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**HYDROLOGIC AND WATER QUALITY INVESTIGATIONS RELATED TO
PLACER MINING IN INTERIOR ALASKA; SUMMER 1991**

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TECHNICAL CONTENT (EXCEPT AS NOTED IN
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INTRODUCTION

Monitoring of interior Alaska streams affected by placer mining continued during the 1991 field season by Alaska Division of Water (DOW) (formerly the Water Section of the Division of Geological and Geophysical Surveys) investigators. The study, which began in 1984, is a combined effort of the Alaska Departments of Environmental Conservation (ADEC) and Fish and Game (**ADF&G**). Results of the previous field seasons can be found in Ray (1991), Ray (1990), Ray (1989), **Mack** et. al. (1988), **Mack** et al. (1987), **Mack** and **Moorman** (1987), and **Mack** and **Moorman** (1986).

Few changes were made in the 1991 field sampling plan. A water level recorder was added to the Deadwood Creek site to collect flow data with the sediment sampler added to the site in 1990. This site remains in the study plan since a high concentration of miners still exists upstream. An automatic sediment sampler and water level recorder were placed at Prospect Creek at the Dalton Highway. This site was added for comparison of streamflow and sediment data from a different hydrologic basin. Goldstream Creek at Ballaine Road site was moved to Standard Creek Road (approximately 15 miles downstream). An additional site on Goldstream Creek was added to the study at the Trans-Alaska Pipeline crossing near Fox. The upper Gold Dust Creek site was dropped from the study. The remaining sites were continued from the 1990 sampling season. These sites are Bear Creek, Birch Creek (above Twelve Mile Creek and at the Steese Highway bridge), Faith Creek, middle Gold Dust Creek and the Little Chena River at Chena Hot Springs Road. Flow data for the Little Chena River is provided by the US Geological Survey gage (US Geological Survey, 1992).

To ensure consistency of data between the different field seasons, the same sampling and analytical techniques were used during each field season. For details of the methods, see **Mack** et. al. (1988).

RESULTS

Discharge

Interior Alaska received record snowfall during the winter of 1990-91. Fairbanks received 147 inches, largest amount recorded since records began in 1906. The general snowpack over the study area was above normal. This heavy snowpack resulted in high stream flows during the month of May. This heavy snowpack also recharged the groundwater, resulting in declining **baseflow** discharge during the month of June. Little rain occurred during the months of June and July, resulting in low flows in most of the basins, but particularly those north of Eagle Summit. The largest precipitation event occurred **on** August 17-19, increasing flows at all sites. An additional storm on September **11-13** also caused increased flows. Figures 1 through 10 gives the hydrographs for the streams where discharge data was collected.

Table 1. Summary of average monthly discharge data (discharge values in cfs).

Site	Jun	Jul	Aug	Sep	Ave
Bear Creek					
1991	13.1	5.3	22.9	11.6	13.2
1990		7.2	9.5	25.8	15.8
Birch Creek at Bridge					
1991	2700	1050	3070	1540	2090
1990	2100,	748	1680	2840	1800
1989	3100	2000*	675	507	1580
1988	2490	1230	1300	1370	1430
1987	4120	2570	2380	1010	2520
1986	3730	2370	700	828	1910
1985	4600	1710	1930	3790	3010
Birch Creek above 12 Mile Creek					
1991	144	53.0	167	76.9	110
1990	99.3	35.7	49.7	116	75.0
1989	164	89.5	37.4	27.4	73.8
1988	66.9	35.4	47.5	68.0	49.2
1987	196	147	149	74.8	142
1986	207	125	71.2	76.5	120
Deadwood Creek					
1991	30.4	4.8	17.6	11.8	16.0

Table 1 (cont.). Summary of average monthly discharge data (discharge values in cfs).

Site	Jun	Jul	Aug	Sep	Ave
Faith Creek					
1991	144	57.8	165	104	118
1990	82.0	53.5	86.5	251	114
1989	108	47.4	32.4	24.3	49.2
1988	81.8	46.1	91.3	93.9	70.6
1987	113	51.6	134	103	100
1986	107	80.4	141	149	123
Gold Dust Creek (middle)					
1991	15.1	9.3	32.4	11.2	17.4
1990	21.2	6.5	17.4	32.5	21.0
1989	28.1	19.6	7.1	4.3	14.9
Goldstream Creek at Fox					
1991	36.4	23.2	29.5	28.5	29.4
Goldstream Creek at Standard Creek Road					
1991	139	88.8	89.6	90.3	101
Little Chena River at USGS gage					
1991	467	257	484	405	403
1990	200	240	282	649	342
1989	473	316	177	144	292
Prospect Creek					
1991	112	82.0	139	53.0	102

* Estimate

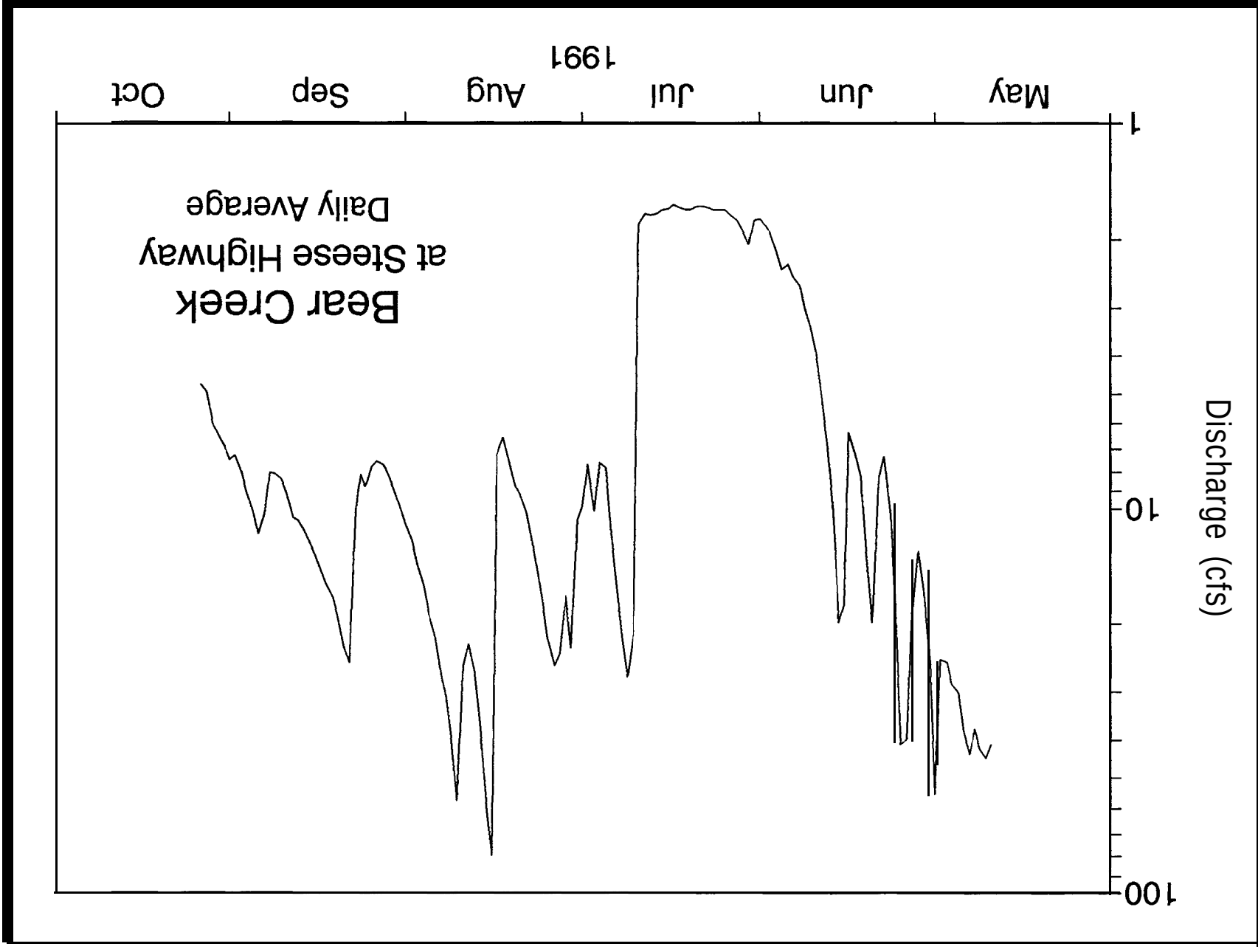


Figure 1. Hydrograph of Bear Creek at Steese Highway - 1991

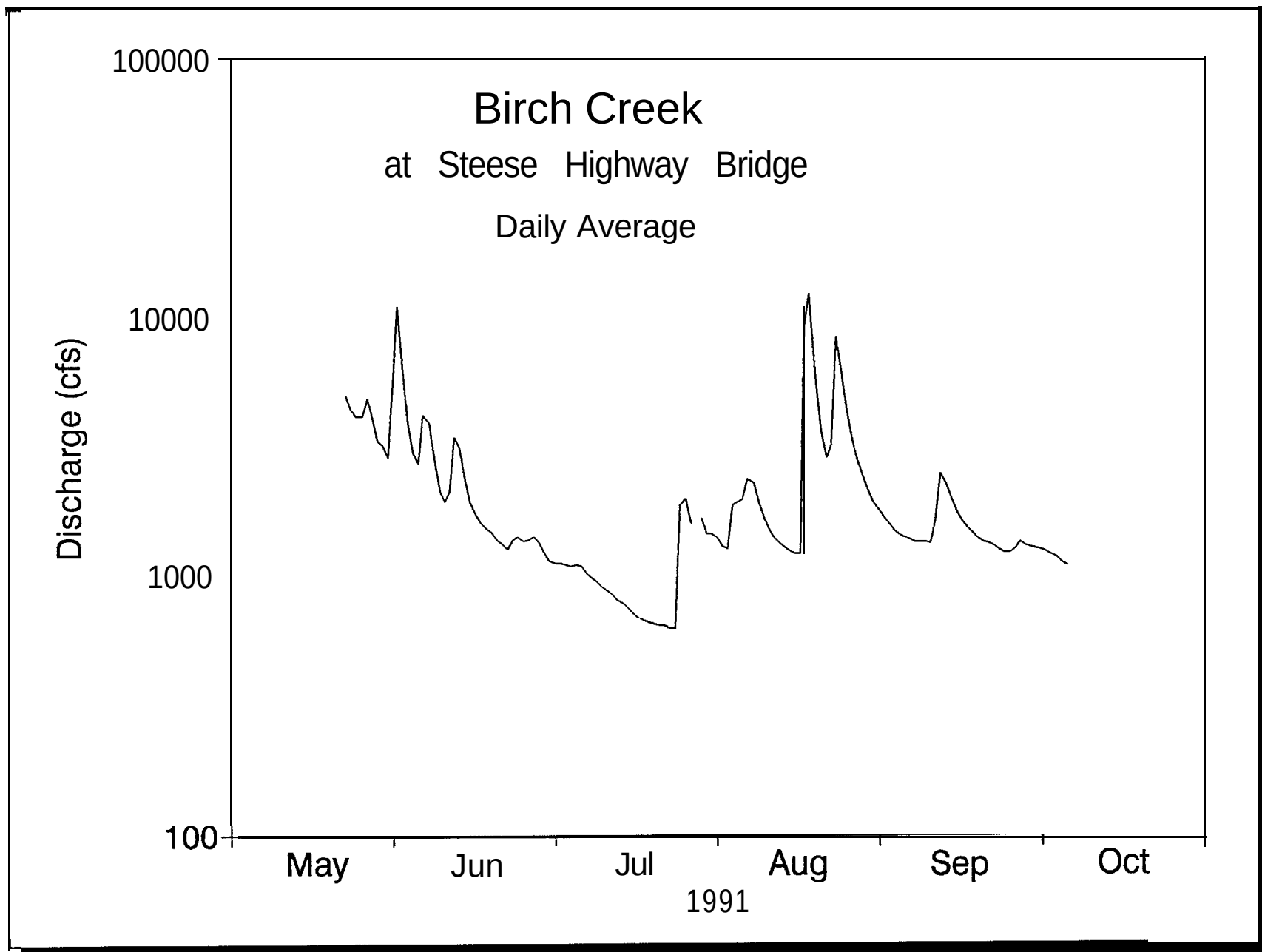


Figure 2. Hydrograph Birch Creek at Steese Highway Bridge - 1991

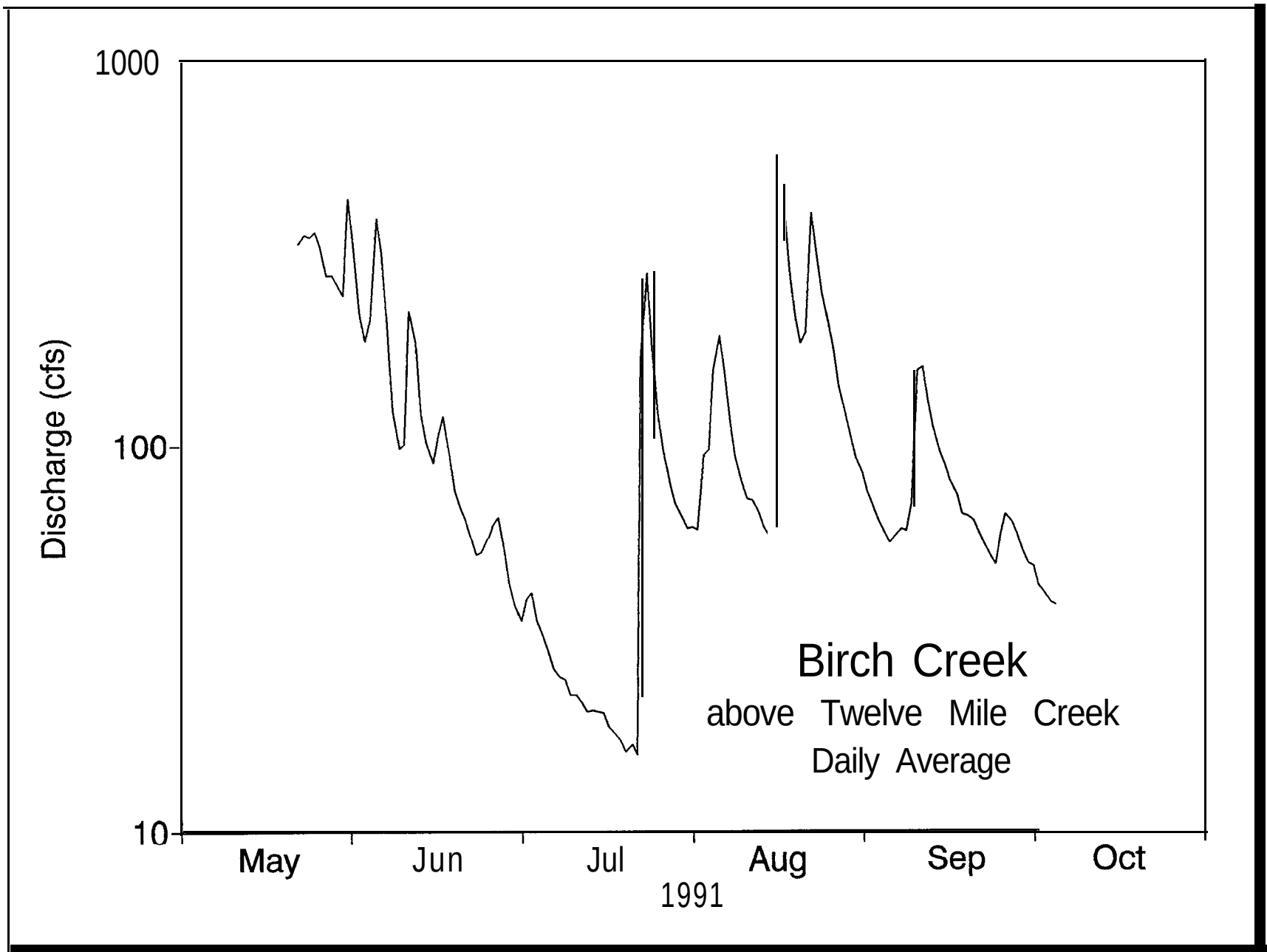


Figure 3. Hydrograph of Birch Creek above

Creek - 1991

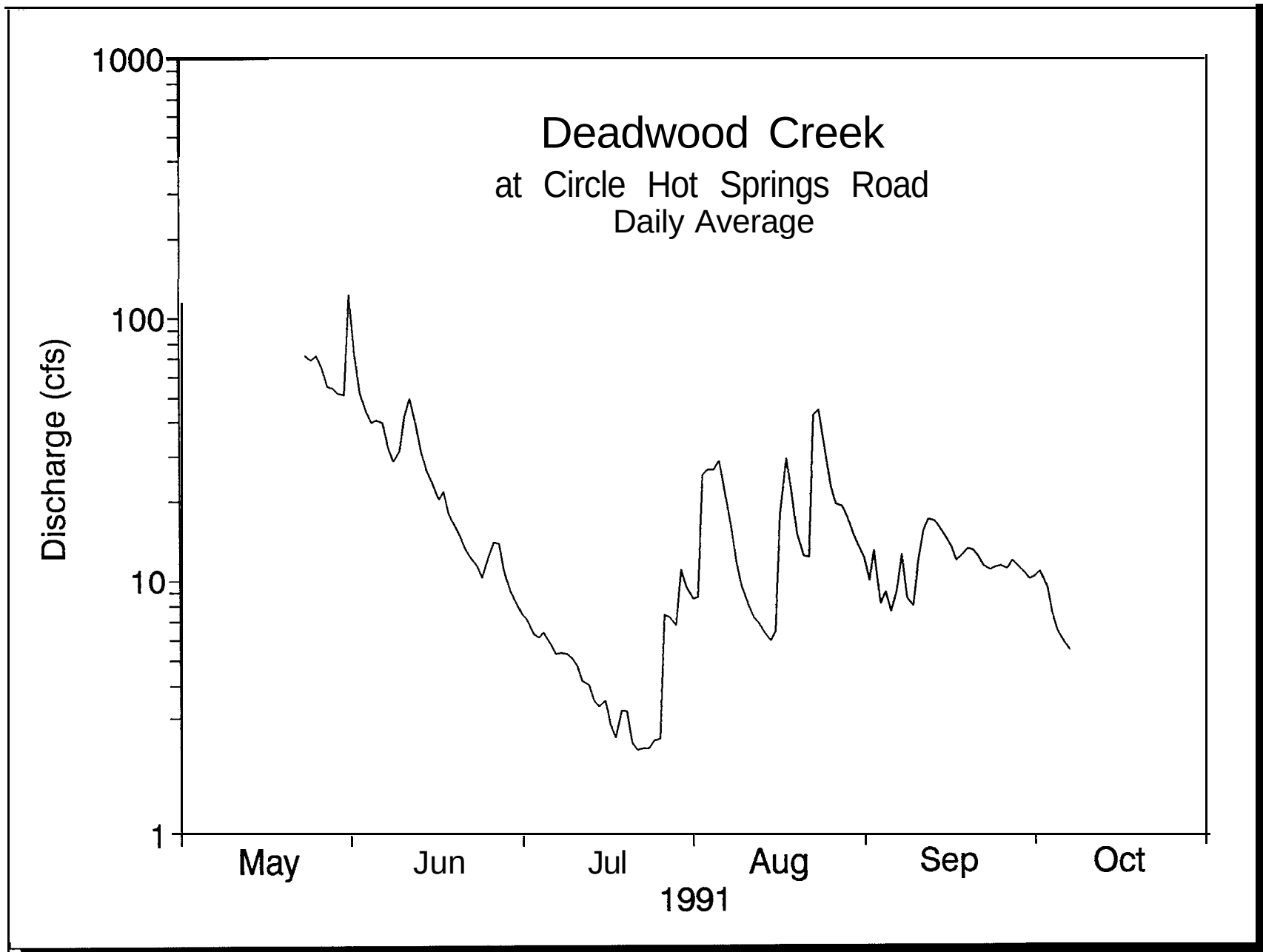


Figure 4. Hydrograph of Deadwood Creek at Circle Hot Springs Road - 1991

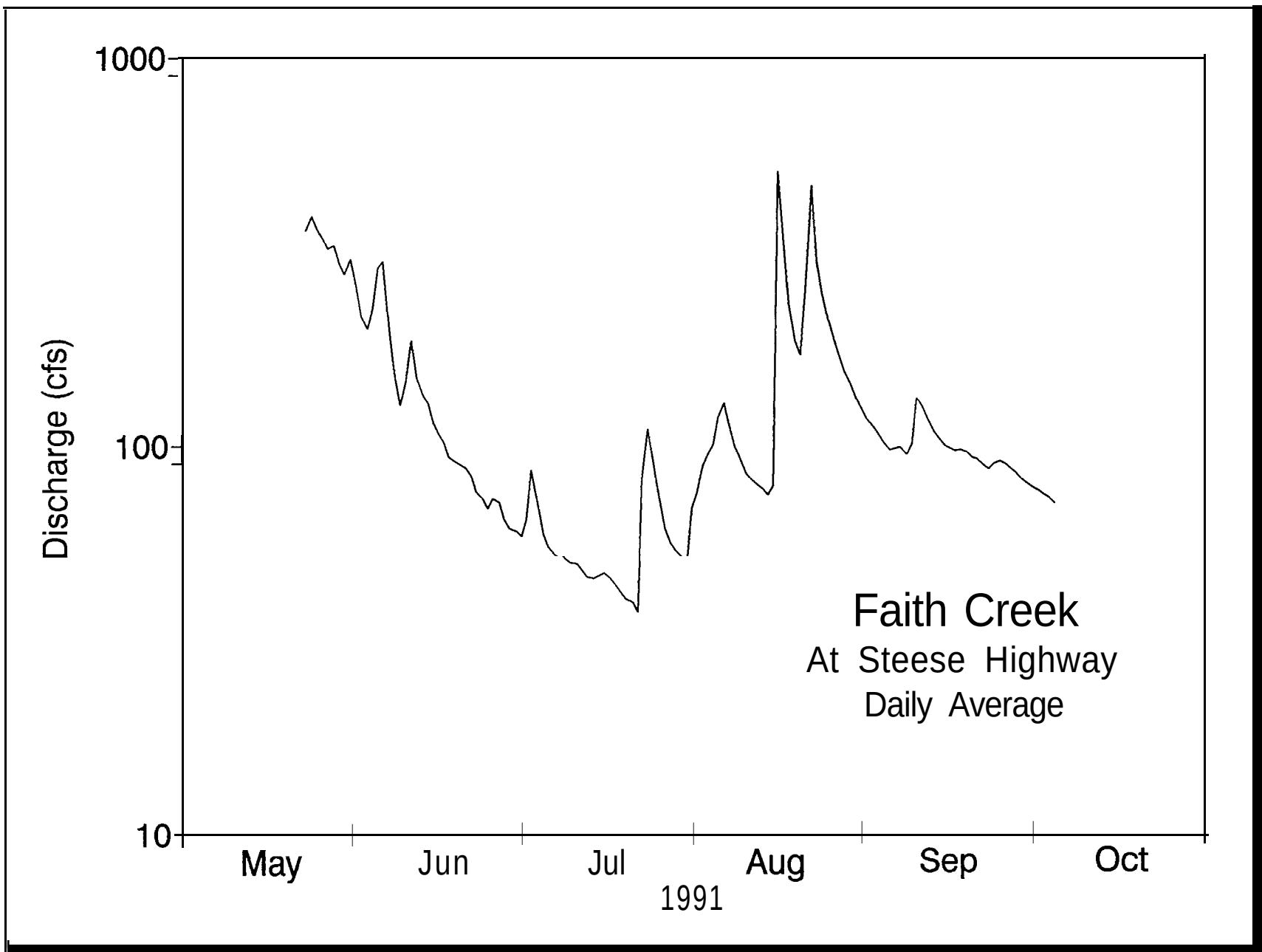


Figure 5. Hydrograph of Faith Creek at Steese Highway Bridge - 1991

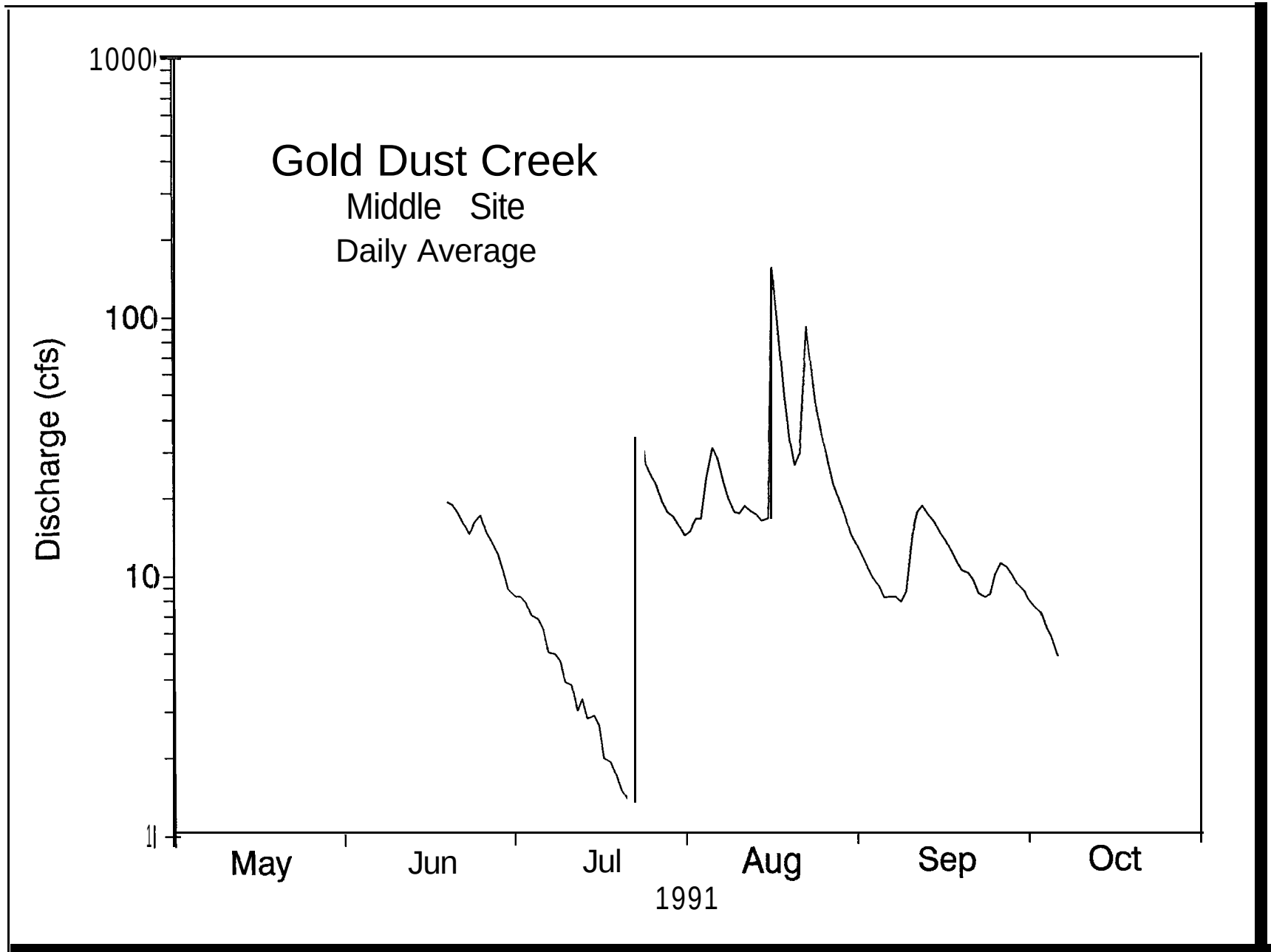


Figure 6. Hydrograph of Gold Dust Creek (middle site) - 1991

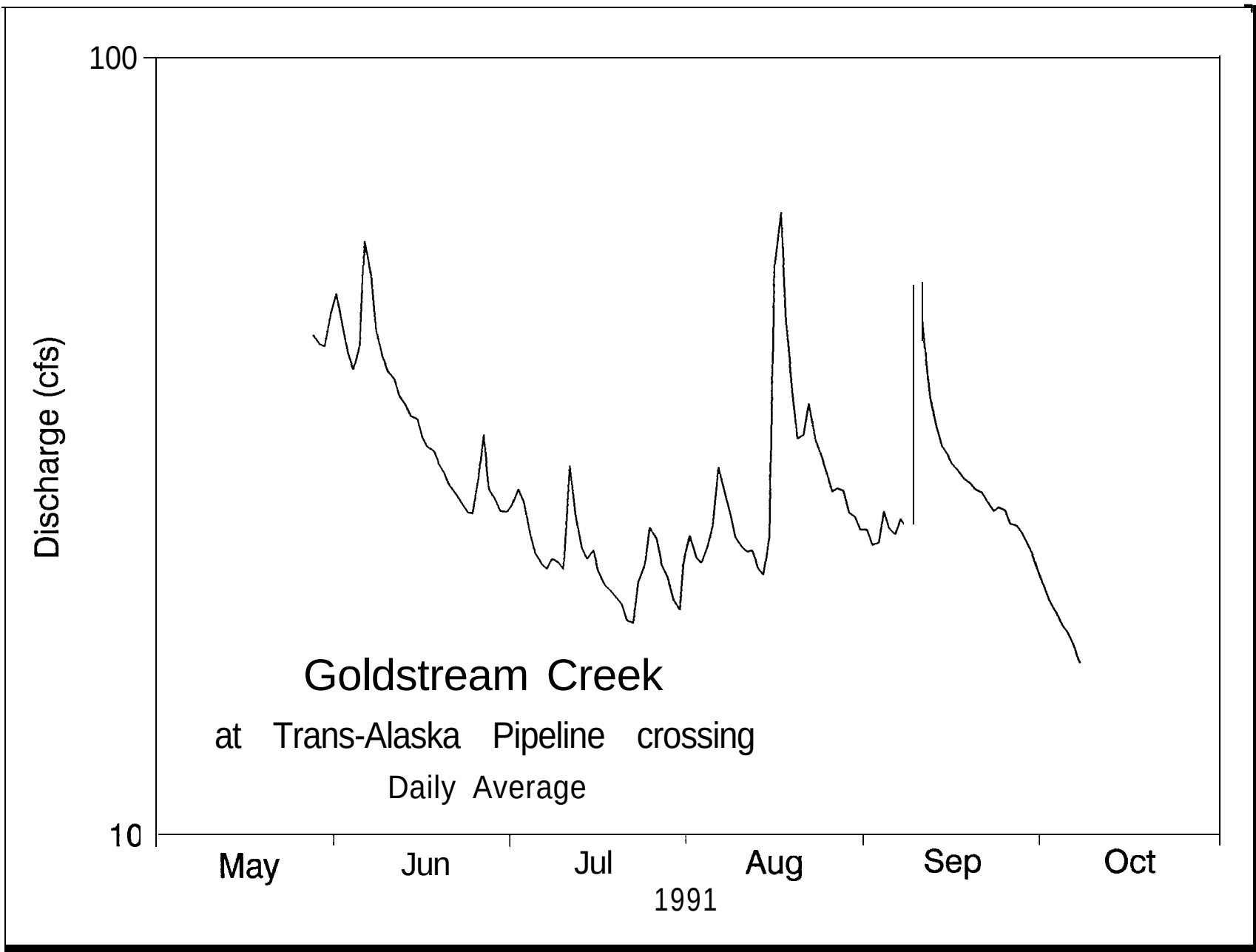


Figure 7. Hydrograph of Goldstream Creek at Trans-Alaska Pipeline crossing near Fox - 1991

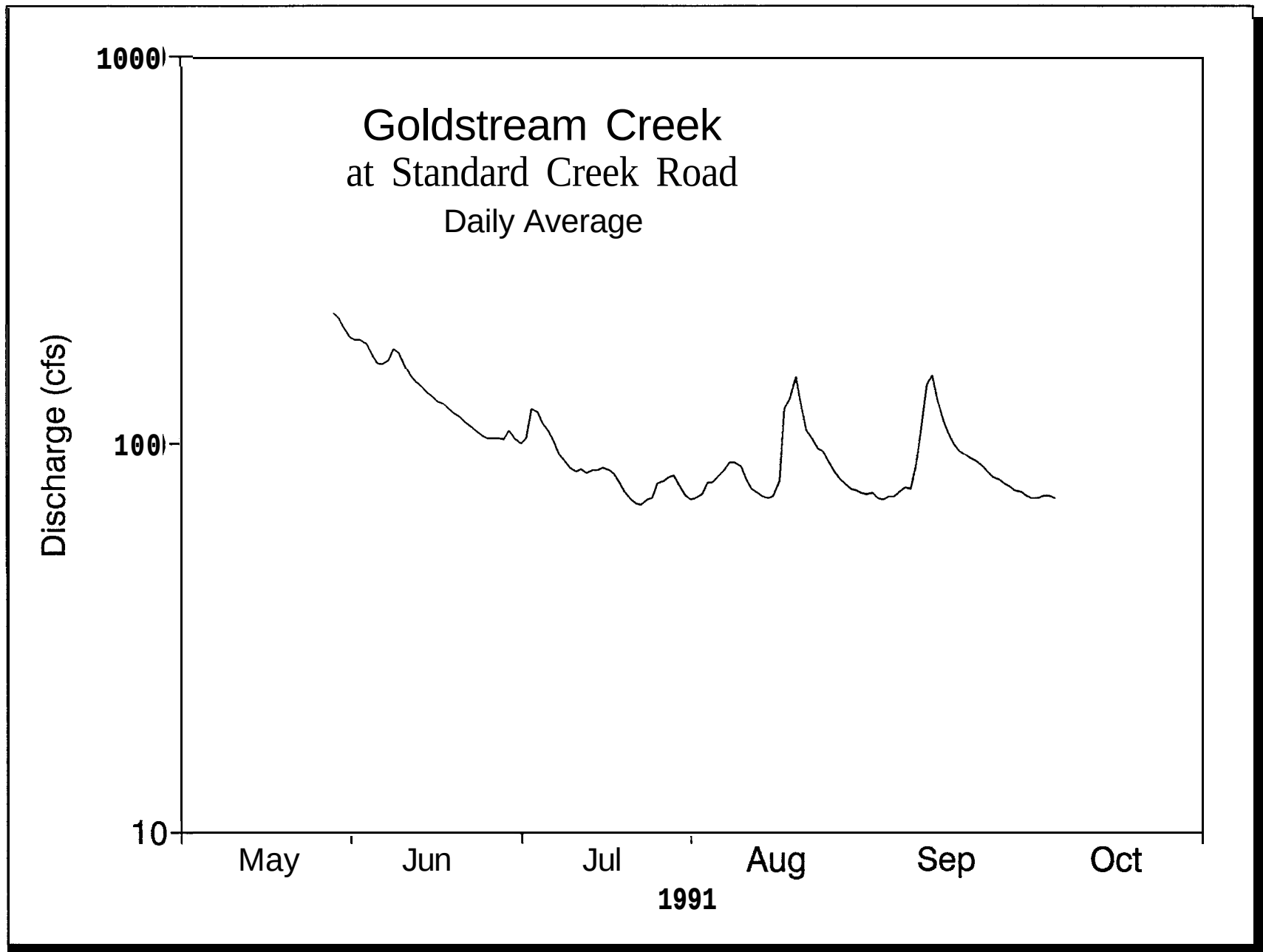


Figure 8. Hydrograph of Goldstream Creek at Standard Creek 1991

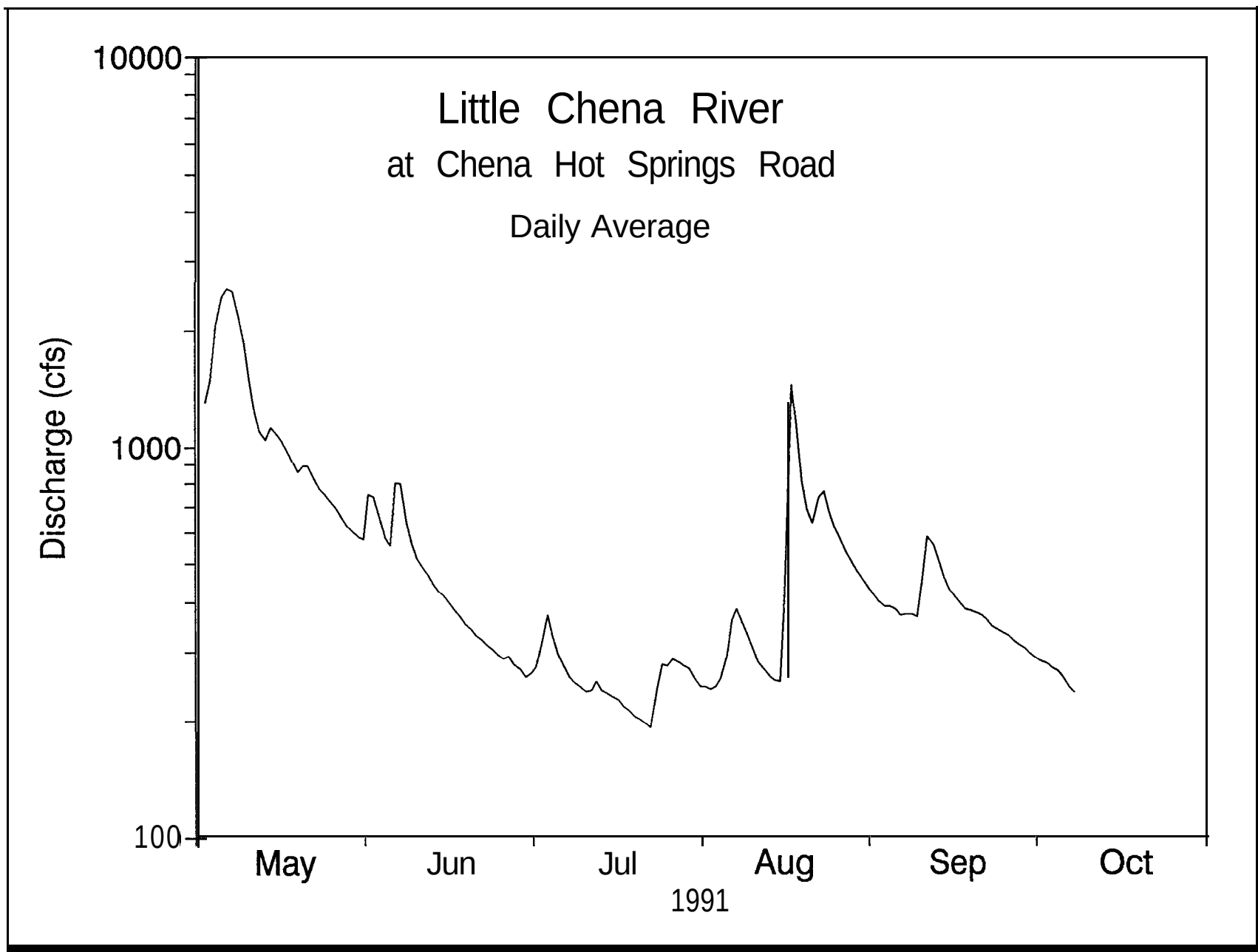


Figure 9. Hydrograph of Little Chena River at Chena Hot Springs Road - 1991

Turbidity

Mean turbidity remained nearly the same or increased slightly from previous years (see Tables 3-4). The two exceptions were Deadwood Creek and Birch Creek above Twelvemile Creeks. The mean and median turbidity at Deadwood Creek decreased, the median by a substantial amount (20 NTU in 1990 to 4.7 NTU in 1991). The mean turbidity at Birch Creek above Twelvemile Creek increased to levels similar to 1988, however the median turbidity was the lowest since the study began. The high mean turbidity was due to two events. The first event appears to be man-made, since there was no increase in flow. The daily mean turbidity for June 26 and 27 was 5200 and 3300 NTU, respectively. The second event was a storm event in August which caused a dramatic increase in flow, resulting in high sediment transport.

Table 3. Monthly mean and median turbidity values from automated sites in 1991. All values are in NTUs.

Site	May	Jun	Jul	Aug	Sep	Season
Bear Creek						
Mean	1.2	1.5	1.6	1.8	2.3	1.7
Median	1.1	1.3	1.5	1.2	1.5	1.4
number of samples (n)	9	30	25	13	30	110
Birch Creek above 12 Mile Creek						
Mean	60	317	14	74	4.8	99
Median	29	19	1.9	6.8	3.6	6.1
n	9	30	31	31	30	131
Birch Creek at Bridge						
Mean	5.2	5.8	4.2	13	12	8.3
Median	4.9	3.9	2.4	5.7	9.2	4.4
n	9	30	31	31	21	122
Deadwood Creek						
Mean	6.8	9.6	2.1	7.3	55	20
Median	7.0	2.3	1.7	4.9	37	4.7
n	9	30	14	31	30	114
Faith Creek						
Mean	5.7	1.6	2.5	4.3	4.2	3.3
Median	4.0	1.4	1.7	3.2	4.3	2.5
n	8	30	19	23	30	110

Table 3 (cont.). Monthly mean and median turbidity values from automated sites in 1991. All values are in NTUs.

Site	May	Jun	Jul	Aug	Sep	Season
Gold Dust Creek (middle)						
Mean		3.1	2.0	6.7	1.7	16
Median		2.5	1.2	2.3	1.6	1.7
n		10	23	15	21	69
Goldstream Creek at Fox						
Mean	2.6	6.2	4.9	10	7.6	7.1
Median	2.5	4.6	4.5	7.7	5.4	5.2
n	3	30	31	31	30	125
Goldstream Creek at Standard Creek Road						
Mean	12	6.4	4.0	5.5	3.6	5.3
Median	12	4.6	4.0	4.3	3.3	4.2
n	2	28	20	22	15	87
Little Chena River at USGS gage						
Mean	9.3	5.7	6.3	10	20	9.1
Median	6.4	5.3	5.5	5.8	19	6.5
n	14	30	31	21	15	111
Prospect Creek						
Mean		1.3	4.2	9.0	2.2	5.1
Median		0.9	3.4	3.9	2.2	2.2
n		24	9	26	1	60

Table 4. Seasonal mean and median turbidity values from automated sites for all years of available data. All values are in NTUs.

Site	n	Mean	Median
Bear Creek			
1991	110	1.7	1.4
1990	111	2.4	1.6
Birch Creek above 12 Mile Creek			
1991	131	99	6.1
1990	99	20	6.6
1989	93	56	50
1988	80	92	91
1987	107	206	150
1986	113	236	230

Table 4 (cont.). Seasonal mean and median turbidity values from automated sites for all years of available data. All values are in NTUs.

Site	n	Mean	Median
Birch Creek at Bridge			
1991	122	8.3	4.4
1990	121	5.8	3.8
1989	80	12	6.0
1988	98	11	7.1
1987	106	38	18
1986	54	54	23
1985	20	31	25
Deadwood Creek			
1991	114	20	4.7
1990	122	32	15
Faith Creek			
1991	110	3.3	2.5
1990	128	7.6	2.1
1989	98	22	7.1
1988	92	6.5	5.9
1987	121	21	14
1986	80	85	31
Gold Dust Creek (middle)			
1991	69	16	1.7
1990	72	11	4.5
1989	93	50	9.1
Goldstream Creek at Fox			
1991	125	7.1	5.2
Goldstream Creek at Standard Creek Road			
1991	87	5.3	4.2
Little Chena River at USGS gage			
1991	111	9.1	6.5
1990	94	8.5	4.6
1989	62	7.2	4.3
Prospect Creek			
1991	60	5.1	2.2

Total Suspended Sediment

Total suspended sediment (TSS) values at all sites except Birch Creek above Twelvemile Creek remained similar to or fell below 1990 values (Tables 5-6). The reason for the increase in TSS at Birch Creek above Twelvemile Creek is the same as the increase in turbidity as mentioned in the previous section.

Table 5. Monthly mean and median TSS values from automated sites in 1991. All values are in mg/l.

Site	May	Jun	Jul	Aug	Sep	Season
Bear Creek						
Mean	12.5	7.07	5.32	5.80	9.28	7.58
Median	8.13	4.30	2.86	4.40	4.29	4.45
number of samples (n)	9	30	25	13	30	110
Birch Creek above 12 Mile Creek						
Mean	355	375	75.7	458	26.0	242
Median	278	68.9	8.00	43.9	17.1	24.7
n	9	30	31	31	30	131
Birch Creek at Bridge						
Mean	38.8	60.5	16.6	59.7	70.5	49.3
Median	33.8	19.6	7.20	24.9	41.3	20.9
n	9	30	31	31	21	122
Deadwood Creek						
Mean	90.5	52.5	4.94	19.0	59.1	42.3
Median	92.1	10.6	4.20	12.5	21.4	14.3
n	9	30	14	31	30	114
Faith Creek						
Mean	47.8	8.96	4.17	16.5	7.58	12.5
Median	3.06	6.12	2.95	5.11	5.59	5.43
n	8	30	19	31	30	118
Gold Dust Creek (middle)						
Mean		10.7	9.74	424	7.42	108
Median		10.9	2.47	2.70	4.69	4.55
n		10	23	17	21	71
Goldstream Creek at Fox						
Mean	35.2	28.2	12.7	26.5	21.2	22.5
Median	34.9	21.4	10.8	13.3	11.8	13.6
n	3	30	31	31	30	125
Goldstream Creek at Standard Creek Road						
Mean	76.2	37.9	9.40	11.4	9.80	20.7
Median	76.2	27.5	8.94	8.42	5.80	10.0
n	2	28	20	22	15	87

Table 5 (cont.). Monthly mean and median TSS values from automated sites in 1991. AN values are in mg/l.

Site	May	Jun	Jul	Aug	Sept	Season
Little Chena River at USGS gage						
Mean	119	13.5	8.08	80.8	21.4	11.9
Media	83.8	12.5	7.42	10.7	19.2	12.4
n	14	30	31	21	15	111
Prospect Creek						
Mean		4.47	25.4	19.3	2.00	14.0
Median		3.84	23.9	13.0	2.00	11.2
n		24	9	26	1	60

Table 6. Seasonal mean and median TSS values from automated sites for all years of available data. All values are in NTUs.

Site	n	Mean	Median
Bear Creek			
1991	110	7.58	4.45
1990	111	22.0	12.8
Birch Creek above 12 Mile Creek			
1991	131	242	24.7
1990	99	97.6	30.6
1989	93	104	41.3
1988	80	83.7	75.0
1987	107	1360	339
1986	113	293	214
Birch Creek at Bridge			
1991	122	49.3	20.9
1990	121	57.7	19.8
1989	80	57.0	32.7
1988	98	123	28.0
1987	106	332	112
1986	54	267	166
1985	12	50.6	26.3
Deadwood Creek			
1991	114	42.3	14.3
1990	122	187	77.4

Table 6(cont). Seasonal mean and median TSS values from automated sites for all years of available data.
All values are in NTUs.

Site	n	Mean	Median
Faith Creek			
1991	118	12.5	5.43
1990	128	50.6	9.94
1989	98	51.9	9.75
1988	92	14.7	11.5
1987	121	85.4	28.5
1986	75	599	61.0
Gold Dust Creek (middle)			
1991	69	108	4.55
1990	67	285	69.1
1989	93	666	69.1
Goldstream Creek at Fox			
1991	125	22.5	13.6
Goldstream Creek at Standard Creek Road			
1991	87	20.7	10.0
Little Chena River at USGS gage			
1991	111	71.9	12.4
1990	94	48.6	12.5
1989	62	59.3	32.1
Prospect Creek			
1991	60	14.0	11.2

Sediment Load

At most sites, the average daily sediment load (tons/day) was similar to recent years (Table 7). The average load at Faith Creek fell from 39 tons/day in 1990 to 6 tons/day in 1991. However, the average load at Birch Creek above Twelvemile Creek rose from 44 tons/day in 1990 to over 200 tons/day in 1991. The reasons for this rise are cited in previous sections.

Table 7. Average daily sediment load by month and season (tons/day).

Site	Jun	Jul	Aug	Sep	Ave
Bear Creek					
1991	0.48	0.08	0.29	0.29	0.29
1990		0.49	0.61	3.1	1.6
Birch Creek at Bridge					
1991	976	65.8	1130	322	652
1990	805	27.5	170	1080	511
1989	1020	515	56.5	18.5	213
1988	2810	188	90.7	175	772
1987	8660	6580	1100		5260
1986	7270	1450		567	3100
Birch Creek above 12 Mile Creek					
1991	236	43.8	533	7.2	206
1990	353	3.2	4.6	18.9	43.8
1989	172	63.6	4.4	1.6	44.4
1988	8.1	8.7	9.1	31.4	12.1
1987	4580	1110	426	32.0	1150
1986	420	79.2	40.2	48.3	147
Deadwood Creek					
1991	9.9	0.07	1.3	1.9	3.7
Faith Creek					
1991	4.6	0.76	14.4	2.1	6.0
1990	13.4	1.7	5.4	166	38.6
1989	185	2.6	0.83	0.51	42.7
1988	6.0	1.4	5.0	3.1	3.4
1987	119	8.9	22.1	13.6	30.9
1986	57.2	31.3	548	57.9	174

Table 7. Average daily sediment load by month and season (tons/day).

Site	Jun	Jul	Aug	Sep	Ave
Gold Dust Creek (middle)					
1991	0.43	0.66	117	0.27	28.3
1990	62.4	46.9	0.41	4.5	29.7
1989	168	167	2.1	0.22	91.3
Goldstream Creek at Fox					
1991	3.1	0.83	3.0	2.1	2.2
Goldstream Creek at Standard Creek Road					
1991	15.7	2.0	2.9	3.1	6.8
Little Chena River at USGS gage					
1991	176	5.6	267	22.0	118
1990		38.4	66.1	213	94.8
1989		16.8	35.0	13.5	89.4
Prospect Creek					
1991	1.5	8.9	8.1	0.23	5.5

Grab Sites

Data collected at the grab sites are reported in Table 8. Turbidity and TSS at most site decreased or remained similar to recent years. However, four sites experienced increasing sediment values. Both sites on Crooked Creek (below Bedrock Creek and at Steese Highway Bridge), **Ketchum** Creek, and Pedro Creek all had increased turbidity, some had increased TSS. Both Mammoth and Deadwood creeks continued to show decreased sediment values.

Table 8. Mean and Median values for turbidity and total suspended solids from grab-sample sites.

Site	number of samples	Mean Turb	Mean TSS	Median Turb	Median TSS
Albert Creek					
1991	11	1.6	6.56	1.1	0.40
1990	16	4.3	15.1	1.7	4.62
1989	6	63	213	1.7	2.00
1988	1	0.8	2.15	0.8	2.15
1987	0				
1986	17	19		2.6	
Bedrock Creek					
1991	15	1.9	6.84	0.9	2.00
1990	17	1.5	8.3	1.2	4.17
1989	11	8.8	40.7	1.5	2.60
1988	15	1.0	1.71	0.8	1.27
1987	3	0.8	7.93	0.5	1.60
1986	20	1.9		1.1	
1985	23	0.8		0.5	
1984	9	1.0		1.0	
Boulder Creek					
1991	15	5.4	15.1	1.0	0.80
1990	18	8.0	54.2	2.6	14.3
1989	11	16	139	1.9	2.80
1988	14	0.7	1.76	0.7	1.46
1987	3	1.0	10.6	0.4	1.60
1986	88	2.7	19.6	1.2	6.4
1985	13	2.0		0.5	
1984	2	2.8		2.8	

Table 8 (cont). Mean and Median values for turbidity and total suspended solids from grab samples.

Site	number of samples	Turb	Mean TSS	Turb	Median TSS
Chatanika River at 39 Mile Steese					
1991	15	1.5	4.38	0.9	1.41
1990	17	2.7	13.3	1.5	3.73
1989	11	1.1	1.43	0.9	1.20
1988	2	0.7	2.68	0.7	2.68
1987	1	23	154	23	154
1986	10	4.7		2.2	
1985	28	10		7.6	
1984	24	24		19	
Crooked Creek below Bedrock					
1991	13	50	107	50	47.7
1990	5	17	34.4	17	26.5
1989	6	48	84.8	38	19.2
1988	2	58	33.9	58	33.9
1987	1	72	43.7	72	43.7
Crooked Creek at Steese					
1991	15	42	66.9	20	26.5
1990	17	25	77.1	21	43.2
1989	12	45	131	31	7.15
1988	13	120	93.4	110	81.3
1987	3	140	530	90	102
1986	25	150		140	
1985	34	410		240	
1984	7	840		790	
Deadwood Creek					
1991	114	20	42.3	4.7	14.3
1990	122	32	187	15	77.4
1989	13	43	93.1	14	6.60
1988	14	54	63.9	47	52.9
1987	13	180	275	110	81.9
1986	26	65		36	
1985	35	670		350	
1984	4	920		1100	
Eagle Creek					
1991	15	66	262	36	73.6
1990	17	66	288	37	170
1989	12	410	405	343	210
1988	7	490	344	120	70.4
1987	1	920	1660	920	1660

Table 8 (cont). Mean and Median values for turbidity and total suspended solids from grab samples.

Site	number of samples	Turb	Mean TSS	Turb	Median TSS
Ketchem Creek					
1991	15	290	1300	240	524
1990	18	148	389	70	51.3
1989	13	190	725	157	501
1988	15	300	288	230	200
1987	12	620	463	520	304
1986	25	240		140	
1985	33	820		650	
1984	4	880		750	
Mammoth Creek					
1991	15	8.0	25.0	4.6	16.3
1990	17	19	40.2	15	10.5
1989	14	125	120	68	30.7
1988	15	260	463	200	179
1987	4	180	359	180	204
1986	117	290	620	250	310
1985	31	350		290	
1984	8	400		310	
Pedro Creek					
1991	13	22	11.4	14	8.46
1990	6	7.3	23.3	3.6	12.6
Porcupine Creek above Mammoth Creek					
1991	2	280	278	280	278
Ptarmigan Creek					
1991	15	1.2	4.56	0.7	0.79
1990	17	0.9	3.43	0.4	1.63
1989	11	1.2	2.26	1.1	1.89
1988	8	0.9	1.49	1.0	1.33
1987	1	1.4	11.7	1.4	11.7
Sourdough Creek					
1991	15	3.7	3.66	2.6	1.55
1990	16	1.9	4.68	1.4	2.82
1989	10	2.1	2.18	1.4	2.04
Twelve Mile Creek					
1991	15	0.7	1.98	0.6	0.78
1990	16	3.8	10.6	0.7	3.50
1989	11	1.8	7.24	0.9	0.85
1988	13	0.7	1.83	0.6	1.24
1987	4	0.6	3.87	0.6	2.20

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Appendii A

Bear Creek at Steese Highway Bridge

Daily Average Discharge • 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1		55.2	1.84	7.67	12.1
2		25.1	1.77	9.82	11.1
3		16.2	1.78	10.7	10.0
4		12.9	2.06	23.1	9.15
5		18.7	1.88	16.8	8.19
6		39.8	1.78	24.0	7.72
7		40.8	1.73	25.6	7.52
8		19.1	1.68	21.8	7.74
9		10.4	1.68	17.7	8.77
10		7.33	1.68	14.7	8.10
11		8.33	1.65	11.9	10.1
12		19.8	1.64	10.2	25.2
13		14.0	1.64	9.10	23.1
14		8.24	1.67	8.67	18.8
15		7.23	1.68	7.39	16.9
16		6.32	1.65	6.52	15.7
17		17.7	1.63	7.28	14.4
18		19.8	1.67	79.9	13.3
19		9.71	1.67	59.6	12.2
20		6.78	1.71	36.2	11.4
21		5.08	1.72	27.1	10.7
22	41.1	3.97	1.72	22.5	10.5
23	44.7	3.33	1.83	25.6	9.09
24	42.1	3.01	21.1	57.5	8.36
25	37.4	2.63	27.5	40.2	8.12
26	43.5	2.50	22.0	31.0	8.04
27	37.8	2.32	16.4	26.0	10.3
28	30.2	2.38	11.5	21.4	11.7
29	28.5	2.14	7.83	18.6	10.3
30	25.0	1.93	7.59	15.8	9.13
31	24.6		10.1	14.0	
Average	35.5	13.1	5.29	22.9	11.6

Season Average • 14.9 cfs

Peak Flow • 107 cfs on August 18

Appendix A (cont)

Birch Creek at Twelve Mile Creek

Daily Average Discharge - 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1		437	38.5	61.1	92.8
2		326	34.9	61.7	84.6
3		218	39.9	60.6	75.9
4		188	41.6	94.5	70.0
5		213	35.0	97.8	64.1
6		392	31.9	157	59.3
7		318	29.0	194	55.7
8		207	26.3	153	58.1
9		124	25.2	116	60.9
10		98.7	24.7	94.2	59.8
11		101	22.6	80.5	70.5
12		225	22.6	73.3	156
13		186	21.6	72.7	160
14		121	20.4	67.7	132
15		102	20.6	61.7	112
16		90.8	20.5	58.4	95.4
17		108	20.3	61.8	89.1
18		121	18.6	563	80.7
19		95.5	18.0	445	74.9
20		77.2	17.3	284	65.9
21		69.8	16.1	216	65.5
22		65.3	16.8	183	63.7
23	337	57.2	16.0	196	59.3
24	354	51.8	168	402	55.4
25	349	52.7	281	313	51.8
26	361	57.2	179	249	48.9
27	330	62.6	122	209	58.4
28	278	65.8	97.1	177	65.9
29	280	53.2	79.4	142	63.2
30	265	43.3	70.9	122	58.9
31	247		66.6	106	
Average	311	144	53.0	167	76.9

Season Average - 124 cfs

Peak Flow - 823 cfs on August 18

Appendix A (cont)

Birch Creek at Steese Highway Bridge

Daily Average Discharge • 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1		5530	1160	1470	1940
2		10900	1140	1420	1810
3		6510	1130	1320	1700
4		3910	1120	1290	1590
5		3020	1110	1900	1510
6		2740	1120	1930	1460
7		4190	1110	1980	1430
8		3940	1040	2380	1400
9		2780	1000	2310	1370
10		2150	964	1930	1360
11		1950	925	1690	1360
12		2140	894	1520	1350
13		3450	861	1410	1660
14		3160	825	1340	2500
15		2370	798	1300	2250
16		1950	764	1260	1980
17		1760	725	1230	1770
18		1630	701	1230	1630
19		1570	688	9090	1550
20		1490	681	12100	1470
21		1390	671	5540	1410
22		1340	665	3640	1370
23	5010	1290	663	2840	1350
24	4450	1390	651	3230	1320
25	4160	1440	649	8300	1270
26	4150	1380	1890	6180	1250
27	4900	1400	2000	4360	1250
28	4130	1450	1620	3370	1280
29	3350	1370	1750	2820	1360
30	3220	1260	1690	2470	1320
31	2890		1480	2180	
Average	4030	2700	1050	3070	1540

Season Average • 2220 cfs

Peak Flow • 16,300 cfs on August 20

Appendix A (cont)

Deadwood Creek at Circle Hot Springs Road

Daily Average Discharge • 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1		123	8.13	9.32	13.1
2		72.8	7.41	8.37	11.9
3		52.0	7.08	8.51	9.89
4		43.9	6.22	24.9	12.9
5		39.9	6.04	26.2	8.07
6		40.6	6.32	25.9	8.94
7		39.6	5.68	28.2	7.53
8		32.4	5.18	21.8	9.04
9		28.2	5.27	15.7	12.4
10		31.4	5.21	11.7	8.39
11		41.9	5.01	9.41	7.88
12		49.5	4.71	7.93	11.6
13		40.3	4.12	7.18	15.1
14		30.5	3.98	6.89	16.9
15		26.1	3.51	6.35	16.7
16		23.4	3.30	5.86	15.5
17		20.2	3.49	6.29	14.5
18		21.6	2.81	17.6	13.2
19		18.1	2.51	28.9	11.7
20		15.9	3.20	20.8	12.3
21		14.6	3.15	14.8	13.0
22		13.1	2.40	12.2	12.9
23		12.3	2.26	12.2	12.2
24	71.9	11.3	2.28	42.3	11.2
25	68.5	10.3	2.28	44.2	10.8
26	71.6	11.7	2.44	30.6	11.1
27	64.9	13.8	2.47	22.5	11.2
28	54.4	13.7	7.35	19.4	11.0
29	54.2	10.9	7.15	19.0	11.6
30	51.9	9.02	6.71	17.1	11.2
31	51.0		10.9	14.8	
Average	61.1	30.4	4.79	17.6	11.8

Season Average • 18.8 cfs

Peak Flow • 161 cfs on June 1

Appendix A (cont)

Faith Creek at Steese Highway Bridge

Daily Average Discharge • 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1		304	61.8	51.6	135
2		261	59.7	70.1	126
3		218	66.2	77.1	118
4		203	88.5	90.4	113
5		231	71.6	96.3	109
6		289	60.7	102	104
7		299	56.2	120	98.8
8		203	53.7	130	100
9		154	52.5	113	101
10		129	50.6	101	96.0
11		150	49.5	92.9	102
12		189	49.3	86.5	134
13		151	47.3	83.1	128
14		137	45.7	80.8	116
15		131	45.3	78.5	110
16		116	45.9	75.9	106
17		109	46.8	79.9	101
18		103	45.2	501	100
19		95.3	43.4	344	98.0
20		92.7	41.6	234	98.5
21		91.2	39.9	187	97.1
22		89.5	39.4	172	94.4
23		85.4	37.0	251	93.6
24	361	77.8	83.8	461	90.2
25	391	74.8	111	300	88.4
26	361	70.4	93.0	247	90.9
27	344	74.7	76.2	216	92.6
28	323	73.1	62.5	188	91.0
29	327	65.9	57.7	172	89.2
30	298	62.8	55.0	158	86.6
31	277		53.3	145	
Average	335	144	57.8	165	104

Season Average • 131 cfs

Peak Flow • 779 cfs on August 18

Appendix A(cont)

Gold Dust Creek (middle site)

Daily Average Discharge - 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1			8.64	15.2	14.2
2			8.18	14.1	12.7
3			8.06	14.4	11.6
4			7.71	16.1	10.6
5			6.88	16.3	9.56
6			6.65	23.1	8.88
7			6.12	30.4	8.01
8			4.98	27.5	8.11
9			4.91	22.7	8.12
10			4.58	19.6	7.71
11			3.82	17.2	8.44
12			3.72	17.1	13.9
13			2.99	18.2	17.0
14			3.30	17.1	18.0
15			2.78	16.9	16.7
16			2.85	15.8	15.8
17			2.58	16.2	14.3
18			1.96	15.1	13.4
19			1.89	92.3	12.0
20		18.9	1.69	48.4	11.0
21		18.4	1.46	32.5	10.1
22		17.2	1.35	25.8	10.0
23		15.5	1.32	28.9	9.43
24		14.1	28.0	88.2	8.33
25		15.6	37.5	62.0	7.98
26		16.9	26.4	42.7	8.15
27		14.6	24.0	32.3	9.86
28		13.4	22.2	26.3	10.7
29		11.8	18.8	21.9	10.4
30		10.2	17.2	18.6	9.69
31			16.6	16.3	
Average		15.1	9.32	32.4	11.2

Season Average - 17.4 cfs

Peak Flow - 239 cfs on August 18

Appendix A (cont)

Goldstream Creek at Trans-Alaska Pipeline crossing near Fox

Daily Average Discharge - 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1		47.0	26.3	19.7	25.9
2		49.9	26.2	23.0	24.9
3		45.1	26.7	24.5	24.9
4		41.8	28.1	22.9	23.9
5		39.8	27.0	22.6	24.0
6		42.8	24.5	23.8	26.3
7		58.0	23.2	25.2	25.1
8		52.5	22.5	29.9	24.6
9		44.6	22.2	28.0	25.7
10		41.4	22.9	26.0	25.1
11		39.6	22.6	24.4	30.7
12		38.7	22.1	23.6	51.1
13		36.9	30.1	23.4	42.8
14		36.0	26.1	23.5	36.2
15		34.8	23.6	22.2	33.4
16		34.4	22.9	21.8	31.4
17		32.7	23.5	24.4	30.6
18		31.8	22.1	54.1	29.7
19		31.3	21.2	63.2	29.0
20		30.2	20.9	45.9	28.5
21		29.4	20.4	37.5	28.1
22		28.3	20.0	32.5	27.5
23		27.6	19.1	32.9	27.3
24		27.0	19.0	36.0	26.6
25		26.2	21.4	32.4	25.8
26		26.1	22.4	31.1	26.1
27		28.9	25.1	29.9	25.9
28		32.9	24.3	27.8	24.8
29	44.2	28.0	22.5	28.2	24.7
30	43.0	27.2	21.6	27.9	24.3
31	42.6		20.3	26.2	
Average	43.3	36.4	23.2	29.5	28.5

Season Average - 29.7 cfs

Peak Flow - 93.5 cfs on August 18

AppendixA(cont)

Goldstream Creek at Standard Creek Road

Daily Average Discharge - 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1		188	103	74.6	76.5
2		186	101	72.8	75.3
3		186	104	73.4	75.1
4		181	122	74.9	75.3
5		171	121	80.0	73.4
6		162	113	80.0	72.7
7		160	108	82.6	74.0
8		164	102	86.1	73.9
9		176	93.8	90.2	75.9
10		172	90.5	89.9	77.8
11		158	86.9	88.1	77.5
12		150	84.9	81.5	87.8
13		144	86.2	77.2	108
14		139	84.6	75.5	142
15		136	86.2	73.5	150
16		132	86.0	73.5	130
17		129	87.0	73.7	115
18		127	86.0	80.6	106
19		124	84.0	123	99.7
20		120	80.2	130	96.0
21		117	76.2	148	93.8
22		114	72.9	126	91.9
23		112	71.0	109	90.2
24		108	70.5	103	87.7
25		106	72.6	97.5	85.3
26		104	73.2	96.0	82.7
27		104	79.5	90.4	81.6
28		104	81.1	85.0	79.8
29	217	103	82.7	82.2	78.7
30	210	108	83.5	79.7	76.8
31	199		78.7	77.3	
Average	209	139	88.8	89.6	90.3

Season Average - **104** cfs

Peak Flow - 218 cfs on May 29

Appendix A (cont)

Little Chena River at Chena Hot Springs Road (USGS Data)

Daily Average Discharge - 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1		577	260	259	462
2		754	266	245	442
3	1300	743	276	245	421
4	1500	643	323	242	405
5	2060	583	372	245	392
6	2430	559	331	258	394
7	2540	807	297	295	386
8	2500	805	275	362	374
9	2220	639	259	387	375
10	1880	565	251	360	377
11	1510	517	246	329	370
12	1250	494	238	303	463
13	1100	472	240	284	591
14	1050	446	253	274	563
15	1130	429	241	262	511
16	1090	417	237	256	470
17	1050	400	231	253	439
18	981	384	228	454	416
19	911	369	220	1460	400
20	857	355	214	1150	387
21	894	342	206	823	383
22	894	330	203	694	379
23	820	322	198	637	372
24	781	313	194	743	364
25	758	303	242	770	352
26	727	295	279	684	343
27	697	289	278	625	338
28	661	292	289	579	332
29	630	279	283	540	324
30	613	271	278	512	316
31	588	274	486		
Average	1221	467	257	484	405

Season Average - 560 cfs

Peak Flow - 2580 cfs on May 7

Appendix A (cont)

Prospect Creek at Dalton Highway

Daily Average Discharge • 1991 (cfs)

Date	May	Jun	Jul	Aug	Sep
1			52.2	86.3	72.8
2			62.5	101	69.1
3			102	254	63.6
4			133	260	60.3
5			103	197	56.7
6			76.2	169	52.5
7		228	64.5	161	48.5
8		212	54.4	151	46.1
9		181	45.4	148	46.7
10		153	43.4	134	47.4
11		128	43.7	127	47.4
12		123	40.6	136	48.7
13		113	42.8	188	50.2
14		107	46.8	194	49.0
15		111	46.7	182	45.8
16		120	48.1	160	43.4
17		112	53.9	144	
18		106	55.9	132	
19		96.2	56.2	119	
20		88.8	71.3	111	
21		84.5	81.0	101	
22		82.2	80.7	93.3	
23		82.5	73.0	98.2	
24		94.7	69.0	149	
25		88.3	205	146	
26		79.6	216	125	
27		80.7	159	110	
28		80.6	128	96.4	
29		69.8	108	88.5	
30		58.0	94.1	83.7	
31			84.7	78.8	
Average		112			53.0

Season Average • 102 cfs

Peak Flow • 336 cfs on August 3

Appendix B

Bear Creek above Steese Hwy Bridge

Daily Sediment Load ▪ 1991 (tons)

Date	May	Jun	Jul	Aug	Sep
1		9.58	0.01	0.05	0.14
2		0.38	0.02	0.02	0.08
3		0.16	0.04	0.04	1.33
4		0.26	0.01	0.09	0.64
5		0.08	0.02	0.28	0.07
6		0.71	0.05	0.18	0.03
7		0.67	0.05	0.22	0.07
8		0.18	0.05	0.37	0.09
9		0.11	0.06		0.09
10		0.05	0.09		0.06
11		0.07			0.05
12		0.18			0.52
13		0.18			0.55
14		0.29			0.24
15		0.07			0.33
16		0.00			1.09
17		0.21	0.01		0.34
18		0.25	0.01		0.53
19		0.14	0.01		0.14
20		0.33	0.01		0.05
21		0.09	0.01		0.05
22		0.14	0.01		0.17
23	4.18	0.04	0.01		0.06
24	2.85	0.03	0.50		0.04
25	0.78	0.03	0.42		0.34
26	1.14	0.02	0.17		0.19
27	0.83	0.02	0.25	0.31	0.10
28	0.52	0.03	0.07	0.29	0.06
29	1.09	0.01	0.06	1.02	0.53
30	0.32	0.02	0.03	0.58	0.75
31	0.11		0.07	0.29	
Total	11.8	14.3	2.04	3.73	8.74
Average	1.31	0.48	0.08	0.29	0.29

Season Total ▪ 40.6 tons

Season Average ▪ 0.38 tons/day

Appendix B (cont)

Birch Creek above Twelve Mile Creek

Daily Sediment Load - 1991 (tons)

Date	May	Jun	Jul	Aug	Sep
1		2670	1.71	1.20	9.50
2		1000	1.13	1.16	6.03
3		102	1.45	0.88	4.63
4		47.7	1.77	6.55	3.34
5		54.9	1.09	5.33	2.03
6		1690	1.00	18.6	2.79
7		362	0.63	51.2	3.79
8		80.3	0.45	18.0	2.69
9		15.0	0.29	6.12	2.25
10		10.0	0.49	2.15	1.58
11		11.3	0.26	3.83	1.86
12		189	0.14	1.36	64.1
13		49.2	2.67	1.42	34.6
14		15.3	0.30	4.51	14.7
15		11.2	0.29	1.20	9.04
16		14.3	0.26	0.86	11.9
17		22.7	0.32	0.78	8.76
18		23.9	0.15	8690	8.09
19		8.89	0.17	3730	4.74
20		6.50	0.19	941	3.02
21		3.02	0.17	175	1.84
22		2.49	0.17	92.3	2.66
23	187	2.58	0.20	86.5	1.54
24	322	2.98	297	1660	0.81
25	711	3.04	963	482	0.97
26	393	627	55.0	141	0.62
27	506	14.4	14.8	228	2.48
28	148	23.8	5.90	97.3	2.31
29	204	4.76	3.10	29.8	2.86
30	199	0.93	2.46	19.3	1.27
31	122		1.55	19.3	
Total	2790	7080	1360	16500	217
Average	310	236	43.8	533	7.23

Season Total - 28000 tons

Season Average - 213 tons/day

Appendix B (cont)

Birch Creek at Steese Hwy Bridge

Daily Sediment Load ▪ 1991 (tons)

Date	May	Jun	Jul	Aug	Sep
1		3860	22.9	42.0	456
2		15300	16.0	23.3	1350
3		3820	20.3	27.9	819
4		1090	16.0	17.7	523
5		459	34.7	128	327
6		308	23.6	280	264
7		1020	22.2	177	494
8		839	13.8	274	494
9		358	11.1	226	202
10		146	23.5	80.8	77.8
11		107	16.1	30.9	45.3
12		108	13.7	27.8	56.4
13		465	13.2	21.0	183
14		399	7.42	25.3	639
15		118	18.2	110	251
16		81.6	18.2	7.93	129
17		71.2	12.4	7.37	136
18		57.0	13.6	15.3	102
19		70.8	66.8	13400	75.3
20		65.9	12.2	9580	63.4
21		43.5	2.84	1530	78.0
22		37.6	3.87	537	
23	723	63.5	15.2	243	
24	515	85.5	5.68	387	
25	379	52.9	3.54	4750	
26	253	43.9	778	1670	
27	837	79.3	522	476	
28	551	44.6	57.4	220	
29	287	54.8		158	
30	263	34.6	130	157	
31	168		59.7	316	
Total	3980	29300	1970	35000	6760
Average	442	976	65.8	1130	322

Season Total ▪ 77000 tons

Season Average ▪ 636 tons/day

Appendix B(cont)

Deadwood Creek at Circle Hot Springs Road

Daily Sediment Load - 1991 (tons)

Date	May	Jun	Jul	Aug	Sep
1		111		0.17	0.20
2		124		0.11	0.13
3		17.3		0.12	0.08
4		7.84		5.13	21.3
5		3.16		2.36	2.67
6		3.76		1.47	6.62
7		3.05		1.67	0.39
8		1.48		0.64	0.04
9		1.40		0.57	4.58
10		1.30		0.35	0.43
11		7.93		0.51	0.42
12		3.96		0.22	0.68
13		1.20		0.13	0.96
14		1.76		0.11	0.93
15		0.60		0.14	0.96
16		0.55		0.07	0.47
17		0.48		0.08	0.57
18		0.39	0.06	1.02	0.59
19		0.38	0.02	1.59	0.39
20		0.29	0.01	0.70	0.46
21		0.34	0.03	0.36	0.98
22		0.26	0.02	0.30	2.18
23	29.3	0.23	0.01	0.38	1.04
24	23.6	0.03	0.03	8.53	1.04
25	20.0	0.14	0.03	5.51	0.86
26	17.8	1.03	0.02	1.40	2.80
27	15.1	0.38	0.03	0.89	0.79
28	9.73	0.33	0.14	0.68	0.77
29	16.2	0.24	0.17	2.21	1.68
30	6.08	0.10	0.08	0.93	0.45
31	5.23		0.29	0.45	
Total	143	296	0.94	38.8	55.4
Average	15.9	9.85	0.07	1.25	1.85

Season Total - 534 tons

Season Average - 4.68 tons/day

Appendix B (cont)

Faith Creek above Steese Hwy Bridge

Daily Sediment Load ▪ 1991 (tons)

Date	May	Jun	Jul	Aug	Sep
1		13.3	0.49	0.29	3.04
2		10.2		0.56	2.45
3		11.2		0.97	1.56
4		8.92	1.56	1.59	1.19
5		30.0	0.59	1.51	1.22
6		9.63	1.70	0.83	1.59
7		16.4		1.65	4.17
8		3.69		1.27	3.54
9		2.81		1.52	1.23
10		3.02		0.98	0.65
11		3.37		1.01	0.69
12		4.60		0.57	1.98
13		2.05		0.60	1.32
14		0.78		0.73	2.78
15		1.41		0.38	1.75
16		1.02		0.82	1.37
17		1.61	0.68	0.34	1.61
18		2.46	0.32	2.26	8.14
19		1.84	0.30	22.2	2.83
20		1.75	0.59	6.04	0.95
21		1.22	0.20	5.40	0.41
22		1.18	0.30	4.51	2.97
23		1.08	0.24	8.99	0.59
24	40.4	0.77	2.26	92.4	0.51
25	184	0.50	2.45	9.70	1.85
26	34.0	0.60	0.61	4.27	4.41
27	40.2	0.63	0.42	2.53	1.04
28	23.0	0.63	0.46	2.98	0.86
29	17.3	0.68	0.63	15.8	2.46
30	14.9	0.90	0.50	2.77	3.37
31	17.7		0.10	28.0	
Total	372	138	14.4	448	62.5
Average	46.4	4.61	0.76	14.4	2.08

Season Total ▪ 1030 tons

Season Average ▪ 8.77 tons/day

Appendix B (cont)

Gold Dust Creek (middle site)

Daily Sediment Load • 1991 (tons)

Date	May	Jun	Jul	Aug	Sep
1			0.17	0.07	1.10
2					0.40
3					0.20
4					0.13
5					0.10
6					0.05
7					0.12
8				0.34	0.07
9				0.16	0.10
10			0.09	0.12	0.04
11			0.03	0.09	0.04
12			0.02	0.12	0.40
13			0.02	0.08	0.44
14			0.01	0.07	0.57
15			0.02	0.07	0.36
16			0.01	0.08	0.17
17			0.01	0.13	0.09
18			0.00	1230	0.70
19			0.01	645	0.23
20		0.32	0.00		0.09
21		0.40	0.00		0.10
22		0.32	0.00		
23		0.58	0.00		
24		0.59	8.51		
25			3.90		
26		0.60	1.01		
27		0.48	0.51		
28		0.34	0.31	92.9	
29		0.40	0.23	6.40	
30		0.24	0.13	2.69	
31			0.14	4.19	
Total		4.28	15.2	1980	5.57
Average		0.43	0.66	117	0.27

Season Total • 2010 tons

Season Average • 28.3 tons/day

Appendix B (cont)

Goldstream Creek at Tram-Alaska Pipeline crossing near Fox

Daily Sediment Load - 1991 (tons)

Date	May	Jun	Jul	Aug	Sep
1		5.64	1.57	0.55	0.84
2		3.50	1.35	0.93	0.39
3		3.30	0.69	0.81	0.57
4		2.57	0.86	0.64	0.82
5		2.14	1.07	0.54	0.80
6		6.05	1.36	0.59	2.19
7		16.3	0.27	0.94	0.98
8		9.83	0.64	3.27	0.52
9		4.20	0.65	1.47	0.79
10		2.67	0.59	0.93	0.72
11		2.66	0.42	0.77	4.11
12		2.53	0.50	0.61	23.4
13		1.78	3.29	0.72	7.69
14		1.72	0.81	0.89	3.01
15		1.74	0.68	0.63	1.67
16		1.46	0.73	0.26	1.29
17		1.41	0.94	0.86	1.02
18		1.17	0.63	34.2	0.81
19		1.01	0.64	20.4	0.74
20		1.22	0.54	5.93	0.64
21		1.14	0.49	2.99	0.59
22		1.05	0.53	1.67	2.66
23		1.01	0.46	2.32	0.58
24		0.71	0.49	2.40	0.51
25		0.69	0.62	1.68	0.45
26		0.72	1.00	1.31	0.35
27		4.03	1.01	1.04	0.40
28		5.64	0.84	1.08	0.35
29	4.15	2.24	0.78	1.01	1.56
30	4.50	2.18	0.64	0.69	1.01
31	3.68		0.50	0.55	
Total	12.3	92.3	25.6	92.8	61.5
Average	4.11	3.08	0.83	2.99	2.05

Season Total - 284 tons

Season Average - 2.28 tons/day

Appendix B (cont)

Goldstream Creek at Standard Creek Road

Daily Sediment Load - 1991 (tons)

Date	May	Jun	Jul	Aug	Sep
1		33.5		1.87	
2		26.0		1.07	
3		29.8		1.77	
4		32.0		2.02	
5		26.6		1.69	1.36
6		18.2		1.08	0.90
7		20.3		1.39	0.50
8		23.0		1.83	1.31
9		12.8			1.09
10		30.9			0.65
11		26.8			0.55
12		32.3	2.26		1.73
13		22.3	1.77		
14		7.94	1.54		
15		9.49	1.26	1.89	
16		7.82	1.62	0.99	
17		7.67	1.90	1.18	
18		6.23	1.77	1.35	
19		6.12	1.16	3.82	
20		5.63	2.76	4.24	
21		8.84	2.36	6.90	
22		8.00	3.04	3.86	
23		8.08	1.85	3.16	
24		6.60	1.90	2.66	1.37
25		6.32	1.76	1.43	2.35
26		8.27	3.25	1.59	0.93
27		4.03	1.91	1.16	0.73
28		3.56	2.60	17.1	1.43
29			1.76		1.39
30	45.3		1.78		14.8
31	39.0		1.95		
Total	84.3	439	40.2	64.0	31.1
Average	42.1	15.7	2.01	2.91	2.07

Season Total - 659 tons

Season Average - 7.57 tons/day

Appendix B (cont)

Little Chena River at Chena Hot Springs Road

Daily Sediment Load - 1991 (tons)

Date	May	June	Jul	Aug	Sep
1		136	3.30	4.60	
2		212	3.15	8.16	
3		95.7	2.63	18.1	
4		110	10.0	7.00	
5		47.9	3.68	3.13	
6		18.7	4.31	2.64	
7		589	5.69	6.00	
8		9.02	3.80	16.3	
9		9.58	4.88	19.0	
10		16.4	8.31	7.83	
11		2.23	5.44	8.48	
12		2.54	3.61	6.88	
13		1490	4.50	6.77	
14		539	3.16	10.2	
15		1060	3.61	3.45	
16		821	3.31	5.12	40.5
17		15.1	3.52		31.3
18	490	15.5	6.15	108	21.5
19	573	8.83	9.94	4650	17.6
20	452	9.38	3.43	549	32.2
21	564	10.9	6.10	114	32.6
22	424	13.1	4.46	57.1	24.9
23	258	11.1	3.96		18.8
24	200	8.15	5.65		15.8
25	149	4.09	6.53		14.5
26	109	4.63	8.27		15.0
27	132	6.14	7.92		14.4
28	53.5	14.6	6.76		17.1
29	111	5.93	8.65		17.5
30	112	5.85	10.9		16.5
31	100		6.31		
Total	3730	5290	172	5610	330
Average	266	176	5.55	267	22.0

Season Total - 15100 tons

Season Average - 138 tons/day

Appendix B (cont)

Prospect Creek at the Dalton Hwy

Daily Sediment Load • 1991 (tons)

Date	May	Jun	Jul	Aug	Sep
1				4.94	
2				7.90	
3				48.0	
4				15.1	
5				10.9	
6				5.35	
7		7.28		5.06	
8		6.41		4.53	
9		2.68		3.50	
10		2.62		4.35	
11		1.99		4.54	
12		0.37		4.33	
13		0.29		5.96	
14		1.16		6.65	
15		0.89		5.07	
16		1.80		a.14	0.23
17		0.77		6.20	
18		0.28		3.18	
19		0.67		5.16	
20		1.53		4.92	
21		0.83		1.14	
22		0.32		1.79	
23		0.43	5.14	10.2	
24		0.68	6.71	2.57	
25		1.08	21.1	7.96	
26		0.69	19.5	23.7	
27		0.69	5.52		
28		1.07	5.67		
29		1.58	6.55		
30		0.85	4.81		
31			5.46		
Total		37.0	80.4	211	0.23
Average		1.54	8.94	8.12	0.23
Season Total • 329 tons					
Season Average • 5.48 tons/day					

Appendix C

Location	Date	Time	Turb	TSS
Bear Cr	23-May-91		2.6	34.7
Bear Cr	24-May-91		1.4	25.1
Bear Cr	25-May-91		1.4	7.69
Bear Cr	26-May-91		1.2	9.68
Bear Cr	27-May-91		1.1	8.13
Bear Cr	28-May-91		0.85	6.43
Bear Cr	29-May-91		0.95	14.2
Bear Cr	30-May-91		0.90	4.76
Bear Cr	31-May-91		0.80	1.61
Bear Cr	01-Jun-91		5.0	64.3
Bear Cr	02-Jun-91		1.3	5.67
Bear Cr	03-Jun-91		0.75	3.59
Bear Cr	04-Jun-91		1.0	7.62
Bear Cr	05-Jun-91		3.1	1.52
Bear Cr	06-Jun-91		1.4	6.58
Bear Cr	07-Jun-91		1.6	6.10
Bear Cr	08-Jun-91		2.4	3.54
Bear Cr	09-Jun-91		1.5	3.85
Bear Cr	10-Jun-91		1.4	2.34
Bear Cr	11-Jun-91		1.4	3.26
Bear Cr	12-Jun-91		1.3	3.33
Bear Cr	13-Jun-91		1.3	4.67
Bear Cr	14-Jun-91		1.4	12.9
Bear Cr	15-Jun-91		1.2	3.49
Bear Cr	16-Jun-91		1.1	0.23
Bear Cr	17-Jun-91		1.2	4.49
Bear Cr	18-Jun-91		1.7	4.73
Bear Cr	19-Jun-91		1.2	5.31
Bear Cr	20-Jun-91		2.1	18.0
Bear Cr	21-Jun-91		0.90	6.75
Bear Cr	22-Jun-91		1.3	12.8
Bear Cr	23-Jun-91		0.75	4.30
Bear Cr	24-Jun-91		1.1	3.17
Bear Cr	25-Jun-91		1.1	4.29
Bear Cr	26-Jun-91		1.5	2.47
Bear Cr	27-Jun-91		1.3	2.86
Bear Cr	28-Jun-91		1.1	4.65
Bear Cr	29-Jun-91		1.0	2.20
Bear Cr	30-Jun-91		0.80	2.99
Bear Cr	01-Jul-91		0.65	2.56
Bear Cr	02-Jul-91		1.5	5.16
Bear Cr	03-Jul-91		2.0	7.56
Bear Cr	04-Jul-91		1.7	2.37
Bear Cr	05-Jul-91		0.85	4.26
Bear Cr	06-Jul-91		3.3	9.47
Bear Cr	07-Jul-91		2.3	10.7
Bear Cr	08-Jul-91		2.3	10.3
Bear Cr	09-Jul-91		2.2	14.1

Appendix C (cont)

Location	Date	Time	Turb	TSS
Bear Cr	10-Jul-91		2.8	20.4
Bear Cr	17-Jul-91		1.9	2.86
Bear Cr	18-Jul-91		0.85	1.93
Bear Cr	19-Jul-91		1.0	2.76
Bear Cr	20-Jul-91		0.90	1.82
Bear Cr	21-Jul-91		1.1	1.80
Bear Cr	22-Jul-91		0.95	1.12
Bear Cr	23-Jul-91		1.4	2.07
Bear Cr	24-Jul-91		2.5	8.82
Bear Cr	25-Jul-91		1.8	5.60
Bear Cr	26-Jul-91		1.1	2.92
Bear Cr	27-Jul-91		2.7	5.63
Bear Cr	28-Jul-91		0.70	2.34
Bear Cr	29-Jul-91		1.8	2.61
Bear Cr	30-Jul-91		0.90	1.47
Bear Cr	31-Jul-91		1.0	2.45
Bear Cr	01-Aug-91		1.0	2.50
Bear Cr	02-Aug-91		0.65	0.85
Bear Cr	03-Aug-91		0.60	1.41
Bear Cr	04-Aug-91		0.95	1.40
Bear Cr	05-Aug-91		1.6	6.20
Bear Cr	06-Aug-91		1.2	2.83
Bear Cr	07-Aug-91		1.0	3.14
Bear Cr	08-Aug-91		1.6	6.27
Bear Cr	27-Aug-91		1.1	4.40
Bear Cr	29-Aug-91		1.7	5.00
Bear Cr	29-Aug-91		6.3	20.3
Bear Cr	30-Aug-91		3.3	13.6
Bear Cr	31-Aug-91		2.0	7.56
Bear Cr	01-Sep-91		1.1	4.35
Bear Cr	02-Sep-91		1.4	2.60
Bear Cr	03-Sep-91		4.9	49.2
Bear Cr	04-Sep-91		8.6	26.0
Bear Cr	05-Sep-91		0.90	3.23
Bear Cr	06-Sep-91		0.60	1.57
Bear Cr	07-Sep-91		2.0	3.47
Bear Cr	08-Sep-91		2.1	4.09
Bear Cr	09-Sep-91		1.0	3.92
Bear Cr	10-Sep-91		1.2	2.56
Bear Cr	11-Sep-91		0.90	1.75
Bear Cr	12-Sep-91		1.6	7.65
Bear Cr	13-Sep-91		1.8	8.80
Bear Cr	14-Sep-91		1.2	4.71
Bear Cr	15-Sep-91		0.80	7.20
Bear Cr	16-Sep-91		1.1	25.8
Bear Cr	17-Sep-91		8.0	8.63
Bear Cr	18-Sep-91		2.2	14.9
Bear Cr	19-Sep-91		1.7	4.23

Appendix C (cont)

Location	Date	Time	Turb	TSS
Bear Cr	20-Sep-91		1.1	1.78
Bear Cr	21-Sep-91		0.75	1.83
Bear Cr	22-Sep-91		1.5	5.95
Bear Cr	23-Sep-91		0.75	2.52
Bear Cr	24-Sep-91		1.4	1.85
Bear Cr	25-Sep-91		1.6	15.7
Bear Cr	26-Sep-91		6.3	8.82
Bear Cr	27-Sep-91		1.6	3.64
Bear Cr	28-Sep-91		0.70	1.96
Bear Cr	29-Sep-91		2.2	19.0
Bear Cr	30-Sep-91		6.5	30.6
Bear Cr	01-Oct-91		1.8	4.60
Bear Cr	02-Oct-91		1.1	3.59
Bear Cr	03-Oct-91		1.0	5.26
Birch Cr ab 12 Mile Cr	23-May-91		28	206
Birch Cr ab 12 Mile Cr	24-May-91		29	337
Birch Cr ab 12 Mile Cr	25-May-91		180	755
Birch Cr ab 12 Mile Cr	26-May-91		110	403
Birch Cr ab 12 Mile Cr	27-May-91		80	568
Birch Cr ab 12 Mile Cr	28-May-91		45	198
Birch Cr ab 12 Mile Cr	29-May-91		26	270
Birch Cr ab 12 Mile Cr	30-May-91		23	278
Birch Cr ab 12 Mile Cr	31-May-91		16	183
Birch Cr ab 12 Mile Cr	01-Jun-91		160	2260
Birch Cr ab 12 Mile Cr	02-Jun-91		240	1140
Birch Cr ab 12 Mile Cr	03-Jun-91		50	173
Birch Cr ab 12 Mile Cr	04-Jun-91		24	94.2
Birch Cr ab 12 Mile Cr	05-Jun-91		16	95.6
Birch Cr ab 12 Mile Cr	06-Jun-91		120	1600
Birch Cr ab 12 Mile Cr	07-Jun-91		10	422
Birch Cr ab 12 Mile Cr	08-Jun-91		13	144
Birch Cr ab 12 Mile Cr	09-Jun-91		17	44.8
Birch Cr ab 12 Mile Cr	10-Jun-91		22	37.6
Birch Cr ab 12 Mile Cr	11-Jun-91		25	41.4
Birch Cr ab 12 Mile Cr	12-Jun-91		26	311
Birch Cr ab 12 Mile Cr	13-Jun-91		18	97.9
Birch Cr ab 12 Mile Cr	14-Jun-91		16	46.9
Birch Cr ab 12 Mile Cr	15-Jun-91		36	40.5
Birch Cr ab 12 Mile Cr	16-Jun-91		24	58.2
Birch Cr ab 12 Mile Cr	17-Jun-91		25	77.6
Birch Cr ab 12 Mile Cr	18-Jun-91		21	88.8
Birch Cr ab 12 Mile Cr	19-Jun-91		12	34.5
Birch Cr ab 12 Mile Cr	20-Jun-91		7.9	31.2
Birch Cr ab 12 Mile Cr	21-Jun-91		9.0	16.0
Birch Cr ab 12 Mile Cr	22-Jun-91		4.6	14.1
Birch Cr ab 12 Mile Cr	23-Jun-91		10	16.7
Birch Cr ab 12 Mile Cr	24-Jun-91		6.0	21.4

Appendix C (cont)

Location	Date	Time	Turb	TSS
Birch Cr ab 12 Mile Cr	25-Jun-91		12	21.4
Birch Cr ab 12 Mile Cr	26-Jun-91		5200	4060
Birch Cr ab 12 Mile Cr	27-Jun-91		3300	85.1
Birch Cr ab 12 Mile Cr	28-Jun-91		50	134
Birch Cr ab 12 Mile Cr	29-Jun-91		15	33.2
Birch Cr ab 12 Mile Cr	30-Jun-91		5.3	7.92
Birch Cr ab 12 Mile Cr	01-Jul-91		4.0	16.5
Birch Cr ab 12 Mile Cr	02-Jul-91		4.5	12.0
Birch Cr ab 12 Mile Cr	03-Jul-91		6.2	13.5
Birch Cr ab 12 Mile Cr	04-Jul-91		5.7	15.8
Birch Cr ab 12 Mile Cr	05-Jul-91		5.8	11.5
Birch Cr ab 12 Mile Cr	06-Jul-91		2.0	11.6
Birch Cr ab 12 Mile Cr	07-Jul-91		2.3	8.00
Birch Cr ab 12 Mile Cr	08-Jul-91		2.0	6.40
Birch Cr ab 12 Mile Cr	09-Jul-91		1.9	4.31
Birch Cr ab 12 Mile Cr	10-Jul-91		1.8	7.40
Birch Cr ab 12 Mile Cr	11-Jul-91		1.2	4.31
Birch Cr ab 12 Mile Cr	12-Jul-91		1.1	2.29
Birch Cr ab 12 Mile Cr	13-Jul-91		1.2	45.9
Birch Cr ab 12 Mile Cr	14-Jul-91		1.3	5.37
Birch Cr ab 12 Mile Cr	15-Jul-91		1.3	5.19
Birch Cr ab 12 Mile Cr	16-Jul-91		1.3	4.67
Birch Cr ab 12 Mile Cr	17-Jul-91		1.1	5.94
Birch Cr ab 12 Mile Cr	18-Jul-91		1.2	3.06
Birch Cr ab 12 Mile Cr	19-Jul-91		1.2	3.40
Birch Cr ab 12 Mile Cr	20-Jul-91		0.85	4.00
Birch Cr ab 12 Mile Cr	21-Jul-91		1.6	3.84
Birch Cr ab 12 Mile Cr	22-Jul-91		0.90	3.80
Birch Cr ab 12 Mile Cr	23-Jul-91		1.1	4.55
Birch Cr ab 12 Mile Cr	24-Jul-91		160	656
Birch Cr ab 12 Mile Cr	25-Jul-91		190	1270
Birch Cr ab 12 Mile Cr	26-Jul-91		12	114
Birch Cr ab 12 Mile Cr	27-Jul-91		6.1	44.8
Birch Cr ab 12 Mile Cr	28-Jul-91		4.0	22.5
Birch Cr ab 12 Mile Cr	29-Jul-91		2.4	14.5
Birch Cr ab 12 Mile Cr	30-Jul-91		1.8	12.9
Birch Cr ab 12 Mile Cr	31-Jul-91		2.0	8.63
Birch Cr ab 12 Mile Cr	01-Aug-91		2.2	7.25
Birch Cr ab 12 Mile Cr	02-Aug-91		1.8	6.99
Birch Cr ab 12 Mile Cr	03-Aug-91		1.7	5.40
Birch Cr ab 12 Mile Cr	04-Aug-91		4.4	25.7
Birch Cr ab 12 Mile Cr	05-Aug-91		3.7	20.2
Birch Cr ab 12 Mile Cr	06-Aug-91		6.8	43.9
Birch Cr ab 12 Mile Cr	07-Aug-91		14	98.0
Birch Cr ab 12 Mile Cr	08-Aug-91		5.2	43.5
Birch Cr ab 12 Mile Cr	09-Aug-91		3.1	19.6
Birch Cr ab 12 Mile Cr	10-Aug-91		2.8	8.45
Birch Cr ab 12 Mile Cr	11-Aug-91		3.4	17.6

Appendix C (cont)

Location	Date	Time	Turb	TSS
Birch Cr ab 12 Mile Cr	12-Aug-91		2.8	6.86
Birch Cr ab 12 Mile Cr	13-Aug-91		1.9	7.25
Birch Cr ab 12 Mile Cr	14-Aug-91		3.7	24.7
Birch Cr ab 12 Mile Cr	15-Aug-91		2.6	7.18
Birch Cr ab 12 Mile Cr	16-Aug-91		2.4	5.44
Birch Cr ab 12 Mile Cr	17-Aug-91		2.0	4.71
Birch Cr ab 12 Mile Cr	18-Aug-91		1000	5720
Birch Cr ab 12 Mile Cr	19-Aug-91		500	3110
Birch Cr ab 12 Mile Cr	20-Aug-91		200	1230
Birch Cr ab 12 Mile Cr	21-Aug-91		55	300
Birch Cr ab 12 Mile Cr	22-Aug-91		14	187
Birch Cr ab 12 Mile Cr	23-Aug-91		25	163
Birch Cr ab 12 Mile Cr	24-Aug-91		230	1530
Birch Cr ab 12 Mile Cr	25-Aug-91		70	571
Birch Cr ab 12 Mile Cr	26-Aug-91		22	209
Birch Cr ab 12 Mile Cr	27-Aug-91		25	403
Birch Cr ab 12 Mile Cr	28-Aug-91		60	203
Birch Cr ab 12 Mile Cr	29-Aug-91		11	77.5
Birch Cr ab 12 Mile Cr	30-Aug-91		16	58.8
Birch Cr ab 12 Mile Cr	31-Aug-91		13	67.6
Birch Cr ab 12 Mile Cr	01-Sep-91		7.1	37.9
Birch Cr ab 12 Mile Cr	02-Sep-91		3.6	26.4
Birch Cr ab 12 Mile Cr	03-Sep-91		3.5	22.6
Birch Cr ab 12 Mile Cr	04-Sep-91		3.3	17.7
Birch Cr ab 12 Mile Cr	05-Sep-91		2.6	11.8
Birch Cr ab 12 Mile Cr	06-Sep-91		3.4	17.5
Birch Cr ab 12 Mile Cr	07-Sep-91		3.6	25.2
Birch Cr ab 12 Mile Cr	08-Sep-91		2.7	17.2
Birch Cr ab 12 Mile Cr	09-Sep-91		2.5	13.7
Birch Cr ab 12 Mile Cr	10-Sep-91		2.1	9.78
Birch Cr ab 12 Mile Cr	11-Sep-91		3.1	9.80
Birch Cr ab 12 Mile Cr	12-Sep-91		12	153
Birch Cr ab 12 Mile Cr	13-Sep-91		6.1	80.4
Birch Cr ab 12 Mile Cr	14-Sep-91		3.4	41.4
Birch Cr ab 12 Mile Cr	15-Sep-91		2.5	30.0
Birch Cr ab 12 Mile Cr	16-Sep-91		5.5	46.4
Birch Cr ab 12 Mile Cr	17-Sep-91		7.5	36.5
Birch Cr ab 12 Mile Cr	18-Sep-91		8.0	37.2
Birch Cr ab 12 Mile Cr	19-Sep-91		7.4	23.5
Birch Cr ab 12 Mile Cr	20-Sep-91		8.9	17.0
Birch Cr ab 12 Mile Cr	21-Sep-91		7.6	10.4
Birch Cr ab 12 Mile Cr	22-Sep-91		5.7	15.5
Birch Cr ab 12 Mile Cr	23-Sep-91		4.8	9.61
Birch Cr ab 12 Mile Cr	24-Sep-91		2.2	5.40
Birch Cr ab 12 Mile Cr	25-Sep-91		2.2	6.92
Birch Cr ab 12 Mile Cr	26-Sep-91		3.4	4.71
Birch Cr ab 12 Mile Cr	27-Sep-91		5.7	15.8
Birch Cr ab 12 Mile Cr	28-Sep-91		4.8	13.0

Appendix C (cont)

Location	Date	Time	Turb	TSS
Birch Cr ab 12 Mile Cr	29-Sep-91		5.3	16.8
Birch Cr ab 12 Mile Cr	30-Sep-91		3.1	8.00
Birch Cr ab 12 Mile Cr	01-Oct-91		8.3	10.5
Birch Cr ab 12 Mile Cr	02-Oct-91		3.6	9.58
Birch Cr ab 12 Mile Cr	03-Oct-91		21	45.0
Birch Cr ab 12 Mile Cr	04-Oct-91		5.4	14.2
Birch Cr ab 12 Mile Cr	05-Oct-91		6.7	7.58
Birch Cr ab 12 Mile Cr	06-Oct-91		9.1	9.70
Birch Cr at bridge	23-May-91		7.6	53.5
Birch Cr at bridge	24-May-91		6.6	42.9
Birch Cr at bridge	25-May-91		4.3	33.8
Birch Cr at bridge	26-May-91		4.4	22.6
Birch Cr at bridge	27-May-91		6.0	63.3
Birch Cr at bridge	28-May-91		5.7	49.4
Birch Cr at bridge	29-May-91		4.9	31.8
Birch Cr at bridge	30-May-91		3.6	30.2
Birch Cr at bridge	31-May-91		3.4	21.6
Birch Cr at bridge	01-Jun-91		18	259
Birch Cr at bridge	02-Jun-91		18	520
Birch Cr at bridge	03-Jun-91		25	217
Birch Cr at bridge	04-Jun-91		10	103
Birch Cr at bridge	05-Jun-91		5.3	56.4
Birch Cr at bridge	06-Jun-91		3.7	41.7
Birch Cr at bridge	07-Jun-91		6.4	90.4
Birch Cr at bridge	08-Jun-91		6.5	78.9
Birch Cr at bridge	09-Jun-91		4.8	47.7
Birch Cr at bridge	10-Jun-91		2.6	25.1
Birch Cr at bridge	11-Jun-91		3.0	20.4
Birch Cr at bridge	11-Jun-91	1235	3.4	18.4
Birch Cr at bridge	12-Jun-91		3.0	18.7
Birch Cr at bridge	13-Jun-91		6.3	50.0
Birch Cr at bridge	14-Jun-91		3.9	46.8
Birch Cr at bridge	15-Jun-91		3.5	18.5
Birch Cr at bridge	16-Jun-91		4.3	15.5
Birch Cr at bridge	17-Jun-91		3.1	15.0
Birch Cr at bridge	18-Jun-91		3.9	13.0
Birch Cr at bridge	19-Jun-91		3.7	16.7
Birch Cr at bridge	20-Jun-91		4.1	16.4
Birch Cr at bridge	21-Jun-91		2.6	11.6
Birch Cr at bridge	22-Jun-91		1.9	10.4
Birch Cr at bridge	23-Jun-91		2.7	18.3
Birch Cr at bridge	24-Jun-91		5.1	22.8
Birch Cr at bridge	25-Jun-91		3.5	13.6
Birch Cr at bridge	26-Jun-91		4.4	11.8
Birch Cr at bridge	27-Jun-91		3.5	21.0
Birch Cr at bridge	28-Jun-91		2.0	11.4
Birch Cr at bridge	29-Jun-91		3.5	14.8

Appendix C (cont)

Location	Date	Time	Turb	TSS
Birch Cr at bridge	30-Jun-91		4.4	10.2
Birch Cr at bridge	01-Jul-91		3.3	7.33
Birch Cr at bridge	02-Jul-91		1.8	5.20
Birch Cr at bridge	03-Jul-91		3.0	6.67
Birch Cr at bridge	04-Jul-91		2.6	5.29
Birch Cr at bridge	05-Jul-91		3.0	11.6
Birch Cr at bridge	06-Jul-91		2.6	7.80
Birch Cr at bridge	07-Jul-91		1.4	7.40
Birch Cr at bridge	08-Jul-91		2.2	4.90
Birch Cr at bridge	09-Jul-91		1.6	4.12
Birch Cr at bridge	10-Jul-91		2.4	9.02
Birch Cr at bridge	11-Jul-91		2.0	6.46
Birch Cr at bridge	12-Jul-91		2.0	5.69
Birch Cr at bridge	13-Jul-91		1.6	5.69
Birch Cr at bridge	14-Jul-91		1.9	3.33
Birch Cr at bridge	15-Jul-91		1.6	8.43
Birch Cr at bridge	16-Jul-91		2.4	8.85
Birch Cr at bridge	17-Jul-91		1.6	6.32
Birch Cr at bridge	18-Jul-91		2.7	7.20
Birch Cr at bridge	19-Jul-91		2.1	36.0
Birch Cr at bridge	20-Jul-91		2.4	6.67
Birch Cr at bridge	21-Jul-91		1.4	1.57
Birch Cr at bridge	22-Jul-91		1.6	2.16
Birch Cr at bridge	23-Jul-91		2.5	8.48
Birch Cr at bridge	24-Jul-91		1.2	3.23
Birch Cr at bridge	25-Jul-91		1.2	2.02
Birch Cr at bridge	26-Jul-91		24	153
Birch Cr at bridge	27-Jul-91		30	96.7
Birch Cr at bridge	28-Jul-91		5.8	13.1
Birch Cr at bridge	29-Jul-91		5.1	27.0
Birch Cr at bridge	30-Jul-91		8.5	28.5
Birch Cr at bridge	31-Jul-91		4.1	15.0
Birch Cr at bridge	01-Aug-91		3.5	10.6
Birch Cr at bridge	02-Aug-91		3.9	6.08
Birch Cr at bridge	03-Aug-91		3.6	7.84
Birch Cr at bridge	04-Aug-91		3.1	5.10
Birch Cr at bridge	05-Aug-91		7.1	24.9
Birch Cr at bridge	06-Aug-91		14	53.7
Birch Cr at bridge	07-Aug-91		8.6	33.1
Birch Cr at bridge	08-Aug-91		7.9	42.6
Birch Cr at bridge	09-Aug-91		5.1	36.2
Birch Cr at bridge	10-Aug-91		4.8	15.5
Birch Cr at bridge	11-Aug-91		2.5	6.77
Birch Cr at bridge	12-Aug-91		2.5	6.77
Birch Cr at bridge	13-Aug-91		2.8	5.52
Birch Cr at bridge	14-Aug-91		3.8	7.00
Birch Cr at bridge	15-Aug-91		3.0	31.3
Birch Cr at bridge	16-Aug-91		2.7	2.33

Appendix C (cont)

Location	Date	Time	Turb	TSS
Birch Cr at bridge	17-Aug-91		2.2	2.22
Birch Cr at bridge	18-Aug-91		2.7	4.62
Birch Cr at bridge	19-Aug-91		100	547
Birch Cr at bridge	20-Aug-91		80	293
Birch Cr at bridge	21-Aug-91		23	102
Birch Cr at bridge	22-Aug-91		12	54.7
Birch Cr at bridge	23-Aug-91		5.9	31.7
Birch Cr at bridge	24-Aug-91		6.3	44.4
Birch Cr at bridge	25-Aug-91		35	212
Birch Cr at bridge	26-Aug-91		23	100
Birch Cr at bridge	27-Aug-91		11	40.5
Birch Cr at bridge	28-Aug-91		5.7	24.1
Birch Cr at bridge	29-Aug-91		6.1	20.8
Birch Cr at bridge	30-Aug-91		5.1	23.6
Birch Cr at bridge	31-Aug-91		17	53.8
Birch Cr at bridge	01-Sep-91		9.5	87.1
Birch Cr at bridge	02-Sep-91		25	276
Birch Cr at bridge	03-Sep-91		20	178
Birch Cr at bridge	04-Sep-91		12	122
Birch Cr at bridge	05-Sep-91		11	80.3
Birch Cr at bridge	06-Sep-91		9.2	67.0
Birch Cr at bridge	07-Sep-91		22	128
Birch Cr at bridge	08-Sep-91		12	131
Birch Cr at bridge	09-Sep-91		8.1	54.8
Birch Cr at bridge	10-Sep-91		3.9	21.2
Birch Cr at bridge	11-Sep-91		4.8	12.4
Birch Cr at bridge	12-Sep-91		4.6	15.5
Birch Cr at bridge	13-Sep-91		6.9	40.8
Birch Cr at bridge	14-Sep-91		16	94.8
Birch Cr at bridge	15-Sep-91		11	41.3
Birch Cr at bridge	16-Sep-91		7.1	24.2
Birch Cr at bridge	17-Sep-91		38	28.5
Birch Cr at bridge	18-Sep-91		7.5	23.1
Birch Cr at bridge	19-Sep-91		4.7	18.0
Birch Cr at bridge	20-Sep-91		6.1	16.0
Birch Cr at bridge	21-Sep-91		6.7	20.5
Deadwood Cr	23-May-91		6.1	149
Deadwood Cr	24-May-91		7.3	121
Deadwood Cr	25-May-91		7.9	108
Deadwood Cr	X-May-91		7.1	92.1
Deadwood Cr	27-May-91		6.5	86.0
Deadwood Cr	28-May-91		7.2	66.3
Deadwood Cr	29-May-91		7.0	111
Deadwood Cr	30-May-91		6.5	43.5
Deadwood Cr	31-May-91		5.7	38.0
Deadwood Cr	01-Jun-91		190	336
Deadwood Cr	02-Jun-91		20	632

Appendix C (cont)

Location	Date	Time	Turb	TSS
Deadwood Cr	03-Jun-91		6.7	124
Deadwood Cr	04-Jun-91		4.7	66.3
Deadwood Cr	05-Jun-91		4.5	29.4
Deadwood Cr	06-Jun-91		2.1	34.3
Deadwood Cr	07-Jun-91		2.2	28.6
Deadwood Cr	08-Jun-91		2.0	16.9
Deadwood Cr	09-Jun-91		1.8	18.5
Deadwood Cr	10-Jun-91		1.7	15.3
Deadwood Cr	11-Jun-91		2.5	70.1
Deadwood Cr	12-Jun-91		2.4	29.7
Deadwood Cr	12-Jun-91	1030	7.8	83.4
Deadwood Cr	13-Jun-91		2.1	11.0
Deadwood Cr	14-Jun-91		2.3	21.4
Deadwood Cr	15-Jun-91		2.6	8.51
Deadwood Cr	16-Jun-91		3.0	8.70
Deadwood Cr	17-Jun-91		2.6	8.87
Deadwood Cr	18-Jun-91		2.1	6.70
Deadwood Cr	19-Jun-91		2.5	7.83
Deadwood Cr	20-Jun-91		5.7	6.67
Deadwood Cr	21-Jun-91		2.3	8.51
Deadwood Cr	22-Jun-91		2.2	7.45
Deadwood Cr	23-Jun-91		2.0	7.08
Deadwood Cr	24-Jun-91		1.3	1.10
Deadwood Cr	25-Jun-91		2.2	5.21
Deadwood Cr	26-Jun-91		5.4	32.4
Deadwood Cr	27-Jun-91		2.2	10.2
Deadwood Cr	28-Jun-91		1.9	8.87
Deadwood Cr	29-Jun-91		2.7	8.13
Deadwood Cr	30-Jun-91		1.4	3.96
Deadwood Cr	18-Jul-91		3.8	8.44
Deadwood Cr	19-Jul-91		1.7	3.61
Deadwood Cr	20-Jul-91		1.3	1.67
Deadwood Cr	21-Jul-91		1.6	3.48
Deadwood Cr	22-Jul-91		1.7	3.24
Deadwood Cr	23-Jul-91		1.5	1.76
Deadwood Cr	24-Jul-91		1.2	4.93
Deadwood Cr	25-Jul-91		1.7	4.14
Deadwood Cr	26-Jul-91		1.7	3.16
Deadwood Cr	27-Jul-91		1.9	5.12
Deadwood Cr	28-Jul-91		3.0	7.03
Deadwood Cr	29-Jul-91		2.7	8.64
Deadwood Cr	30-Jul-91		2.3	4.26
Deadwood Cr	31-Jul-91		3.4	9.68
Deadwood Cr	01-Aug-91		2.2	6.88
Deadwood Cr	02-Aug-91		2.2	4.95
Deadwood Cr	03-Aug-91		2.6	5.10
Deadwood Cr	04-Aug-91		2.3	76.4
Deadwood Cr	05-Aug-91		11	33.4

Appendix C (cont)

Location	Date	Time	Turb	TSS
Deadwood Cr	06-Aug-91		4.6	21.0
Deadwood Cr	07-Aug-91		4.1	22.0
Deadwood Cr	08-Aug-91		4.1	10.9
Deadwood Cr	09-Aug-91		4.0	13.5
Deadwood Cr	10-Aug-91		4.1	11.0
Deadwood Cr	11-Aug-91		7.7	20.0
Deadwood Cr	12-Aug-91		4.9	10.2
Deadwood Cr	13-Aug-91		3.4	6.82
Deadwood Cr	14-Aug-91		3.7	6.00
Deadwood Cr	15-Aug-91		2.6	8.18
Deadwood Cr	16-Aug-91		2.1	4.52
Deadwood Cr	17-Aug-91		2.5	4.58
Deadwood Cr	18-Aug-91		5.3	21.6
Deadwood Cr	19-Aug-91		4.9	20.4
Deadwood Cr	20-Aug-91		4.3	12.5
Deadwood Cr	21-Aug-91		6.7	8.98
Deadwood Cr	22-Aug-91		8.6	9.17
Deadwood Cr	23-Aug-91		10	11.7
Deadwood Cr	24-Aug-91		21	74.7
Deadwood Cr	25-Aug-91		15	46.2
Deadwood Cr	26-Aug-91		7.1	17.0
Deadwood Cr	27-Aug-91		6.0	14.7
Deadwood Cr	28-Aug-91		5.5	12.9
Deadwood Cr	29-Aug-91		26	43.3
Deadwood Cr	30-Aug-91		11	20.2
Deadwood Cr	31-Aug-91		4.8	11.3
Deadwood Cr	01-Sep-91		3.7	5.51
Deadwood Cr	02-Sep-91		2.5	4.08
Deadwood Cr	03-Sep-91		2.8	3.06
Deadwood Cr	04-Sep-91		450	612
Deadwood Cr	05-Sep-91		110	122
Deadwood Cr	06-Sep-91		170	274
Deadwood Cr	07-Sep-91		26	19.0
Deadwood Cr	08-Sep-91		38	1.52
Deadwood Cr	09-Sep-91		95	137
Deadwood Cr	10-Sep-91		34	18.9
Deadwood Cr	11-Sep-91		31	19.6
Deadwood Cr	12-Sep-91		45	21.6
Deadwood Cr	13-Sep-91		38	23.6
Deadwood Cr	14-Sep-91		33	20.3
Deadwood Cr	15-Sep-91		26	21.2
Deadwood Cr	16-Sep-91		14	11.2
Deadwood Cr	17-Sep-91		21	14.6
Deadwood Cr	18-Sep-91		17	16.5
Deadwood Cr	19-Sep-91		11	12.2
Deadwood Cr	20-Sep-91		20	13.9
Deadwood Cr	21-Sep-91		45	28.0
Deadwood Cr	22-Sep-91		60	63.0

Appendix C (cont)

Location	Date	Time	Turb	TSS
Deadwood Cr	23-Sep-91		35	31.7
Deadwood Cr	24-Sep-91		50	34.4
Deadwood Cr	25-Sep-91		55	29.4
Deadwood Cr	26-Sep-91		65	93.8
Deadwood Cr	27-Sep-91		45	26.1
Deadwood Cr	28-Sep-91		38	26.1
Deadwood Cr	29-Sep-91		50	53.3
Deadwood Cr	30-Sep-91		32	14.9
Deadwood Cr	01-Oct-91		45	78.3
Deadwood Cr	02-Oct-91		40	17.4
Deadwood Cr	03-Oct-91		40	43.1
Deadwood Cr	04-Oct-91		32	8.85
Deadwood Cr	05-Oct-91		13	10.9
Faith Cr	24-May-91		4.9	41.5
Faith Cr	25-May-91		18	175
Faith Cr	26-May-91		7.3	34.8
Faith Cr	27-May-91		4.8	43.3
Faith Cr	28-May-91		3.1	26.3
Faith Cr	29-May-91		3.2	19.6
Faith Cr	30-May-91		3.0	18.5
Faith Cr	31-May-91		1.1	23.7
Faith Cr	01-Jun-91		1.2	16.3
Faith Cr	02-Jun-91		2.1	14.5
Faith Cr	03-Jun-91		1.3	19.1
Faith Cr	04-Jun-91		2.3	16.3
Faith Cr	05-Jun-91		2.1	48.2
Faith Cr	06-Jun-91		2.3	12.4
Faith Cr	07-Jun-91		2.4	20.4
Faith Cr	08-Jun-91		1.6	6.76
Faith Cr	09-Jun-91		1.4	6.76
Faith Cr	10-Jun-91		1.4	8.67
Faith Cr	11-Jun-91		2.0	8.33
Faith Cr	12-Jun-91		1.5	9.01
Faith Cr	13-Jun-91		1.0	5.02
Faith Cr	14-Jun-91		1.4	2.12
Faith Cr	15-Jun-91		1.1	3.99
Faith Cr	16-Jun-91		1.0	3.26
Faith Cr	17-Jun-91		1.2	5.48
Faith Cr	18-Jun-91		1.3	8.81
Faith Cr	19-Jun-91		1.3	7.14
Faith Cr	20-Jun-91		1.7	6.98
Faith Cr	21-Jun-91		2.2	4.95
Faith Cr	22-Jun-91		2.0	4.87
Faith Cr	23-Jun-91		1.8	4.71
Faith Cr	24-Jun-91		2.0	3.66
Faith Cr	25-Jun-91		1.1	2.50
Faith Cr	26-Jun-91		1.0	3.18

Appendix C (cont)

Location	Date	Time	Turb	TSS
Faith Cr	27-Jun-91		1.3	3.11
Faith Cr	28-Jun-91		1.2	3.18
Faith Cr	29-Jun-91		0.95	3.81
Faith Cr	30-Jun-91		1.3	5.29
Faith Cr	01-Jul-91		1.7	2.95
Faith Cr	04-Jul-91		11	6.52
Faith Cr	05-Jul-91		1.3	3.04
Faith Cr	06-Jul-91		1.6	10.4
Faith Cr	17-Jul-91		3.4	5.37
Faith Cr	18-Jul-91		1.5	2.62
Faith Cr	19-Jul-91		0.95	2.59
Faith Cr	20-Jul-91		2.5	5.24
Faith Cr	21-Jul-91		1.7	1.86
Faith Cr	22-Jul-91		1.3	2.82
Faith Cr	23-Jul-91		1.6	2.41
Faith Cr	24-Jul-91		2.8	10.0
Faith Cr	25-Jul-91		3.8	8.17
Faith Cr	26-Jul-91		1.6	2.44
Faith Cr	27-Jul-91		1.5	2.05
Faith Cr	28-Jul-91		1.9	2.73
Faith Cr	29-Jul-91		2.2	4.04
Faith Cr	30-Jul-91		2.4	3.37
Faith Cr	31-Jul-91		2.6	0.68
Faith Cr	01-Aug-91		2.0	2.07
Faith Cr	02-Aug-91		2.4	2.95
Faith Cr	03-Aug-91		2.8	4.67
Faith Cr	04-Aug-91		3.6	6.52
Faith Cr	05-Aug-91		2.2	5.81
Faith Cr	06-Aug-91		2.3	3.01
Faith Cr	07-Aug-91		2.6	5.11
Faith Cr	08-Aug-91		2.3	3.62
Faith Cr	09-Aug-91		3.1	5.00
Faith Cr	10-Aug-91		3.5	3.60
Faith Cr	11-Aug-91		3.8	4.04
Faith Cr	12-Aug-91		4.1	2.44
Faith Cr	13-Aug-91		3.3	2.67
Faith Cr	14-Aug-91		3.2	3.33
Faith Cr	15-Aug-91		2.8	1.78
Faith Cr	16-Aug-91		5.9	4.00
Faith Cr	17-Aug-91		4.6	1.56
Faith Cr	18-Aug-91		19	167
Faith Cr	19-Aug-91			24.0
Faith Cr	20-Aug-91			9.59
Faith Cr	21-Aug-91			10.7
Faith Cr	22-Aug-91			9.70
Faith Cr	23-Aug-91			13.3
Faith Cr	24-Aug-91			74.3
Faith Cr	25-Aug-91			12.0

Appendix C (cont)

Location	Date	Time	Turb	TSS
Faith Cr	26-Aug-91			6.40
Faith Cr	27-Aug-91		2.5	4.35
Faith Cr	28-Aug-91		3.2	5.87
Faith Cr	29-Aug-91		4.8	33.9
Faith Cr	30-Aug-91		2.8	6.52
Faith Cr	31-Aug-91		111	71.5
Faith Cr	01-Sep-91		5.2	8.33
Faith Cr	02-Sep-91		5.0	7.21
Faith Cr	03-Sep-91		4.5	4.88
Faith Cr	04-Sep-91		4.7	3.91
Faith Cr	05-Sep-91		4.3	4.14
Faith Cr	06-Sep-91		5.4	5.68
Faith Cr	07-Sep-91		5.9	15.7
Faith Cr	08-Sep-91		4.9	13.2
Faith Cr	09-Sep-91		2.2	4.55
Faith Cr	10-Sep-91		3.1	2.50
Faith Cr	11-Sep-91		3.4	2.50
Faith Cr	12-Sep-91		5.0	5.49
Faith Cr	13-Sep-91		4.2	3.82
Faith Cr	14-Sep-91		5.6	8.86
Faith Cr	15-Sep-91		7.7	5.91
Faith Cr	16-Sep-91		7.7	4.77
Faith Cr	17-Sep-91		8.8	5.91
Faith Cr	18-Sep-91		6.2	30.2
Faith Cr	19-Sep-91		2.9	10.7
Faith Cr	20-Sep-91		3.0	3.59
Faith Cr	21-Sep-91		2.6	1.56
Faith Cr	22-Sep-91		2.7	11.7
Faith Cr	23-Sep-91		1.5	2.34
Faith Cr	24-Sep-91		1.5	2.11
Faith Cr	25-Sep-91		2.6	7.78
Faith Cr	26-Sep-91		6.1	18.0
Faith Cr	27-Sep-91		2.1	4.16
Faith Cr	28-Sep-91		2.3	3.51
Faith Cr	29-Sep-91		3.8	10.2
Faith Cr	30-Sep-91		2.6	14.4
Faith Cr	01-Oct-91		2.6	6.25
Gold Dust Cr	20-Jun-91		4.9	6.29
Gold Dust Cr	21-Jun-91		2.2	8.16
Gold Dust Cr	22-Jun-91		1.8	6.89
Gold Dust Cr	23-Jun-91		1.9	13.8
Gold Dust Cr	24-Jun-91		2.2	15.5
Gold Dust Cr	26-Jun-91		2.8	13.1
Gold Dust Cr	27-Jun-91		2.2	12.2
Gold Dust Cr	28-Jun-91		4.1	9.52
Gold Dust Cr	29-Jun-91		3.3	12.6
Gold Dust Cr	30-Jun-91		5.1	8.72

Appendix C (cont)

Location	Date	Time	Turb	TSS
Gold Dust Cr	01-Jul-91		2.9	7.49
Gold Dust Cr	10-Jul-91		1.6	7.41
Gold Dust Cr	11-Jul-91		1.4	2.47
Gold Dust Cr	12-Jul-91		1.2	2.44
Gold Dust Cr	13-Jul-91		1.1	2.03
Gold Dust Cr	14-Jul-91		1.4	1.46
Gold Dust Cr	15-Jul-91		1.7	2.72
Gold Dust Cr	16-Jul-91		0.85	1.71
Gold Dust Cr	17-Jul-91		0.75	1.79
Gold Dust Cr	18-Jul-91		0.75	0.93
Gold Dust Cr	19-Jul-91		0.80	1.36
Gold Dust Cr	20-Jul-91		1.1	0.70
Gold Dust Cr	21-Jul-91		1.0	1.18
Gold Dust Cr	22-Jul-91		1.0	1.18
Gold Dust Cr	23-Jul-91		0.80	0.24
Gold Dust Cr	24-Jul-91		16	113
Gold Dust Cr	25-Jul-91		3.6	38.6
Gold Dust Cr	26-Jul-91		1.8	14.1
Gold Dust Cr	27-Jul-91		1.5	7.87
Gold Dust Cr	28-Jul-91		1.4	5.16
Gold Dust Cr	29-Jul-91		1.2	4.62
Gold Dust Cr	30-Jul-91		1.1	2.83
Gold Dust Cr	31-Jul-91		1.2	3.11
Gold Dust Cr	01-Aug-91		1.1	1.81
Gold Dust Cr	08-Aug-91			4.55
Gold Dust Cr	09-Aug-91			2.58
Gold Dust Cr	10-Aug-91		1.3	2.27
Gold Dust Cr	11-Aug-91		1.9	2.02
Gold Dust Cr	12-Aug-91		1.6	2.70
Gold Dust Cr	13-Aug-91		1.5	1.56
Gold Dust Cr	14-Aug-91		2.3	1.56
Gold Dust Cr	15-Aug-91		1.8	1.57
Gold Dust Cr	16-Aug-91		1.8	1.76
Gold Dust Cr	17-Aug-91		2.5	3.01
Gold Dust Cr	18-Aug-91		600	3030
Gold Dust Cr	19-Aug-91		290	2590
Gold Dust Cr	28-Aug-91		65	1310
Gold Dust Cr	29-Aug-91		8.8	108
Gold Dust Cr	30-Aug-91		2.9	53.5
Gold Dust Cr	31-Aug-91		19	95.0
Gold Dust Cr	01-Sep-91		3.3	28.9
Gold Dust Cr	02-Sep-91		1.7	11.9
Gold Dust Cr	03-Sep-91		1.3	6.45
Gold Dust Cr	CM-Sep-91		1.6	4.69
Gold Dust Cr	OS-Sep-91		1.6	4.00
Gold Dust Cr	06-Sep-91		1.0	1.93
Gold Dust Cr	07-Sep-91		1.5	5.48
Gold Dust Cr	08-Sep-91		1.9	3.00

Appendix C (cont)

Location	Date	Time	Turb	TSS
Gold Dust Cr	09-Sep-91		1.2	4.52
Gold Dust Cr	10-Sep-91		1.1	1.90
Gold Dust Cr	11-Sep-91		1.3	1.69
Gold Dust Cr	12-Sep-91		2.2	10.7
Gold Dust Cr	13-Sep-91		1.7	9.53
Gold Dust Cr	14-Sep-91		1.7	11.9
Gold Dust Cr	15-Sep-91		1.7	8.05
Gold Dust Cr	16-Sep-91		1.8	3.96
Gold Dust Cr	17-Sep-91		1.3	2.33
Gold Dust Cr	18-Sep-91		3.2	19.3
Gold Dust Cr	19-Sep-91		1.7	8.76
Gold Dust Cr	20-Sep-91		1.4	3.11
Gold Dust Cr	21-Sep-91		1.5	3.72
Goldstream Cr at Fox	30-May-91		12	80.0
Goldstream Cr at Fox	31-May-91		12	72.4
Goldstream Cr at Fox	01-Jun-91		14	66.1
Goldstream Cr at Fox	02-Jun-91		12	51.9
Goldstream Cr at Fox	03-Jun-91		12	59.5
Goldstream Cr at Fox	04-Jun-91		14	65.3
Goldstream Cr at Fox	05-Jun-91		9.7	57.6
Goldstream Cr at Fox	06-Jun-91		9.6	41.6
Goldstream Cr at Fox	07-Jun-91		9.2	46.9
Goldstream Cr at Fox	08-Jun-91		9.4	52.0
Goldstream Cr at Fox	09-Jun-91		8.9	27.0
Goldstream Cr at Fox	10-Jun-91		7.4	66.8
Goldstream Cr at Fox	11-Jun-91		8.8	62.8
Goldstream Cr at Fox	12-Jun-91		8.2	80.0
Goldstream Cr at Fox	13-Jun-91		5.4	57.6
Goldstream Cr at Fox	14-Jun-91		1.2	21.1
Goldstream Cr at Fox	15-Jun-91		4.0	26.0
Goldstream Cr at Fox	16-Jun-91		4.3	22.0
Goldstream Cr at Fox	17-Jun-91		3.2	22.1
Goldstream Cr at Fox	18-Jun-91		4.1	18.3
Goldstream Cr at Fox	19-Jun-91		4.3	18.3
Goldstream Cr at Fox	20-Jun-91		3.1	17.4
Goldstream Cr at Fox	21-Jun-91		1.7	27.9
Goldstream Cr at Fox	22-Jun-91		1.9	26.0
Goldstream Cr at Fox	23-Jun-91		3.5	26.8
Goldstream Cr at Fox	24-Jun-91		4.2	22.6
Goldstream Cr at Fox	25-Jun-91		4.9	22.2
Goldstream Cr at Fox	26-Jun-91		2.7	29.5
Goldstream Cr at Fox	27-Jun-91		3.9	14.4
Goldstream Cr at Fox	28-Jun-91		4.3	12.7
Goldstream Cr at Fox	12-Jul-91		4.4	9.87
Goldstream Cr at Fox	13-Jul-91		4.1	7.59
Goldstream Cr at Fox	14-Jul-91		4.2	6.75
Goldstream Cr at Fox	15-Jul-91		3.9	5.43

Appendix C (cont)

Location	Date	Time	Turb	TSS
Goldstream Cr at Fox	16-Jul-91		4.9	6.99
Goldstream Cr at Fox	17-Jul-91		6.0	8.10
Goldstream Cr at Fox	18-Jul-91		5.3	7.62
Goldstream Cr at Fox	19-Jul-91		4.6	5.12
Goldstream Cr at Fox	20-Jul-91		7.1	12.8
Goldstream Cr at Fox	21-Jul-91		5.9	11.5
Goldstream Cr at Fox	22-Jul-91		3.3	15.5
Goldstream Cr at Fox	23-Jul-91		2.8	9.67
Goldstream Cr at Fox	24-Jul-91		3.3	10.0
Goldstream Cr at Fox	25-Jul-91		3.1	8.99
Goldstream Cr at Fox	26-Jul-91		3.2	16.5
Goldstream Cr at Fox	27-Jul-91		2.0	8.89
Goldstream Cr at Fox	28-Jul-91		4.0	11.9
Goldstream Cr at Fox	29-Jul-91		3.1	7.89
Goldstream Cr at Fox	30-Jul-91		2.3	7.89
Goldstream Cr at Fox	31-Jul-91		3.1	9.17
Goldstream Cr at Fox	01-Aug-91		6.6	9.30
Goldstream Cr at Fox	02-Aug-91		3.6	5.43
Goldstream Cr at Fox	03-Aug-91		5.8	8.96
Goldstream Cr at Fox	04-Aug-91		3.7	10.0
Goldstream Cr at Fox	05-Aug-91		4.0	7.84
Goldstream Cr at Fox	06-Aug-91		4.4	5.00
Goldstream Cr at Fox	07-Aug-91		7.0	6.23
Goldstream Cr at Fox	08-Aug-91		3.3	7.88
Goldstream Cr at Fox	15-Aug-91		4.2	9.51
Goldstream Cr at Fox	16-Aug-91		3.3	5.00
Goldstream Cr at Fox	17-Aug-91		4.2	5.94
Goldstream Cr at Fox	18-Aug-91		3.1	6.20
Goldstream Cr at Fox	19-Aug-91		4.6	11.5
Goldstream Cr at Fox	20-Aug-91		4.6	12.0
Goldstream Cr at Fox	21-Aug-91		5.5	17.2
Goldstream Cr at Fox	22-Aug-91		5.9	11.4
Goldstream Cr at Fox	23-Aug-91		7.2	10.8
Goldstream Cr at Fox	24-Aug-91		5.3	9.52
Goldstream Cr at Fox	25-Aug-91		3.7	5.45
Goldstream Cr at Fox	26-Aug-91		3.7	6.15
Goldstream Cr at Fox	27-Aug-91		3.7	4.74
Goldstream Cr at Fox	28-Aug-91		25	74.5
Goldstream Cr at Fox	05-Sep-91		4.6	6.87
Goldstream Cr at Fox	06-Sep-91		4.5	4.62
Goldstream Cr at Fox	07-Sep-91		3.4	2.48
Goldstream Cr at Fox	08-Sep-91		2.7	6.56
Goldstream Cr at Fox	09-Sep-91		3.0	5.33
Goldstream Cr at Fox	10-Sep-91		3.0	3.08
Goldstream Cr at Fox	11-Sep-91		2.8	2.65
Goldstream Cr at Fox	12-Sep-91		2.0	7.32
Goldstream Cr at Fox	24-Sep-91		3.7	5.80
Goldstream Cr at Fox	25-Sep-91		3.9	10.2

Appendix C (cont)

Location	Date	Time	Turb	TSS
Goldstream Cr at Fox	26-Sep-91		3.1	4.18
Goldstream Cr at Fox	27-Sep-91		3.2	3.33
Goldstream Cr at Fox	28-Sep-91		3.3	6.67
Goldstream Cr at Fox	29-Sep-91		4.0	6.54
Goldstream Cr at Fox	30-Sep-91		6.2	71.3
Goldstream Cr at Fox	01-Oct-91		3.1	4.00
Goldstream Cr at Fox	02-Oct-91		11	15.0
Goldstream Cr at Std Cr Rd	29-May-91		3.4	34.9
Goldstream Cr at Std Cr Rd	30-May-91		2.5	38.8
Goldstream Cr at Std Cr Rd	31-May-91		1.9	32.0
Goldstream Cr at Std Cr Rd	01-Jun-91		3.2	44.4
Goldstream Cr at Std Cr Rd	02-Jun-91		3.3	26.0
Goldstream Cr at Std Cr Rd	03-Jun-91		4.2	27.1
Goldstream Cr at Std Cr Rd	04-Jun-91		5.2	22.8
Goldstream Cr at Std Cr Rd	05-Jun-91		4.4	19.9
Goldstream Cr at Std Cr Rd	06-Jun-91		6.7	52.4
Goldstream Cr at Std Cr Rd	07-Jun-91		7.8	104
Goldstream Cr at Std Cr Rd	08-Jun-91		7.5	69.4
Goldstream Cr at Std Cr Rd	09-Jun-91		4.5	34.8
Goldstream Cr at Std Cr Rd	10-Jun-91		3.0	23.9
Goldstream Cr at Std Cr Rd	11-Jun-91		2.5	24.9
Goldstream Cr at Std Cr Rd	12-Jun-91		3.5	24.2
Goldstream Cr at Std Cr Rd	13-Jun-91		3.5	17.9
Goldstream Cr at Std Cr Rd	14-Jun-91		5.3	17.7
Goldstream Cr at Std Cr Rd	15-Jun-91		5.5	18.5
Goldstream Cr at Std Cr Rd	16-Jun-91		4.1	15.7
Goldstream Cr at Std Cr Rd	17-Jun-91		4.6	16.0
Goldstream Cr at Std Cr Rd	18-Jun-91		3.2	13.6
Goldstream Cr at Std Cr Rd	19-Jun-91		3.6	11.9
Goldstream Cr at Std Cr Rd	20-Jun-91		5.3	15.0
Goldstream Cr at Std Cr Rd	21-Jun-91		5.0	14.3
Goldstream Cr at Std Cr Rd	22-Jun-91		5.6	13.7
Goldstream Cr at Std Cr Rd	23-Jun-91		4.3	13.6
Goldstream Cr at Std Cr Rd	24-Jun-91		4.6	9.78
Goldstream Cr at Std Cr Rd	25-Jun-91		3.3	9.78
Goldstream Cr at Std Cr Rd	26-Jun-91		3.3	10.2
Goldstream Cr at Std Cr Rd	27-Jun-91		15	51.8
Goldstream Cr at Std Cr Rd	28-Jun-91		21	63.6
Goldstream Cr at Std Cr Rd	29-Jun-91		19	29.6
Goldstream Cr at Std Cr Rd	30-Jun-91		13	29.7
Goldstream Cr at Std Cr Rd	01-Jul-91		7.3	22.1
Goldstream Cr at Std Cr Rd	02-Jul-91		7.1	19.2
Goldstream Cr at Std Cr Rd	03-Jul-91		6.1	9.56
Goldstream Cr at Std Cr Rd	04-Jul-91		4.5	11.3
Goldstream Cr at Std Cr Rd	05-Jul-91		6.2	14.7
Goldstream Cr at Std Cr Rd	06-Jul-91		4.5	20.6
Goldstream Cr at Std Cr Rd	07-Jul-91		5.3	4.40

Appendix C (cont)

Location	Date	Time	Turb	TSS
Goldstream Cr at Std Cr Rd	08-Jul-91		4.5	10.6
Goldstream Cr at Std Cr Rd	09-Jul-91		4.5	10.8
Goldstream Cr at Std Cr Rd	10-Jul-91		5.0	9.59
Goldstream Cr at Std Cr Rd	11-Jul-91		4.1	6.88
Goldstream Cr at Std Cr Rd	12-Jul-91		4.4	8.42
Goldstream Cr at Std Cr Rd	13-Jul-91		12	40.6
Goldstream Cr at Std Cr Rd	14-Jul-91		4.7	11.5
Goldstream Cr at Std Cr Rd	15-Jul-91		4.4	10.7
Goldstream Cr at Std Cr Rd	16-Jul-91		3.1	11.8
Goldstream Cr at Std Cr Rd	17-Jul-91		4.3	14.9
Goldstream Cr at Std Cr Rd	18-Jul-91		4.4	10.6
Goldstream Cr at Std Cr Rd	19-Jul-91		3.5	11.1
Goldstream Cr at Std Cr Rd	20-Jul-91		3.5	9.59
Goldstream Cr at Std Cr Rd	21-Jul-91		3.6	8.98
Goldstream Cr at Std Cr Rd	22-Jul-91		3.7	9.80
Goldstream Cr at Std Cr Rd	23-Jul-91		3.6	8.96
Goldstream Cr at Std Cr Rd	24-Jul-91		4.1	9.60
Goldstream Cr at Std Cr Rd	25-Jul-91		4.3	10.8
Goldstream Cr at Std Cr Rd	26-Jul-91		5.6	16.5
Goldstream Cr at Std Cr Rd	27-Jul-91		4.2	14.9
Goldstream Cr at Std Cr Rd	28-Jul-91		5.4	12.8
Goldstream Cr at Std Cr Rd	29-Jul-91		6.1	12.9
Goldstream Cr at Std Cr Rd	30-Jul-91		5.1	11.0
Goldstream Cr at Std Cr Rd	31-Jul-91		3.9	9.18
Goldstream Cr at Std Cr Rd	01-Aug-91		3.9	10.4
Goldstream Cr at Std Cr Rd	02-Aug-91		5.2	14.9
Goldstream Cr at Std Cr Rd	03-Aug-91		6.0	12.2
Goldstream Cr at Std Cr Rd	04-Aug-91		4.2	10.4
Goldstream Cr at Std Cr Rd	05-Aug-91		4.7	8.80
Goldstream Cr at Std Cr Rd	06-Aug-91		4.1	9.20
Goldstream Cr at Std Cr Rd	07-Aug-91		5.5	13.9
Goldstream Cr at Std Cr Rd	08-Aug-91		14	40.6
Goldstream Cr at Std Cr Rd	09-Aug-91		7.5	19.5
Goldstream Cr at Std Cr Rd	10-Aug-91		8.2	13.3
Goldstream Cr at Std Cr Rd	11-Aug-91		5.9	11.8
Goldstream Cr at Std Cr Rd	12-Aug-91		4.3	9.61
Goldstream Cr at Std Cr Rd	13-Aug-91		4.6	11.5
Goldstream Cr at Std Cr Rd	14-Aug-91		7.7	14.0
Goldstream Cr at Std Cr Rd	15-Aug-91		5.2	10.5
Goldstream Cr at Std Cr Rd	16-Aug-91		4.0	4.40
Goldstream Cr at Std Cr Rd	17-Aug-91		6.2	13.1
Goldstream Cr at Std Cr Rd	18-Aug-91		50	234
Goldstream Cr at Std Cr Rd	19-Aug-91		26	120
Goldstream Cr at Std Cr Rd	20-Aug-91		11	47.9
Goldstream Cr at Std Cr Rd	21-Aug-91		10	29.5
Goldstream Cr at Std Cr Rd	22-Aug-91		8.3	19.0
Goldstream Cr at Std Cr Rd	23-Aug-91		10	26.1
Goldstream Cr at Std Cr Rd	24-Aug-91		12	24.7

Appendix C (cont)

Location	Date	Time	Turb	TSS
Goldstream Cr at Std Cr Rd	25-Aug-91		15	19.2
Goldstream Cr at Std Cr Rd	26-Aug-91		15	15.6
Goldstream Cr at Std Cr Rd	27-Aug-91		13	12.9
Goldstream Cr at Std Cr Rd	28-Aug-91		14	14.5
Goldstream Cr at Std Cr Rd	29-Aug-91		11	13.3
Goldstream Cr at Std Cr Rd	30-Aug-91		9.2	9.22
Goldstream Cr at Std Cr Rd	31-Aug-91		7.5	7.84
Goldstream Cr at Std Cr Rd	01-Sep-91		6.1	12.1
Goldstream Cr at Std Cr Rd	02-Sep-91		5.3	5.74
Goldstream Cr at Std Cr Rd	03-Sep-91		5.9	8.53
Goldstream Cr at Std Cr Rd	04-Sep-91		5.7	12.7
Goldstream Cr at Std Cr Rd	05-Sep-91		5.3	12.4
Goldstream Cr at Std Cr Rd	06-Sep-91		5.0	30.9
Goldstream Cr at Std Cr Rd	07-Sep-91		5.0	14.5
Goldstream Cr at Std Cr Rd	08-Sep-91		4.6	7.92
Goldstream Cr at Std Cr Rd	09-Sep-91		6.8	11.4
Goldstream Cr at Std Cr Rd	10-Sep-91		4.5	10.7
Goldstream Cr at Std Cr Rd	11-Sep-91		11	49.6
Goldstream Cr at Std Cr Rd	12-Sep-91		38	170
Goldstream Cr at Std Cr Rd	13-Sep-91		16	66.6
Goldstream Cr at Std Cr Rd	14-Sep-91		10	30.9
Goldstream Cr at Std Cr Rd	15-Sep-91		6.3	18.5
Goldstream Cr at Std Cr Rd	16-Sep-91		9.6	15.2
Goldstream Cr at Std Cr Rd	17-Sep-91		6.8	12.4
Goldstream Cr at Std Cr Rd	18-Sep-91		4.7	10.1
Goldstream Cr at Std Cr Rd	19-Sep-91		4.2	9.50
Goldstream Cr at Std Cr Rd	20-Sep-91		5.3	8.32
Goldstream Cr at Std Cr Rd	21-Sep-91		5.4	7.80
Goldstream Cr at Std Cr Rd	22-Sep-91		11	35.8
Goldstream Cr at Std Cr Rd	23-Sep-91		5.2	7.92
Goldstream Cr at Std Cr Rd	24-Sep-91		5.1	7.06
Goldstream Cr at Std Cr Rd	25-Sep-91		4.6	6.47
Goldstream Cr at Std Cr Rd	26-Sep-91		4.2	4.96
Goldstream Cr at Std Cr Rd	27-Sep-91		3.9	5.66
Goldstream Cr at Std Cr Rd	28-Sep-91		3.9	5.17
Goldstream Cr at Std Cr Rd	29-Sep-91		11	23.3
Goldstream Cr at Std Cr Rd	30-Sep-91		6.4	15.4
Goldstream Cr at Std Cr Rd	01-Oct-91		4.1	6.73
Goldstream Cr at Std Cr Rd	02-Oct-91		7.9	45.3
Goldstream Cr at Std Cr Rd	03-Oct-91		7.8	27.7
Little Chena R	18-May-91		23	185
Little Chena R	19-May-91		13	233
Little Chena R	20-May-91		18	196
Little Chena R	21-May-91		16	234
Little Chena R	22-May-91		12	176
Little Chena R	23-May-91		12	117
Little Chena R	24-May-91		6.9	94.8

Appendix C (cont)

Location	Date	Time	Turb	TSS
Little Chena R	25-May-91		2.1	72.8
Little Chena R	26-May-91		4.6	55.8
Little Chena R	27-May-91		5.6	70.1
Little Chena R	B-May-91		5.9	30.0
Little Chena R	29-May-91		4.3	65.6
Little Chena R	30-May-91		4.3	68.0
Little Chena R	31-May-91		3.5	63.2
Little Chena R	01-Jun-91		2.9	87.6
Little Chena R	02-Jun-91		4.1	104
Little Chena R	03-Jun-91		2.5	47.7
Little Chena R	04-Jun-91		3.4	62.7
Little Chena R	05-Jun-91		3.8	30.4
Little Chena R	06-Jun-91		3.9	12.4
Little Chena R	07-Jun-91		13	271
Little Chena R	08-Jun-91		12	4.16
Little Chena R	09-Jun-91		6.6	5.56
Little Chena R	10-Jun-91		4.1	10.8
Little Chena R	11-Jun-91		6.6	1.60
Little Chena R	12-Jun-91		6.6	1.90
Little Chena R	13-Jun-91		8.1	1170
Little Chena R	14-Jun-91		6.5	448
Little Chena R	15-Jun-91		6.3	913
Little Chena R	16-Jun-91		7.3	730
Little Chena R	17-Jun-91		5.1	14.0
Little Chena R	18-Jun-91		6.0	14.9
Little Chena R	19-Jun-91		3.2	8.87
Little Chena R	20-Jun-91		5.5	9.80
Little Chena R	21-Jun-91		5.2	11.8
Little Chena R	22-Jun-91		6.6	14.8
Little Chena R	23-Jun-91		6.3	12.7
Little Chena R	24-Jun-91		7.6	9.65
Little Chena R	25-Jun-91		4.5	5.00
Little Chena R	26-Jun-91		3.9	5.82
Little Chena R	27-Jun-91		5.1	7.88
Little Chena R	28-Jun-91		4.0	18.6
Little Chena R	29-Jun-91		3.8	7.88
Little Chena R	30-Jun-91		6.8	8.00
Little Chena R	01-Jul-91		5.4	4.71
Little Chena R	02-Jul-91		4.8	4.39
Little Chena R	03-Jul-91		3.6	3.54
Little Chena R	04-Jul-91		2.6	11.5
Little Chena R	05-Jul-91		2.5	3.67
Little Chena R	06-Jul-91		3.6	4.82
Little Chena R	07-Jul-91		4.4	7.11
Little Chena R	08-Jul-91		4.9	5.13
Little Chena R	09-Jul-91		4.7	6.99
Little Chena R	10-Jul-91		3.7	12.3
Little Chena R	11-Jul-91		4.8	8.19

Appendix C (cont)

Location	Date	Time	Turb	TSS
Little Chena R	12-Jul-91		6.3	5.62
Little Chena R	13-Jul-91		6.2	6.96
Little Chena R	14-Jul-91		4.1	4.63
Little Chena R	15-Jul-91		3.9	5.56
Little Chena R	16-Jul-91		5.4	5.18
Little Chena R	17-Jul-91		4.7	5.64
Little Chena R	18-Jul-91		8.1	10.0
Little Chena R	19-Jul-91		9.8	16.8
Little Chena R	20-Jul-91		7.0	5.95
Little Chena R	21-Jul-91		6.2	11.0
Little Chena R	22-Jul-91		6.2	8.15
Little Chena R	23-Jul-91		8.2	7.42
Little Chena R	24-Jul-91		12	10.8
Little Chena R	25-Jul-91		9.5	10.0
Little Chena R	26-Jul-91		8.5	11.0
Little Chena R	27-Jul-91		11	10.6
Little Chena R	28-Jul-91		9.6	8.67
Little Chena R	29-Jul-91		12	11.3
Little Chena R	30-Jul-91		6.5	14.6
Little Chena R	31-Jul-91		5.5	8.54
Little Chena R	01-Aug-91		5.0	6.59
Little Chena R	02-Aug-91		7.0	12.3
Little Chena R	03-Aug-91		4.6	27.4
Little Chena R	04-Aug-91		4.7	10.7
Little Chena R	05-Aug-91		3.1	4.74
Little Chena R	06-Aug-91		4.2	3.80
Little Chena R	07-Aug-91		4.6	7.54
Little Chena R	08-Aug-91		21	16.7
Little Chena R	09-Aug-91		4.8	18.2
Little Chena R	10-Aug-91		7.4	8.06
Little Chena R	11-Aug-91		9.7	9.56
Little Chena R	12-Aug-91		5.2	8.41
Little Chena R	13-Aug-91		5.8	8.84
Little Chena R	14-Aug-91		7.8	13.8
Little Chena R	15-Aug-91		9.9	4.88
Little Chena R	16-Aug-91		7.1	7.41
Little Chena R	17-Aug-91			
Little Chena R	18-Aug-91		21	88.0
Little Chena R	19-Aug-91		14	1180
Little Chena R	20-Aug-91		45	177
Little Chena R	21-Aug-91		18	51.2
Little Chena R	22-Aug-91		11	30.5
Little Chena R	16-Sep-91		30	31.9
Little Chena R	17-Sep-91		21	26.4
Little Chena R	18-Sep-91		12	19.2
Little Chena R	19-Sep-91		19	16.3
Little Chena R	20-Sep-91		27	30.9
Little Chena R	21-Sep-91		20	31.5

Appendix C (cont)

Location	Date	Time	Turb	TSS
Little Chena R	22-Sep-91		23	24.4
Little Chena R	23-Sep-91		16	18.8
Little Chena R	24-Sep-91		16	16.1
Little Chena R	25-Sep-91		15	15.3
Little Chena R	26-Sep-91		19	16.2
Little Chena R	27-Sep-91		17	15.8
Little Chena R	28-Sep-91		18	19.1
Little Chena R	29-Sep-91		23	20.0
Little Chena R	30-Sep-91		22	19.4
Little Chena R	01-Oct-91		19	21.3
Little Chena R	02-Oct-91		25	27.3
Little Chena R	03-Oct-91		22	24.7
Little Chena R	04-Oct-91		17	21.9
Little Chena R	05-Oct-91		15	20.5
Little Chena R	06-Oct-91		23	17.7
Little Chena R	07-Oct-91		20	15.2
Little Chena R	08-Oct-91			
Prospect Cr	07-Jun-91		2.7	11.9
Prospect Cr	08-Jun-91		3.3	11.2
Prospect Cr	09-Jun-91		1.6	5.49
Prospect Cr	10-Jun-91		1.6	6.36
Prospect Cr	11-Jun-91		0.80	5.78
Prospect Cr	12-Jun-91		1.0	1.11
Prospect Cr	13-Jun-91		1.0	0.93
Prospect Cr	14-Jun-91		0.95	4.03
Prospect Cr	15-Jun-91		0.65	2.95
Prospect Cr	16-Jun-91		0.75	5.58
Prospect Cr	17-Jun-91		0.65	2.53
Prospect Cr	18-Jun-91		0.50	0.98
Prospect Cr	19-Jun-91		0.75	2.59
Prospect Cr	20-Jun-91		0.80	6.38
Prospect Cr	21-Jun-91		0.60	3.64
Prospect Cr	22-Jun-91		0.70	1.43
Prospect Cr	23-Jun-91		0.60	1.95
Prospect Cr	24-Jun-91		0.85	2.67
Prospect Cr	25-Jun-91		0.80	4.55
Prospect Cr	26-Jun-91		1.1	3.22
Prospect Cr	27-Jun-91		0.90	3.16
Prospect Cr	28-Jun-91		3.2	4.94
Prospect Cr	29-Jun-91		2.5	8.41
Prospect Cr	30-Jun-91		3.0	5.45
Prospect Cr	23-Jul-91		3.9	26.1
Prospect Cr	24-Jul-91		3.4	36.1
Prospect Cr	25-Jul-91		8.8	38.2
Prospect Cr	26-Jul-91		7.8	33.3
Prospect Cr	27-Jul-91		2.1	12.9
Prospect Cr	28-Jul-91		2.3	16.4

Appendix C (cont)

Location		Date	Time	Turb	TSS
Prospect	Cr	29-Jul-91		3.1	22.4
Prospect	Cr	30-Jul-91		2.2	18.9
Prospect	Cr	31-Jul-91		3.9	23.9
Prospect	Cr	01-Aug-91		1.6	21.2
Prospect	Cr	02-Aug-91		2.1	29.1
Prospect	Cr	03-Aug-91		4.1	70.1
Prospect	Cr	04-Aug-91		1.8	21.6
Prospect	Cr	05-Aug-91		5.0	20.5
Prospect	Cr	06-Aug-91		1.5	11.7
Prospect	Cr	07-Aug-91		2.2	11.7
Prospect	Cr	08-Aug-91		2.5	11.1
Prospect	Cr	09-Aug-91		2.0	8.78
Prospect	Cr	10-Aug-91		2.2	12.0
Prospect	Cr	11-Aug-91		2.0	13.2
Prospect	Cr	12-Aug-91		2.2	11.8
Prospect	Cr	13-Aug-91		3.0	11.7
Prospect	Cr	14-Aug-91		3.7	12.7
Prospect	Cr	15-Aug-91		4.1	10.3
Prospect	Cr	16-Aug-91		3.5	18.9
Prospect	Cr	17-Aug-91		6.2	16.0
Prospect	Cr	18-Aug-91		4.4	8.93
Prospect	Cr	19-Aug-91		6.3	16.1
Prospect	Cr	20-Aug-91		11	16.4
Prospect	Cr	21-Aug-91		5.7	4.17
Prospect	Cr	22-Aug-91		6.0	7.12
Prospect	Cr	23-Aug-91		9.2	38.6
Prospect	Cr	24-Aug-91		5.7	6.41
Prospect	Cr	25-Aug-91		26	20.2
Prospect	Cr	26-Aug-91		110	70.3
Prospect	Cr	16-Sep-91	1310	2.2	2.00

Appendix D

Location	Date	Time	Turb	TSS	Comments
Albert Cr	23-May-91	1442	1.1	0.76	At Steese Highway
Albert Cr	06-Jun-91	1400	3.4	37.6	
Albert Cr	11-Jun-91	1655	1.0	2.39	
Albert Cr	27-Jun-91	1935	3.0	13.3	
Albert Cr	01-Jul-91	2120	2.2	0.40	
Albert Cr	01-Aug-91	820	0.60	0.21	
Albert Cr	06-Aug-91	1630	1.2	0.20	
Albert Cr	28-Aug-91	1142	3.4	16.8	
Albert Cr	09-Sep-91	1755	0.55	0.00	
Albert Cr	10-Sep-91	1450	0.60	0.31	
Albert Cr	19-Sep-91	1430	0.45	0.30	
Bedrock Cr	23-May-91	1509	0.85	6.59	At Steese Highway
Bedrock Cr	06-Jun-91	1426	1.2	6.19	
Bedrock Cr	12-Jun-91	1145	1.2	1.97	
Bedrock Cr	20-Jun-91	1931	0.75	4.54	
Bedrock Cr	27-Jun-91	2010	3.7	8.89	
Bedrock Cr	02-Jul-91	1150	8.7	2.04	
Bedrock Cr	10-Jul-91	1815	1.2	0.52	
Bedrock Cr	18-Jul-91	1225	0.85	2.00	
Bedrock Cr	01-Aug-91	1100	0.65	0.79	
Bedrock Cr	05-Aug-91	2038	1.2	3.77	
Bedrock Cr	16-Aug-91	853	0.50	0.81	
Bedrock Cr	28-Aug-91	1228	6.0	62.9	
Bedrock Cr	09-Sep-91	1508	0.65	0.20	
Bedrock Cr	10-Sep-91	1710	0.50	0.51	
Bedrock Cr	19-Sep-91	1522	0.45	0.98	
Boulder Cr	23-May-91	1459	6.4	59.7	At Steese Highway
Boulder Cr	06-Jun-91	1415	3.2	10.9	
Boulder Cr	12-Jun-91	1345	2.2	21.9	
Boulder Cr	20-Jun-91	1920	1.5	4.38	
Boulder Cr	27-Jun-91	2000	60	121	
Boulder Cr	02-Jul-91	1130	0.50	0.41	
Boulder Cr	10-Jul-91	1800	1.9	0.73	
Boulder Cr	18-Jul-91	1210	1.2	0.98	
Boulder Cr	01-Aug-91	1015	0.50	0.30	
Boulder Cr	08-Aug-91	2030	0.95	0.61	
Boulder Cr	16-Aug-91	810	0.70	0.80	
Boulder Cr	28-Aug-91	1215	0.70	3.57	
Boulder Cr	09-Sep-91	1520	0.75	0.20	
Boulder Cr	10-Sep-91	1650	0.30	0.20	
Boulder Cr	19-Sep-91	1513	0.35	0.29	
Chatauka R	24-May-91	1257	4.6	15.8	At 39 Mile Steese Highway
Chatanika R	06-Jun-91	1625	2.14	1.25	
Chatanika R	12-Jun-91	1325	2.4	17.8	
Chatanika R	20-Jun-91	2135	1.7	4.45	

Appendii D (cont)

Location	Date	Time	Turb	TSS	Comments
Chatanika R	27-Jun-91	2200	0.70	1.41	At 39 Mile Steese Highway
Chatanika R	02-Jul-91	1620	0.60	0.61	
Chatanika R	10-Jul-91	2020	0.60	6.75	
Chatanika R	18-Jul-91	1450	0.85	0.78	
Chatanika R	01-Aug-91	1420	0.75	0.92	
Chatanika R	08-Aug-91	1340	1.8	4.04	
Chatanika R	16-Aug-91	1445	2.0	6.54	
Chatanika R	28-Aug-91	1032	1.5	2.68	
Chatanika R	09-Sep-91	945	0.70	1.05	
Chatanika R	10-Sep-91	1930	0.80	1.04	
Chatanika R	19-Sep-91	2117	0.70	0.59	
Crooked Cr	23-May-91	1450	7.1	47.8	At Steese Highway
Crooked Cr	06-Jun-91	1405	150	539	
Crooked Cr	12-Jun-91	1350	20	26.5	
Crooked Cr	20-Jun-91	1914	13	13.2	
Crooked Cr	27-Jun-91	1925	13	23.1	
Crooked Cr	02-Jul-91	1035	18	12.7	
Crooked Cr	10-Jul-91	1745	28	6.30	
Crooked Cr	18-Jul-91	1155	9.1	2.35	
Crooked Cr	01-Aug-91	845	19	19.6	
Crooked Cr	08-Aug-91	2023	31	62.8	
Crooked Cr	16-Aug-91	752	23	28.1	
Crooked Cr	28-Aug-91	1155	21	43.7	
Crooked Cr	09-Sep-91	1525	5.7	9.22	
Crooked Cr	10-Sep-91	1635	55	28.1	
Crooked Cr	19-Sep-91	305	220	141	
Crooked Cr be Bedrock	23-May-91	1514	7.4	47.7	
Crooked Cr be Bedrock	06-Jun-91	1430	65	410	
Crooked Cr be Bedrock	20-Jun-91	1635	9.8	23.4	
Crooked Cr be Bedrock	27-Jun-91	2017	90	515	
Crooked Cr be Bedrock	02-Jul-91	1200	45	41.2	
Crooked Cr be Bedrock	10-Jul-91	1815	50	57.3	
Crooked Cr be Bedrock	18-Jul-91	1230	16	4.71	
Crooked Cr be Bedrock	01-Aug-91	1105	65	9.55	
Crooked Cr be Bedrock	08-Aug-91	2041	24	64.8	
Crooked Cr be Bedrock	16-Aug-91	845	28	23.3	
Crooked Cr be Bedrock	28-Aug-91	1234	120	71.7	
Crooked Cr be Bedrock	10-Sep-91	1715	60	38.4	
Crooked Cr be Bedrock	19-Sep-91	1528	65	78.1	
Eagle Cr	23-May-91	1554	320	709	Above Ptarmigan Creek
Eagle Cr	06-Jun-91	1500	230	4.67	
Eagle Cr	12-Jun-91	1215	85	132	
Eagle Cr	20-Jun-91	1535	60	93.2	
Eagle Cr	23-Jun-91	1345	3.2	5.66	
Eagle Cr	27-Jun-91	2049	33	73.6	

Appendix D (cont)

Location	Date	Time	Turb	TSS	Comments
Eagle Cr	10-Jul-91	1855	2.1	1.39	Above Ptarmigan Creek
Eagle Cr	18-Jul-91	1304	2.1	0.20	
Eagle Cr	01-Aug-91	1350	19	38.2	
Eagle Cr	08-Aug-91	1200	21	2080	
Eagle Cr	16-Aug-91	1315	2.7	7.06	
Eagle Cr	28-Aug-91	1335	45	118	
Eagle Cr	09-Sep-91	1430	36	99.1	
Eagle Cr	10-Sep-91	1750	55	50.0	
Eagle Cr	19-Sep-91	1707	70	56.4	
Ketchem Cr	23-May-91	745	210	1610	At Circle Hot Springs Road
Ketchem Cr	06-Jun-91	9.42	350	1070	
Ketchem Cr	12-Jun-91	920	240	2010	
Ketchem Cr	20-Jun-91	1936	290	1680	
Ketchem Cr	02-Jul-91	900	390	4130	
Ketchem Cr	10-Jul-91	1730	330	524	
Ketchem Cr	18-Jul-91	800	35	259	
Ketchem Cr	27-Jul-91	1915	550	3090	
Ketchem Cr	01-Aug-91	900	1100	4450	
Ketchem Cr	08-Aug-91	2100	330	16.7	
Ketchem Cr	15-Aug-91	1806	140	370	
Ketchem Cr	28-Aug-91	900	80	120	
Ketchem Cr	09-Sep-91	1820	55	10.8	
Ketchem Cr	10-Sep-91	1510	120	46.2	
Ketchem Cr	19-Sep-91	1455	130	79.5	
Mammoth Cr	23-May-91	1524	4.6	28.8	At Steese Highway
Mammoth Cr	06-Jun-91	1437	11	64.9	
Mammoth Cr	12-Jun-91	1120	3.4	21.4	
Mammoth Cr	20-Jun-91	1945	1.5	4.00	
Mammoth Cr	27-Jun-91	2026	5.2	16.3	
Mammoth Cr	02-Jul-91	1215	1.5	1.00	
Mammoth Cr	10-Jul-91	1830	50	80.5	
Mammoth Cr	18-Jul-91	1240	1.5	2.16	
Mammoth Cr	01-Aug-91	1115	4.7	9.80	
Mammoth Cr	08-Aug-91	2045	4.6	61.6	
Mammoth Cr	16-Aug-91	855	3.3	10.2	
Mammoth Cr	28-Aug-91	1310	7.0	35.2	
Mammoth Cr	09-Sep-91	1453	1.8	3.92	
Mammoth Cr	10-Sep-91	1725	9.8	11.7	
Mammoth Cr	19-Sep-91	1635	10	23.9	
Pedro Cr	24-May-91	1326	1.1	13.4	At Pedro Monument
Pedro Cr	06-Jun-91	1655	3.4	8.46	
Pedro Cr	21-Jun-91	1150	1.7	2.85	
Pedro Cr	02-Jul-91	1645	1.9	4.95	
Pedro Cr	10-Jul-91	2050	14	4.20	
Pedro Cr	18-Jul-91	1516	4.6	8.24	

Appendix D (cont)

Location	Date	Time	Turb	TSS	Comments
Pedro Cr	01-Aug-91	1350	26	12.9	At Pedro Monument
Pedro Cr	08-Aug-91	1410	85	54.3	
Pedro Cr	16-Aug-91	24	7.32		
Pedro Cr	29-Aug-91	1028	38	8.99	
Pedro Cr	09-Sep-91	925	2.8	3.14	
Pedro Cr	10-Sep-91	2000	65	9.58	
Pedro Cr	19-Sep-91	2145	22	9.50	
Porcupine Cr ab Mammoth	09-Sep-91	1500	11	20.2	
Porcupine Cr ab Mammoth	19-Sep-91	1642	550	537	
Ptarmigan Cr	23-May-91	1555	3.2	10.3	Above Eagle Creek
Ptarmigan Cr	06-Jun-91	1503	3.2	11.9	
Ptarmigan Cr	12-Jun-91	1100	0.55	24.0	
Ptarmigan Cr	20-Jun-91	1535	1.0	6.96	
Ptarmigan Cr	27-Jun-91	1848	0.75	2.94	
Ptarmigan Cr	02-Jul-91	1345	0.75	0.39	
Ptarmigan Cr	10-Jul-91	1855	0.45	0.20	
Ptarmigan Cr	18-Jul-91	1303	0.50	0.79	
Ptarmigan Cr	01-Aug-91	1350	0.70	0.20	
Ptarmigan Cr	08-Aug-91	1200	0.80	1.14	
Ptarmigan Cr	16-Aug-91	1315	0.35	0.39	
Ptarmigan Cr	29-Aug-91	1330	4.8	8.40	
Ptarmigan Cr	09-Sep-91	1430	0.60	0.58	
Ptarmigan Cr	10-Sep-91	1750	0.45	0.00	
Ptarmigan Cr	19-Sep-91	1706	0.25	0.21	
Sourdough Cr	24-May-91	1223	0.95	0.87	At Steese Highway
Sourdough Cr	06-Jun-91	1555	1.3	3.71	
Sourdough Cr	12-Jun-91	1345	1.7	2.90	
Sourdough Cr	20-Jun-91	2100	2.2	3.21	
Sourdough Cr	27-Jun-91	2145	4.6	1.21	
Sourdough Cr	02-Jul-91	1600	3.8	1.55	
Sourdough Cr	10-Jul-91	1945	2.1	2.00	
Sourdough Cr	18-Jul-91	1417	2.2	0.61	
Sourdough Cr	01-Aug-91	1350	1.4	1.08	
Sourdough Cr	08-Aug-91	1300	3.8	1.52	
Sourdough Cr	16-Aug-91	1410	3.2	2.54	
Sourdough Cr	29-Aug-91	1000	6.1	3.88	
Sourdough Cr	09-Sep-91	1020	2.6	1.02	
Sourdough Cr	10-Sep-91	1855	4.4	0.40	
Sourdough Cr	19-Sep-91	2041	14	23.3	
Twelvemile Cr	23-May-91	1823	0.85	3.22	Above Birch Creek
Twelvemile Cr	06-Jun-91	1516	1.0	17.1	
Twelvemile Cr	12-Jun-91	1110	0.60	2.34	
Twelvemile Cr	20-Jun-91	1230	1.0	1.84	
Twelvemile Cr	27-Jun-91	2115	1.2	0.20	

Appendix D (cont)

Location	Date	Time	Turb	TSS	Comments
Twelvemile Cr	02-Jul-91	1455	0.70	0.20	Above Birch Creek
Twelvemile Cr	10-Jul-91	2110	0.90	0.92	
Twelvemile Cr	18-Jul-91	1320	0.85	0.78	
Twelvemile Cr	01-Aug-91	1315	0.45	0.19	
Twelvemile Cr	08-Aug-91	1430	0.35	0.37	
Twelvemile Cr	16-Aug-91	1330	0.35	0.10	
Twelvemile Cr	29-Aug-91	930	0.45	0.56	
Twelvemile Cr	09-Sep-91	1205	0.30	0.89	
Twelvemile Cr	10-Sep-91	1815	0.25	0.00	
Twelvemile Cr	19-Sep-91	2004	0.40	1.00	