		0	2	47	84	88	92	96	99	100		
08-19-85		0	3	57	92	96	97	99	100			
09-18-85		0	2	47	84	91	95	98	100			
5. Susitna River (Right Channel) below Chulitna River near Talkeetna, Alaska												
06-12-84			0	9	20	22	25	33	50	76	100	
07-10-84		0	1	25	52	57	61	67	75	88	100	
07-30-84		0	1	20	40	46	55	63	72	85	100	
08-27-84			0	6	16	19	25	38	58	83	99	100
09-12-84			0	32	62	64	67	73	80	92	100	
09-26-84			0	27	61	63	67	72	80	90	100	
05-30-85			0	9	18	21	25	40	67	92	100	
06-25-85			0	7	11	12	15	22	40	75	100	
07-25-85			0	13	34	38	43	53	71	93	100	
08-15-85		0	1	22	41	45	48	55	70	87	100	
09-04-85		0	1	45	79	83	86	89	92	94	100	
09-18-85		0	1	25	43	46	52	59	72	96	100	
6. Susitna River (Left Channel) below Chulitna River near Talkeetna, Alaska												
06-12-84		0	1	44	81	83	84	86	89	100		
07-10-84		0	1	64	94	94	95	95	97	100		
07-29-84		0	4	77	94	95	95	96	97	100		
09-12-84			0	52	72	73	74	75	80	100		
09-26-84		0	1	46	82	83	85	85	90	100		
05-30-85	0	1	5	59	76	78	80	82	88	93	100	
06-25-85		0	6	80	90	90	92	92	93	96	100	
07-25-85		0	2	62	78	79	80	82	86	96	100	
08-15-85		0	2	58	74	75	76	77	80	85	100	
09-04-85		0	1	63	84	86	88	90	98	100		
09-18-85		0	1	75	85	85	86	87	88	97	100	
7. Susitna River at Sunshine, Alaska												
06-03-82	--	--	2	15	22	26	27	30	38	64	100	
06-10-82	--	--	2	12	17	17	18	20	29	54	96	100
06-17-82	--	--	2	47	65	65	66	66	69	75	100	
06-21-82	--	1	12	45	50	51	53	57	62	70	95	100
06-28-82	--	--	3	17	22	23	25	32	46	64	100	

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
7. Susitna River at Sunshine, Alaska--Continued												
07-06-82	--	--	2	35	46	47	49	57	71	86	100	
07-12-82	--	--	3	52	75	77	80	83	88	96	100	
07-19-82	--	--	2	40	54	58	62	69	75	84	87	100
07-26-82	--	--	2	18	28	30	33	39	53	77	97	100
08-02-82	--	--	4	60	73	74	74	75	78	93	97	100
08-09-82	1	1	5	62	81	82	83	85	89	94	100	
08-16-82	--	--	2	61	83	84	85	86	92	98	100	
08-23-82	--	--	1	55	85	88	89	90	92	92	100	
08-30-82	1	2	4	44	63	64	64	65	66	70	100	
09-17-82	--	--	1	12	20	23	26	37	60	78	100	
05-18-83		0	1	18	31	36	36	42	53	75	100	
05-24-83		0	1	33	54	57	57	60	68	83	98	100
06-01-83		0	1	19	26	28	29	34	49	75	96	100
06-08-83		0	1	27	38	44	44	51	62	80	100	
06-23-83		0	1	27	39	45	46	56	75	93	100	
07-05-83		0	9	14	17	17	27	53	68	89	100	
07-19-83		0	1	46	66	70	73	77	85	96	100	
08-01-83		0	2	31	44	48	52	60	72	89	100	
08-03-83		0	1	67	86	89	92	95	98	100		
08-08-83		0	2	26	34	37	42	50	59	82	100	
08-29-83		0	1	37	48	52	56	64	73	89	96	100
09-12-83			0	31	44	49	52	63	78	93	100	
10-04-83		0	1	40	66	71	72	77	85	96	100	
05-16-84		0	2	46	80	82	83	86	90	96	100	
06-14-84	0	1	4	45	58	60	61	65	72	84	100	
07-13-84		0	1	28	55	58	60	65	71	82	100	
07-28-84		0	1	32	41	43	45	52	65	79	100	
08-14-84		0	2	33	56	58	60	63	72	88	100	
09-11-84		0	1	36	56	58	62	71	87	98	100	
09-21-84		0	2	28	45	47	53	64	78	92	100	
09-28-84		0	1	59	90	91	92	94	97	100		
05-31-85		0	3	22	30	31	34	52	72	90	100	
06-25-85		0	1	44	70	71	73	75	80	92	100	
07-23-85	0	1	6	72	87	88	89	90	92	95	100	
08-12-85	0	1	2	48	60	62	64	69	81	99	100	
09-03-85		0	2	52	68	70	72	76	87	97	100	
09-16-85		0	1	27	40	44	48	57	78	92	100	
8. Tanana River at Upper End of Goose Island, Alaska												
09-05-80	0.1	6	7	79	80	81	81	85	95	100		
09-17-80	.1	4	63	89	90	90	90	92	100			
10-08-80	0	1	38	45	45	45	46	50	66	100		
03-06-81	0.1	3	5	83	86	86	87	91	94	97	100	
03-24-81	.2	2	6	76	78	79	81	95	100			

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					8. Tanana River at Upper End of Goose Island, Alaska--Continued							
06-19-81	.1	1	9	64	65	65	66	69	81	95	100	
07-02-81	.3	3	33	82	82	82	83	89	98	100		
07-16-81	.6	3	17	43	46	46	48	57	72	92	100	
07-28-81	.6	3	9	20	22	23	27	40	67	91	100	
08-14-81	.5	8	37	48	48	49	51	59	75	89	100	
09-04-81	.1	2	45	67	68	70	71	78	92	100		
10-07-81	0	3	59	91	91	91	92	96	100			
06-03-82	0.2	1	14	63	64	64	67	79	94	100		
06-29-82	.1	0.9	6	18	19	21	24	35	58	100		
07-21-82	.6	4	40	72	73	74	75	79	87	96	100	
08-10-82	.2	1	11	21	21	23	25	35	58	97	100	
09-10-82	.2	2	24	78	81	82	83	87	94	100		
09-29-82	.2	1	16	64	65	66	66	70	89	100		
					9. Tanana River at Fairbanks, Alaska							
06-07-77	0.5	3	16	35	35	35	36	47	77	99	100	
06-29-77	.7	2	13	25	25	26	27	42	74	95	100	
07-06-77	.1	0.4	5	22	40	30	31	35	45	84	98	100
07-12-77	.5	2	21	48	49	50	52	60	74	94	100	
07-20-77	.5	2	10	25	27	28	29	35	50	70	99	100
08-03-77	.4	1	8	25	25	25	27	32	55	83	100	
08-11-77	1	3	15	33	34	35	35	41	48	82	96	100
08-18-77	0.9	2	30	54	61	61	63	71	88	98	100	
08-31-77	.7	2	33	66	67	67	68	71	81	99	100	
10-03-77	0.3	8	33	97	100							
05-18-78	1	9	72	91	92	92	92	96	99	100		
05-30-78	2	9	72	89	89	89	90	90	93	100		
06-20-78	2	7	48	78	79	79	80	90	100			
07-10-78	5	19	74	89	89	89	90	91	93	93	100	
07-17-78	2	7	32	82	84	84	86	88	92	99	100	
07-31-78	1	4	37	84	85	85	86	89	95	98	100	
08-08-78	2	8	45	77	80	81	82	85	91	100		
08-14-78	1	4	26	53	53	54	55	60	68	80	100	
08-25-78	0.5	3	30	85	86	86	87	89	93	98	100	
09-07-78	.4	3	32	84	85	86	86	89	94	100		
10-04-78	.2	2	39	57	57	58	59	61	64	71	100	
05-23-79	1	9	46	83	83	84	84	88	96	100		
06-18-79	1	6	34	96	97	97	98	98	100			
07-10-79	0.4	1	8	79	80	80	81	84	89	96	100	
07-24-79	1	5	19	46	46	47	49	59	84	96	100	
08-01-79	1	4	15	60	61	61	62	68	82	100		
08-08-79	0.9	3	13	34	37	39	44	58	81	99	100	
08-29-79	.4	2	8	64	65	65	67	73	86	100		
09-06-79	.1	1	9	54	55	56	57	65	86	100		
09-12-79	.2	2	17	89	89	90	90	92	97	100		

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
9. Tanana River at Fairbanks, Alaska--Continued												
10-02-79	.4	3	45	76	77	77	78	83	95	100		
06-18-80	1	4	24	55	56	56	58	65	79	98	100	
06-25-80	0.4	2	32	91	91	91	92	93	96	100		
07-15-80	.9	3	21	57	58	59	60	65	73	85	100	
07-30-80	.3	1	4	20	23	24	29	47	81	97	100	
08-11-80	.3	2	18	26	27	28	33	46	73	96	100	
09-03-80	.1	1	25	56	58	60	65	80	96	100		
09-16-80	.2	2	34	46	47	48	50	58	74	100		
10-07-80	0	1	25	40	41	41	43	60	94	100		
10-23-80	0.1	1	27	37	38	38	40	48	76	100		
05-22-81	.1	2	14	61	61	62	63	67	80	93	100	
06-18-81	.3	3	23	76	78	78	80	85	95	100		
06-30-81	.7	5	25	88	89	89	90	92	97	100		
07-13-81	.2	1	3	16	17	18	21	37	71	96	100	
07-29-81	.7	5	24	75	76	76	79	85	94	100		
08-13-81	.7	6	50	64	64	65	69	77	89	94	100	
09-03-81	.2	5	85	97	97	97	97	98	99	100		
10-06-81	0	3	59	99	99	100						
06-04-82	0.9	5	45	98	99	99	100					
06-28-82	.2	1	11	38	40	42	47	59	79	92	100	
07-20-82	0.1	0.6	3	19	36	37	39	49	75	96	100	
08-09-82	13	31	50	82	83	84	84	88	93	100		
09-08-82	0.3	3	45	91	91	91	91	92	92	92	100	
09-28-82	.3	3	32	92	93	93	93	94	100			
10. Snake River near Anatone, Wash.												
05-10-72	--	0.2	5	41	61	69	74	81	100			
05-19-72	0	.3	6	54	86	90	94	97	100			
06-02-72	0.1	.8	8	50	71	75	77	77	78	81	100	
06-14-72	.2	.9	8	51	94	99	100					
05-01-73	0	.2	9	60	98	100						
05-17-73	0	.2	6	44	75	79	80	80	80	82	100	
06-18-73	0.1	.3	4	37	94	99	99	100				
04-11-74	0	0	0.5	6	10	14	17	21	28	43	74	100
04-24-74	0	0.1	1	13	30	35	38	42	44	49	61	100
05-07-74	0	.1	2	13	22	25	29	32	35	40	58	100
05-16-74	0	.1	3	28	64	69	72	75	79	85	100	
06-11-74	0.1	.4	9	41	71	77	80	84	89	94	100	
04-15-75	0	.1	5	51	95	98	99	99	100			
05-01-75[2]	0.1	.1	3	38	58	62	62	63	67	82	94	100
05-14-75[2]	0.1	.2	4	35	55	59	59	60	62	70	82	100
05-20-75[2]	0	.1	3	25	36	38	39	42	46	60	87	100
06-11-75	0.2	.9	11	66	93	97	99	99	100			
06-26-75	.2	.6	12	65	84	87	88	89	92	95	100	
04-07-76	0	.1	3	49	74	78	81	81	82	89	100	
04-13-76	0	.1	4	34	42	43	44	45	46	52	71	100

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					10. Snake River near Anatone, Wash.--Continued							
04-15-76	0	.1	1	9	14	14	14	14	30	65	87	100
04-19-76	0	0	0.6	8	12	13	14	14	24	55	91	100
04-21-76	0	0	1	17	27	29	31	31	33	49	85	100
05-05-76	0	0.1	5	48	65	70	76	76	93	95	100	
05-13-76[2]	0.2	.4	7	43	61	63	65	65	67	70	72	100
05-26-76	.1	.3	6	43	63	72	77	77	83	88	89	100
05-27-76	0	.2	7	47	64	69	73	73	82	92	100	
06-08-76	0.2	.6	5	28	53	55	55	55	62	65	67	100
06-10-76	.1	.4	7	34	70	75	81	81	92	100		
04-04-78[2]	0	.1	1	14	18	20	21	21	29	57	86	100
04-05-78[2]	0.1	.1	0.8	10	16	17	18	20	29	51	78	100
04-29-78[2]	0.1	.2	2	13	18	20	21	23	28	41	67	100
05-02-78[2]	0	.1	1	15	31	32	33	33	36	49	69	100
05-03-78[2]	0.1	.1	2	23	33	35	37	38	42	51	72	100
05-16-78[2]	0.1	0.3	4	25	47	49	50	51	52	56	73	100
05-17-78[2]	0.1	.2	2	18	27	33	38	41	43	55	72	100
06-07-78	.4	2	13	70	82	84	84	84	84	84	100	
06-13-78	.3	0.8	6	61	89	93	96	98	100			
06-20-78[2]	0.1	.2	2	32	63	69	73	76	79	84	90	100
05-02-79[2]	0.1	.3	6	51	64	66	67	67	68	78	83	100
05-15-79	.1	.2	8	71	90	94	97	100				
05-22-79	.1	.2	3	38	77	78	79	79	79	84	89	100
05-24-79	.2	.7	8	69	95	97	98	100				
06-05-79[2]	0	.2	4	53	74	76	77	78	78	90	94	100
06-07-79	0	.1	3	44	89	95	97	98	100			
					11. Toutle River at Tower Road near Silver Lake, Wash.[3]							
01-17-85	0.2	0.9	5	25	47	58	65	71	83	95	100	
01-31-85	.1	.2	4	25	49	60	65	74	88	96	100	
01-31-85	.2	.4	4	23	53	64	71	79	89	100		
01-31-85	.1	.6	7	31	55	76	85	91	97	100		
02-21-85	13	13	14	19	28	41	51	64	87	95	100	
02-21-85	0.1	0.3	4	25	47	60	67	75	84	95	100	
02-21-85	.1	.2	3	19	38	49	55	62	73	88	100	
02-21-85	0	.2	16	64	79	82	84	86	90	97	100	
03-06-85	0.3	1	8	26	40	48	53	62	78	91	100	
03-06-85	.5	2	11	41	60	68	71	78	88	96	100	
03-23-85	1	6	25	51	64	72	76	83	89	95	96	100
03-23-85	1	4	19	43	66	77	81	85	90	96	100	
04-02-85	0.1	0.4	2	13	22	29	37	50	67	86	100	
04-02-85	.2	2	20	95	99	100						
04-02-85	.5	6	37	89	94	96	97	97	98	100		
04-02-85	.2	0.7	5	23	41	48	53	59	69	86	100	
04-11-85	.4	1	6	25	42	49	55	62	75	87	100	
04-11-85	2	8	30	75	84	92	100					
04-30-85	0.1	0.5	3	21	38	43	46	52	70	85	99	100
04-30-85	.1	.3	3	16	32	41	48	60	75	88	100	

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
	11. Toutle River at Tower Road near Silver Lake, Wash.[3]--Continued											
06-07-85	.2	.3	0.8	2	5	15	23	33	45	68	98	100
06-07-85	.1	.2	.6	1	2	7	12	20	41	65	98	100
06-08-85	.2	.4	2	6	13	26	35	46	59	75	98	100
08-23-85	.4	2	18	54	73	80	85	91	96	100		
08-23-85	.3	2	15	50	66	74	82	91	95	99	100	
10-25-85	1.3	5	18	53	66	69	70	71	80	82	100	
10-25-85	0.6	2	9	36	48	52	55	62	71	80	100	
10-25-85	.8	4	16	50	64	68	70	73	79	86	100	
10-25-85	1.3	5	17	52	70	75	78	83	89	97	100	
11-06-85	0.1	0.2	0.7	2	6	19	25	30	44	66	98	100
11-06-85	0	.1	.7	5	17	36	49	65	93	98	100	
11-08-85	0.1	.2	1	8	22	38	46	54	68	82	99	100
11-08-85	.1	.2	1	6	17	32	43	57	74	89	100	
12-09-85	17	41	51	51	51	51	51	51	51	100		
12-09-85							0	32	59	84	94	100
12-09-85	0.1	0.1	0.8	7	30	50	54	60	79	96	100	
12-09-85	0	.1	1	12	38	49	55	65	76	86	100	
12-09-85	2	2	3	13	34	65	76	84	94	99	100	
01-03-86	0	0.1	1	6	19	52	65	74	86	96	100	
01-03-86			0	0.2	3	29	37	45	59	94	100	
01-03-86			0	.4	5	30	53	67	82	95	100	
01-03-86		0	0.1	3	15	42	52	60	72	87	94	100
01-19-86	0	0.1	.2	0.6	2	10	24	41	60	82	100	
01-19-86	0	.1	.2	.5	2	13	27	43	63	82	100	
01-19-86		0	.2	.5	2	11	20	32	48	68	100	
01-19-86		0	.1	.4	1	9	17	31	52	75	100	
01-29-86	0.1	0.2	3	40	86	94	96	97	98	99	100	
01-29-86	0	.1	2	21	49	69	79	87	95	98	100	
01-29-86	0.1	.2	2	28	61	74	78	82	87	94	98	100
01-29-86	.1	.2	2	14	30	47	59	71	84	91	100	
02-11-86	.1	.1	0.6	4	12	25	31	37	44	48	49	49
02-11-86		0	.2	0.6	4	33	59	81	95	99	100	
02-11-86	0	0.1	2	8	22	51	67	79	91	99	100	
02-11-86	0	.1	0.2	0.8	3	67	80	87	95	100		
02-16-86	0	.1	.5	3	8	21	30	43	71	87	100	
02-16-86	0	.1	.6	4	12	29	40	53	71	87	96	100
02-16-86	0	.1	.5	3	8	22	32	43	60	74	97	100
02-16-86	0	.1	.6	5	13	29	40	51	65	83	99	100
05-22-86	0.1	0.2	2	9	24	56	63	69	79	90	100	
05-22-86	.1	.4	6	20	35	70	79	85	94	98	100	
05-22-86	.1	.3	3	14	35	73	79	82	87	94	100	
05-22-86	.1	.6	5	15	33	61	70	77	87	96	100	
07-02-86	0	.4	7	40	64	85	91	95	98	100		
07-02-86	0.1	.4	8	51	75	90	94	97	99	100		
07-02-86	0	.5	8	45	69	90	95	98	100			
07-02-86	0	.4	5	27	47	78	86	92	98	100		
07-22-86	0	.7	9	43	67	85	90	94	97	100		
07-22-86	0	.4	6	36	69	90	94	97	100			
08-07-86		0	1	24	63	86	93	98	100			
08-07-86	0	0.1	3	31	65	88	92	96	99	100		

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
11. Toutle River at Tower Road near Silver Lake, Wash.[3]--Continued												
10-31-86	0	.1	0.2	0.8	6	33	49	63	80	90	100	
11-14-86	0.1	.1	.9	3	12	58	70	78	89	94	100	
11-14-86	0	.1	.9	5	25	51	65	78	95	99	100	
11-14-86		0	.2	1	6	38	52	63	82	90	92	100
11-14-86	0	0.4	4	13	18	66	80	88	96	98	100	
11-21-86	0	.1	0.1	0.4	2	7	10	18	41	62	82	100
11-21-86	0.2	1	6	14	26	37	41	46	55	70	85	100
11-21-86	0	0.1	0.2	0.4	1	4	9	21	48	68	90	100
11-21-86	0	.1	.4	1	4	11	21	33	57	72	88	100
11-22-86	0.1	.4	2	5	13	47	56	61	70	79	96	100
11-22-86	.1	.6	3	7	12	24	33	42	50	66	85	100
11-22-86	.1	.4	2	4	10	19	24	29	37	54	75	100
11-22-86	0	.1	0.5	2	4	12	17	22	33	60	88	100
01-14-87	0.1	.1	1	10	32	54	61	69	79	90	97	100
01-14-87		0	0.6	9	39	65	69	77	85	93	98	100
01-14-87	0	0.1	.8	13	49	71	75	81	87	93	99	100
01-14-87	0.2	.2	2	17	39	58	64	71	80	92	100	
01-28-87	0	0.1	0.7	6	20	48	54	62	71	78	86	89
01-28-87	0	.1	.3	3	11	21	23	35	54	80	99	100
01-28-87	0	.3	1	9	27	38	40	51	68	86	97	100
01-28-87	0.3	.3	2	7	14	36	47	61	77	92	100	
02-01-87	.3	.8	2	5	11	28	36	44	52	66	84	100
12. North Fork Toutle River near Kid Valley, Wash.[3]												
06-07-85	0.3	0.8	3	5	11	31	42	52	65	82	100	
06-07-85	.2	.4	1	3	7	23	33	43	61	81	100	
06-08-85	.1	.5	2	6	14	29	40	56	80	89	98	100
06-08-85	0	.4	1	3	8	18	27	38	62	79	99	100
12-18-85		0	0.1	1	11	31	41	53	72	86	100	
12-18-85			0	0.5	4	13	22	60	82	92	95	100
12-18-85		0	0.1	1	8	33	50	68	80	88	100	
12-18-85		0	.1	0.9	6	23	37	56	75	90	100	
01-19-86	0.1	0.5	2	9	23	44	49	53	61	76	95	100
01-19-86	.1	.2	0.9	4	12	27	38	50	67	89	100	
01-19-86	.1	.2	.9	5	11	19	31	47	70	87	98	100
01-19-86	.1	.2	.9	5	13	24	44	72	89	96	100	
02-13-86	0	.1	.9	6	17	35	52	65	77	88	95	100
02-13-86	0.1	.2	2	8	22	47	66	78	84	90	99	100
02-13-86	0.1	0.3	3	12	31	51	60	67	75	87	95	100
02-13-86	0	.1	0.6	3	9	22	37	58	76	88	100	
02-26-86	0.2	.6	2	7	15	25	35	51	65	76	90	100
02-26-86	.1	.4	1	3	7	18	34	59	77	87	93	100
02-26-86	.1	.2	0.6	1	3	9	18	39	73	84	94	100
08-07-86			0	0.2	3	24	34	44	57	72	86	100

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
12. North Fork Toutle River near Kid Valley, Wash.[3]--Continued												
08-07-86			0	.3	5	34	46	62	80	93	100	
08-07-86		0	0.3	5	24	51	62	71	85	96	100	
08-07-86		0	.2	3	15	36	51	63	78	95	100	
09-09-86		0	.1	2	12	35	44	58	72	92	100	
09-09-86		0	.1	0.7	3	27	44	62	85	100		
09-09-86		0	.1	.1	0.9	15	29	44	57	61	100	
09-09-86		0	.2	1	4	18	29	40	61	81	100	
10-10-86		0	.5	5	17	68	87	95	98	100		
10-10-86			0	0.3	5	49	69	79	89	100		
10-10-86		0	0.1	4	13	53	70	88	99	100		
10-10-86		0	.1	3	13	54	74	84	89	93	100	
02-02-87	0.3	0.4	1	5	13	28	39	49	59	70	83	93
02-02-87	.2	.2	0.8	3	9	23	35	49	61	71	83	100
13. Oak Creek near Corvallis, Oreg.[4]												
01-08-71	0.8	2	5	25	46	61	76	84	97	100		
01-10-71	1	3	9	27	56	72	84	92	98	100		
01-10-71	0.8	3	10	23	47	65	78	90	99	100		
01-11-71	14	21	29	42	62	77	85	88	92	99	100	
01-11-71	0.5	2	6	18	43	64	80	92	99	100		
01-12-71	1	4	14	32	57	75	87	93	98	100		
01-13-71	1	4	10	25	47	62	76	82	86	100		
01-14-71	3	5	13	33	61	78	88	95	99	100		
01-16-71	0.1	0.1	0.4	1	2	5	10	20	37	71	95	100
01-16-71	.1	.3	.4	1	3	7	14	22	32	60	90	100
01-18-71	.6	.9	2	3	7	14	25	38	56	86	98	100
01-20-71	.1	.4	1	5	15	36	56	71	84	99	100	
01-21-71	.4	1	4	10	24	50	67	80	89	98	100	
01-23-71	.9	2	4	10	26	54	71	82	91	97	100	
01-25-71	.2	0.6	1	4	13	32	52	67	78	92	99	100
01-25-71	.2	.7	2	4	15	40	60	74	84	94	100	
01-26-71	.6	.9	2	6	30	51	72	84	90	95	98	100
01-26-71	.2	.7	3	11	35	64	84	93	96	100		
01-27-71	.7	2	5	14	37	74	90	96	98	100		
01-28-71	0.5	1	6	19	46	78	93	98	99	100		
02-04-71	.8	3	10	28	58	84	95	97	100			
02-05-71	.8	2	8	24	52	82	93	97	100			
02-09-71	.8	2	5	20	47	72	86	89	99	100		
02-14-71	.1	0.5	3	14	36	62	83	96	100			
02-15-71	.4	1	3	12	30	52	68	86	99	100		
02-18-71	2	3	9	22	44	67	79	88	98	100		
02-22-71	0.6	1	3	15	40	69	83	93	100			
02-25-71	.5	3	6	14	27	45	61	77	86	100		
02-26-71	.8	2	5	15	35	57	77	91	99	100		
02-27-71	.8	2	6	17	35	52	63	75	87	--	--	--

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					13. Oak Creek near Corvallis, Oreg.[4]--Continued							
03-01-71	.6	2	5	14	30	48	65	78	88	100		
03-03-71	.1	6	22	42	63	77	87	92	94	99	100	
03-04-71	.4	2	6	19	51	80	92	96	99	100		
03-05-71	.1	4	10	28	55	73	84	90	99	100		
03-06-71	2	6	13	30	55	75	85	91	99	100		
03-10-71	0.3	2	3	8	21	43	58	68	74	82	91	100
03-10-71	.4	0.8	2	5	14	30	42	52	58	72	89	100
03-10-71		0	0.3	0.8	2	6	13	24	43	72	96	100
03-10-71		0	.4	1	5	15	29	46	63	85	99	100
03-11-71	0.4	0.6	.9	2	7	15	26	39	60	85	99	100
03-11-71	.2	.6	1	3	9	23	40	60	79	94	100	
03-11-71	.3	.6	1	2	7	17	29	43	63	85	99	100
03-11-71	.1	.2	0.4	1	3	9	18	30	44	67	95	100
					14. San Antonio River near Lockwood, Calif.							
11-21-72			0	17	59	86	94	98	100			
01-17-73	--	--	3	21	56	82	90	95	98	100		
03-28-74	--	--	14	31	55	73	83	83	89	95	100	
12-10-74	--	--	1	16	58	89	97	99	100			
01-06-75	--	--	1	16	64	91	97	100				
02-06-75	--	--	4	20	51	74	86	93	97	100		
03-06-75	--	--	3	23	63	85	93	96	100			
04-04-75	--	--	3	25	62	84	92	96	98	100		
05-07-75	--	--	2	19	66	89	95	97	99	99	100	
06-05-75	--	--	2	22	66	90	97	99	100			
03-12-76	--	--	1	16	60	88	97	99	100			
04-09-76	--	1	1	14	60	90	97	98	99	100		
05-06-76	--	--	--	12	76	99	100					
01-18-78	0	1	11	29	56	75	85	91	97	100		
02-21-78		0	8	37	66	82	90	95	100			
03-28-78		0	6	36	71	87	93	98	100			
05-16-78		0	4	30	69	89	96	98	100			
06-06-78		0	2	26	66	87	94	97	99	100		
07-11-78		0	2	28	68	91	97	98	100			
12-04-78	--	--	2	31	72	92	97	99	100			
01-08-79	--	--	2	27	69	90	97	99	100			
02-06-79	--	--	3	32	66	86	94	97	100			
04-05-79	--	--	3	26	67	88	94	96	99	100		
05-21-79	--	--	1	22	64	87	94	98	100			
02-27-80	0	1	9	43	73	89	95	97	99	100		
04-17-80		0	2	24	61	84	92	97	98	100		
05-17-80		0	2	23	64	88	95	98	100			
06-07-80		0	1	21	65	90	95	99	100			
02-04-81	--	--	2	18	57	82	92	97	99	100		
03-18-81	--	--	2	23	67	89	96	98	100			

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
14. San Antonio River near Lockwood, Calif.--Continued												
04-07-81	--	--	2	22	64	88	96	98	100			
11-16-81	--	--	3	24	66	89	96	99	100			
12-14-81	--	--	1	19	63	88	96	98	100			
02-10-82	--	--	1	24	67	89	96	98	100			
02-14-83	--	--	2	18	50	74	84	91	96	100		
03-01-83	--	--	2	14	45	71	82	88	92	98	98	
04-22-83	--	--	2	28	61	81	90	94	98	99	100	
12-06-83	--	--	3	33	68	86	93	96	99	100		
01-19-84	--	--	2	28	64	87	96	99	100			
04-13-84	--	--	1	19	61	87	96	98	100			
01-14-85	--	--	1	22	55	84	94	98	100			
02-07-85	--	--	1	22	67	91	97	99	100			
03-04-85	--	--	1	19	60	79	85	87	93	100		
04-04-85	--	--	1	21	56	82	93	98	100			
04-29-85	--	--	1	18	61	87	95	98	100			
15. Chamise Creek near Island Mountain, Calif.												
11-07-72	--	--	3	16	32	58	84	97	100			
02-28-72			0	6	15	29	41	54	100			
11-14-73			0	4	12	30	53	73	99	100		
12-21-73	--	--	4	9	18	25	33	47	83	100		
03-05-74			0	4	11	25	44	61	81	88	100	
04-11-74			0	3	6	15	40	62	67	100		
03-03-76	--	1	3	11	21	45	71	86	96	100		
16. Redwood Creek near Blue Lake, Calif.												
01-12-74	--	--	--	2	9	40	76	93	100			
04-01-75	--	--	1	3	12	30	49	69	86	95	100	
03-10-78			0	2	6	15	36	63	88	100		
01-27-81	--	1	7	18	18	28	34	42	53	80	100	
04-02-81	--	--	1	10	37	60	73	81	91	100		
01-27-82			0	2	11	31	57	78	92	98	100	
11-30-82	--	--	2	11	28	48	69	84	97	100		
12-16-82	--	1	7	26	44	52	58	63	70	85	100	
01-27-83	--	1	9	26	38	47	53	61	74	100		
11-17-83	--	--	2	11	25	43	57	69	82	92	100	
12-14-83[1]	--	--	3	11	17	23	30	41	62	81	92	
03-01-84	--	--	--	2	8	34	74	96	100			
17. Redwood Creek above Panther Creek near Orick, Calif.												
12-03-80	--	--	2	14	24	34	48	63	78	94	100	
01-23-81	--	--	1	8	18	32	49	66	80	94	100	
01-28-81	--	--	1	7	21	37	53	69	81	98	100	
02-05-81	--	--	--	2	8	29	53	78	93	100		
11-02-81	--	--	--	8	42	69	81	88	97	100		

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					17. Redwood Creek above Panther Creek near Orick, Calif.--Continued							
12-09-81	--	--	3	6	13	25	48	77	90	100		
02-10-82	--	--	1	2	11	35	60	79	92	100		
03-19-82	--	--	--	2	7	20	45	71	89	100		
12-01-82	--	--	1	4	13	26	45	67	87	97	100	
12-22-82	--	--	1	4	10	17	27	42	61	84	100	
01-26-83	--	1	4	12	21	32	45	60	81	95	100	
03-08-84	--	--	--	1	7	29	66	91	100			
04-03-84	--	--	--	2	24	77	98	100				
					18. Redwood Creek at Orick, Calif.							
11-14-79	--	--	1	20	44	69	91	99	100			
02-01-80	--	--	1	7	32	58	81	96	100			
02-21-80	--	--	1	7	19	44	69	87	96	99	100	
12-11-80	--	--	--	14	52	83	96	99	100			
01-29-81	--	--	1	6	16	34	62	84	96	100		
02-24-81	--	--	1	10	28	54	74	89	98	100		
04-11-81	--	--	--	2	10	35	69	90	100			
11-13-81		0	1	5	17	40	69	91	98	100		
12-14-81		0	1	4	14	31	49	71	90	97	100	
03-03-82		0	1	5	16	31	49	70	88	98	100	
12-22-82	--	--	1	10	26	43	60	79	94	99	100	
01-24-83	--	--	1	6	17	36	55	73	89	100		
02-29-84	--	--	--	3	10	32	57	79	93	100		
					19. Hayes Creek near Orick, Calif.							
12-14-77	1	1	6	18	37	60	73	82	88	100		
12-14-77	1	1	5	16	29	42	59	76	100			
					20. Lacks Creek near Orick, Calif.							
02-03-78		0	2	8	17	28	45	69	90	100		
03-09-78		0	1	4	11	24	46	70	94	100		
01-22-81		0	2	12	27	38	45	51	58	71	100	
01-23-81	0	1	5	22	47	73	91	98	100			
02-17-82	--	--	1	3	9	19	29	40	57	85	100	
03-01-82	--	1	6	30	54	72	86	98	100			
01-26-83	--	--	1	8	21	37	55	74	92	100		
03-29-83	--	1	5	21	38	53	68	82	91	100		
					21. Sacramento River above Bend Bridge near Red Bluff, Calif.							
12-01-77		0	1	15	49	79	92	95	100			
01-03-78		0	2	17	49	71	79	85	92	100		
02-02-78		0	3	12	20	26	36	50	83	85	100	
03-01-78		0	3	35	61	76	85	88	90	100		
05-01-78		0	2	36	62	66	67	68	72	85	100	

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
21. Sacramento River above Bend Bridge near Red Bluff, Calif.--Continued												
06-02-78		0	1	25	65	86	92	94	96	100		
07-05-78		0	1	30	92	97	98	100				
07-31-78		0	1	29	74	81	82	83	84	86	100	
11-07-78		0	2	16	54	65	67	73	90	100		
01-02-79		0	1	17	76	92	94	96	100			
03-01-79		0	5	26	37	51	66	80	91	100		
05-02-79		0	6	38	69	82	86	90	95	100		
12-03-79			0	12	46	67	69	75	77	77	100	
12-26-79		0	1	16	56	72	80	86	91	98	100	
01-02-80		0	1	14	57	76	84	89	92	100		
02-01-80		0	1	15	31	57	73	82	93	100		
04-01-80		0	6	32	58	62	63	63	67	100		
05-01-80		0	3	36	58	63	66	66	66	100		
06-03-80		0	2	35	53	55	56	58	82	100		
22. Clearwater River at Spalding, Idaho												
05-10-72	--	0.3	6	56	93	94	95	95	95	100		
06-01-72	0	.1	2	12	18	20	26	34	42	53	100	
06-15-72	0	.2	3	40	98	100						
04-30-73		0	0.6	19	99	100						
05-16-73	0.1	0.4	4	55	99	100						
06-05-73	2	8	17	59	96	100						
06-19-73	0.2	0.7	3	45	99	100						
04-10-74	.1	.2	4	47	88	89	90	90	91	92	100	
05-08-74	0	.1	2	14	22	23	24	24	25	34	60	100
05-15-74	0.1	.2	4	50	97	98	99	99	100			
04-16-75	.1	.2	4	50	96	100						
05-13-75	.1	.3	4	87	97	97	97	97	97	97	100	
05-21-75	.1	.1	4	42	98	99	100					
06-10-75	.1	.2	5	57	98	99	99	99	99	100		
06-12-75	.1	.2	4	45	77	78	79	80	82	85	100	
06-17-75	.1	.2	7	55	96	98	98	98	98	100		
04-06-76	.3	.5	7	69	100							
04-08-76	.1	.2	5	60	98	100						
04-14-76	.1	.2	5	51	76	76	76	76	76	80	100	
05-06-76	.1	.2	6	40	63	64	64	64	64	68	78	100
05-11-76	.3	.9	13	40	52	52	52	52	52	57	84	100
05-12-76	.1	.3	14	61	72	72	73	73	73	76	100	
05-24-76	.1	.2	5	43	59	60	60	60	61	61	61	100
05-26-76	0	.1	3	41	64	65	65	65	66	68	83	100
06-11-76	0	.1	1	16	53	54	54	54	55	65	81	100
04-26-77	0.3	.6	9	82	100							
05-04-77	.2	.3	6	77	100							
04-28-78	.1	.3	7	51	99	100						
05-15-78	.2	.3	8	67	99	100						
05-17-78	.1	.2	5	53	91	91	92	92	94	95	100	

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
22. Clearwater River at Spalding, Idaho--Continued												
06-05-78	.2	.6	6	58	93	94	94	95	98	100		
06-06-78	.3	.8	9	74	98	99	99	99	99	100		
06-08-78	.2	.3	7	62	87	87	88	88	89	90	100	
06-12-78	.1	.2	3	53	99	100						
06-14-78	0	.1	2	30	90	91	91	91	91	92	100	
06-19-78	0	.1	3	42	95	95	95	95	96	100		
05-01-79	0.3	.7	8	68	99	100						
05-03-79	.2	.4	7	66	98	99	99	99	99	100		
05-08-79	1	2	14	78	97	99	100					
05-11-79	0.1	0.3	4	49	99	100						
05-14-79	.1	.1	3	41	99	100						
05-16-79	0.1	0.2	5	53	98	98	98	98	98	98	100	
05-21-79	.1	.1	2	42	85	86	86	86	86	88	92	100
05-23-79	0	.1	2	29	58	64	68	72	77	96	100	
06-04-79	0	.1	2	34	99	100						
06-06-79	0	.1	1	24	98	99	100					
06-18-79	0.1	.1	2	35	99	100						
23. North Fork of Big Lost River at Wild Horse, Idaho												
04-27-81	--	--	8	51	86	95	99	100				
04-30-81	--	--	1	7	23	46	84	97	100			
05-07-81	--	--	1	10	26	38	53	62	76	100		
05-15-81	--	--	1	19	39	55	80	91	100			
05-27-81	--	--	1	7	22	33	52	66	81	83	100	
05-28-81	--	--	2	13	37	56	81	90	99	100		
05-30-81			0	1	4	9	27	46	70	88	97	100
06-01-81	--	--	3	15	32	48	75	86	91	100		
06-03-81	--	--	4	18	36	46	62	74	91	100		
06-05-81	--	--	1	12	28	40	62	74	91	100		
06-09-81	--	--	1	12	31	42	52	62	71	83	100	
06-10-81			0	1	5	10	26	46	71	91	94	100
06-10-81			0	4	12	21	41	59	79	89	100	
06-11-81			0	3	10	14	20	32	65	88	100	
06-16-81			0	17	34	45	67	84	95	100		
06-17-81	--	--	1	14	27	46	84	96	100			
06-18-81	--	--	1	41	69	78	89	96	100			
06-23-81	--	--	1	10	17	20	23	30	57	100		
06-25-81	--	--	1	17	42	59	82	93	100			
07-01-81			0	12	27	39	60	69	78	100		
07-09-81	--	--	4	44	67	100						
07-20-81	--	--	19	69	88	100						
24. Big Lost River at Howell Ranch, Idaho												
04-30-81	--	--	1	8	35	51	68	77	90	100		
05-07-81			0	6	30	48	69	79	95	100		
05-15-81	--	--	4	20	36	45	53	60	84	100		
05-27-81	--	--	1	8	22	27	32	37	59	89	100	
05-28-81	--	--	5	29	48	57	73	83	89	100		

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
24. Big Lost River at Howell Ranch, Idaho--Continued												
05-30-81	--	--	2	13	24	29	35	39	48	71	100	
06-01-81	--	--	3	18	37	52	75	94	100			
06-03-81	--	--	1	5	13	17	21	27	35	44	100	
06-04-81			0	24	54	69	82	89	92	100		
06-05-81			0	19	59	74	82	88	92	100		
06-09-81			0	1	3	13	21	44	74	94	100	
06-09-81			0	3	14	33	55	72	86	93	100	
06-10-81			0	28	60	74	84	87	90	100		
06-11-81			0	3	10	15	31	53	81	99	100	
06-16-81			0	20	51	61	72	77	83	92	100	
06-17-81			0	16	33	46	71	85	88	100		
06-18-81	--	--	1	25	57	69	87	97	100			
06-23-81			0	27	57	65	71	80	87	100		
06-25-81			0	8	20	32	60	78	91	100		
07-01-81	--	--	1	22	63	77	90	98	100			
25. Big Lost River at Chilly Bridge, Idaho												
04-30-81	--	1	4	20	43	55	74	89	97	100		
05-07-81		0	4	61	97	100						
05-11-81		0	7	29	59	76	93	100				
05-14-81		0	7	15	78	90	100					
05-15-81		0	4	35	70	83	95	100				
05-27-81		0	4	29	65	76	86	90	92	100		
05-28-81		0	1	4	15	24	38	50	63	82	100	
05-30-81			0	5	14	21	31	40	53	73	89	100
06-01-81		0	2	16	28	32	38	41	45	53	100	
06-03-81	--	1	5	34	60	70	83	92	100			
06-04-81		0	1	7	25	38	56	68	80	91	100	
06-05-81		0	1	12	33	42	51	57	71	92	100	
06-09-81		0	1	13	28	36	49	59	73	84	92	100
06-10-81		0	1	29	68	82	89	92	94	100		
06-11-81			0	2	7	10	15	25	47	77	100	
06-11-81			0	4	16	20	28	37	50	74	100	
06-16-81		0	1	37	69	81	92	97	100			
06-16-81		0	1	27	56	69	84	92	100			
06-17-81		0	1	21	51	62	75	82	94	100		
06-18-81		0	1	22	54	68	85	90	100			
06-23-81			0	11	36	48	63	73	87	100		
06-25-81		0	1	24	45	52	59	63	71	78	100	
07-01-81			0	10	31	40	45	46	49	51	100	
07-01-81		0	1	16	42	53	66	73	85	100		
07-09-81		0	2	32	64	77	94	100				
26. Big Lost River below Chilly Sinks, Idaho												
05-01-81		0	3	20	35	42	53	66	79	92	100	
05-07-81		0	4	30	45	49	54	60	69	100		
05-11-81	--	1	6	26	45	55	61	65	100			
05-15-81		0	1	16	41	53	77	87	100			
05-27-81		0	7	42	67	72	78	81	87	100		

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					26. Big Lost River below Chilly Sinks, Idaho--Continued							
05-28-81		0	4	22	35	37	41	42	44	46	100	
05-30-81		0	2	13	40	54	64	70	79	100		
06-01-81		0	2	11	23	30	38	47	65	97	100	
06-03-81		0	9	51	78	84	90	95	100			
06-03-81		0	9	51	78	84	90	95	100			
06-04-81		0	1	15	31	37	46	55	68	83	100	
06-05-81		0	1	17	50	65	86	91	97	100		
06-08-81		0	4	44	70	79	90	93	98	100		
06-09-81	--	2	8	71	90	92	94	96	100			
06-10-81		0	1	6	20	24	32	42	60	87	100	
06-10-81		0	1	6	20	24	32	42	60	87	100	
06-11-81		0	1	20	40	47	57	66	78	84	100	
06-12-81		0	1	16	29	54	66	72	78	82	100	
06-16-81		0	1	13	58	71	76	77	78	79	100	
06-17-81		0	1	14	41	47	56	68	88	100		
06-18-81		0	1	14	49	71	88	92	95	100		
06-23-81		0	1	22	58	68	75	80	88	100		
06-25-81		0	1	9	26	40	57	64	74	100		
07-01-81		0	1	14	39	54	70	78	87	90	100	
07-09-81		0	1	19	52	67	82	93	100			
07-23-81		0	14	62	88	100						
					27. Big Lost River above East and West Channels, Idaho							
05-01-81	--	1	3	12	25	31	42	54	70	100		
05-07-81	--	1	2	25	59	68	75	85	100			
05-11-81	--	1	1	8	37	55	72	86	100			
05-15-81		0	1	16	33	42	56	67	82	100		
05-27-81		0	4	35	60	66	74	77	79	82	100	
05-28-81		0	8	51	85	92	98	99	100			
05-30-81		0	1	2	6	10	21	36	58	82	100	
06-01-81		0	2	15	29	36	48	58	70	81	100	
06-04-81		0	1	6	25	37	57	70	83	100		
06-05-81		0	1	9	28	40	57	69	83	93	100	
06-10-81		0	2	13	24	31	42	53	80	100		
06-10-81		0	1	3	9	12	21	37	66	95	100	
06-11-81		0	1	27	56	67	79	85	96	100		
06-11-81		0	10	36	44	47	50	51	66	100		
06-16-81		0	1	13	45	65	84	92	100			
06-17-81		0	1	2	4	5	9	15	32	88	100	
06-18-81		0	1	11	31	49	65	84	100			
06-23-81		0	1	23	71	91	99	100				
06-25-81		0	1	15	45	74	92	100				
07-01-81		0	1	2	8	14	29	43	67	87	100	
07-09-81		0	1	9	40	54	72	82	100			
07-22-81		0	1	16	50	69	90	100				

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
31. Muddy Creek near Pinedale, Wyo.												
04-21-75	1	3	25	62	86	98	100					
04-22-75	2	5	28	74	94	99	100					
04-23-75	2	4	23	60	86	98	100					
04-24-75	2	5	26	56	85	96	100					
04-25-75	1	3	20	57	70	90	99	--	--	--	--	
04-26-75	0.5	2	17	55	79	93	99	--	--	--	--	
04-27-75	1	3	26	70	89	97	100					
04-28-75	0.4	0.8	9	43	79	95	100					
04-29-75	.3	.5	5	39	81	97	100					
04-30-75	.7	2	14	49	84	97	100					
05-01-75	.2	0.5	7	41	78	95	100					
05-02-75	.3	.7	10	48	80	95	100					
05-03-75	.2	.3	7	35	65	86	98	100				
05-03-75	.3	2	14	67	82	96	100					
05-04-75	.1	0.1	3	30	63	87	98	100				
05-06-75	.1	.2	1	18	56	86	98	100				
05-08-75	.2	.5	9	28	63	90	99	100				
05-09-75	.1	.3	9	41	72	92	99	100				
05-23-75	.2	.3	5	37	74	94	100					
06-20-75	.1	.1	3	29	62	86	98	100				
07-11-75	.1	.1	3	32	67	89	99	100				
32. East Fork River near Pinedale, Wyo.												
05-23-79	2	3	45	80	83	87	93	98	100			
05-24-79	1	2	11	50	67	80	92	99	100			
05-25-79	0.4	1	5	55	71	84	94	98	99	100		
05-26-79	1	2	9	72	85	92	96	99	99	100		
05-28-79	1	3	9	57	78	88	95	99	100			
05-30-79	1	2	4	55	73	81	90	97	99	100		
06-01-79	0.7	0.7	2	49	72	87	97	99	100			
06-02-79	.5	.7	7	55	79	91	97	99	100			
06-03-79	.5	1	15	57	74	85	94	98	100			
06-04-79	1	2	10	68	87	94	97	99	100			
06-05-79	1	1	7	51	66	77	86	92	96	96	100	
06-10-79	0.4	0.7	3	27	58	77	94	99	100			
06-11-79	.6	1	7	33	47	58	74	89	100			
06-13-79	.4	0.6	4	33	63	82	93	97	99	100		
06-14-79	.6	1	9	44	66	82	93	97	99	100		
06-15-79	1	2	11	63	77	84	90	95	99	100		
06-16-79	1	1	2	38	63	82	96	99	99	100		
06-17-79	0.3	0.3	2	47	71	89	97	99	99	100		
06-18-79	.2	.4	2	25	57	80	94	99	100			
06-19-79	.2	.2	2	31	61	76	89	96	100			
06-20-79	.2	.5	0.7	20	46	69	81	93	100			

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
				33. Yampa River at Deerlodge Park, Colo.								
04-27-82	0	1	6	47	87	96	98	99	100			
05-12-82		0	7	49	85	94	97	99	100			
05-13-82		0	4	36	72	89	95	98	100			
05-24-82	0	1	15	82	96	99	99	100				
05-25-82	0	1	14	77	94	98	98	99	100			
06-08-82		0	7	63	95	99	100					
06-24-82		0	3	49	85	96	99	100				
06-25-82		0	2	39	82	96	99	100				
07-07-82		0	1	18	71	92	98	100				
07-08-82		0	1	16	62	86	94	98	100			
07-29-82		0	4	30	76	93	98	100				
04-07-83		0	7	64	92	99	100					
04-08-83		0	3	53	88	98	100					
04-19-83		0	4	51	88	97	99	100				
04-21-83	0	1	7	50	87	95	98	100				
04-22-83	0	1	8	52	85	95	98	99	100			
05-07-83		0	2	35	87	97	98	99	100			
05-09-83		0	2	35	86	97	99	99	100			
05-12-83	0	1	3	27	79	96	98	99	100			
05-23-83		0	4	29	65	89	94	97	98	100		
05-26-83	0	2	6	50	90	96	98	100				
05-27-83	0	1	4	39	91	97	99	100				
05-28-83	0	2	8	62	95	99	100					
06-08-83	0	1	8	50	79	90	94	95	98	100		
06-10-83		0	4	33	90	98	99	100				
06-21-83	0	1	4	40	92	98	99	100				
06-23-83	0	1	5	44	92	99	100					
07-12-83		0	4	36	89	98	99	100				
07-14-83		0	4	42	87	98	100					
				34. Rock Creek near Toponas, Colo.								
05-02-85	--	1	2	12	49	87	96	99	100			
05-08-85	--	1	2	7	24	61	85	95	99	100		
05-14-85		0	1	7	24	65	87	94	96	100		
05-16-85			0	3	16	48	73	87	96	100		
05-20-85		0	1	4	22	59	79	91	98	100		
05-22-85		0	1	5	25	63	81	90	96	100		
05-29-85		0	1	8	31	59	76	88	99	100		
06-04-85	--	1	1	10	34	65	84	93	100			
06-10-85		0	1	9	40	80	96	100				
06-18-85	--	1	5	20	62	96	100					
06-26-85	--	1	4	19	42	58	71	100				
07-10-85	--	--	--	--	--	100						
07-22-85		0	2	16	62	94	99	100				
04-24-86	--	0.3	0.5	9	34	70	90	97	100			
04-28-86	--	.2	.5	6	22	50	66	76	80	84	100	

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
34. Rock Creek near Toponas, Colo.												
05-12-86	--	.2	.4	9	34	58	70	77	85	100		
05-15-86	--	.1	.2	6	23	43	55	61	64	68	100	
05-20-86	--	1.1	6	14	25	37	66	80	90	100		
05-21-86	--	0.1	0.3	8	34	59	72	81	92	94	100	
05-27-86	--	.2	.3	6	26	51	69	79	89	98	100	
05-29-86	--	.1	.2	5	28	56	72	81	88	95	100	
06-09-86	--	.3	.5	12	38	57	69	78	86	95	100	
07-02-86	--	.8	2	12	35	70	92	96	100			
35. McIntyre Creek near Glendevey Colo.[4,5]												
05-12-77	--	10	23	38	57	76	95	100				
05-27-77	--	12	28	43	61	78	94	100				
05-31-77	--	9	21	35	55	75	95	100				
06-06-77	--	5	13	24	45	65	86	94	98	100		
06-14-77	--	2	6	14	33	52	71	89	100			
06-22-77	--	8	19	31	49	65	82	93	100			
06-28-77	--	13	30	46	63	79	96	100				
07-06-77	--	12	27	43	60	78	95	100				
07-12-77	--	14	33	50	66	81	96	100				
07-19-77	--	12	28	45	62	79	96	100				
39. Cabin Creek at Mouth near Granby, Colo.[4,5]												
06-20-78	--	5	12	19	25	32	38	46	59	--	--	--
06-27-78	--	18	43	63	70	78	85	94	100			
07-06-78	--	6	19	25	42	58	75	91	100			
07-11-78	--	8	18	30	49	67	86	95	100			
07-19-78	--	14	32	50	66	18	96	100				
07-25-78	--	12	28	45	62	79	96	100				
07-27-78	--	13	31	48	63	80	96	100				
08-01-78	--	13	31	49	65	80	96	100				
08-08-78	--	13	31	49	65	80	96	100				
08-10-78	--	15	35	54	68	82	96	100				
05-30-79	--	1.5	4	10	29	47	54	62	69	100		
06-20-79	--	12	27	47	79	86	86	100				
06-26-79	--	4	10	19	33	46	58	67	100			
07-03-79	--	10	22	39	64	88	97	100				
07-11-79	--	7	17	31	60	80	85	94	100			
07-18-79							0	54	100			
08-20-79						0	81	100				
40. Lower North Fork of Cabin Creek near Granby, Colo.[4,5]												
06-22-78	--	3	8	15	31	46	62	73	81	--	--	--
06-27-78	--	10	25	39	52	66	80	92	100			
07-07-78	--	9	22	35	50	66	81	93	100			
07-11-78	--	13	32	48	65	80	95	100				
07-20-78	--	15	36	54	68	82	96	100				

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
40. Lower North Fork of Cabin Creek near Granby, Colo.[4,5]--Continued												
07-25-78	--	15	36	54	68	82	96	100				
06-19-79	--	3	6	11	22	33	42	49	58	--	--	--
06-26-79	--	3	6	18	59	83	97	99	100			
07-03-79	--	12	28	46	75	87	97	100				
07-10-79	--	4	9	18	43	59	92	100				
07-16-79	--	8	19	32	51	86	97	100				
41. Upper North Fork of Cabin Creek near Granby, Colo.[4,5]												
06-20-78	--	5	12	21	35	49	63	84	100			
06-28-78	--	5	11	19	30	42	53	64	84	--	--	--
07-06-78	--	9	20	33	51	69	88	96	100			
07-11-78	--	14	33	50	65	81	96	100				
07-20-78	--	13	30	47	63	79	95	100				
07-25-78	--	10	23	38	57	76	95	100				
07-27-78	--	12	28	45	62	79	95	100				
08-10-78	--	15	35	54	68	82	96	100				
06-25-79	--	3	7	19	60	71	86	95	100			
42. Lower Left Fork of North Fork of Cabin Creek near Granby, Colo.[4,5]												
06-21-78	--	4	10	17	31	44	58	74	94	100		
06-28-78	--	3	7	13	22	32	41	47	53	--	--	--
07-06-78	--	4	11	18	33	48	63	80	97	100		
07-20-78	--	5	11	19	32	45	58	82	100			
07-25-78	--	9	23	36	56	75	95	100				
08-03-78	--	6	14	24	41	57	75	90	100			
08-08-78	--	4	10	17	27	36	46	76	100			
06-18-79	--	7	18	37	88	100						
06-25-79			0	6	38	45	69	88	100			
07-09-79	--	10	24	41	70	100						
07-16-79							0	53	100			
43. Upper Left Fork of North Fork of Cabin Creek near Granby, Colo.[4,5]												
06-21-78	--	2	4	7	14	21	28	33	39	--	--	--
06-28-78	--	5	11	19	31	43	56	67	83	--	--	--
07-06-78	--	7	16	27	41	56	70	88	100			
07-11-78	--	6	14	23	38	53	68	86	100			
07-20-78	--	18	43	65	75	86	97	100				
07-25-78	--	12	28	44	61	78	95	100				
07-27-78	--	13	31	47	64	80	95	100				
08-08-78	--	14	32	49	65	80	96	100				
06-18-79	--	4	9	20	48	58	73	89	99	--	--	--
06-25-79	--	8	17	33	70	79	93	98	100			

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
44. Upper Elk Creek near Granby, Colo.[4,5]												
06-19-78	--	3	7	10	11	12	13	18	25	--	--	--
06-26-78	--	5	12	21	40	58	76	91	100			
07-05-78	--	4	10	19	37	56	74	84	95	100		
07-10-78	--	5	12	22	41	60	79	92	100			
07-13-78	--	4	10	19	38	57	76	91	100			
07-17-78	--	5	11	21	41	60	79	93	100			
06-20-79	--	4	8	17	44	74	95	100				
06-26-79	--	10	24	41	75	83	93	98	100			
07-05-79	--	5	12	24	58	87	95	99	100			
07-10-79	--	5	12	24	49	70	86	95	100			
07-18-79	--	1.5	3	10	33	50	85	97	100			
50. Fourmile Creek near Fairplay, Colo.												
05-16-84	0	0.3	2	12	55	85	92	100				
05-24-84	0	.1	2	9	25	38	41	43	47	47	100	
05-29-84	0	.7	4	10	29	54	63	69	92	100		
05-31-84	0	.3	3	13	42	64	69	71	75	100		
06-06-84	0	4	17	38	69	93	100					
06-12-84	0	0.1	0.5	1	5	16	18	19	23	23	100	
06-14-84	0	.1	1	5	18	37	43	50	60	100		
06-18-84	0	.5	1	4	19	24	32	34	44	100		
06-22-84	0	.5	3	9	27	54	61	64	80	100		
06-26-84	0	.2	1	3	11	23	25	28	37	74	100	
06-29-84	0	.3	1	4	15	28	31	32	55	100		
07-03-84	0	1	8	22	54	77	87	94	100			
07-06-84		0	1	6	11	85	93	100				
07-10-84	0	0.2	0.5	3	19	41	54	66	100			
07-17-84	0	0.1	0.3	0.6	2	5	6	7	14	58	100	
07-24-84	0	.1	.7	4	18	42	48	54	54	78	100	
08-03-84	0	.9	3	6	20	29	32	36	41	100		
08-08-84	0	3	9	20	74	93	96	100				
51. Mad Creek (Site 1) near Empire, Colo.[5]												
05-29-84			0	22	44	67	78	89	100			
06-06-84		0	17	33	50	67	83	100				
06-18-84			0	11	22	44	67	89	100			
06-25-84				0	14	43	71	86	100			
07-03-84			0	11	22	44	78	100				

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
52. Mad Creek (Site 3) near Empire, Colo.[5]												
06-06-84		0	2	7	24	49	71	87	96	100		
06-18-84			0	10	38	62	81	95	100			
06-25-84		0	2	8	28	52	62	72	78	100		
07-03-84			0	7	26	48	63	70	83	100		
07-12-84			0	7	30	57	77	87	100			
53. Middle Fork of Boulder Creek at Nederland, Colo.												
05-14-84			0	9	32	55	82	95	100			
05-17-84			0	22	56	78	100					
05-23-84			0	20	50	70	90	100				
06-04-84			0	10	30	60	90	100				
06-08-84			0	--	--	100						
06-15-84			0	11	28	44	67	83	100			
06-20-84			0	15	38	54	69	85	100			
06-27-84			0	11	44	67	89	100				
07-02-84			0	7	29	62	73	91	100			
07-11-84			0	9	27	45	73	82	100			
07-19-84			0	10	25	55	85	100				
07-27-84			0	11	39	72	89	100				
54. Jefferson Creek near Jefferson, Colo.												
05-16-84		0	4	19	41	63	81	93	100			
05-26-84			0	13	33	50	67	83	100			
06-07-84			0	9	27	45	64	82	100			
06-13-84			0	18	45	64	82	100				
06-28-84			0	15	38	54	77	92	100			
07-10-84			0	20	47	60	73	87	100			
07-25-84			0	10	25	47	73	92	100			
09-19-84			0	17	33	50	67	83	100			
55. Craig Creek near Bailey, Colo.												
04-16-84		0	14	42	85	85	99	100				
04-26-84		0	7	50	93	93	100					
04-30-84		0	4	21	96	96	100					
05-03-84		0	6	41	88	88	100					
05-10-84		0	5	32	92	92	100					
05-15-84	0	0.1	6	34	87	87	100					
05-17-84		0	5	29	77	77	97	99	100			
05-24-84		0	4	25	73	73	89	93	100			
05-29-84	0	0.4	4	36	84	84	98	100				
05-31-84	0	.4	8	38	92	92	99	100				
06-04-84	0	.6	7	37	86	86	98	100				
06-06-84	0	1	14	54	93	93	100					
06-11-84		0	8	33	92	92	100					
06-19-84		0	10	40	90	90	100					
06-26-84		0	4	23	89	89	100					

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
55. Craig Creek near Bailey, Colo.--Continued												
07-03-84		0	5	19	85	85	99	100				
07-12-84		0	4	26	92	92	100					
07-16-84		0	16	48	95	95	100					
08-01-84		0	2	18	77	77	100					
08-15-84		0	4	26	82	82	99	100				
08-21-84	0	0.2	4	35	91	91	99	100				
09-05-84		0	12	48	95	95	100					
56. Geneva Creek near Grant, Colo.												
05-10-84		0	16	49	66	67	84	100				
05-26-84		0	2	23	44	61	79	93	100			
06-07-84		0	5	24	48	67	81	90	100			
06-13-84			0	11	28	50	72	83	100			
06-21-84		0	2	16	32	50	66	80	92	100		
06-28-84	0	0.8	3	14	35	60	77	92	100			
07-10-84		0	2	21	44	65	79	88	93	100		
07-18-84			0	27	45	64	82	91	100			
07-25-84			0	24	52	76	90	95	100			
08-02-84		0	3	17	37	60	80	90	100			
08-20-84			0	8	25	46	63	71	79	100		
57. Pony Creek near Antero Reservoir, Colo.												
05-16-84	0	4	11	33	57	57	81	93	100			
05-24-84	0	6	38	63	81	81	88	88	100			
06-06-84	0	24	49	73	98	98	100					
06-12-84	0	11	21	47	68	68	84	95	100			
06-14-84	0	10	20	40	60	60	80	90	100			
06-19-84	0	7	13	33	53	53	80	93	100			
06-22-84	0	9	18	36	55	55	64	64	100			
06-26-84	0	6	13	31	50	50	75	81	100			
06-29-84	0	4	16	40	64	64	76	76	100			
07-03-84	0	9	18	35	61	61	88	96	100			
07-06-84	0	3	21	52	70	70	88	94	100			
07-10-84	0	0.9	10	26	45	45	72	82	100			
07-24-84	0	6	19	32	44	44	57	62	100			
58. North Fork of South Platte River at Shawnee, Colo.												
05-03-85		0	0.8	24	64	89	98	100				
05-06-85	0	0.1	.7	14	41	70	89	98	100			
05-09-85	0	.1	.5	16	38	69	93	100				
05-14-85	0	.1	.3	14	39	70	92	99	100			
05-17-85		0	.2	21	57	88	98	100				
05-21-85	0	0.1	.3	14	40	70	92	100				
05-24-85		0	.7	17	48	77	92	99	100			
05-28-85	0	0.1	.3	14	42	68	87	97	100			
05-31-85		0	.5	14	46	72	85	92	95	100		
06-10-85	0	0.1	.4	12	33	54	68	77	82	85	--	--

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
	58. North Fork of South Platte River at Shawnee, Colo.--Continued											
06-13-85		0	.1	16	43	68	83	93	98	100		
06-17-85		0	.2	19	51	78	92	97	99	100		
06-20-85		0	.2	15	44	74	90	95	98	100		
06-25-85		0	.3	17	44	76	92	97	100			
06-28-85	0	0.1	.1	13	47	80	93	98	100			
06-30-85		0	.2	13	42	69	84	90	91	100		
07-03-85		0	.4	16	45	75	93	98	98	98	100	
07-10-85		0	.4	19	51	79	96	99	100			
07-16-85		0	.6	18	52	84	97	100				
07-18-85	0	0.1	.8	28	60	82	93	97	100			
07-23-85	0	.1	.8	23	55	81	96	99	100			
	59. North Fork of South Platte River at Crossons, Colo.											
05-14-85	0	0.1	0.8	17	38	66	83	90	92	100		
05-17-85		0	.7	21	46	69	83	92	95	100		
05-21-85		0	.7	23	54	77	88	93	96	100		
05-24-85		0	.5	17	48	76	91	93	100			
05-28-85	0	0.1	1	19	50	73	87	91	93	95	100	
05-31-85		0	0.6	13	43	71	90	96	100			
06-13-85	0	0.1	1	30	67	79	87	93	99	100		
06-17-85		0	0.6	13	40	68	86	93	98	100		
06-20-85		0	.4	20	64	90	97	99	100			
06-25-85		0	.4	20	54	78	92	98	100			
06-28-85		0	.2	12	38	72	92	98	99	100		
06-30-85		0	.8	36	73	87	96	99	100			
07-03-85		0	.5	19	45	68	81	93	100			
07-10-85	0	0.1	.8	26	59	83	95	99	100			
07-16-85		0	.6	19	54	84	95	100				
07-23-85		0	.9	23	55	80	94	98	100			
	60. North Fork of South Platte River at Buffalo, Colo.											
05-03-85		0	0.4	11	32	57	82	95	100			
05-06-85		0	.3	12	31	51	72	93	99	100		
05-09-85			0	0.5	13	30	51	80	99	100		
05-15-85		0	0.1	3	20	46	75	94	100			
05-17-85		0	.1	5	29	59	84	96	100			
05-21-85		0	.3	31	68	86	96	100				
05-23-85		0	.3	30	66	82	93	98	100			
05-28-85		0	.2	15	43	64	81	92	94	97	100	
05-30-85		0	.3	12	30	49	73	92	99	100		
06-10-85		0	.6	19	40	61	80	92	97	100		
06-12-85	0	0.1	.5	12	28	48	71	90	97	98	100	
06-17-85		0	.2	26	54	69	80	90	98	100		
06-19-85		0	.4	24	50	93	90	98	100			
06-26-85		0	.3	27	57	82	96	99	100			
06-27-85	0	0.1	.5	27	62	78	85	88	100			

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					60. North Fork of South Platte River at Buffalo, Colo.--Continued							
06-30-85		0	.8	45	71	81	88	98	100			
07-02-85		0	.5	16	52	85	96	99	100			
07-11-85	0	0.1	.5	32	76	92	97	100				
07-16-85	0	.3	16	34	50	73	90	100				
07-24-85		0	0.3	44	84	97	100					
					61. South Fork of South Platte River above Vermillion Creek, Colo.							
05-15-85	0	0.2	3	19	34	55	78	96	99	100		
05-16-85	0	.2	5	30	47	65	87	99	100			
05-22-85	0	.1	3	28	54	73	89	98	100			
05-23-85	0	.1	2	21	52	71	86	97	100			
05-29-85	0	.2	2	28	53	71	87	97	100			
05-30-85	0	.1	3	42	62	76	90	98	100			
06-11-85	0	.2	3	20	32	46	67	92	100			
06-12-85	0	.1	2	18	34	51	75	96	100			
06-18-85	0	.1	1	8	18	42	72	95	100			
06-19-85	0	.1	3	21	36	50	73	91	100			
06-27-85	0	.1	1	17	36	58	82	97	100			
07-01-85	0	.1	2	13	27	44	67	91	100			
07-02-85	0	.1	1	12	29	49	75	96	100			
07-12-85		0	0.6	11	26	51	80	96	100			
07-17-85	0	0.1	1	13	30	53	80	95	100			
07-18-85	0	.1	1	16	29	50	78	95	100			
07-25-85	0	.1	3	22	39	55	77	97	100			
					62. South Fork of South Platte River at Trumbull, Colo.							
05-02-85		0	0.4	7	24	45	69	84	95	100		
05-07-85		0	.2	5	20	38	61	87	97	100		
05-08-85		0	.1	3	15	35	64	89	98	99	100	
05-15-85		0	.4	9	18	27	44	67	87	95	100	
05-16-85		0	.4	9	24	50	82	97	100			
05-22-85	0	0.1	.7	15	24	31	39	49	60	63	--	--
05-23-85		0	2	27	50	69	85	97	100			
05-29-85	0	0.1	0.3	7	22	44	67	85	96	100		
05-30-85	0	.2	3	16	34	52	68	77	84	87	--	--
06-11-85	0	.1	1	29	65	80	88	94	96	100		
06-12-85		0	1	26	45	60	75	91	100			
06-18-85		0	0.5	11	24	42	65	81	92	100		
06-26-85		0	.1	1	3	6	9	12	12	12	--	--
07-01-85	0	0.2	2	33	67	83	92	100				
07-02-85		0	0.1	11	33	50	76	91	100			
07-11-85		0	.3	6	18	36	64	91	100			
07-17-85		0	.2	8	24	49	74	91	97	100		
07-24-85	0	0.4	2	30	64	88	97	100				

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
63. Buffalo Creek at Buffalo, Colo.												
05-03-85		0	0.2	6	23	47	75	95	100			
05-06-85	0	0.1	1	11	23	46	78	98	100			
05-08-85		0	0.8	10	32	57	82	96	100			
05-14-85	0	0.1	1	13	40	66	88	98	100			
05-17-85	0	.1	2	21	44	63	81	96	100			
05-21-85	0	.2	2	20	39	58	79	95	100			
05-23-85	0	.2	3	27	51	68	85	97	100			
05-28-85		0	0.5	4	18	47	80	99	100			
05-30-85		0	.8	12	33	59	83	97	100			
06-10-85	0	0.1	1	9	27	52	82	99	100			
06-12-85	0	.1	1	13	36	65	89	99	100			
06-17-85		0	0.5	10	34	63	88	99	100			
06-19-85	0	0.1	2	20	50	73	91	98	100			
06-26-85	0	.3	4	23	43	61	83	100				
06-30-85	0	.3	3	18	33	54	80	96	100			
07-02-85	0	.4	4	22	38	57	79	95	100			
07-11-85	0	.1	2	20	40	62	84	98	100			
07-16-85	0	.2	2	19	50	72	90	99	100			
07-19-85	0	.1	2	22	42	60	80	97	100			
07-23-85	0	.3	4	41	67	79	93	99	100			
64. Trail Creek near Westcreek, Colo.												
05-02-84	0	0.7	5	27	53	--	76	79	100			
05-08-84	0	.1	4	15	44	--	72	83	100			
05-11-84	0	.3	5	27	60	--	80	89	100			
05-15-84	0	.6	3	15	45	--	73	89	100			
05-26-84	0	.9	10	43	76	--	81	91	100			
06-01-84	0	.6	6	25	50	--	72	81	100			
06-08-84	0	.3	6	29	57	--	77	89	100			
06-16-84	0	.7	4	30	67	--	90	97	100			
06-26-84	0	.5	6	27	49	--	84	95	100			
07-10-84	0	.8	8	31	54	--	85	92	100			
07-27-84	0	.7	14	49	70	--	90	93	100			
08-13-84	0	.4	2	11	29	--	83	96	100			
09-04-84	0	.1	2	10	43	--	85	96	100			
65. Horse Creek near Westcreek, Colo.												
05-02-85		0	0.2	3	11	26	50	77	93	98	--	--
05-07-85		0	.2	6	20	38	59	77	90	97	--	--
05-08-85	0	0.1	.3	6	20	40	60	76	86	100		
05-15-85		0	.5	10	26	49	74	93	100			
05-16-85	0	0.1	.6	12	27	42	55	73	85	90	--	--
05-22-85		0	.2	4	13	28	50	73	90	95	--	--
05-23-85		0	.2	6	16	32	54	78	97	100		
05-29-85		0	.2	3	17	45	71	90	98	99	--	--
05-30-85		0	.2	4	13	33	63	85	98	100		
06-11-85	0	0.1	.4	15	53	83	95	99	100			

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
65. Horse Creek near Westcreek, Colo.--Continued												
06-12-85			0	0.2	0.6	5	49	88	100			
06-18-85		0	0.3	5	25	57	82	98	99	100		
06-19-85		0	.1	4	20	50	75	90	98	100		
06-27-85		0	.9	3	11	28	66	96	100			
07-01-85		0	.2	5	20	47	74	95	100			
07-02-85		0	.1	6	14	35	67	94	100			
07-12-85	0	0.1	1	17	44	64	77	91	100			
07-17-85		0	0.4	8	26	46	69	91	100			
07-19-85	0	0.1	.7	9	33	63	87	99	100			
07-24-85		0	.1	2	7	18	47	85	100			
07-25-85		0	.1	3	14	34	63	90	100			
66. Blue River below Green Mountain Reservoir, Colo.												
05-30-85	0	0.4	2	31	74	90	95	97	100			
06-04-85	0	.2	1	28	77	89	91	93	100			
06-06-85	0	.5	3	41	86	97	99	100				
06-10-85	0	.6	3	35	58	62	64	67	80	100		
06-17-85	0	.2	1	30	66	85	95	99	100			
06-18-85	0	3	5	41	71	79	82	84	86	100		
06-25-85	0	0.4	2	34	70	79	82	83	83	100		
06-26-85	0	.1	0.6	23	65	82	90	95	100			
06-30-85	0	.2	1	28	63	74	77	77	78	100		
07-10-85		0	3	55	94	100						
07-17-85	0	0.6	4	56	95	99	100					
07-31-85	0	.5	3	58	86	91	94	98	100			
67. Williams Fork near Leal, Colo.												
05-15-85	0	0.2	0.7	18	40	55	66	89	100			
05-21-85		0	.6	20	47	73	86	91	100			
05-22-85	0	0.1	.4	15	40	60	69	79	100			
05-22-85	0	.1	.3	14	44	64	75	91	97	100		
05-28-85	0	.1	.6	9	36	62	75	84	95	100		
05-29-85	0	.1	.4	7	26	42	51	60	73	95	100	
06-05-85	0	.1	.2	4	15	24	31	37	49	67	--	--
06-06-85		0	.2	5	12	16	18	20	24	27	--	--
06-10-85	0	0.2	1	19	48	66	73	79	89	100		
06-11-85	0	.1	0.8	14	36	56	70	77	78	100		
06-18-85		0	.2	9	40	79	91	94	95	100		
06-18-85		0	.1	8	44	83	95	98	100			
06-26-85	0	0.1	.4	4	26	52	67	77	90	100		
06-26-85	0	.1	.5	6	24	47	55	61	68	100		
07-01-85	0	.1	.7	16	48	77	91	99	100			
07-01-85	0	.1	.4	6	24	42	52	58	64	100		
07-11-85		0	.2	6	19	38	50	58	61	64	--	--
07-18-85	0	0.1	.5	12	34	62	81	92	100			
08-01-85	0	.1	1	22	51	72	83	93	100			

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
68. Upper South Fork of Williams Fork near Leal,Colo.												
05-16-85		0	0.2	3	9	15	20	24	27	33	--	--
05-23-85		0	.3	3	12	24	35	45	61	90	100	
05-30-85	0	0.1	.7	13	31	57	77	87	94	100		
06-04-85	0	.1	.4	8	22	36	47	56	66	83	100	
06-05-85	0	.1	.3	7	21	39	53	61	69	77	100	
06-10-85	0	.1	.8	10	22	37	51	65	79	94	100	
06-11-85	0	.1	.8	10	24	37	49	59	74	96	100	
06-17-85	0	.1	.9	9	18	30	47	61	77	94	100	
06-18-85	0	.1	.5	8	20	31	42	51	60	80	100	
07-01-85	0	.1	.4	10	23	51	81	92	95	100		
07-18-85		0	.1	7	23	46	67	74	77	100		
69. Lower South Fork of Williams Fork near Leal, Colo.												
05-15-85	0	0.1	0.4	17	51	77	92	100				
05-28-85	0	.1	.6	12	32	53	67	79	86	97	100	
05-29-85	0	.1	.4	6	19	37	54	69	86	100		
06-05-85		0	.3	10	34	67	85	92	100			
06-05-85	0	0.1	.7	15	40	61	75	83	93	100		
06-06-85		0	.2	7	22	39	55	70	84	100		
06-11-85		0	.1	4	12	26	43	59	77	100		
06-11-85		0	.3	3	12	25	42	58	76	96	100	
06-17-85	0	0.1	.9	15	40	65	81	92	100			
06-18-85		0	.1	6	23	52	77	92	100			
06-25-85	0	0.1	.3	7	8	37	67	91	100			
06-26-85		0	.2	6	24	53	84	94	100			
07-01-85	0	0.1	.3	8	31	64	88	98	100			
07-03-85		0	.6	28	63	90	100					
07-18-85	0	0.2	.7	12	43	76	91	100				
08-01-85		0	1	38	75	92	98	100				
70. Williams Fork below Steelman Creek near Leal, Colo.												
05-16-85		0	3	23	59	87	100					
05-23-85	0	0.4	1	11	43	86	99	100				
05-23-85		0	0.2	7	25	66	95	100				
06-03-85	0	0.1	.2	4	17	38	52	60	69	81	100	
06-03-85	0	.1	.3	7	21	43	57	64	72	84	100	
06-03-85		0	.2	5	25	62	82	89	95	100		
06-13-85		0	.4	6	16	34	51	64	72	100		
06-13-85		0	.2	4	13	31	46	56	65	80	100	
06-20-85		0	.1	5	15	29	45	56	66	78	100	
06-20-85		0	.1	4	13	29	49	61	70	84	100	
06-27-85		0	.2	7	22	45	66	79	94	100		
06-27-85		0	.4	9	27	59	78	83	85	86	100	
07-02-85		0	.5	24	59	88	98	100				
07-16-85		0	1	23	73	98	100					
07-30-85		0	0.6	19	60	90	100					

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
71. Kinney Creek near Leal, Colo.												
05-15-85	0	0.3	1	25	55	76	90	100				
05-16-85		0	0.7	8	31	69	99	100				
05-22-85		0	.2	2	12	27	52	78	100			
05-28-85	0	0.1	.5	7	17	31	45	62	82	100		
05-29-85	0	.3	1	16	39	57	68	82	89	100		
06-05-85	0	0	0.2	5	13	26	41	52	64	87	100	
06-06-85	0	0.1	.3	4	9	15	23	33	52	90	100	
06-11-85	0	0.1	.5	8	16	26	40	57	74	78	100	
06-11-85	0	.2	1	12	24	36	50	67	92	100		
06-18-85	0	.1	0.3	5	13	24	38	55	66	77	100	
06-26-85		0	.3	14	32	55	71	79	100			
06-26-85		0	.4	8	20	38	60	89	100			
07-01-85			0	32	61	76	86	100				
07-03-85		0	10	29	53	76	95	100				
07-11-85		0	0.8	16	34	57	77	100				
08-01-85		0	.8	8	20	37	54	69	100			
72. West Fork of San Juan River near Pagosa Springs, Colo.												
04-17-85	0	1	2	23	43	67	86	97	99	100		
04-23-85	0	1	2	44	71	92	100					
05-02-85	0	1	1	24	51	69	76	82	92	100		
05-05-85	0	1	8	55	70	73	74	75	75	83	100	
05-08-85	1	2	8	45	62	69	72	75	82	100		
05-12-85		0	1	19	45	68	78	84	89	90	100	
05-15-85	1	1	5	40	67	84	91	93	93	100		
05-20-85		0	1	19	46	74	87	93	99	100		
05-26-85	1	3	22	65	72	74	76	78	82	100		
05-30-85	0	1	3	11	16	20	24	28	40	63	88	100
06-03-85		0	2	8	12	15	18	23	31	38	40	--
06-06-85		0	2	11	16	17	18	20	27	35	100	
06-18-85			0	1	2	2	3	7	20	50	81	100
07-18-85	1	2	14	42	81	96	99	100				
73. Rich Creek near Weston Pass, Colo.												
05-16-84	0	0.4	4	16	--	76	100					
05-24-84	0	.1	2	17	--	64	89	93	100			
05-29-84	0	.1	3	21	--	73	88	93	100			
05-31-84	0	3	10	28	--	72	95	97	100			
06-06-84	0	0.1	0.8	4	--	19	28	28	30	30	--	--
06-12-84	0	.2	2	13	--	51	77	83	87	100		
06-14-84	0	.1	2	9	--	33	54	58	62	62	--	--
06-18-84	0	1	4	15	--	68	92	94	100			
06-23-84	0	0.6	7	19	--	75	94	100				
06-26-84	0	.6	4	16	--	79	98	100				
06-29-84	0	2	8	23	--	69	100					
07-03-84	0	0.4	2	10	--	40	90	96	100			
07-06-84	0	.4	2	11	--	51	91	96	100			
07-10-84	0	2	12	33	--	74	95	97	100			
07-17-84	0	0.5	5	18	--	58	99	100				
08-08-84	0	6	11	33	--	89	100					

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
74. Trout Creek near Bayfield, Colo.[4]												
05-02-84		7	--	87	100							
05-03-84		7	--	87	100							
05-07-84		0	--	65	80	91	100					
05-08-84	--	3	--	73	90	98	100					
05-15-84	--	1	--	52	64	70	81	--	--	--	--	--
05-16-84	--	1	--	72	84	90	100					
05-21-84	--	0.5	--	58	77	83	90	--	--	--	--	--
05-22-84	--	.5	--	31	47	59	77	--	--	--	--	--
05-30-84	--	2	--	92	100							
05-31-84	--	16	--	86	100							
06-05-84	--	31	--	96	100							
06-11-84	--	33	--	83	100							
06-12-84	--	53	--	100								
04-23-85	--	20	--	86	94	98	100					
04-29-85	--	27	--	93	100							
04-30-85	--	18	--	88	100							
05-06-85	--	35	--	93	98	99	100					
05-07-85	--	27	--	76	80	83	89	--	--	--	--	--
05-20-85	--	14	--	84	90	99	100					
05-21-85	--	26	--	96	100							
05-21-85	--	17	--	85	93	98	100					
05-22-85	--	26	--	95	100							
05-29-85	--	19	--	94	99	100						
05-30-85	--	26	--	90	94	97	100					
06-04-85	--	20	--	92	100							
06-05-85	--	18	--	91	100							
06-13-85	--	18	--	76	87	90	100					
75. Clear Creek near Bayfield, Colo.[4]												
05-07-84	--	1	--	69	75	76	100					
05-08-84		0	--	74	84	100	100					
05-15-84	--	1	--	86	95	97	100					
05-16-84	--	0.6	--	74	88	93	99	100				
05-21-84	--	.8	--	74	86	92	100					
05-22-84	--	.6	--	73	86	91	100					
05-30-84	--	2	--	90	100							
05-31-84	--	2	--	93	100							
06-05-84	--	7	--	97	100							
04-23-85	--	20	--	97	99	99	100					
04-29-85	--	22	--	93	100							

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
75. Clear Creek near Bayfield, Colo.[4]--Continued												
04-30-85	--	22	--	91	100							
05-06-85	--	7	--	64	73	78	85	100				
05-07-85	--	5	--	21	66	78	100					
05-20-85	--	10	--	56	61	61	67	100				
05-21-85	--	11	--	55	64	74	98	100				
05-21-85	--	11	--	91	100							
05-22-85	--	9	--	91	94	96	100					
05-29-85	--	8	--	48	53	54	67	100				
05-30-85	--	15	--	90	95	96	100					
06-04-85	--	12	--	93	97	100						
06-05-85	--	48	--	55	66	76	92	100				
76. West Prong Creek near Bayfield, Colo.[4]												
05-02-84		0	--	56	72	100						
05-03-84	--	1	--	35	53	73	100					
05-07-84	--	0.2	--	39	48	52	65	100				
05-08-84	--	.7	--	66	76	82	100					
05-15-84	--	.7	--	61	74	81	93	--	--	--	--	--
05-16-84	--	.6	--	78	87	92	100					
05-21-84	--	.7	--	60	70	74	81	100				
05-22-84		0	--	10	48	64	96	100				
05-30-84	--	0.5	--	15	27	42	100					
05-31-84		0	--	23	29	40	100					
06-04-84	--	18	--	83	93	100						
06-11-84	--	15	--	98	100							
06-12-84	--	15	--	91	100							
04-23-85	--	13	--	94	100							
04-29-85	--	34	--	96	100							
04-30-85	--	24	--	96	100							
05-06-85	--	9	--	65	72	74	79	--	--	--	--	--
05-07-85	--	2	--	10	23	28	58	100				
05-20-85	--	15	--	53	82	83	88	100				
05-21-85	--	11	--	50	59	65	86	100				
05-22-85	--	14	--	77	93	97	100					
05-22-85	--	18	--	91	99	100						
05-29-85	--	30	--	91	95	96	100					
05-30-85	--	20	--	97	100							
06-04-85	--	11	--	86	100							
06-05-85	--	19	--	94	100							
06-14-85	--	21	--	100								

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					77. Red Creek near Bayfield, Colo.[4]							
05-07-84	--	2	--	61	72	82	95	100				
05-08-84	--	0.3	--	42	52	58	67	100				
05-15-84	--	1	--	67	77	81	85	100				
05-16-84	--	2	--	72	86	96	100					
05-21-84	--	0.5	--	72	81	85	94	100				
05-22-84	--	.3	--	80	89	93	100					
05-30-84		0	--	36	100							
05-31-84	--	8	--	85	100							
06-05-84	--	25	--	97	100							
06-11-84	--	33	--	100								
06-12-84	--	46	--	100								
04-23-85	--	26	--	100								
04-29-85	--	20	--	91	98	100						
04-30-85	--	16	--	91	100							
05-06-85	--	23	--	93	97	98	100					
05-07-85	--	23	--	95	98	100						
05-20-85	--	21	--	90	94	95	100					
05-21-85	--	20	--	97	99	100						
05-22-85	--	10	--	76	88	93	97	100				
05-22-85	--	23	--	95	99	100						
05-29-85	--	23	--	100								
05-30-85	--	16	--	90	96	99	100					
06-04-85	--	15	--	93	99	100						
06-05-85	--	6	--	83	99	100						
06-14-85	--	18	--	100								
					78. Sheep Creek at Guard Station near Saguache, Colo.							
04-21-83	--	0.4	9	46	90	95	97	100				
04-27-83	--	1	7	42	80	94	99	100				
04-29-83	--	0.5	4	42	76	87	95	100				
05-03-83		0	14	32	61	82	93	100				
05-05-83	--	61	86	100								
05-10-83	--	31	56	81	100							
05-12-83	--	1	5	44	86	98	100					
05-17-83	--	9	23	69	94	100						
05-19-83		0	4	40	82	95	99	100				
05-23-83		0	50	50	100							
05-25-83	--	0.9	10	37	83	94	98	100				
06-01-83	--	1	5	21	36	50	74	--	--	--	--	--
06-03-83	--	0.2	2	8	20	38	67	--	--	--	--	--
06-06-83	--	2	9	33	57	69	85	--	--	--	--	--
06-08-83	--	0.1	1	8	16	24	46	--	--	--	--	--
06-15-83	--	.6	4	18	39	64	83	--	--	--	--	--
06-20-83	--	1	7	47	88	96	98	100				
06-22-83		0	0	0.8	2	6	20	--	--	--	--	--
06-27-83	--	3	9	35	59	75	88	100				
06-30-83	--	0.2	2	22	57	82	95	100				

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
78. Sheep Creek at Guard Station near Saguache, Colo.--Continued												
07-06-83		0	0.5	3	7	20	57	--	--	--	--	--
07-13-83	--	0.1	.4	3	7	10	29	--	--	--	--	--
07-19-83	--	.6	7	24	46	73	95	100				
07-26-83	--	.1	3	13	32	61	85	--	--	--	--	--
08-02-83		0	2	7	15	42	84	--	--	--	--	--
08-15-83		0	1	26	84	98	100					
08-22-83	--	1	7	21	33	54	85	--	--	--	--	--
09-12-83		0	7	36	76	92	97	100				
79. Embargo Creek near Del Norte, Colo.												
04-18-83	--	6	30	44	65	82	93	100				
04-20-83	--	10	44	73	90	97	100					
04-25-83	--	2	12	26	39	48	57	--	--	--	--	--
04-27-83	--	2	11	43	68	87	97	100				
05-02-83	--	2	6	30	54	82	97	100				
05-04-83	--	1	7	39	70	92	99	100				
05-07-83	--	1	5	43	72	89	98	100				
05-11-83	--	1	3	23	45	60	70	--	--	--	--	--
05-16-83	--	0.4	4	22	41	60	78	--	--	--	--	--
05-23-83	--	7	21	61	84	92	95	100				
05-25-83	--	1	8	38	64	79	93	100				
05-26-83	--	0.1	2	22	39	56	72	--	--	--	--	--
06-01-83	--	.1	1	9	21	36	61	--	--	--	--	--
06-06-83	--	.2	4	31	59	83	96	100				
06-13-83	--	.3	1	12	20	32	45	--	--	--	--	--
06-15-83	--	.1	2	18	41	61	76	--	--	--	--	--
06-23-83	--	.4	5	25	50	72	93	100				
06-24-83	--	.4	2	19	44	71	93	100				
06-27-83	--	.1	2	15	37	55	70	--	--	--	--	--
06-29-83		0	0.9	14	43	68	82	--	--	--	--	--
07-08-83	--	3	15	36	69	91	100					
07-13-83	--	0.4	4	31	61	77	85	--	--	--	--	--
07-18-83		0	1	15	41	75	96	100				
07-27-83	--	0.5	3	32	67	88	97	100				
08-03-83		0	2	20	41	82	100					
08-10-83		0	3	48	75	92	95	100				
08-24-83		0	2	28	63	93	100					
08-29-83	--	0.5	2	11	40	76	96	100				
80. Pinos Creek near Del Norte, Colo.												
04-20-83	--	3	31	69	84	91	99	100				
04-25-83	--	2	12	26	40	48	57	--	--	--	--	--
04-27-83		0	2	19	46	69	83	--	--	--	--	--
05-02-83	--	0.3	2	20	53	80	94	100				
05-04-83	--	.2	1	14	40	68	87	--	--	--	--	--

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
				80. Pinos Creek near Del Norte, Colo.--Continued								
05-07-83	--	.5	3	18	39	49	54	--	--	--	--	--
05-11-83	--	.4	4	16	31	43	60	--	--	--	--	--
05-16-83	--	.4	4	22	53	78	90	--	--	--	--	--
05-18-83	--	.5	6	44	78	95	100					
05-23-83	--	.2	2	18	38	55	66	--	--	--	--	--
05-25-83	--	.2	4	35	67	83	93	100				
07-08-83	--	.1	3	33	63	85	94	100				
07-13-83	--	.6	4	25	63	83	94	100				
07-18-83		0	1	25	52	74	89	--	--	--	--	--
07-27-83	--	2	12	49	78	95	100					
08-03-83	--	5	20	32	45	67	86	--	--	--	--	--
08-10-83		0	2	20	51	79	93	100				
08-18-83		0	0.2	19	48	78	96	100				
08-24-83		0	1	38	75	91	97	100				
08-29-83		0	3	38	75	88	97	100				
09-13-83		0	2	16	48	82	93	100				
				81. Cross Creek near South Fork, Colo.								
04-20-83	--	0.5	1	4	15	23	29	--	--	--	--	--
04-25-83	--	.3	1	13	34	61	85	--	--	--	--	--
04-27-83	--	.4	1	12	29	37	40	--	--	--	--	--
05-03-83	--	3	6	29	67	86	92	100				
05-05-83	--	0.2	19	32	50	62	69	--	--	--	--	--
05-10-83	--	.2	1	8	21	36	59	--	--	--	--	--
05-13-83		0	0.7	6	18	35	59	--	--	--	--	--
05-20-83		0	.4	9	29	49	68	--	--	--	--	--
05-24-83	--	0.2	1	15	36	56	75	--	--	--	--	--
05-29-83	--	.1	0.6	7	21	38	57	--	--	--	--	--
05-31-83	--	.1	.6	8	21	38	60	--	--	--	--	--
06-03-83		0	.9	8	17	24	31	--	--	--	--	--
06-07-83		0	1	12	33	53	78	--	--	--	--	--
06-09-83	--	0.5	6	16	35	53	68	--	--	--	--	--
06-14-83		0	1	19	52	78	94	100				
06-16-83		0	0	6	15	47	75	100				
06-20-83		0	0.3	4	15	30	47	100				
06-22-83	--	0.1	.4	4	11	20	26	100				
06-25-83	--	.1	2	10	28	42	56	100				
06-28-83	--	.1	1	14	25	30	34	100				
06-30-83		0	0.5	15	35	53	74	100				
07-07-83	--	4	9	29	47	62	73	100				
07-12-83	--	0.5	1	19	53	78	92	100				
07-19-83	--	.5	1	4	13	31	67	--	--	--	--	--
07-21-83	--	2	16	40	57	73	85	--	--	--	--	--
07-26-83		0	0	6	16	22	27	--	--	--	--	--
08-02-83	--	27	36	55	73	82	100					
08-16-83		0	0	32	73	91	95	100				
08-23-83		0	0	10	50	80	90	100				

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
				82. La Garita Creek near La Garita, Colo.								
04-22-83	--	4	24	47	65	79	95	100				
04-26-83	--	1	5	36	67	88	97	100				
04-28-83	--	1	5	25	50	71	87	--	--	--	--	--
05-02-83	--	0.6	3	24	62	93	100					
05-04-83	--	.5	4	26	67	93	100					
05-07-83	--	1	5	35	66	90	97	100				
05-11-83	--	0.6	4	27	62	85	94	100				
05-16-83	--	.5	4	30	62	85	95	100				
05-23-83	--	.7	4	21	56	86	96	100				
05-25-83	--	.6	3	14	45	82	97	100				
06-01-83	--	.2	3	22	48	66	75	--	--	--	--	--
06-03-83	--	.1	1	6	18	55	89	--	--	--	--	--
06-08-83	--	.2	3	22	54	84	96	100				
06-13-83	--	.4	3	24	57	85	94	100				
06-15-83	--	.5	3	28	72	93	98	100				
06-21-83	--	.4	7	44	82	96	100					
06-22-83	--	.6	4	29	65	89	98	100				
06-26-83	--	.6	4	27	48	64	76	--	--	--	--	--
06-27-83	--	.3	2	11	36	74	94	100				
06-29-83	--	0.4	3	23	48	63	79	--	--	--	--	--
07-06-83	--	1	6	72	98	98	98	100				
07-13-83	--	0.9	3	32	65	80	88	--	--	--	--	--
07-27-83	--	2	15	64	91	98	100					
08-03-83	--	2	15	57	72	100						
08-04-83	--	0.6	22	59	75	96	99	100				
08-10-83	--	.3	5	29	49	68	89	--	--	--	--	--
08-15-83	--	.4	4	28	58	75	90	100				
08-24-83	--	2	17	33	50	74	95	100				
08-29-83		0	3	23	37	57	80	--	--	--	--	--
09-08-83	--	0.2	3	31	48	63	79	--	--	--	--	--
				83. House Canyon Creek near Creede, Colo.								
04-19-83	--	13	64	90	97	99	100					
04-26-83	--	12	60	91	98	99	100					
04-28-83	--	11	27	52	82	94	100					
05-03-83	--	0.5	4	30	59	78	93	100				
05-05-83	--	.8	4	31	58	76	90	100				
05-10-83	--	.3	2	20	41	61	78	--	--	--	--	--
05-12-83	--	.7	3	14	28	38	73	--	--	--	--	--
05-17-83	--	5	20	72	96	97	98	100				
05-19-83	--	.7	4	20	44	66	87	--	--	--	--	--
05-24-83	--	.2	2	14	34	54	76	--	--	--	--	--
05-26-83	--	.1	2	17	42	65	85	--	--	--	--	--
05-31-83	--	.1	1	14	36	53	71	--	--	--	--	--
06-02-83	--	.1	0.8	5	13	19	27	--	--	--	--	--
06-07-83	--	.3	.9	11	33	57	77	--	--	--	--	--
06-09-83	--	.1	2	12	30	43	56	--	--	--	--	--

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					83. House Canyon Creek near Creede, Colo.--Continued							
06-14-83	--	.2	1	7	15	22	35	--	--	--	--	--
06-16-83	--	1	4	19	34	46	56	--	--	--	--	--
06-21-83	--	3	15	51	76	90	100					
06-23-83	--	2	5	35	67	86	94	100				
06-28-83	--	0.6	3	25	57	74	84	--	--	--	--	--
06-30-83	--	.7	2	12	26	37	46	--	--	--	--	--
07-07-83	--	.8	3	7	9	11	11	--	--	--	--	--
07-12-83	--	.3	2	39	72	95	99	100				
07-19-83	--	.7	4	24	55	90	99	100				
07-26-83	--	.1	0.8	9	29	50	63	--	--	--	--	--
08-02-83	--	.8	4	41	79	93	98	100				
08-11-83	--	3	3	27	67	90	97	100				
08-16-83			0	18	32	68	100					
08-23-83	--	3	10	37	72	93	100					
09-01-83	--	3	11	51	82	96	100					
09-06-83	--	0.3	2	18	46	59	66	--	--	--	--	--
					84. Crooked Creek near Creede, Colo.							
04-19-83	--	14	64	92	98	100						
04-26-83	--	2	6	28	44	60	71	--	--	--	--	--
04-28-83		0	4	21	46	67	83	--	--	--	--	--
05-03-83		0	8	25	48	56	62	--	--	--	--	--
05-05-83		0	7	29	52	67	79	--	--	--	--	--
05-10-83	--	0.9	4	28	51	68	84	--	--	--	--	--
05-12-83	--	.2	1	21	44	59	71	--	--	--	--	--
05-17-83		0	4	24	47	64	86	--	--	--	--	--
05-19-83	--	2	10	39	61	82	100					
05-24-83	--	1	6	33	52	64	92	100				
05-26-83	--	0.1	2	15	33	48	68	--	--	--	--	--
05-31-83	--	.2	2	25	39	52	62	--	--	--	--	--
06-02-83	--	2	11	32	50	65	81	--	--	--	--	--
06-07-83		0	0.4	8	22	43	67	--	--	--	--	--
06-09-83		0	.8	8	22	39	68	--	--	--	--	--
06-14-83		0	4	17	96	100						
06-16-83	--	13	13	25	63	75	100					
06-21-83	--	80	80	100								
06-23-83		0	8	23	85	92	100					
06-28-83	--	13	13	50	63	75	100					
06-30-83	--	67	67	100								
07-07-83	--	0.9	4	16	28	39	43	--	--	--	--	--
07-19-83	--	33	67	100								
07-26-83		0	4	49	81	95	98	100				
08-11-83	--	2	7	32	57	78	100					
09-01-83	--	0.4	2	13	25	35	52	--	--	--	--	--

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					85. Rough Creek near Antonito, Colo.							
04-28-83		0	8	15	15	15	15	--	--	--	--	--
05-02-83	--	25	38	50	50	50	75	--	--	--	--	--
05-09-83		0	13	25	50	75	100					
05-11-83		0	0.8	0.8	2	2	6	--	--	--	--	--
05-16-83	--	2	7	9	10	12	16	--	--	--	--	--
05-18-83			0	33	100							
05-22-83			0	3	5	5	8	--	--	--	--	--
05-24-83		0	6	7	8	10	14	--	--	--	--	--
05-31-83		0	0.1	1	5	11	22	--	--	--	--	--
06-02-83	--	0.1	.4	1	3	7	15	--	--	--	--	--
06-07-83	--	.1	.8	3	7	12	28	--	--	--	--	--
06-09-83		0	.3	4	12	26	42	--	--	--	--	--
06-14-83	--	0.1	.4	3	8	15	26	--	--	--	--	--
06-16-83	--	.2	.6	5	13	30	48	--	--	--	--	--
06-21-83		0	.3	1	3	6	10	--	--	--	--	--
06-23-83		0	.2	0.4	0.8	1	2	--	--	--	--	--
06-29-83	--	0.2	.4	1	5	14	36	--	--	--	--	--
07-05-83			0	100								
07-20-83		0	8	17	33	50	67	--	--	--	--	--
08-03-83			0	0.5	5	9	17	--	--	--	--	--
08-10-83	--	13	25	63	75	88	100					
08-17-83		0	2	6	14	37	63	--	--	--	--	--
08-23-83		0	0.2	2	5	10	19	--	--	--	--	--
					86. Grouse Creek near Osier, Colo.							
05-04-83	--	3	10	41	72	97	100					
05-09-83	--	0.4	5	48	91	98	100					
05-11-83	--	.6	5	30	48	57	62	--	--	--	--	--
05-16-83	--	29	57	100								
05-18-83	--	3	8	36	65	81	100					
05-22-83		0	4	25	65	100						
05-24-83	--	1	3	36	68	85	95	100				
05-31-83	--	0.1	1	17	31	41	48	--	--	--	--	--
06-02-83	--	.2	1	16	41	63	74	--	--	--	--	--
06-07-83	--	.6	3	37	76	93	100					
06-09-83		0	0.1	2	6	13	24	--	--	--	--	--
06-14-83		0	.5	8	27	51	75	--	--	--	--	--
06-16-83		0	.6	10	28	46	59	--	--	--	--	--
06-21-83	--	0.3	3	24	61	87	97	100				
06-29-83	--	.7	7	36	65	83	97	100				
07-05-83	--	.1	0.4	4	15	30	48	--	--	--	--	--
07-11-83	--	44	75	94	100							
08-03-83	--	17	67	100								
08-23-83		0	50	50	50	100						

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
87. Wapsipinicon River near Dewitt, Iowa												
04-13-78	--	--	3	38	75	90	98	100				
06-22-78	--	--	12	69	95	98	99	100				
03-21-79	--	--	7	29	64	86	97	100				
04-26-79	--	--	19	62	89	97	99	100				
08-22-79	--	--	8	42	82	95	99	100				
07-02-80	--	--	12	60	90	97	99	99	100			
08-25-80	--	--	8	42	82	95	99	100				
04-14-81	--	--	2	38	80	93	98	100				
06-17-81			0	33	82	96	99	100				
09-04-81			0	49	92	98	100					
88. Iowa River at Wapello, Iowa												
03-28-78	--	--	2	39	85	98	100					
04-25-78	--	--	2	33	75	92	99	100				
06-21-78	--	--	3	34	69	87	97	99	100			
07-25-78	--	--	2	14	55	80	93	99	100			
06-13-79	--	--	6	47	85	96	99	100				
04-03-80	--	--	1	21	71	92	94	100				
06-02-80	--	--	4	35	73	91	98	100				
09-03-80	--	--	3	31	73	88	95	98	99	100		
06-18-81			0	43	88	96	99	100				
07-02-81			0	37	73	90	98	100				
89. Wisconsin River at Muscoda, Wis.												
03-24-77	0	0.1	4	57	87	92	95	98	100			
04-19-77	0.1	.1	7	65	90	94	97	99	100			
05-16-77		0	9	62	88	94	97	99	100			
06-15-77	0	0.1	7	61	91	97	99	100				
07-20-77		0	8	79	97	99	100					
08-24-77		0	0.4	24	84	95	99	100				
09-27-77		0	1	34	90	97	99	100				
10-18-77		0	5	63	95	99	100					
11-14-77		0	23	64	92	97	100					
04-17-78	0	0.1	7	72	96	99	100					
05-08-78	0	.1	6	74	98	99	100					
06-06-78	0	.1	4	70	95	98	99	100				
07-11-78	0	.1	6	66	93	97	98	99	100			
08-15-78	0.1	.2	6	65	94	98	100					
11-14-78		0	5	72	95	99	100					
03-28-79		0	5	60	90	96	99	100				
04-24-79		0	5	66	97	99	100					
07-05-79		0	4	52	88	96	99	100				
08-25-79		0	5	64	95	98	100					

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					90. Black River near Galesville, Wis.							
04-23-77	0.4	0.7	9	51	93	98	100					
05-27-77	.2	.2	8	62	96	99	100					
06-29-77	.1	.1	5	50	92	98	100					
07-12-77	.1	.1	4	44	91	98	100					
08-02-77		0	6	65	96	99	100					
09-27-77	.2	.4	6	48	88	94	96	97	99	100		
10-19-77	0	.1	4	47	93	99	100					
11-08-77		0	5	56	95	99	100					
03-31-78	0.3	0.6	10	65	96	99	100					
04-10-78	.2	.5	20	74	96	98	99	100				
05-10-78	0	.1	5	66	97	100						
06-13-78	0.1	.2	10	69	97	100						
08-09-78		0	12	77	97	99	99	100				
10-28-78		0	4	65	97	99	100					
04-25-79		0	4	30	84	95	98	99	100			
05-31-79		0	7	32	88	97	99	100				
07-23-79		0	16	52	94	99	100					
					91. Chippewa River near Caryville, Wis.							
10-12-77	0	0.1	4	29	76	91	95	98	100			
04-05-78	0	.1	7	29	69	88	94	98	100			
04-14-78		0	1	40	81	94	97	99	100			
06-06-78	0	0.1	2	31	88	96	98	100				
07-06-78		0	2	42	75	86	93	98	100			
09-19-78	0	0.1	1	19	47	69	85	96	100			
04-17-79		0	3	42	74	82	88	93	98	100		
04-23-79		0	1	16	45	70	84	91	96	98	--	--
					92. Chippewa River at Durand, Wis.							
11-11-75	0.1	0.2	2	46	87	96	98	99	100			
04-06-76		0	0.7	28	84	92	94	97	99	100		
04-14-76		0	.2	6	50	90	97	99	100			
06-03-76		0	.7	23	75	92	97	99	100			
07-01-76		0	3	51	91	98	99	100				
08-31-76	0	0.1	7	62	91	93	97	99	100			
10-18-76	0	.1	4	50	90	98	100					
11-16-76		0	5	63	93	98	99	100				
02-02-77	0	0.1	2	44	87	95	99	100				
03-17-77	0	.1	5	38	77	90	95	99	100			
04-13-77	0.1	.3	3	53	91	97	99	100				
05-10-77		0	2	48	81	91	98	100				
06-15-77	0	.1	1	35	80	95	99	100				
07-06-77	0	.1	2	39	78	89	93	97	99	100		
08-24-77		0	0.5	20	57	88	97	100				

Table 3.--*Bedload particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated											
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128
					92. Chippewa River at Durand, Wis.--Continued.							
09-13-77		0	2	43	90	97	100					
10-12-77	0	0.1	3	44	82	94	97	99	100			
11-16-77		0	4	53	92	98	99	100				
04-05-78		0	2	39	83	95	98	99	100			
06-06-78	0	0.3	5	48	87	97	99	100				
07-06-78	0.1	.2	3	57	92	97	99	100				
10-31-78		0	1	30	75	91	97	100				
04-17-79		0	2	45	86	94	96	98	99	100		
04-23-79		0	4	49	87	95	97	98	100			
05-29-79	0	1	2	34	83	95	97	99	100			
					93. Chippewa River near Pepin, Wis.							
09-01-76		0	2	41	82	93	97	99	100			
09-20-76		0	1	37	86	96	100					
10-19-76	0	0.1	2	52	92	97	99	100				
11-17-76		0	1	36	84	96	99	100				
03-16-77	0.2	0.2	4	56	92	98	99	100				
04-14-77	0	.1	2	34	86	96	98	100				
05-11-77	0	.1	3	44	89	96	98	100				
07-07-77		0	4	53	93	98	100					
09-14-77	0	0.1	2	45	88	97	99	100				
10-13-77	0	.1	5	51	83	93	96	98	100			
11-17-77		0	2	46	88	96	99	100				
04-06-78	0	0.1	7	62	94	99	99	100				
05-16-78		0	7	65	92	98	99	100				
06-07-78	0	0.2	3	42	83	93	97	99	100			
07-07-78	0	.1	0.2	3	50	87	96	98	100			
09-20-78	0.1	.3	3	45	84	94	98	99	100			
11-01-78		0	2	40	82	94	98	100				
04-18-79		0	5	50	85	93	96	98	99	100		
04-24-79		0	4	53	90	97	98	99	100			
05-30-79		0	2	49	86	96	99	100				
07-24-79		0	2	42	87	97	99	100				
09-11-79		0	1	42	88	96	98	99	100			

[1]100 percent is less than 76 millimeters.

[2]100 percent is less than 90 millimeters.

[3]Where more than one size analysis is listed for a given date, each analysis represents a different transect. Bedload transport rates (Table 1) are composites of all transects.

[4]All percentages for this station interpolated from dry-sieve analysis that involved sieve classes different from those listed here.

[5]Sediment samples wet-sieved; values then adjusted by original investigators such that percentages listed here approximate dry-sieved percentages.

Table 4.--*Bed-material particle-size distributions*

[--, no data available]

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point	
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024		
1. Susitna River near Talkeetna, Alaska[1]																	
08-04-82									0	7	53	100				94	
08-04-82								0	1	6	42	100				122	
05-16-83								0	1	26	100					52	
05-16-83						0	1	2	11	22	100					70	
05-16-83					0	1	1	2	5	24	83	100				88	
05-16-83				0	1	1	1	3	10	39	100					98	
05-16-83								0	1	8	19	100				107	
05-16-83									0	36	100					116	
05-16-83								0	1	2	100					125	
05-16-83									0	12	67	100				143	
05-16-83										0	28	100				152	
05-17-84									0	1	13	31	100			0	surface
05-17-84	0	2	4	10	11	12	13	20	29	44	52	100				0	subsurface
05-17-84								0	3	15	57	100				171	surface
05-17-84	2	5	8	14	17	18	22	29	42	60	78	100				171	subsurface
05-31-85				0	1	1	2	4	9	17	39	100				79	dredged sample
05-31-85									0	1	4	100				110	dredged sample
2. Talkeetna River near Talkeetna, Alaska[1]																	
07-28-82		0	1	7	50	74	84	91	95	100						34	
07-28-82								0	4	25	100					55	
09-20-82										0	6	100				24	
09-20-82							0	5	22	65	100					43	
09-20-82								0	4	38	80	100				61	
09-20-82								0	1	3	30	100				82	
05-18-83		0	1	30	58	58	58	59	59	59	100					27	
05-18-83				0	1	2	2	3	6	23	34	100				37	
05-18-83				0	3	6	6	9	15	49	100					46	
05-18-83				0	1	2	2	3	10	50	100					55	
05-18-83								0	1	14	100					64	
05-18-83										0	18	100				73	
05-18-83								0	1	5	75	100				82	
05-18-83									0	4	65	100				101	
09-13-83			0	37	47	48	48	48	49	49	49	100				30	
09-13-83			0	1	4	5	5	5	5	11	67	100				43	
09-13-83								0	3	31	100					55	
09-13-83									0	4	17	100				67	
09-13-83									0	2	19	100				79	
05-15-84								0	2	24	100					9	surface
05-15-84	0	2	5	10	12	16	19	25	38	65	100					9	subsurface
05-15-84		0	1	16	51	53	53	54	54	54	63	100				24	dredged
05-15-84		0	1	17	72	78	79	79	79	81	86	100				40	dredged
05-15-84		0	1	8	41	47	48	49	51	59	90	100				55	dredged
05-15-84			0	3	37	50	55	56	58	65	100					70	dredged

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
2. Talkeetna River near Talkeetna, Alaska[1]--Continued																
05-15-84										0	11	50	100			104 surface
05-15-84	0	1	2	3	4	5	6	8	13	45	100					104 subsurface
05-15-84			0	1	1	1	1	1	2	6	22	100				107 surface
05-15-84	3	6	11	16	25	30	35	45	58	84	100					107 subsurface
05-28-85			0	1	6	6	6	6	6	7	22	100				30 dredged
05-28-85							0	1	6	26	100					61 dredged
05-28-85									0	2	21	100				76 dredged
3. Chulitna River below Canyon near Talkeetna, Alaska[1]																
07-27-82					0	1	3	15	46	71	89	100				55
07-27-82					0	1	5	18	44	72	93	100				73
07-27-82			0	5	29	34	36	42	52	67	100					88
07-27-82	--	--	--	--	--	--	--	--	--	5	24	100				101
07-27-82			0	2	5	6	6	8	13	36	87	100				116
05-19-83									0	11	100					21
05-19-83			0	2	4	42	51	74	90	100						34
05-19-83			0	16	60	70	70	75	83	90	90	100				46
05-19-83			0	19	59	65	66	68	72	78	78	100				58
05-19-83			0	1	1	15	31	70	87	89	100					70
09-13-83				0	1	11	27	51	76	97	100					27
09-13-83		0	1	61	90	92	92	93	95	98	100					40
09-13-83			0	22	36	47	47	55	70	89	100					52
09-13-83			0	23	23	36	42	53	72	93	100					64
09-13-83				0	1	3	3	4	9	43	100					76
05-18-84		0	1	2	18	26	33	47	69	86	100					24 dredged
05-18-84		0	1	36	68	70	75	81	90	96	100					37 dredged
05-18-84			0	1	14	20	25	34	47	59	83	100				61 dredged
05-18-84								0	1	5	35	100				85 dredged
05-31-85			0	1	1	2	13	36	62	90	100					30 dredged
05-31-85			0	2	11	14	18	36	45	69	100					46 dredged
05-31-85			0	1	2	11	33	67	89	98	100					61 dredged
05-31-85				0	1	1	4	6	6	9	66	100				76 dredged
4. Yentna River near Susitna Station, Alaska[1]																
05-14-84	0	1	24	80	82	83	87	92	96	100						30 dredged
05-14-84	0	1	11	56	70	76	80	84	90	99	100					61 dredged
05-14-84	0	1	15	89	89	89	89	91	94	98	100					91 dredged
05-14-84	0	1	15	83	85	85	85	85	86	89	100					122 dredged
05-14-84	0	1	18	79	83	83	84	85	86	94	100					152 dredged
05-14-84	0	1	16	91	95	95	96	98	99	100						183 dredged
05-14-84	0	1	17	97	98	99	99	99	100							213 dredged
05-14-84	0	1	9	82	89	92	95	98	99	100						244 dredged
05-14-84		0	4	83	83	85	87	90	96	100						274 dredged
05-14-84		0	4	50	87	93	96	98	100							305 dredged

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
4. Yentna River near Susitna Station, Alaska[1]--Continued																
05-14-84		0	2	46	56	68	82	95	100							335 dredged
05-14-84		0	1	50	51	61	79	94	100							366 dredged
08-14-85		0	2	38	88	90	94	94	99	100						61 dredged
08-14-85		0	5	64	90	92	93	95	98	100						122 dredged
08-14-85		0	6	65	92	95	96	97	99	100						183 dredged
08-14-85		0	4	51	93	93	94	96	98	100						244 dredged
08-14-85		0	3	40	60	62	64	66	70	78	100					305 dredged
5. Susitna River (Right Channel) below Chulitna River near Talkeetna, Alaska[1]																
05-17-84			0	1	3	3	4	6	12	29	64	100				1,150 dredged
05-17-84							0	1	2	15	15	100				1,180 dredged
05-17-84			0	2	3	9	29	48	72	87	100					1,210 dredged
05-17-84										0	25	100				1,240 dredged
05-30-85						0	1	2	6	12	42	100				1,130 dredged
05-30-85						0	1	2	4	11	47	100				1,160 dredged
05-30-85			0	1	3	6	10	23	47	85	95	100				1,190 dredged
6. Susitna River (Left Channel) below Chulitna River near Talkeetna, Alaska[1]																
05-17-84								0	2	8	44	100				30 dredged
05-17-84							0	1	4	18	65	100				183 dredged
05-17-84						0	1	2	10	35	74	100				213 dredged
05-17-84									0	6	16	100				244 dredged
05-17-84	0	1	2	3	3	3	4	7	35	100						274 surface
05-17-84	1	2	6	21	22	24	29	38	60	88	100					274 subsurface
05-17-84							0	1	5	28	60	100				305 surface
05-17-84	1	2	5	16	20	22	27	38	55	75	100					305 subsurface
05-17-84	1	2	3	5	5	5	5	6	10	29	100					840 surface
05-17-84	2	5	14	62	62	64	68	74	84	97	100					840 subsurface
05-30-85			0	2	3	4	4	4	5	16	71	100				213 dredged
05-30-85								0	1	29	100					244 dredged
06-26-85		0	1	1	1	1	1	1	2	9	32	100				335 surface
06-26-85	2	4	6	12	18	22	27	34	47	68	88	100				335 subsurface
06-26-85	1	2	4	5	5	5	6	7	27	68	100					400 surface
06-26-85	1	4	8	19	26	30	35	48	69	96	100					400 subsurface
06-26-85	0	2	15	83	100											460 surface,subsur.
06-26-85	0	1	2	2	3	3	3	3	6	39	86	100				520 surface
06-26-85	2	5	11	18	22	22	24	29	47	73	97	100				520 subsurface
06-26-85	1	2	3	4	4	4	4	4	7	27	79	100				580 surface
06-26-85	2	4	8	15	27	28	34	45	61	80	100					580 subsurface
06-26-85	9	27	79	98	100											640 surface,subsur.
06-26-85	45	92	99	100												725 surface,subsur.
06-26-85	1	2	3	3	3	3	4	4	9	19	100					780 surface
06-26-85	2	4	9	14	16	18	22	29	41	58	89	100				780 subsurface
06-26-85			0	1	1	1	1	1	5	29	78	100				845 surface
06-26-85	2	4	8	14	18	20	24	35	50	76	88	100				845 subsurface

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
7. Susitna River at Sunshine, Alaska[1]																
07-26-82								0	2	18	100					70
07-26-82									0	8	54	100				162
07-26-82									0	4	31	100				198
07-26-82			0	1	3	5	11	23	38	53	62	100				244
07-26-82								0	1	15	100					253
07-26-82				0	2	4	6	12	23	64	100					274
05-18-83			0	3	6	14	15	30	51	81	100					61
05-18-83				1	1	2	2	5	13	43	100					91
05-18-83					1	2	2	4	9	20	84	100				122
05-18-83				1	1	1	1	3	9	43	78	100				152
05-18-83									0	1	11	100				183
10-04-83			0	9	20	23	24	32	45	57	100					61
10-04-83			0	2	6	9	14	31	61	84	100					76
10-04-83				0	1	1	2	6	14	28	41	100				91
10-04-83					0	1	1	1	5	18	100					107
10-04-83									0	5	28	100				122 dredged
05-16-84		0	1	46	87	88	88	89	91	92	100					61 dredged
05-16-84			0	1	2	4	8	15	44	61	95	100				91 dredged
05-16-84		0	1	2	3	3	4	5	7	25	49	100				122 dredged
05-16-84		0	2	5	5	5	6	6	9	23	100					206 surface
05-16-84	1	2	2	5	11	15	18	22	29	40	69	100				206 subsurface
05-16-84	1	4	19	94	100											221 surface
05-16-84	1	2	11	41	41	44	44	45	47	57	88	100				221 subsurface
05-16-84	41	76	97	100												244 surface
07-23-85										0	11	100				91 dredged
07-23-85						0	1	2	3	9	39	100				122 dredged
07-23-85								0	1	3	27	100				152 dredged
07-23-85			0	2	3	3	3	4	4	8	100					183 dredged
07-23-85									0	8	100					213 dredged
07-23-85	11	52	97	99	100											244 dredged
07-23-85			0	13	57	96	96	97	97	97	100					274 dredged
8. Tanana River at Upper End of Goose Island, Alaska[2]																
07-18-80	1	4	62	98	98	98	99	99	100							17
07-18-80	1	7	93	100												34
07-18-80	0.2	3	39	90	96	97	98	98	99	100						51
07-18-80	.4	2	9	15	15	15	17	36	86	100						68
07-18-80	.1	0.2	0.3	1	1	1	5	21	64	96	100					85
07-18-80	.3	1	2	2	2	3	8	22	56	91	100					102
07-18-80				0	0.5	1	4	22	55	98	100					119
07-18-80	0.1	0.2	1	1	1	1	2	10	38	84	100					136
07-18-80				0	0.3	0.4	2	12	46	91	100					153
07-18-80	0	0.2	1	2	3	4	10	27	59	87	100					170
07-18-80	0.1	1	13	19	20	20	20	22	28	50	100					187
07-18-80	.3	3	36	40	40	40	40	41	46	56	100					204
07-18-80	1	1	3	4	4	4	4	5	9	36	100					221
07-18-80	0.1	0.2	0.4	1	1	1	1	2	7	20	46	100				238
07-18-80	.3	1	26	38	39	39	42	49	65	85	92	100				255

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
8. Tanana River at Upper End of Goose Island, Alaska[2]--Continued																
07-18-80	1	3	18	21	22	22	26	36	58	91	100					272
07-18-80	3	65	99	100												289
07-18-80	16	82	98	100												306
08-03-81	0	0.1	1	3	3	3	3	4	10	36	100					15
08-03-81	0	.1	0.4	1	2	2	5	22	60	84	100					30
08-03-81		0	.2	0.4	1	1	2	10	33	70	100					45
08-03-81				0	0.1	0.2	1	6	23	71	100					60
08-03-81	0.1	1	2	5	6	7	13	38	79	100						75
08-03-81	0.1	0.3	1	2	3	5	13	33	68	95	100					90
08-03-81	0	.1	0.2	1	1	2	8	20	50	87	100					105
08-03-81				0	0.1	0.3	1	4	9	21	100					120
08-03-81				0	.1	.3	4	24	61	92	100					135
08-03-81				0	1	1	2	10	38	84	100					150
08-03-81	0	0.1	0.2	0.3	1	1	4	16	47	84	100					165
08-03-81	0	.1	1	1	1	1	6	21	46	82	100					180
08-03-81	0	.1	0.3	0.4	1	1	3	15	43	91	100					195
08-03-81				0	0.4	1	1	2	10	40	100					210
08-03-81	0	.2	1	1	1	1	2	5	18	43	100					225
08-03-81	0.4	13	78	89	89	89	91	95	100							240
08-03-81	.4	7	89	100												255
08-03-81	0	0.1	0.4	1	1	1	1	3	19	66	100					270
08-03-81	1	22	74	100												285
08-03-81	53	98	100													300
9. Tanana River at Fairbanks, Alaska[3]																
09-12-79	89	98	100													15
09-12-79	73	96	100													30
09-12-79	44	70	95	100												45
09-12-79	4	7	16	25	26	28	36	53	84	97	100					60
09-12-79	17	45	86	91	91	91	92	95	100							75
09-12-79	14	43	84	91	91	91	92	93	97	100						90
09-12-79	5	19	86	100												105
09-12-79	36	53	90	100												120
09-12-79	39	82	99	100												135
09-12-79	10	30	88	100												150
09-12-79	13	41	95	100												165
09-12-79	0.3	5	67	100												180
09-12-79	.1	2	65	100												195
09-12-79	0	0.2	3	11	15	18	24	48	87	100						210
09-12-79		0	0.1	0.3	0.3	0.4	0.8	2	6	26	100					225
09-12-79	0.2	0.3	1	3	3	3	6	13	34	78	100					240
09-12-79	0	.2	1	4	4	4	6	16	53	95	100					255
09-12-79	0	.3	3	12	14	15	20	36	75	97	100					270
09-12-79	0	.1	1	4	5	6	10	27	71	99	100					285
09-12-79	0.1	1	8	15	16	17	22	54	95	100						300

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
						9. Tanana River at Fairbanks, Alaska[3]--Continued										
09-12-79	.4	2	9	14	15	17	22	49	85	100						315
09-12-79	10	27	54	59	59	59	60	68	87	100						330
09-12-79	1	3	10	17	19	21	27	40	65	89	100					345
09-12-79	11	33	90	100												360
09-12-79	1	13	89	100												375
09-12-79		0	1	3	4	4	5	11	60	91	100					390
07-17-80	80	99	100													15
07-17-80	81	99	100													30
07-17-80	16	48	95	100												45
07-17-80	78	100														60
07-17-80	0.3	1	12	18	18	20	25	43	66	100						75
07-17-80	.4	2	10	15	15	17	23	39	60	86	100					90
07-17-80	2	13	83	98	98	98	98	99	100							105
07-17-80	11	40	93	100												120
07-17-80	2	18	87	100												135
07-17-80	58	79	97	100												150
07-17-80	0	0.2	1	3	4	5	9	17	29	64	85	100				165
07-17-80	0	.2	2	4	4	4	5	8	20	43	100					180
07-17-80	0	.1	1	3	4	5	7	18	48	86	100					195
07-17-80	0	.1	1	2	2	2	5	17	44	76	100					210
07-17-80	0.1	1	11	40	43	44	46	56	82	99	100					225
07-17-80	0	0.2	3	5	5	5	8	21	46	64	100					240
07-17-80	0.1	1	18	31	32	32	35	45	63	74	100					255
07-17-80	.2	1	4	6	6	6	7	11	20	51	80	100				270
07-17-80	.1	0.3	1	1	1	1	2	5	21	64	100					285
07-17-80	.1	.3	1	1	1	1	1	6	50	100						300
07-17-80	.1	1	3	4	5	5	5	13	65	100						315
07-17-80	0	0.2	1	2	2	2	2	9	64	100						330
07-17-80	1	3	6	7	7	8	8	21	84	100						345
07-17-80	0.2	1	3	4	4	4	5	12	59	100						360
07-17-80	.2	1	4	5	5	5	6	12	43	100						375
07-17-80	.1	1	6	10	10	12	16	40	87	100						390
08-05-81	2	56	86	87	87	87	87	87	87	92	100					0
08-05-81	0	0.4	1	1	1	1	2	5	31	95	100					15
08-05-81	1	24	75	87	87	88	88	88	88	100						30
08-05-81	34	89	99	100												90
08-05-81	1	16	93	100												105
08-05-81	0.1	1	10	20	26	30	39	59	84	100						120
08-05-81	0	0.1	1	3	4	4	7	20	60	100						135
08-05-81	0.1	1	15	21	21	21	22	26	45	89	100					150
08-05-81	.1	2	36	49	49	49	49	51	62	100						165
08-05-81	.1	4	77	98	98	98	99	99	100							180
08-05-81	.2	14	97	100												195
08-05-81	.3	17	97	100												210
08-05-81	.4	12	96	100												225

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
9. Tanana River at Fairbanks, Alaska[3]--Continued																
08-05-81	0	0.2	1	1	1	1	2	3	7	34	100					240
08-05-81	0	.2	1	2	2	2	3	7	30	91	100					255
08-05-81	0	.2	1	1	1	1	1	3	14	56	100					270
08-05-81	0	.2	2	6	6	7	10	20	50	92	100					285
08-05-81	0	.2	1	3	3	4	9	28	61	88	100					300
08-05-81	0	.1	1	1	2	2	6	24	72	100						315
08-05-81	0	.1	1	2	3	4	9	39	85	100						330
08-05-81	0	.3	5	9	10	11	15	30	79	99	100					345
08-05-81	0	.1	1	3	3	3	4	10	31	80	100					360
08-05-81	0	.4	4	10	10	11	11	16	34	100						375
08-05-81	0	.4	6	10	10	11	11	14	29	84	100					390
08-05-81	0.2	4	81	100												405
11. Toutle River at Tower Road near Silver Lake, Wash.[2]																
01-17-85	0	0.1	0.5	2	9	29	50	68	91	100						11
01-17-85	0	.3	3	17	68	89	94	97	100							13
01-17-85	0	.1	2	15	47	61	68	74	87	100						15
01-17-85	0	.1	1	9	25	42	54	70	90	100						17
01-17-85	0	.3	5	42	97	100										20
01-31-85	0	.2	4	34	56	61	63	66	79	100						--
01-31-85	0	.3	3	19	75	94	97	100								--
01-31-85	0	.1	3	15	29	49	61	70	83	100						--
01-31-85	0	.2	5	35	64	84	94	98	100							--
02-21-85	0	.1	1	6	24	45	59	74	93	100						11
02-21-85	0	.1	1	8	34	52	62	74	94	100						13
02-21-85	0	.1	2	19	59	85	93	98	100							15
02-21-85	0	.1	2	18	35	46	53	59	73	100						18
02-21-85	0	.2	3	16	36	64	82	91	94	100						21
03-06-85	0	.1	0.8	6	33	60	75	88	97	100						10
03-06-85	0	.2	2	21	70	85	89	93	98	100						13
03-06-85	0	.2	4	37	79	91	95	98	100							15
03-06-85	0	.2	3	19	39	58	75	89	100							18
03-23-85	0.1	.5	2	5	10	16	24	34	60	100						11
03-23-85	.1	.5	2	10	33	45	52	61	78	100						13
03-23-85	.1	.7	6	35	72	83	88	93	95	100						16
03-23-85	0	.4	3	9	14	21	29	48	74	100						20
03-23-85	0.3	3	27	93	100											27
04-02-85	0	0.2	1	10	29	43	51	62	73	100						16
04-02-85	0	.1	2	15	51	76	85	91	94	100						21
04-02-85	0.2	3	46	98	100											32
04-11-85	0	0.2	0.9	5	16	28	43	68	92	100						14
04-11-85	0.1	.5	4	21	54	75	83	89	96	100						17
04-11-85	.1	1	11	60	99	100										22
04-30-85	0	0.2	4	26	60	73	78	85	94	100						16

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated														Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
11. Toutle River at Tower Road near Silver Lake, Wash.[2]--Continued															
04-30-85	0	.1	2	11	39	66	82	92	100						19
04-30-85	0	.6	15	90	100										23
06-07-85	0.2	1	4	6	8	15	30	57	80	100					11
06-07-85	.2	0.9	5	15	27	47	68	89	100						17
06-07-85	.3	.8	3	6	14	27	41	52	77	100					23
06-07-85	.4	1	3	5	13	39	61	75	93	100					52
06-08-85	.2	1	7	28	56	66	72	80	92	100					11
06-08-85	.2	1	11	43	72	85	92	97	100						16
06-08-85	.1	0.3	0.9	3	9	22	56	88	97	100					26
06-08-85	.1	1	5	11	18	27	39	58	69	100					39
08-23-85	0.2	0.4	4	29	61	73	78	82	86	100					10
08-23-85	.2	2	15	52	85	97	99	100							12
08-23-85	.2	2	17	63	90	97	98	98	100						13
08-23-85	2	13	61	96	100										15
08-23-85	0.1	0.4	6	20	33	41	50	70	94	100					18
12-09-85	0	.1	1	12	70	98	100								18
01-19-86							0	8	17	100					20
01-19-86	0.1	.3	6	45	89	98	100								26
01-19-86	0	.8	2	9	15	21	29	59	100						30
01-29-86	0.1	2	25	97	100										19
01-29-86	.6	9	63	99	100										24
02-11-86	0	0.2	0.7	1	2	10	43	74	88	100					13
02-16-86	0.1	.4	5	28	61	74	79	83	88	100					24
11-21-86	.2	3	26	90	100										14
11-21-86	0	0.3	4	33	85	96	98	100							24
11-21-86	0	.1	0.8	4	13	37	53	66	82	100					36
11-21-86	0	.2	.9	2	3	7	19	38	73	100					46
11-22-86	0.1	2	16	82	100										12
11-22-86	.1	1	9	37	91	99	100								24
11-22-86	.1	0.5	3	7	16	51	82	97	100						36
11-22-86	0	.2	0.6	1	2	7	28	68	97	100					48
11-22-86	0	2	6	9	10	10	11	15	34	100					59
01-14-87	0.1	1	12	73	99	100									26
01-14-87	.1	0.1	0.3	2	6	10	14	17	27	42	100				34
01-28-87	0	.5	7	46	97	99	100								26
01-28-87	0	.2	2	15	54	81	89	94	98	100					35
01-28-87	0	.1	0.4	2	2	3	7	16	36	70	100				43
12. North Fork of Toutle River near Kid Valley, Wash.[2]															
06-07-85	0.4	2	8	20	27	30	33	37	57	100					16
06-07-85	.4	2	9	21	38	55	66	71	80	100					44
06-07-85	.2	0.8	3	9	23	54	81	96	100						52
06-07-85	.4	2	12	36	64	79	86	91	97	100					57
06-07-85	.2	0.5	1	2	4	26	75	91	94	100					60
06-08-85	.5	3	9	26	64	83	90	96	100						17
06-08-85	.2	1	9	29	46	58	66	73	81	81	100				27
06-08-85	.1	1	13	39	62	78	87	95	100						45
06-08-85	.1	0.6	3	7	13	23	35	49	66	100					54
06-08-85	.1	.4	0.9	1	3	14	36	58	83	100					60

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
12. North Fork of Toutle River near Kid Valley, Wash.[2]--Continued																
12-18-85	0	0.1	2	5	14	38	67	93	98	100						62
01-19-86	0.3	.8	2	4	7	14	24	43	67	100						17
01-19-86	.8	3	12	38	62	78	87	92	100							29
01-19-86	.1	0.4	2	7	16	25	30	34	41	46	100					53
01-19-86	.2	.8	3	8	13	23	32	40	59	71	100					58
01-19-86	.4	2	7	10	12	17	29	62	100							63
02-13-86	0	3	14	38	62	83	93	100								52
02-13-86	0.1	0.2	0.9	5	12	21	36	55	82	100						56
02-13-86	0	.2	3	26	80	95	99	100								58
02-13-86	0.1	.8	8	34	74	89	94	97	100							61
02-13-86	0	.1	0.2	1	12	31	55	73	87	87	100					64
02-26-86	0.1	1	6	18	38	59	74	88	97	100						16
02-26-86	.3	0.5	1	2	4	5	6	6	15	100						22
02-26-86	.1	1	6	13	18	22	28	33	37	100						32
02-26-86	.1	0.6	2	4	9	24	45	68	89	100						62
08-07-86	0	.1	0.8	9	23	34	42	54	74	100						61
08-07-86		0	.5	7	38	75	90	97	98	100						64
13. Oak Creek near Corvallis, Oreg.																
10-26-70	--	--	--	--	--	--	--	--	--	55	85	--	--	--		--
01-29-71	--	--	--	--	--	--	--	--	--	49	78	--	--	--		--
14. San Antonio River near Lockwood, Calif.[4]																
01-10-73	--	--	3	23	47	70	82	91	97	100						--
11-20-74		0	4	18	50	77	89	94	100							--
16. Redwood Creek near Blue Lake, Calif.																
02-28-83	--	--	--	2	7	18	36	61	82	98	100					--
17. Redwood Creek above Panther Creek near Orick, Calif.																
01-20-83	--	--	1	3	7	13	31	63	89	100						--
02-23-83	--	--	--	6	23	39	53	67	83	98	100					--
18. Redwood Creek at Orick, Calif.[4]																
01-24-83	--	--	1	2	5	18	33	53	80	100						--
03-08-83	--	--	--	1	2	9	29	53	79	100						--
07-19-83	--	1	2	4	8	15	29	47	68	79	92	--	--	--		--
21. Sacramento River above Bend Bridge near Red Bluff, Calif.[4]																
01-05-77			0	2	3	4	6	8	13	100						--
01-05-77			0	0	4	5	5	8	100							--
05-04-77				0	0	2	3	5	18	66	100					--

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
25. Big Lost River at Chilly Bridge, Idaho[4],[5]																
06-81	--	--	--	2	6	10	15	22	40	68	94	100				--
26. Big Lost River below Chilly Sinks, Idaho[4]																
06-81	--	--	2	8	18	22	26	36	53	68	89	100				--
27. Big Lost River above East and West Channels, Idaho[4]																
06-81	--	1	5	22	29	33	39	49	69	90	99	100				--
31. Muddy Creek near Pinedale, Wyo.[4]																
07-31-75	0.1	0.1	3	33	62	85	97	100								--
32. East Fork River near Pinedale, Wyo.[4]																
05-18-79	1	3	8	19	23	29	40	53	79	92	100					--
33. Yampa River near Deerlodge Park, Colo.																
04-27-82	0	1	1	9	40	83	98	99	100							--
05-12-82		0	3	36	78	88	91	94	97	100						--
05-13-82		0	6	46	85	97	98	99	100							--
05-24-82	0	1	18	74	90	96	99	100	100							--
05-25-82	0	2	22	74	89	94	95	96	96	100						--
06-08-82	0	1	8	56	91	98	100									--
06-24-82		0	3	38	77	92	97	99	100							--
07-07-82		0	1	16	52	75	89	97	100							--
07-08-82		0	1	11	50	78	91	97	99	100						--
07-29-82		0	5	26	69	89	96	99	100							--
04-07-83		0	8	40	76	93	98	100								--
04-08-83		0	10	46	82	94	98	99	100							--
04-19-83		0	5	40	80	94	98	100								--
04-21-83	0	2	10	53	94	99	100									--
04-22-83	0	2	15	49	87	96	98	100								--
05-07-83		0	2	29	76	89	95	99	100							--
05-09-83		0	3	42	88	97	99	100								--
05-12-83	0	1	3	26	76	95	98	99	100							--
05-23-83	0	1	8	54	78	89	93	95	98	100						--
05-26-83	0	1	6	57	84	89	93	97	100							--
05-27-83	0	1	5	36	91	98	99	100								--
05-28-83	0	1	6	30	80	91	95	98	100							--
06-08-83	0	1	15	56	91	97	99	100								--
06-10-83	0	1	18	55	90	97	98	98	99	100						--
06-21-83		0	7	41	92	99	99	100								--
06-23-83		0	6	42	89	98	99	100								--
07-12-83	0	3	9	32	78	95	98	99	100							--
07-14-83	0	4	12	38	86	96	99	99	100							--

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
36. Joe Wright Creek above Culvert near Chambers Lake, Colo.[4]																
09-25-86	--	--	--	--	--	--	16	27	36	70	89	100				--
39. Cabin Creek at Mouth near Granby, Colo.[4,6]																
10-17-78	--	--	--	--	--	7	9	10	12	13	17	32	86	90	--	--
40. Lower North Fork of Cabin Creek near Granby, Colo.[4,6]																
10-19-78	--	--	--	--	--	5	9	12	18	26	38	59	90	95	--	--
42. Lower Left Fork of North Fork of Cabin Creek near Granby, Colo.[4,6]																
10-19-78	--	--	--	--	--	7	10	13	18	28	44	64	89	97	--	--
43. Upper Left Fork of North Fork of Cabin Creek near Granby, Colo.[4,6]																
10-19-78	--	--	--	--	--	4	5	10	16	23	36	53	75	88	--	--
47. Fraser River at USGS Station near Winter Park, Colo.[4]																
09-18-85	--	--	--	--	--	12	26	33	39	48	53	67	91	99	--	--
48. Fraser River at Berthoud Pass, Colo.[4]																
09-17-85	--	--	--	--	--	8	13	21	29	40	49	70	86	96	--	--
50. Fourmile Creek near Fairplay, Colo.[4]																
09-04-84	--	2	5	8	12	14	14	17	24	39	62	78	91	97	99	--
51. Mad Creek (Site 1) near Empire, Colo.[4]																
09-22-83							0	2	6	14	22	48	74	93	100	--
52. Mad Creek (Site 3) near Empire, Colo.[4]																
08-15-84							0	1	1	4	9	26	61	92	100	--
53. Middle Fork of Boulder Creek near Nederland, Colo.[4]																
08-02-84	--	--	1	9	11	11	12	15	17	29	49	70	94	100		--
54. Jefferson Creek near Jefferson, Colo.[4]																
09-84	3	5	12	21	22	30	34	42	46	52	71	89	100			--

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
55. Craig Creek near Bailey, Colo.[4]																
09-07-84	--	--	4	9	11	12	13	15	21	22	30	42	72	90	99	--
57. Pony Creek near Antero Reservoir, Colo.[4]																
09-06-84	--	3	29	38	45	47	78	89	99	100						--
58. North Fork of South Platte River at Shawnee, Colo.[4]																
08-85	--	--	--	--	--	3	5	7	9	18	36	65	83	94	--	--
59. North Fork of South Platte River at Crossons, Colo.[4]																
08-85	--	--	--	--	--	7	10	11	19	25	38	69	89	97	--	--
60. North Fork of South Platte River at Buffalo, Colo.[4]																
08-85	--	--	--	--	--	6	9	12	19	31	58	89	100			--
61. South Fork of South Platte River above Vermillion Creek, Colo.[4]																
08-85	--	--	--	--	--	10	14	40	95	95	95	95	97	98	--	--
62. South Fork of South Platte River at Trumbull, Colo.[4]																
08-85	--	--	--	--	--	8	21	36	51	67	86	96	100			--
63. Buffalo Creek at Buffalo, Colo.[4]																
08-85						0	48	73	90	95	97	98	100			--
64. Trail Creek near Westcreek, Colo.[4]																
09-11-84	0.5	1	5	15	27	38	74	86	99	99	100					--
65. Horse Creek near Westcreek, Colo.[4]																
08-85	--	--	--	--	--	8	9	21	36	45	68	94	100			--
66. Blue River below Green Mountain Reservoir, Colo.[4]																
08-85	--	--	--	--	--	15	15	18	25	30	55	75	90	100		--
67. Williams Fork near Leal, Colo.[4]																
09-85	--	--	--	--	--	5	10	17	36	56	79	95	100			--

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
						68. Upper South Fork of Williams Fork near Leal, Colo.[4]										
08-85	--	--	--	--	--	8	10	16	37	68	91	96	99	100		--
						69. Lower South Fork of Williams Fork near Leal, Colo.[4]										
09-05-85	--	--	--	--	--	12	12	13	22	33	47	69	89	99	--	--
						70. Williams Fork below Steelman Creek near Leal, Colo.[4]										
09-18-85	--	--	--	--	--	4	4	4	6	21	39	74	97	100		--
						71. Kinney Creek near Leal, Colo.[4]										
08-15-85							0	2	11	33	55	75	92	98	--	--
						73. Rich Creek near Weston Pass, Colo.[4]										
09-06-84	--	--	3	7	12	15	20	22	29	37	54	74	89	100		--
						74. Trout Creek near Bayfield, Colo.[4]										
08-07-84	2	2	4	4	4	4	4	8	12	17	44	69	94	100		--
08-07-85	0	2	6	6	6	6	6	6	13	25	50	67	94	100		--
						75. Clear Creek near Bayfield, Colo.[4]										
08-07-84		0	2	2	2	3	3	19	20	37	61	83	92	95	100	--
08-07-85		0	4	4	4	6	6	6	18	28	48	62	92	100		--
						76. West Prong Creek near Bayfield, Colo.[4]										
08-07-84					0	2	2	6	12	23	37	63	96	100		--
08-07-85			0	2	2	2	2	2	6	16	26	50	84	100		--
						77. Red Creek near Bayfield, Colo.[4]										
08-07-84			0	8	8	10	12	12	31	44	63	79	92	98	100	--
08-07-85			0	2	5	5	5	7	19	31	44	66	81	100		--
						78. Sheep Creek at Guard Station near Saguache, Colo.[4]										
07-28-83	13	17	21	25	25	29	29	34	65	78	85	95	100			--
						79. Embargo Creek near Del Norte, Colo.[4]										
09-08-83	5	9	15	20	24	25	28	29	42	55	76	97	100			--

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
80. Pinos Creek near Del Norte, Colo.[4]																
09-13-83	0	3	9	13	16	19	23	29	29	40	61	82	99	100		--
81. Cross Creek near South Fork, Colo.[4]																
07-21-83				0	3	6	12	16	33	47	61	80	98	100		--
82. La Garita Creek near La Garita, Colo.[4]																
07-21-83	8	14	16	20	23	31	35	36	55	77	92	100				--
83. House Canyon Creek near Creede, Colo.[4]																
08-23-83	1	2	4	11	16	25	28	35	63	82	91	98	100			--
84. Crooked Canyon Creek near Creede, Colo.[4]																
09-21-83	8	11	17	22	29	32	34	39	70	77	81	88	98	100		--
85. Rough Creek near Antonito, Colo.[4]																
09-07-83							0	3	26	40	63	86	97	100		--
86. Grouse Creek near Osier, Colo.[4]																
09-07-83							0	1	24	35	61	88	97	100		--
87. Wapsipinicon River near Dewitt, Iowa																
06-22-78	5	7	18	66	91	97	100									--
03-21-79		0	4	47	76	89	95	98	100							--
04-26-79		0	13	77	89	97	98	99	100							--
08-22-79		0	7	45	79	91	97	99	100							--
07-02-80		0	6	40	84	95	98	100								--
08-25-80		0	3	49	89	96	99	100								--
04-14-81	0	1	4	41	87	95	99	100								--
06-17-81		0	4	48	90	97	99	100								--
09-04-81		0	6	48	86	96	99	100								--
88. Iowa River at Wapello, Iowa																
04-25-78	--	2	43	91	98	99	99	99	100							--
06-21-78	1	1	6	49	79	89	95	97	--	--	--	--	--	--	--	--
07-25-78	--	--	10	42	72	82	91	96	98	100						--
06-13-79	1	3	25	56	87	97	100									--
06-02-80	3	5	12	44	76	90	97	100								--
09-03-80		0	5	34	70	87	95	98	100							--
06-18-81	0	1	3	36	81	93	98	100								--
07-02-81	0	1	7	43	80	94	99	100								--

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
						89. Wisconsin River at Muscoda, Wis.										
03-24-77	0	0.2	7	61	87	92	96	99	100							--
04-19-77	0	.2	6	62	87	92	95	98	99	100						--
05-16-77	0	.4	9	53	76	82	88	95	100							--
06-15-77	--	--	6	56	81	88	92	97	99	100						--
07-20-77	0	.1	12	64	83	87	91	97	100							--
08-24-77	0.2	.3	7	65	92	98	99	100								--
09-27-77	.1	.4	7	58	90	96	99	100								--
10-18-77	0	.2	8	61	84	89	93	97	100							--
11-14-77	0.1	.2	5	59	87	96	99	99	100							--
04-17-78	0	.2	8	61	91	95	97	98	99	100						--
05-08-78	0.1	.5	11	67	92	97	99	100								--
06-06-78	0	.1	4	63	94	98	100									--
07-11-78	0.1	.2	7	68	94	97	98	99	100							--
08-15-78	.1	.4	8	62	89	94	96	99	100							--
10-24-78	0	12	7	69	95	98	99	100								--
11-14-78		0	8	69	94	98	99	100								--
03-28-79		0	8	60	89	96	98	99	100							--
04-24-79		0	7	63	96	99	100									--
07-05-79		0	11	56	87	94	97	98	100							--
08-25-79		0	7	63	92	97	99	100								--
						90. Black River near Galesville, Wis.										
04-23-77	1	3	12	46	87	96	98	99	100							--
05-27-77	0	0.4	8	46	87	97	99	100								--
06-29-77	0.2	.8	5	48	92	98	100									--
07-12-77	.3	2	9	54	95	97	99	100								--
08-02-77	.5	1	9	53	91	96	98	99	100							--
10-19-77	.3	4	20	59	91	96	98	99	100							--
11-08-77	.3	3	19	59	90	96	98	99	100							--
03-31-78	.3	2	27	71	96	99	99	100								--
04-10-78	.1	0.4	19	69	96	99	100									--
05-10-78	0	.2	9	69	96	98	99	99	100							--
06-13-78	0.1	.3	7	58	92	97	98	98	100							--
08-09-78	.3	.7	10	65	91	97	99	100								--
10-28-78	0	0	4	62	94	97	98	99	100							--
04-25-79	0	1	10	46	91	98	99	100								--
05-31-79	2	3	14	47	92	98	99	100								--
07-23-79	0	3	28	56	89	97	99	100								--
						91. Chippewa River near Caryville, Wis.										
08-30-76	0.2	0.7	2	17	36	43	50	61	87	100						--
09-20-76	.5	2	5	23	43	47	53	62	87	100						--
10-18-76	.2	0.6	4	11	26	35	44	62	79	85	100					--
11-17-76	.3	1	4	19	41	46	52	64	90	100						--
03-15-77	.7	2	5	19	33	38	43	52	68	90	100					--

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
						91. Chippewa River near Caryville, Wis.--Continued										
04-13-77	2	3	9	24	51	60	64	72	87	100						--
05-10-77	0.1	0.9	7	23	35	44	54	68	98	100						--
07-06-77	.6	2	7	31	42	46	52	61	80	100						--
09-13-77	.9	2	6	21	29	36	43	56	81	100						--
10-12-77	.8	2	4	15	36	42	48	59	86	100						--
11-16-77	.1	0.6	2	15	48	67	72	77	86	97	100					--
04-05-78	.7	3	9	20	33	39	46	57	80	100						--
04-14-78	.1	0.2	2	25	40	51	61	71	86	100						--
05-15-78	0	.3	2	15	40	59	69	77	88	100						--
06-06-78	0	.3	3	17	35	43	54	64	78	100						--
07-06-78	0.1	.7	3	18	27	32	39	51	68	83	100					--
09-19-78	1	2	4	20	26	34	46	62	77	91	100					--
10-31-78	0	1	5	12	22	31	40	53	74	97	100					--
04-17-79	0	1	3	14	29	35	43	55	74	100						--
04-23-79		0	2	12	21	25	29	36	53	81	100					--
05-29-79		0	2	12	22	26	31	41	61	90	100					--
07-24-79	0	1	5	16	28	35	42	56	83	100						--
09-10-79	1	2	7	16	27	32	38	50	68	100						--
						92. Chippewa River at Durand, Wis.										
11-11-75	0.2	0.7	3	43	78	90	94	97	99	100						--
06-03-76	0	.2	1	24	71	88	94	97	100							--
07-01-76	0	.2	3	25	52	62	72	84	97	100						--
08-31-76	0	.1	7	44	68	74	80	90	100							--
10-18-76	0	.5	6	33	55	68	77	85	95	100						--
11-16-76	0.1	.6	6	39	71	82	87	93	99	100						--
03-17-77	.1	.5	8	45	72	80	84	90	93	100						--
04-13-77	0	.1	2	39	79	88	90	92	97	100						--
05-10-77	0	.1	3	44	81	92	97	99	100							--
07-06-77	0	.1	3	42	76	83	87	91	95	100						--
08-24-77	0	.1	2	26	55	68	77	88	98	100						--
09-13-77	0	.1	2	42	85	94	96	97	99	100						--
10-12-77	0	.2	4	32	67	78	85	91	97	100						--
11-16-77	0	.2	3	41	70	78	82	87	94	100						--
04-05-78	0	.1	2	41	78	87	90	94	99	100						--
06-06-78	0.1	.4	6	38	65	73	76	80	86	100						--
07-06-78	0	.2	3	39	60	65	68	74	87	100						--
10-31-78		0	1	25	60	75	82	88	95	100						--
04-17-79		0	3	33	62	70	74	78	86	92	100					--
04-23-79		0	3	27	48	56	63	72	84	95	100					--
05-29-79	0	2	15	43	67	74	77	79	87	94	100					--

Table 4.--*Bed-material particle-size distributions*--Continued

Date	Percent by weight finer than size (millimeters) indicated															Sampling location, in meters from reference point
	0.062	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	
						93. Chippewa River near Pepin, Wis.										
09-01-76	0.3	0.8	4	39	70	81	87	93	99	100						--
09-20-76	.1	.4	4	42	84	93	97	99	100							--
10-19-76	.1	.2	6	46	82	90	96	99	100							--
11-17-76	0	.5	4	43	82	93	96	98	100							--
03-16-77	0.1	.9	7	57	92	98	99	100								--
04-14-77	.3	2	14	60	88	96	97	98	100							--
05-11-77	.3	2	15	65	95	99	100									--
07-07-77	.1	1	15	52	84	93	96	99	100							--
09-14-77	0	0.5	3	51	84	92	94	96	99	100						--
10-13-77	0	.1	4	56	79	85	89	93	98	100						--
11-17-77	0	.3	3	34	70	81	88	95	100							--
04-06-78	0.2	1	7	52	85	92	95	97	99	100						--
05-16-78	.3	0.9	7	41	81	93	98	100								--
06-07-78	.1	1	6	49	88	95	98	99	100							--
07-07-78	.1	0.3	6	54	90	97	99	100								--
09-20-78	.1	.2	4	45	85	96	99	100								--
11-01-78		0	4	44	83	94	98	100								--
04-18-79		0	5	43	80	90	93	95	98	100						--
04-24-79	0	1	8	58	90	95	96	98	100							--
05-30-79	0	1	6	56	90	96	98	99	100							--
07-24-79		0	4	54	90	96	98	100								--
09-11-79	0	1	6	55	83	88	90	92	99	100						--

[1]Reference point for sampling location = left bank.

[2]Reference point for sampling location = monument on left-bank floodplain.

[3]Reference point for sampling location = monument on right-bank floodplain.

[4]Few or no bed-material analyses for dates of sediment-transport measurements; available analyses for other dates are given here to indicate general sizes of streambed sediments.

[5]Optical analysis (Williams and Krupin, 1984).

[6]All percentages for this station interpolated from a size analysis that involved class limits different from those listed here.

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